

**Part 1 - Appendix 3D
Evergy Missouri West 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-9 for base-case Evergy Missouri West 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.

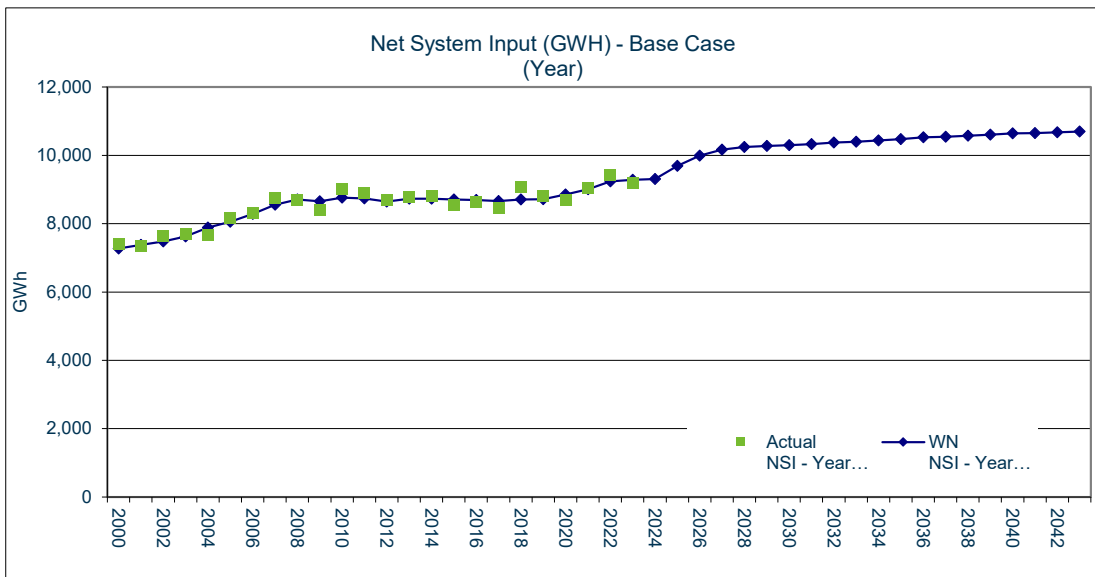
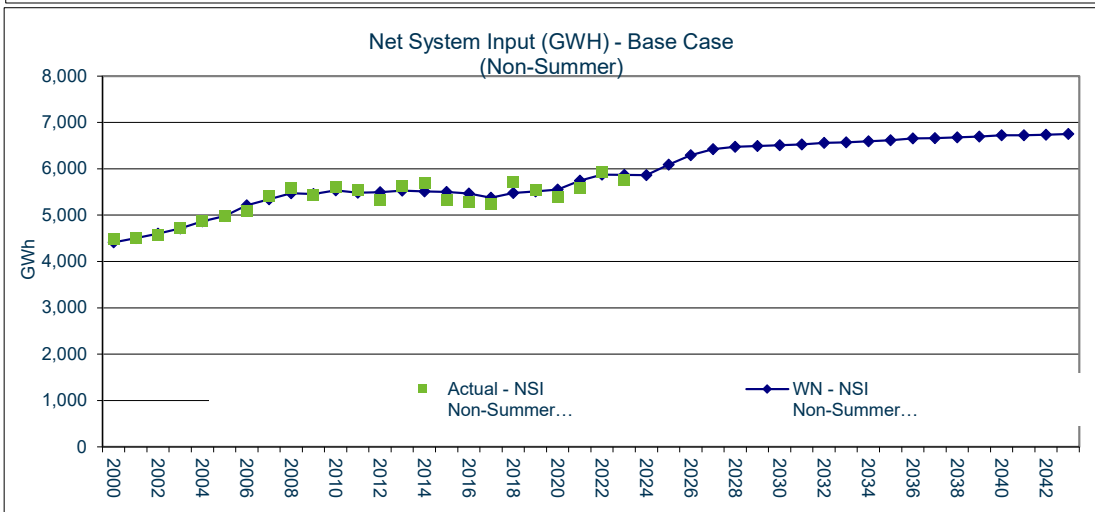
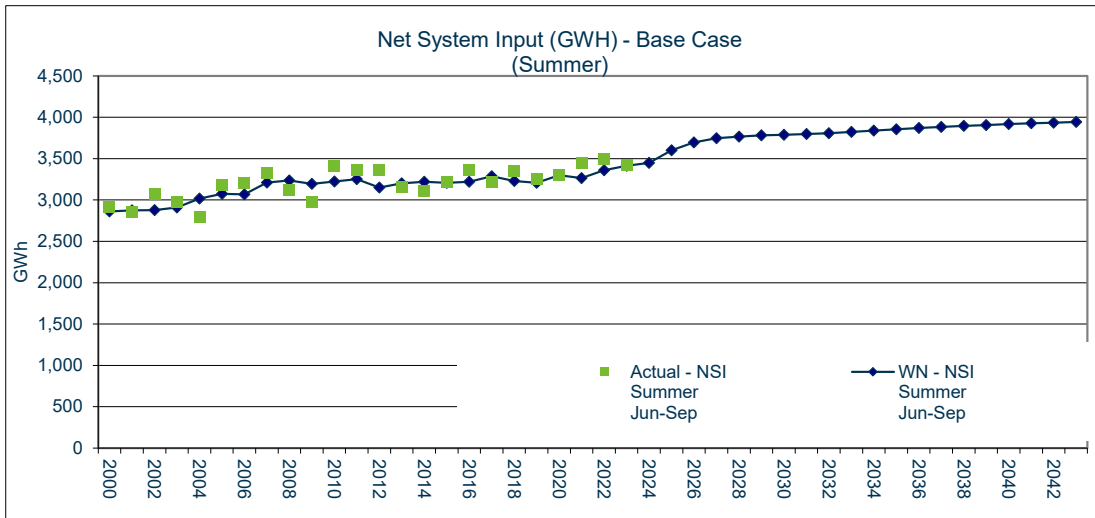
Linked Files:

IRP_8C_West_NSI_Peak.xls
West Base System_Datalyzer.xls
West Low System_Datalyzer.xls
West High System_Datalyzer.xls

**Plot 3D-1 Evergy Missouri West 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	2,917.1	2,861.7	4,494.8	4,412.4	7,412.0	7,274.1
2001	2,856.5	2,873.7	4,497.5	4,506.8	7,354.0	7,380.5
2002	3,075.9	2,878.2	4,569.0	4,599.8	7,644.9	7,477.9
2003	2,973.5	2,910.5	4,726.1	4,716.6	7,699.5	7,627.1
2004	2,788.1	3,017.7	4,868.6	4,869.4	7,656.7	7,887.1
2005	3,183.9	3,073.0	4,989.6	4,981.7	8,173.5	8,054.7
2006	3,209.2	3,068.9	5,091.1	5,213.6	8,300.2	8,282.6
2007	3,331.3	3,211.7	5,420.3	5,343.4	8,751.6	8,555.1
2008	3,116.5	3,235.9	5,578.1	5,471.9	8,694.7	8,707.7
2009	2,980.4	3,196.4	5,427.9	5,454.6	8,408.3	8,651.0
2010	3,412.0	3,224.9	5,602.6	5,533.3	9,014.5	8,758.2
2011	3,364.3	3,252.4	5,533.3	5,482.6	8,897.6	8,735.0
2012	3,364.3	3,150.3	5,338.7	5,494.9	8,703.0	8,645.2
2013	3,159.9	3,200.2	5,628.4	5,529.0	8,788.3	8,729.2
2014	3,103.4	3,219.4	5,693.4	5,513.0	8,796.8	8,732.5
2015	3,214.2	3,208.7	5,338.2	5,502.0	8,552.4	8,710.6
2016	3,359.5	3,220.6	5,279.4	5,469.4	8,638.8	8,690.1
2017	3,215.7	3,287.2	5,239.5	5,375.3	8,455.3	8,662.6
2018	3,353.1	3,230.3	5,711.9	5,478.7	9,065.1	8,709.0
2019	3,253.5	3,207.8	5,551.0	5,510.9	8,804.6	8,718.7
2020	3,300.3	3,300.8	5,390.2	5,553.5	8,690.5	8,854.3
2021	3,442.4	3,265.1	5,589.0	5,742.5	9,031.4	9,007.6
2022	3,496.4	3,360.9	5,936.7	5,873.6	9,433.1	9,234.5
2023	3,420.2	3,413.2	5,769.3	5,867.1	9,189.4	9,280.4
2024		3,448.5		5,861.0		9,309.6
2025		3,602.4		6,090.7		9,693.1
2026		3,695.9		6,293.2		9,989.1
2027		3,745.8		6,422.4		10,168.3
2028		3,765.1		6,475.5		10,240.6
2029		3,780.8		6,491.9		10,272.7
2030		3,790.0		6,511.0		10,300.9
2031		3,799.0		6,528.3		10,327.3
2032		3,808.7		6,561.7		10,370.4
2033		3,824.6		6,569.3		10,393.9
2034		3,839.7		6,592.7		10,432.4
2035		3,854.9		6,617.0		10,471.9
2036		3,869.9		6,655.9		10,525.7
2037		3,883.6		6,661.3		10,544.9
2038		3,896.6		6,680.0		10,576.6
2039		3,907.0		6,694.3		10,601.3
2040		3,918.1		6,726.3		10,644.4
2041		3,926.8		6,723.9		10,650.7
2042		3,935.0		6,736.3		10,671.2
2043		3,944.3		6,751.1		10,695.3
'00-'13	0.6%	0.9%	1.7%	1.8%	1.3%	1.4%
'13-'23	0.8%	0.6%	0.2%	0.6%	0.4%	0.6%
'23-'33		1.1%		1.1%		1.1%
'23-'43		0.7%		0.7%		0.7%

Note: Energy MWH (NSI) Includes annual system losses

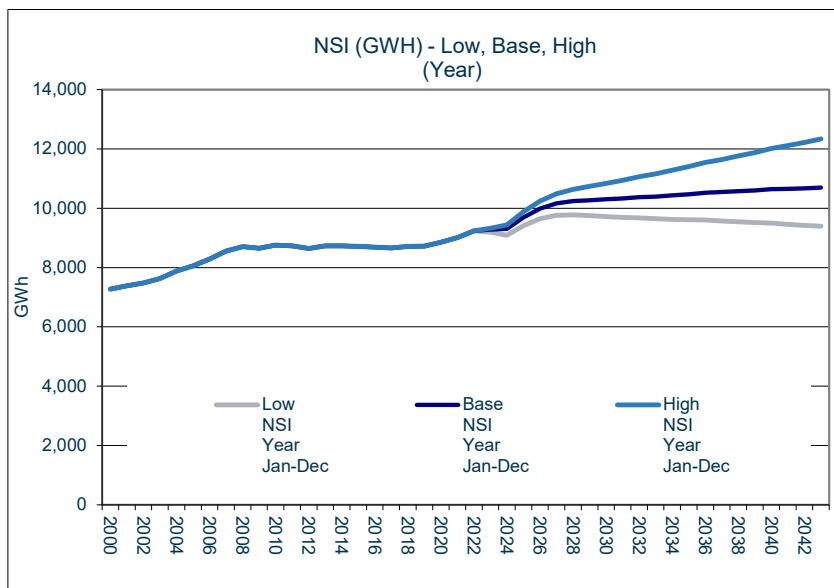
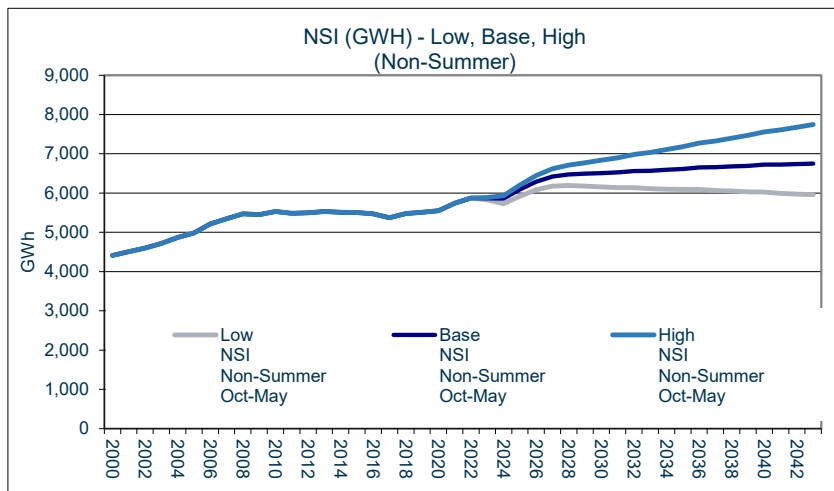
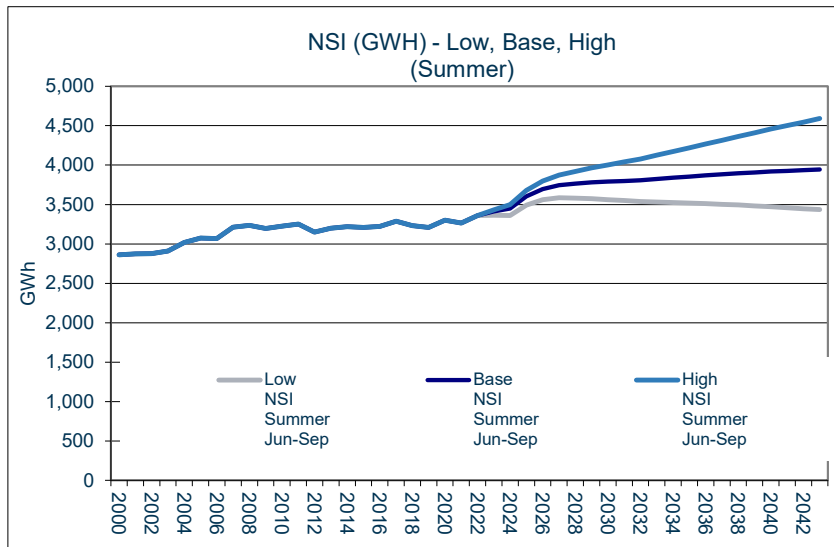


**Plot 3D-2 Evergy Missouri West Energy Forecast (GWH): Net System Input (NSI)
(Low Case, Base Case, High Case)**

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 Jan-Dec	Year Jan-Dec	Year Jan-Dec
2000	2,861.7	2,861.7	2,861.7	4,412.4	4,412.4	4,412.4	7,274.1	7,274.1	7,274.1
2001	2,873.7	2,873.7	2,873.7	4,506.8	4,506.8	4,506.8	7,380.5	7,380.5	7,380.5
2002	2,878.2	2,878.2	2,878.2	4,599.8	4,599.8	4,599.8	7,477.9	7,477.9	7,477.9
2003	2,910.5	2,910.5	2,910.5	4,716.6	4,716.6	4,716.6	7,627.1	7,627.1	7,627.1
2004	3,017.7	3,017.7	3,017.7	4,869.4	4,869.4	4,869.4	7,887.1	7,887.1	7,887.1
2005	3,073.0	3,073.0	3,073.0	4,981.7	4,981.7	4,981.7	8,054.7	8,054.7	8,054.7
2006	3,068.9	3,068.9	3,068.9	5,213.6	5,213.6	5,213.6	8,282.6	8,282.6	8,282.6
2007	3,211.7	3,211.7	3,211.7	5,343.4	5,343.4	5,343.4	8,555.1	8,555.1	8,555.1
2008	3,235.9	3,235.9	3,235.9	5,471.9	5,471.9	5,471.9	8,707.7	8,707.7	8,707.7
2009	3,196.4	3,196.4	3,196.4	5,454.6	5,454.6	5,454.6	8,651.0	8,651.0	8,651.0
2010	3,224.9	3,224.9	3,224.9	5,533.3	5,533.3	5,533.3	8,758.2	8,758.2	8,758.2
2011	3,252.4	3,252.4	3,252.4	5,482.6	5,482.6	5,482.6	8,735.0	8,735.0	8,735.0
2012	3,150.3	3,150.3	3,150.3	5,494.9	5,494.9	5,494.9	8,645.2	8,645.2	8,645.2
2013	3,200.2	3,200.2	3,200.2	5,529.0	5,529.0	5,529.0	8,729.2	8,729.2	8,729.2
2014	3,219.4	3,219.4	3,219.4	5,513.0	5,513.0	5,513.0	8,732.5	8,732.5	8,732.5
2015	3,208.7	3,208.7	3,208.7	5,502.0	5,502.0	5,502.0	8,710.6	8,710.6	8,710.6
2016	3,220.6	3,220.6	3,220.6	5,469.4	5,469.4	5,469.4	8,690.1	8,690.1	8,690.1
2017	3,287.2	3,287.2	3,287.2	5,375.3	5,375.3	5,375.3	8,662.6	8,662.6	8,662.6
2018	3,230.3	3,230.3	3,230.3	5,478.7	5,478.7	5,478.7	8,709.0	8,709.0	8,709.0
2019	3,207.8	3,207.8	3,207.8	5,510.9	5,510.9	5,510.9	8,718.7	8,718.7	8,718.7
2020	3,300.8	3,300.8	3,300.8	5,553.5	5,553.5	5,553.5	8,854.3	8,854.3	8,854.3
2021	3,265.1	3,265.1	3,265.1	5,742.5	5,742.5	5,742.5	9,007.6	9,007.6	9,007.6
2022	3,360.9	3,360.9	3,360.9	5,873.6	5,873.6	5,873.6	9,234.5	9,234.5	9,234.5
2023	3,364.5	3,413.2	3,433.8	5,826.9	5,867.1	5,887.3	9,191.4	9,280.4	9,321.1
2024	3,361.3	3,448.5	3,499.8	5,731.8	5,861.0	5,936.4	9,093.2	9,309.6	9,436.2
2025	3,490.5	3,602.4	3,677.9	5,923.1	6,090.7	6,204.4	9,413.6	9,693.1	9,882.3
2026	3,559.5	3,695.9	3,796.6	6,087.0	6,293.2	6,446.6	9,646.5	9,989.1	10,243.3
2027	3,585.8	3,745.8	3,873.3	6,178.5	6,422.4	6,617.8	9,764.3	10,168.3	10,491.1
2028	3,582.0	3,765.1	3,920.3	6,193.8	6,475.5	6,715.0	9,775.9	10,240.6	10,635.3
2029	3,575.2	3,780.8	3,964.1	6,174.9	6,491.9	6,774.9	9,750.0	10,272.7	10,739.0
2030	3,562.3	3,790.0	4,001.6	6,158.8	6,511.0	6,838.3	9,721.1	10,300.9	10,839.9
2031	3,549.7	3,799.0	4,039.5	6,141.4	6,528.3	6,900.8	9,691.1	10,327.3	10,940.3
2032	3,537.8	3,808.7	4,078.8	6,139.1	6,561.7	6,981.6	9,676.9	10,370.4	11,060.4
2033	3,531.6	3,824.6	4,125.5	6,113.2	6,569.3	7,035.4	9,644.8	10,393.9	11,160.9
2034	3,524.7	3,839.7	4,172.0	6,101.8	6,592.7	7,107.3	9,626.4	10,432.4	11,279.3
2035	3,517.9	3,854.9	4,219.6	6,091.2	6,617.0	7,181.4	9,609.1	10,471.9	11,400.9
2036	3,510.7	3,869.9	4,267.7	6,093.5	6,655.9	7,273.0	9,604.2	10,525.7	11,540.7
2037	3,502.5	3,883.6	4,315.6	6,066.2	6,661.3	7,328.8	9,568.7	10,544.9	11,644.4
2038	3,493.5	3,896.6	4,363.5	6,050.8	6,680.0	7,400.8	9,544.3	10,576.6	11,764.3
2039	3,482.4	3,907.0	4,409.4	6,031.4	6,694.3	7,468.9	9,513.8	10,601.3	11,878.3
2040	3,471.6	3,918.1	4,457.2	6,027.4	6,726.3	7,559.0	9,499.0	10,644.4	12,016.2
2041	3,459.5	3,926.8	4,502.0	5,994.4	6,723.9	7,609.0	9,453.9	10,650.7	12,110.9
2042	3,447.3	3,935.0	4,545.8	5,975.1	6,736.3	7,675.5	9,422.5	10,671.2	12,221.3
2043	3,436.2	3,944.3	4,591.7	5,958.0	6,751.1	7,745.8	9,394.1	10,695.3	12,337.5

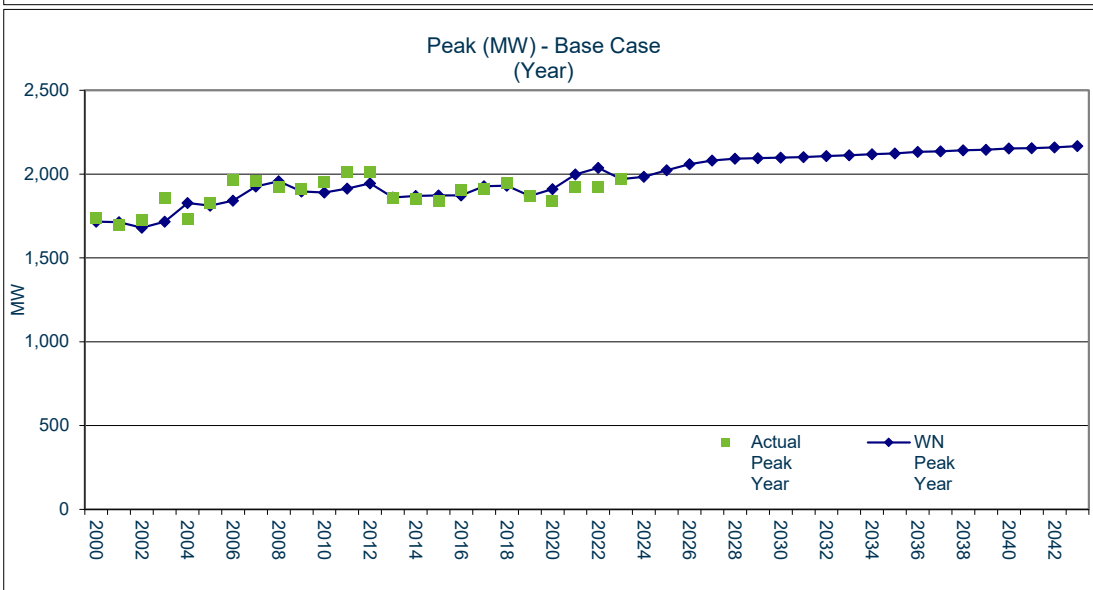
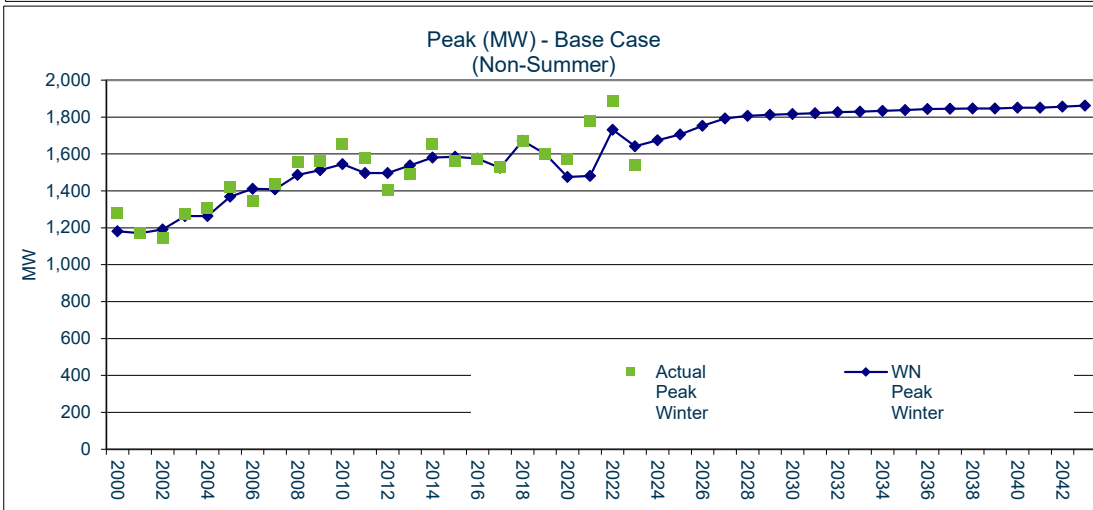
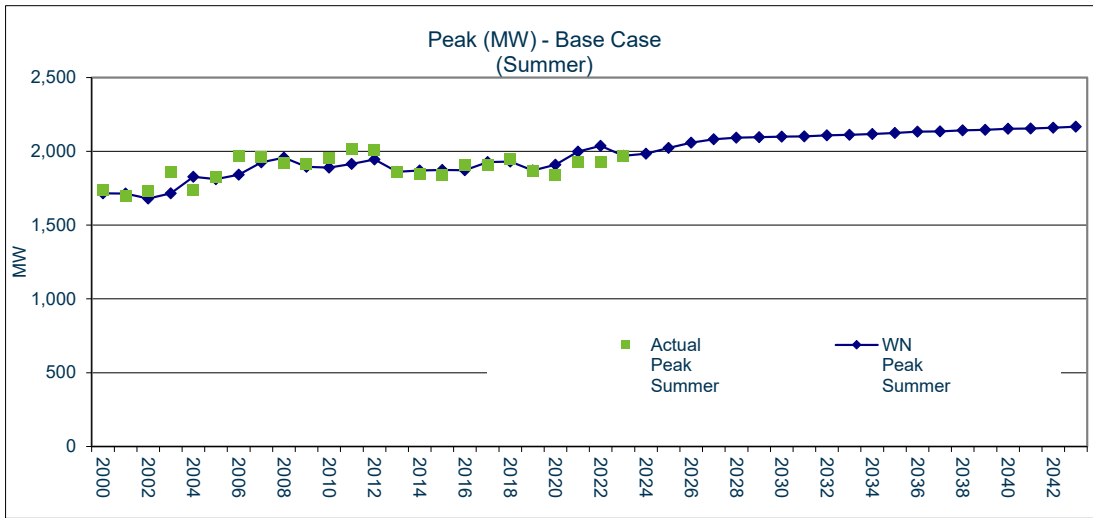
'00-'13	0.9%	0.9%	0.9%	1.8%	1.8%	1.8%	1.4%	1.4%	1.4%
'13-'23	0.5%	0.6%	0.7%	0.5%	0.6%	0.6%	0.5%	0.6%	0.7%
'23-'33	0.5%	1.1%	1.9%	0.5%	1.1%	1.8%	0.5%	1.1%	1.8%
'23-'43	0.1%	0.7%	1.5%	0.1%	0.7%	1.4%	0.1%	0.7%	1.4%

Note: Energy MWH (NSI) Includes annual system losses



**Plot 3D-3 Evergy Missouri West Energy 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	1,738	1,716	1,277	1,181	1,738	1,716
2001	1,698	1,713	1,173	1,171	1,698	1,713
2002	1,729	1,680	1,144	1,191	1,729	1,680
2003	1,861	1,716	1,272	1,263	1,861	1,716
2004	1,735	1,828	1,307	1,263	1,735	1,828
2005	1,826	1,812	1,422	1,369	1,826	1,812
2006	1,967	1,842	1,343	1,412	1,967	1,842
2007	1,961	1,926	1,439	1,408	1,961	1,926
2008	1,924	1,958	1,558	1,487	1,924	1,958
2009	1,911	1,896	1,560	1,512	1,911	1,896
2010	1,953	1,890	1,653	1,545	1,953	1,890
2011	2,013	1,914	1,578	1,496	2,013	1,914
2012	2,011	1,945	1,407	1,496	2,011	1,945
2013	1,860	1,861	1,491	1,537	1,860	1,861
2014	1,849	1,870	1,655	1,581	1,849	1,870
2015	1,841	1,873	1,562	1,585	1,841	1,873
2016	1,904	1,873	1,575	1,575	1,904	1,873
2017	1,910	1,927	1,531	1,525	1,910	1,927
2018	1,950	1,931	1,671	1,671	1,950	1,931
2019	1,868	1,869	1,601	1,601	1,868	1,869
2020	1,838	1,910	1,571	1,476	1,838	1,910
2021	1,925	1,998	1,779	1,481	1,925	1,998
2022	1,925	2,038	1,889	1,732	1,925	2,038
2023	1,970	1,970	1,540	1,642	1,970	1,970
2024		1,984		1,675		1,984
2025		2,023		1,705		2,023
2026		2,059		1,753		2,059
2027		2,081		1,792		2,081
2028		2,092		1,806		2,092
2029		2,096		1,812		2,096
2030		2,099		1,816		2,099
2031		2,102		1,821		2,102
2032		2,108		1,827		2,108
2033		2,112		1,829		2,112
2034		2,118		1,834		2,118
2035		2,124		1,838		2,124
2036		2,133		1,844		2,133
2037		2,136		1,845		2,136
2038		2,142		1,847		2,142
2039		2,145		1,847		2,145
2040		2,153		1,851		2,153
2041		2,155		1,851		2,155
2042		2,160		1,857		2,160
2043		2,167		1,862		2,167
'00-'13	0.5%	0.6%	1.2%	2.0%	0.5%	0.6%
'13-'23	0.6%	0.6%	0.3%	0.7%	0.6%	0.6%
'23-'33		0.7%		1.1%		0.7%
'23-'43		0.5%		0.6%		0.5%



Plot 3D-10 Evergy Missouri West Energy Peak Forecast (MW)
(Low Case, Base Case, High Cast)

Year	Low Peak	Base Peak	High Peak	Low Peak	Base Peak	High Peak	Low NSI	Base NSI	High NSI
	Summer	Summer	Summer	Winter	Winter	Winter	Year	Year	Year
2000	1,716	1,716	1,716	1,181	1,181	1,181	1,716	1,716	1,716
2001	1,713	1,713	1,713	1,171	1,171	1,171	1,713	1,713	1,713
2002	1,680	1,680	1,680	1,191	1,191	1,191	1,680	1,680	1,680
2003	1,716	1,716	1,716	1,263	1,263	1,263	1,716	1,716	1,716
2004	1,828	1,828	1,828	1,263	1,263	1,263	1,828	1,828	1,828
2005	1,812	1,812	1,812	1,369	1,369	1,369	1,812	1,812	1,812
2006	1,842	1,842	1,842	1,412	1,412	1,412	1,842	1,842	1,842
2007	1,926	1,926	1,926	1,408	1,408	1,408	1,926	1,926	1,926
2008	1,958	1,958	1,958	1,487	1,487	1,487	1,958	1,958	1,958
2009	1,896	1,896	1,896	1,512	1,512	1,512	1,896	1,896	1,896
2010	1,890	1,890	1,890	1,545	1,545	1,545	1,890	1,890	1,890
2011	1,914	1,914	1,914	1,496	1,496	1,496	1,914	1,914	1,914
2012	1,945	1,945	1,945	1,496	1,496	1,496	1,945	1,945	1,945
2013	1,861	1,861	1,861	1,537	1,537	1,537	1,861	1,861	1,861
2014	1,870	1,870	1,870	1,581	1,581	1,581	1,870	1,870	1,870
2015	1,873	1,873	1,873	1,585	1,585	1,585	1,873	1,873	1,873
2016	1,873	1,873	1,873	1,575	1,575	1,575	1,873	1,873	1,873
2017	1,927	1,927	1,927	1,525	1,525	1,525	1,927	1,927	1,927
2018	1,931	1,931	1,931	1,671	1,671	1,671	1,931	1,931	1,931
2019	1,869	1,869	1,869	1,601	1,601	1,601	1,869	1,869	1,869
2020	1,910	1,910	1,910	1,476	1,476	1,476	1,910	1,910	1,910
2021	1,998	1,998	1,998	1,481	1,481	1,481	1,998	1,998	1,998
2022	2,038	2,038	2,038	1,732	1,732	1,732	2,038	2,038	2,038
2023	1,950	1,970	1,965	1,642	1,642	1,642	1,950	1,970	1,965
2024	1,942	1,984	1,986	1,583	1,675	1,688	1,942	1,984	1,986
2025	1,969	2,023	2,028	1,583	1,705	1,722	1,969	2,023	2,028
2026	1,994	2,059	2,069	1,584	1,753	1,775	1,994	2,059	2,069
2027	2,006	2,081	2,096	1,584	1,792	1,819	2,006	2,081	2,096
2028	2,006	2,092	2,113	1,586	1,806	1,839	2,006	2,092	2,113
2029	2,000	2,096	2,123	1,585	1,812	1,850	2,000	2,096	2,123
2030	1,993	2,099	2,132	1,584	1,816	1,860	1,993	2,099	2,132
2031	1,986	2,102	2,141	1,584	1,821	1,870	1,986	2,102	2,141
2032	1,983	2,108	2,154	1,586	1,827	1,883	1,983	2,108	2,154
2033	1,976	2,112	2,164	1,585	1,829	1,892	1,976	2,112	2,164
2034	1,973	2,118	2,177	1,585	1,834	1,903	1,973	2,118	2,177
2035	1,969	2,124	2,191	1,587	1,838	1,915	1,969	2,124	2,191
2036	1,968	2,133	2,208	1,590	1,844	1,929	1,968	2,133	2,208
2037	1,964	2,136	2,221	1,590	1,845	1,937	1,964	2,136	2,221
2038	1,960	2,142	2,235	1,592	1,847	1,949	1,960	2,142	2,235
2039	1,956	2,145	2,249	1,593	1,847	1,960	1,956	2,145	2,249
2040	1,956	2,153	2,269	1,593	1,851	1,975	1,956	2,153	2,269
2041	1,949	2,155	2,279	1,593	1,851	1,983	1,949	2,155	2,279
2042	1,945	2,160	2,293	1,593	1,857	1,994	1,945	2,160	2,293
2043	1,942	2,167	2,309	1,593	1,862	2,005	1,942	2,167	2,309
'00-'13	0.6%	0.6%	0.6%	2.0%	2.0%	2.0%	0.6%	0.6%	0.6%
'13-'23	0.5%	0.6%	0.5%	0.7%	0.7%	0.7%	0.5%	0.6%	0.5%
'23-'33	0.1%	0.7%	1.0%	-0.4%	1.1%	1.4%	0.1%	0.7%	1.0%
'23-'43	0.0%	0.5%	0.8%	-0.2%	0.6%	1.0%	0.0%	0.5%	0.8%

