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**Part 1 - Appendix 3B  
Eversource Energy Metro Reports**

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**Missouri 4 CSR 240-22.030 (7)(A)(6) Reporting Requirements  
Load Analysis and Forecasting**

(7)(A)(6) For each major class specified pursuant to subsection (2)(A), the utility shall provide plots of class shall cover the historical database period and the forecast period of at least (20) years. The plots of coincident peak demands for the historical period shall include both actual and weather-normalized peak demands at the time of peak of summer and winter system peaks. The plots of coincident peak demand for the forecast period shall show the class coincident demands for the base-case forecast at the time of summer and winter systems peaks.

Compliance: See Plots 3B-1 through 3B-7 for base-case Eversource Energy Metro forecast reports designed to comply with section (7)(A)(6) reporting requirements.

**Work Files**

WN PeakSumWin.xls

Act PeakSumWin.xls

**Project Files**

IRP\_7.1.6\_KCPL\_Peaks

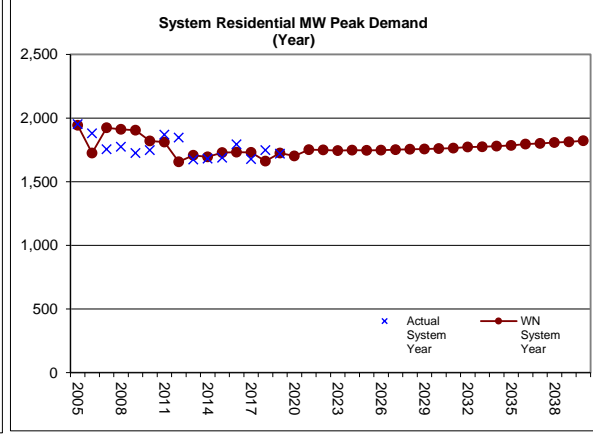
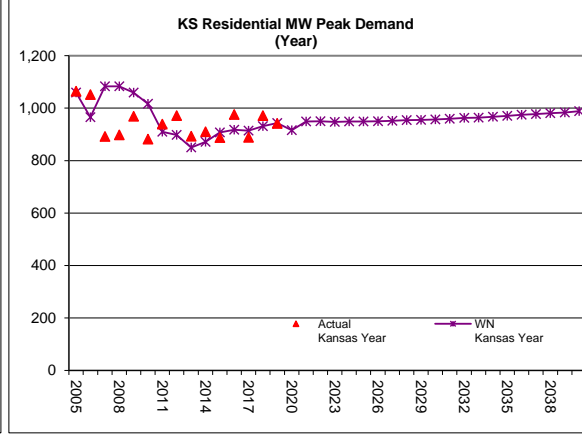
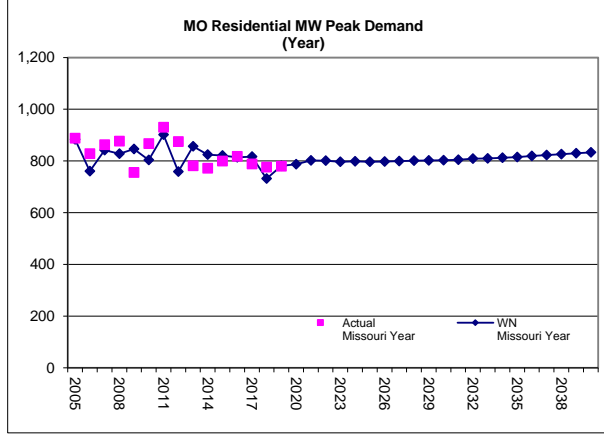
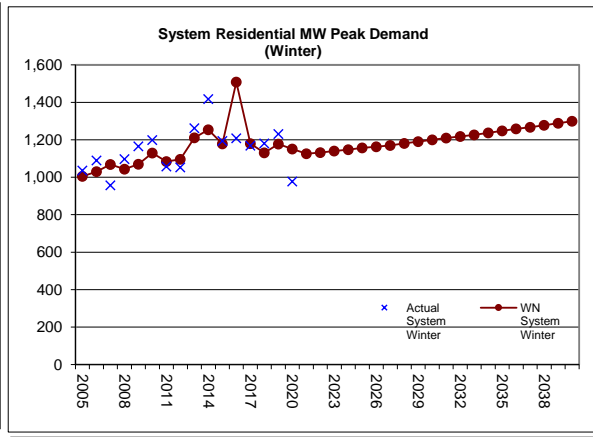
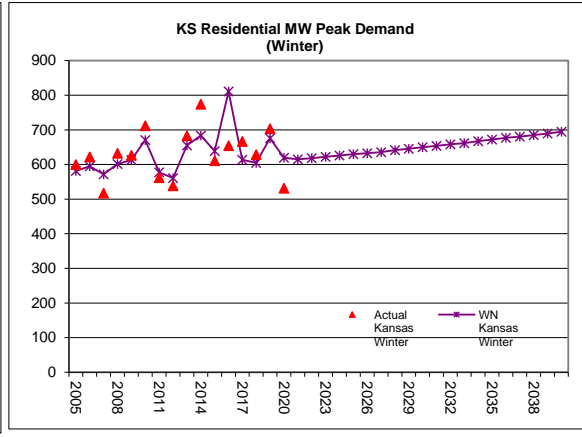
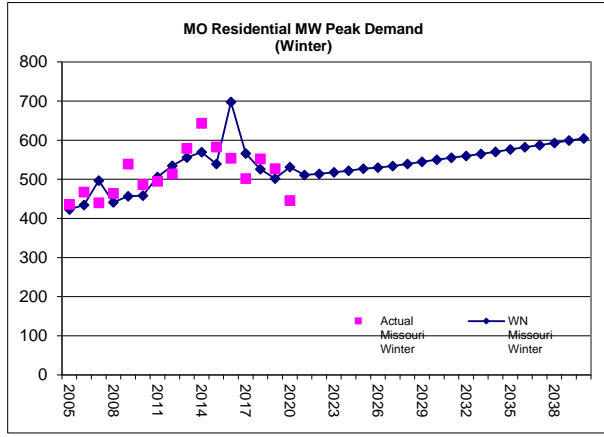
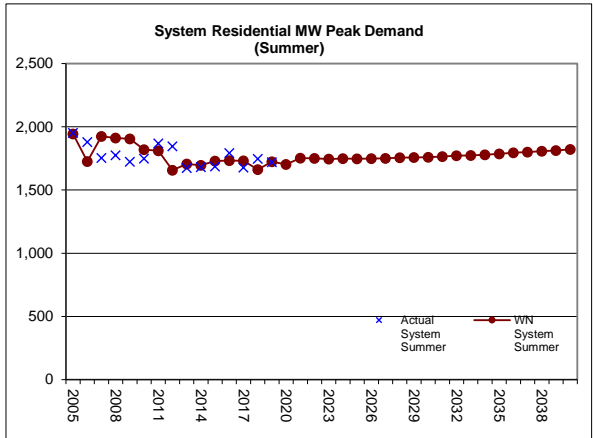
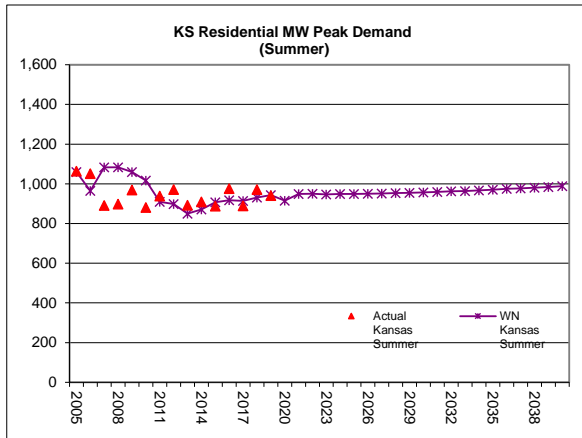
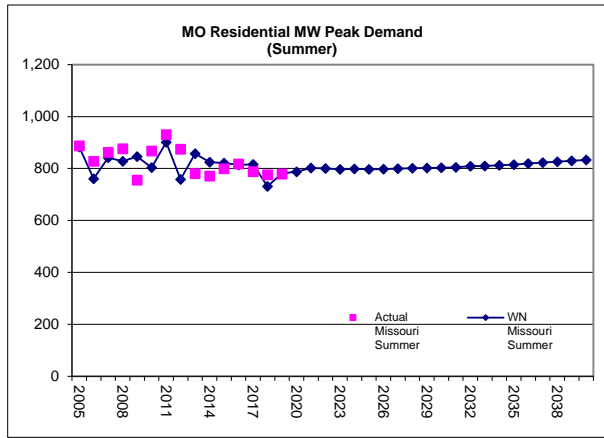
IRP\_7.1.6\_KCPL\_MWh

**Plot 3B-1 Missouri & Kansas Residential MW Peak Demand  
(Actual vs. Weather Normalized)**

Year	Actual		WN		Actual		WN		Actual		WN		Actual		WN		Actual		WN	
	Missouri Summer	Missouri Summer	Missouri Winter	Missouri Winter	Missouri Year	Missouri Year	Kansas Summer	Kansas Summer	Kansas Winter	Kansas Winter	Kansas Year	Kansas Year	System Summer	System Summer	System Winter	System Winter	System Year	System Year		
2005	887	883	436	423	887	883	1064	1,060	600	582	1,064	1,060	1,952	1,943	1,036	1,005	1,952	1,943		
2006	828	761	467	435	828	761	1051	965	622	595	1,051	965	1,880	1,726	1,090	1,030	1,880	1,726		
2007	863	842	440	497	863	842	892	1,083	517	572	892	1,083	1,755	1,925	958	1,068	1,755	1,925		
2008	877	828	464	441	877	828	898	1,083	632	602	898	1,083	1,774	1,911	1,096	1,043	1,774	1,911		
2009	755	846	539	457	755	846	969	1,059	627	613	969	1,059	1,724	1,905	1,166	1,069	1,724	1,905		
2010	867	804	486	458	867	804	881	1,017	712	671	881	1,017	1,749	1,820	1,198	1,129	1,749	1,820		
2011	931	901	495	506	931	901	939	910	562	578	939	910	1,870	1,811	1,057	1,083	1,870	1,811		
2012	875	759	514	535	875	759	972	898	539	561	972	898	1,846	1,656	1,052	1,095	1,846	1,656		
2013	781	857	579	555	781	857	893	850	683	655	893	850	1,674	1,707	1,262	1,211	1,674	1,707		
2014	771	825	643	569	771	825	910	871	774	684	910	871	1,681	1,696	1,417	1,253	1,681	1,696		
2015	800	821	583	539	800	821	888	907	611	639	888	907	1,687	1,729	1,194	1,178	1,687	1,729		
2016	818	814	554	698	818	814	976	918	655	811	976	918	1,793	1,732	1,208	1,508	1,793	1,732		
2017	788	816	502	566	788	816	889	914	667	614	889	914	1,677	1,731	1,169	1,180	1,677	1,731		
2018	776	731	552	526	776	731	971	931	628	605	971	931	1,748	1,662	1,181	1,131	1,748	1,662		
2019	779	781	527	502	779	781	941	943	704	676	941	943	1,720	1,724	1,231	1,177	1,720	1,724		
2020	787	446	531	531	787	787	915	915	532	619	915	915	1,703	978	1,150	1,150	1,703	1,703		
2021	802		511	511	802	802	949	949	615	615	949	949	1,752		1,126	1,126	1,752	1,752		
2022	801		514	514	801	801	950	950	618	618	950	950	1,750		1,132	1,132	1,750	1,750		
2023	797		518	518	797	797	947	947	622	622	947	947	1,744		1,140	1,140	1,744	1,744		
2024	798		522	522	798	798	949	949	626	626	949	949	1,748		1,148	1,148	1,748	1,748		
2025	797		527	527	797	797	949	949	630	630	949	949	1,746		1,157	1,157	1,746	1,746		
2026	798		530	530	798	798	950	950	632	632	950	950	1,748		1,162	1,162	1,748	1,748		
2027	799		534	534	799	799	951	951	636	636	951	951	1,751		1,170	1,170	1,751	1,751		
2028	801		539	539	801	801	954	954	641	641	954	954	1,755		1,180	1,180	1,755	1,755		
2029	802		545	545	802	802	955	955	645	645	955	955	1,757		1,190	1,190	1,757	1,757		
2030	803		550	550	803	803	957	957	650	650	957	957	1,760		1,200	1,200	1,760	1,760		
2031	805		555	555	805	805	959	959	654	654	959	959	1,764		1,209	1,209	1,764	1,764		
2032	809		559	559	809	809	963	963	659	659	963	963	1,772		1,218	1,218	1,772	1,772		
2033	810		565	565	810	810	964	964	662	662	964	964	1,774		1,227	1,227	1,774	1,774		
2034	812		570	570	812	812	967	967	667	667	967	967	1,779		1,237	1,237	1,779	1,779		
2035	815		576	576	815	815	970	970	672	672	970	970	1,785		1,248	1,248	1,785	1,785		
2036	820		582	582	820	820	975	975	677	677	975	975	1,795		1,259	1,259	1,795	1,795		
2037	823		587	587	823	823	977	977	680	680	977	977	1,800		1,267	1,267	1,800	1,800		
2038	826		593	593	826	826	981	981	685	685	981	981	1,807		1,278	1,278	1,807	1,807		
2039	830		599	599	830	830	984	984	689	689	984	984	1,813		1,288	1,288	1,813	1,813		
2040	833		604	604	833	833	989	989	694	694	989	989	1,822		1,299	1,299	1,822	1,822		
'15-'20	-100.0%	-0.8%	-0.5%	-0.3%	-2.1%	-0.8%	-1.8%	0.2%	4.4%	-0.6%	-1.8%	0.2%	-1.9%	-0.3%	2.1%	-0.5%	-1.9%	-0.3%		
'20-'25		0.2%		-0.2%		0.2%		0.7%		0.3%		0.7%		0.5%		0.1%		0.5%		
'25-'30		0.1%		0.9%		0.1%		0.2%		0.6%		0.2%		0.2%		0.7%		0.2%		
'30-'35		0.3%		0.9%		0.3%		0.3%		0.7%		0.3%		0.3%		0.8%		0.3%		
'35-'40		0.4%		1.0%		0.4%		0.4%		0.7%		0.4%		0.4%		0.8%		0.4%		

\* 2020 Summer peaks are not include since they are projections. The peak month occurred after the June 2020 cut off.  
Winter values are include since the peak occurred in January 2020.

\* 2016 winter peak spike is due to peak occurring on a Sunday with an average dry bulb temp of -1. This was the coldest weekend day temperature since 1996.

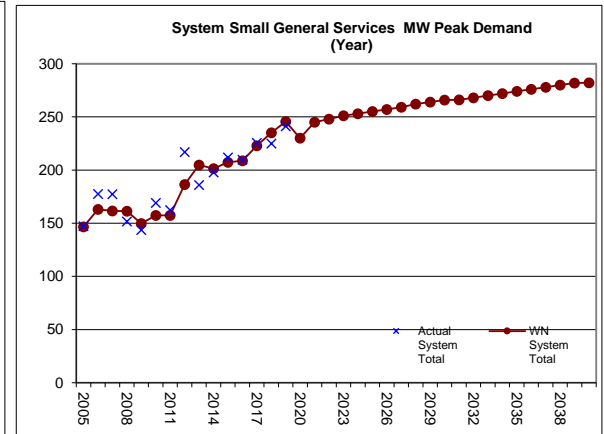
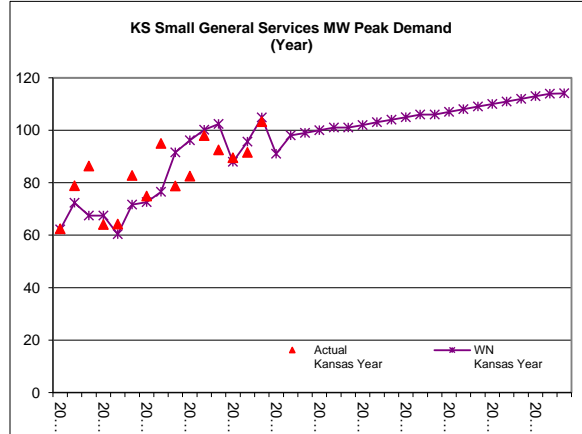
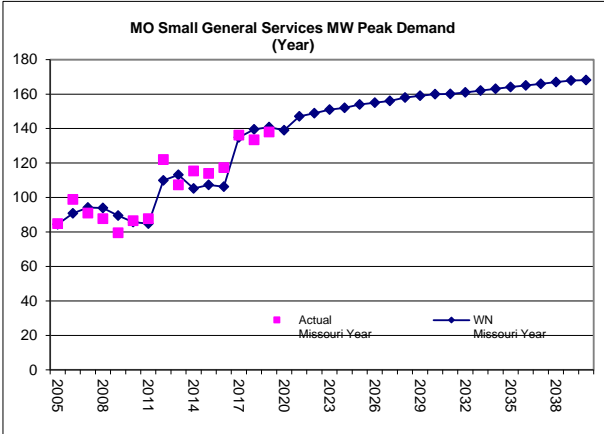
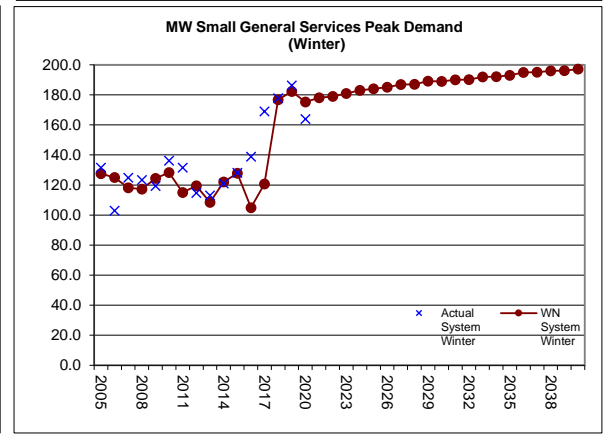
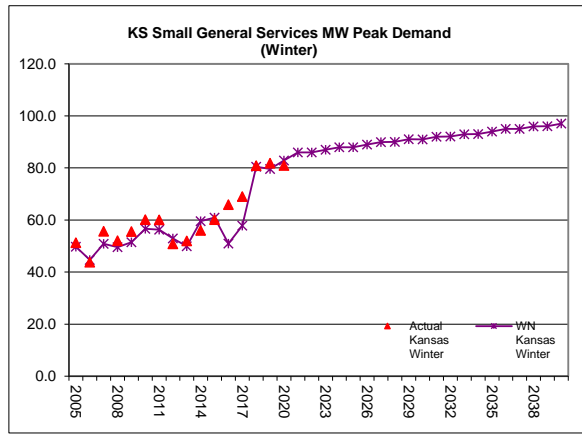
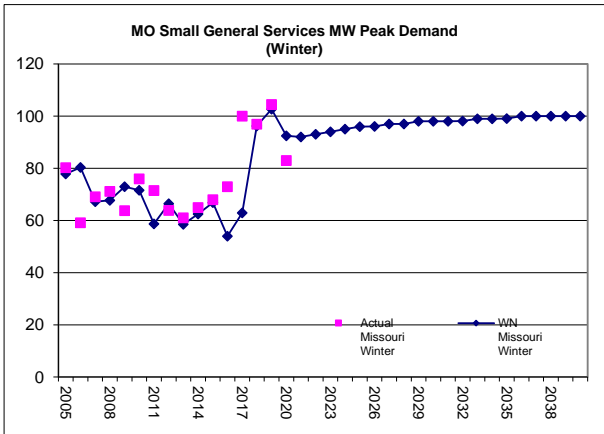
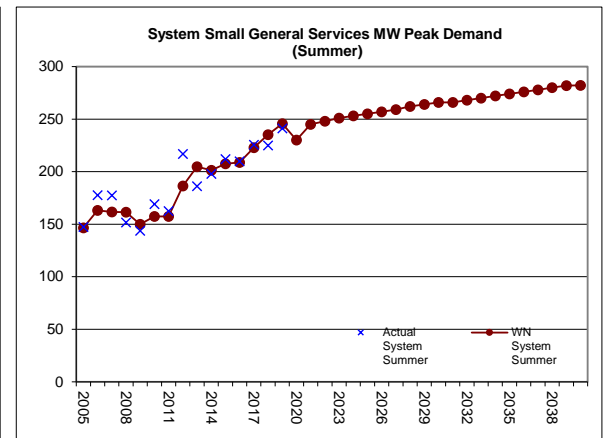
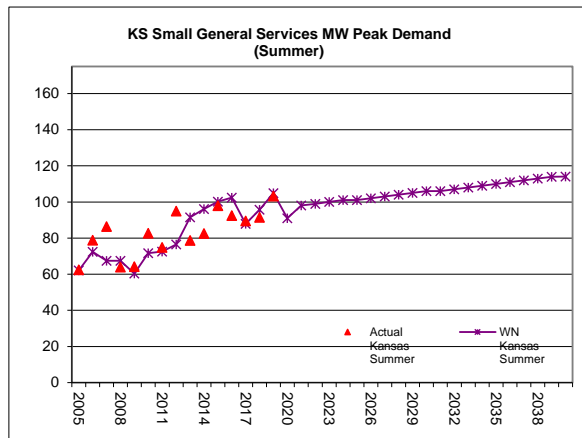
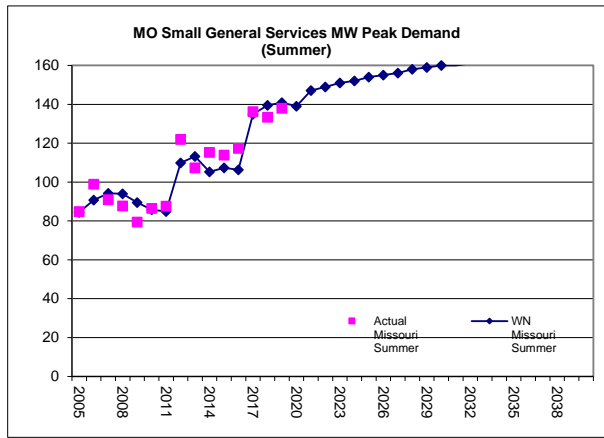


MO Winter drop due to the system coincident peak in Dec. and Res class peak is Jan.  
 Volume 3 - Appendix 3B: Evergy Metro Forecast Reports

**Plot 3B-2 Missouri & Kansas Small General Service MW Peak Demand (Actual vs. Weather Normalized)**

Year	Actual		WN		Actual		WN		Actual		WN		Actual		WN		Actual		WN	
	Missouri Summer	Missouri Summer	Missouri Winter	Missouri Winter	Missouri Year	Missouri Year	Kansas Summer	Kansas Summer	Kansas Winter	Kansas Winter	Kansas Year	Kansas Year	System Summer	System Summer	System Winter	System Winter	System Total	System Total		
2005	84.8	84	80.3	77.8	84.8	84.5	62.5	62	51.3	49.7	62.5	62.2	147.3	146.6	131.6	127.6	147.3	146.6		
2006	98.9	91	59.1	80.4	98.9	90.8	78.8	72	43.8	44.7	78.8	72.4	177.7	163.1	103.0	125.1	177.7	163.1		
2007	91.0	94	69.1	67.2	91.0	94.2	86.4	67	55.7	50.9	86.4	67.5	177.4	161.7	124.8	118.2	177.4	161.7		
2008	87.7	94	71.2	67.7	87.7	93.9	64.0	67	52.1	49.6	64.0	67.4	151.8	161.4	123.3	117.3	151.8	161.4		
2009	79.5	90	63.8	73.0	79.5	89.5	64.2	60	55.6	51.5	64.2	60.3	143.7	149.9	119.4	124.5	143.7	149.9		
2010	86.5	86	76.0	71.5	86.5	85.8	82.7	72	60.2	56.7	82.7	71.6	169.2	157.4	136.1	128.2	169.2	157.4		
2011	87.6	85	71.5	58.7	87.6	84.9	74.9	73	60.1	56.3	74.9	72.6	162.5	157.4	131.5	115.1	162.5	157.4		
2012	121.9	110	63.8	66.5	121.9	109.9	95.0	77	50.9	53.0	95.0	76.5	216.9	186.4	114.7	119.4	216.9	186.4		
2013	107.3	113	61.0	58.5	107.3	113.2	78.8	92	52.0	49.9	78.8	91.6	186.1	204.7	113.0	108.4	186.1	204.7		
2014	115.3	105	65.0	62.5	115.3	105.2	82.5	96	56.0	59.6	82.5	96.1	197.8	201.3	121.0	122.1	197.8	201.3		
2015	113.9	107	68.0	66.9	113.9	107.3	98.0	100	60.1	60.9	98.0	100.1	211.9	207.4	128.1	127.8	211.9	207.4		
2016	117.4	106	73.0	54.0	117.4	106.3	92.5	102	66.0	51.0	92.5	102.4	209.9	208.7	138.9	105.0	209.9	208.7		
2017	136.2	135	100.0	62.9	136.2	134.9	89.5	88	69.0	57.9	89.5	87.9	225.7	222.8	169.0	120.8	225.7	222.8		
2018	133.4	140	96.9	96.2	133.4	139.5	91.6	96	80.9	80.5	91.6	95.7	224.9	235.2	177.8	176.7	224.9	235.2		
2019	138.0	141	104.5	102.7	138.0	140.8	103.2	105	81.8	79.6	103.2	104.9	241.2	245.7	186.3	182.3	241.2	245.7		
2020	139		83.0	92.4	139.1			91	81.0	82.9		91.0		230.1	163.9	175.3		230.1		
2021	147			92.0	147.1			98		86.0		98.0		245.1		178.0		245.1		
2022	149			93.0	149.0			99		86.0		99.0		247.9		179.0		247.9		
2023	151			94.0	151.0			100		87.0		100.0		251.0		181.0		251.0		
2024	152			95.0	152.1			101		88.0		101.0		253.1		183.0		253.1		
2025	154			96.0	154.0			101		88.0		101.0		255.0		184.0		255.0		
2026	155			96.0	155.0			102		89.0		102.0		257.0		185.1		257.0		
2027	156			97.0	156.1			103		90.0		103.0		259.1		186.9		259.1		
2028	158			97.0	158.0			104		90.0		104.0		262.0		187.1		262.0		
2029	159			98.0	159.0			105		91.0		105.0		263.9		189.0		263.9		
2030	160			98.0	160.0			106		91.0		106.0		266.0		189.0		266.0		
2031	160			98.0	160.0			106		92.0		106.0		266.0		190.0		266.0		
2032	161			98.1	161.0			107		92.1		107.0		268.0		190.2		268.0		
2033	162			99.0	162.0			108		93.0		108.0		270.0		192.0		270.0		
2034	163			99.0	163.0			109		93.0		109.0		272.0		192.0		272.0		
2035	164			99.0	164.0			110		94.0		110.0		274.1		193.0		274.1		
2036	165			100.0	165.0			111		95.0		111.0		275.9		195.0		275.9		
2037	165.9			100.0	165.9			111.9		95.0		111.9		277.8		195.0		277.8		
2038	167.0			100.0	167.0			113.0		96.0		113.0		280.0		196.0		280.0		
2039	167.9			100.0	167.9			113.9		96.0		113.9		281.9		196.0		281.9		
2040	168.1			100.0	168.1			114.1		97.0		114.1		282.2		197.1		282.2		
'15-'20	-100.0%	5.3%	9.4%	6.7%	2.2%	5.3%	-1.2%	-1.9%	6.3%	6.4%	-1.2%	-1.9%	0.8%	2.1%	8.1%	6.5%	0.8%	2.1%		
'20-'25		2.1%		0.8%		2.1%		2.1%		1.2%		2.1%		2.1%		1.0%		2.1%		
'25-'30		0.8%		0.4%		0.8%		1.0%		0.7%		1.0%		0.8%		0.5%		0.8%		
'30-'35		0.5%		0.2%		0.5%		0.8%		0.7%		0.8%		0.6%		0.4%		0.6%		
'35-'40		0.5%		0.2%		0.5%		0.7%		0.6%		0.7%		0.6%		0.4%		0.6%		

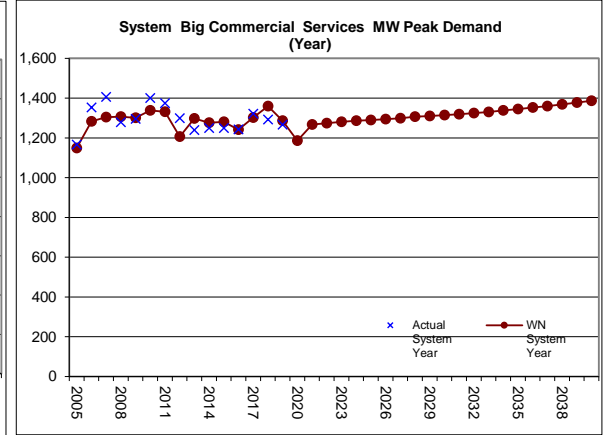
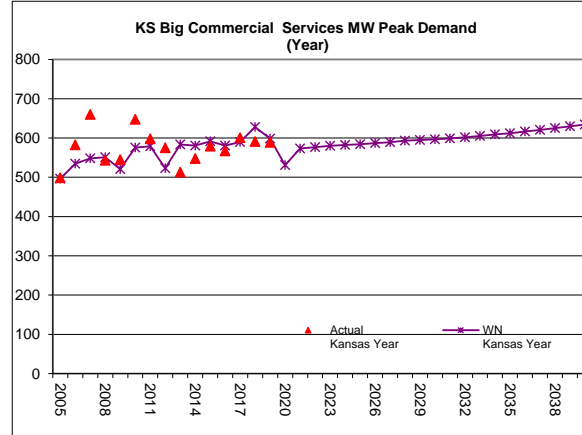
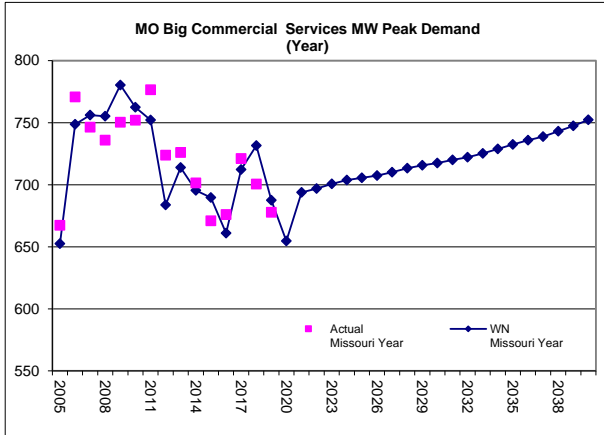
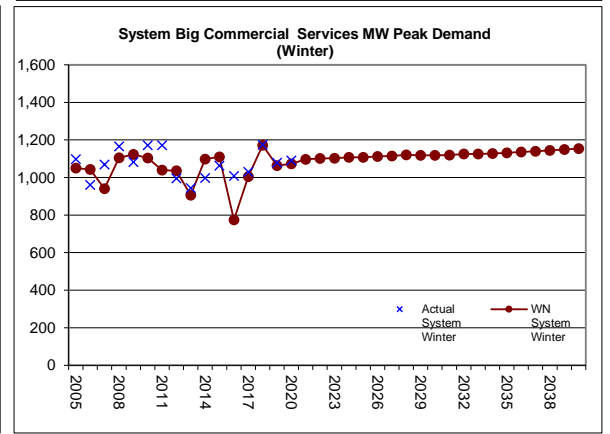
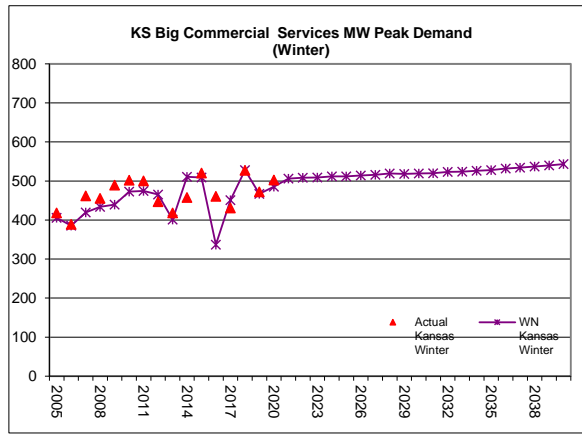
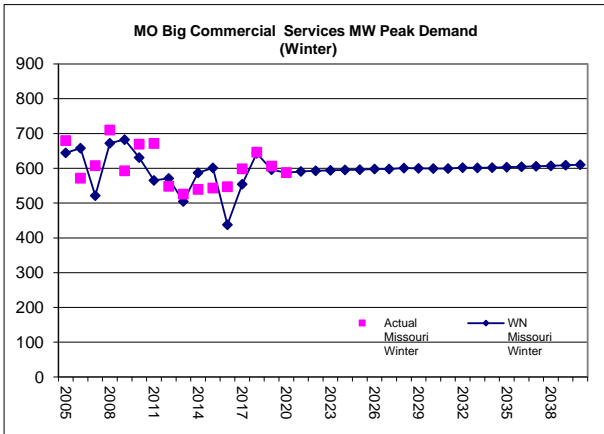
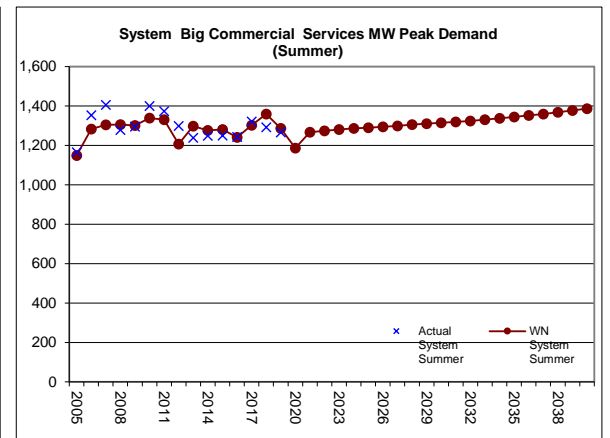
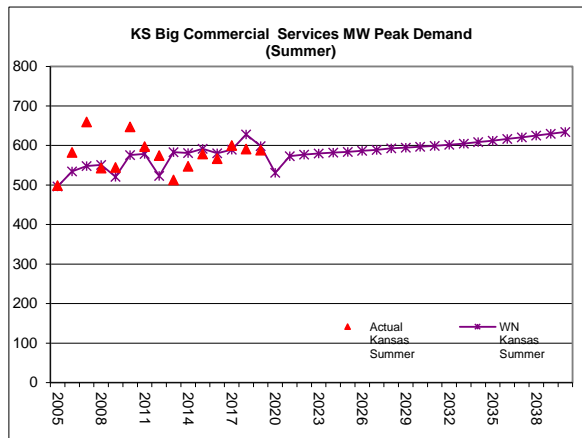
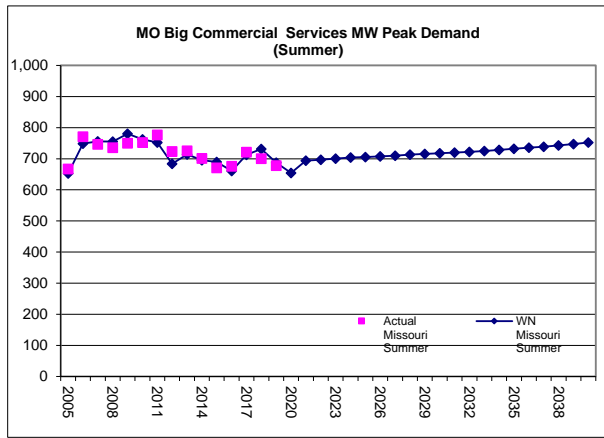
\* 2020 Summer peaks are not include since they are projections. The peak month occurred after the June 2020 cut off.  
 Winter values are include since the peak occurred in January 2020.



**Plot 3B-3 Missouri & Kansas Medium General Services MW Peak Demand  
(Actual vs. Weather Normalized)**

Year	Actual		WN		Actual		WN		Actual		WN		Actual		WN		Actual		WN	
	Missouri Summer	Missouri Summer	Missouri Winter	Missouri Winter	Missouri Year	Missouri Year	Kansas Summer	Kansas Summer	Kansas Winter	Kansas Winter	Kansas Year	Kansas Year	System Summer	System Summer	System Winter	System Winter	System Year	System Year	System Year	System Year
2005	667	653	680	645	667	653	499	496	418	406	499	496	1,166	1,149	1,098	1,050	1,166	1,149		
2006	771	749	572	658	771	749	582	535	389	385	582	535	1,353	1,283	961	1,043	1,353	1,283		
2007	746	756	608	521	746	756	660	548	462	419	660	548	1,406	1,304	1,070	941	1,406	1,304		
2008	736	755	710	672	736	755	543	551	456	434	543	551	1,279	1,306	1,166	1,105	1,279	1,306		
2009	750	780	593	683	750	780	545	521	489	440	545	521	1,295	1,301	1,082	1,122	1,295	1,301		
2010	752	762	670	631	752	762	648	576	502	473	648	576	1,400	1,338	1,172	1,104	1,400	1,338		
2011	776	752	671	565	776	752	598	579	501	474	598	579	1,374	1,331	1,172	1,039	1,374	1,331		
2012	724	684	548	571	724	684	575	523	447	465	575	523	1,298	1,207	995	1,036	1,298	1,207		
2013	726	714	526	505	726	714	513	583	418	401	513	583	1,239	1,297	944	906	1,239	1,297		
2014	701	695	539	587	701	695	548	581	458	511	548	581	1,249	1,276	997	1,098	1,249	1,276		
2015	671	690	543	601	671	690	579	592	520	509	579	592	1,250	1,281	1,063	1,110	1,250	1,281		
2016	676	661	547	438	676	661	567	580	461	337	567	580	1,243	1,241	1,008	775	1,243	1,241		
2017	721	712	599	554	721	712	601	590	431	451	601	590	1,322	1,302	1,029	1,005	1,322	1,302		
2018	700	731	646	643	700	731	591	628	527	528	591	628	1,292	1,359	1,174	1,171	1,292	1,359		
2019	678	687	607	596	678	687	589	598	472	467	589	598	1,266	1,286	1,079	1,063	1,266	1,286		
2020	655	587	587	587	655	655	531	503	485	485	531	503	1,186	1,090	1,072	1,072	1,186	1,090		
2021		694		591		694		573		506		573		1,267		1,097		1,267		1,097
2022		697		593		697		577		508		577		1,274		1,101		1,274		1,101
2023		701		594		701		580		509		580		1,281		1,103		1,281		1,103
2024		704		596		704		582		512		582		1,286		1,108		1,286		1,108
2025		706		596		706		584		512		584		1,290		1,108		1,290		1,108
2026		707		598		707		587		514		587		1,294		1,112		1,294		1,112
2027		710		598		710		589		516		589		1,299		1,114		1,299		1,114
2028		713		601		713		593		519		593		1,306		1,120		1,306		1,120
2029		716		600		716		595		518		595		1,310		1,118		1,310		1,118
2030		718		600		718		597		519		597		1,314		1,119		1,314		1,119
2031		720		599		720		599		520		599		1,319		1,119		1,319		1,119
2032		722		602		722		602		523		602		1,324		1,125		1,324		1,125
2033		725		601		725		605		524		605		1,330		1,125		1,330		1,125
2034		729		602		729		609		526		609		1,338		1,128		1,338		1,128
2035		732		603		732		612		528		612		1,345		1,131		1,345		1,131
2036		736		605		736		617		532		617		1,353		1,137		1,353		1,137
2037		739		606		739		621		534		621		1,359		1,140		1,359		1,140
2038		743		607		743		625		537		625		1,368		1,144		1,368		1,144
2039		747		609		747		630		540		630		1,377		1,149		1,377		1,149
2040		752		610		752		634		543		634		1,387		1,154		1,387		1,154
'15-'20	-100.0%	-1.0%	1.8%	-0.5%	-0.1%	-1.0%	0.9%	-2.1%	-0.7%	-0.9%	0.9%	-2.1%	0.4%	-1.5%	0.7%	-0.7%	0.4%	-1.5%		
'20-'25		1.5%		0.3%		1.5%		1.9%		1.1%		1.9%		1.7%		0.7%		1.7%		0.7%
'25-'30		0.3%		0.1%		0.3%		0.4%		0.3%		0.4%		0.4%		0.2%		0.4%		0.2%
'30-'35		0.4%		0.1%		0.4%		0.5%		0.3%		0.5%		0.5%		0.2%		0.5%		0.2%
'35-'40		0.5%		0.2%		0.5%		0.7%		0.6%		0.7%		0.6%		0.4%		0.6%		0.4%

\* 2020 Summer peaks are not include since they are projections. The peak month occurred after the June 2020 cut off.  
Winter values are include since the peak occurred in January 2020.

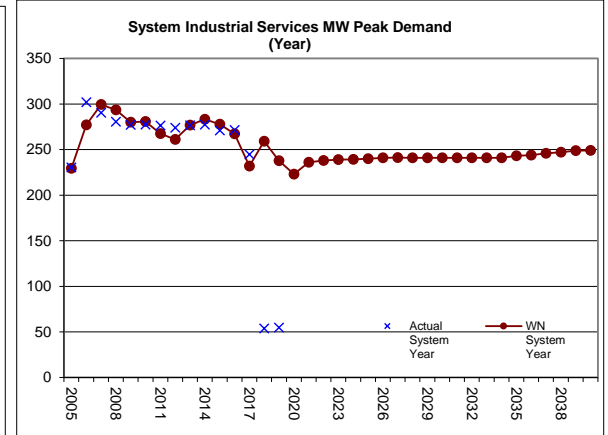
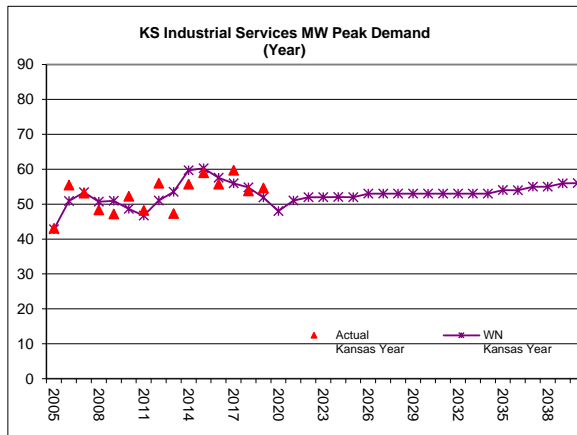
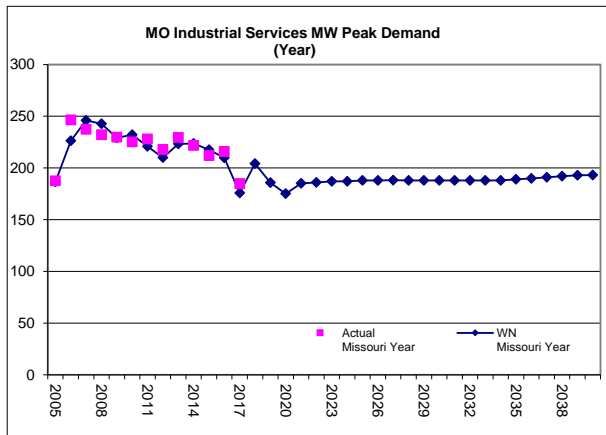
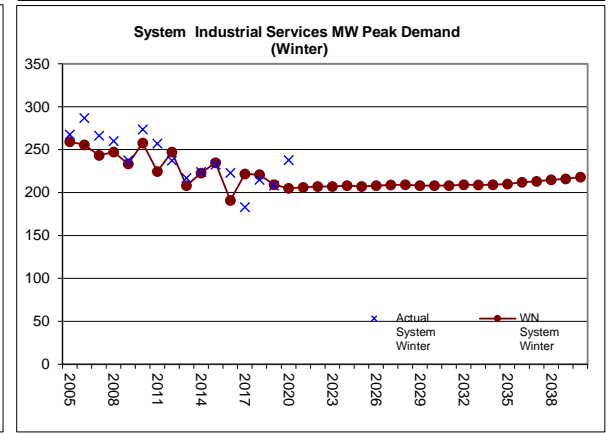
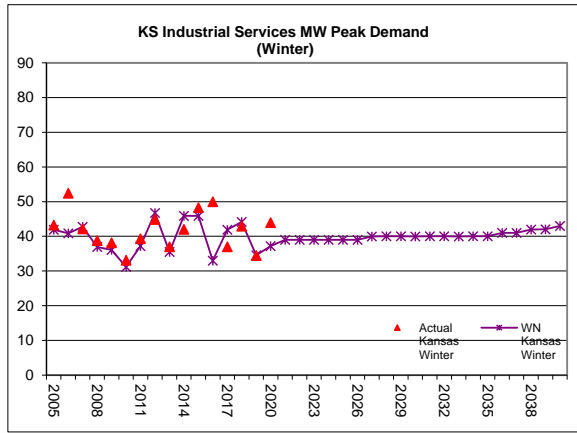
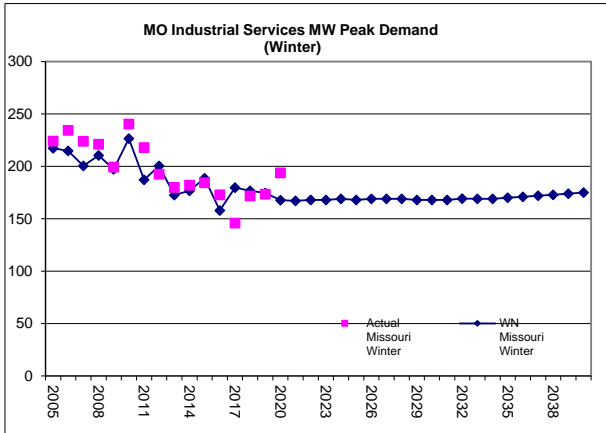
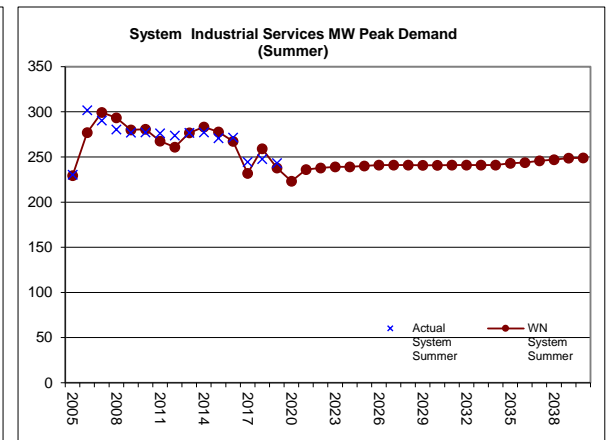
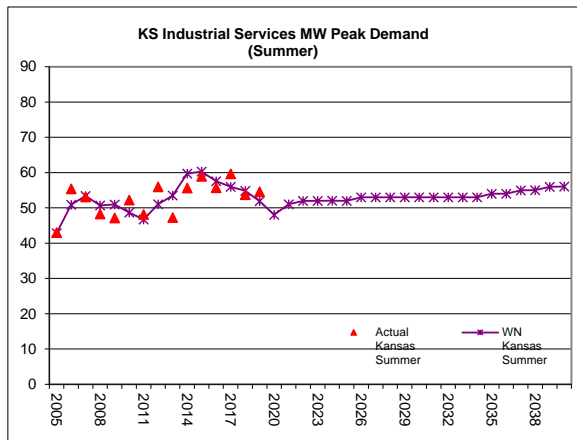
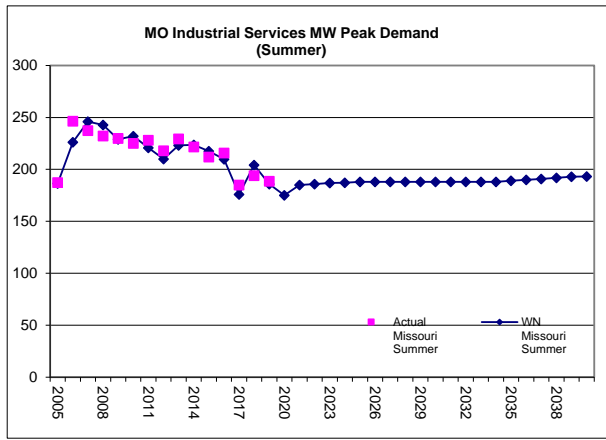


**Plot 3B-4 Missouri & Kansas Large General Services MW Peak Demand  
(Actual vs. Weather Normalized)**

Year	Actual		WN		Actual		WN		Actual		WN		Actual		WN		Actual		WN	
	Missouri Summer	Missouri Summer	Missouri Winter	Missouri Winter	Missouri Year	Missouri Year	Kansas Summer	Kansas Summer	Kansas Winter	Kansas Winter	Kansas Year	Kansas Year	System Summer	System Summer	System Winter	System Winter	System Year	System Year		
2005	187.4	186.6	224.2	217.4	187.4	186.6	43.0	42.8	43.2	41.9	43.0	42.8	230.5	229.4	267.5	259.3	230.5	229.4		
2006	246.5	226.3	234.4	214.8	246.5	226.3	55.4	50.9	52.4	40.9	55.4	50.9	301.9	277.2	286.8	255.7	301.9	277.2		
2007	237.3	246.0	224.0	200.5	237.3	246.0	53.1	53.4	42.2	42.8	53.1	53.4	290.4	299.4	266.2	243.3	290.4	299.4		
2008	232.2	242.8	221.2	210.4	232.2	242.8	48.3	50.7	38.8	36.9	48.3	50.7	280.5	293.5	260.0	247.3	280.5	293.5		
2009	229.8	229.0	199.5	197.2	229.8	229.0	47.2	51.0	38.1	36.1	47.2	51.0	277.0	280.0	237.6	233.3	277.0	280.0		
2010	225.2	232.0	240.4	226.5	225.2	232.0	52.2	48.7	33.1	31.2	52.2	48.7	277.4	280.7	273.5	257.7	277.4	280.7		
2011	228.1	220.9	218.0	187.3	228.1	220.9	48.2	46.7	39.3	37.2	48.2	46.7	276.3	267.6	257.3	224.4	276.3	267.6		
2012	217.9	210.0	192.5	200.4	217.9	210.0	56.0	51.0	44.9	46.7	56.0	51.0	273.9	261.0	237.4	247.1	273.9	261.0		
2013	229.4	223.2	180.0	172.7	229.4	223.2	47.3	53.5	37.0	35.5	47.3	53.5	276.7	276.7	217.0	208.2	276.7	276.7		
2014	221.7	223.6	182.0	176.8	221.7	223.6	55.7	59.7	42.0	45.9	55.7	59.7	277.4	283.3	224.0	222.7	277.4	283.3		
2015	211.9	217.6	184.3	188.7	211.9	217.6	59.0	60.3	48.3	45.9	59.0	60.3	270.9	277.9	232.6	234.6	270.9	277.9		
2016	215.8	209.7	172.9	157.9	215.8	209.7	55.7	57.6	50.0	33.0	55.7	57.6	271.5	267.3	222.9	190.9	271.5	267.3		
2017	184.9	175.9	146.0	179.6	184.9	175.9	59.7	56.0	37.0	41.9	59.7	56.0	244.6	231.8	183.0	221.5	244.6	231.8		
2018	194.1	204.3	171.8	176.7	194.1	204.3	53.7	54.8	43.0	44.2	53.7	54.8	247.8	259.1	214.8	220.9	53.7	259.1		
2019	188.6	185.8	173.5	174.6	188.6	185.8	54.6	51.9	34.5	34.5	54.6	51.9	243.2	237.7	208.0	209.2	54.6	237.7		
2020		175.1	193.9	167.8		175.1		48.0	44.0	37.2		48.0		223.1	237.9	205.0		223.1		
2021		185.1		167.0		185.1		51.0		39.0		51.0		236.1		206.0		236.1		
2022		185.9		168.0		185.9		52.0		39.0		52.0		237.9		207.0		237.9		
2023		187.0		168.0		187.0		52.0		39.0		52.0		239.0		207.0		239.0		
2024		187.1		169.0		187.1		52.0		39.0		52.0		239.1		208.0		239.1		
2025		188.0		168.0		188.0		52.0		39.0		52.0		240.0		207.0		240.0		
2026		188.0		169.1		188.0		53.0		39.0		53.0		241.0		208.1		241.0		
2027		188.1		168.9		188.1		53.0		40.0		53.0		241.1		208.9		241.1		
2028		188.0		169.1		188.0		53.0		40.0		53.0		241.0		209.1		241.0		
2029		188.0		168.0		188.0		53.0		40.0		53.0		241.0		208.0		241.0		
2030		188.0		168.0		188.0		53.0		40.0		53.0		241.0		208.0		241.0		
2031		188.0		168.0		188.0		53.0		40.0		53.0		241.0		208.0		241.0		
2032		188.0		169.1		188.0		53.0		40.0		53.0		241.0		209.2		241.0		
2033		188.0		169.0		188.0		53.0		40.0		53.0		241.0		208.9		241.0		
2034		188.0		169.0		188.0		53.0		40.0		53.0		241.0		209.0		241.0		
2035		189.0		170.0		189.0		54.0		40.0		54.0		243.1		210.0		243.1		
2036		189.9		171.0		189.9		54.0		41.0		54.0		243.9		212.0		243.9		
2037		190.9		172.0		190.9		55.0		41.0		55.0		245.9		213.0		245.9		
2038		192.0		173.0		192.0		55.0		42.0		55.0		247.0		215.0		247.0		
2039		192.9		174.0		192.9		56.0		42.0		56.0		248.9		216.1		248.9		
2040		193.1		175.1		193.1		56.0		43.0		56.0		249.1		218.1		249.1		
'15-'20	-100.0%	-4.3%	-5.4%	-2.3%	-3.2%	-4.3%	1.3%	-4.4%	-3.8%	-4.1%	1.3%	-4.4%	-2.2%	-4.3%	-5.1%	-2.7%	-2.2%	-4.3%		
'20-'25		1.4%		0.0%		1.4%		1.6%		1.0%		1.6%		1.5%		0.2%		1.5%		
'25-'30		0.0%		0.0%		0.0%		0.4%		0.5%		0.4%		0.1%		0.1%		0.1%		
'30-'35		0.1%		0.2%		0.1%		0.4%		0.0%		0.4%		0.2%		0.2%		0.2%		
'35-'40		0.4%		0.6%		0.4%		0.7%		1.5%		0.7%		0.5%		0.8%		0.5%		

\* 2020 Summer peaks are not include since they are projections. The peak month occurred after the June 2020 cut off.  
Winter values are include since the peak occurred in January 2020.



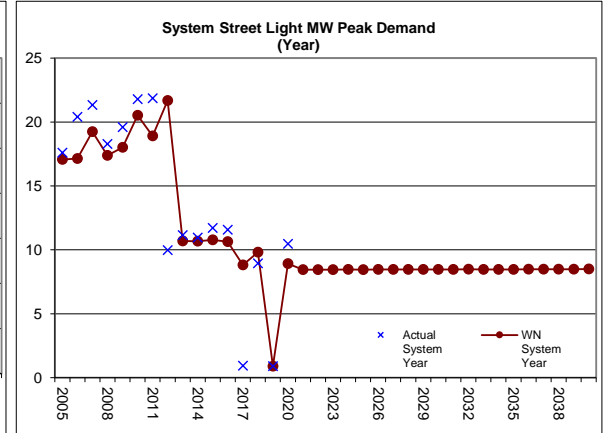
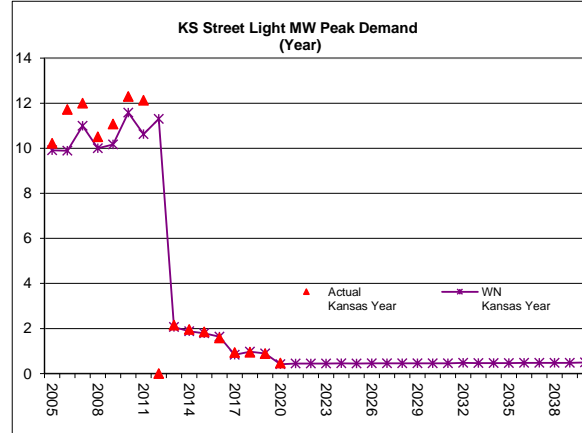
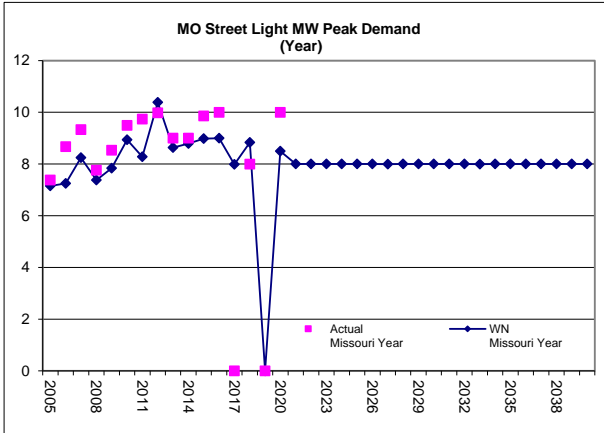
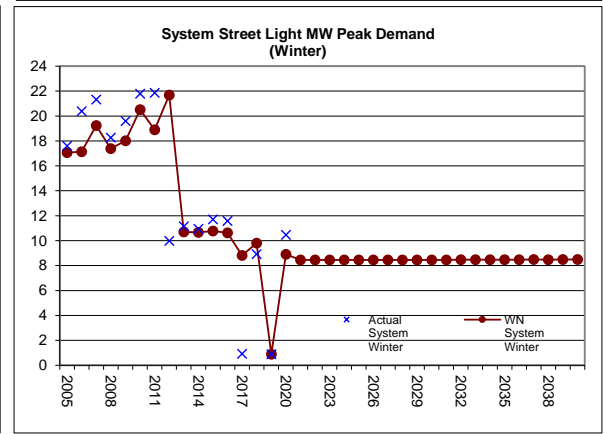
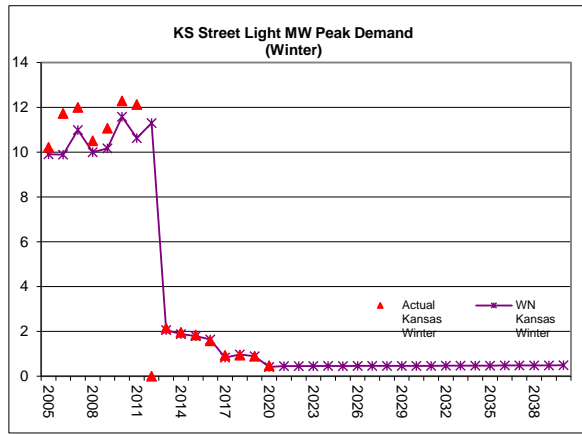
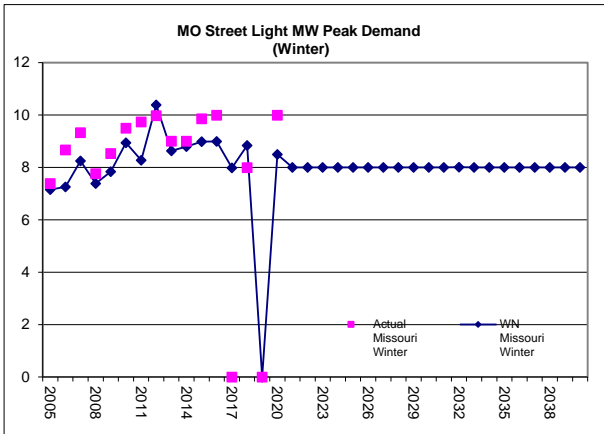
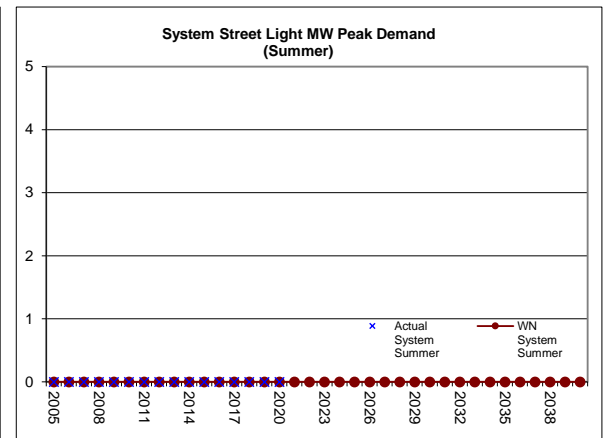
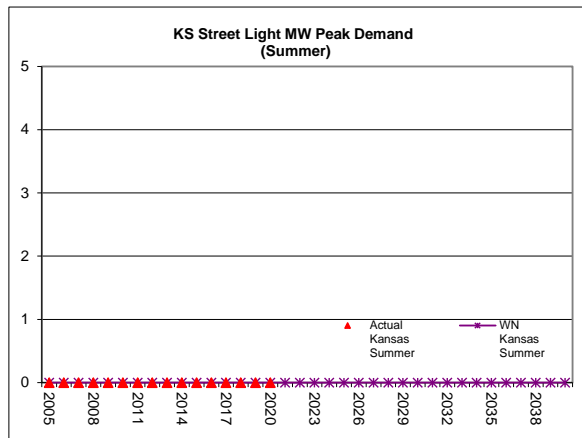
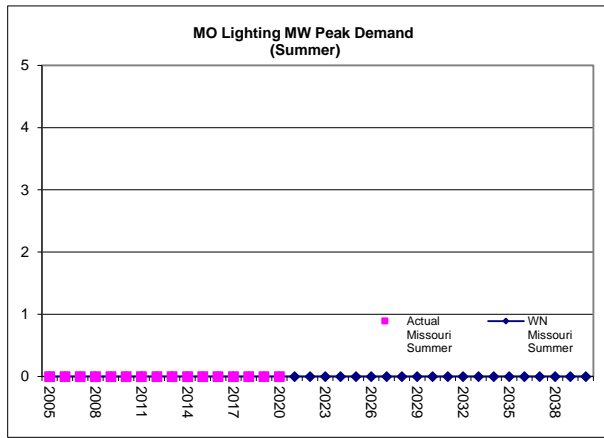


**Plot 3B-5 Missouri & Kansas Street Lights and Traffic Signals MW Peak Demand (Actual vs. Weather Normalized)**

Year	Actual		WN		Actual		WN		Actual		WN		Actual		WN		Actual		WN	
	Missouri Summer	Missouri Summer	Missouri Winter	Missouri Winter	Missouri Year	Missouri Year	Kansas Summer	Kansas Summer	Kansas Winter	Kansas Winter	Kansas Year	Kansas Year	System Summer	System Summer	System Winter	System Winter	System Year	System Year		
2005	0.0	0.0	7.4	7.2	7.4	7.2	0.0	0.0	10.2	9.9	10.2	9.9	0.0	0.0	17.6	17.1	17.6	17.1		
2006	0.0	0.0	8.7	7.3	8.7	7.3	0.0	0.0	11.7	9.9	11.7	9.9	0.0	0.0	20.4	17.1	20.4	17.1		
2007	0.0	0.0	9.3	8.2	9.3	8.2	0.0	0.0	12.0	11.0	12.0	11.0	0.0	0.0	21.3	19.2	21.3	19.2		
2008	0.0	0.0	7.8	7.4	7.8	7.4	0.0	0.0	10.5	10.0	10.5	10.0	0.0	0.0	18.3	17.4	18.3	17.4		
2009	0.0	0.0	8.5	7.8	8.5	7.8	0.0	0.0	11.1	10.2	11.1	10.2	0.0	0.0	19.6	18.0	19.6	18.0		
2010	0.0	0.0	9.5	8.9	9.5	8.9	0.0	0.0	12.3	11.6	12.3	11.6	0.0	0.0	21.8	20.5	21.8	20.5		
2011	0.0	0.0	9.7	8.3	9.7	8.3	0.0	0.0	12.1	10.6	12.1	10.6	0.0	0.0	21.9	18.9	21.9	18.9		
2012	0.0	0.0	10.0	10.4	10.0	10.4	0.0	0.0	0.0	11.3	0.0	11.3	0.0	0.0	10.0	21.7	10.0	21.7		
2013	0.0	0.0	9.0	8.6	9.0	8.6	0.0	0.0	2.2	2.1	2.2	2.1	0.0	0.0	11.2	10.7	11.2	10.7		
2014	0.0	0.0	9.0	8.8	9.0	8.8	0.0	0.0	2.0	1.9	2.0	1.9	0.0	0.0	11.0	10.7	11.0	10.7		
2015	0.0	0.0	9.9	9.0	9.9	9.0	0.0	0.0	1.8	1.8	1.8	1.8	0.0	0.0	11.7	10.8	11.7	10.8		
2016	0.0	0.0	10.0	9.0	10.0	9.0	0.0	0.0	1.6	1.6	1.6	1.6	0.0	0.0	11.6	10.6	11.6	10.6		
2017	0.0	0.0	0.0	8.0	0.0	8.0	0.0	0.0	0.9	0.8	0.9	0.8	0.0	0.0	0.9	8.8	0.9	8.8		
2018	0.0	0.0	8.0	8.8	8.0	8.8	0.0	0.0	0.9	1.0	0.9	1.0	0.0	0.0	8.9	9.8	8.9	9.8		
2019	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.9	0.9	0.9	0.9		
2020	0.0	0.0	10.0	8.5	10.0	8.5	0.0	0.0	0.5	0.4	0.5	0.4	0.0	0.0	10.5	8.9	10.5	8.9		
2021		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2022		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2023		0.0		8.0		8.0		0.0		0.4		0.4		0.0		8.4		8.4		
2024		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2025		0.0		8.0		8.0		0.0		0.4		0.4		0.0		8.4		8.4		
2026		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2027		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2028		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2029		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2030		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2031		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2032		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2033		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2034		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2035		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2036		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2037		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2038		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2039		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
2040		0.0		8.0		8.0		0.0		0.5		0.5		0.0		8.5		8.5		
'15-'20	#DIV/0!	#DIV/0!	-100.0%	-1.1%	-100.0%	-1.1%	#DIV/0!	#DIV/0!	#DIV/0!	-25.3%	#DIV/0!	-25.3%	#DIV/0!	#DIV/0!	-37.8%	-3.7%	-37.8%	-3.7%		
'20-'25		#DIV/0!		-1.2%		-1.2%		#DIV/0!		1.7%		1.7%		#DIV/0!		-1.1%		-1.1%		
'25-'30		#DIV/0!		0.0%		0.0%		#DIV/0!		0.4%		0.4%		#DIV/0!		0.0%		0.0%		
'30-'35		#DIV/0!		0.0%		0.0%		#DIV/0!		0.4%		0.4%		#DIV/0!		0.0%		0.0%		
'35-'40		#DIV/0!		0.0%		0.0%		#DIV/0!		0.8%		0.8%		#DIV/0!		0.1%		0.1%		

\* Decline in Kansas lighting due to sale of lights to city of Olathe as well as LED installation.

\* 2020 Summer peaks are not include since they are projections. The peak month occurred after the June 2020 cut off.  
 Winter values are include since the peak occurred in January 2020.

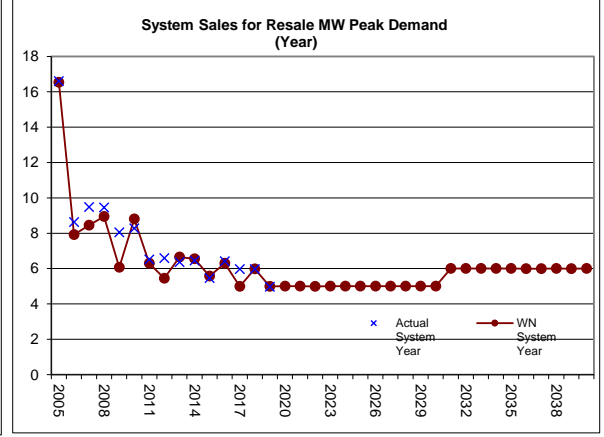
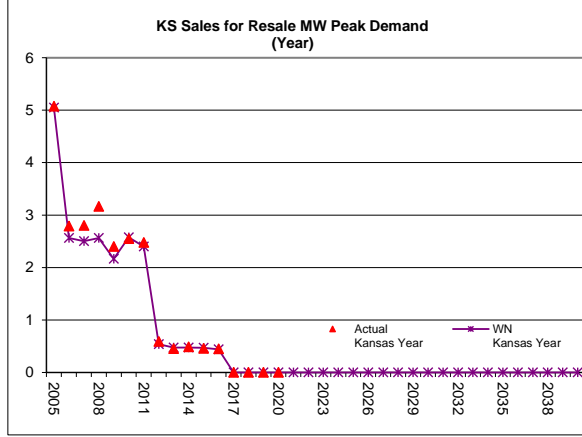
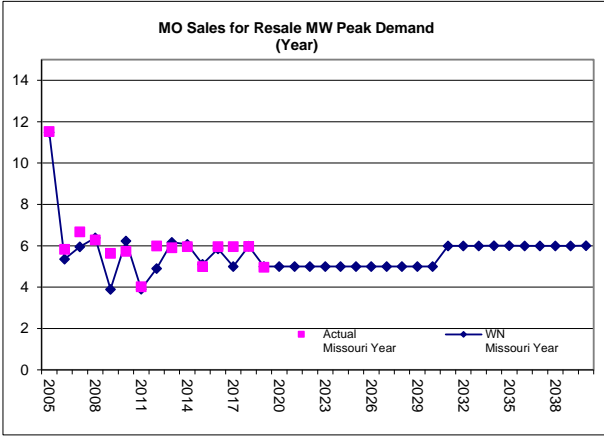
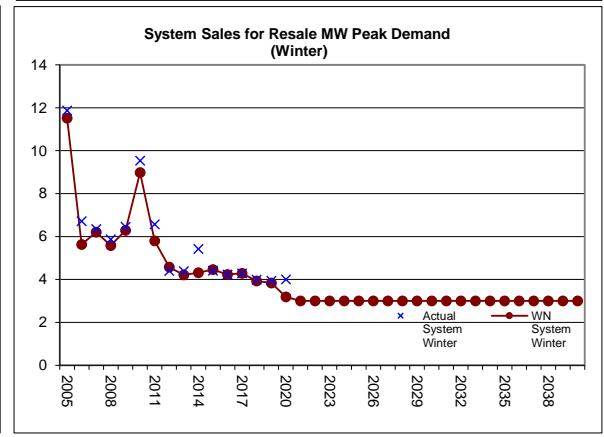
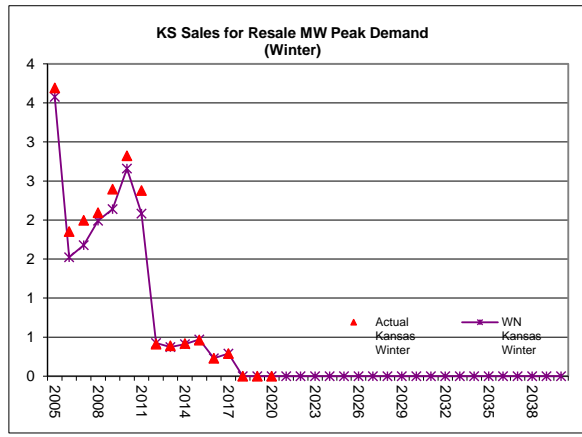
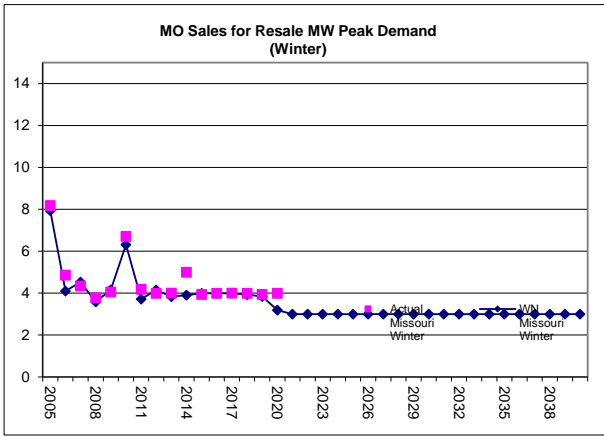
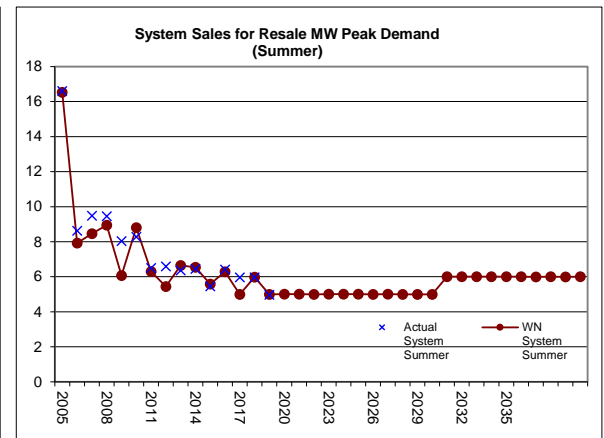
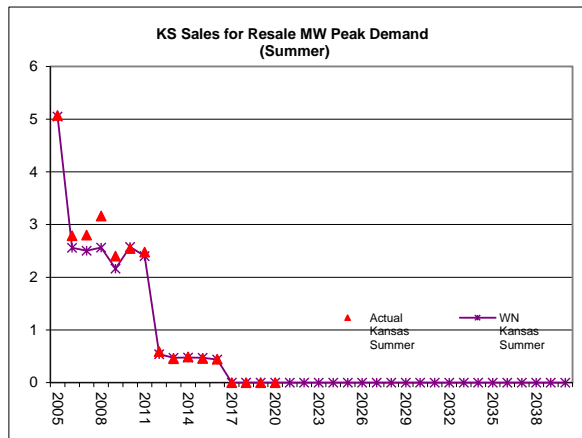
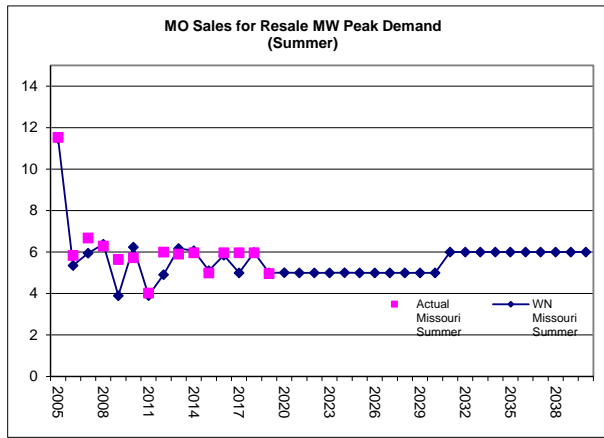


**Plot 3B-6 Missouri & Kansas Sales for Resale MW Peak Demand  
(Actual vs. Weather Normalized)**

Year	Actual		WN		Actual		WN		Actual		WN		Actual		WN		Actual		WN	
	Missouri Summer	Missouri Summer	Missouri Winter	Missouri Winter	Missouri Year	Missouri Year	Kansas Summer	Kansas Summer	Kansas Winter	Kansas Winter	Kansas Year	Kansas Year	System Summer	System Summer	System Winter	System Winter	System Year	System Year		
2005	11.5	11.5	8.2	7.9	11.5	11.5	5.1	5.0	3.7	3.6	5.1	5.0	16.6	16.5	11.9	11.5	16.6	16.5		
2006	5.8	5.4	4.9	4.1	5.8	5.4	2.8	2.6	1.9	1.5	2.8	2.6	8.6	7.9	6.7	5.6	8.6	7.9		
2007	6.7	6.0	4.3	4.5	6.7	6.0	2.8	2.5	2.0	1.7	2.8	2.5	9.5	8.5	6.3	6.2	9.5	8.5		
2008	6.3	6.4	3.8	3.6	6.3	6.4	3.2	2.6	2.1	2.0	3.2	2.6	9.5	8.9	5.9	5.6	9.5	8.9		
2009	5.6	3.9	4.1	4.1	5.6	3.9	2.4	2.2	2.4	2.1	2.4	2.2	8.0	6.1	6.5	6.3	8.0	6.1		
2010	5.7	6.2	6.7	6.3	5.7	6.2	2.5	2.6	2.8	2.7	2.5	2.6	8.3	8.8	9.5	9.0	8.3	8.8		
2011	4.0	3.9	4.2	3.7	4.0	3.9	2.5	2.4	2.4	2.1	2.5	2.4	6.5	6.3	6.6	5.8	6.5	6.3		
2012	6.0	4.9	4.0	4.2	6.0	4.9	0.6	0.5	0.4	0.4	0.6	0.5	6.6	5.4	4.4	4.6	6.6	5.4		
2013	5.9	6.2	4.0	3.8	5.9	6.2	0.5	0.5	0.4	0.4	0.5	0.5	6.4	6.6	4.4	4.2	6.4	6.6		
2014	6.0	6.1	5.0	3.9	6.0	6.1	0.5	0.5	0.4	0.4	0.5	0.5	6.5	6.5	5.4	4.3	6.5	6.5		
2015	5.0	5.1	3.9	4.0	5.0	5.1	0.5	0.5	0.5	0.5	0.5	0.5	5.5	5.6	4.4	4.5	5.5	5.6		
2016	6.0	5.9	4.0	4.0	6.0	5.9	0.4	0.4	0.2	0.2	0.4	0.4	6.4	6.3	4.2	4.2	6.4	6.3		
2017	6.0	5.0	4.0	4.0	6.0	5.0	0.0	0.0	0.3	0.3	0.0	0.0	6.0	5.0	4.3	4.3	6.0	5.0		
2018	6.0	6.0	4.0	3.9	6.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	6.0	4.0	3.9	6.0	6.0		
2019	5.0	5.0	3.9	3.8	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	3.9	3.8	5.0	5.0		
2020	5.0	5.0	4.0	3.2	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	4.0	3.2	5.0	5.0		
2021		5.0		3.0		5.0		0.0		0.0		0.0		5.0		3.0		5.0		
2022		5.0		3.0		5.0		0.0		0.0		0.0		5.0		3.0		5.0		
2023		5.0		3.0		5.0		0.0		0.0		0.0		5.0		3.0		5.0		
2024		5.0		3.0		5.0		0.0		0.0		0.0		5.0		3.0		5.0		
2025		5.0		3.0		5.0		0.0		0.0		0.0		5.0		3.0		5.0		
2026		5.0		3.0		5.0		0.0		0.0		0.0		5.0		3.0		5.0		
2027		5.0		3.0		5.0		0.0		0.0		0.0		5.0		3.0		5.0		
2028		5.0		3.0		5.0		0.0		0.0		0.0		5.0		3.0		5.0		
2029		5.0		3.0		5.0		0.0		0.0		0.0		5.0		3.0		5.0		
2030		5.0		3.0		5.0		0.0		0.0		0.0		5.0		3.0		5.0		
2031		6.0		3.0		6.0		0.0		0.0		0.0		6.0		3.0		6.0		
2032		6.0		3.0		6.0		0.0		0.0		0.0		6.0		3.0		6.0		
2033		6.0		3.0		6.0		0.0		0.0		0.0		6.0		3.0		6.0		
2034		6.0		3.0		6.0		0.0		0.0		0.0		6.0		3.0		6.0		
2035		6.0		3.0		6.0		0.0		0.0		0.0		6.0		3.0		6.0		
2036		6.0		3.0		6.0		0.0		0.0		0.0		6.0		3.0		6.0		
2037		6.0		3.0		6.0		0.0		0.0		0.0		6.0		3.0		6.0		
2038		6.0		3.0		6.0		0.0		0.0		0.0		6.0		3.0		6.0		
2039		6.0		3.0		6.0		0.0		0.0		0.0		6.0		3.0		6.0		
2040		6.0		3.0		6.0		0.0		0.0		0.0		6.0		3.0		6.0		
'15-'20	-100.0%	-0.4%	0.0%	-4.4%	-0.1%	-0.4%	-100.0%	-100.0%	-6.7%	-100.0%	-100.0%	-100.0%	-2.0%	-2.2%	-0.5%	-6.5%	-2.0%	-2.2%		
'20-'25		0.0%		-1.2%		0.0%		#DIV/0!		#DIV/0!		#DIV/0!		0.0%		-1.2%		0.0%		
'25-'30		0.0%		0.0%		0.0%		#DIV/0!		#DIV/0!		#DIV/0!		0.0%		0.0%		0.0%		
'30-'35		3.7%		0.0%		3.7%		#DIV/0!		#DIV/0!		#DIV/0!		3.7%		0.0%		3.7%		
'35-'40		0.0%		0.0%		0.0%		#DIV/0!		#DIV/0!		#DIV/0!		0.0%		0.0%		0.0%		

\* Decline in Kansas Sales for Resale due to last few customers leaving (Owatta, Pomona - July 2015, Prescott - June 2017). There are no KS SFR Customers after June 2017.

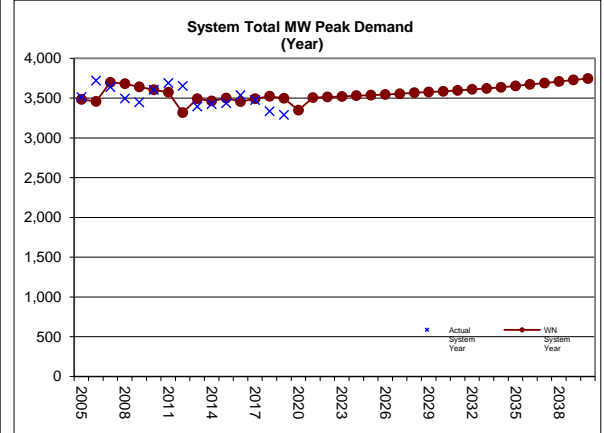
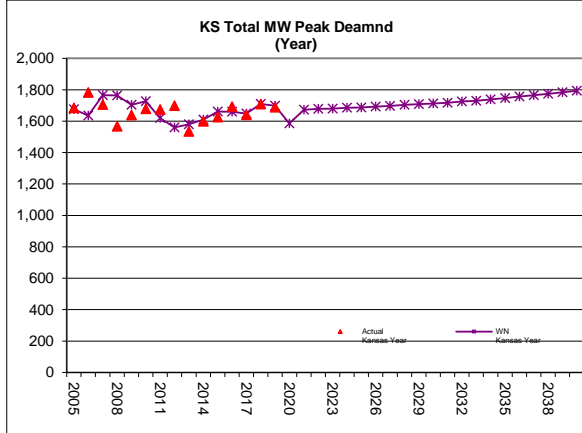
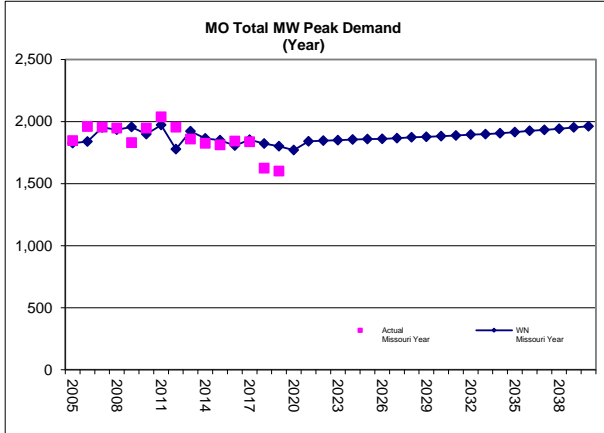
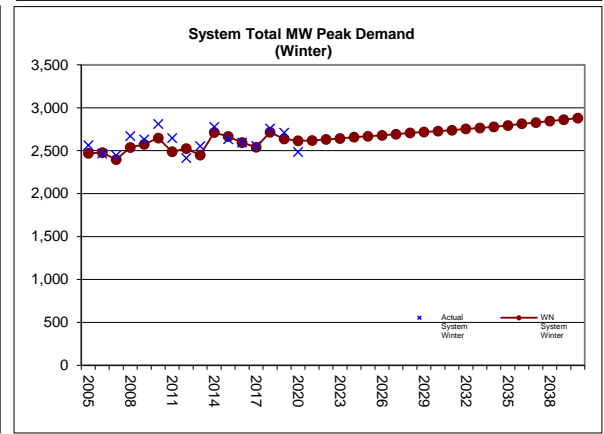
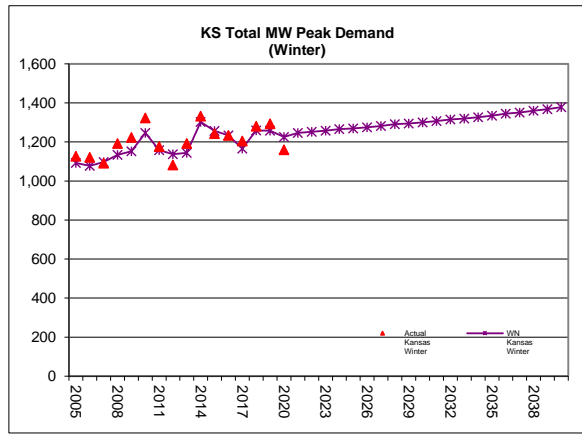
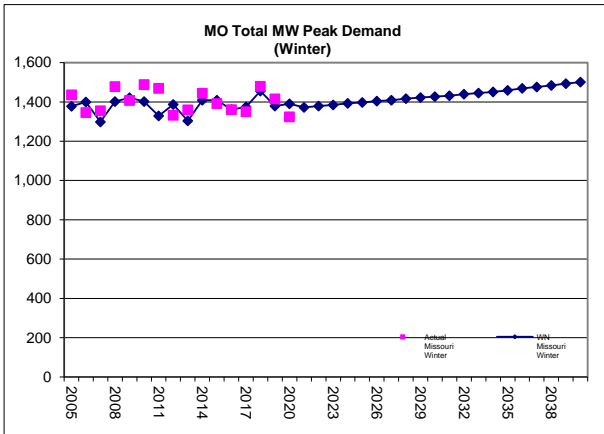
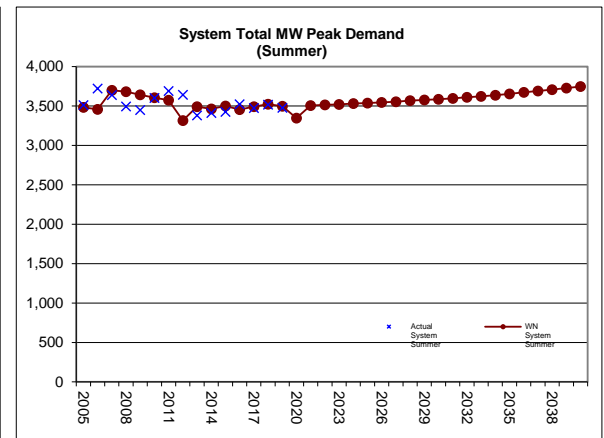
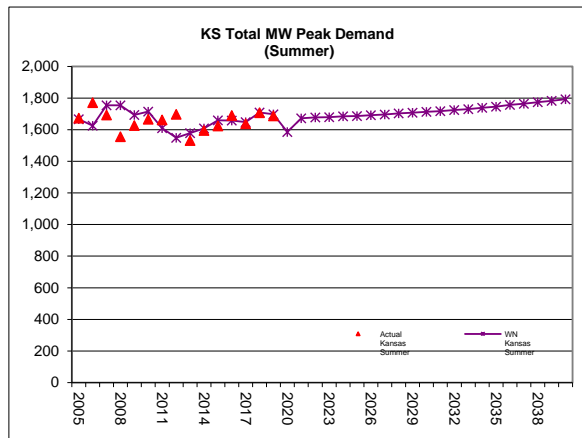
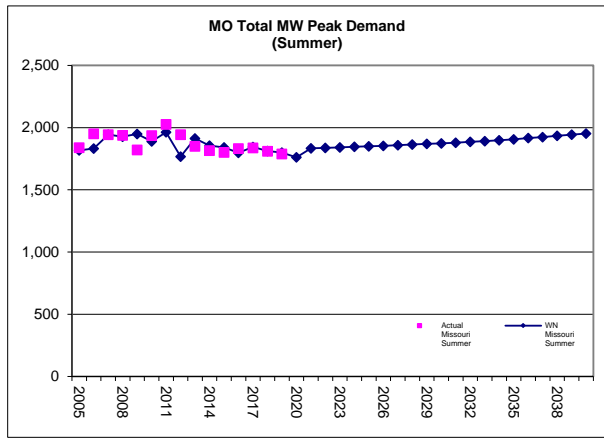
\* 2020 Summer peaks are not include since they are projections. The peak month occurred after the June 2020 cut off.  
Winter values are include since the peak occurred in January 2020.

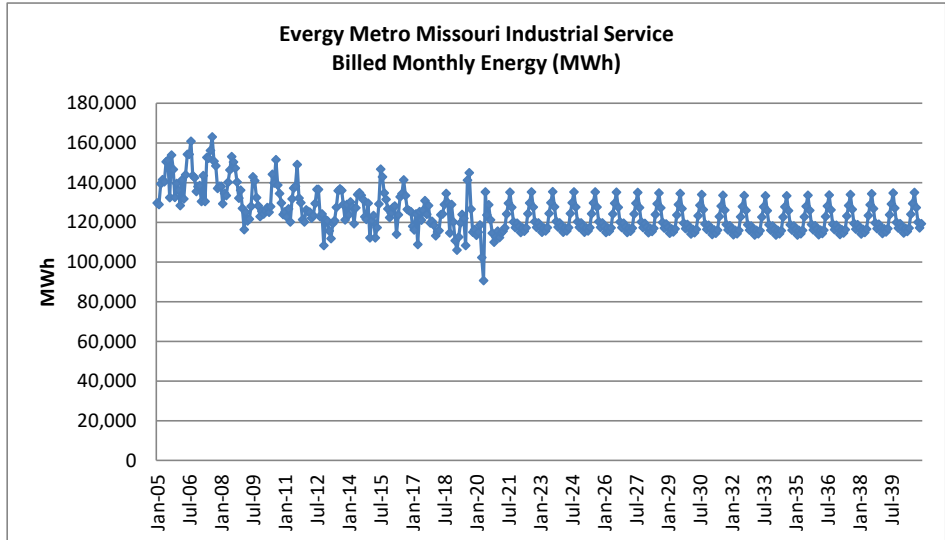
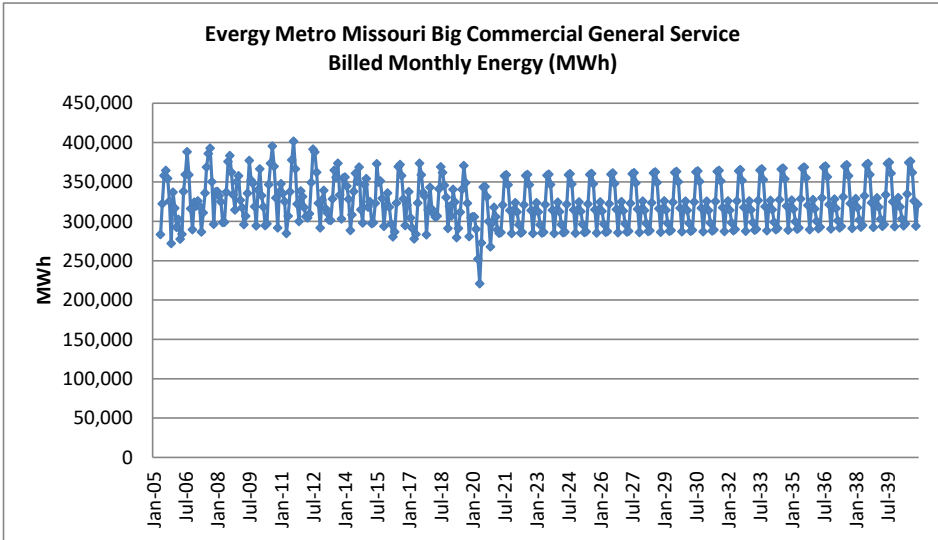
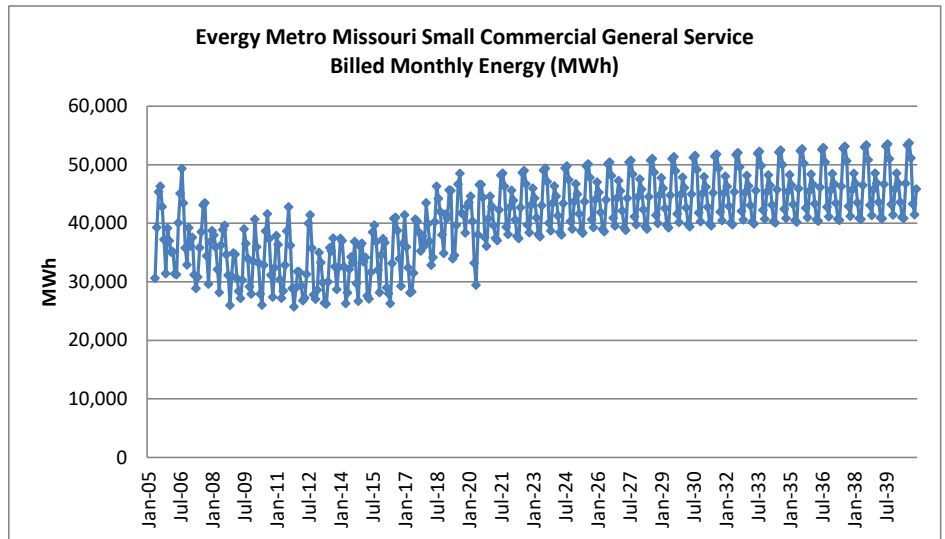
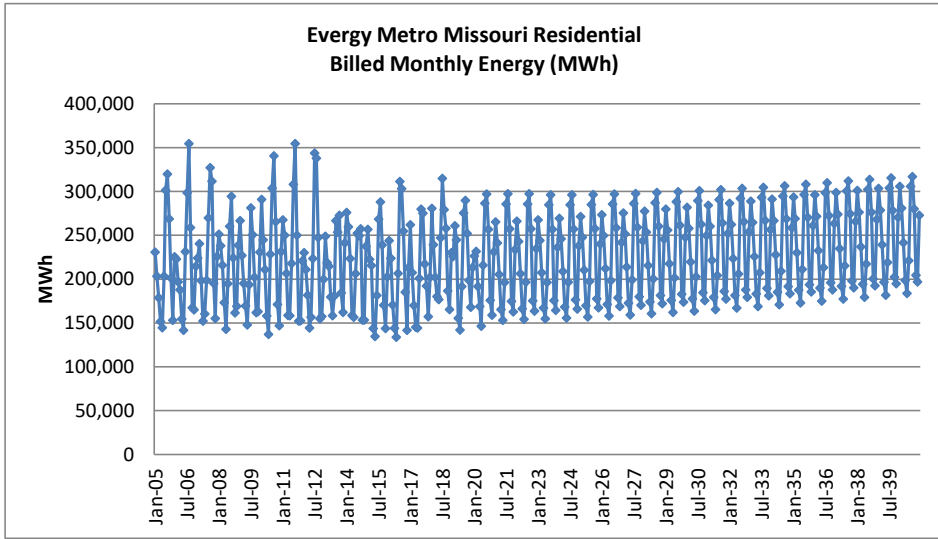


**Plot 3B-7 Missouri & Kansas Total System MW Peak Demand  
(Actual vs. Weather Normalized)**

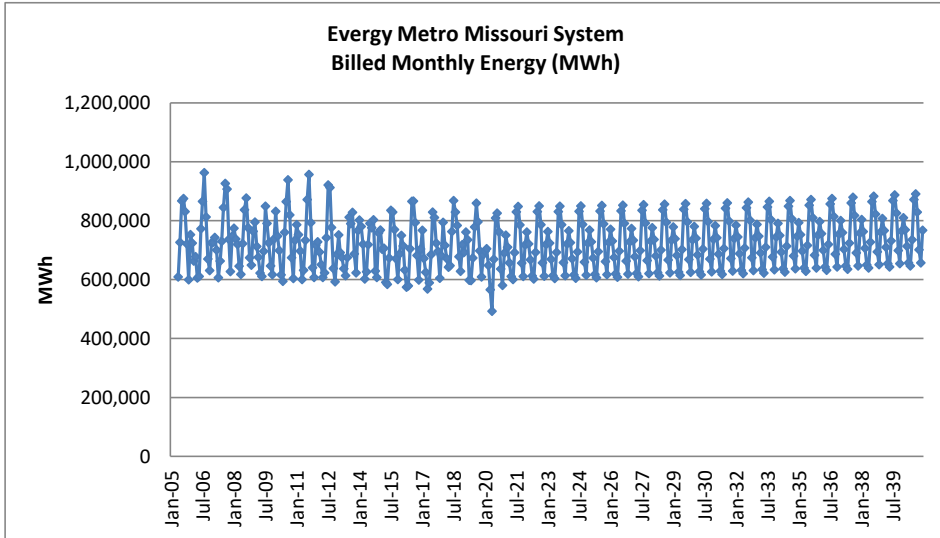
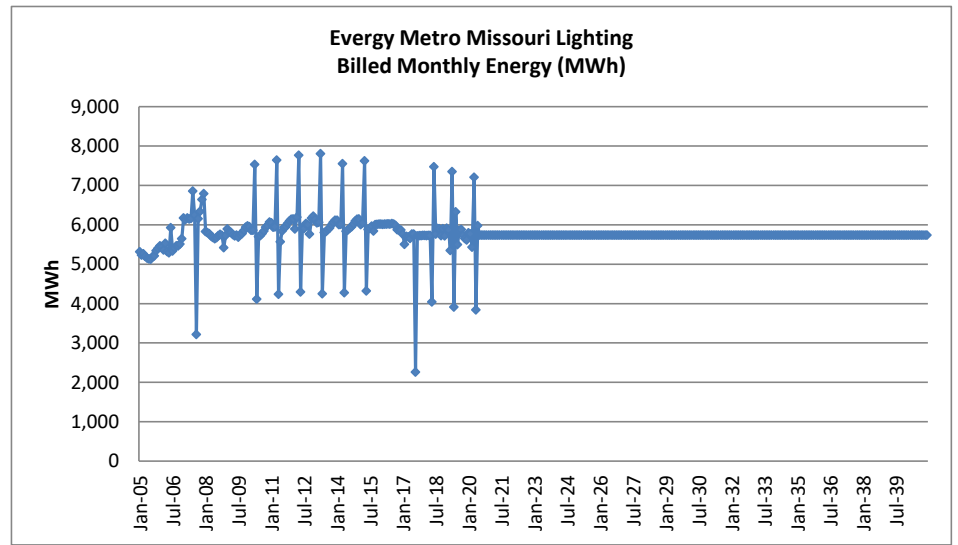
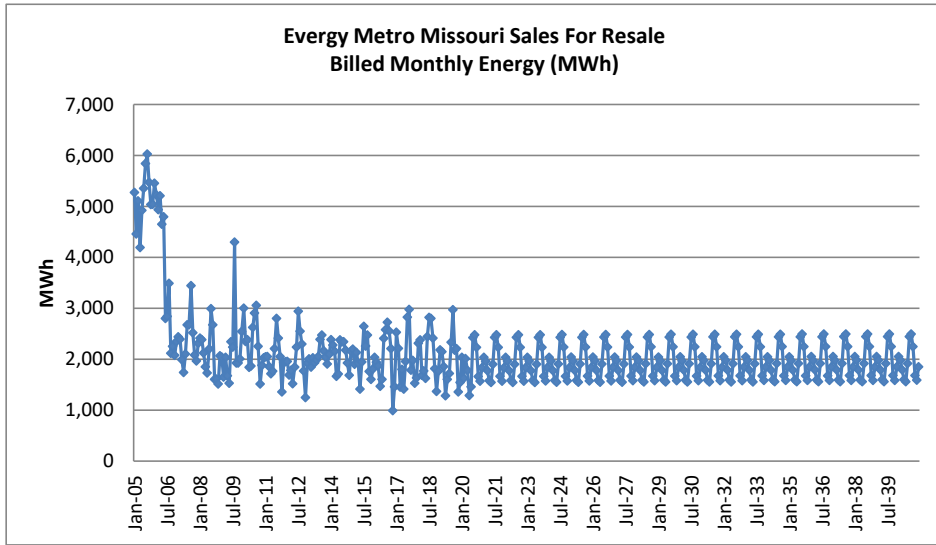
Year	Actual		WN		Actual		WN		Actual		WN		Actual		WN		Actual		WN	
	Missouri Summer	Missouri Summer	Missouri Winter	Missouri Winter	Missouri Year	Missouri Year	Kansas Summer	Kansas Summer	Kansas Winter	Kansas Winter	Kansas Year	Kansas Year	System Summer	System Summer	System Winter	System Winter	System Year	System Year		
2005	1,838.4	1,818.3	1,436.3	1,378.1	1,845.8	1,825.5	1,673.6	1,666.0	1,126.7	1,092.4	1,683.8	1,675.9	3,512.0	3,484.3	2,563.0	2,470.5	3,512.0	3,484.3		
2006	1,950.3	1,831.6	1,346.1	1,399.0	1,959.0	1,838.9	1,770.7	1,625.5	1,120.9	1,077.5	1,782.4	1,635.4	3,721.0	3,457.1	2,467.0	2,476.5	3,721.0	3,457.1		
2007	1,944.0	1,943.8	1,354.8	1,298.6	1,953.3	1,952.1	1,694.0	1,754.5	1,091.2	1,097.2	1,706.0	1,765.5	3,638.0	3,698.3	2,446.0	2,395.8	3,638.0	3,698.3		
2008	1,938.5	1,926.5	1,478.2	1,402.3	1,946.3	1,933.9	1,556.5	1,754.5	1,191.8	1,133.8	1,567.0	1,764.5	3,495.0	3,681.0	2,670.0	2,536.1	3,495.0	3,681.0		
2009	1,820.5	1,948.7	1,407.8	1,421.5	1,829.1	1,956.6	1,627.5	1,693.3	1,223.2	1,152.5	1,638.5	1,703.4	3,448.0	3,642.0	2,631.0	2,574.0	3,448.0	3,642.0		
2010	1,936.7	1,889.9	1,488.4	1,402.1	1,946.2	1,898.9	1,666.3	1,715.1	1,322.6	1,245.9	1,678.6	1,726.6	3,603.0	3,605.0	2,811.0	2,648.0	3,603.0	3,605.0		
2011	2,026.8	1,963.0	1,469.5	1,328.8	2,036.5	1,971.3	1,662.2	1,610.0	1,176.5	1,158.2	1,674.3	1,620.6	3,689.0	3,573.0	2,646.0	2,487.0	3,689.0	3,573.0		
2012	1,944.2	1,767.0	1,332.3	1,387.0	1,954.1	1,777.4	1,697.8	1,549.0	1,081.7	1,137.3	1,697.8	1,560.3	3,642.0	3,316.0	2,414.0	2,524.3	3,652.0	3,316.0		
2013	1,849.4	1,913.4	1,359.3	1,303.9	1,858.4	1,922.0	1,532.6	1,578.6	1,192.7	1,144.1	1,534.7	1,580.7	3,382.0	3,492.0	2,552.0	2,448.0	3,393.2	3,492.0		
2014	1,815.8	1,854.8	1,443.5	1,408.6	1,824.8	1,863.6	1,596.2	1,608.2	1,332.5	1,302.3	1,598.1	1,610.1	3,412.0	3,463.0	2,776.0	2,710.9	3,423.0	3,463.0		
2015	1,801.4	1,841.1	1,391.7	1,408.7	1,811.2	1,850.1	1,623.6	1,659.8	1,242.3	1,257.1	1,625.5	1,661.6	3,425.0	3,500.9	2,634.0	2,665.8	3,436.7	3,500.9		
2016	1,832.7	1,797.2	1,360.8	1,360.3	1,842.7	1,806.2	1,691.3	1,658.7	1,233.2	1,233.3	1,692.9	1,660.3	3,524.0	3,455.9	2,594.0	2,593.6	3,535.6	3,455.9		
2017	1,836.5	1,844.4	1,350.4	1,374.5	1,836.5	1,852.4	1,638.5	1,647.7	1,204.9	1,165.7	1,639.4	1,648.5	3,475.0	3,492.1	2,555.3	2,540.2	3,475.9	3,492.1		
2018	1,810.1	1,812.7	1,479.5	1,455.0	1,624.0	1,821.5	1,707.9	1,709.1	1,280.5	1,258.5	1,708.8	1,710.1	3,518.0	3,521.8	2,760.0	2,713.5	3,332.9	3,521.8		
2019	1,788.5	1,800.2	1,415.9	1,379.1	1,599.9	1,800.2	1,687.5	1,698.1	1,293.1	1,257.9	1,688.4	1,699.0	3,476.0	3,498.4	2,709.0	2,637.0	3,288.3	3,498.4		
2020		1,761.2	1,324.1	1,390.1		1,769.7		1,585.8	1,159.9	1,225.2		1,586.2		3,347.0	2,484.0	2,615.3		3,347.0		
2021		1,833.3		1,372.3		1,841.3		1,671.7		1,246.7		1,672.1			3,505.0		2,619.0	3,505.0		
2022		1,837.5		1,379.3		1,845.5		1,677.5		1,251.7		1,677.9			3,515.0		2,631.0	3,515.0		
2023		1,840.8		1,384.8		1,848.8		1,679.2		1,257.2		1,679.7			3,520.0		2,642.0	3,520.0		
2024		1,846.2		1,392.7		1,854.2		1,684.8		1,265.3		1,685.2			3,531.0		2,658.0	3,531.0		
2025		1,849.8		1,397.7		1,857.8		1,686.2		1,269.3		1,686.7			3,536.0		2,667.0	3,536.0		
2026		1,853.2		1,404.1		1,861.2		1,691.8		1,274.9		1,692.3			3,545.0		2,679.0	3,545.0		
2027		1,858.4		1,409.0		1,866.4		1,696.6		1,282.0		1,697.0			3,555.0		2,691.0	3,555.0		
2028		1,865.1		1,417.1		1,873.1		1,703.9		1,290.9		1,704.3			3,569.0		2,708.0	3,569.0		
2029		1,869.3		1,422.2		1,877.3		1,707.7		1,294.8		1,708.1			3,577.0		2,717.0	3,577.0		
2030		1,873.3		1,426.6		1,881.3		1,712.7		1,300.4		1,713.2			3,586.0		2,727.0	3,586.0		
2031		1,878.9		1,431.5		1,886.9		1,717.1		1,306.5		1,717.5			3,596.0		2,738.0	3,596.0		
2032		1,886.1		1,439.5		1,894.1		1,724.9		1,314.5		1,725.4			3,611.0		2,754.0	3,611.0		
2033		1,891.1		1,444.9		1,899.1		1,729.9		1,319.1		1,730.4			3,621.0		2,764.0	3,621.0		
2034		1,897.9		1,451.3		1,905.9		1,738.1		1,326.7		1,738.6			3,636.0		2,778.0	3,636.0		
2035		1,906.6		1,459.2		1,914.6		1,746.4		1,334.8		1,746.8			3,653.0		2,794.0	3,653.0		
2036		1,916.5		1,468.6		1,924.5		1,756.5		1,345.4		1,757.0			3,673.0		2,814.0	3,673.0		
2037		1,924.0		1,476.2		1,932.0		1,765.0		1,350.8		1,765.5			3,689.0		2,827.0	3,689.0		
2038		1,934.1		1,483.8		1,942.1		1,773.9		1,360.2		1,774.4			3,708.0		2,844.0	3,708.0		
2039		1,943.8		1,493.2		1,951.8		1,783.2		1,367.8		1,783.7			3,727.0		2,861.0	3,727.0		
2040		1,953.0		1,500.9		1,961.0		1,793.0		1,378.1		1,793.5			3,746.0		2,879.0	3,746.0		
'15-'20	-100.0%	-0.9%	0.3%	-0.3%	-1.2%	-0.9%	-0.7%	-0.9%	2.2%	-0.5%	-0.7%	-0.9%	-0.9%	-0.9%	1.1%	-0.4%	-1.0%	-0.9%		
'20-'25		1.0%		0.1%		1.0%		1.2%		0.7%		1.2%		1.1%		0.4%		1.1%		
'25-'30		0.3%		0.4%		0.3%		0.3%		0.5%		0.3%		0.3%		0.4%		0.3%		
'30-'35		0.4%		0.5%		0.4%		0.4%		0.5%		0.4%		0.4%		0.5%		0.4%		
'35-'40		0.5%		0.6%		0.5%		0.5%		0.6%		0.5%		0.5%		0.6%		0.5%		

\* 2020 Summer peaks are not include since they are projections. The peak month occurred after the June 2020 cut off.  
Winter values are include since the peak occurred in January 2020.



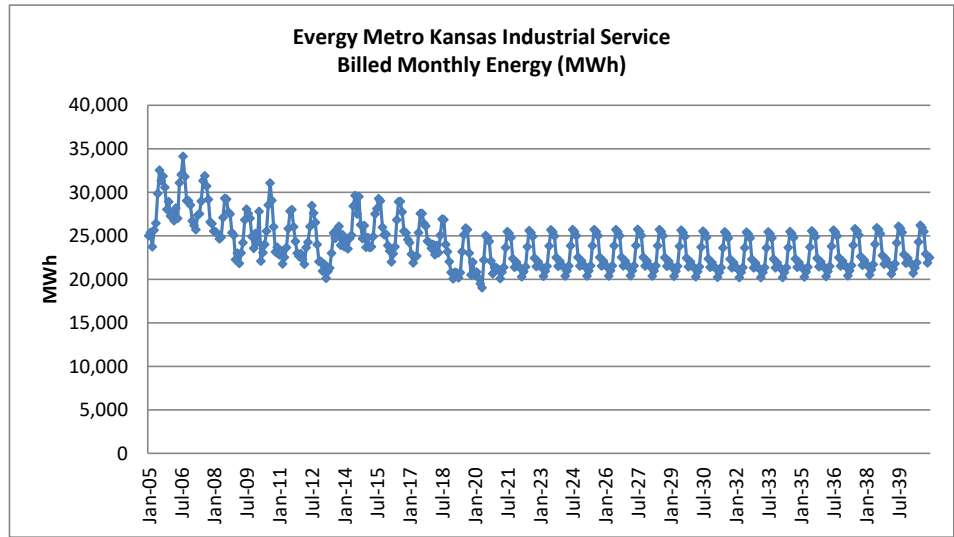
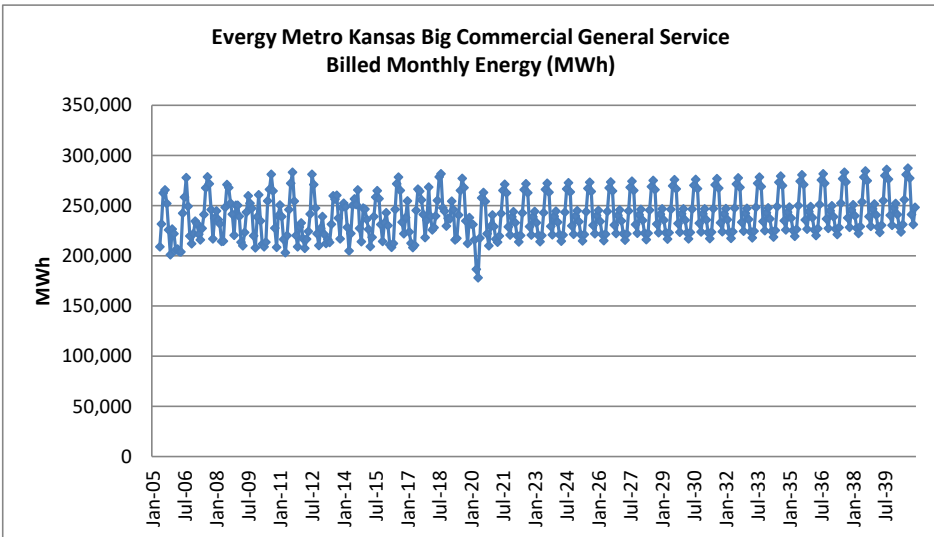
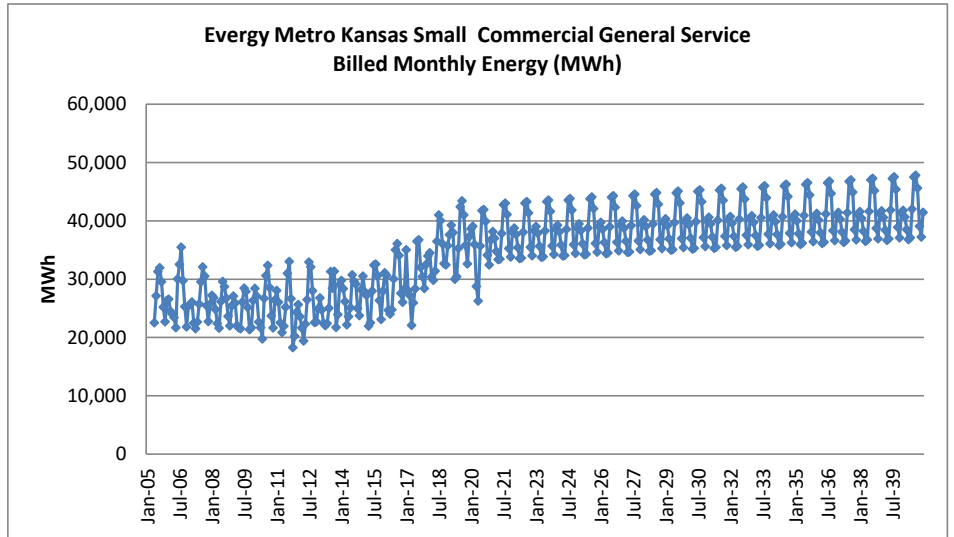
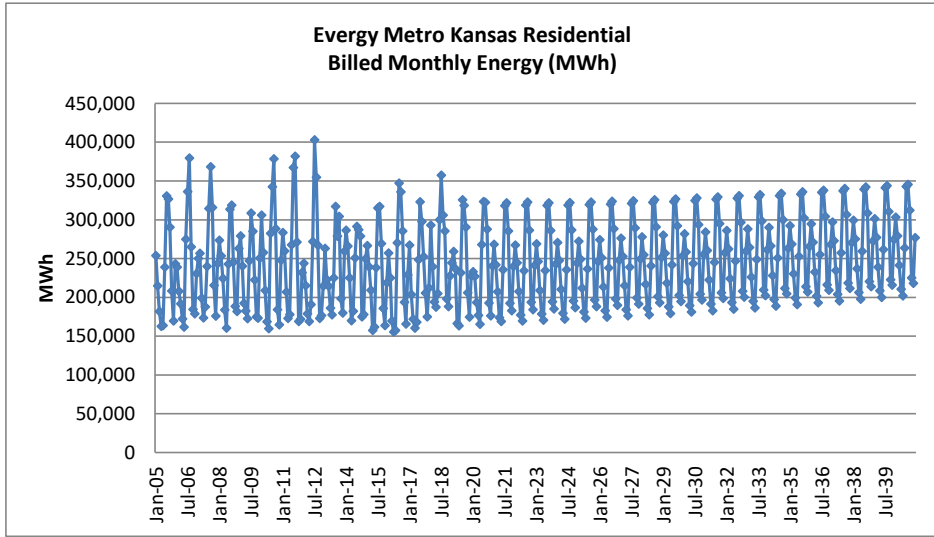




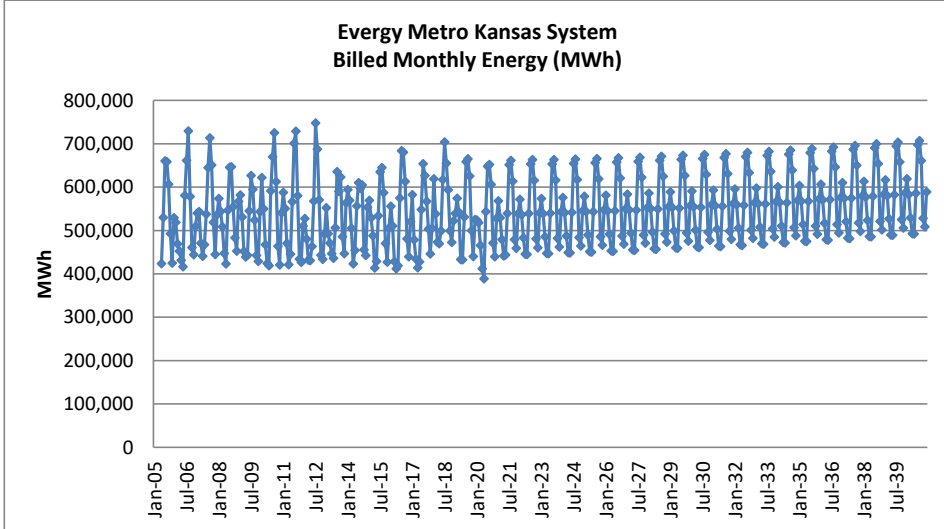
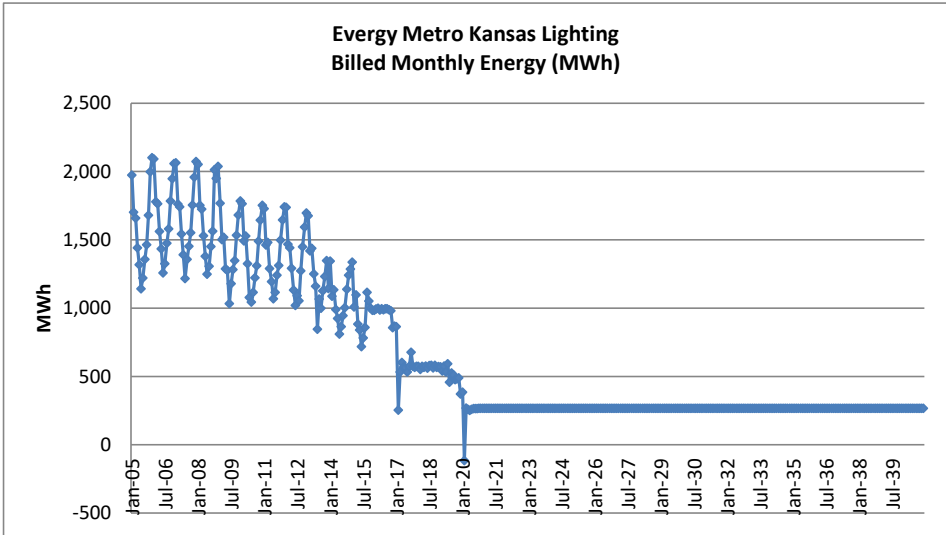
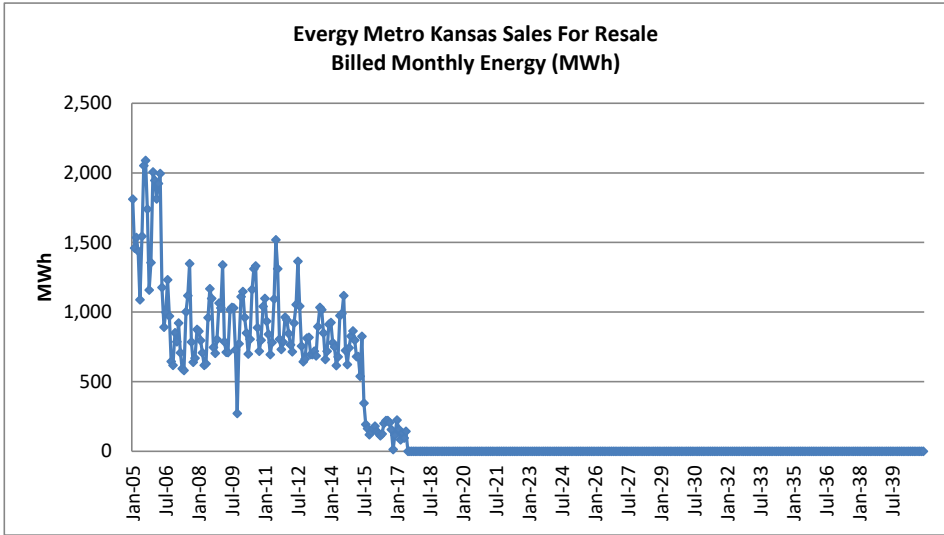


\*Errors are due to rate switchers and billing errors. These outlier data points are adjusted for in the models.

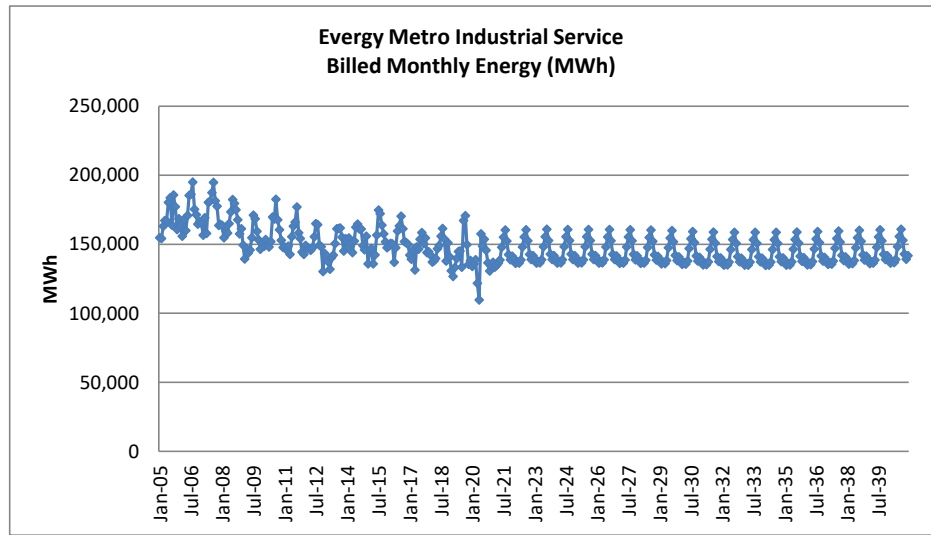
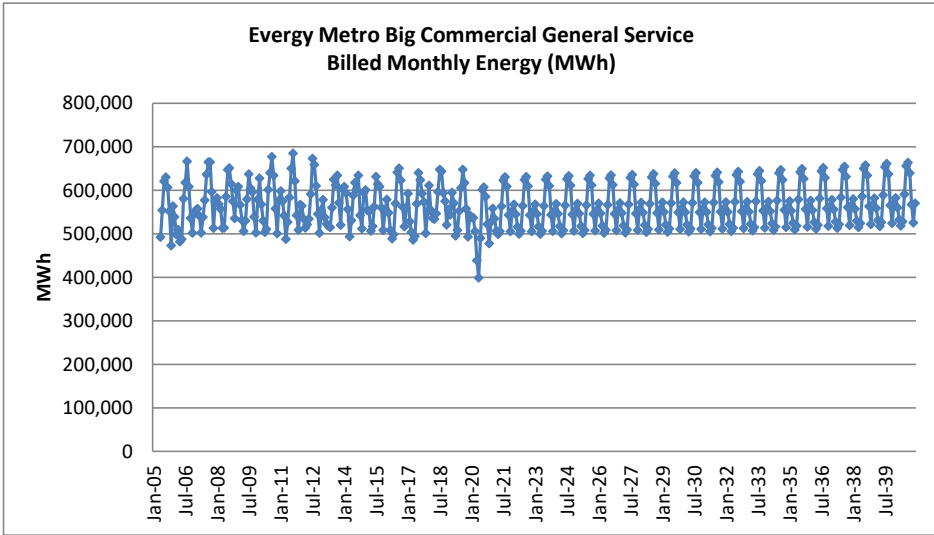
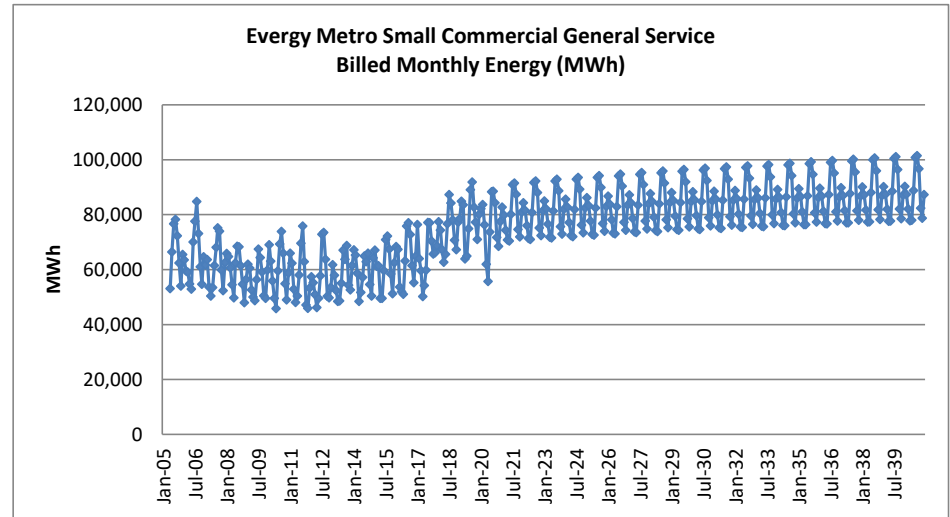
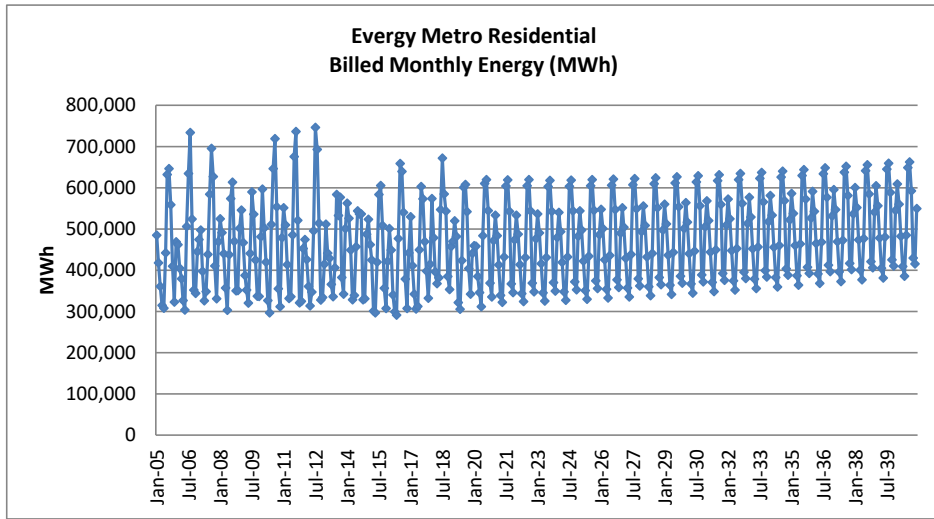
\*\* Lighting bumps in April and May are due to billing request by City of Kansas City Missouri



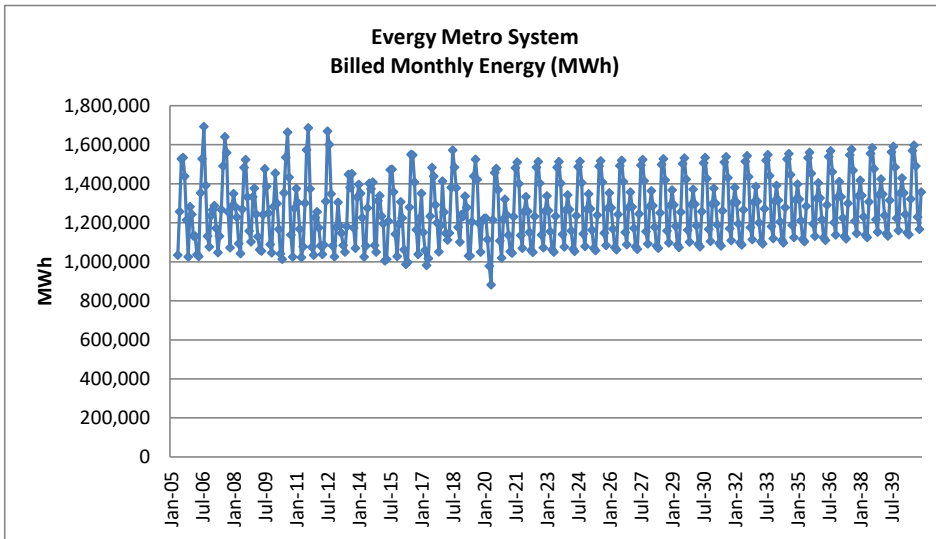
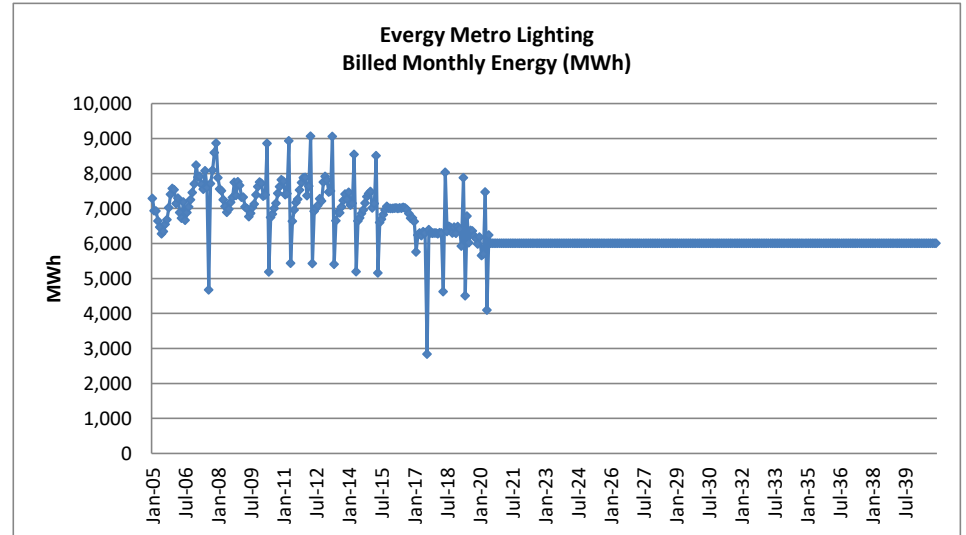
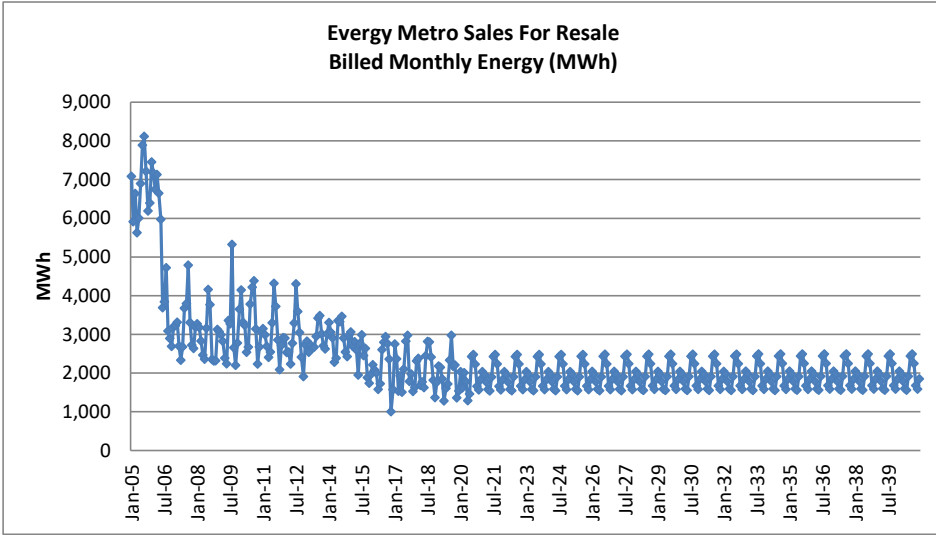
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