

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.

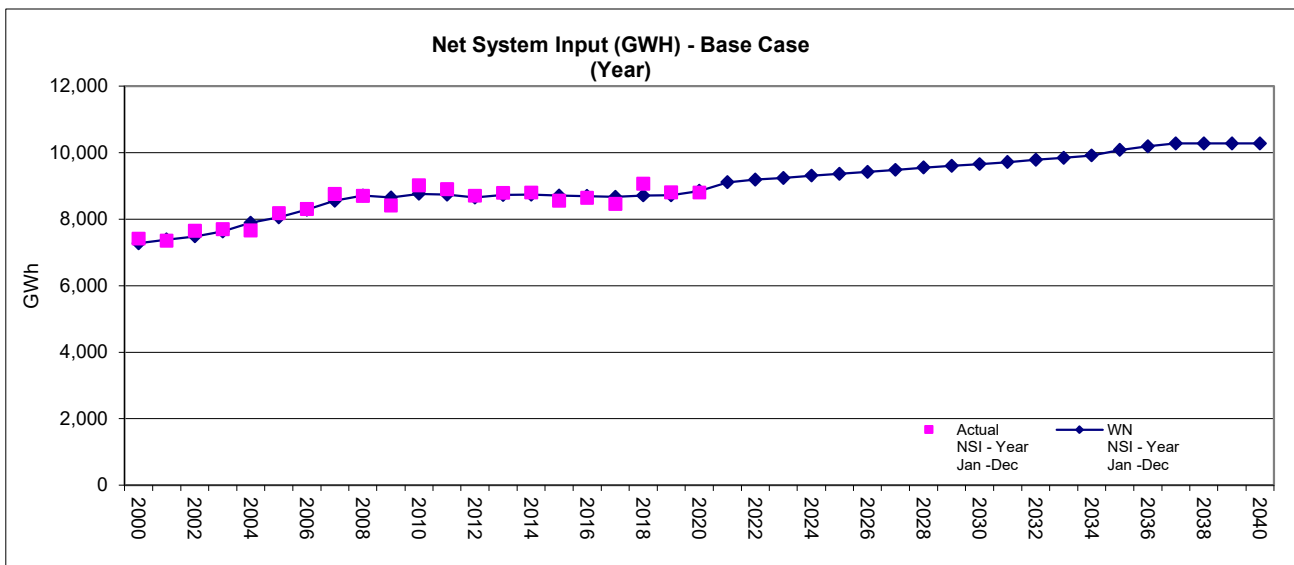
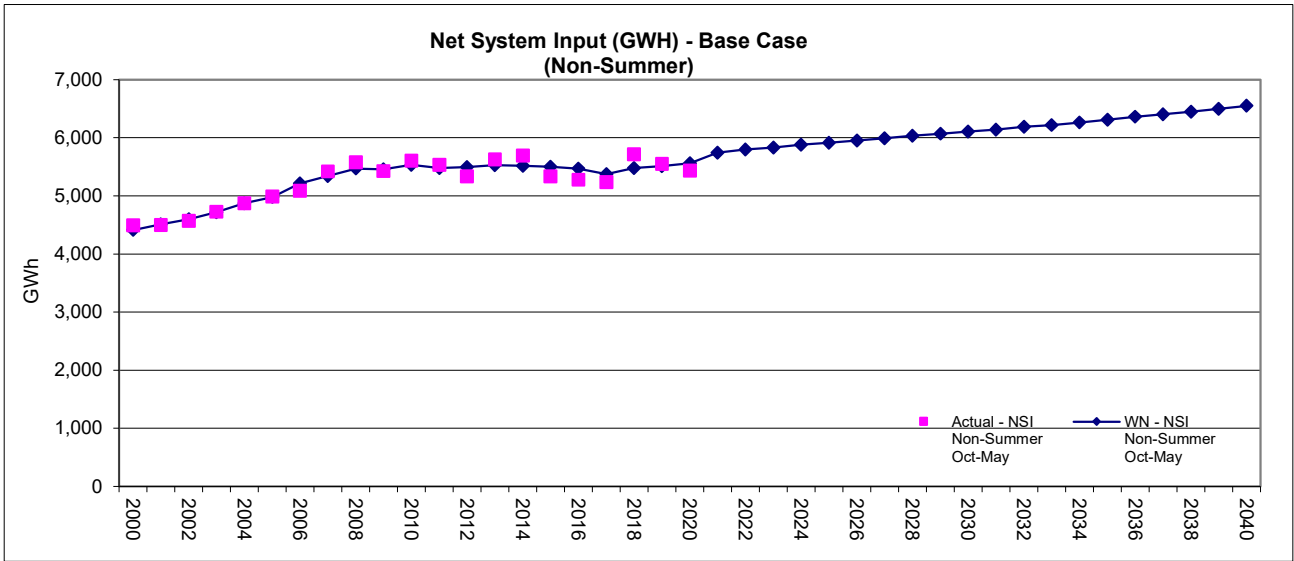
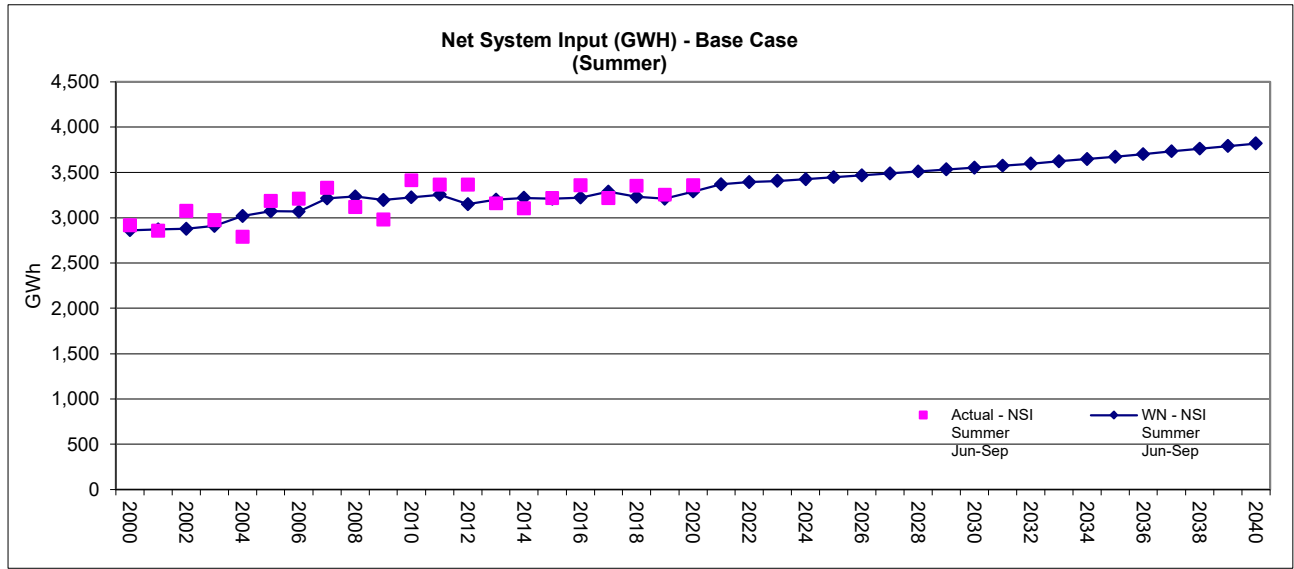
Linked Files:

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	3,357.1	3,290.1	5,435.4	5,560.5	8,792.5	8,850.5
2021		3,369.2		5,742.0	0.0	9,111.2
2022		3,392.3		5,796.6	0.0	9,189.0
2023		3,407.2		5,834.2	0.0	9,241.3
2024		3,426.8		5,881.5	0.0	9,308.3
2025		3,446.9		5,913.1	0.0	9,360.0
2026		3,466.6		5,951.2	0.0	9,417.8
2027		3,487.6		5,989.2	0.0	9,476.9
2028		3,510.0		6,037.9	0.0	9,547.9
2029		3,532.1		6,069.1	0.0	9,601.2
2030		3,552.2		6,103.3	0.0	9,655.5
2031		3,573.9		6,140.0	0.0	9,713.9
2032		3,597.1		6,187.5	0.0	9,784.6
2033		3,621.5		6,220.0	0.0	9,841.6
2034		3,647.1		6,261.8	0.0	9,908.9
2035		3,674.7		6,306.9	0.0	10,074.0
2036		3,703.0		6,362.3	0.0	10,190.6
2037		3,732.5		6,401.1	0.0	10,275.7
2038		3,761.8		6,449.1	0.0	10,275.7
2039		3,791.2		6,497.1	0.0	10,275.7
2040		3,818.3		6,550.0	0.0	10,275.7
'00-'10	1.6%	1.2%	2.2%	2.3%	2.0%	1.9%
'10-'20	-0.2%	0.2%	-0.3%	0.0%	-0.2%	0.1%
'20-'30		0.8%		0.9%		0.9%
'20-'40		0.7%		0.8%		0.7%

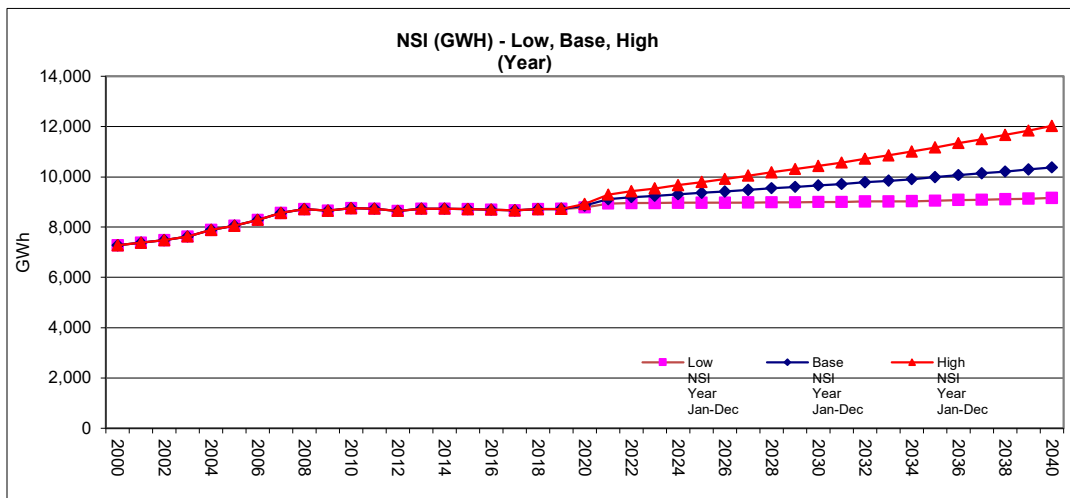
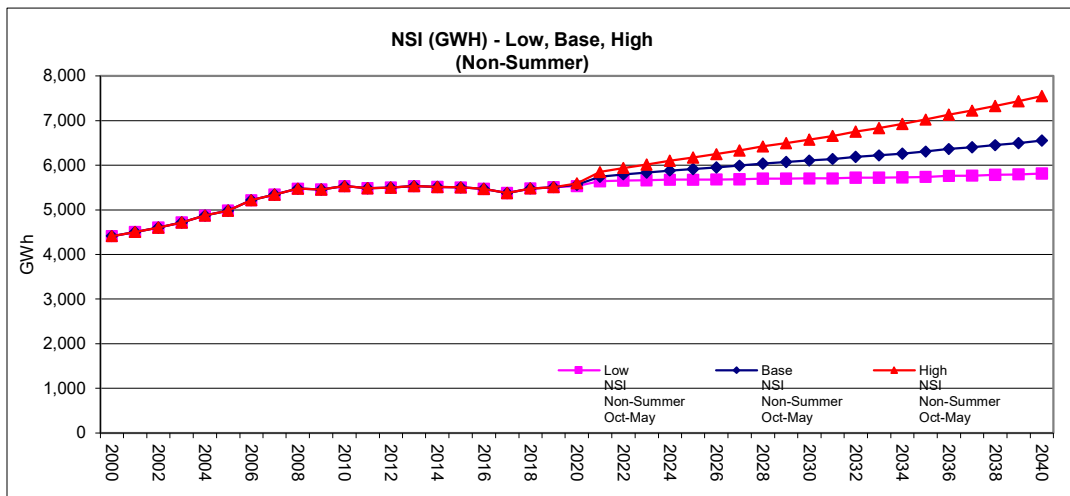
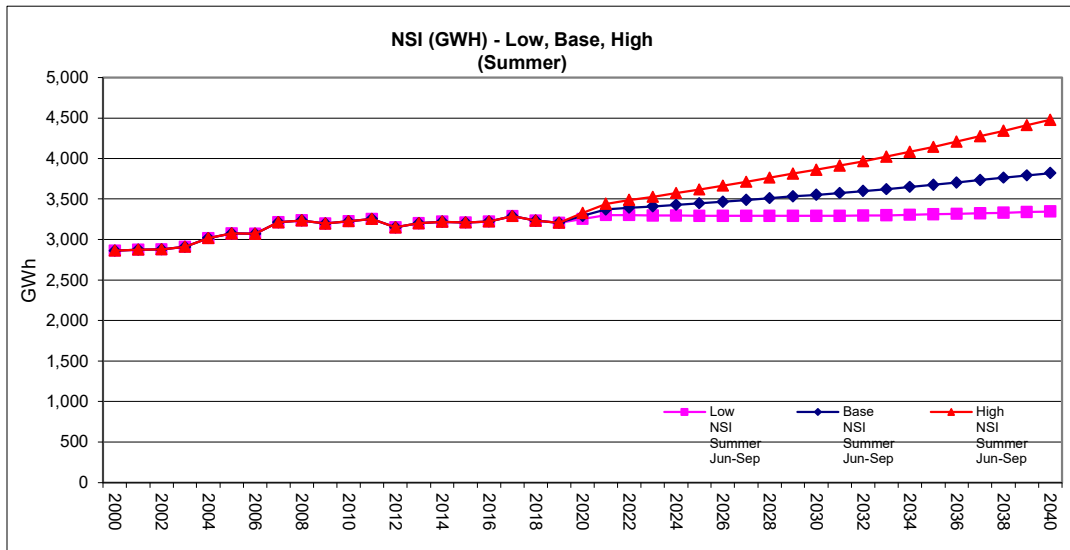
Note: Energy MWH (NSI) Includes annual system losses



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

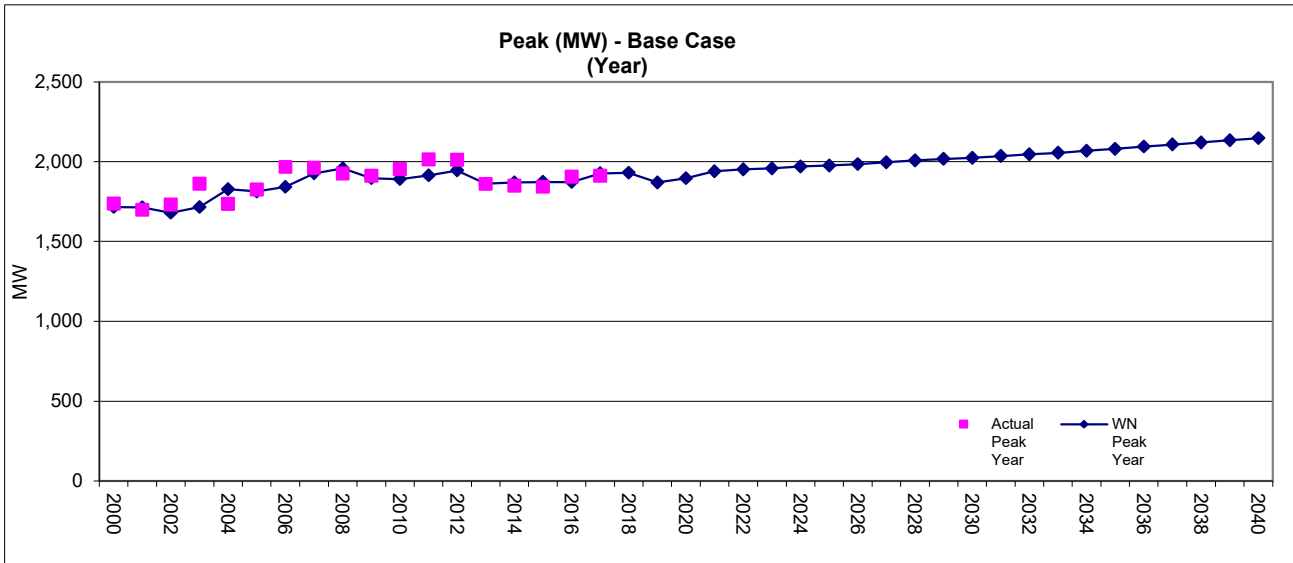
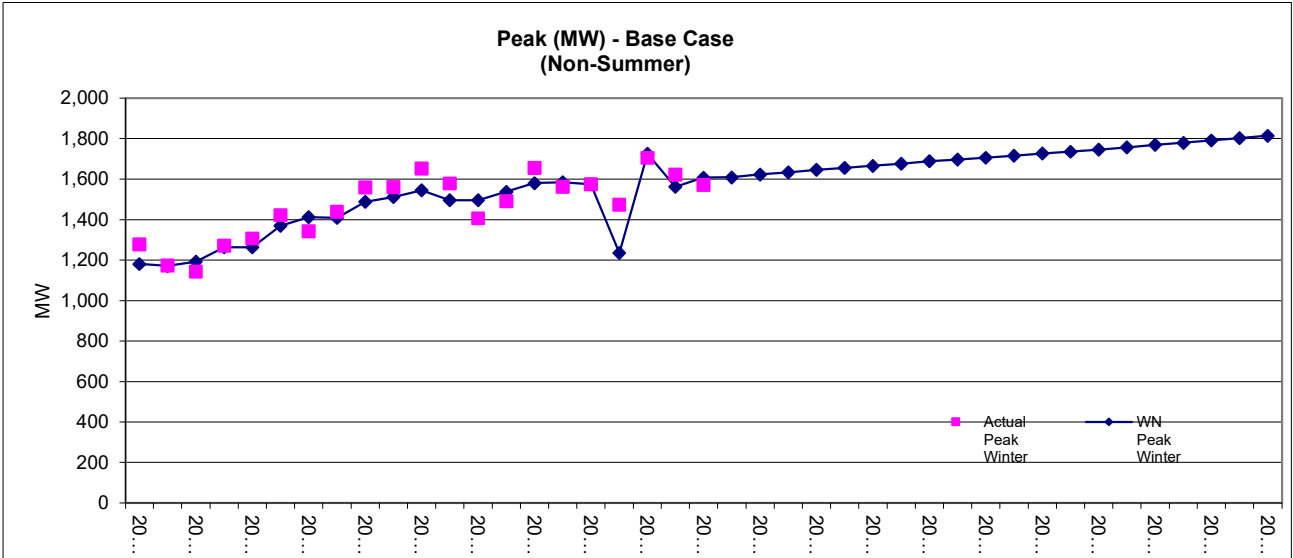
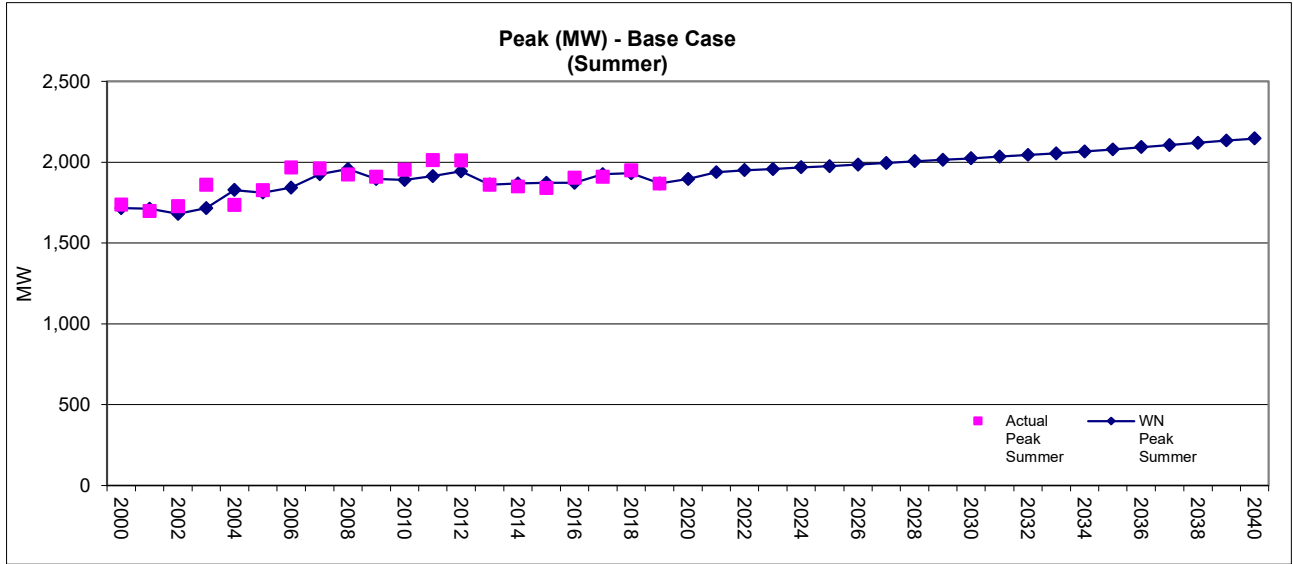
Year	Low NSI	Base NSI	High NSI	Low NSI	Base NSI	High NSI	Low NSI	Base NSI	High NSI
	Summer Jun-Sep	Summer Jun-Sep	Summer Jun-Sep	Non-Summer Oct-May	Non-Summer Oct-May	Non-Summer Oct-May	Year Jan-Dec	Year Jan-Dec	Year Jan-Dec
2000	2,861.7	2,861.7	2,861.7	4,412.4	4,412.4	4,412.4	7,274.1	7,274.1	7,274.1
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	3,253.1	3,290.1	3,327.9	5,528.8	5,560.5	5,592.9	8,781.9	8,850.5	8,920.8
2021	3,300.2	3,369.2	3,440.8	5,638.0	5,742.0	5,849.6	8,938.2	9,111.2	9,290.3
2022	3,301.7	3,392.3	3,487.6	5,659.3	5,796.6	5,940.5	8,961.0	9,189.0	9,428.1
2023	3,295.2	3,407.2	3,526.6	5,663.6	5,834.2	6,015.4	8,958.8	9,241.3	9,542.1
2024	3,293.5	3,426.8	3,571.3	5,677.1	5,881.5	6,101.7	8,970.6	9,308.3	9,672.9
2025	3,292.3	3,446.9	3,617.0	5,675.8	5,913.1	6,172.4	8,968.1	9,360.0	9,789.3
2026	3,290.8	3,466.6	3,663.0	5,680.6	5,951.2	6,251.0	8,971.4	9,417.8	9,914.0
2027	3,290.5	3,487.6	3,711.1	5,685.5	5,989.2	6,330.7	8,976.0	9,476.9	10,041.8
2028	3,291.8	3,510.0	3,761.2	5,700.2	6,037.9	6,422.9	8,991.9	9,547.9	10,184.1
2029	3,292.8	3,532.1	3,811.6	5,699.1	6,069.1	6,496.8	8,991.9	9,601.2	10,308.3
2030	3,292.1	3,552.2	3,860.6	5,700.9	6,103.3	6,575.1	8,993.0	9,655.5	10,435.6
2031	3,293.0	3,573.9	3,912.0	5,705.0	6,140.0	6,657.1	8,998.0	9,713.9	10,569.1
2032	3,295.2	3,597.1	3,966.1	5,718.7	6,187.5	6,752.8	9,013.9	9,784.6	10,718.9
2033	3,298.6	3,621.5	4,022.4	5,719.5	6,220.0	6,832.3	9,018.1	9,841.6	10,854.7
2034	3,302.9	3,647.1	4,080.9	5,728.4	6,261.8	6,923.9	9,031.3	9,908.9	11,004.8
2035	3,309.0	3,674.7	4,142.8	5,740.2	6,306.9	7,020.7	9,049.2	9,981.6	11,163.5
2036	3,315.8	3,703.0	4,206.7	5,760.7	6,362.3	7,131.4	9,076.5	10,065.3	11,338.1
2037	3,323.4	3,732.5	4,273.1	5,767.3	6,401.1	7,223.5	9,090.7	10,133.6	11,496.6
2038	3,330.9	3,761.8	4,340.4	5,781.7	6,449.1	7,328.4	9,112.7	10,210.9	11,668.9
2039	3,338.5	3,791.2	4,409.0	5,796.1	6,497.1	7,434.8	9,134.7	10,288.3	11,843.9
2040	3,344.1	3,818.3	4,476.2	5,814.5	6,550.0	7,549.5	9,158.6	10,368.2	12,025.7
'00-'10	1.2%	1.2%	1.2%	2.3%	2.3%	2.3%	1.9%	1.9%	1.9%
'10-'20	0.1%	0.2%	0.3%	0.0%	0.0%	0.1%	0.0%	0.1%	0.2%
'20-'30	0.1%	0.8%	1.5%	0.3%	0.9%	1.6%	0.2%	0.9%	1.6%
'20-'40	0.1%	0.7%	1.5%	0.3%	0.8%	1.5%	0.2%	0.8%	1.5%

Note: Energy MWH (NSI) Includes annual system losses



**Plot 3D-3 Evergny 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	1,473	1,235	1,910	1,927
2018	1,950	1,931	1,705	1,725	1,950	1,931
2019	1,868	1,869	1,622	1,561	1,868	1,869
2020		1,896	1,571	1,608	-	1,896
2021		1,939		1,608	-	1,939
2022		1,951		1,622	-	1,951
2023		1,958		1,633	-	1,958
2024		1,969		1,645		1,969
2025		1,976		1,655		1,976
2026		1,985		1,665		1,985
2027		1,995		1,675		1,995
2028		2,007		1,688		2,007
2029		2,016		1,696		2,016
2030		2,024		1,705		2,024
2031		2,034		1,715		2,034
2032		2,046		1,726		2,046
2033		2,055		1,735		2,055
2034		2,067		1,745		2,067
2035		2,080		1,756		2,080
2036		2,094		1,769		2,094
2037		2,106		1,779		2,106
2038		2,120		1,790		2,120
2039		2,134		1,802		2,134
2040		2,147		1,814		2,147
'00-'10	1.2%	1.0%	2.6%	2.7%	1.2%	1.0%
'10-'20		0.0%	-0.5%	0.4%		0.0%
'20-'30		0.7%		0.6%		0.7%
'20-'40		0.6%		0.6%		0.6%



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

Year	Low Peak Summer	Base Peak Summer	High Peak Summer	Low Peak Winter	Base Peak Winter	High Peak Winter	Low NSI Year	Base NSI Year	High NSI Year
2000	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	1,235	1,235	1,235	1,927	1,927	1,927
2018	1,931	1,931	1,931	1,725	1,725	1,725	1,931	1,931	1,931
2019	1,869	1,869	1,869	1,561	1,561	1,561	1,869	1,869	1,869
2020	1,871	1,896	1,899	1,608	1,608	1,608	1,871	1,896	1,899
2021	1,910	1,939	1,969	1,576	1,608	1,642	1,910	1,939	1,969
2022	1,913	1,951	1,992	1,580	1,622	1,666	1,913	1,951	1,992
2023	1,911	1,958	2,009	1,581	1,633	1,688	1,911	1,958	2,009
2024	1,912	1,969	2,031	1,583	1,645	1,712	1,912	1,969	2,031
2025	1,910	1,976	2,049	1,583	1,655	1,733	1,910	1,976	2,049
2026	1,910	1,985	2,070	1,584	1,665	1,755	1,910	1,985	2,070
2027	1,910	1,995	2,091	1,584	1,675	1,777	1,910	1,995	2,091
2028	1,913	2,007	2,115	1,586	1,688	1,802	1,913	2,007	2,115
2029	1,912	2,016	2,136	1,585	1,696	1,823	1,912	2,016	2,136
2030	1,912	2,024	2,158	1,584	1,705	1,845	1,912	2,024	2,158
2031	1,913	2,034	2,180	1,584	1,715	1,868	1,913	2,034	2,180
2032	1,915	2,046	2,206	1,586	1,726	1,893	1,915	2,046	2,206
2033	1,916	2,055	2,229	1,585	1,735	1,915	1,916	2,055	2,229
2034	1,918	2,067	2,256	1,585	1,745	1,939	1,918	2,067	2,256
2035	1,922	2,080	2,283	1,587	1,756	1,965	1,922	2,080	2,283
2036	1,926	2,094	2,314	1,590	1,769	1,994	1,926	2,094	2,314
2037	1,929	2,106	2,342	1,590	1,779	2,019	1,929	2,106	2,342
2038	1,933	2,120	2,373	1,592	1,790	2,046	1,933	2,120	2,373
2039	1,938	2,134	2,404	1,593	1,802	2,074	1,938	2,134	2,404
2040	1,942	2,147	2,436	1,596	1,814	2,103	1,942	2,147	2,436
09-'14	-0.3%	-0.3%	-0.3%	0.9%	0.9%	0.9%	-0.3%	-0.3%	-0.3%
10-'15	-0.2%	-0.2%	-0.2%	0.5%	0.5%	0.5%	-0.2%	-0.2%	-0.2%
15-'20	0.0%	0.2%	0.3%	0.3%	0.3%	0.3%	0.0%	0.2%	0.3%
20-'25	0.4%	0.8%	1.5%	-0.3%	0.6%	1.5%	0.4%	0.8%	1.5%

