

**Part 1 - Appendix 3B
Evergy Missouri West Reports**

**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 monthly energy and coincident peak demand at the time of summer and winter system peaks. The plots 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-8 for base-case GMOC forecast reports designed to comply with section (7)(A)(6) reporting requirements.

Linked Files:**Work Files**

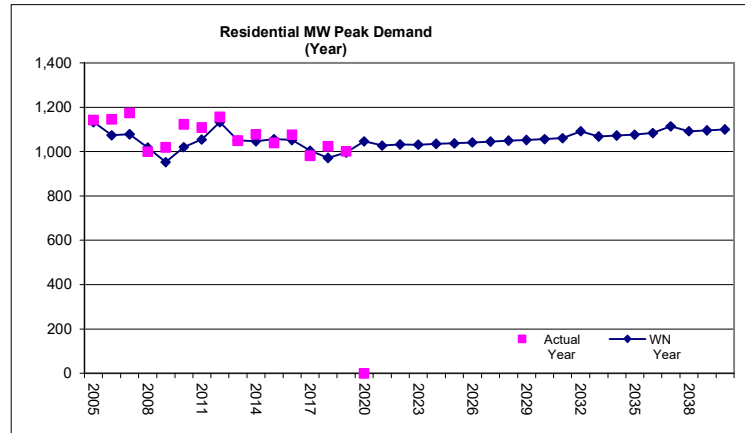
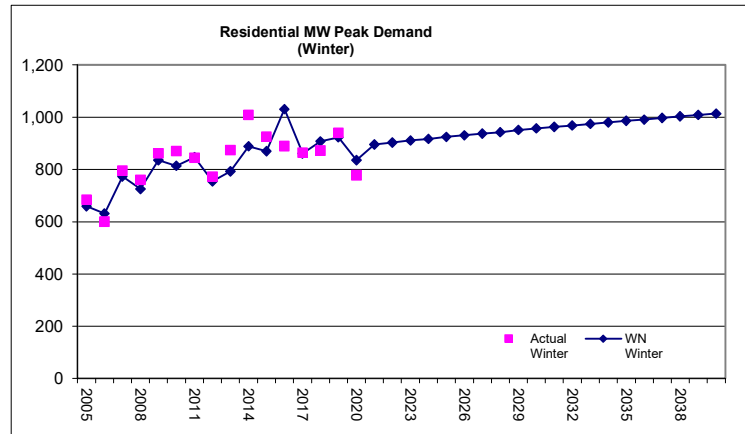
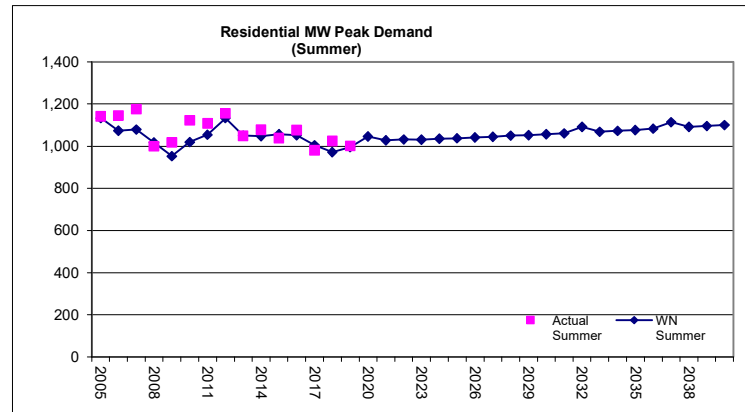
WN PeakSumWin.xls
Act PeakSumWin.xls
IRP_7.1.6_West_Peaks
IRP_7.1.6_West_MWh

Plot 3B-1 Evergy Missouri West Residential MW Peak Demand (Actual vs. Weather Normalized)

Year	Actual Summer	WN Summer	Actual Winter	WN Winter	Actual Year	WN Year
2005	1,142.4	1,134.0	684.8	658.8	1,142.4	1,134.0
2006	1,146.1	1,073.8	600.3	631.0	1,146.1	1,073.8
2007	1,175.6	1,079.2	796.3	773.1	1,175.6	1,079.2
2008	1,000.5	1,018.1	759.8	725.2	1,000.5	1,018.1
2009	1,019.1	953.0	861.8	835.3	1,019.1	953.0
2010	1,123.4	1,020.2	870.4	813.6	1,123.4	1,020.2
2011	1,109.2	1,054.6	845.0	846.9	1,109.2	1,054.6
2012	1,157.0	1,133.7	772.9	754.6	1,157.0	1,133.7
2013	1,049.8	1,050.5	874.0	792.3	1,049.8	1,050.5
2014	1,077.9	1,047.1	1,008.3	888.8	1,077.9	1,047.1
2015	1,039.3	1,057.5	925.1	870.1	1,039.3	1,057.5
2016	1,077.3	1,052.7	889.4	1,030.9	1,077.3	1,052.7
2017	981.7	1,004.7	864.1	860.8	981.7	1,004.7
2018	1,025.1	972.5	872.1	907.4	1,025.1	972.5
2019	1,001.2	996.2	939.7	922.8	1,001.2	996.2
2020	-	1,046.5	777.7	835.5	-	1,046.5
2021	-	1,028.1	-	895.5	-	1,028.1
2022	-	1,032.2	-	903.1	-	1,032.2
2023	-	1,032.0	-	910.7	-	1,032.0
2024	-	1,036.2	-	916.6	-	1,036.2
2025	-	1,038.2	-	924.7	-	1,038.2
2026	-	1,041.9	-	930.9	-	1,041.9
2027	-	1,045.7	-	937.6	-	1,045.7
2028	-	1,050.2	-	942.8	-	1,050.2
2029	-	1,053.2	-	950.9	-	1,053.2
2030	-	1,057.0	-	956.8	-	1,057.0
2031	-	1,061.0	-	962.7	-	1,061.0
2032	-	1,092.3	-	968.1	-	1,092.3
2033	-	1,069.2	-	974.2	-	1,069.2
2034	-	1,072.9	-	979.9	-	1,072.9
2035	-	1,077.6	-	986.2	-	1,077.6
2036	-	1,083.8	-	991.0	-	1,083.8
2037	-	1,114.3	-	997.3	-	1,114.3
2038	-	1,092.4	-	1,003.4	-	1,092.4
2039	-	1,096.3	-	1,008.3	-	1,096.3
2040	-	1,100.6	-	1,013.3	-	1,100.6
'15-'20	-100.0%	-0.2%	2.3%	-0.8%	-3.2%	-0.2%
'20-'25	-	-0.2%	-	2.0%	-	-0.2%
'25-'30	-	0.4%	-	0.7%	-	0.4%
'30-'35	-	0.4%	-	0.6%	-	0.4%
'35-'40	-	0.4%	-	0.5%	-	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.

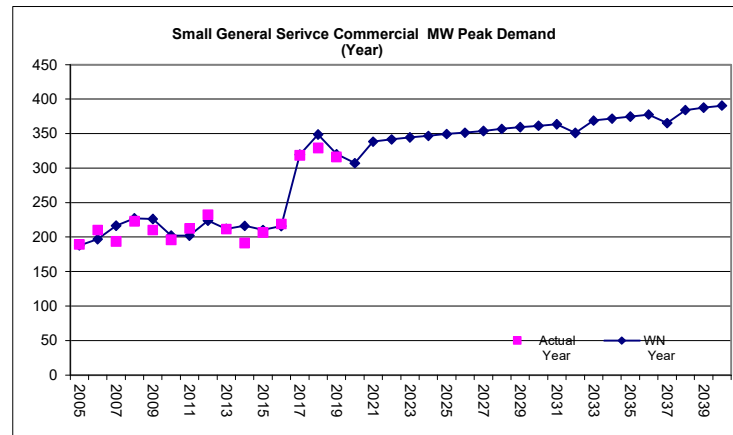
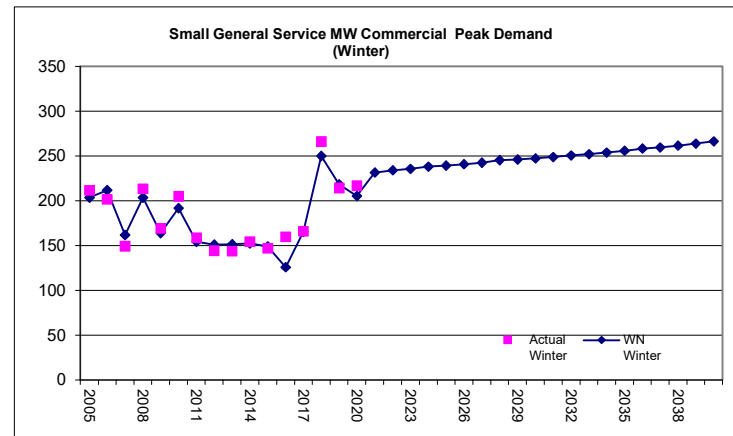
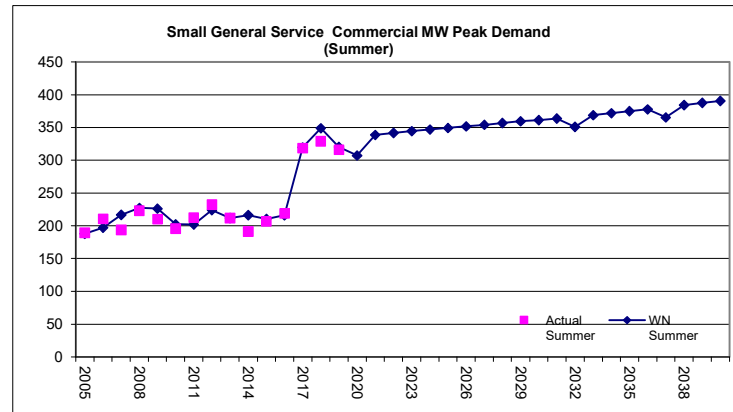
* 2016 winter peak spike is due to peak occurring on a Sunday with an average dry bulb temp of -1.
 This was the coldest weekend day temperature since 1996.
 Weather normalized and actual peaks occur on different days.



Plot 3B-2 Eversource Missouri West Small Commercial MW Peak Demand (Actual vs. Weather Normalized)

Year	Actual Summer	WN Summer	Actual Winter	WN Winter	Actual Year	WN Year
2005	189.3	187.9	211.3	203.3	189.3	187.9
2006	210.5	197.3	201.3	211.6	210.5	197.3
2007	194.0	216.8	149.2	161.7	194.0	216.8
2008	223.3	227.2	213.1	203.4	223.3	227.2
2009	210.4	226.4	168.8	163.6	210.4	226.4
2010	196.1	202.3	205.0	191.6	196.1	202.3
2011	212.6	202.2	158.6	154.2	212.6	202.2
2012	232.5	224.0	144.2	150.9	232.5	224.0
2013	211.9	212.0	143.7	151.3	211.9	212.0
2014	191.6	216.5	154.4	152.3	191.6	216.5
2015	207.0	210.6	146.9	148.9	207.0	210.6
2016	219.1	216.0	159.6	125.7	219.1	216.0
2017	318.5	319.5	165.7	165.1	318.5	319.5
2018	329.3	348.9	265.8	249.9	329.3	348.9
2019	316.2	320.3	214.1	218.2	316.2	320.3
2020		307.4	216.7	205.2		307.4
2021		338.6		231.5		338.6
2022		341.7		234.0		341.7
2023		344.5		235.5		344.5
2024		346.9		238.0		346.9
2025		349.5		239.3		349.5
2026		351.6		240.7		351.6
2027		354.0		242.4		354.0
2028		357.0		245.1		357.0
2029		359.4		246.0		359.4
2030		361.4		247.3		361.4
2031		363.8		248.7		363.8
2032		351.2		250.5		351.2
2033		369.0		251.9		369.0
2034		372.0		253.7		372.0
2035		374.9		255.6		374.9
2036		377.8		258.2		377.8
2037		365.3		259.4		365.3
2038		384.1		261.5		384.1
2039		387.6		263.8		387.6
2040		390.6		266.1		390.6

'15-'20	-100.0%	7.9%	2.8%	6.6%	6.5%	7.9%
'20-'25		2.6%		3.1%		2.6%
'25-'30		0.7%		0.7%		0.7%
'30-'35		0.7%		0.7%		0.7%
'35-'40		0.8%		0.8%		0.8%



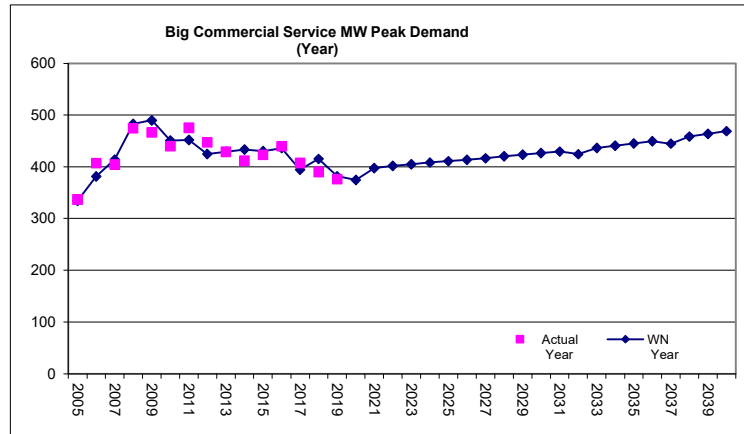
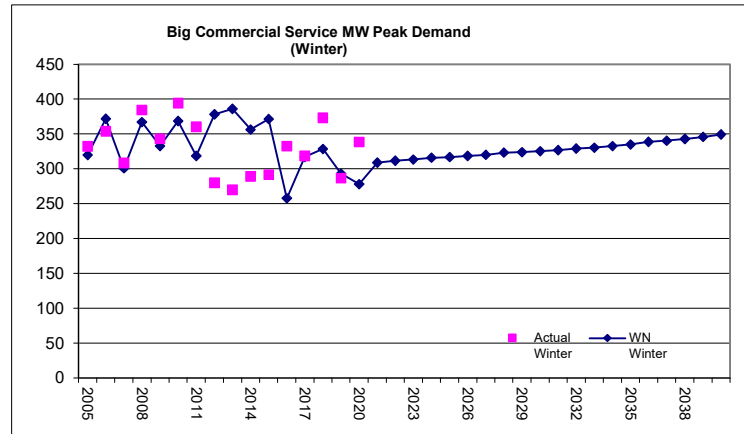
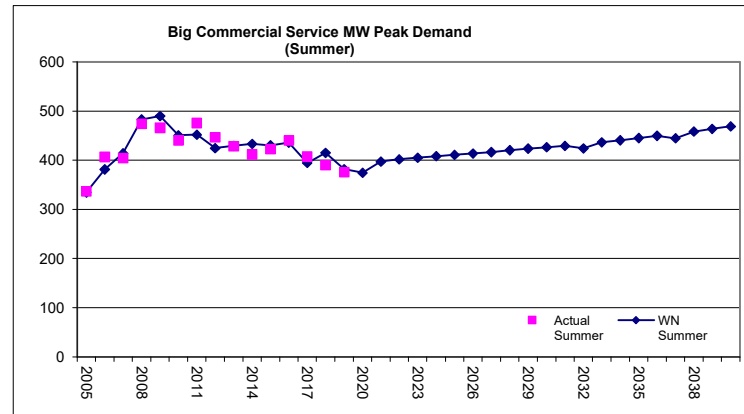
* 2020 Summer peaks are not include since they are projections.
 The peak month occurred after the June 2020 cut off.
 Winter values are include since the peak occurred in January 2020.

** Jump is due to consolidation.

Plot 3B-3 Evergy Missouri West Big Commercial MW Peak Demand (Actual vs. Weather Normalized)

Year	Actual Summer	WN Summer	Actual Winter	WN Winter	Actual Year	WN Year
2005	337.0	334.5	332.4	319.8	337.0	334.5
2006	407.0	381.4	353.8	371.9	407.0	381.4
2007	404.6	414.1	308.4	300.7	404.6	414.1
2008	474.6	483.0	384.3	366.8	474.6	483.0
2009	466.4	490.0	343.1	332.6	466.4	490.0
2010	440.1	450.6	394.4	368.7	440.1	450.6
2011	475.6	452.2	360.2	318.6	475.6	452.2
2012	447.3	424.9	279.8	378.1	447.3	424.9
2013	429.0	429.3	269.8	386.1	429.0	429.3
2014	412.0	433.5	289.3	356.2	412.0	433.5
2015	423.0	430.4	291.6	371.4	423.0	430.4
2016	440.2	436.0	332.6	257.6	440.2	436.0
2017	407.7	394.6	318.3	317.1	407.7	394.6
2018	390.3	415.4	373.1	328.5	390.3	415.4
2019	376.2	381.9	286.7	293.1	376.2	381.9
2020		374.6	338.4	277.9		374.6
2021		397.5		308.7		397.5
2022		401.8		311.8		401.8
2023		405.1		313.2		405.1
2024		408.4		316.0		408.4
2025		410.9		316.7		410.9
2026		413.6		318.3		413.6
2027		416.6		319.9		416.6
2028		420.6		323.2		420.6
2029		423.7		323.8		423.7
2030		426.4		325.2		426.4
2031		429.5		326.6		429.5
2032		424.3		329.2		424.3
2033		436.6		330.5		436.6
2034		440.8		332.6		440.8
2035		445.1		334.9		445.1
2036		449.7		338.6		449.7
2037		444.8		340.2		444.8
2038		458.6		342.8		458.6
2039		463.8		345.9		463.8
2040		469.0		349.2		469.0

'15-'20	-100.0%	-2.7%	2.6%	-5.6%	-1.8%	-2.7%
'20-'25		1.9%		2.6%		1.9%
'25-'30		0.7%		0.5%		0.7%
'30-'35		0.9%		0.6%		0.9%
'35-'40		1.0%		0.8%		1.0%



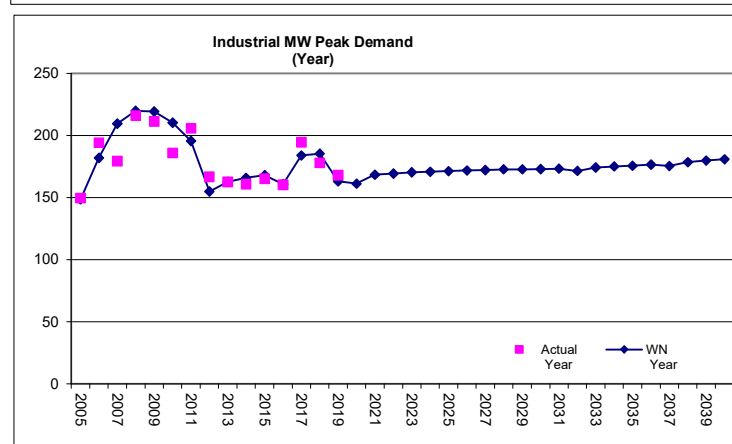
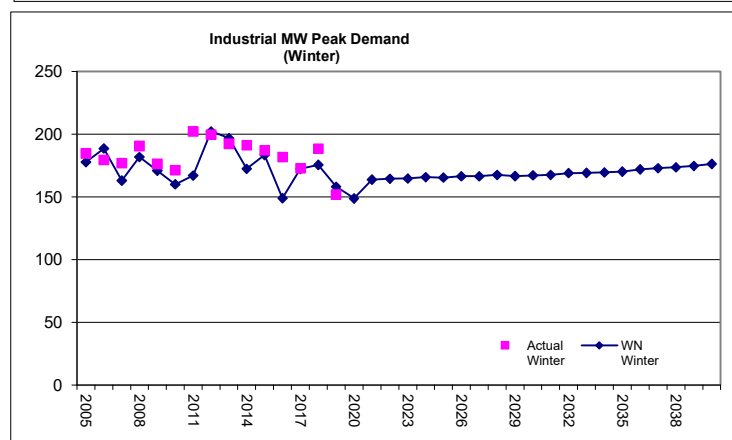
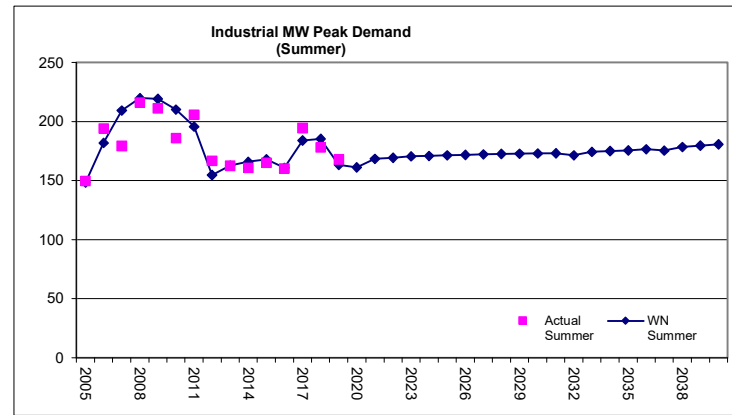
* 2020 Summer peaks are not include since they are projections.
 The peak month occurred after the June 2020 cut off.
 Winter values are include since the peak occurred in January 2020.

** Drop is due to consolidation.

Plot 3B-4 Evergy Missouri West Industrial MW Peak Demand (Actual vs. Weather Normalized)

Year	Actual Summer	WN Summer	Actual Winter	WN Winter	Actual Year	WN Year
2005	149.6	148.5	184.8	177.8	149.6	148.5
2006	194.2	182.0	179.6	188.8	194.2	182.0
2007	179.5	209.5	177.1	163.1	179.5	209.5
2008	216.2	220.0	190.6	181.9	216.2	220.0
2009	211.4	219.4	176.4	171.0	211.4	219.4
2010	186.0	210.3	171.4	160.2	186.0	210.3
2011	205.9	195.7	202.3	167.0	205.9	195.7
2012	166.8	154.8	199.8	202.3	166.8	154.8
2013	162.6	162.7	192.5	196.9	162.6	162.7
2014	160.9	165.9	191.4	172.5	160.9	165.9
2015	165.3	168.1	187.3	183.5	165.3	168.1
2016	160.4	160.9	182.0	149.0	160.4	160.9
2017	194.6	184.0	173.1	172.4	194.6	184.0
2018	178.1	185.4	188.5	175.7	178.1	185.4
2019	168.1	163.3	152.1	158.2	168.1	163.3
2020		161.2		149.0		161.2
2021		168.5		164.0		168.5
2022		169.4		164.6		169.4
2023		170.5		164.9		170.5
2024		170.9		165.9		170.9
2025		171.4		165.4		171.4
2026		171.9		166.5		171.9
2027		172.3		166.6		172.3
2028		172.7		167.6		172.7
2029		172.8		166.8		172.8
2030		173.1		167.2		173.1
2031		173.3		167.6		173.3
2032		171.6		169.1		171.6
2033		174.3		169.2		174.3
2034		175.1		169.7		175.1
2035		175.8		170.3		175.8
2036		176.6		172.1		176.6
2037		175.5		173.0		175.5
2038		178.6		173.7		178.6
2039		179.8		174.7		179.8
2040		180.9		176.3		180.9

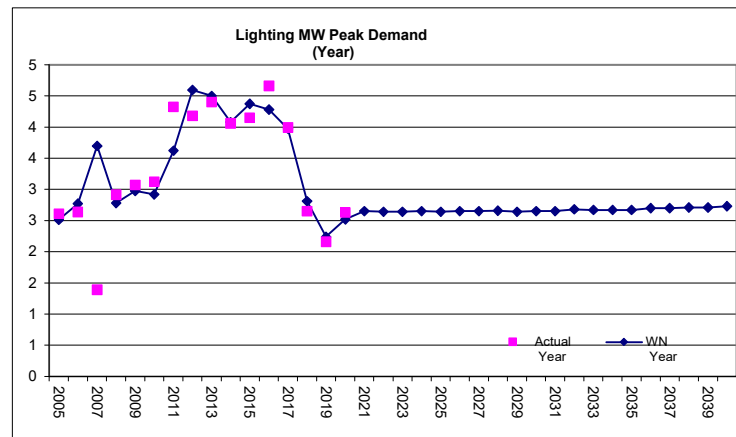
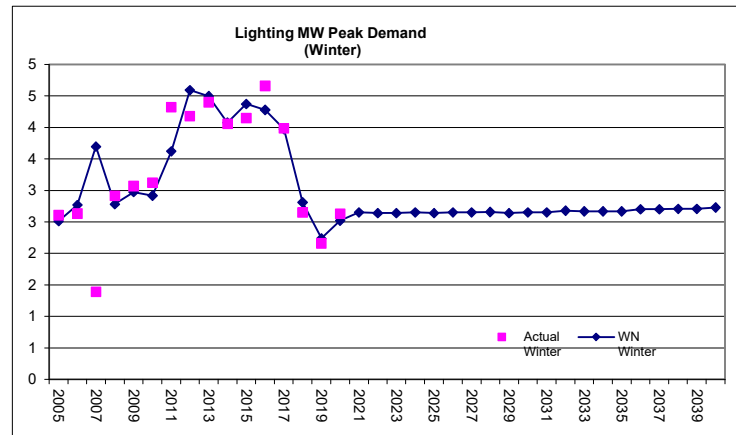
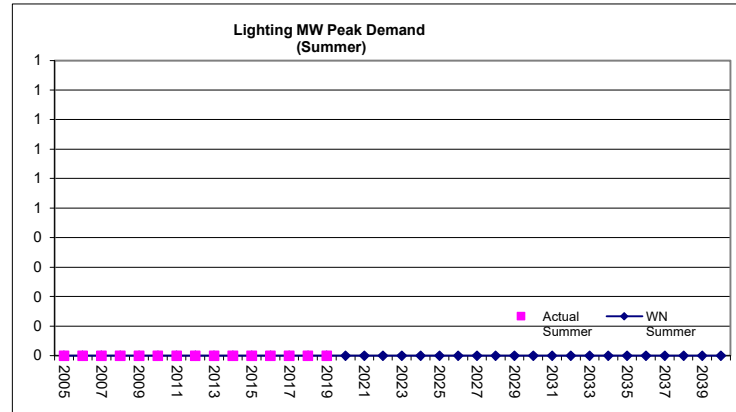
'15-'20	-100.0%	-0.8%	-2.8%	-4.1%	3.1%	-0.8%
'20-'25		1.2%		2.1%		1.2%
'25-'30		0.2%		0.2%		0.2%
'30-'35		0.3%		0.4%		0.3%
'35-'40		0.6%		0.7%		0.6%



Plot 3B-5 Evergy Missouri West Lighting MW Peak Demand (Actual vs. Weather Normalized)

Year	Actual Summer	WN Summer	Actual Winter	WN Winter	Actual Year	WN Year
2005	-	-	2.6	2.5	2.6	2.5
2006	-	-	2.6	2.8	2.6	2.8
2007	-	-	1.4	3.7	1.4	3.7
2008	-	-	2.9	2.8	2.9	2.8
2009	-	-	3.1	3.0	3.1	3.0
2010	-	-	3.1	2.9	3.1	2.9
2011	-	-	4.3	3.6	4.3	3.6
2012	-	-	4.2	4.6	4.2	4.6
2013	-	-	4.4	4.5	4.4	4.5
2014	-	-	4.1	4.1	4.1	4.1
2015	-	-	4.1	4.4	4.1	4.4
2016	-	-	4.7	4.3	4.7	4.3
2017	-	-	4.0	4.0	4.0	4.0
2018	-	-	2.7	2.8	2.7	2.8
2019	-	-	2.2	2.2	2.2	2.2
2020	-	-	2.6	2.5	2.6	2.5
2021	-	-	-	2.7	-	2.7
2022	-	-	-	2.6	-	2.6
2023	-	-	-	2.6	-	2.6
2024	-	-	-	2.7	-	2.7
2025	-	-	-	2.6	-	2.6
2026	-	-	-	2.6	-	2.6
2027	-	-	-	2.7	-	2.7
2028	-	-	-	2.7	-	2.7
2029	-	-	-	2.6	-	2.6
2030	-	-	-	2.7	-	2.7
2031	-	-	-	2.6	-	2.6
2032	-	-	-	2.7	-	2.7
2033	-	-	-	2.7	-	2.7
2034	-	-	-	2.7	-	2.7
2035	-	-	-	2.7	-	2.7
2036	-	-	-	2.7	-	2.7
2037	-	-	-	2.7	-	2.7
2038	-	-	-	2.7	-	2.7
2039	-	-	-	2.7	-	2.7
2040	-	-	-	2.7	-	2.7

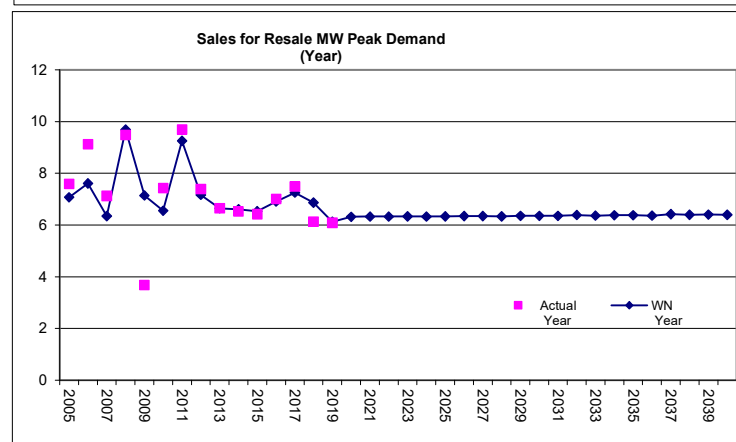
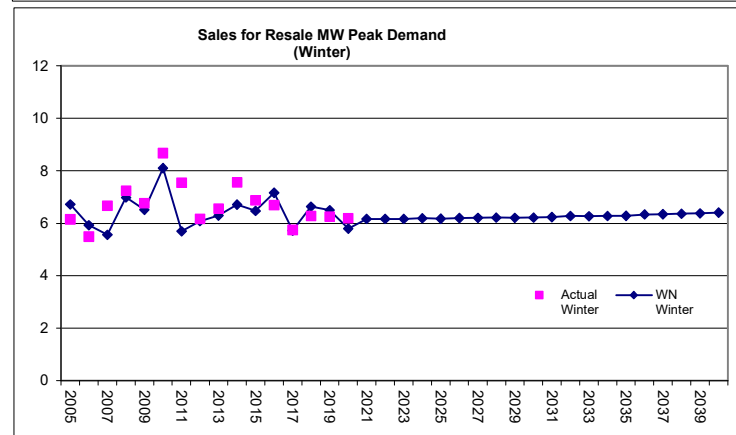
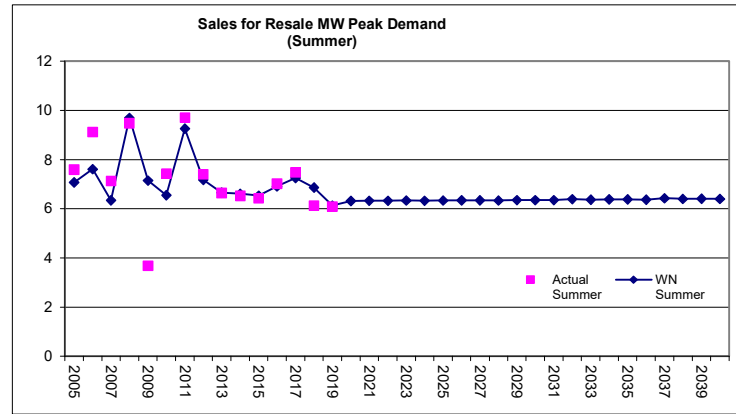
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'20-'25		#DIV/0!		0.9%		0.9%
'25-'30		#DIV/0!		0.1%		0.1%
'30-'35		#DIV/0!		0.2%		0.2%
'35-'40		#DIV/0!		0.4%		0.4%



Plot 3B-6 Evergy Missouri West Sales for Resale MW Peak Demand (Actual vs. Weather Normalized)

Year	Actual Summer	WN Summer	Actual Winter	WN Winter	Actual Year	WN Year
2005	7.6	7.1	6.2	6.7	7.6	7.1
2006	9.1	7.6	5.5	5.9	9.1	7.6
2007	7.1	6.3	6.7	5.6	7.1	6.3
2008	9.5	9.7	7.2	7.0	9.5	9.7
2009	3.7	7.1	6.8	6.5	3.7	7.1
2010	7.4	6.6	8.7	8.1	7.4	6.6
2011	9.7	9.3	7.6	5.7	9.7	9.3
2012	7.4	7.2	6.2	6.1	7.4	7.2
2013	6.7	6.7	6.6	6.3	6.7	6.7
2014	6.5	6.6	7.6	6.7	6.5	6.6
2015	6.4	6.5	6.9	6.5	6.4	6.5
2016	7.0	6.9	6.7	7.2	7.0	6.9
2017	7.5	7.3	5.7	5.7	7.5	7.3
2018	6.1	6.9	6.3	6.6	6.1	6.9
2019	6.1	6.1	6.2	6.5	6.1	6.1
2020		6.3	6.2	5.8	6.3	6.3
2021		6.3		6.2	6.3	6.3
2022		6.3		6.2	6.3	6.3
2023		6.3		6.2	6.3	6.3
2024		6.3		6.2	6.3	6.3
2025		6.3		6.2	6.3	6.3
2026		6.3		6.2	6.3	6.3
2027		6.4		6.2	6.4	6.4
2028		6.3		6.2	6.3	6.3
2029		6.4		6.2	6.4	6.4
2030		6.4		6.2	6.4	6.4
2031		6.4		6.2	6.4	6.4
2032		6.4		6.3	6.4	6.4
2033		6.4		6.3	6.4	6.4
2034		6.4		6.3	6.4	6.4
2035		6.4		6.3	6.4	6.4
2036		6.4		6.3	6.4	6.4
2037		6.4		6.3	6.4	6.4
2038		6.4		6.4	6.4	6.4
2039		6.4		6.4	6.4	6.4
2040		6.4		6.4	6.4	6.4

'15-'20	-100.0%	-0.7%	-1.4%	-2.2%	0.2%	-0.7%
'20-'25		0.1%		1.3%		0.1%
'25-'30		0.1%		0.1%		0.1%
'30-'35		0.1%		0.2%		0.1%
'35-'40		0.1%		0.4%		0.1%



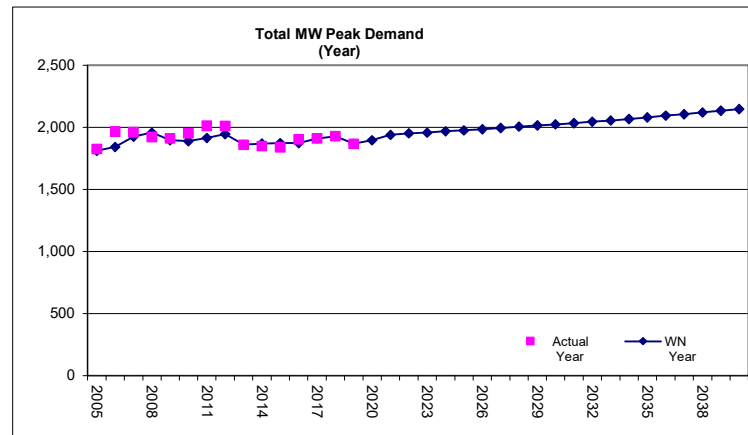
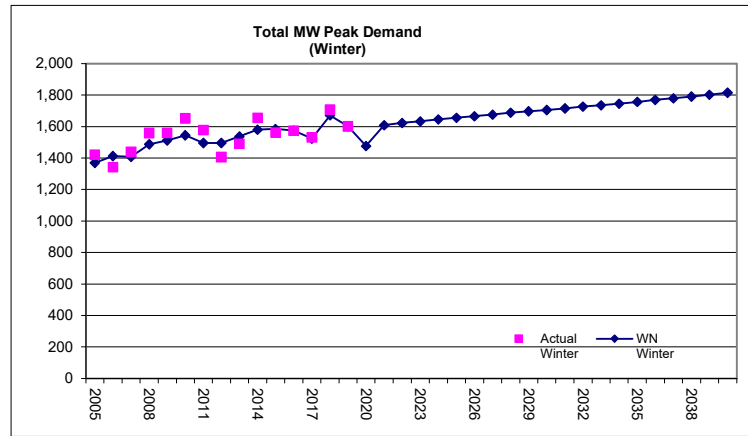
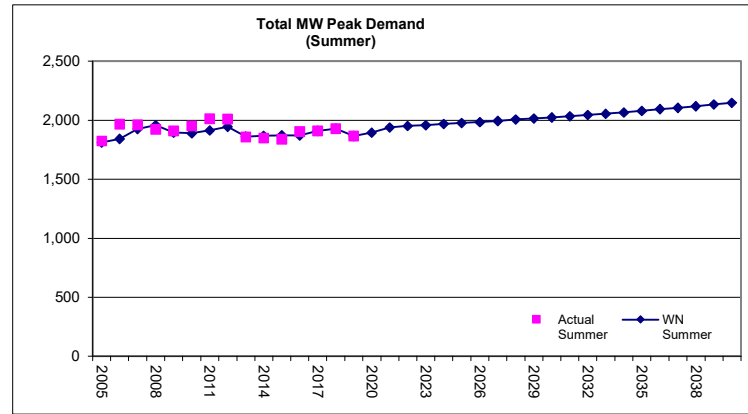
* 2020 Summer peaks are not include since they are projections.
 The peak month occurred after the June 2020 cut off.
 Winter values are include since the peak occurred in January 2020.

Plot 3B-7 Everggy Missouri West Total System MW Peak Demand (Actual vs. Weather Normalized)

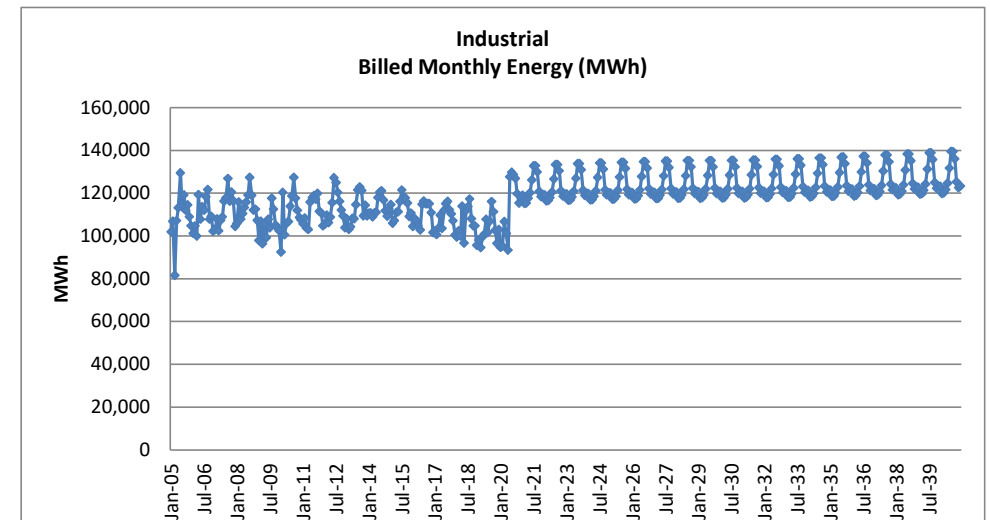
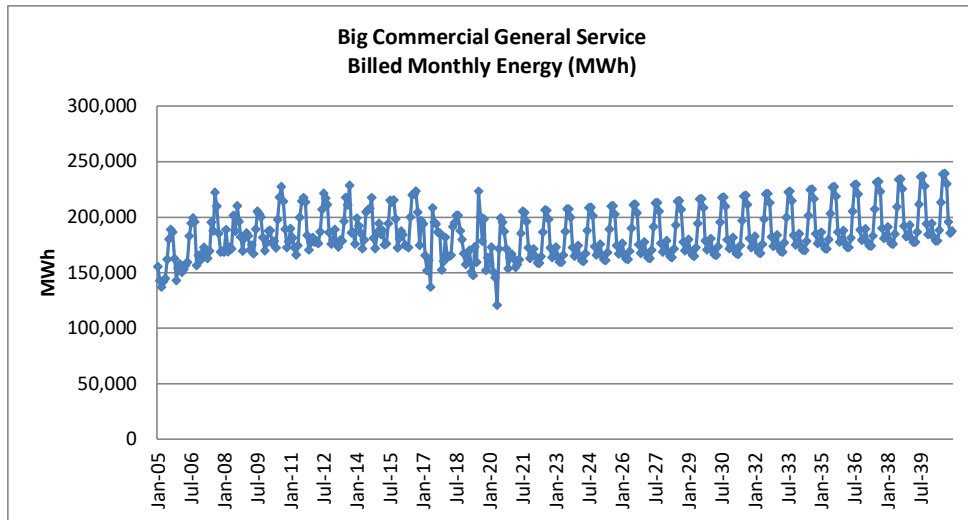
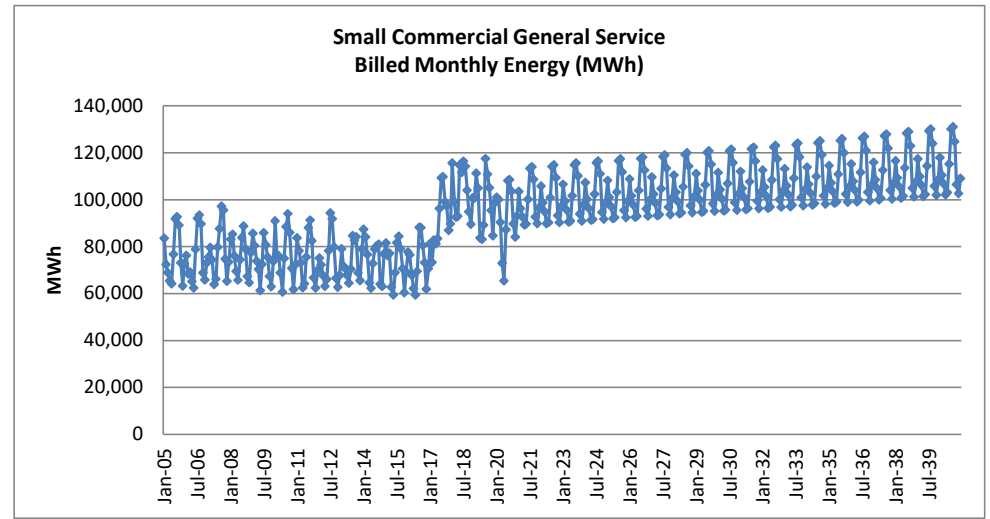
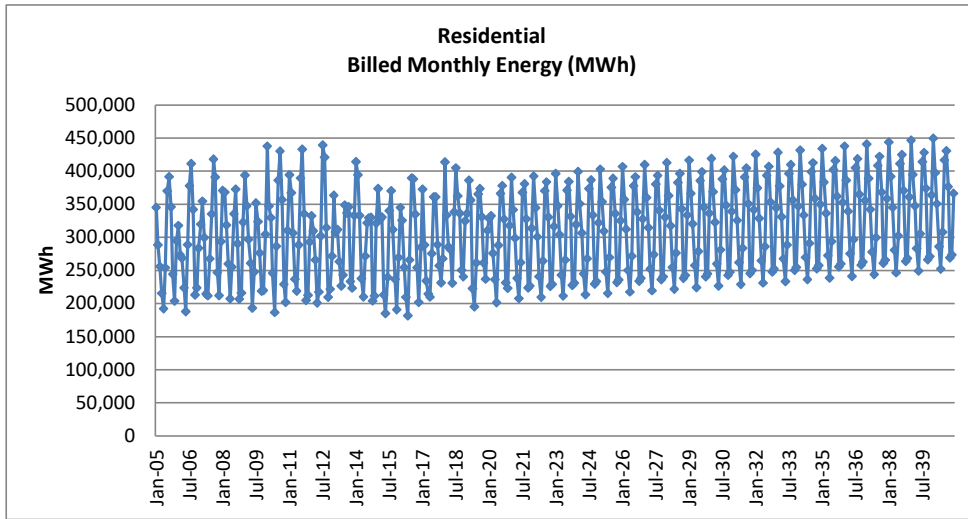
Year	Actual Summer	WN Summer	Actual Winter	WN Winter	Actual Year	WN Year
2005	1,826.0	1,812.0	1,422.0	1,369.0	1,826.0	1,812.0
2006	1,967.0	1,842.0	1,343.0	1,412.0	1,967.0	1,842.0
2007	1,961.0	1,926.0	1,439.0	1,408.0	1,961.0	1,926.0
2008	1,924.0	1,958.0	1,558.0	1,487.0	1,924.0	1,958.0
2009	1,911.0	1,896.0	1,560.0	1,512.0	1,911.0	1,896.0
2010	1,953.0	1,890.0	1,653.0	1,545.0	1,953.0	1,890.0
2011	2,013.0	1,914.0	1,578.0	1,496.0	2,013.0	1,914.0
2012	2,011.0	1,944.6	1,407.0	1,496.5	2,011.0	1,944.6
2013	1,860.0	1,861.2	1,491.0	1,537.4	1,860.0	1,861.2
2014	1,849.0	1,869.6	1,655.0	1,580.6	1,849.0	1,869.6
2015	1,841.0	1,873.1	1,562.0	1,584.7	1,841.0	1,873.1
2016	1,904.0	1,872.5	1,575.0	1,574.6	1,904.0	1,872.5
2017	1,910.0	1,910.0	1,531.0	1,525.0	1,910.0	1,910.0
2018	1,928.9	1,929.0	1,708.5	1,671.0	1,928.9	1,929.0
2019	1,867.9	1,867.9	1,601.0	1,601.0	1,867.9	1,867.9
2020		1,896.0		1,476.0		1,896.0
2021		1,938.9		1,608.5		1,938.9
2022		1,951.5		1,622.3		1,951.5
2023		1,958.5		1,633.0		1,958.5
2024		1,968.7		1,645.2		1,968.7
2025		1,976.4		1,654.9		1,976.4
2026		1,985.4		1,665.3		1,985.4
2027		1,995.0		1,675.4		1,995.0
2028		2,006.7		1,687.5		2,006.7
2029		2,015.5		1,696.4		2,015.5
2030		2,024.3		1,705.2		2,024.3
2031		2,033.9		1,714.6		2,033.9
2032		2,045.7		1,725.9		2,045.7
2033		2,055.4		1,734.7		2,055.4
2034		2,067.1		1,744.8		2,067.1
2035		2,079.7		1,755.9		2,079.7
2036		2,094.2		1,769.0		2,094.2
2037		2,106.4		1,778.9		2,106.4
2038		2,120.1		1,790.4		2,120.1
2039		2,133.9		1,801.8		2,133.9
2040		2,147.5		1,814.1		2,147.5

'15-'20	-100.0%	0.2%	1.7%	-1.4%	-1.0%	0.2%
'20-'25		0.8%		2.3%		0.8%
'25-'30		0.5%		0.6%		0.5%
'30-'35		0.5%		0.6%		0.5%
'35-'40		0.6%		0.7%		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.



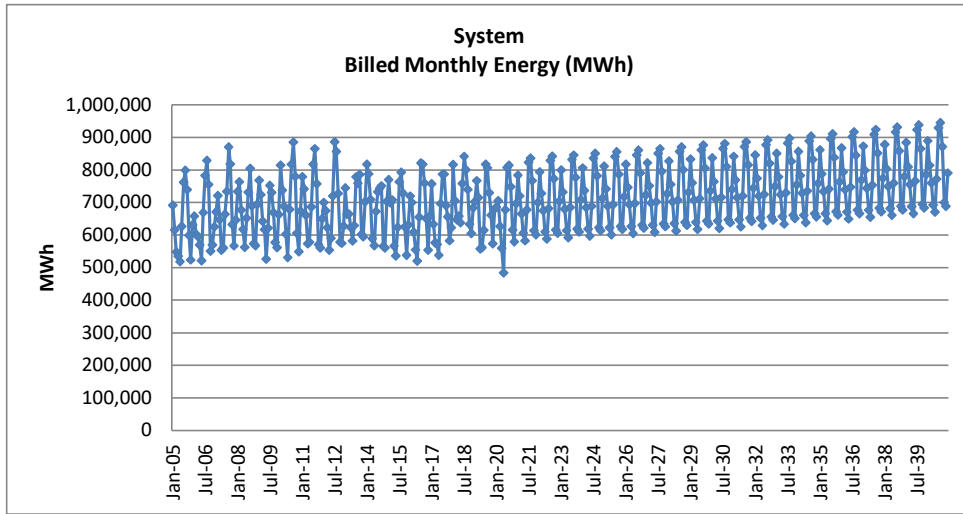
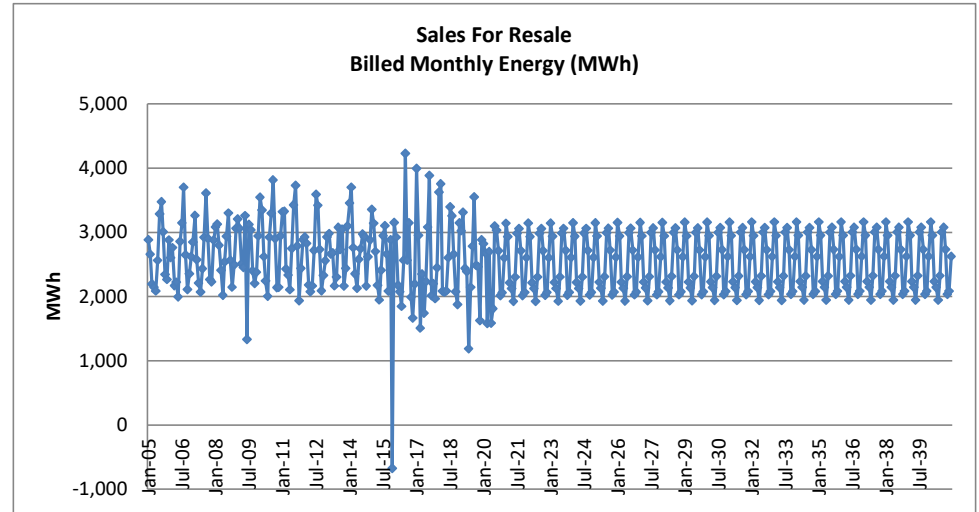
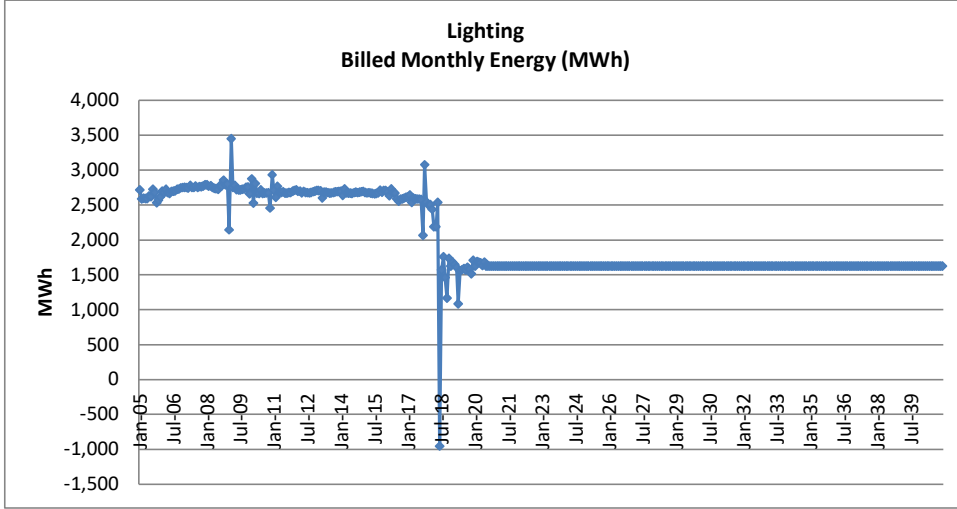
Plot 3B-8 Evergy Missouri West Energy Plots



****Jump in Small commercial and decline in Big Commercial is due to consolidation and rate switchers that occurred in 2017.**

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

Plot 3B-9 MPS Energy Plots



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