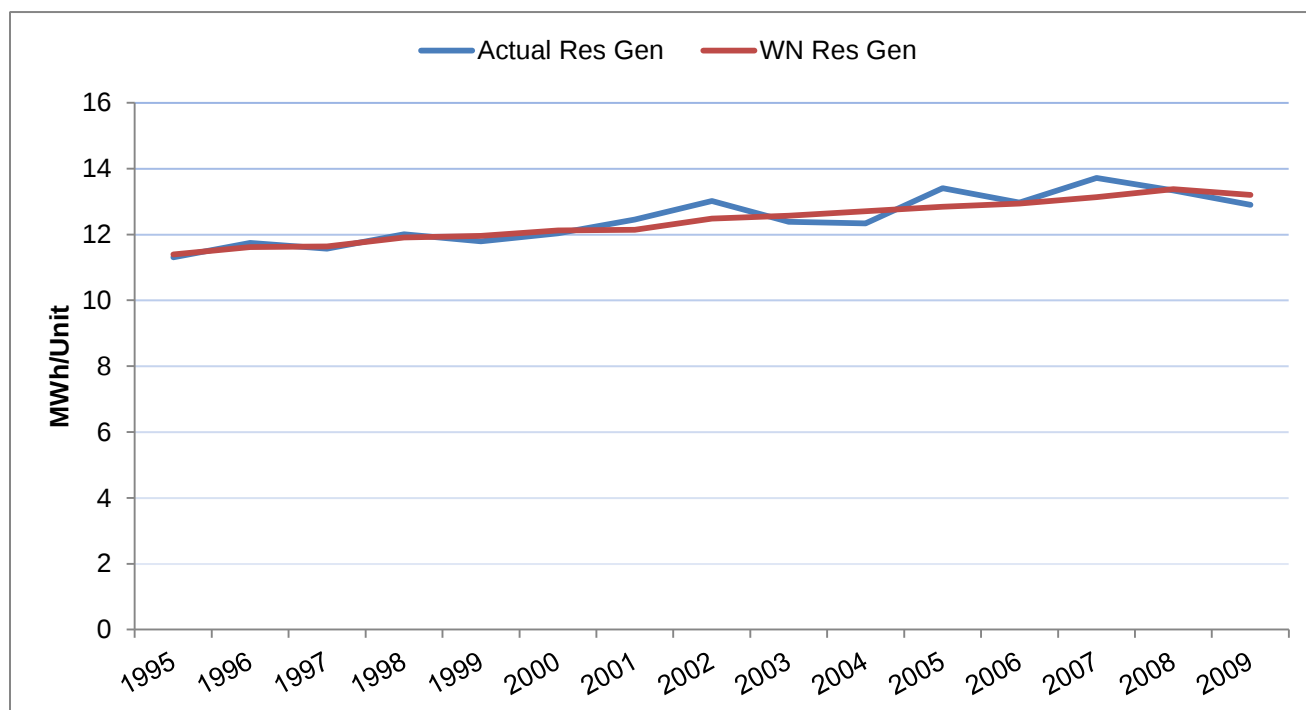


Chapter 3 – Appendix A¹

Annual Historical Actual and Weather Normalized Energy Use per Customer for Major Class (1995-2009)²

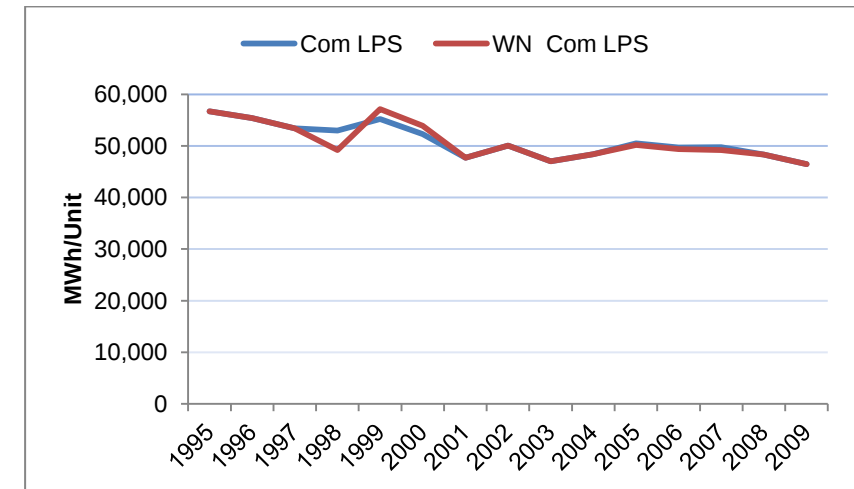
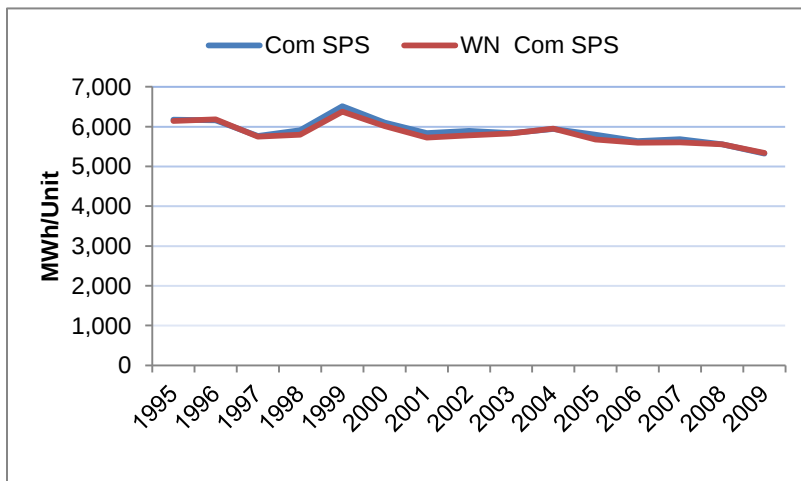
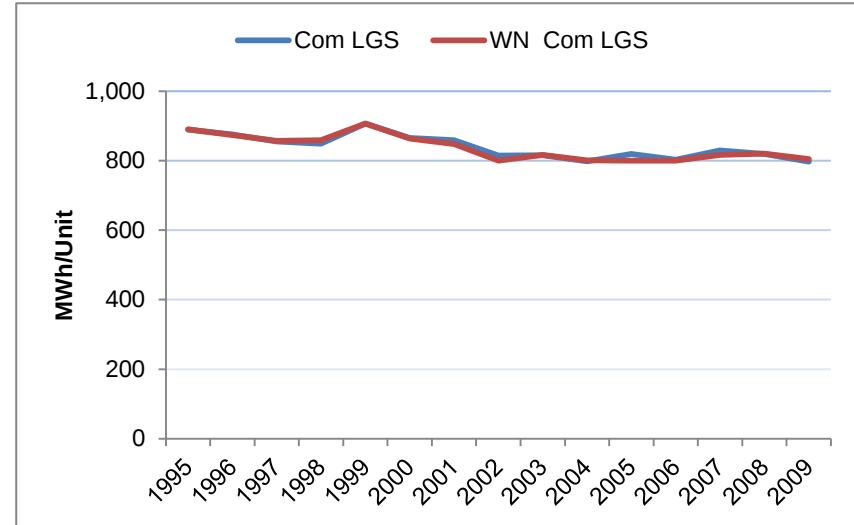
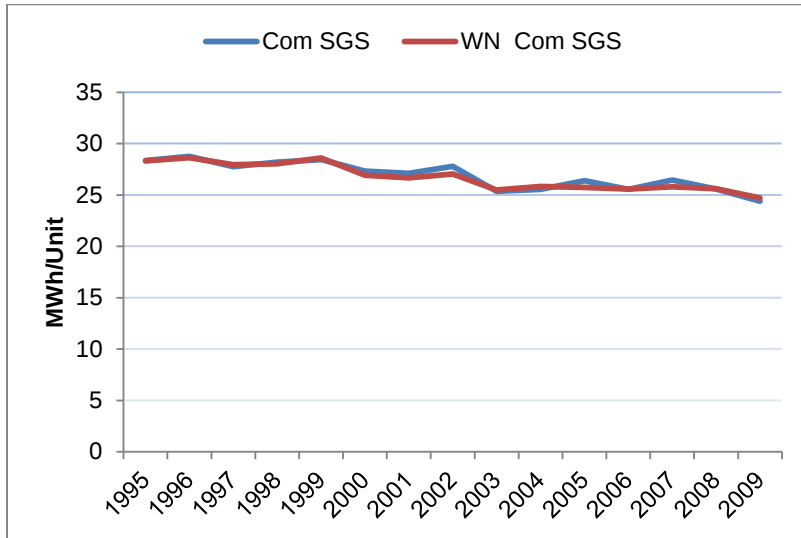
Annual Residential Use per Customer - 1995-2009



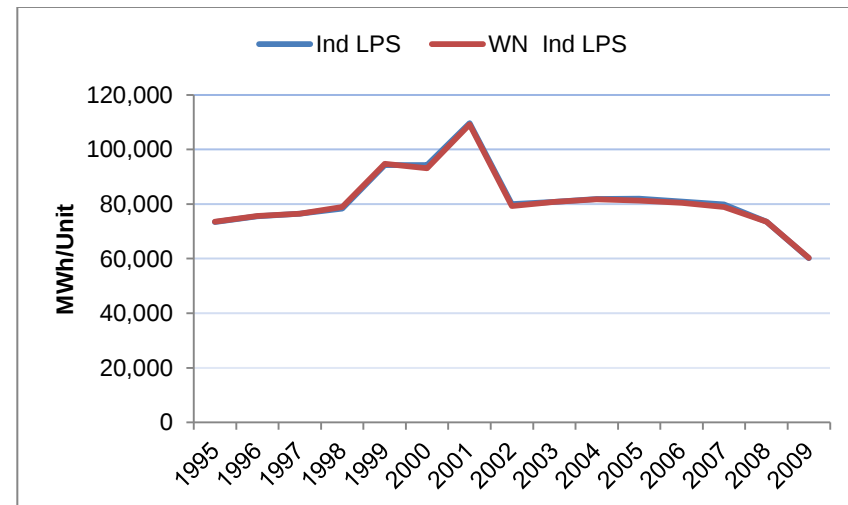
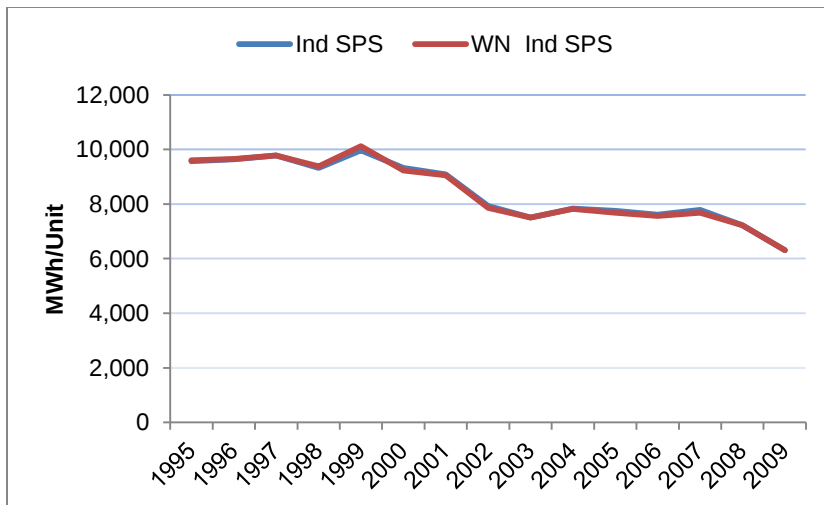
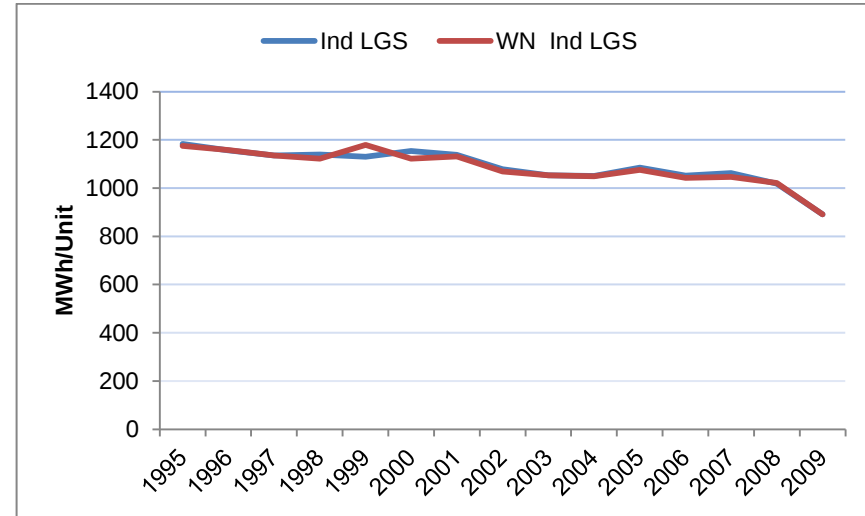
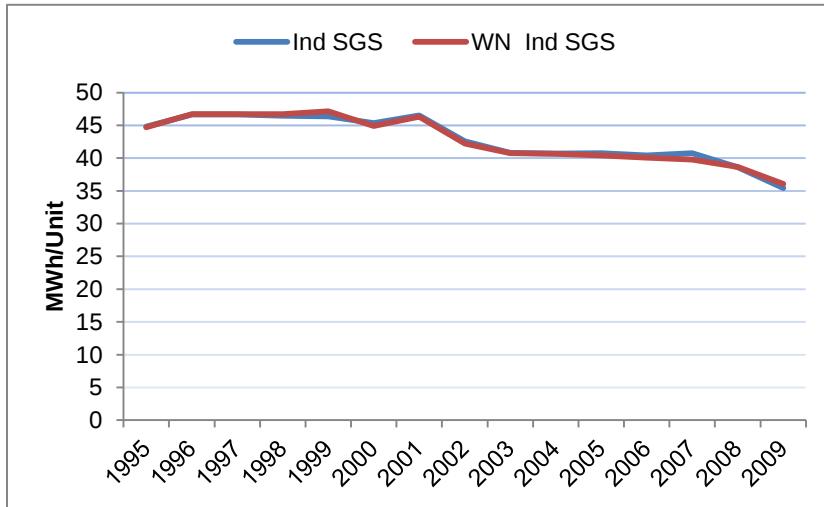
¹ 4 CSR 240-22.030(8)(G)

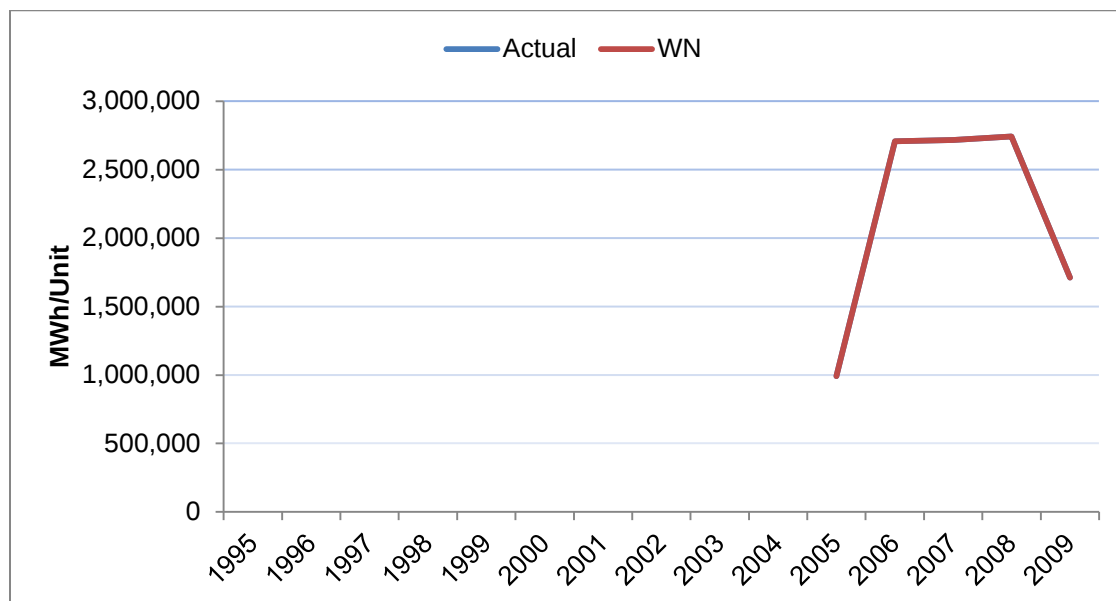
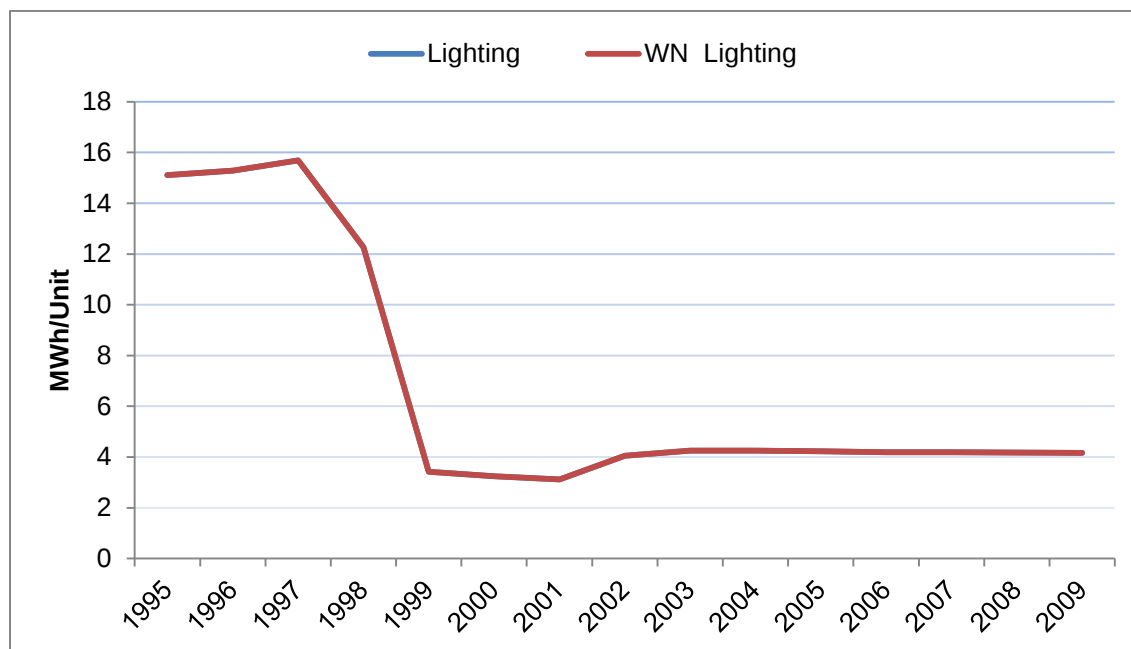
² 4 CSR 240-22.030(8)(A), 4 CSR 240-22.030(8)(A)1, 4 CSR 240-22.030(8)(A)2.A

Annual Commercial Use per Customer - 1995-2009



Annual Industrial Use per Customer –1995-2009



Annual Large Transmission Service Use per Customer - 1995-2009**Annual Lighting Use per Customer - 1995-2009³**

* A change in the methodology of reporting Lighting customers took place 1999. Lighting usage data after this change was used for forecasting.

³ EO-2007-0409 – Stipulation and Agreement #8

Historical Annual Use per Customer (MWh/Customer)

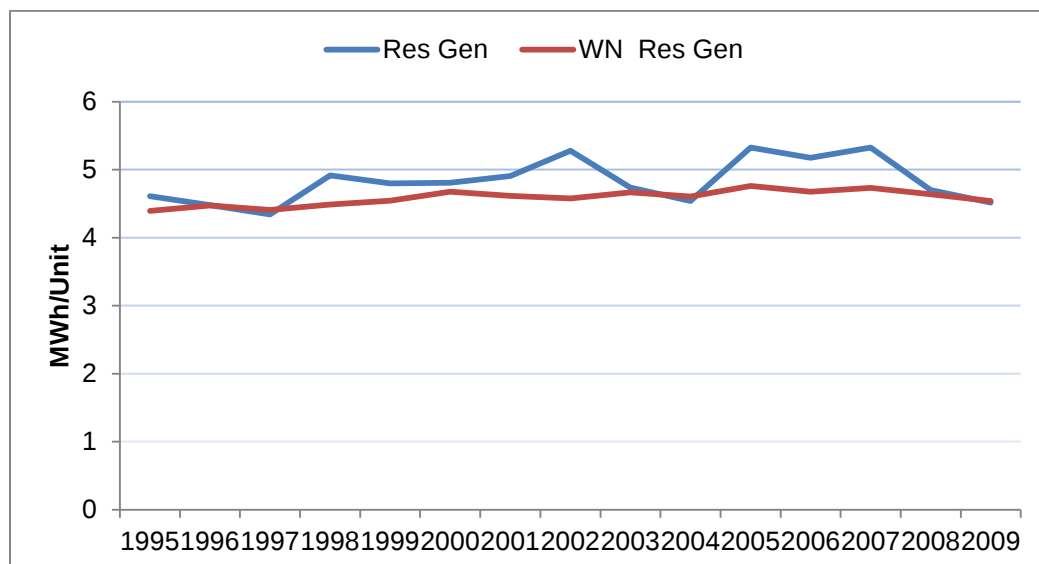
Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Lighting	LTS
1995	11.31	28.35	889	6,174	56,693	44.82	1,183	9,573	73,409	15.10	
1996	11.74	28.75	875	6,161	55,386	46.68	1,157	9,640	75,583	15.28	
1997	11.57	27.77	855	5,763	53,393	46.68	1,135	9,778	76,481	15.69	
1998	12.01	28.20	849	5,910	52,990	46.46	1,140	9,327	78,376	12.27	
1999	11.79	28.45	907	6,515	55,210	46.38	1,131	9,967	94,267	3.42	
2000	12.04	27.34	865	6,099	52,261	45.35	1,154	9,325	94,305	3.24	
2001	12.45	27.09	859	5,838	47,689	46.53	1,137	9,093	109,681	3.12	
2002	13.01	27.81	814	5,891	50,059	42.57	1,079	7,928	79,992	4.05	
2003	12.39	25.37	816	5,836	46,989	40.78	1,053	7,512	80,825	4.25	
2004	12.34	25.54	798	5,943	48,356	40.69	1,051	7,839	81,868	4.25	
2005	13.40	26.39	819	5,798	50,474	40.74	1,085	7,750	81,944	4.22	2,000,773
2006	12.96	25.55	803	5,634	49,679	40.41	1,051	7,608	80,909	4.19	4,086,126
2007	13.72	26.44	829	5,685	49,762	40.74	1,062	7,787	79,867	4.19	4,096,908
2008	13.34	25.57	819	5,553	48,342	38.62	1,019	7,221	73,503	4.17	4,128,768
2009	12.90	24.39	797	5,325	46,460	35.45	891	6,310	60,229	4.16	2,500,029

Historical Annual Weather Normalized Use per Customer (MWh/Customer)

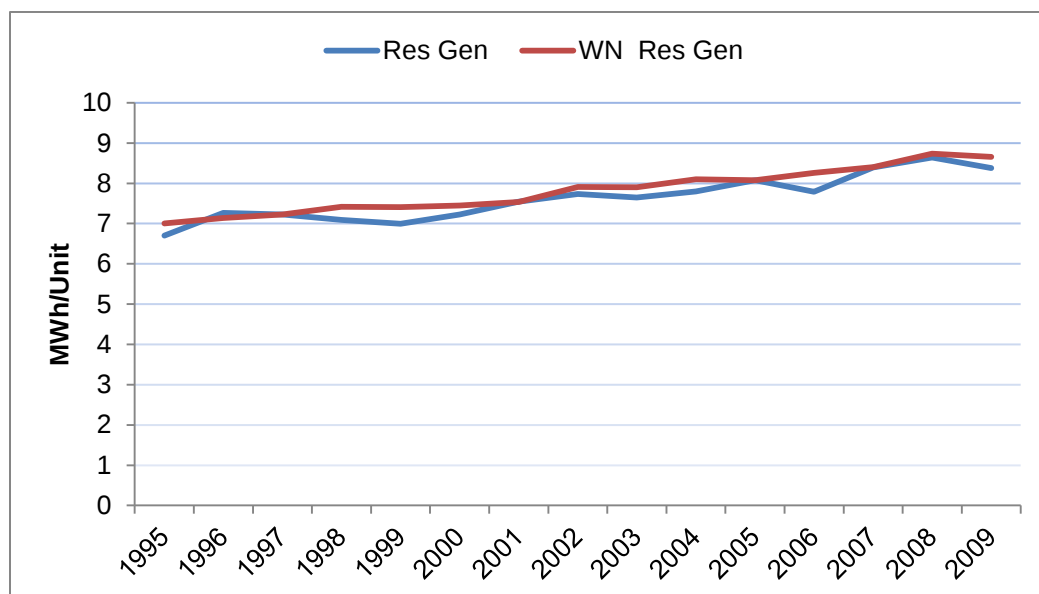
Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Lighting	LTS
1995	11.39	28.07	890	6,143	56,688	44.72	1,175	9,606	73,496	15.10	
1996	11.62	28.34	874	6,185	55,389	46.72	1,158	9,648	75,647	15.28	
1997	11.63	27.94	857	5,747	53,394	46.68	1,136	9,783	76,519	15.69	
1998	11.91	28.03	859	5,794	52,861	46.70	1,130	9,380	78,912	12.27	
1999	11.96	27.74	896	6,218	53,827	46.53	1,162	9,986	94,749	3.42	
2000	12.12	26.92	863	6,015	52,281	44.90	1,128	8,945	93,435	3.24	
2001	12.15	26.85	834	5,804	48,699	44.69	1,112	9,050	109,148	3.12	
2002	12.48	27.12	799	5,780	50,033	42.23	1,073	7,992	80,278	4.05	
2003	12.57	26.05	817	5,828	46,987	40.75	1,053	7,615	81,510	4.25	
2004	12.71	25.84	801	5,950	48,352	40.64	1,049	7,827	81,756	4.25	
2005	12.84	25.75	800	5,678	50,180	40.40	1,076	7,684	81,233	4.22	2,000,773
2006	12.93	25.57	799	5,594	49,391	40.07	1,043	7,565	80,505	4.19	4,086,126
2007	13.13	25.79	817	5,605	49,170	39.78	1,046	7,681	78,925	4.19	4,096,908
2008	13.38	25.60	821	5,552	48,301	38.64	1,021	7,222	73,532	4.17	4,128,768
2009	13.20	24.72	804	5,338	46,472	36.05	891	6,313	60,278	4.16	2,500,029

Historical Actual and Weather Normalized Energy Use per Customer for Major Class for Summer and Non Summer (1995-2009)⁴

Residential Use per Customer – for Summer Months (1995-2009)

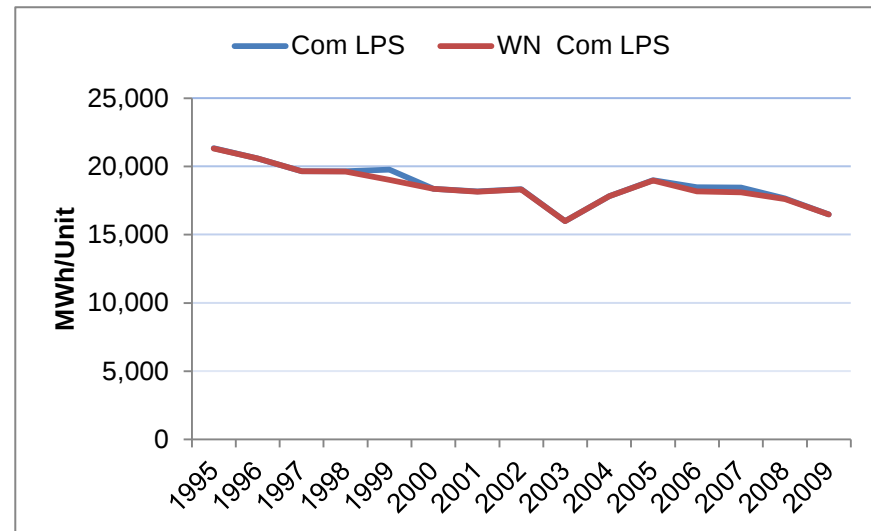
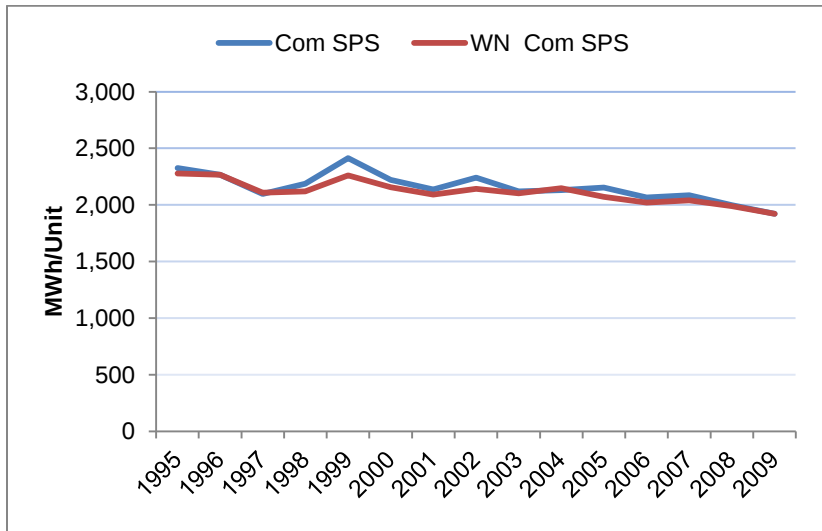
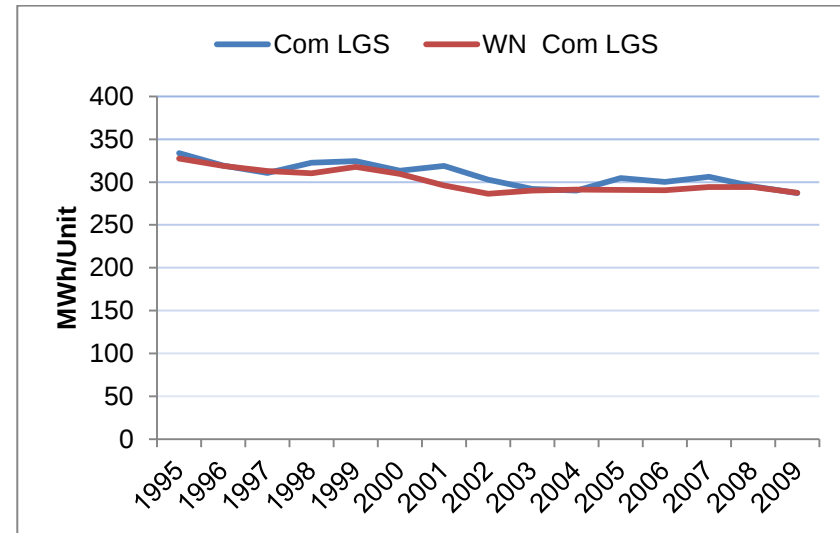
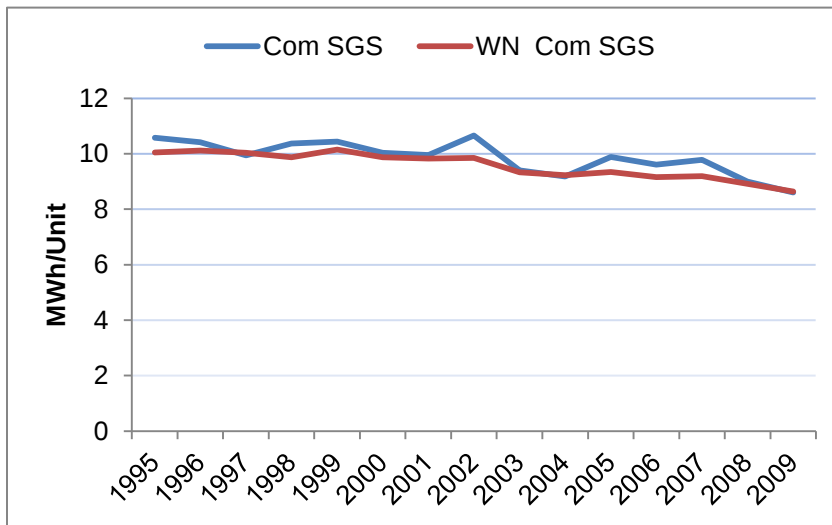


Residential Use per Customer – for Non-Summer Months (1995-2009)

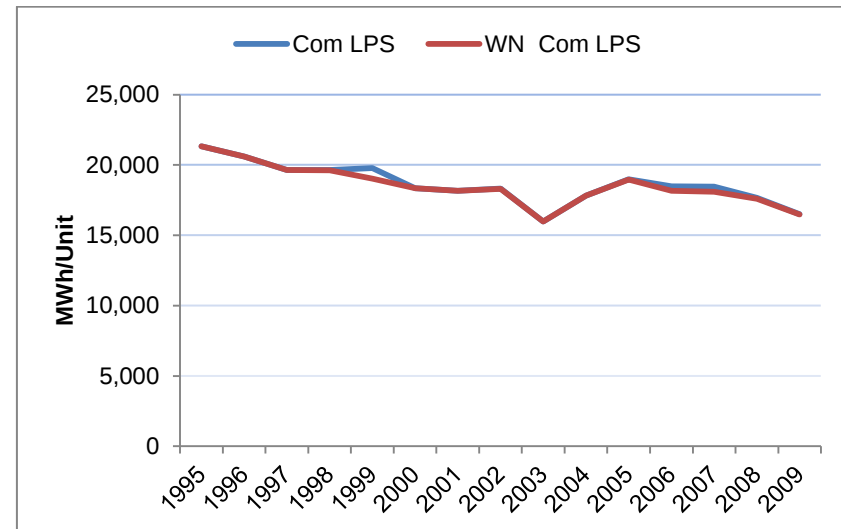
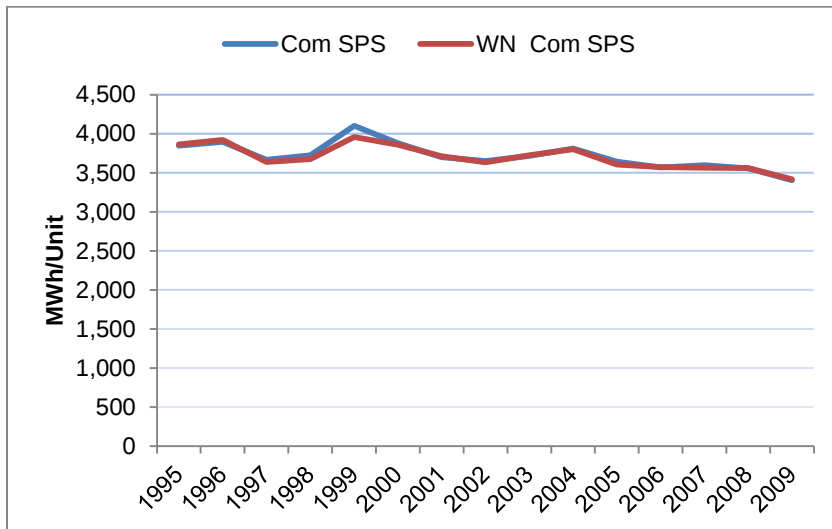
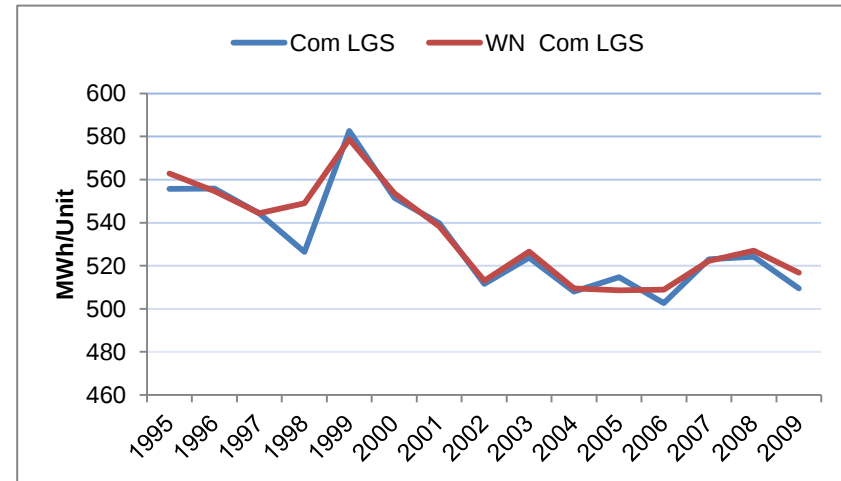
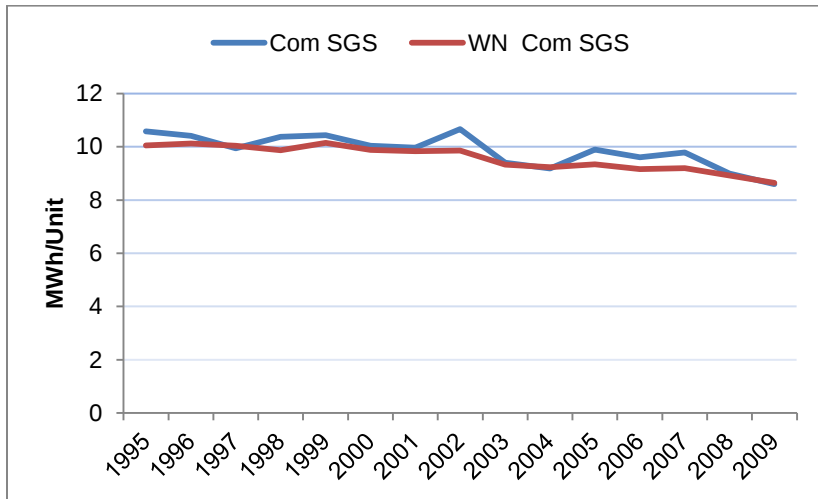


⁴ 4 CSR 240-22.030(8)(A), 4 CSR 240-22.030(8)(A)1, 4 CSR 240-22.030(8)(A)2.A

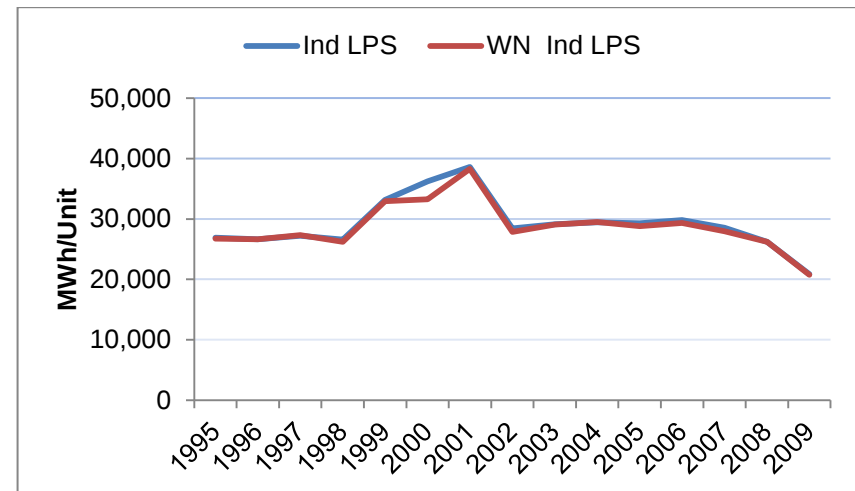
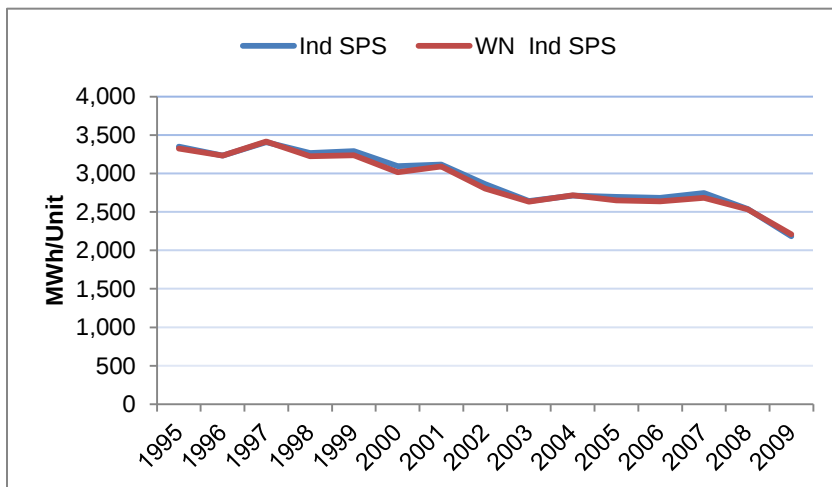
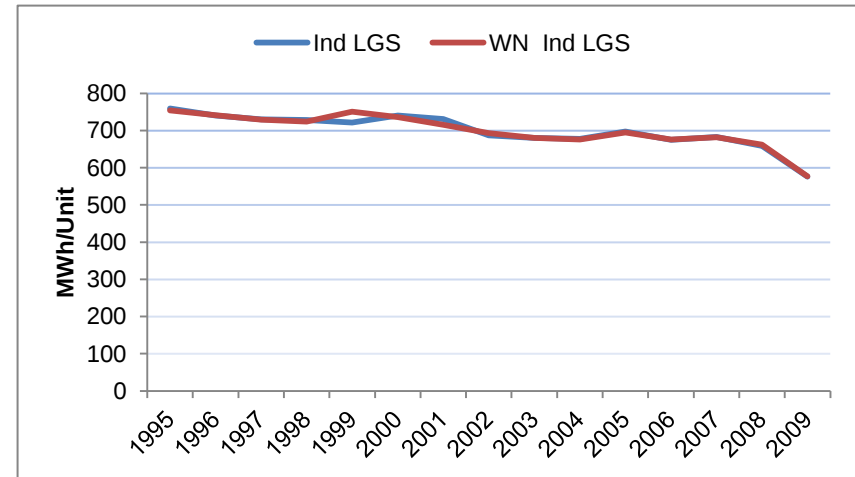
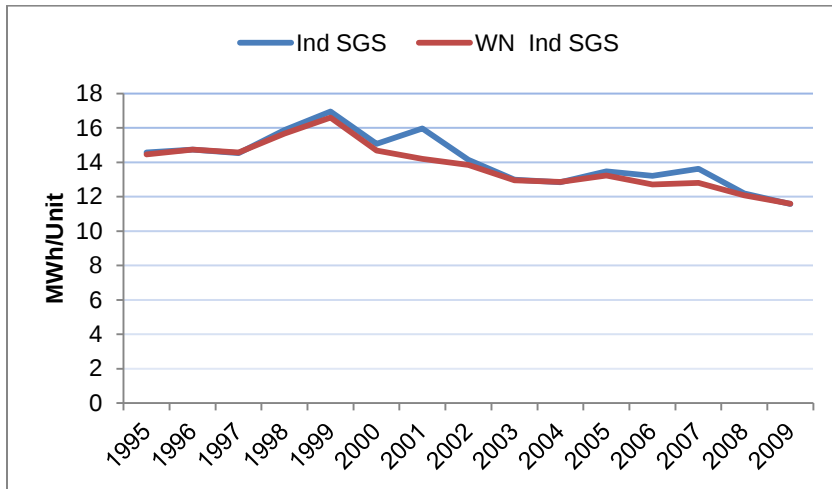
Commercial Use per Customer – for Summer Months (1995-2009)



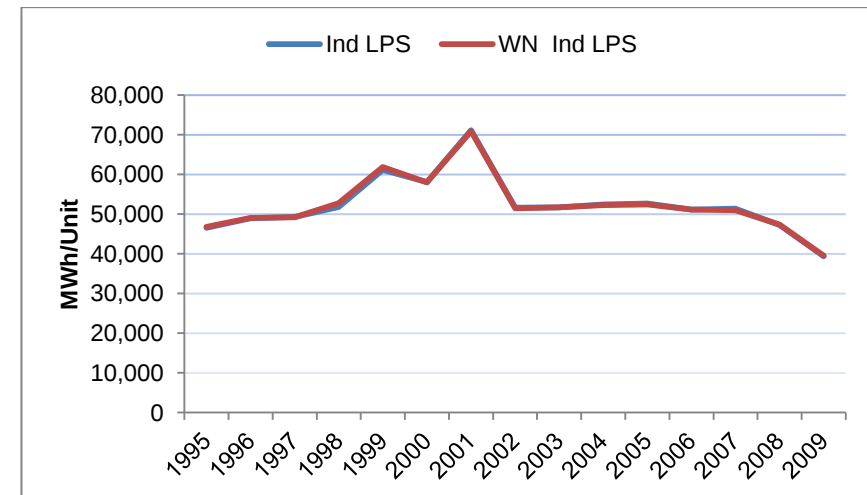
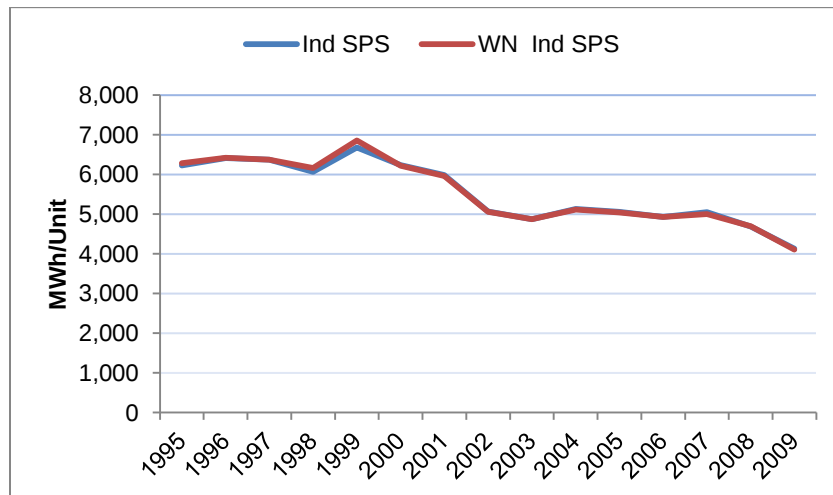
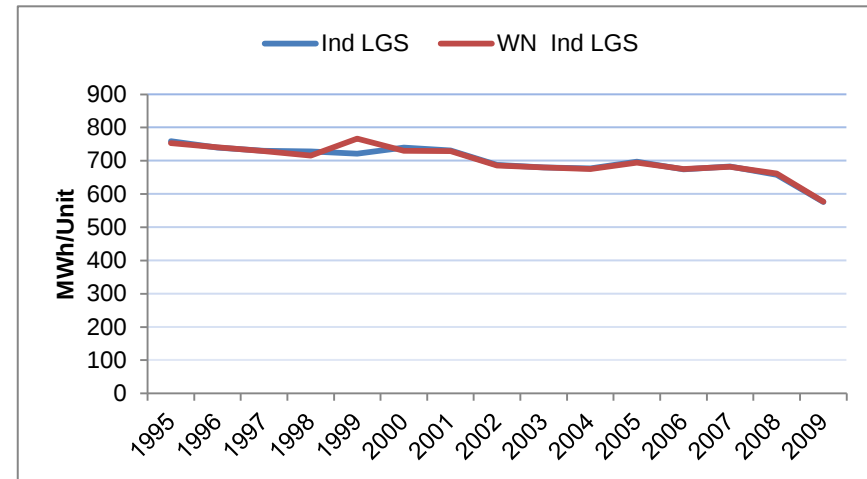
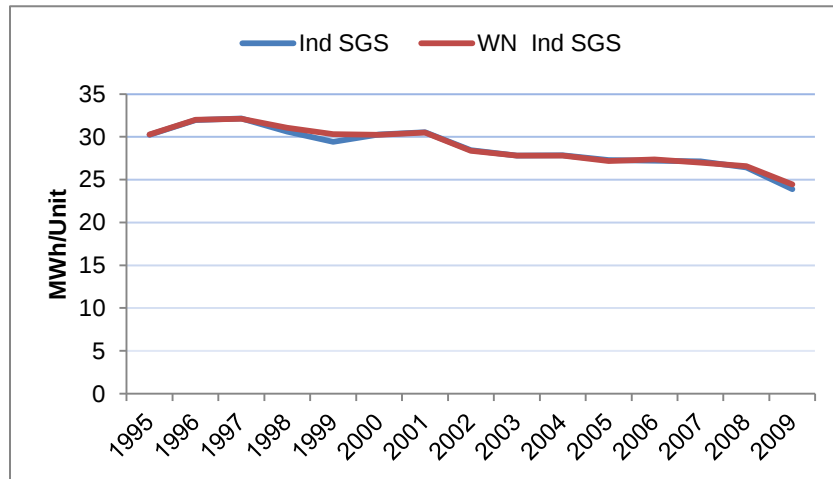
Commercial Use per Customer – for Non-Summer Months (1995-2009)



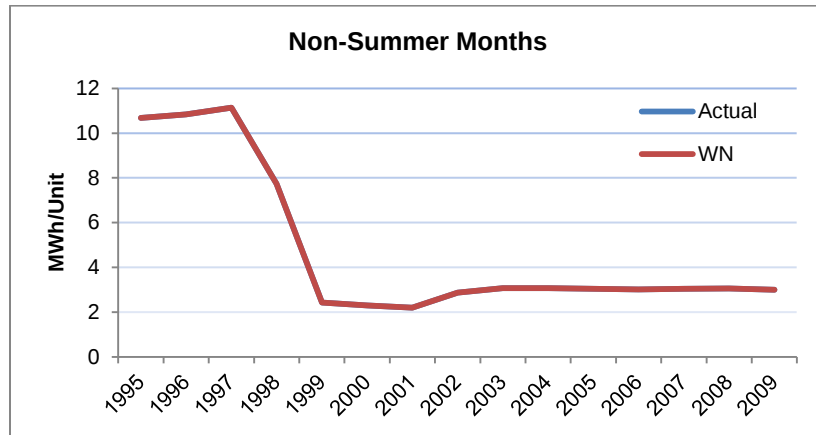
Industrial Use per Customer – for Summer Months (1995-2009)



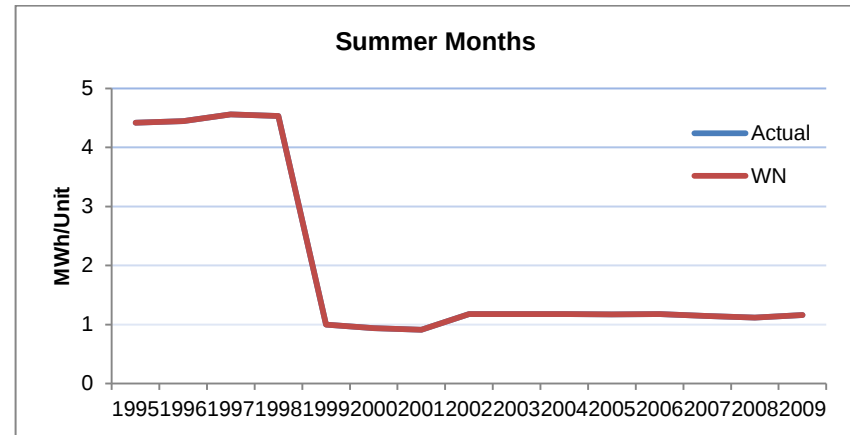
Industrial Use per Customer – for Non-Summer Months (1995-2009)



Lighting per Customer (1995-2009)*

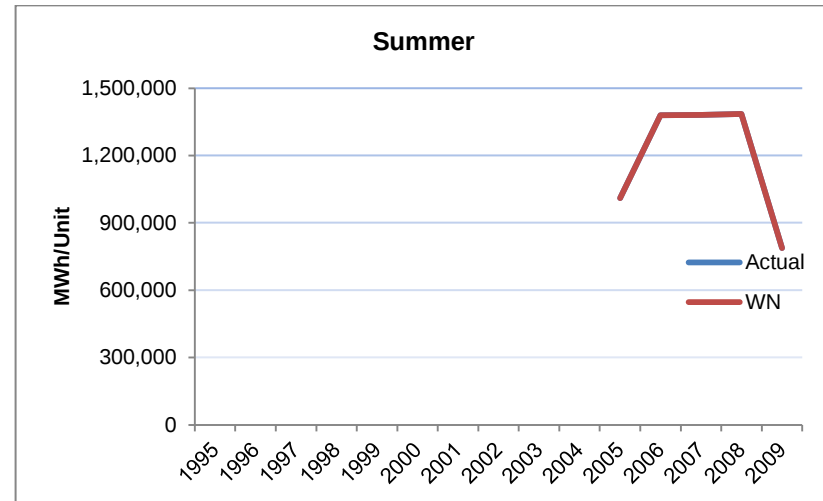
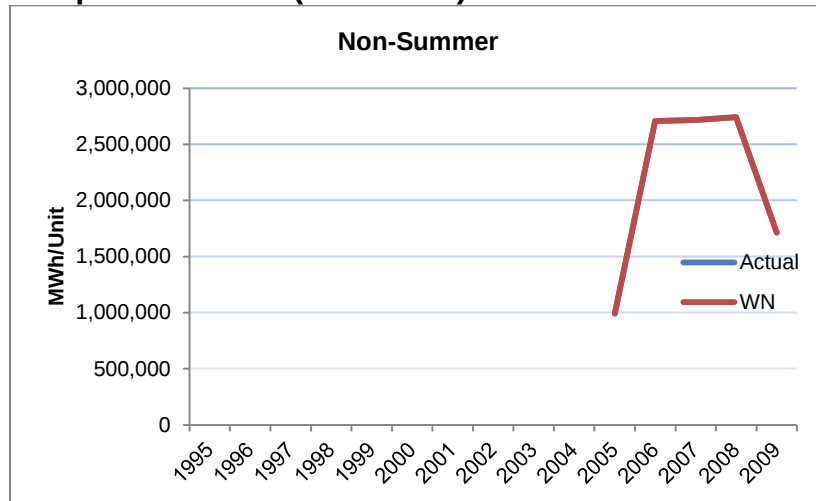


* A change in the methodology of reporting Lighting customers took place 1999. Lighting usage data after this change was used for forecasting.



* A change in the methodology of reporting Lighting customers took place 1999. Lighting usage data after this change was used for forecasting.

LTS per Customer (1995-2009)



Historical Summer Use per Customer (MWh/Unit)

Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Lighting	LTS
1995	4.61	10.57	334	2,325	21,331	14.57	424	3,350	26,925	4.42	
1996	4.48	10.41	319	2,266	20,589	14.73	417	3,232	26,626	4.45	
1997	4.34	9.94	311	2,098	19,640	14.54	405	3,407	27,247	4.56	
1998	4.92	10.37	322	2,188	19,648	15.87	411	3,266	26,589	4.53	
1999	4.80	10.44	325	2,413	19,775	16.95	409	3,292	33,179	1.00	
2000	4.81	10.03	313	2,220	18,358	15.07	414	3,096	36,238	0.94	
2001	4.91	9.96	319	2,137	18,171	15.97	406	3,115	38,597	0.91	
2002	5.28	10.66	303	2,241	18,331	14.14	391	2,863	28,427	1.18	
2003	4.74	9.40	292	2,119	15,990	12.99	373	2,640	29,120	1.18	
2004	4.54	9.19	290	2,132	17,825	12.83	374	2,713	29,461	1.18	
2005	5.33	9.89	305	2,155	18,989	13.47	388	2,696	29,310	1.17	1,009,942
2006	5.18	9.60	300	2,065	18,491	13.21	377	2,684	29,801	1.18	1,379,053
2007	5.33	9.78	306	2,086	18,455	13.62	379	2,744	28,536	1.14	1,380,696
2008	4.70	8.99	295	1,997	17,671	12.19	360	2,537	26,232	1.12	1,385,442
2009	4.52	8.60	287	1,920	16,493	11.57	314	2,183	20,867	1.16	788,135

Weather Normalized Historical Summer Use per Customer (MWh/Customer)

Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Lighting	LTS
1995	4.39	10.04	327	2,278	21,321	14.46	421	3,326	26,748	4.42	
1996	4.47	10.12	319	2,266	20,589	14.73	417	3,231	26,620	4.45	
1997	4.41	10.04	313	2,109	19,643	14.57	406	3,416	27,316	4.56	
1998	4.49	9.87	310	2,120	19,632	15.66	406	3,223	26,228	4.53	
1999	4.54	10.15	318	2,262	19,023	16.60	411	3,237	32,921	1.00	
2000	4.68	9.88	310	2,156	18,353	14.67	393	3,014	33,272	0.94	
2001	4.61	9.83	296	2,092	18,162	14.21	396	3,089	38,273	0.91	
2002	4.58	9.85	287	2,144	18,309	13.85	380	2,806	27,868	1.18	
2003	4.67	9.33	290	2,103	15,987	12.96	372	2,634	29,065	1.18	
2004	4.61	9.23	291	2,147	17,827	12.85	374	2,717	29,512	1.18	
2005	4.76	9.34	291	2,072	18,966	13.23	381	2,649	28,797	1.17	1,009,942
2006	4.68	9.16	291	2,022	18,168	12.72	367	2,639	29,360	1.18	1,379,053
2007	4.73	9.20	294	2,039	18,106	12.80	364	2,682	27,988	1.14	1,380,696
2008	4.64	8.92	294	1,991	17,604	12.07	359	2,532	26,196	1.12	1,385,442
2009	4.54	8.64	288	1,922	16,492	11.60	314	2,209	20,755	1.16	788,135

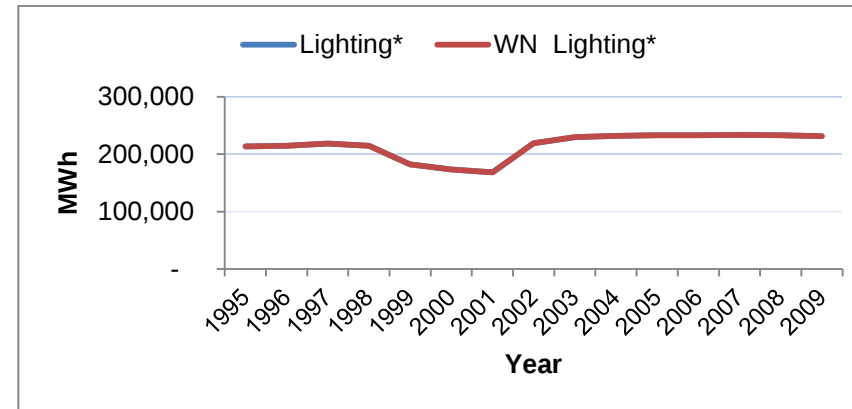
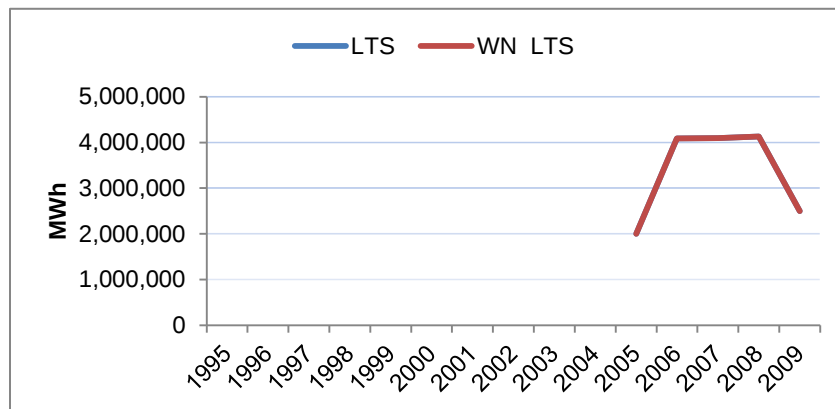
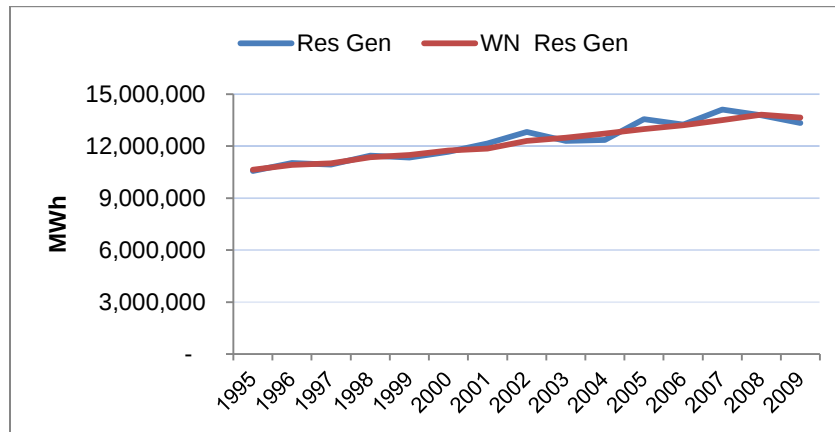
Historical Non-Summer Use per Customer (MWh/Customer)

Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Lighting	LTS
1995	6.70	17.77	556	3,848	35,363	30.25	759	6,223	46,485	10.68	
1996	7.27	18.33	556	3,896	34,797	31.95	740	6,408	48,957	10.84	
1997	7.23	17.83	544	3,666	33,753	32.14	730	6,370	49,234	11.14	
1998	7.09	17.83	526	3,723	33,342	30.59	728	6,061	51,787	7.74	
1999	6.99	18.02	582	4,103	35,435	29.42	721	6,675	61,087	2.43	
2000	7.23	17.30	552	3,879	33,903	30.28	740	6,229	58,067	2.30	
2001	7.54	17.13	540	3,701	29,517	30.55	731	5,979	71,085	2.21	
2002	7.73	17.15	512	3,650	31,728	28.43	687	5,065	51,565	2.87	
2003	7.65	15.97	524	3,717	31,000	27.80	680	4,871	51,706	3.07	
2004	7.80	16.35	508	3,811	30,531	27.86	677	5,126	52,407	3.07	
2005	8.07	16.50	515	3,643	31,485	27.28	697	5,053	52,634	3.05	990,830
2006	7.79	15.95	503	3,569	31,189	27.20	675	4,924	51,108	3.02	2,707,074
2007	8.39	16.66	523	3,599	31,306	27.12	683	5,043	51,330	3.05	2,716,212
2008	8.64	16.58	524	3,556	30,671	26.43	658	4,684	47,271	3.05	2,743,326
2009	8.38	15.79	510	3,405	29,967	23.88	576	4,127	39,362	3.00	1,711,894

Weather Normalized Historical Non-Summer Use per Customer (MWh/Customer)

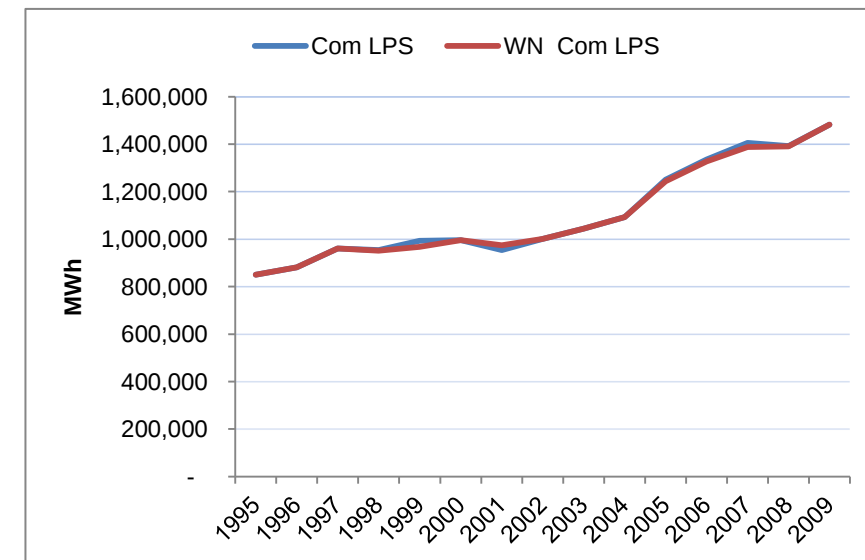
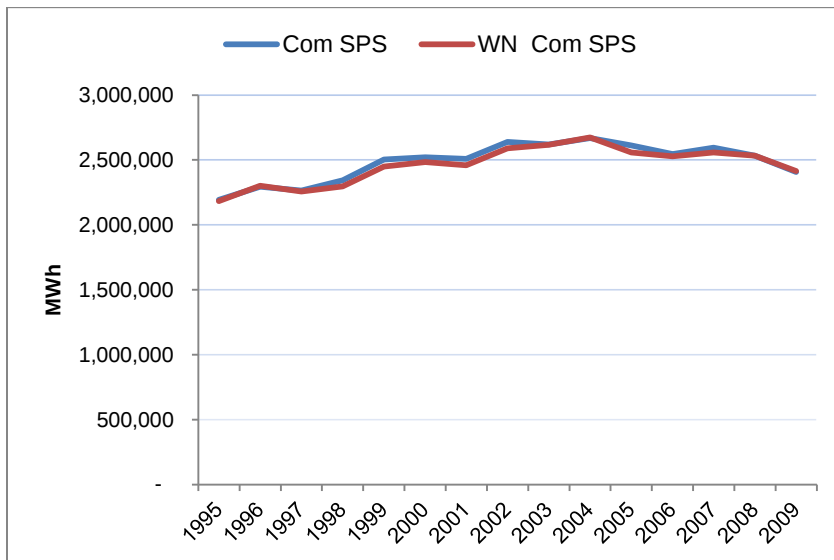
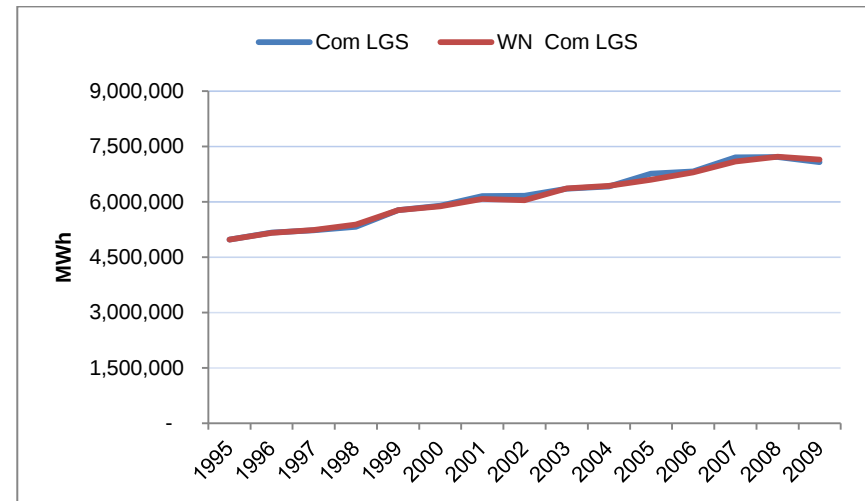
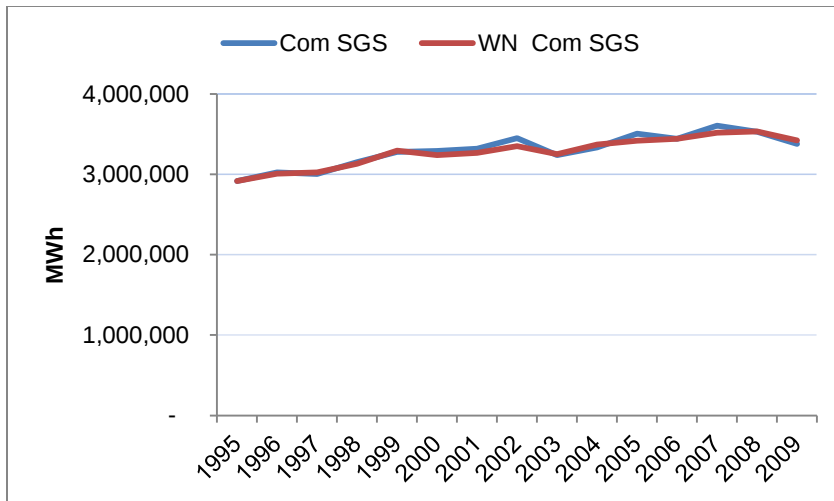
Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Lighting	LTS
1995	7.00	18.03	563	3,865	35,367	30.26	754	6,280	46,749	10.68	
1996	7.14	18.22	555	3,919	34,801	31.99	741	6,417	49,027	10.84	
1997	7.23	17.90	544	3,638	33,752	32.12	729	6,367	49,203	11.14	
1998	7.42	18.16	549	3,673	33,229	31.04	724	6,157	52,683	7.74	
1999	7.41	17.59	579	3,956	34,804	29.93	751	6,749	61,828	2.43	
2000	7.45	17.04	554	3,860	33,928	30.23	736	5,931	60,163	2.30	
2001	7.53	17.02	538	3,713	30,538	30.49	715	5,961	70,874	2.21	
2002	7.91	17.27	513	3,636	31,724	28.38	693	5,186	52,410	2.87	
2003	7.90	16.72	527	3,725	30,999	27.80	680	4,981	52,444	3.07	
2004	8.10	16.60	510	3,804	30,526	27.79	675	5,111	52,244	3.07	
2005	8.08	16.41	509	3,606	31,214	27.17	695	5,035	52,436	3.05	990,830
2006	8.26	16.42	509	3,572	31,223	27.35	676	4,926	51,145	3.02	2,707,074
2007	8.40	16.59	522	3,566	31,063	26.98	682	4,998	50,937	3.05	2,716,212
2008	8.74	16.69	527	3,561	30,697	26.57	662	4,690	47,336	3.05	2,743,326
2009	8.66	16.07	517	3,416	29,979	24.45	577	4,104	39,523	3.00	1,711,894

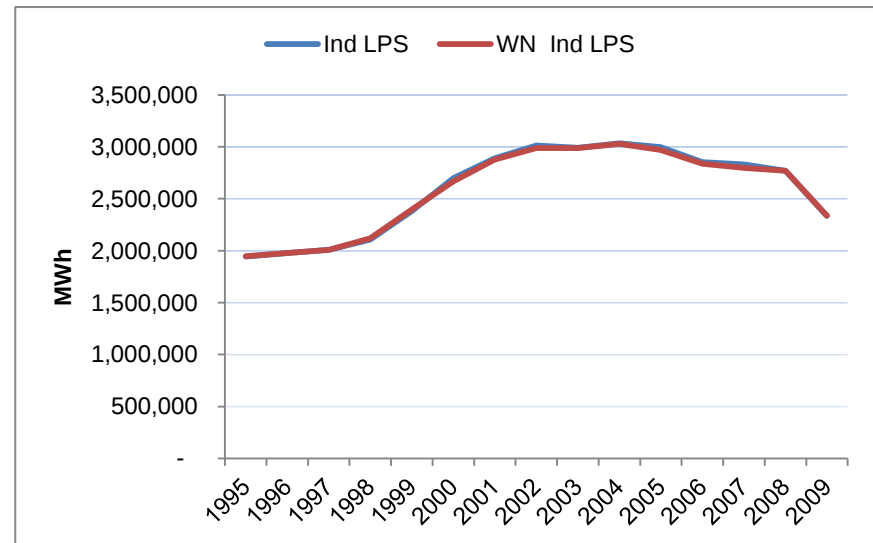
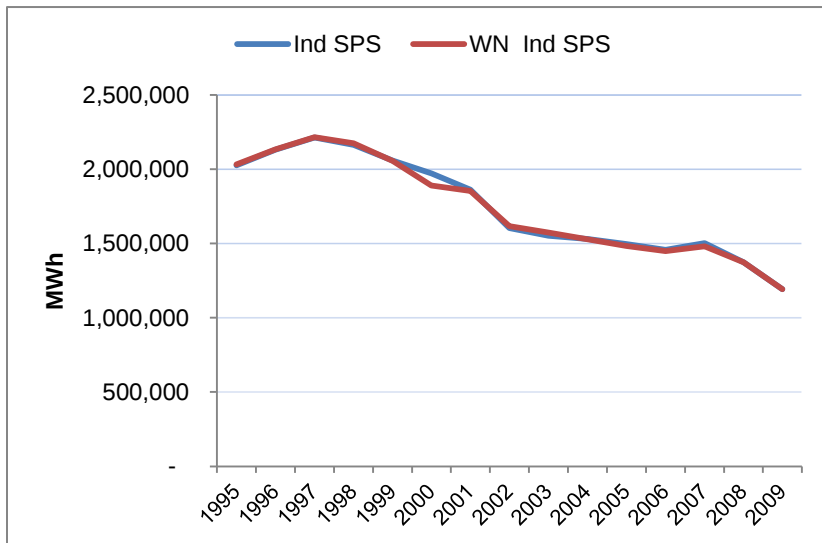
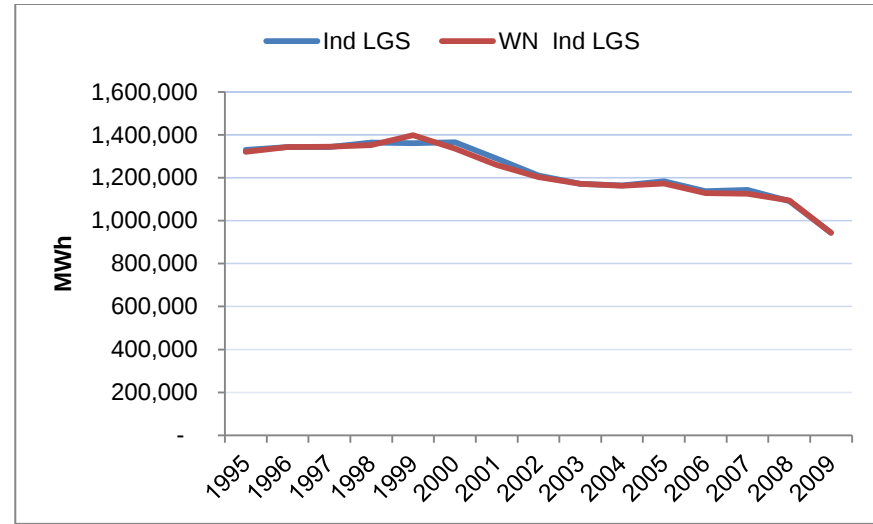
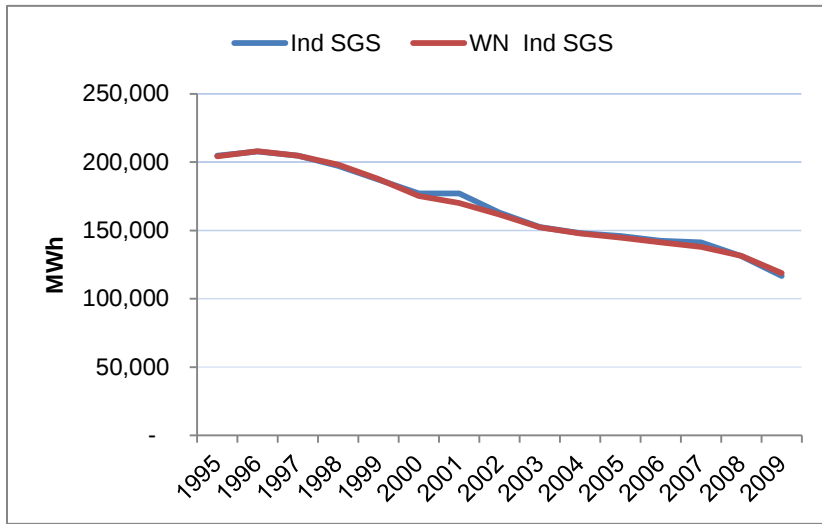
Historical Actual and Weather Normalized Total Annual Energy Usage (Total Billed Sales) by Classes (1995-2009)⁵



⁵ 4 CSR 240-22.030(8)(A), 4 CSR 240-22.030(8)(A)1, 4 CSR 240-22.030(8)(A)2.A; EO-2007-0409 – Stipulation and Agreement #8

* A change in the methodology of reporting Lighting customers took place 1999. Lighting usage data after this change was used for forecasting.





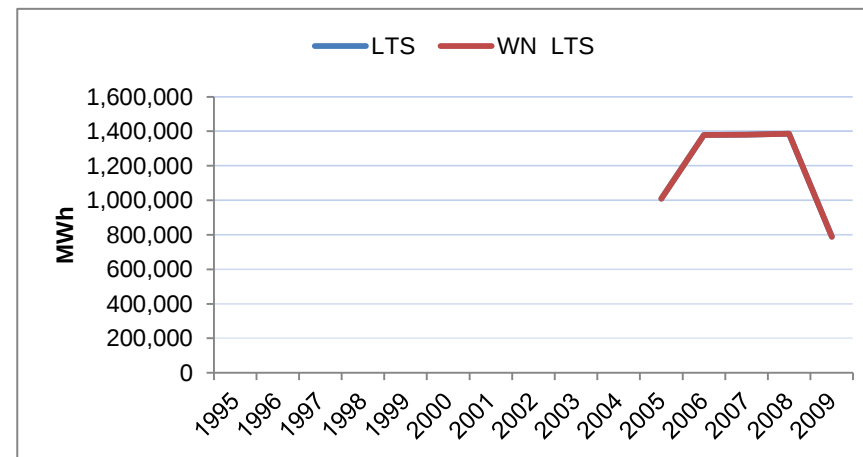
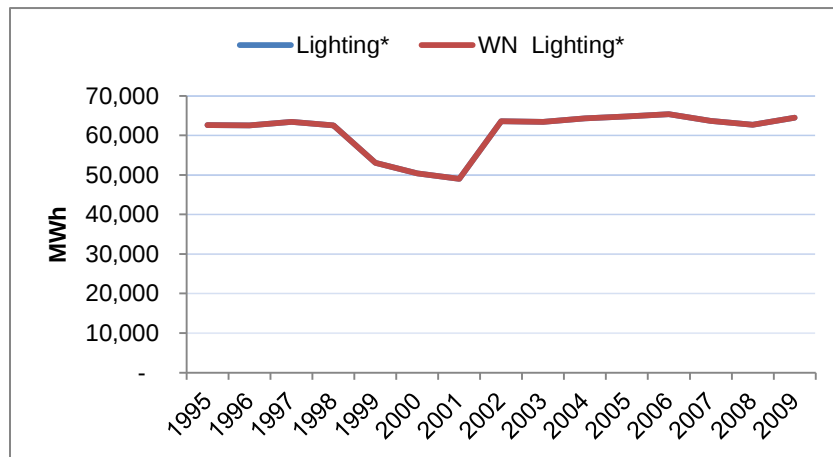
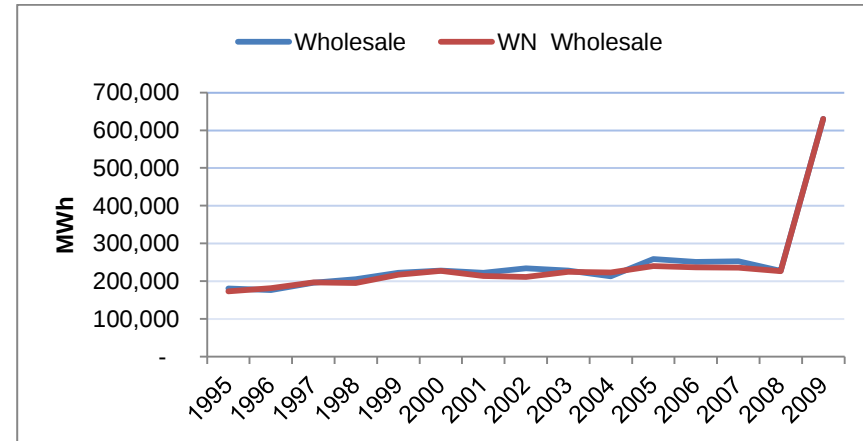
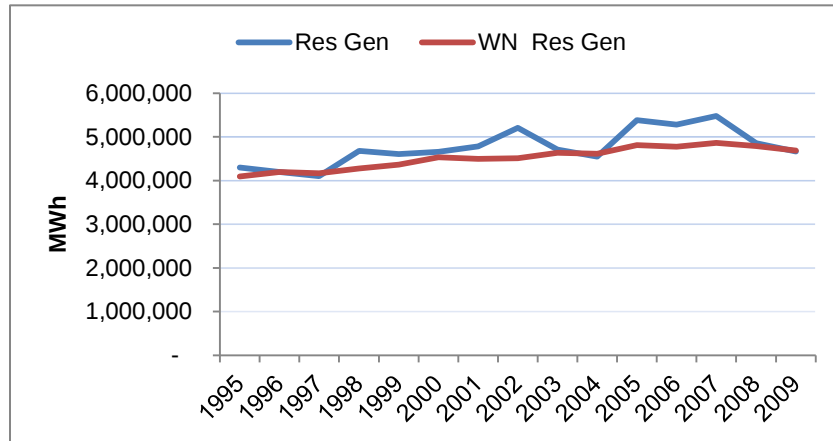
Historical Actual Total Annual Energy Usage (Total Billed Sales) by Classes (MWh)

Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Wholesale	LTS	Lighting
1995	10,556,934	2,916,810	4,978,079	2,193,581	850,399	204,760	1,329,272	2,025,270	1,943,848	451,259		213,517
1996	11,026,442	3,022,101	5,166,584	2,292,942	880,650	207,763	1,342,564	2,131,947	1,976,871	465,950		214,739
1997	10,938,516	3,004,293	5,226,292	2,264,252	961,072	204,619	1,343,288	2,213,572	2,007,899	504,993		218,458
1998	11,442,954	3,149,536	5,325,312	2,343,137	953,817	197,252	1,363,284	2,163,472	2,107,819	523,639		214,634
1999	11,329,430	3,277,296	5,778,763	2,504,808	993,221	187,050	1,360,296	2,058,575	2,379,580	550,830		182,464
2000	11,669,122	3,289,375	5,896,079	2,520,499	995,854	177,051	1,366,040	1,971,381	2,699,228	571,298		173,639
2001	12,147,640	3,318,044	6,154,496	2,507,473	953,773	177,096	1,289,055	1,861,309	2,889,639	566,064		168,152
2002	12,811,661	3,447,261	6,163,417	2,638,698	1,001,177	163,025	1,209,709	1,603,599	3,013,506	583,579		218,851
2003	12,300,297	3,238,336	6,356,926	2,620,439	1,044,329	152,368	1,171,873	1,550,777	2,989,082	588,336		229,491
2004	12,354,282	3,332,923	6,416,254	2,669,818	1,093,086	148,044	1,164,009	1,529,513	3,033,066	590,750		231,690
2005	13,547,688	3,503,037	6,763,533	2,610,827	1,250,430	145,948	1,183,801	1,495,759	2,996,097	645,510	2,000,773	233,005
2006	13,229,965	3,439,734	6,825,584	2,546,129	1,335,773	142,490	1,136,968	1,456,480	2,850,936	626,581	4,086,126	232,936
2007	14,100,232	3,605,231	7,209,062	2,594,151	1,404,905	141,162	1,143,051	1,501,339	2,829,588	653,723	4,096,908	233,841
2008	13,779,099	3,528,087	7,217,904	2,533,957	1,392,364	131,236	1,091,790	1,373,246	2,768,194	621,485	4,128,768	233,294
2009	13,327,546	3,376,760	7,080,540	2,407,769	1,482,235	116,762	942,887	1,191,463	2,334,640	1,544,195	2,500,029	231,525

Historical Weather Normalized Total Annual Energy Usage (Total Billed Sales) by Classes (MWh)

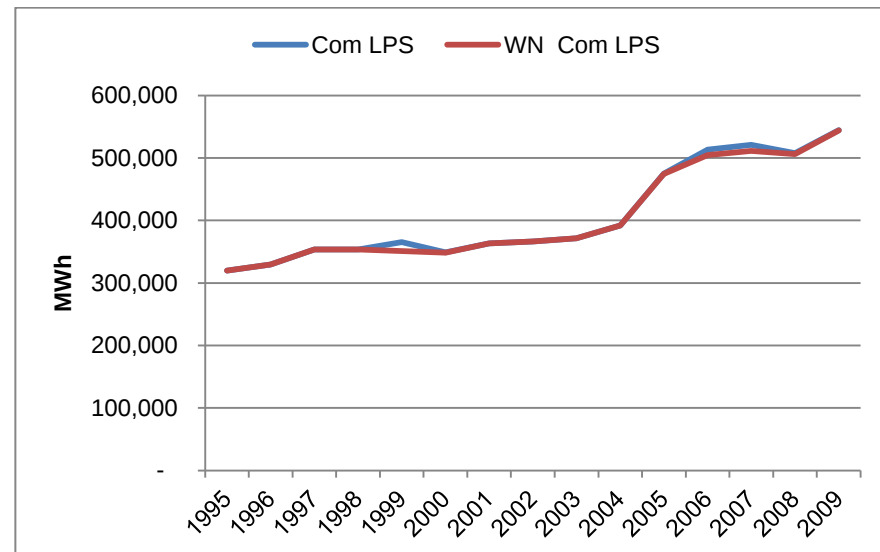
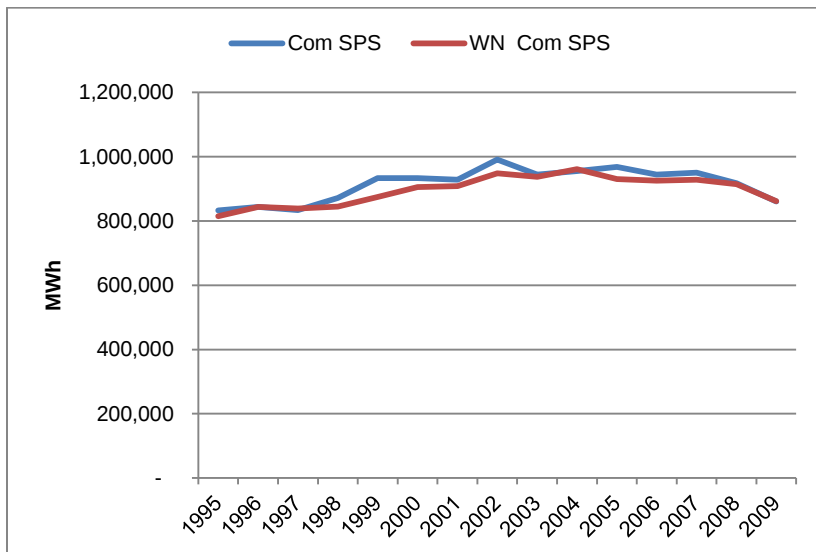
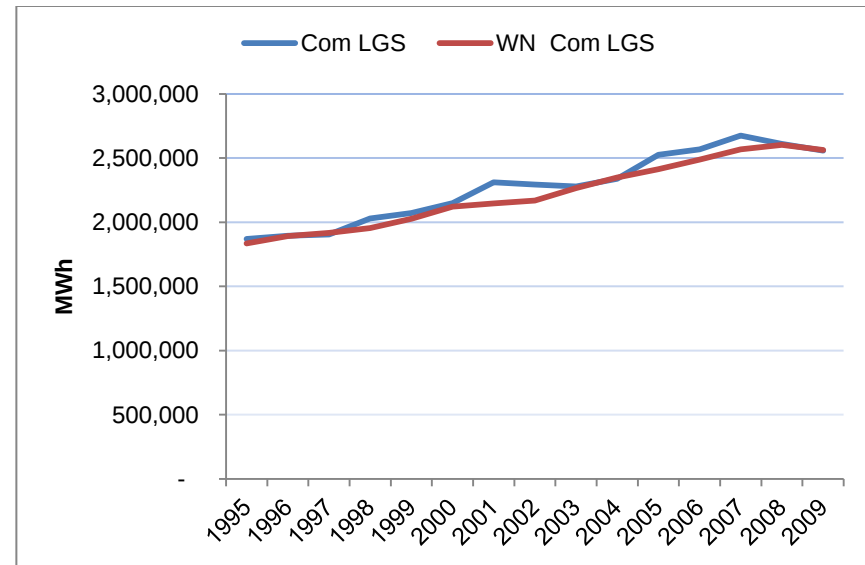
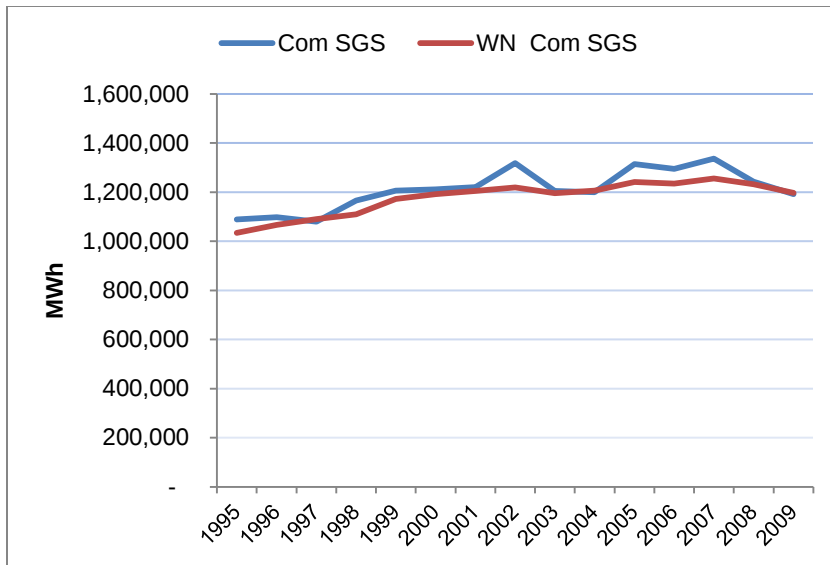
YEAR	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Wholesale	LTS	Lighting
1995	10,636,036	2,888,689	4,981,339	2,182,301	850,319	204,318	1,319,903	2,032,074	1,946,232	448,249		213,517
1996	10,905,786	2,978,824	5,159,109	2,302,030	880,701	207,949	1,343,670	2,133,653	1,978,634	465,747		214,739
1997	11,000,345	3,021,849	5,239,833	2,257,951	961,099	204,632	1,343,831	2,214,749	2,009,044	503,776		218,458
1998	11,348,408	3,130,263	5,392,469	2,296,718	951,496	198,152	1,351,763	2,173,660	2,119,851	511,721		214,634
1999	11,488,273	3,195,531	5,711,810	2,390,546	967,851	187,606	1,398,844	2,055,885	2,395,841	548,538		182,464
2000	11,751,536	3,239,420	5,882,287	2,484,374	996,161	175,281	1,335,801	1,888,880	2,687,101	570,222		173,639
2001	11,852,485	3,288,104	5,980,585	2,492,607	973,986	170,154	1,259,543	1,852,432	2,875,289	556,254		168,152
2002	12,289,287	3,362,441	6,049,575	2,589,361	1,000,662	161,733	1,203,365	1,616,048	3,024,595	561,068		218,851
2003	12,479,231	3,323,380	6,366,371	2,616,561	1,044,280	152,241	1,170,844	1,572,110	3,013,706	587,257		229,491
2004	12,724,586	3,371,407	6,438,293	2,673,133	1,093,001	147,864	1,162,304	1,527,188	3,028,818	597,971		231,690
2005	12,978,636	3,417,184	6,600,314	2,556,996	1,243,353	144,728	1,173,548	1,483,103	2,970,236	626,926	2,000,773	233,005
2006	13,200,138	3,442,008	6,796,266	2,527,967	1,327,748	141,274	1,127,899	1,448,189	2,836,380	614,405	4,086,126	232,936
2007	13,500,608	3,516,068	7,097,076	2,557,883	1,388,144	137,854	1,126,064	1,480,984	2,796,097	634,515	4,096,908	233,841
2008	13,818,096	3,532,526	7,235,411	2,533,603	1,391,129	131,313	1,094,320	1,373,558	2,769,140	620,822	4,128,768	233,294
2009	13,638,993	3,421,569	7,149,205	2,413,929	1,482,746	118,733	943,427	1,192,118	2,336,402	1,547,369	2,500,029	231,525

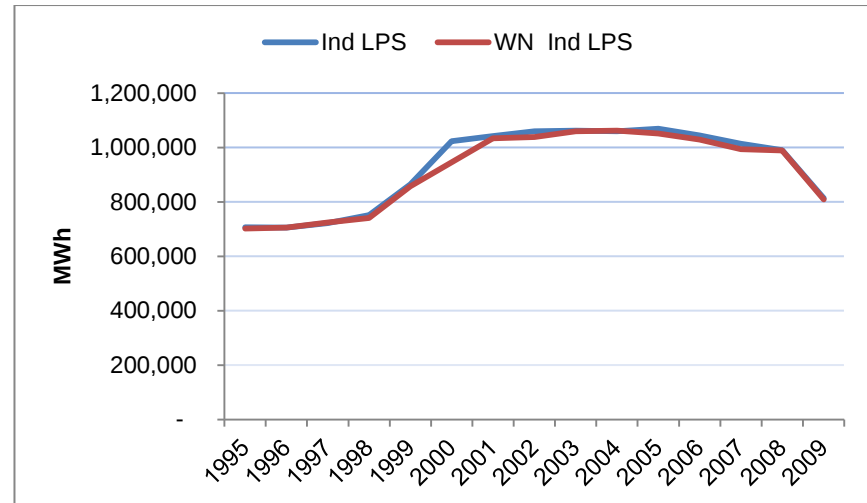
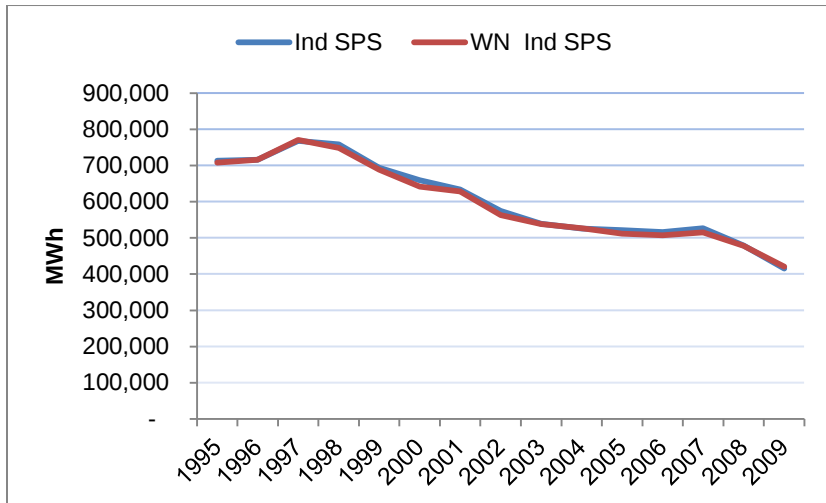
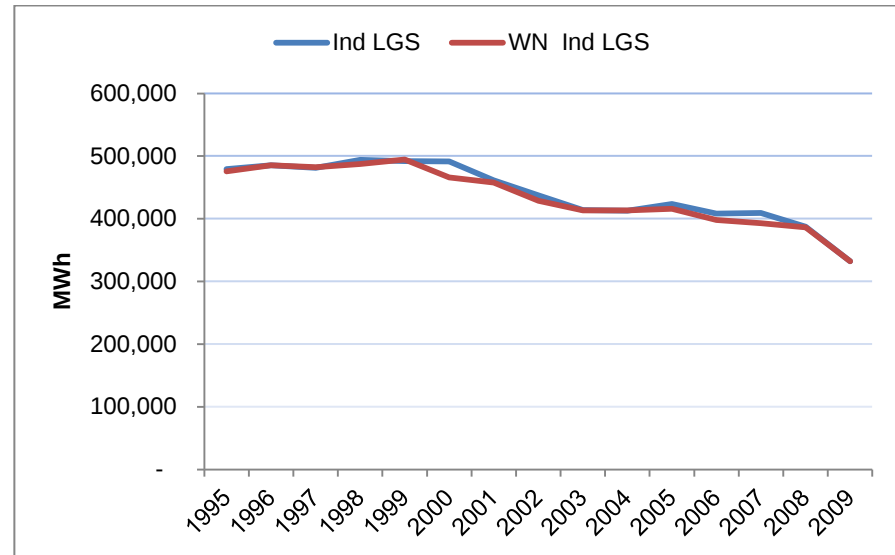
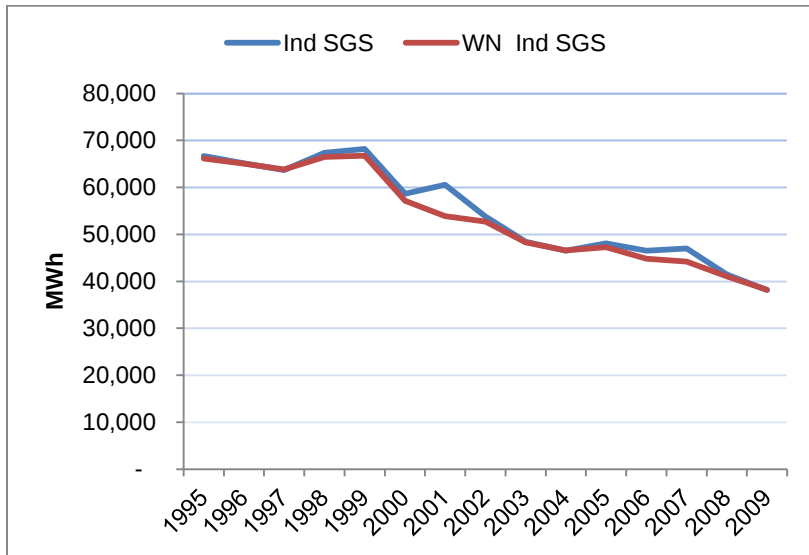
Historical Actual and Weather Normalized Total Energy Usage (Total Billed Sales) by Classes for Summer Months (1995-2009)⁶



⁶ 4 CSR 240-22.030(8)(A), 4 CSR 240-22.030(8)(A)1, 4 CSR 240-22.030(8)(A)2.A; EO-2007-0409 – Stipulation and Agreement #8

* A change in the methodology of reporting Lighting customers took place 1999. Lighting usage data after this change was used for forecasting.





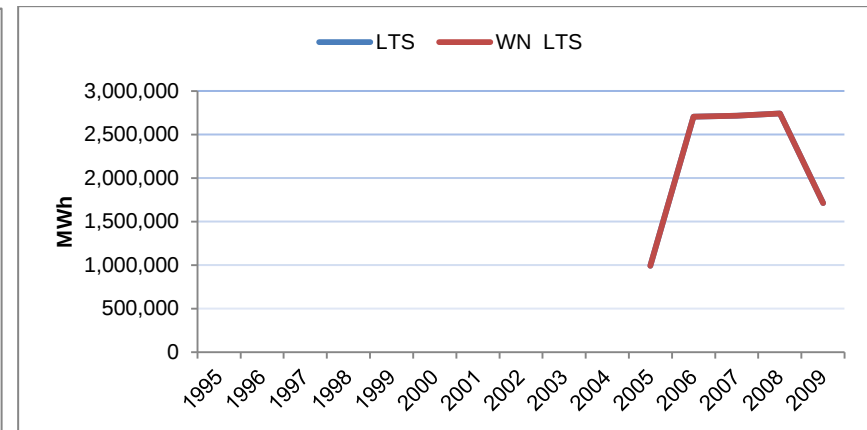
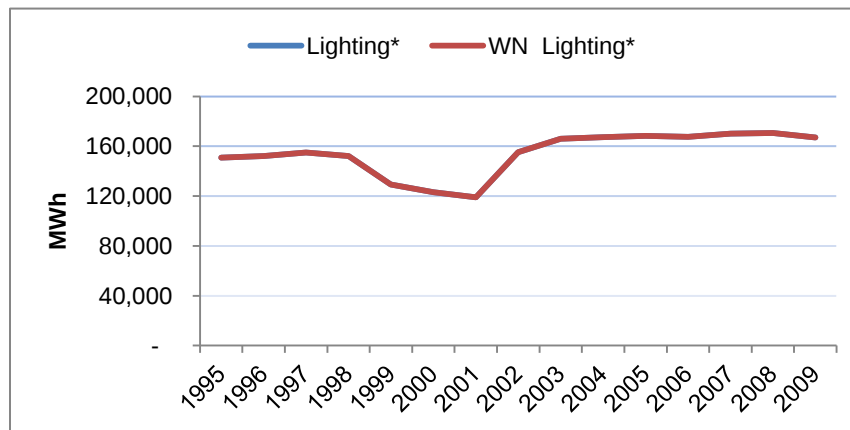
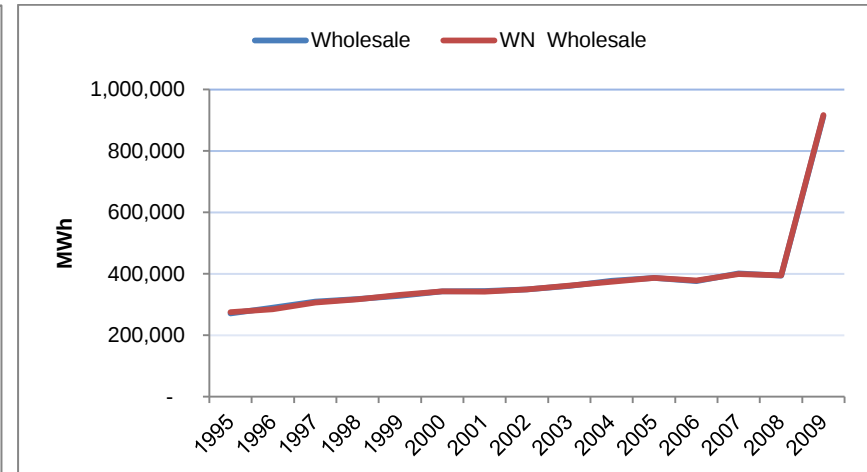
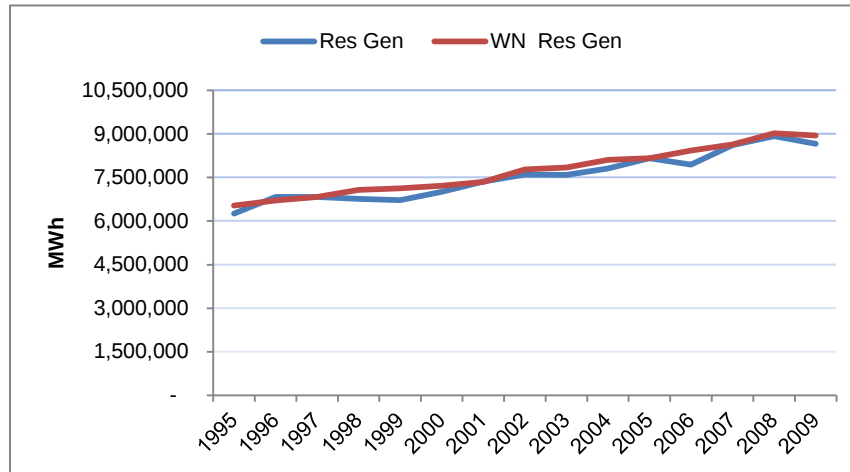
Historical Actual Total Energy Usage (Total Billed Sales) for Summer Months

Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Wholesale	LTS	Lighting
1995	4,299,982	1,088,273	1,870,815	832,563	319,961	66,689	479,435	712,798	706,251	180,367		62,580
1996	4,196,485	1,097,269	1,894,684	844,132	329,425	65,086	485,364	715,946	705,200	176,446		62,509
1997	4,102,546	1,080,255	1,904,410	834,286	353,522	63,682	481,183	768,350	722,038	195,628		63,431
1998	4,681,190	1,165,000	2,028,755	871,321	353,661	67,400	493,834	758,527	750,925	205,206		62,556
1999	4,606,841	1,205,897	2,070,498	933,196	365,437	68,184	491,824	693,809	864,140	222,491		53,091
2000	4,658,294	1,210,723	2,148,547	933,137	348,802	58,674	491,419	659,463	1,023,511	227,856		50,412
2001	4,784,793	1,220,344	2,311,896	928,576	363,423	60,551	461,630	633,815	1,042,108	222,068		49,040
2002	5,202,537	1,317,834	2,293,923	991,334	366,617	53,822	437,530	574,599	1,059,005	233,908		63,534
2003	4,705,934	1,204,256	2,278,232	944,751	371,351	48,451	414,155	539,341	1,062,193	227,989		63,437
2004	4,544,821	1,199,933	2,339,523	954,997	392,153	46,527	413,072	525,554	1,059,885	213,296		64,288
2005	5,382,566	1,314,053	2,525,337	968,025	474,727	48,098	423,469	521,051	1,069,469	258,809	1,009,942	64,757
2006	5,282,781	1,294,668	2,568,858	944,721	513,317	46,542	408,294	515,764	1,044,664	250,730	1,379,053	65,322
2007	5,476,327	1,335,835	2,674,015	950,390	521,095	47,017	409,089	526,906	1,013,428	252,806	1,380,696	63,684
2008	4,852,731	1,242,341	2,610,466	917,616	507,820	41,506	387,572	478,902	990,540	227,511	1,385,442	62,665
2009	4,662,987	1,191,430	2,557,185	861,100	544,274	38,151	332,463	415,368	813,866	629,858	788,135	64,447

Historical Weather Normalized Total Energy Usage (Total Billed Sales) for Summer Months

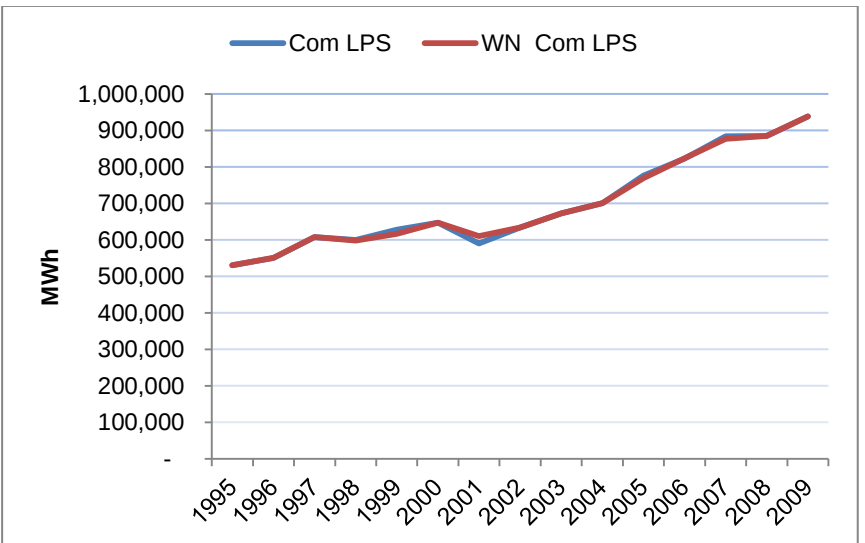
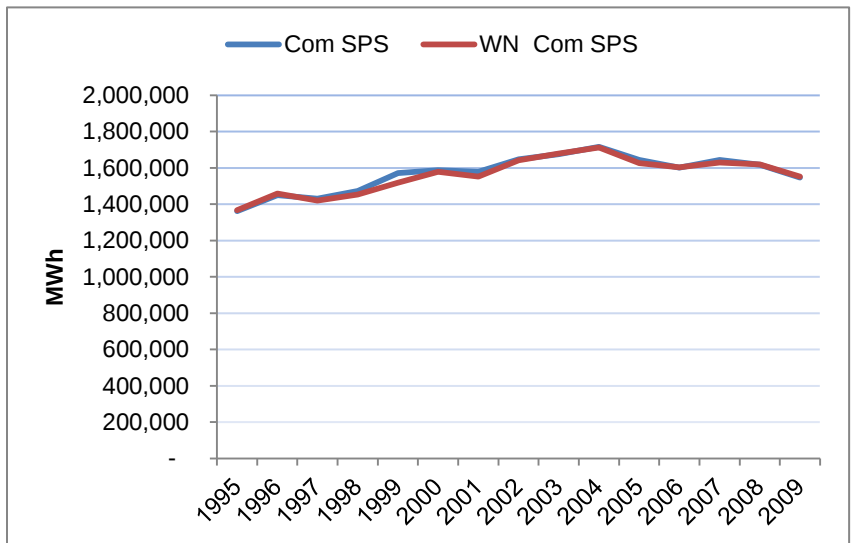
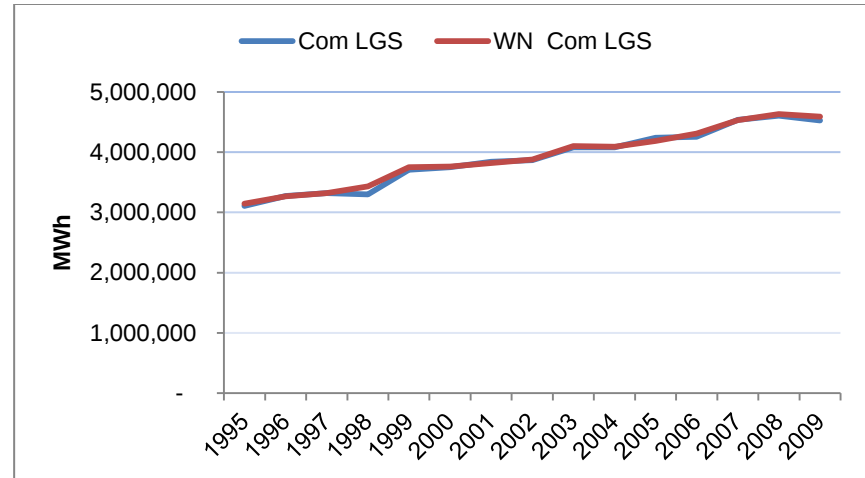
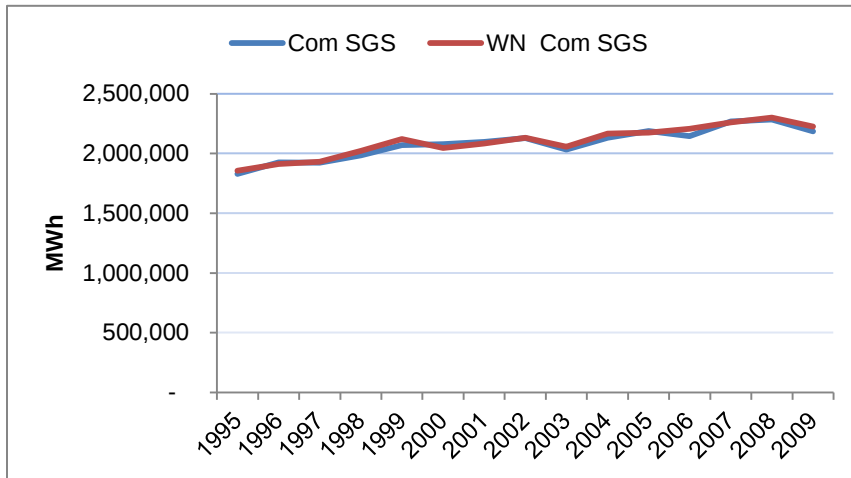
Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Wholesale	LTS	Lighting
1995	4,096,255	1,033,702	1,834,831	815,339	319,808	66,173	475,897	707,645	701,536	173,419		62,580
1996	4,193,510	1,065,973	1,893,214	844,260	329,421	65,080	485,214	715,630	705,060	181,184		62,509
1997	4,165,195	1,090,450	1,918,009	838,640	353,571	63,800	482,279	770,235	723,971	196,808		63,431
1998	4,274,873	1,109,150	1,953,361	844,499	353,379	66,506	487,282	748,534	740,688	194,919		62,556
1999	4,362,919	1,172,466	2,026,528	875,110	351,042	66,752	494,576	682,181	857,562	216,832		53,091
2000	4,528,663	1,192,064	2,122,407	905,721	348,706	57,120	465,891	641,967	945,471	227,161		50,412
2001	4,497,543	1,204,600	2,146,013	908,770	363,235	53,862	450,139	628,594	1,033,381	214,051		49,040
2002	4,508,222	1,218,453	2,169,618	948,257	366,189	52,739	424,380	563,274	1,037,826	211,479		63,534
2003	4,635,567	1,195,217	2,264,857	937,237	371,304	48,325	413,161	538,162	1,059,997	225,078		63,437
2004	4,613,247	1,205,815	2,348,764	961,510	392,185	46,598	413,604	526,262	1,061,469	223,452		64,288
2005	4,812,788	1,241,124	2,412,627	930,935	474,151	47,250	416,023	511,915	1,050,772	240,083	1,009,942	64,757
2006	4,773,738	1,234,166	2,487,980	925,194	504,323	44,787	398,024	507,101	1,028,848	236,423	1,379,053	65,322
2007	4,864,924	1,256,085	2,568,232	928,913	511,312	44,200	393,111	515,111	993,889	235,680	1,380,696	63,684
2008	4,790,145	1,232,019	2,603,324	914,719	505,940	41,094	386,565	477,908	989,067	226,201	1,385,442	62,665
2009	4,688,999	1,196,990	2,561,740	861,911	544,244	38,232	332,291	420,222	809,515	630,047	788,135	64,447

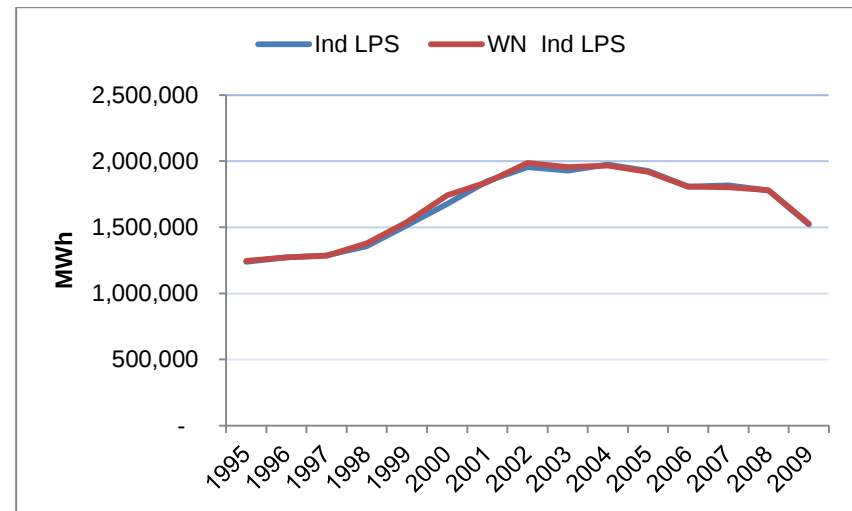
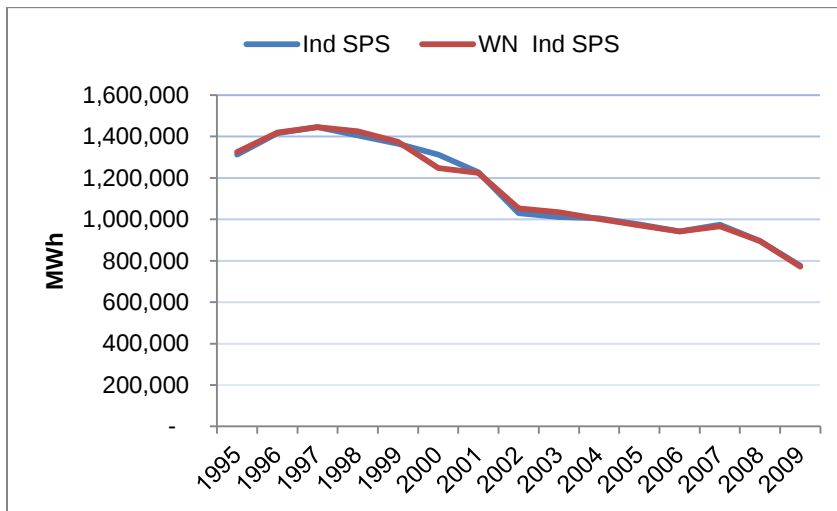
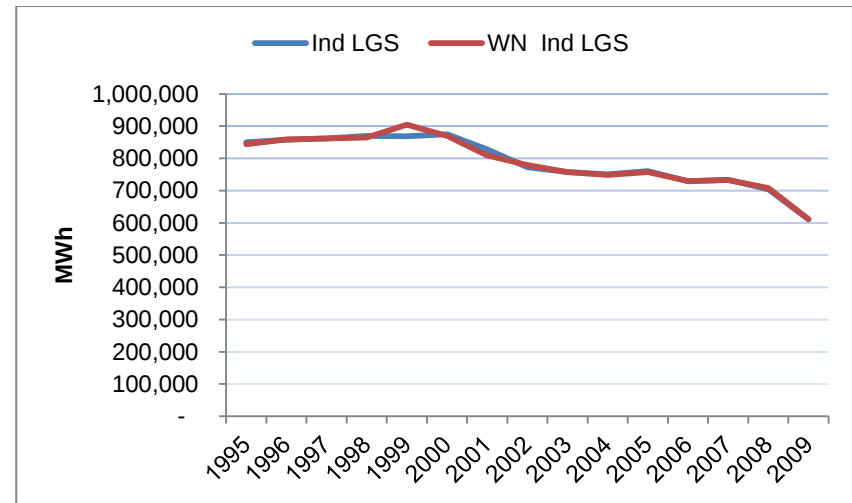
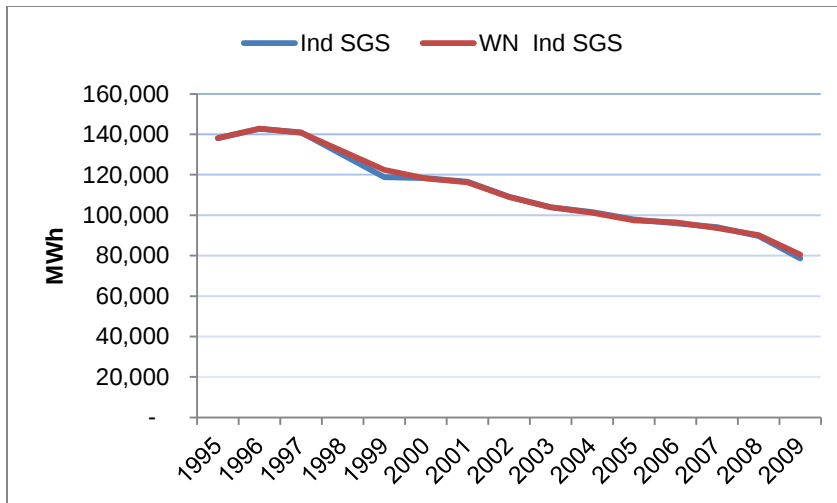
Historical Actual and Weather Normalized Total Energy Usage (Total Billed Sales) by Classes for Non-Summer Months (1995-2009)⁷



⁷ 4 CSR 240-22.030(8)(A), 4 CSR 240-22.030(8)(A)1, 4 CSR 240-22.030(8)(A)2.A; EO-2007-0409 – Stipulation and Agreement #8

* A change in the methodology of reporting Lighting customers took place 1999. Lighting usage data after this change was used for forecasting



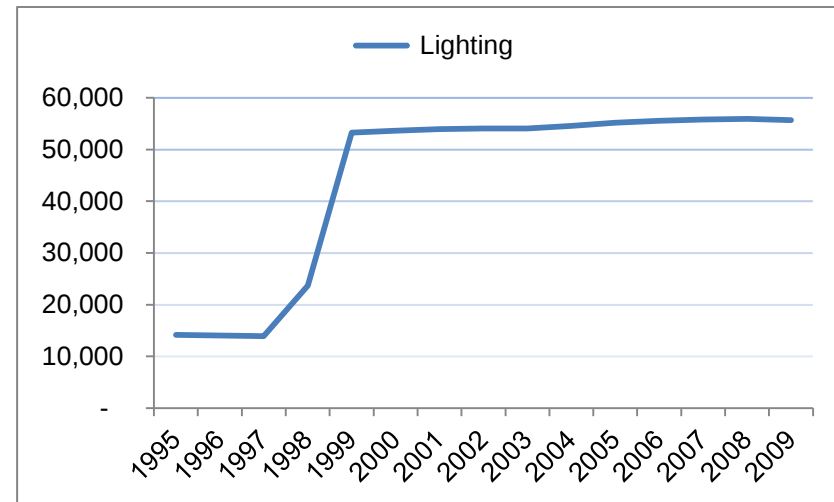
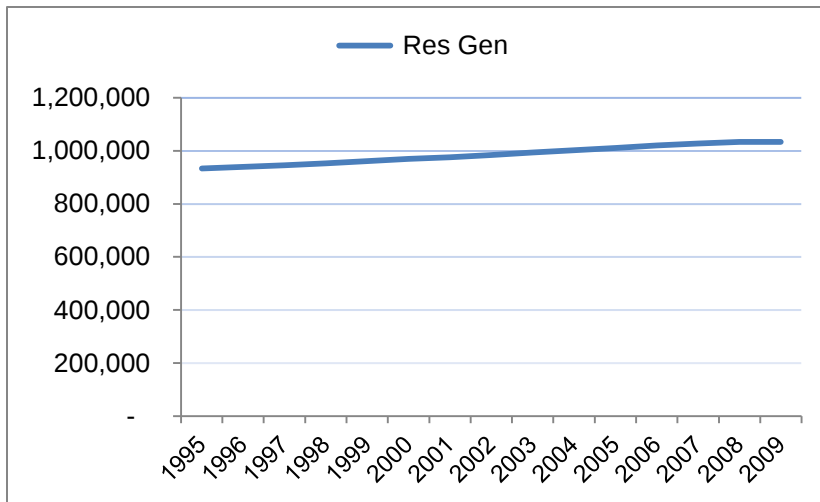


Historical Actual Total Energy Usage (Total Billed Sales) for Non-Summer Months (MWh)

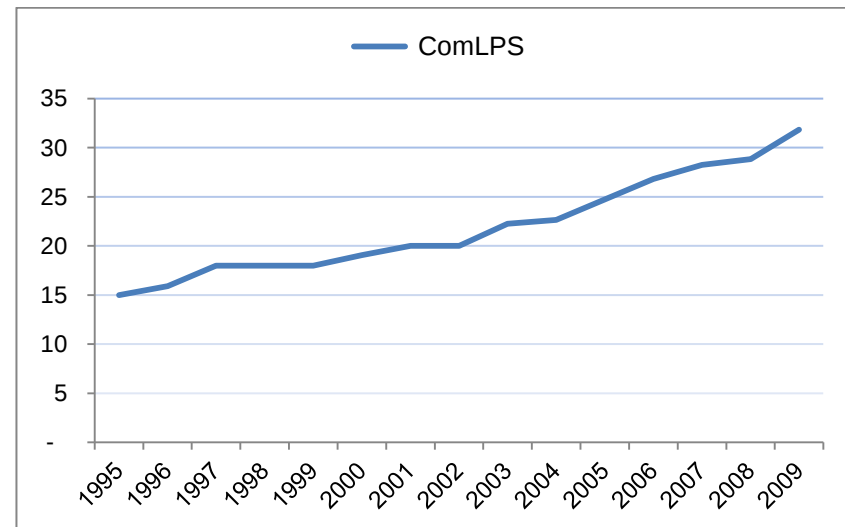
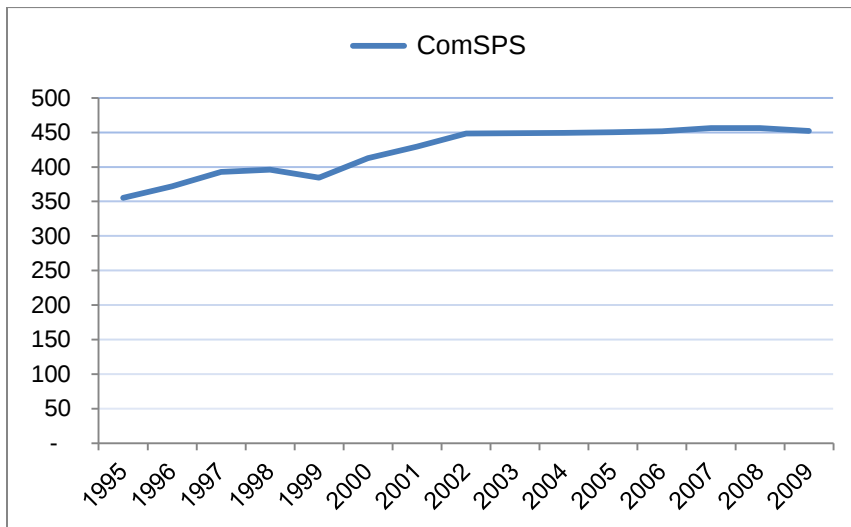
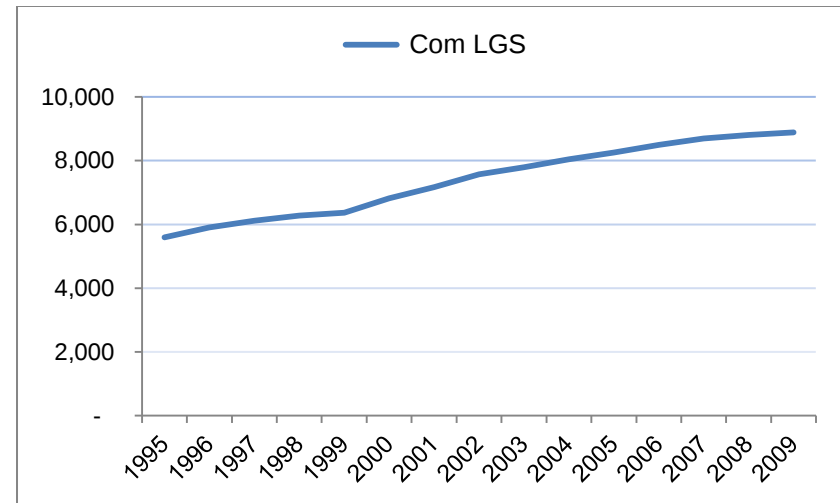
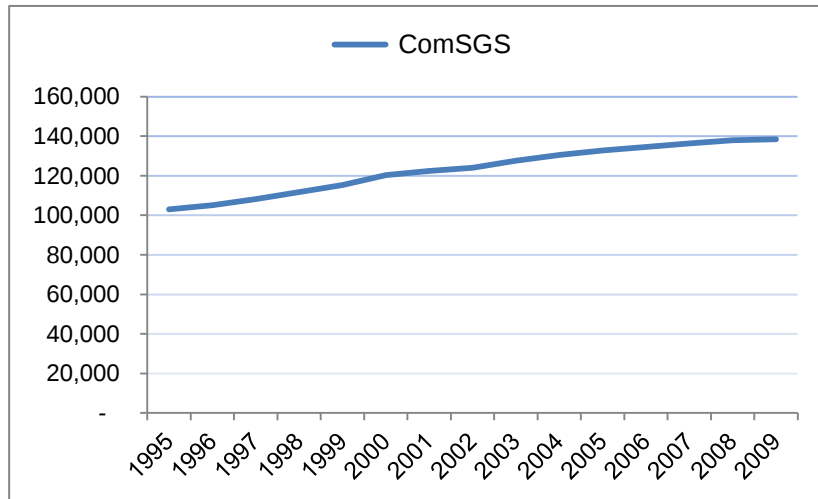
Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Wholesale	LTS	Lighting
1995	6,256,952	1,828,538	3,107,264	1,361,018	530,439	138,072	849,837	1,312,472	1,237,597	270,892		150,937
1996	6,829,957	1,924,832	3,271,900	1,448,810	551,225	142,677	857,200	1,416,001	1,271,671	289,504		152,230
1997	6,835,970	1,924,038	3,321,882	1,429,966	607,550	140,937	862,105	1,445,222	1,285,861	309,365		155,027
1998	6,761,764	1,984,536	3,296,557	1,471,816	600,156	129,852	869,450	1,404,945	1,356,894	318,433		152,078
1999	6,722,589	2,071,399	3,708,265	1,571,613	627,784	118,866	868,472	1,364,766	1,515,440	328,340		129,373
2000	7,010,828	2,078,652	3,747,532	1,587,363	647,052	118,377	874,622	1,311,918	1,675,717	343,442		123,227
2001	7,362,847	2,097,700	3,842,600	1,578,897	590,350	116,545	827,425	1,227,494	1,847,531	343,996		119,112
2002	7,609,124	2,129,427	3,869,494	1,647,364	634,560	109,203	772,179	1,029,000	1,954,501	349,671		155,317
2003	7,594,363	2,034,080	4,078,694	1,675,688	672,978	103,917	757,719	1,011,436	1,926,889	360,346		166,054
2004	7,809,461	2,132,990	4,076,731	1,714,821	700,933	101,517	750,937	1,003,959	1,973,181	377,454		167,402
2005	8,165,122	2,188,984	4,238,196	1,642,802	775,703	97,850	760,332	974,708	1,926,628	386,701	990,830	168,249
2006	7,947,184	2,145,066	4,256,726	1,601,408	822,456	95,948	728,673	940,717	1,806,272	375,851	2,707,074	167,614
2007	8,623,905	2,269,396	4,535,048	1,643,762	883,810	94,144	733,962	974,433	1,816,160	400,917	2,716,212	170,157
2008	8,926,368	2,285,746	4,607,439	1,616,341	884,544	89,730	704,218	894,344	1,777,655	393,974	2,743,326	170,629
2009	8,664,559	2,185,331	4,523,355	1,546,669	937,961	78,612	610,424	776,095	1,520,774	914,337	1,711,894	167,078

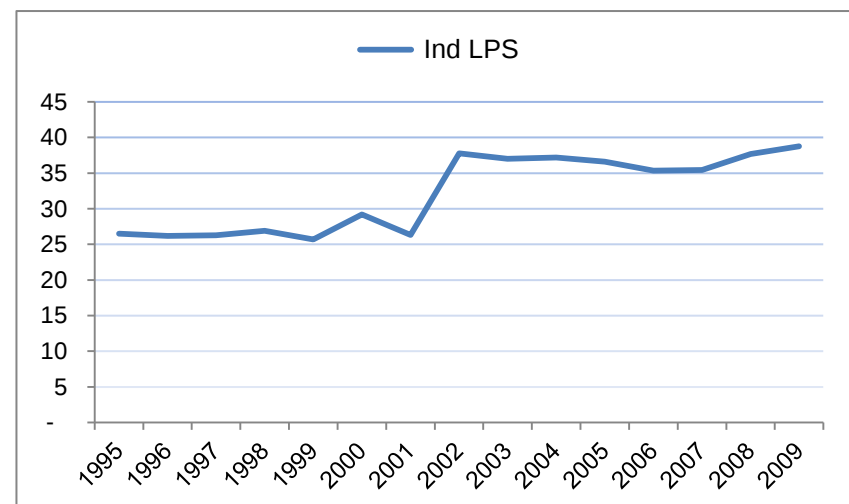
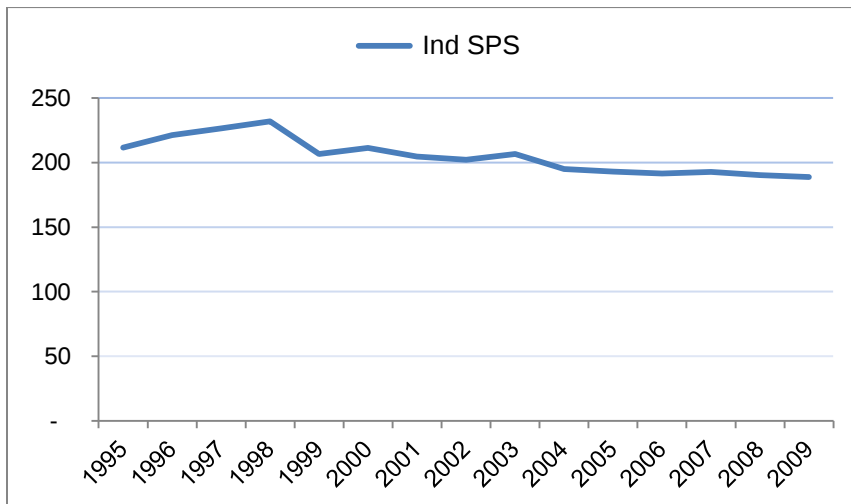
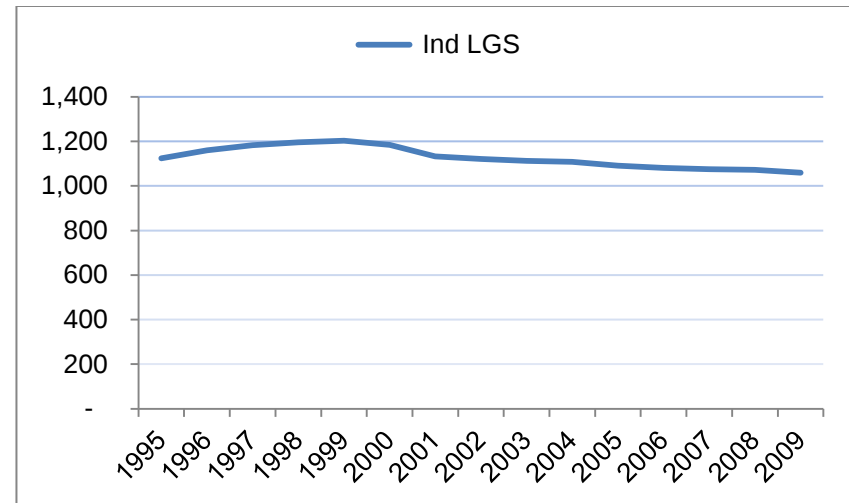
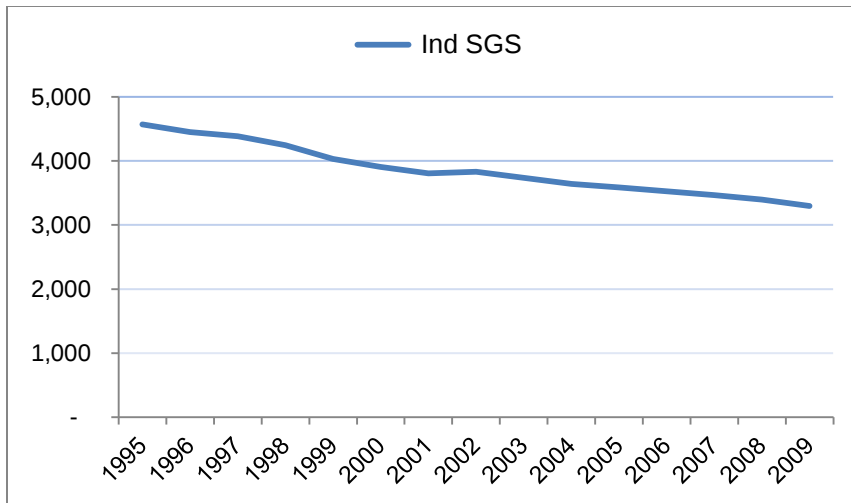
Historical Weather Normalized Energy Usage (Total Billed Sales) for Non-Summer Months (MWh)

Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Wholesale	LTS	Lighting
1995	6,539,781	1,854,986	3,146,508	1,366,963	530,511	138,145	844,005	1,324,429	1,244,696	274,831		150,937
1996	6,712,276	1,912,851	3,265,894	1,457,770	551,281	142,870	858,456	1,418,023	1,273,574	284,563		152,230
1997	6,835,150	1,931,399	3,321,824	1,419,312	607,528	140,832	861,552	1,444,514	1,285,074	306,968		155,027
1998	7,073,535	2,021,112	3,439,108	1,452,218	598,117	131,645	864,481	1,425,126	1,379,163	316,802		152,078
1999	7,125,354	2,023,065	3,685,282	1,515,436	616,808	120,854	904,268	1,373,704	1,538,279	331,706		129,373
2000	7,222,873	2,047,356	3,759,880	1,578,653	647,455	118,161	869,910	1,246,913	1,741,630	343,062		123,227
2001	7,354,942	2,083,504	3,834,572	1,583,837	610,751	116,293	809,404	1,223,838	1,841,908	342,203		119,112
2002	7,781,066	2,143,988	3,879,957	1,641,104	634,473	108,994	778,986	1,052,775	1,986,769	349,589		155,317
2003	7,843,663	2,128,162	4,101,514	1,679,324	672,976	103,917	757,683	1,033,948	1,953,709	362,179		166,054
2004	8,111,339	2,165,592	4,089,529	1,711,623	700,816	101,266	748,699	1,000,925	1,967,350	374,520		167,402
2005	8,165,848	2,176,060	4,187,687	1,626,060	769,203	97,478	757,524	971,189	1,919,463	386,843	990,830	168,249
2006	8,426,400	2,207,842	4,308,286	1,602,773	823,425	96,488	729,875	941,088	1,807,532	377,982	2,707,074	167,614
2007	8,635,684	2,259,983	4,528,843	1,628,970	876,832	93,654	732,953	965,872	1,802,208	398,834	2,716,212	170,157
2008	9,027,951	2,300,506	4,632,087	1,618,885	885,189	90,219	707,755	895,650	1,780,073	394,622	2,743,326	170,629
2009	8,949,994	2,224,579	4,587,465	1,552,018	938,502	80,500	611,136	771,896	1,526,887	917,322	1,711,894	167,078

Number of Annual Units (Billed Customer Counts) by Class⁸

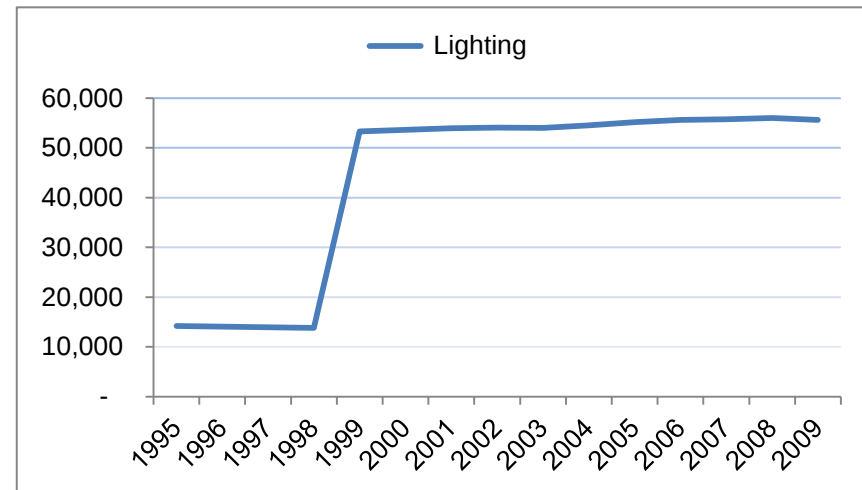
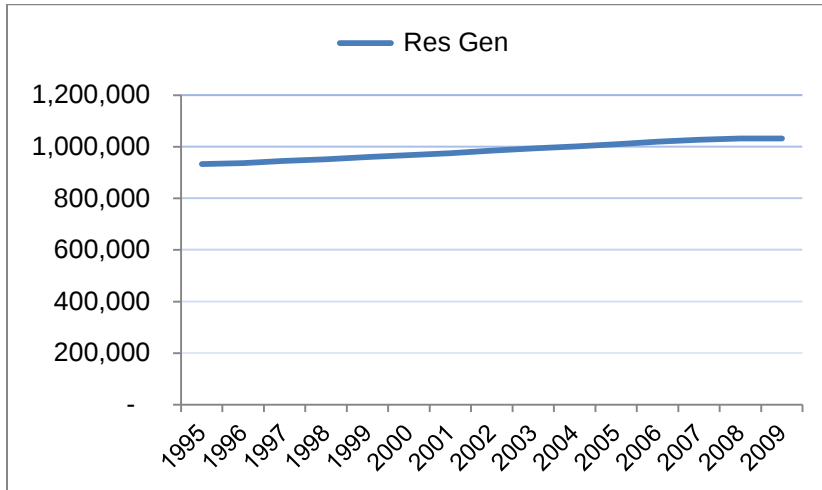
⁸ 4 CSR 240-22.030(8)(A), 4 CSR 240-22.030(8)(A)1



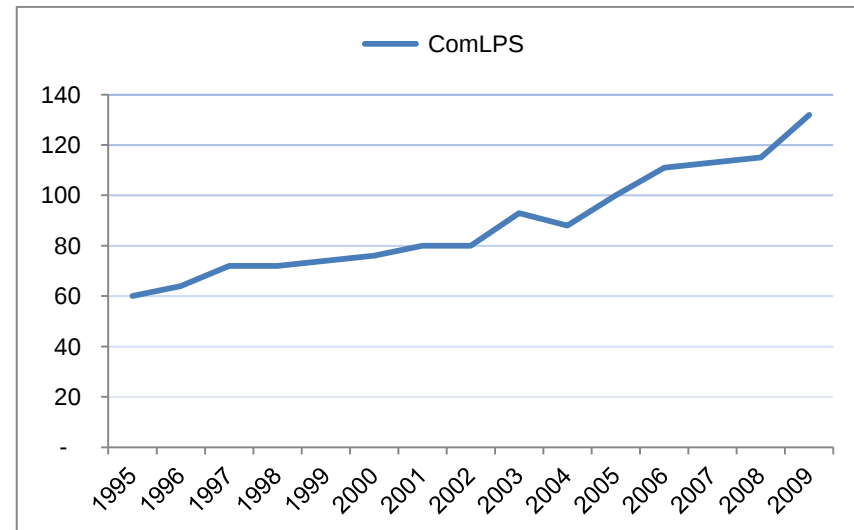
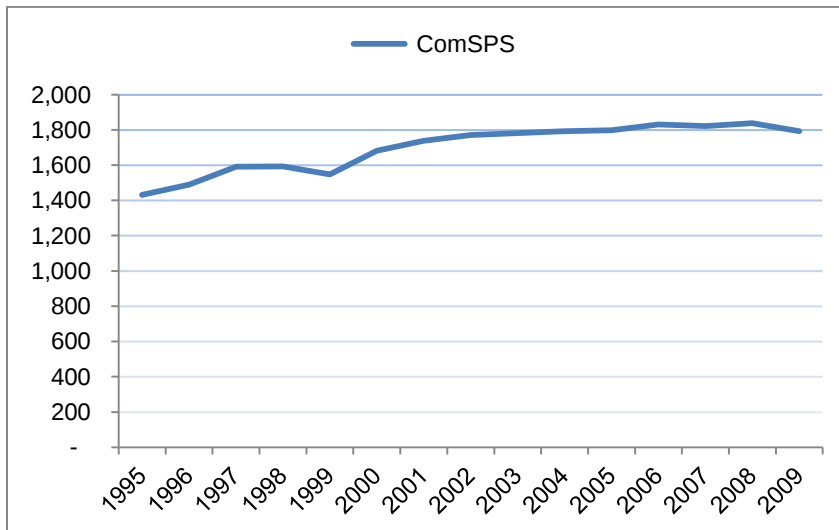
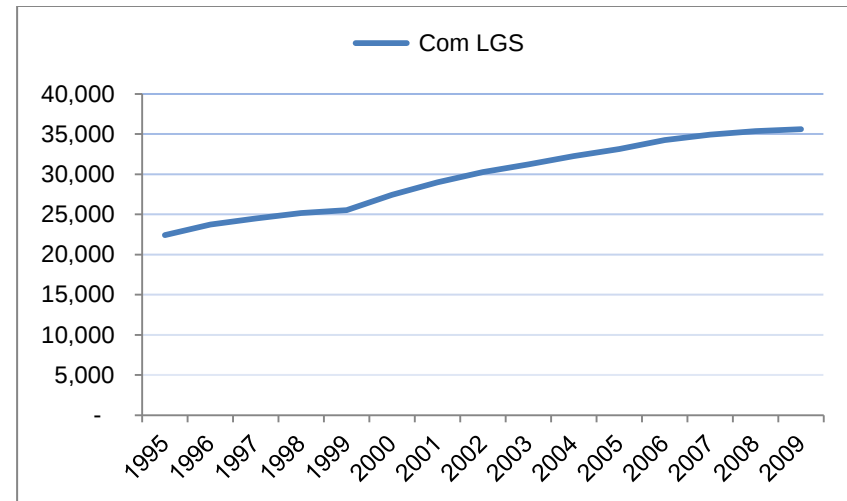
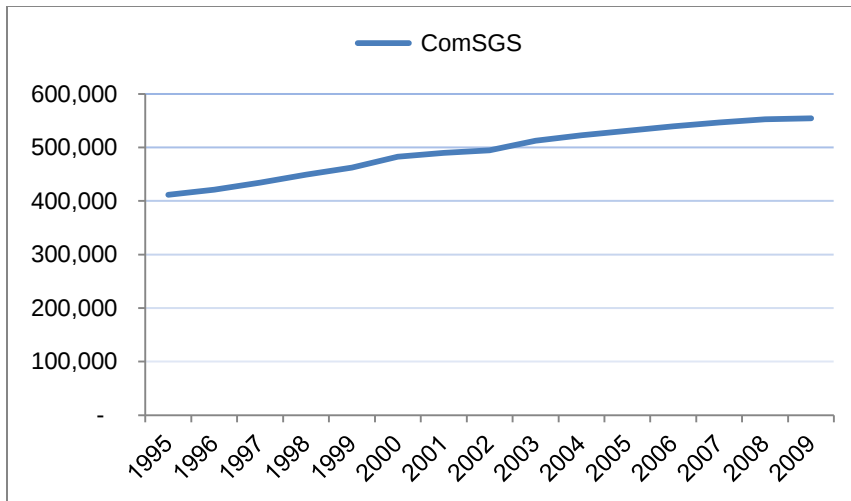


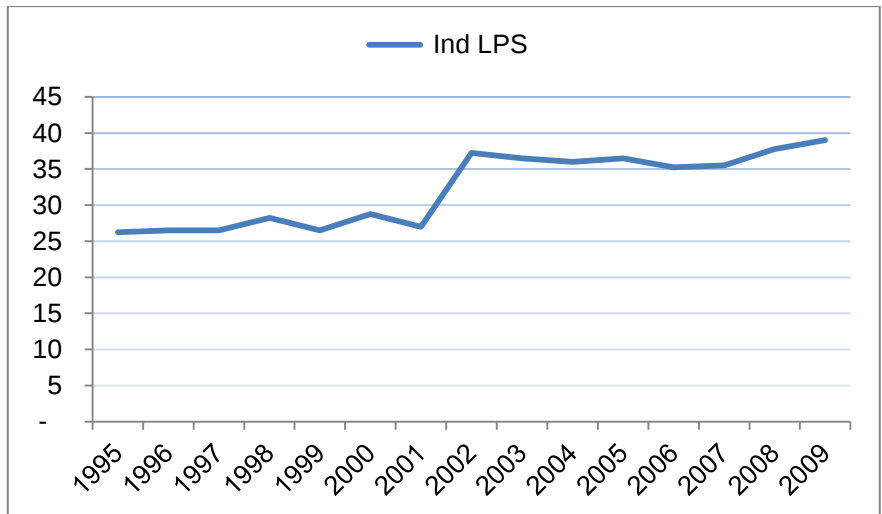
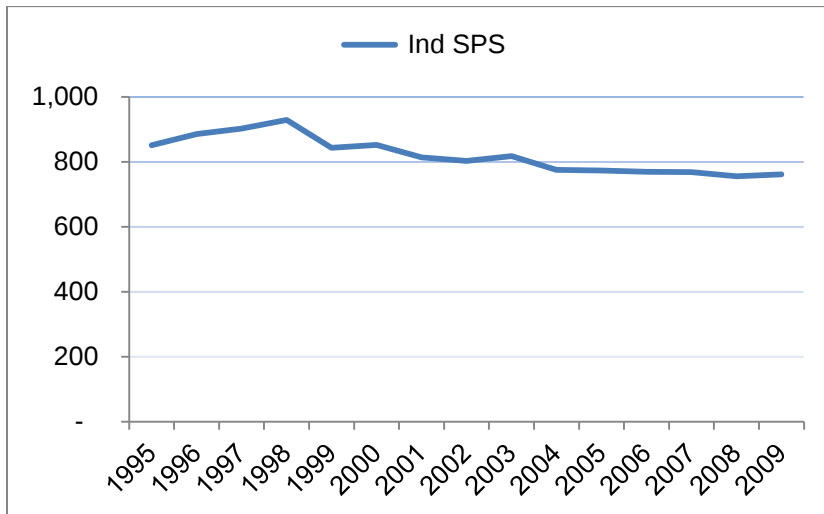
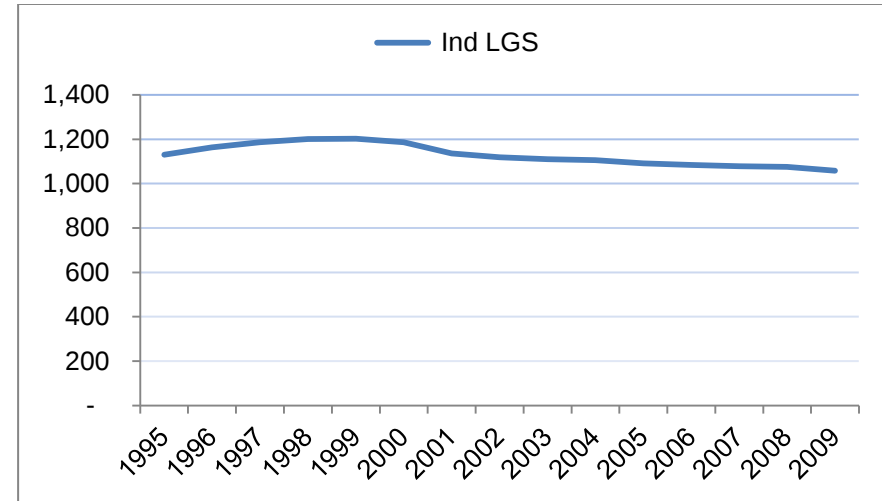
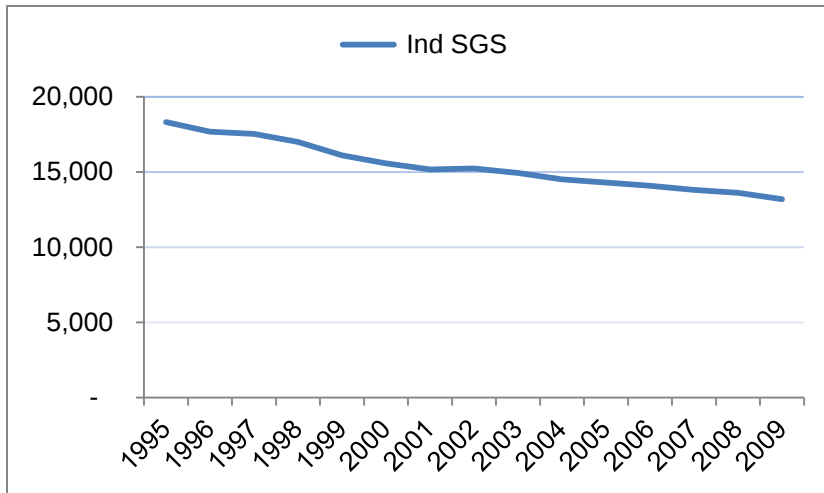
Number of Annual Units (Billed Customer Counts) by Class

Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	LTS	Lighting
1995	933,588	102,913	5,597	355	15	4,571	1,123	212	26		14,139
1996	939,004	105,155	5,904	372	16	4,451	1,160	221	26		14,053
1997	945,607	108,184	6,112	393	18	4,387	1,183	226	26		13,920
1998	953,120	111,678	6,274	396	18	4,247	1,196	232	27		23,669
1999	961,048	115,221	6,370	384	18	4,032	1,203	207	26		53,281
2000	969,485	120,342	6,815	413	19	3,905	1,184	211	29		53,636
2001	975,924	122,495	7,164	429	20	3,806	1,133	205	26		53,917
2002	984,448	124,006	7,566	449	20	3,833	1,122	202	38		54,054
2003	993,142	127,666	7,791	449	22	3,738	1,112	207	37		54,034
2004	1,001,447	130,506	8,038	449	23	3,640	1,108	195	37		54,528
2005	1,010,857	132,718	8,251	450	25	3,584	1,091	193	37	1	55,148
2006	1,020,482	134,612	8,498	452	27	3,527	1,082	191	35	1	55,538
2007	1,027,667	136,332	8,689	456	28	3,465	1,076	193	35	1	55,762
2008	1,032,902	137,974	8,808	456	29	3,398	1,072	190	38	1	55,911
2009	1,033,360	138,443	8,888	452	32	3,294	1,059	189	39	1	55,634

Number of Units (Billed Customer Counts) for Summer Months⁹

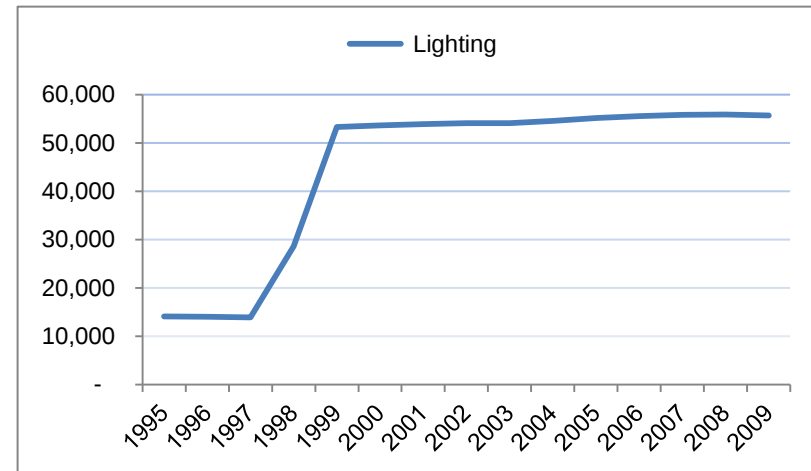
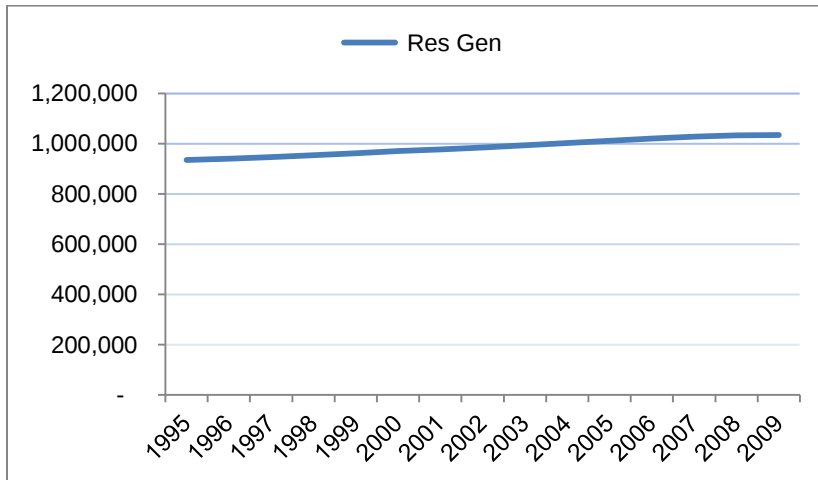
⁹ 4 CSR 240-22.030(8)(A), 4 CSR 240-22.030(8)(A)1



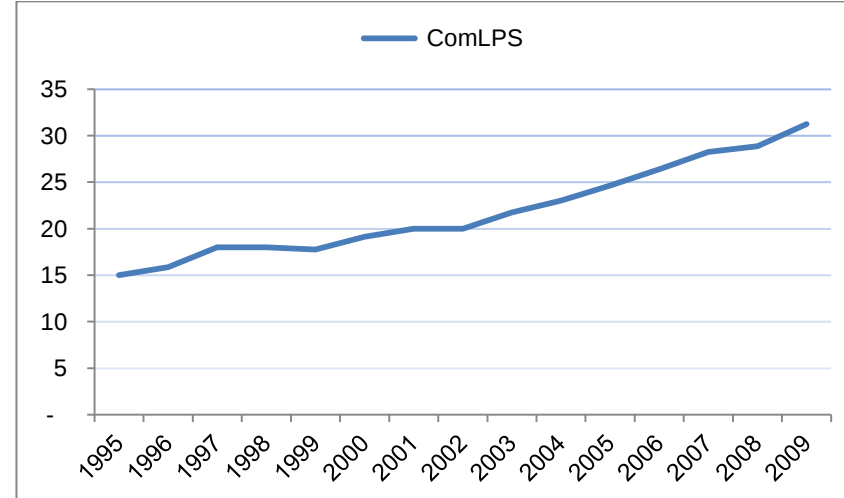
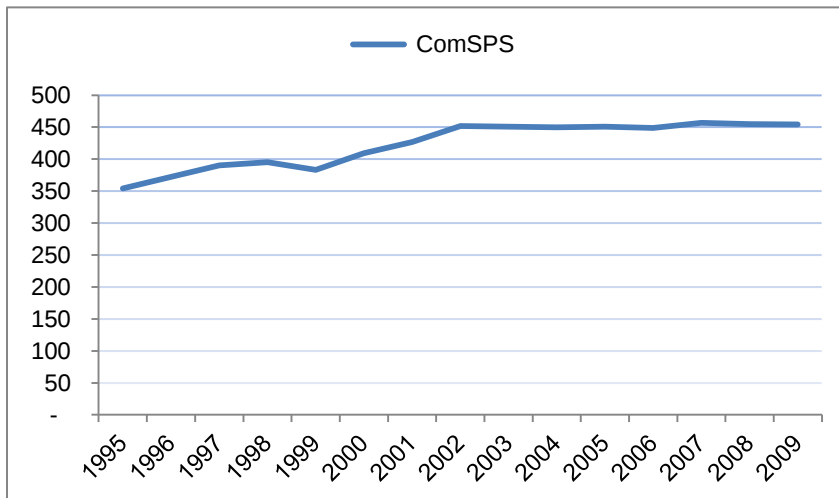
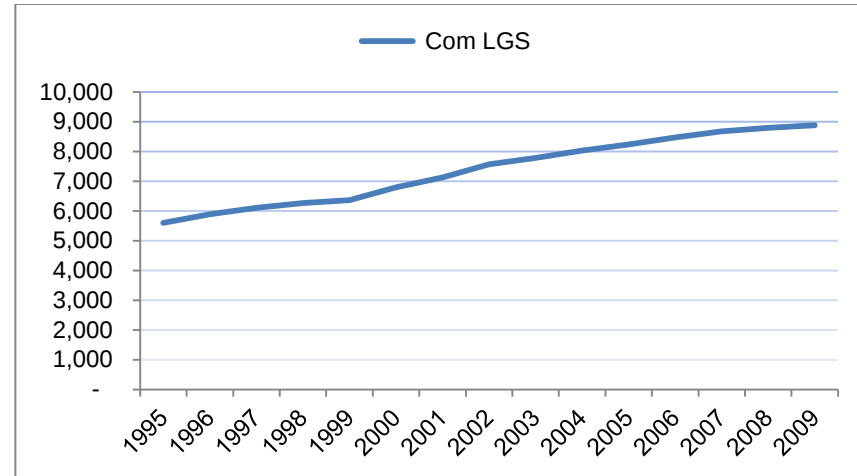
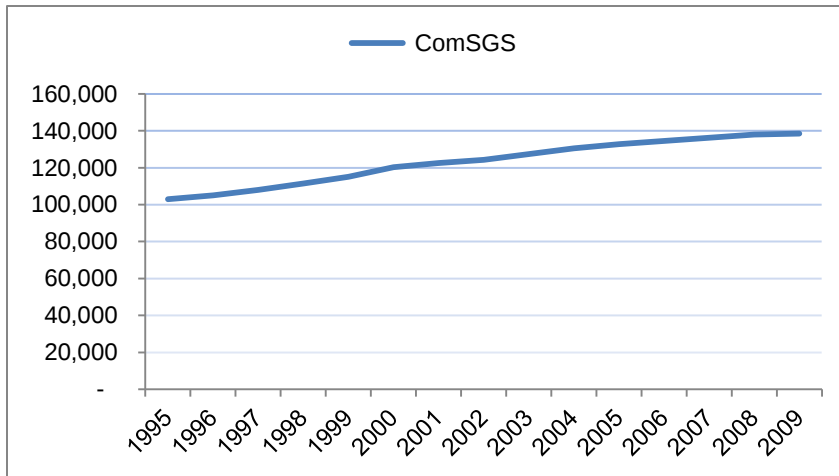


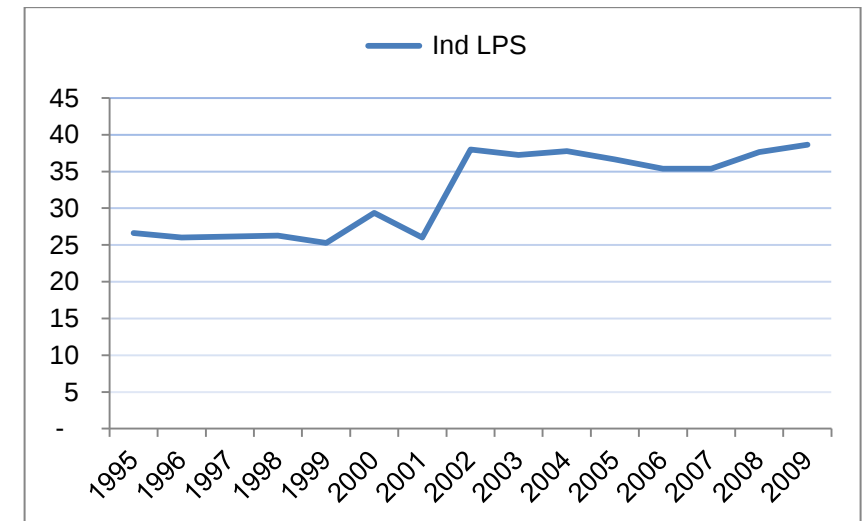
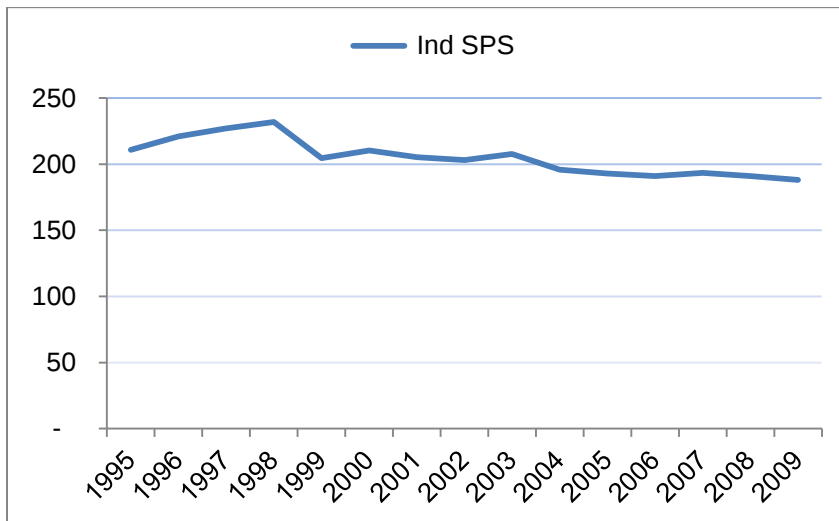
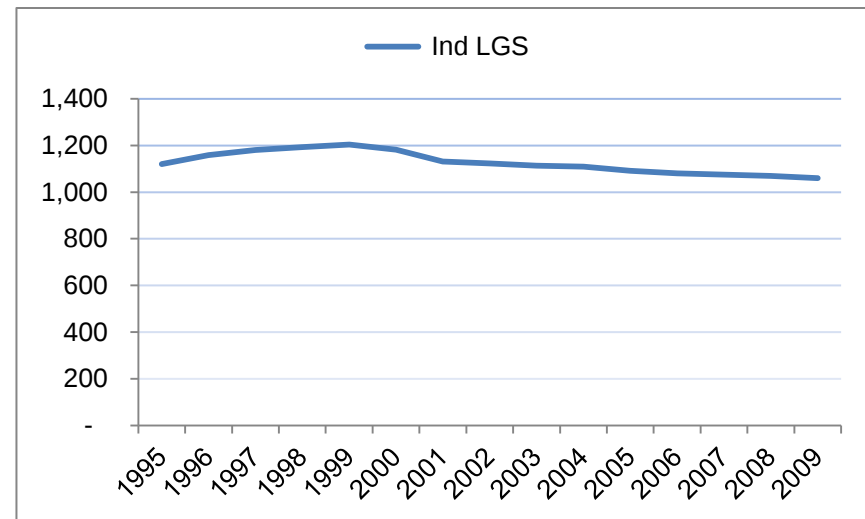
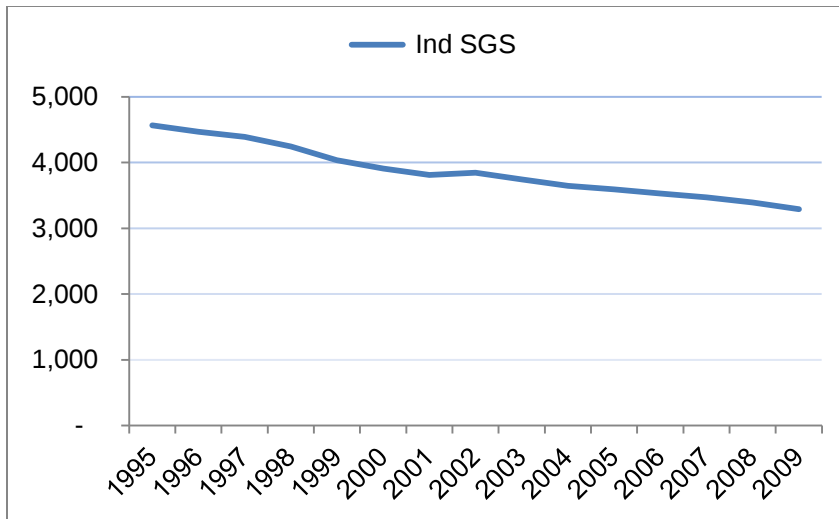
Number of Units (Billed Customer Counts) for Summer Months

	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	LTS	Lighting
1995	932,486	102,925	5,601	358	15	4,579	1,130	213	26		14,159
1996	937,307	105,345	5,933	373	16	4,419	1,164	222	26		14,057
1997	944,987	108,607	6,127	398	18	4,381	1,187	225	26		13,916
1998	952,180	112,314	6,291	398	18	4,249	1,201	232	28		13,804
1999	960,312	115,532	6,380	387	18	4,024	1,202	211	26		53,300
2000	968,320	120,652	6,858	420	19	3,893	1,186	213	29		53,637
2001	974,729	122,520	7,246	434	20	3,792	1,136	204	27		53,926
2002	985,070	123,643	7,571	442	20	3,808	1,118	201	37		54,051
2003	993,485	128,116	7,801	445	23	3,730	1,110	205	36		53,980
2004	1,001,343	130,604	8,063	448	22	3,626	1,106	194	36		54,531
2005	1,010,365	132,833	8,288	449	25	3,572	1,091	193	37	1	55,148
2006	1,020,511	134,794	8,560	458	28	3,523	1,084	192	35	1	55,587
2007	1,027,781	136,569	8,727	455	28	3,453	1,079	192	36	1	55,725
2008	1,032,636	138,147	8,845	460	29	3,405	1,076	189	38	1	56,019
2009	1,032,708	138,529	8,905	448	33	3,297	1,058	190	39	1	55,601

Number of Units (Billed Customer Counts) for Non-Summer Months¹⁰

¹⁰ 4 CSR 240-22.030(8)(A), 4 CSR 240-22.030(8)(A)1



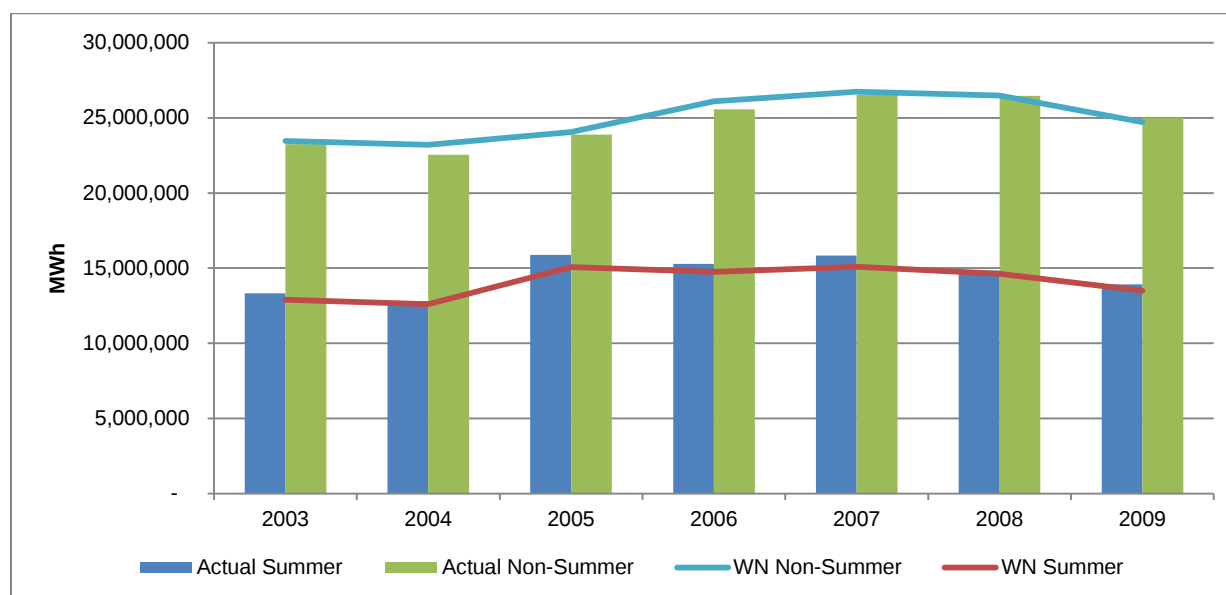


Number of Units (Billed Customer Counts) for Non-Summer Months

	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	LTS	Lighting
1995	934,140	102,908	5,594	354	15	4,567	1,120	211	27		14,129
1996	939,852	105,059	5,890	372	16	4,467	1,158	221	26		14,051
1997	945,917	107,973	6,104	390	18	4,389	1,181	227	26		13,922
1998	953,590	111,361	6,265	395	18	4,246	1,193	232	26		28,601
1999	961,415	115,066	6,365	383	18	4,037	1,204	204	25		53,272
2000	970,068	120,187	6,794	409	19	3,911	1,182	210	29		53,636
2001	976,521	122,482	7,123	427	20	3,813	1,131	205	26		53,912
2002	984,137	124,188	7,563	452	20	3,845	1,123	203	38		54,056
2003	992,971	127,440	7,786	451	22	3,742	1,114	208	37		54,061
2004	1,001,499	130,457	8,026	450	23	3,647	1,108	196	38		54,526
2005	1,011,103	132,661	8,233	451	25	3,590	1,091	193	37	0	55,149
2006	1,020,468	134,522	8,468	449	26	3,530	1,080	191	35	1	55,514
2007	1,027,611	136,214	8,671	457	28	3,471	1,075	193	35	1	55,781
2008	1,033,036	137,888	8,790	455	29	3,395	1,070	191	38	1	55,856
2009	1,033,686	138,399	8,879	454	31	3,293	1,059	188	39	1	55,651

Historical Net System Load¹¹

Historical Actual and Weather Normalized Summer and Non-Summer Net System Energy (MWh)

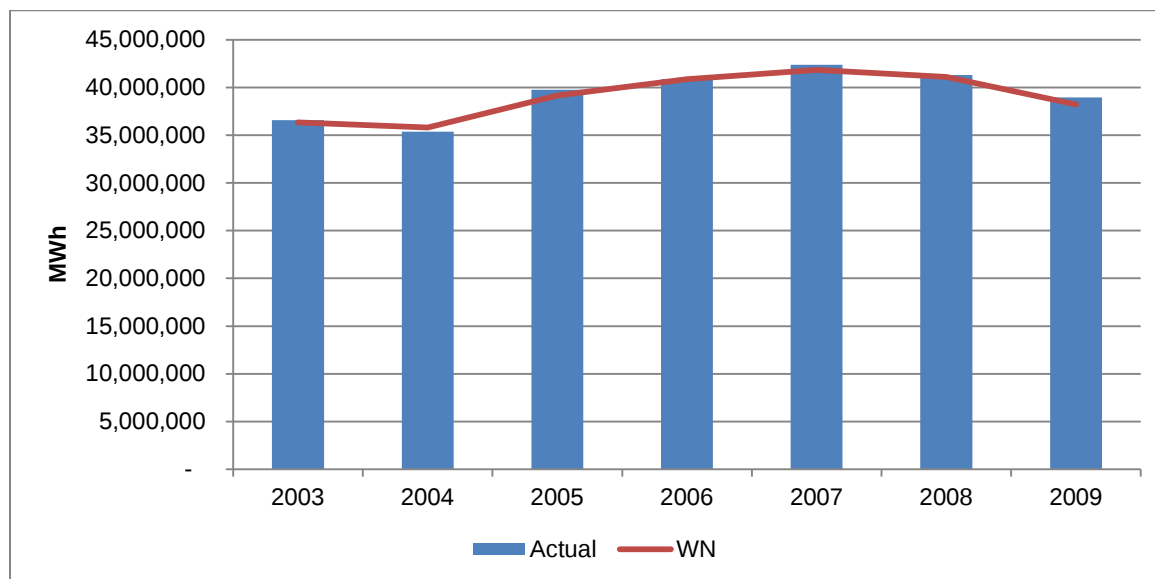


Historical Actual and Weather Normalized Summer and Non-Summer Net System Energy (MWh)

Year	Summer Actual	Summer Normal	Non-Summer Actual	Non-Summer Normal
2003	13,330,300	12,900,028	23,255,843	23,466,458
2004	12,818,012	12,612,492	22,551,491	23,203,135
2005	15,882,006	15,078,677	23,887,724	24,062,084
2006	15,291,183	14,748,826	25,574,514	26,102,261
2007	15,845,771	15,098,676	26,518,318	26,742,337
2008	14,835,590	14,631,631	26,450,230	26,473,431
2009	13,930,058	13,502,583	25,017,244	24,721,619

¹¹ 4 CSR 240-22.030(8)(D), 4 CSR 240-22.030(8)(D)1, 4 CSR 240-22.030(8)(D)3

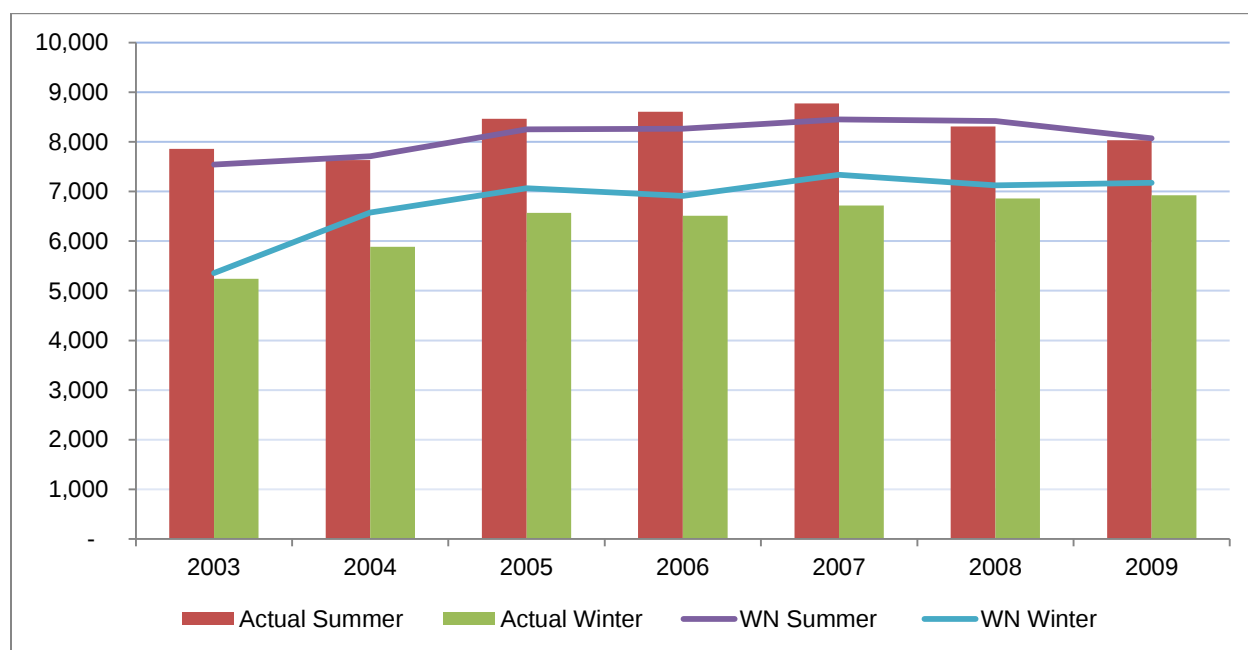
Annual Actual and Weather Normalized Net System Energy (MWh)



Annual Actual and Weather Normalized Net System Energy (MWh)

	Actual	WN
2003	36,586,143	36,349,242
2004	35,369,503	35,815,626
2005	39,769,730	39,140,761
2006	40,865,697	40,851,087
2007	42,364,089	41,841,013
2008	41,285,819	41,105,062
2009	38,947,301	38,224,202

Historical Actual and Weather Normalized Summer and Winter System Peak Demand (MW)

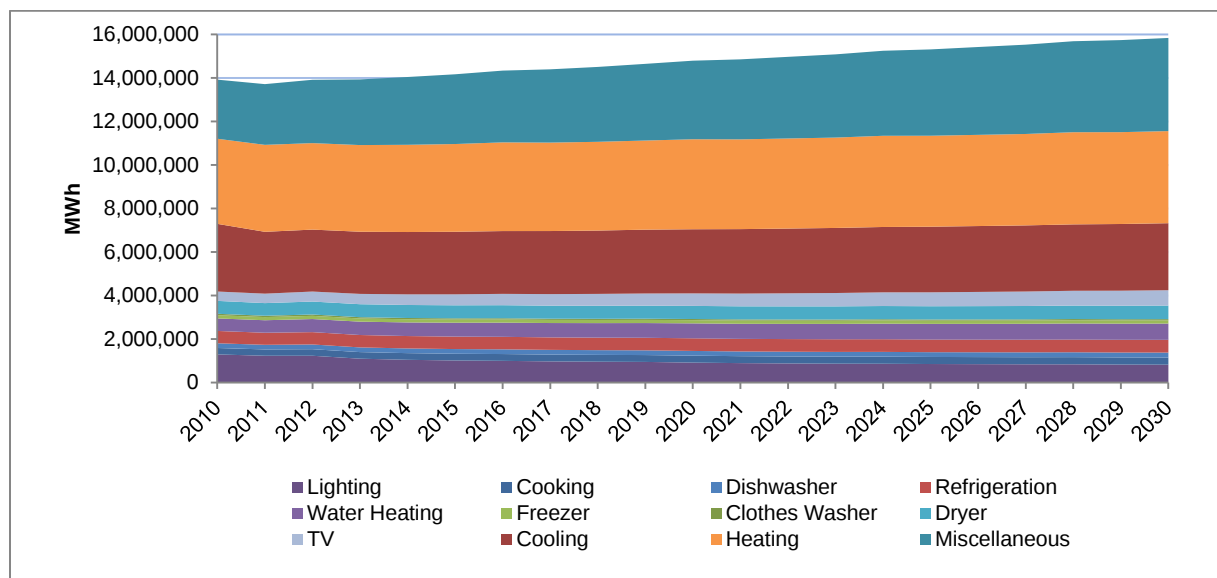


Actual System Peak: Actual and Weather Normalized (MW)

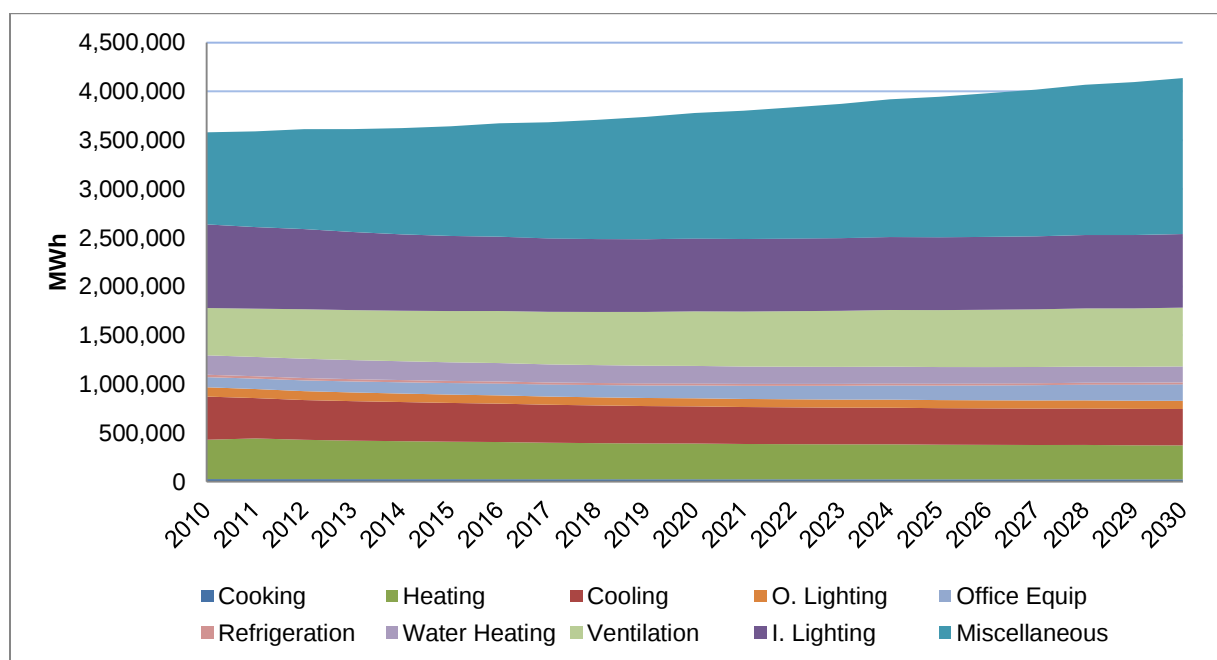
Year	Actual Summer	Actual Winter	WN Summer	WN Winter
2003	7,856	5,240	7,541	5,356
2004	7,634	5,886	7,709	6,573
2005	8,463	6,571	8,250	7,064
2006	8,605	6,510	8,261	6,908
2007	8,772	6,719	8,453	7,335
2008	8,307	6,861	8,418	7,124
2009	8,029	6,920	8,069	7,172

Annual Energy Forecast by End Use Component of Major Classes¹²

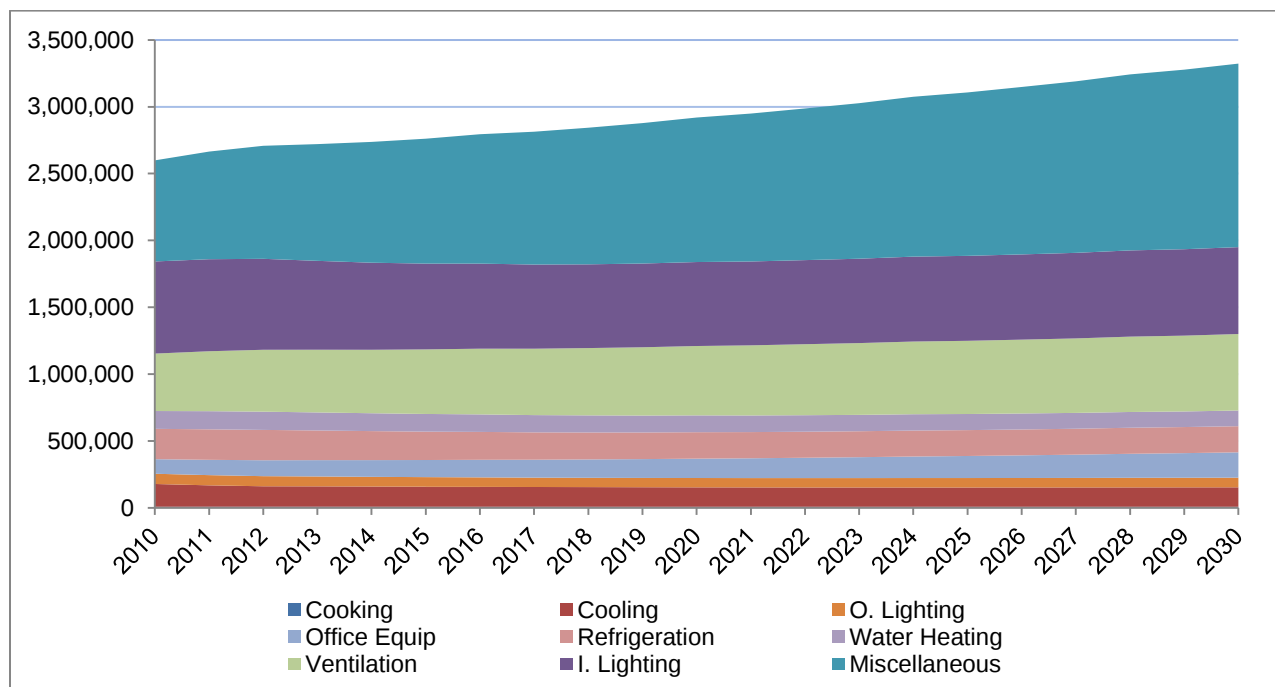
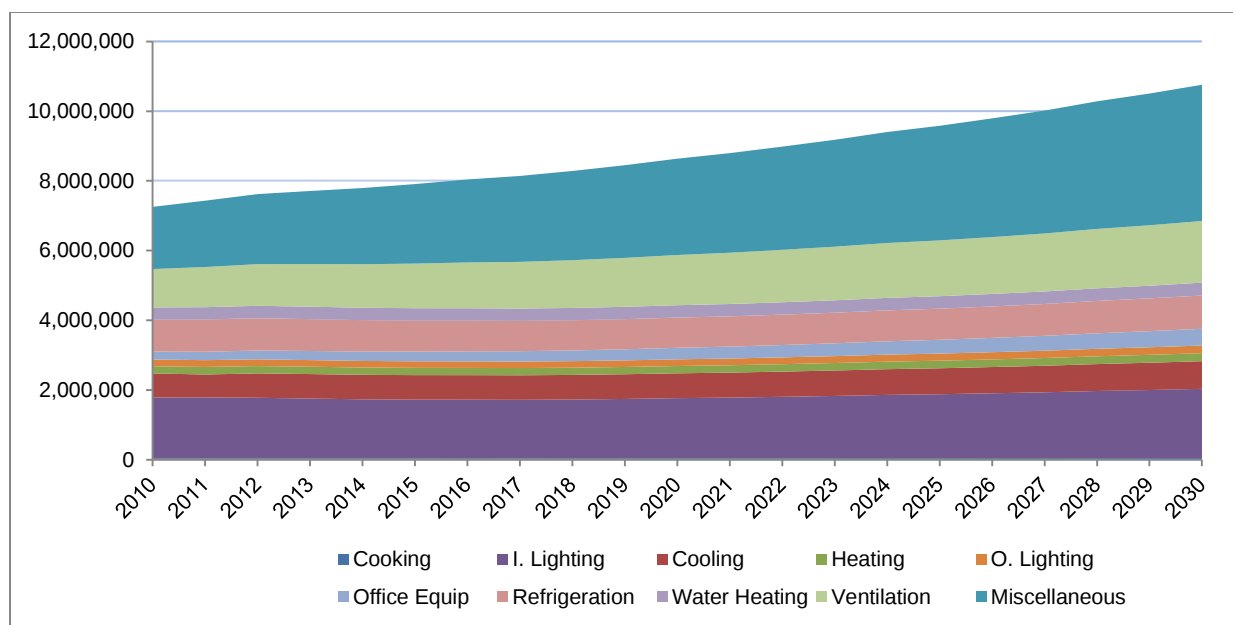
Residential Annual Energy Sales Forecast by End Use (MWh)

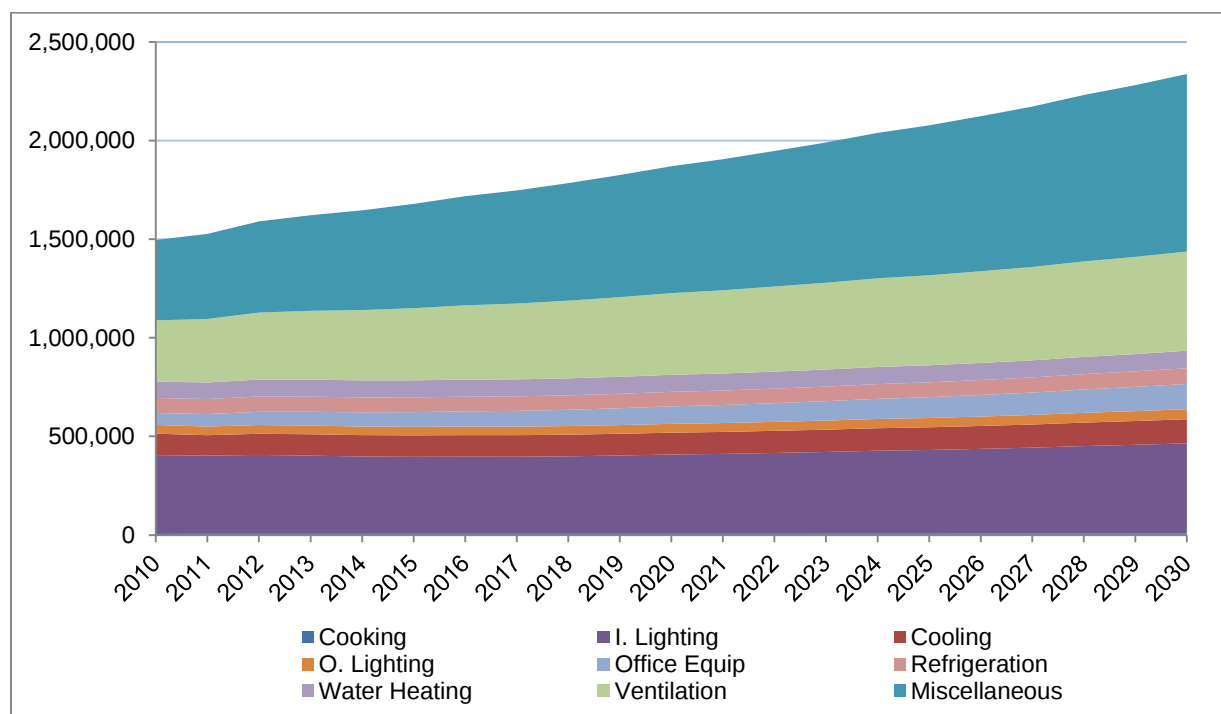


Commercial SGS Annual Energy Sales Forecast by End Use (MWh)



¹² 4 CSR 240-22.030(8)(A)2.B

Commercial SPS Annual Energy Sales Forecast by End Use (MWh)**Commercial LGS Annual Energy Sales Forecast by End Use (MWh)**

Commercial LPS Annual Energy Sales Forecast by End Use (MWh)

Residential Annual Energy Sales Forecast by End Use (MWh)

Year	Washer	Dryer	Cooking	Cooling	Dish-washer	Freezer	Heating	Lighting	Misc	Refrig	TV	Water Heating
2010	64,828	592,837	295,069	3,109,541	217,196	149,056	3,913,132	1,295,249	2,715,295	566,400	429,908	575,841
2011	61,563	581,061	291,408	2,842,189	211,729	144,405	3,996,909	1,233,589	2,790,688	554,550	435,276	575,172
2012	61,171	595,779	301,927	2,846,559	216,187	146,555	3,974,633	1,233,926	2,910,864	568,120	460,484	601,929
2013	59,449	596,564	303,676	2,856,213	215,853	145,605	3,983,832	1,098,713	3,017,703	568,957	475,143	614,157
2014	57,961	597,748	306,280	2,864,069	215,880	145,061	4,009,093	1,047,421	3,115,027	570,424	490,029	626,552
2015	56,698	598,815	308,843	2,875,223	216,046	144,810	4,032,879	1,017,258	3,205,561	572,132	504,800	638,469
2016	55,818	600,920	312,647	2,886,840	216,754	145,059	4,077,002	1,000,450	3,298,010	574,961	520,422	651,507
2017	54,869	598,913	312,487	2,897,819	216,090	144,581	4,066,514	975,891	3,366,015	574,225	532,366	658,891
2018	54,377	598,718	313,985	2,911,587	216,131	144,660	4,078,356	960,885	3,442,183	575,141	545,683	667,777
2019	54,220	599,707	315,948	2,934,460	216,593	145,093	4,096,335	950,364	3,523,053	577,102	559,805	677,113
2020	54,345	602,212	319,342	2,947,719	217,544	145,860	4,136,733	919,232	3,610,494	579,554	575,033	687,658
2021	54,266	601,670	319,194	2,962,065	217,306	145,877	4,125,860	895,471	3,676,815	579,011	586,919	693,181
2022	54,383	603,152	320,682	2,976,602	217,747	146,259	4,139,762	881,395	3,751,865	579,911	600,260	700,474
2023	54,502	604,851	322,028	2,990,452	218,284	146,585	4,153,806	870,429	3,824,865	580,648	613,348	707,093
2024	54,771	608,537	325,102	3,003,985	219,614	147,264	4,192,386	866,656	3,907,438	582,879	628,073	715,538
2025	54,735	609,143	324,532	3,016,492	219,948	147,168	4,180,063	854,067	3,967,465	582,158	639,300	718,942
2026	54,848	611,615	325,697	3,028,359	221,062	147,444	4,191,196	847,621	4,037,239	583,018	652,267	724,335
2027	54,961	614,224	326,814	3,040,086	222,306	147,721	4,201,395	841,506	4,105,410	584,010	665,321	729,584
2028	55,234	618,670	329,671	3,052,062	224,263	148,400	4,236,004	840,188	4,182,289	586,648	680,433	737,198
2029	55,219	619,922	328,905	3,065,403	225,083	148,360	4,221,162	828,710	4,231,267	586,490	692,112	740,137
2030	55,374	623,069	330,040	3,080,674	226,605	148,752	4,233,134	822,885	4,281,432	588,055	705,978	745,550

Commercial SGS Annual Energy Sales Forecast by End Use (MWh)

Year	Cooking	Cooling	Heating	Indoor Lighting	Misc	Outdoor Lighting	Office Equip	Refrigeration	Ventilation	Water Heating
2010	25,263	442,840	403,155	856,992	943,322	95,221	103,845	24,736	484,861	198,931
2011	25,141	413,479	417,093	836,383	980,963	92,931	106,770	24,286	494,422	197,749
2012	25,180	407,309	402,896	821,506	1,023,888	91,278	110,481	23,998	507,407	197,806
2013	24,900	405,086	394,344	800,527	1,054,530	88,947	112,843	23,407	512,589	195,196
2014	24,670	401,250	389,316	782,568	1,088,970	86,952	115,359	22,838	517,761	192,813
2015	24,470	397,501	383,977	769,613	1,123,855	85,513	117,932	22,295	525,431	190,415
2016	24,334	393,500	380,831	761,779	1,162,061	84,642	120,823	21,881	533,705	188,453
2017	24,072	389,661	373,930	752,216	1,190,566	83,580	123,060	21,400	538,424	185,486
2018	23,910	386,874	369,776	746,814	1,221,896	82,979	125,818	21,048	544,848	183,228
2019	23,771	383,473	366,758	745,017	1,253,472	82,780	128,724	20,757	551,278	181,139
2020	23,704	380,698	366,157	745,781	1,287,145	82,865	132,067	20,568	558,960	179,550
2021	23,526	378,800	361,863	743,207	1,314,903	82,579	134,848	20,318	563,634	177,097
2022	23,424	377,254	360,029	743,503	1,344,861	82,611	138,131	20,166	569,719	175,316
2023	23,330	376,083	358,271	744,357	1,376,208	82,706	141,535	20,051	574,702	173,574
2024	23,309	375,161	358,543	747,463	1,411,427	83,051	145,458	20,022	580,821	172,330
2025	23,161	374,327	354,714	746,098	1,439,887	82,900	148,675	19,896	583,456	170,055
2026	23,086	373,749	353,208	747,004	1,471,928	83,000	152,417	19,852	587,224	168,282
2027	23,019	373,418	351,922	748,266	1,503,826	83,141	156,294	19,833	590,878	166,534
2028	23,023	373,370	352,537	752,048	1,539,956	83,561	160,760	19,894	596,396	165,279
2029	22,909	373,126	349,100	752,080	1,567,130	83,564	164,490	19,869	598,665	163,150
2030	23,024	372,933	347,904	754,321	1,598,067	83,813	168,744	19,871	602,424	163,963

Commercial SPS Annual Energy Sales Forecast by End Use (MWh)

Year	Cooking	Cooling	Heating	Indoor Lighting	Miscellaneous	Outdoor Lighting	Office Equip	Refrigeration	Ventilation	Water Heating
2010	8,140	170,248	-	689,156	756,294	76,573	108,764	227,177	429,663	133,166
2011	8,292	159,755	-	688,448	805,025	76,494	114,465	228,313	448,471	135,497
2012	8,355	152,754	-	680,340	845,392	75,593	119,169	226,985	463,064	136,365
2013	8,286	152,330	-	664,847	873,161	73,872	122,061	222,017	469,121	134,947
2014	8,227	151,192	-	651,295	903,570	72,366	125,045	217,077	474,847	133,580
2015	8,176	150,072	-	641,772	934,349	71,308	128,086	212,329	482,829	132,178
2016	8,146	148,839	-	636,435	967,930	70,715	131,472	208,785	491,355	131,062
2017	8,073	147,653	-	629,603	993,500	69,956	134,153	204,566	496,612	129,236
2018	8,035	146,902	-	626,374	1,021,752	69,597	137,443	201,622	503,577	127,927
2019	8,006	145,929	-	626,228	1,050,439	69,581	140,924	199,266	510,630	126,743
2020	8,000	145,173	-	628,187	1,080,924	69,799	144,888	197,865	518,833	125,896
2021	7,957	144,762	-	627,373	1,106,624	69,708	148,259	195,888	524,304	124,445
2022	7,940	144,485	-	628,995	1,134,311	69,888	152,200	194,845	531,123	123,462
2023	7,926	144,354	-	631,114	1,163,323	70,124	156,296	194,163	536,955	122,507
2024	7,936	144,324	-	635,170	1,195,772	70,574	160,990	194,319	543,890	121,902
2025	7,903	144,315	-	635,399	1,222,556	70,600	164,911	193,513	547,555	120,556
2026	7,896	144,417	-	637,604	1,252,577	70,845	169,442	193,520	552,333	119,567
2027	7,891	144,623	-	640,166	1,282,697	71,130	174,156	193,791	557,062	118,600
2028	7,911	144,948	-	644,933	1,316,641	71,659	179,558	194,851	563,603	117,987
2029	7,891	145,203	-	646,518	1,343,109	71,835	184,169	195,072	567,113	116,748
2030	7,949	145,463	-	649,951	1,372,806	72,217	189,370	195,544	571,999	117,603

Commercial LGS Annual Energy Sales Forecast by End Use (MWh)

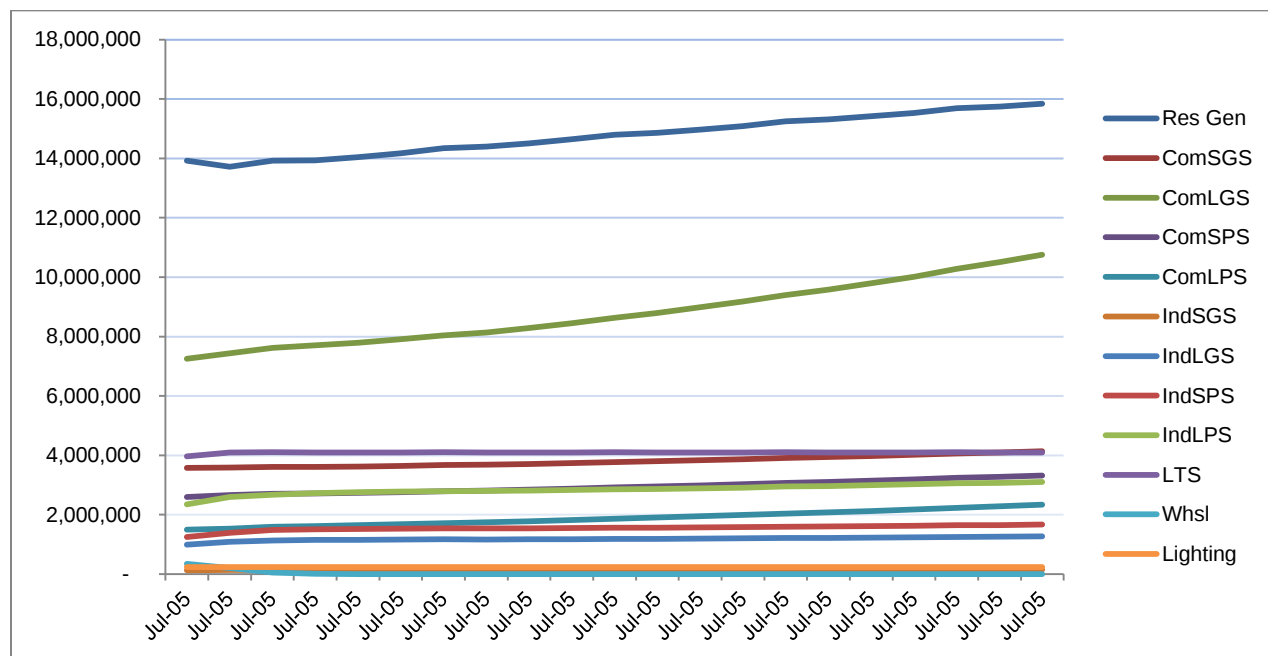
Year	Cooking	Cooling	Heating	Indoor Lighting	Miscellaneous	Outdoor Lighting	Office Equip	Refrigeration	Ventilation	Water Heating
2010	41,989	691,189	204,878	1,744,510	1,783,437	193,834	228,611	919,037	1,100,844	346,336
2011	42,875	656,716	216,977	1,746,857	1,902,858	194,095	241,165	925,825	1,151,760	353,235
2012	43,437	698,783	210,600	1,735,632	2,009,095	192,848	252,435	925,422	1,195,679	357,424
2013	43,496	702,948	210,142	1,712,616	2,095,290	190,291	261,079	913,978	1,223,109	357,151
2014	43,530	702,930	209,639	1,691,119	2,185,593	187,902	269,600	900,788	1,247,937	356,358
2015	43,647	703,849	208,905	1,681,269	2,280,219	186,808	278,620	888,950	1,280,242	355,766
2016	43,829	703,426	207,997	1,680,416	2,380,772	186,713	288,238	880,996	1,313,109	355,541
2017	43,808	703,586	207,600	1,676,576	2,464,536	186,286	296,627	870,564	1,338,493	353,582
2018	44,018	706,540	207,674	1,683,871	2,558,774	187,097	306,799	866,213	1,370,199	353,334
2019	44,312	709,026	208,591	1,700,882	2,657,810	188,987	317,821	864,941	1,403,750	353,685
2020	44,725	712,193	209,602	1,723,405	2,762,513	191,489	330,054	867,517	1,440,680	354,861
2021	44,945	717,361	210,986	1,738,885	2,857,302	193,209	341,210	867,690	1,470,855	354,381
2022	45,307	723,179	212,582	1,761,269	2,958,840	195,697	353,874	871,924	1,505,273	355,191
2023	45,696	729,905	214,303	1,785,582	3,066,081	198,398	367,177	877,910	1,537,632	356,107
2024	46,230	737,136	216,003	1,815,677	3,184,260	201,742	382,122	887,721	1,573,629	358,020
2025	46,499	744,299	217,503	1,834,493	3,288,135	203,833	395,342	892,876	1,600,071	357,608
2026	46,945	752,606	219,396	1,860,351	3,404,546	206,706	410,508	902,361	1,631,124	358,431
2027	47,433	761,812	221,616	1,888,430	3,524,874	209,826	426,581	913,596	1,663,237	359,455
2028	48,117	772,355	223,912	1,924,926	3,660,818	213,881	445,000	929,425	1,702,609	361,812
2029	48,568	782,920	226,233	1,952,776	3,779,152	216,975	461,895	941,628	1,733,738	362,303
2030	49,488	793,116	228,620	1,985,684	3,907,058	220,632	480,394	954,743	1,768,754	369,146

Commercial LPS Annual Energy Sales Forecast by End Use (MWh)

Year	Cooking	Cooling	Heating	Indoor Lighting	Miscellaneous	Outdoor Lighting	Office Equip	Refrigeration	Ventilation	Water Heating
2010	5,694	108,518	-	399,541	407,725	44,393	60,337	76,399	310,491	82,878
2011	5,764	103,668	-	396,668	431,317	44,074	63,108	76,307	322,082	83,809
2012	5,929	107,186	-	400,153	462,370	44,461	67,069	77,442	339,483	86,101
2013	5,965	108,280	-	396,702	484,473	44,078	69,691	76,844	348,903	86,439
2014	5,975	108,353	-	392,048	505,772	43,561	72,025	75,797	356,280	86,319
2015	6,000	108,711	-	390,364	528,481	43,374	74,550	74,916	366,066	86,308
2016	6,042	108,974	-	391,247	553,316	43,472	77,337	74,452	376,504	86,492
2017	6,048	109,178	-	390,928	573,627	43,436	79,705	73,679	384,348	86,143
2018	6,081	109,735	-	392,904	595,979	43,656	82,496	73,362	393,728	86,143
2019	6,124	110,190	-	397,013	619,263	44,113	85,490	73,280	403,510	86,258
2020	6,178	110,666	-	402,088	643,367	44,676	88,740	73,465	413,938	86,506
2021	6,200	111,319	-	405,125	664,500	45,014	91,610	73,375	422,010	86,267
2022	6,242	112,108	-	409,818	687,239	45,535	94,889	73,640	431,336	86,354
2023	6,286	113,007	-	414,870	711,109	46,097	98,312	74,037	439,966	86,450
2024	6,349	113,975	-	421,186	737,335	46,798	102,150	74,745	449,544	86,776
2025	6,376	114,913	-	424,883	760,193	47,209	105,518	75,061	456,380	86,540
2026	6,430	116,090	-	430,368	786,186	47,819	109,438	75,769	464,693	86,637
2027	6,489	117,399	-	436,364	813,041	48,485	113,593	76,625	473,300	86,785
2028	6,578	118,979	-	444,477	843,789	49,386	118,412	77,896	484,155	87,292
2029	6,638	120,595	-	450,780	870,817	50,087	122,873	78,897	492,867	87,385
2030	6,761	122,139	-	458,183	899,910	50,909	127,740	79,962	502,609	88,998

Total Annual Classwise Energy Usage Forecast for Planning (Base) Case Scenario¹³

Annual Energy Sales Forecast (MWh)



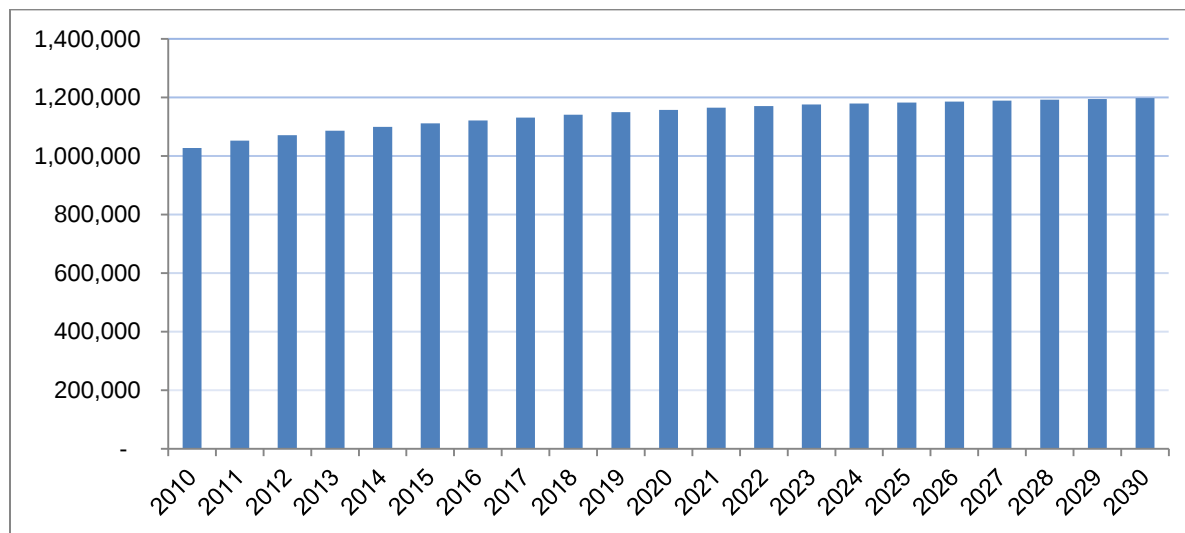
¹³ 4 CSR 240-22.030(8)(A)2.B

Annual Energy Sales Forecast by Rate Class (MWh)

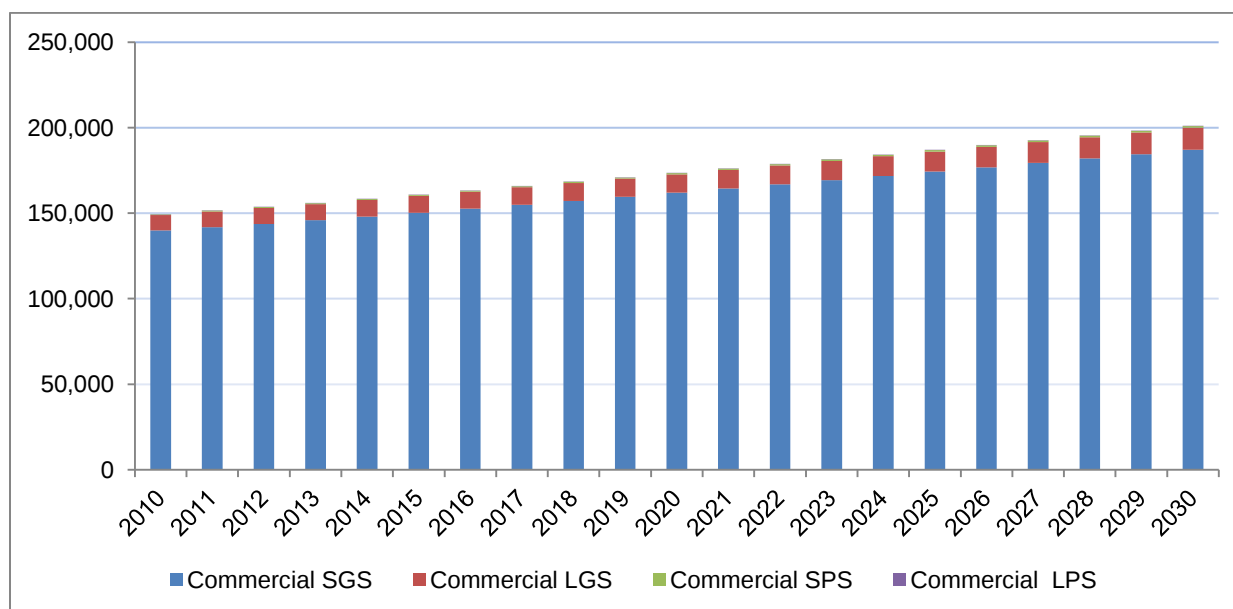
Year	Res Gen	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	LTS	Wholesale	Lighting
2010	13,924,351	3,579,165	7,254,665	2,599,181	1,495,977	126,332	992,684	1,246,649	2,345,810	3,969,269	341,297	234,185
2011	13,718,539	3,589,218	7,432,363	2,664,760	1,526,797	135,511	1,089,169	1,390,850	2,602,926	4,091,716	203,785	234,610
2012	13,918,135	3,611,750	7,621,355	2,708,018	1,590,194	140,178	1,128,067	1,484,368	2,676,712	4,103,018	56,769	235,452
2013	13,935,864	3,612,369	7,710,098	2,720,641	1,621,376	142,215	1,149,853	1,512,397	2,730,368	4,091,716	14,940	235,391
2014	14,045,545	3,622,498	7,795,396	2,737,200	1,646,131	143,064	1,158,907	1,524,074	2,758,163	4,091,716		235,794
2015	14,171,534	3,641,002	7,908,273	2,761,099	1,678,770	143,531	1,163,870	1,530,499	2,776,552	4,091,716		236,244
2016	14,340,389	3,672,009	8,041,038	2,794,739	1,717,836	144,094	1,169,893	1,538,288	2,796,912	4,103,018		237,183
2017	14,398,661	3,682,395	8,141,659	2,813,352	1,747,093	144,037	1,169,255	1,537,515	2,798,557	4,091,716		237,246
2018	14,509,486	3,707,191	8,284,518	2,843,230	1,784,083	144,364	1,172,720	1,542,013	2,812,535	4,091,716		237,725
2019	14,649,791	3,737,169	8,449,805	2,877,746	1,825,241	144,860	1,177,994	1,548,835	2,830,654	4,091,716		238,194
2020	14,795,726	3,777,495	8,637,040	2,919,564	1,869,625	145,690	1,186,850	1,560,259	2,858,141	4,103,018		239,081
2021	14,857,635	3,800,777	8,796,824	2,949,320	1,905,419	146,009	1,190,236	1,564,649	2,870,363	4,091,716		239,101
2022	14,972,491	3,835,015	8,983,136	2,987,250	1,947,161	146,625	1,196,799	1,573,122	2,891,728	4,091,716		239,558
2023	15,086,890	3,870,817	9,178,791	3,026,762	1,990,134	147,277	1,203,754	1,582,097	2,914,155	4,091,716		239,989
2024	15,252,243	3,917,585	9,402,542	3,074,877	2,038,859	148,354	1,215,262	1,596,922	2,948,055	4,103,018		240,861
2025	15,314,013	3,943,168	9,580,658	3,107,307	2,077,073	148,906	1,221,145	1,604,517	2,965,836	4,091,716		240,837
2026	15,424,701	3,979,751	9,792,973	3,148,201	2,123,431	149,858	1,231,316	1,617,628	2,994,946	4,091,716		241,263
2027	15,533,340	4,017,130	10,016,859	3,190,115	2,172,080	150,863	1,242,049	1,631,461	3,025,393	4,091,716		241,689
2028	15,691,059	4,066,823	10,282,855	3,242,092	2,230,966	152,068	1,254,914	1,648,028	3,061,719	4,103,018		242,543
2029	15,742,771	4,094,083	10,506,188	3,277,658	2,280,938	152,527	1,259,815	1,654,356	3,076,625	4,091,716		242,513
2030	15,841,548	4,135,066	10,757,634	3,322,902	2,337,210	153,408	1,269,220	1,666,474	3,104,882	4,091,716		242,916

Forecast Customer Count¹⁴

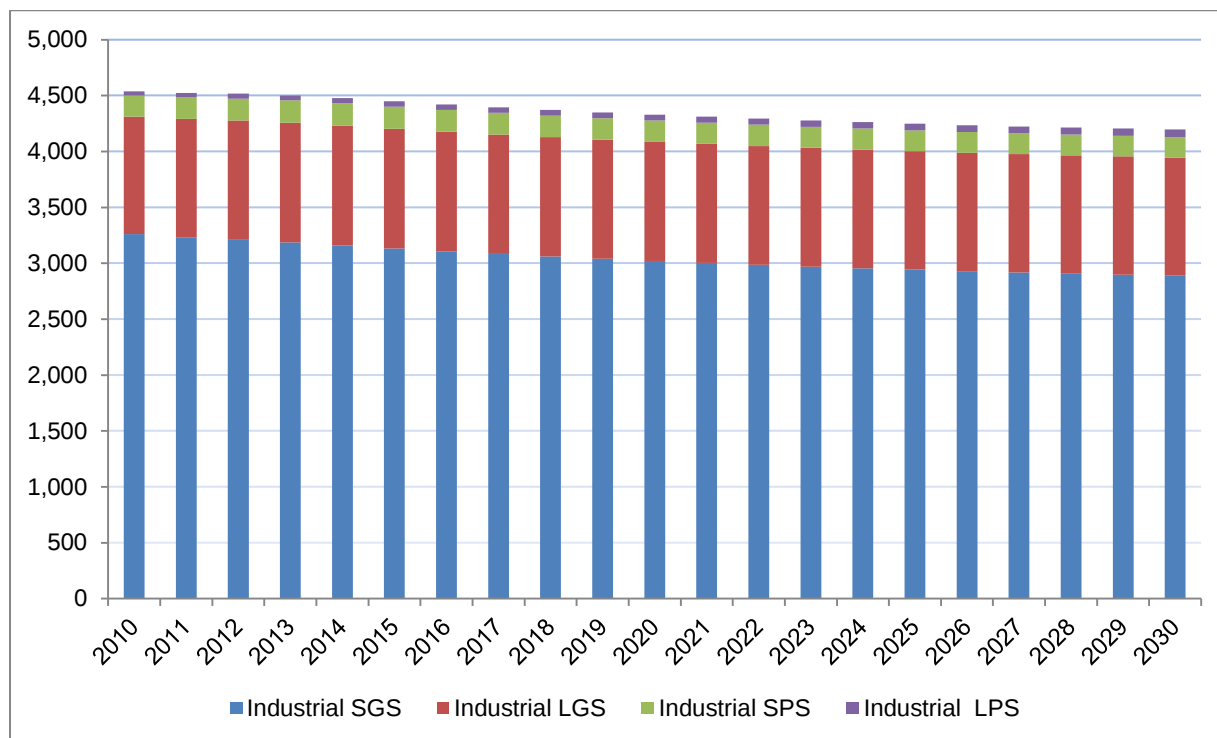
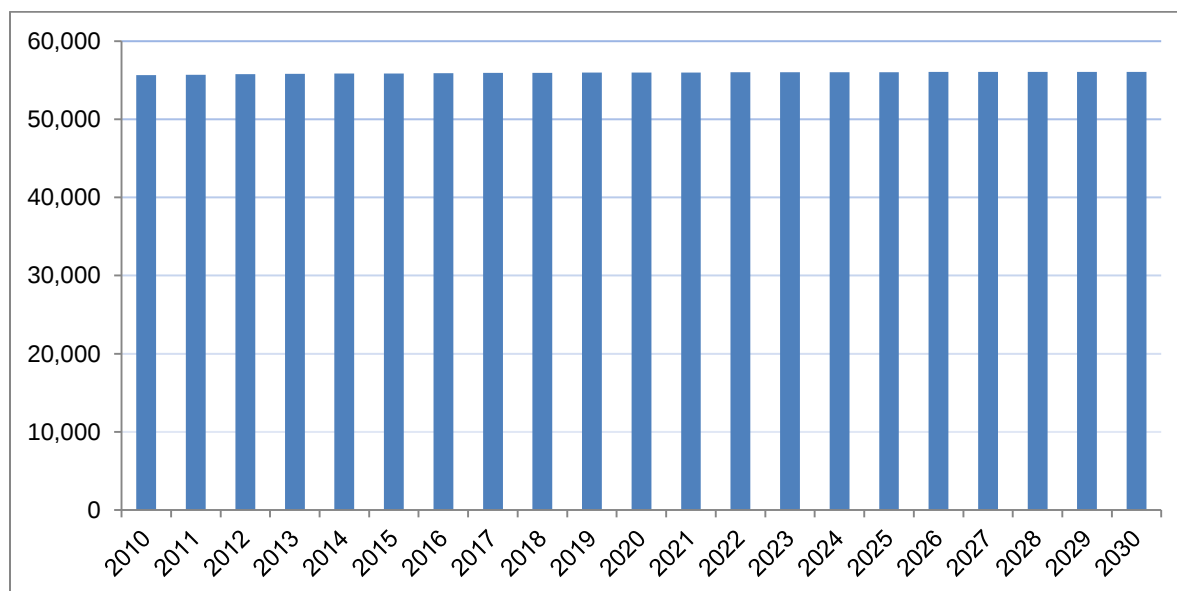
Forecast of Residential Class Customer Count



Forecast of Commercial Class Customer Count



¹⁴ 4 CSR 240-22.030(8)(A)2.B

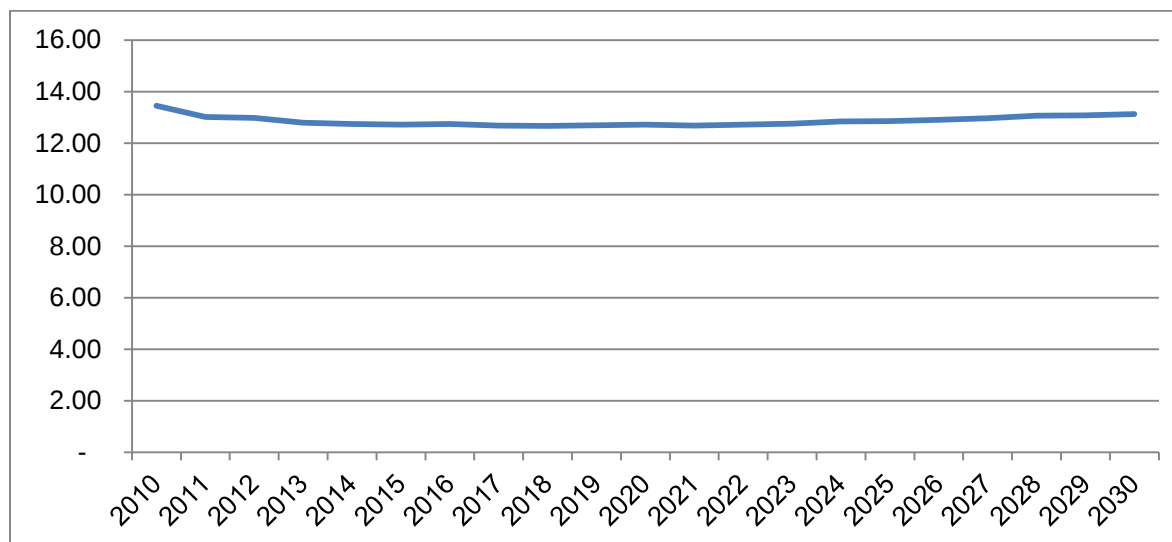
Forecast of Industrial Class Customer Count**Forecast of Lighting Class Customer Count**

Forecast of Ameren Missouri's Customer Counts

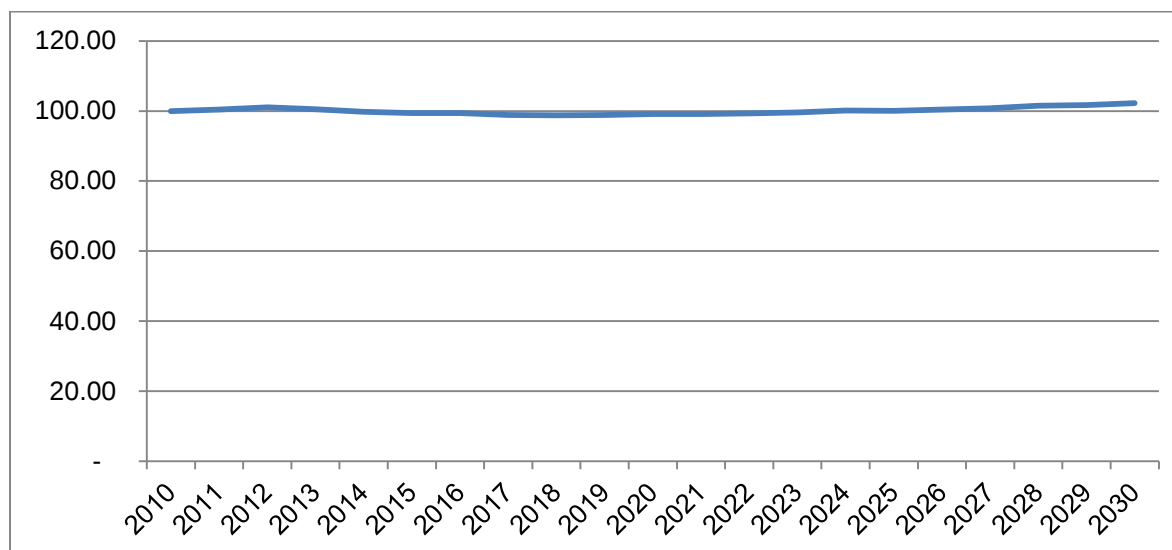
Year	Residential	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	SLPA and DTD
2010	1,027,660	139,862	9,014	467	33	3,260	1,052	188	39	55,632
2011	1,051,877	141,798	9,159	500	36	3,234	1,059	191	41	55,704
2012	1,070,485	143,751	9,299	539	39	3,211	1,066	197	43	55,759
2013	1,086,450	145,852	9,464	566	41	3,187	1,071	200	45	55,802
2014	1,098,881	148,053	9,641	586	42	3,160	1,072	200	46	55,837
2015	1,110,994	150,299	9,822	606	44	3,133	1,071	198	47	55,867
2016	1,121,637	152,586	10,006	626	46	3,107	1,069	196	48	55,894
2017	1,131,082	154,910	10,194	646	47	3,084	1,068	195	49	55,917
2018	1,140,392	157,237	10,380	669	49	3,061	1,067	194	50	55,936
2019	1,149,350	159,581	10,567	694	51	3,041	1,066	192	51	55,954
2020	1,157,689	161,965	10,758	719	53	3,021	1,065	191	52	55,969
2021	1,164,602	164,372	10,952	746	54	3,003	1,064	190	54	55,983
2022	1,170,472	166,805	11,148	774	56	2,987	1,063	189	55	55,995
2023	1,175,244	169,263	11,347	803	58	2,971	1,062	188	56	56,007
2024	1,179,214	171,745	11,548	833	60	2,956	1,061	187	57	56,017
2025	1,182,642	174,267	11,755	863	62	2,943	1,061	187	59	56,027
2026	1,185,870	176,807	11,961	896	64	2,930	1,060	186	60	56,036
2027	1,188,855	179,364	12,169	931	66	2,918	1,059	185	62	56,045
2028	1,191,667	181,936	12,375	969	68	2,908	1,059	185	63	56,053
2029	1,194,439	184,529	12,583	1,010	71	2,898	1,058	184	65	56,061
2030	1,197,195	187,167	12,796	1,050	74	2,888	1,058	184	66	56,068

Annual Classwise Energy Usage Forecast per Unit¹⁵

Forecast of Residential Annual Use per Unit

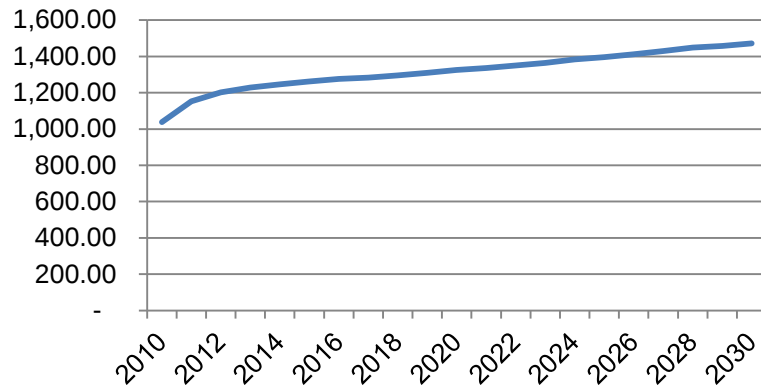


Forecast of Commercial Annual Use per Unit

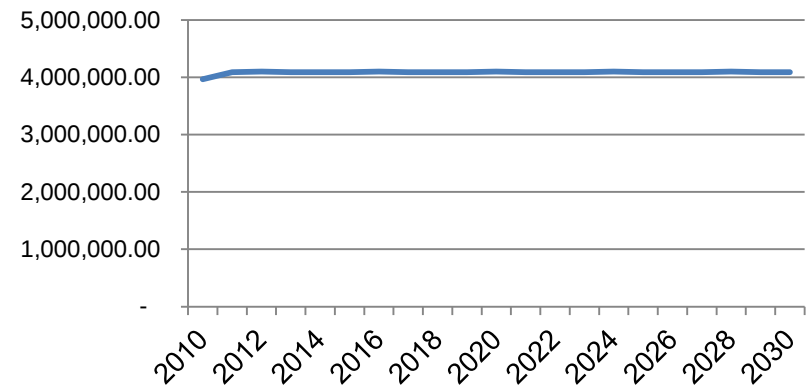


¹⁵ 4 CSR 240-22.030(8)(A)2.B

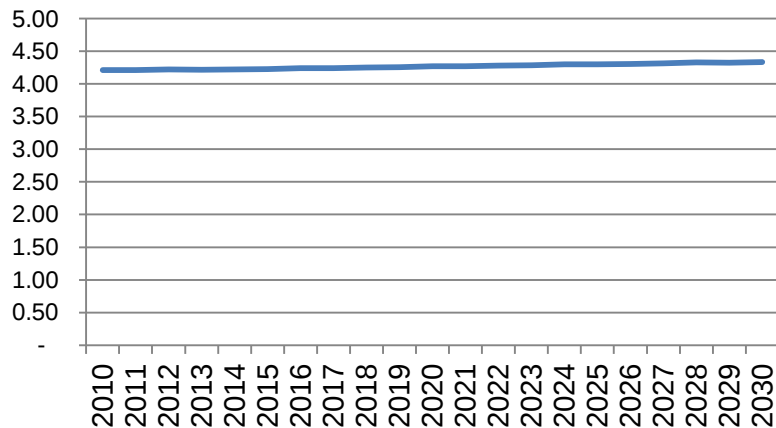
Forecast of industrial Annual Use Per Unit



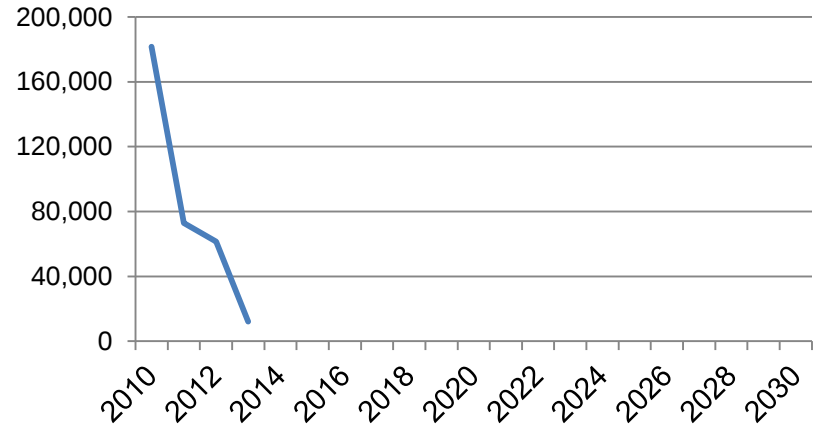
Forecast of Annual Noranda Use



Forecast of Annual Lighting Use per Unit



Forecast of Annual Wholesale Use per Unit

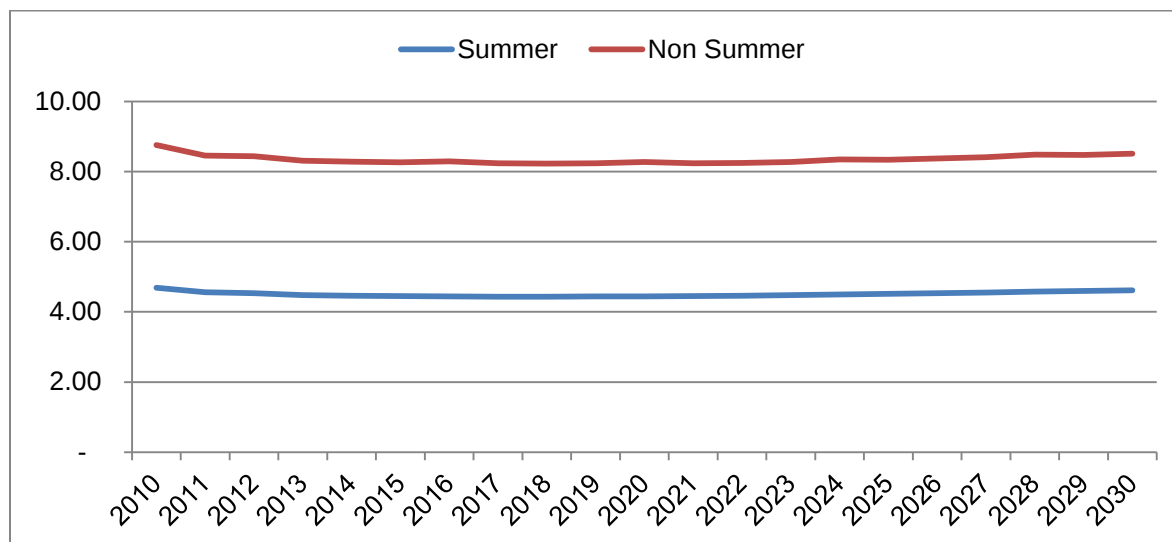


Forecast of Annual Energy Use per Unit by Revenue Class (MWh/Unit)

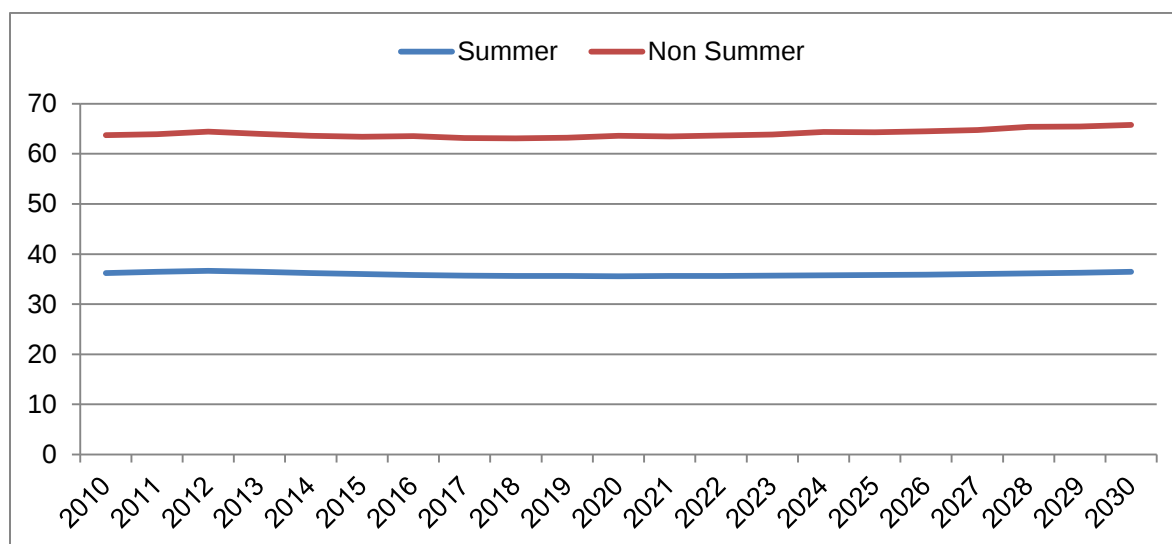
Forecast Year	Residential	Commercial	Industrial	Noranda	Lighting	Wholesale
2010	13.45	99.9	1,038	3,969,269	4.21	181,747
2011	13.02	100.4	1,153	4,091,716	4.21	72,799
2012	12.97	101.1	1,201	4,103,018	4.22	61,345
2013	12.79	100.5	1,228	4,091,716	4.22	11,967
2014	12.75	99.8	1,246	4,091,716	4.22	
2015	12.72	99.5	1,261	4,091,716	4.23	
2016	12.74	99.4	1,276	4,103,018	4.24	
2017	12.68	98.8	1,283	4,091,716	4.24	
2018	12.67	98.7	1,295	4,091,716	4.25	
2019	12.69	98.8	1,309	4,091,716	4.26	
2020	12.72	99.2	1,326	4,103,018	4.27	
2021	12.69	99.1	1,336	4,091,716	4.27	
2022	12.71	99.3	1,350	4,091,716	4.28	
2023	12.75	99.6	1,364	4,091,716	4.29	
2024	12.84	100.1	1,383	4,103,018	4.30	
2025	12.85	100.1	1,395	4,091,716	4.30	
2026	12.91	100.4	1,412	4,091,716	4.31	
2027	12.96	100.8	1,429	4,091,716	4.31	
2028	13.06	101.5	1,448	4,103,018	4.33	
2029	13.08	101.7	1,457	4,091,716	4.33	
2030	13.13	102.2	1,472	4,091,716	4.33	

Classwise Energy Usage Forecast per Unit for Summer and Non Summer Months¹⁶

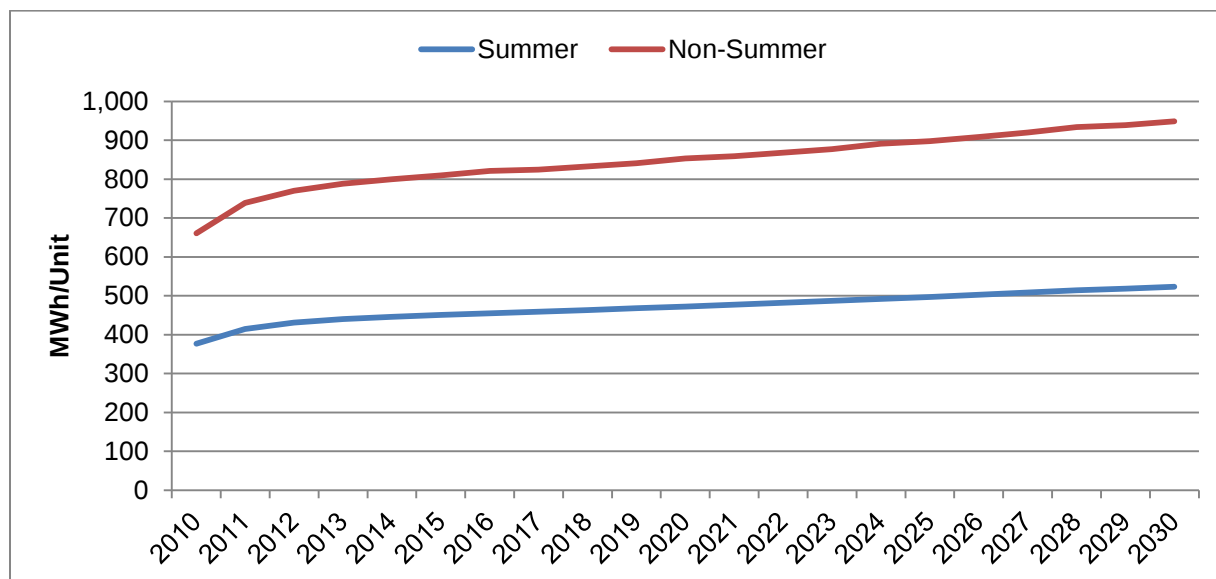
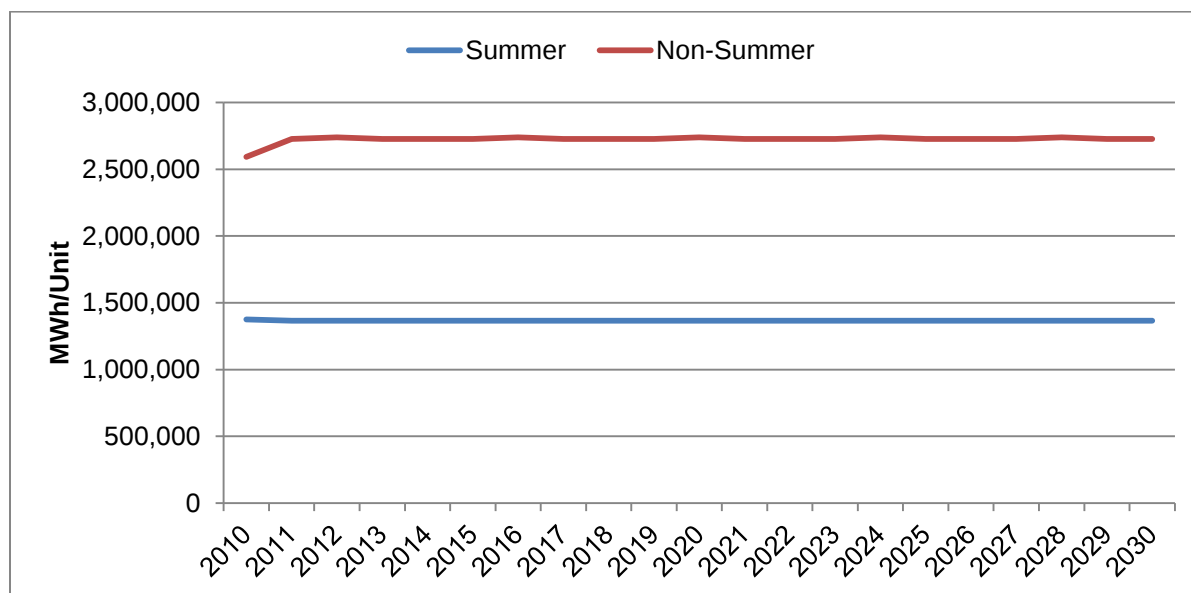
Forecast of Residential Energy Use per Unit by Revenue Class (MWh/Unit)

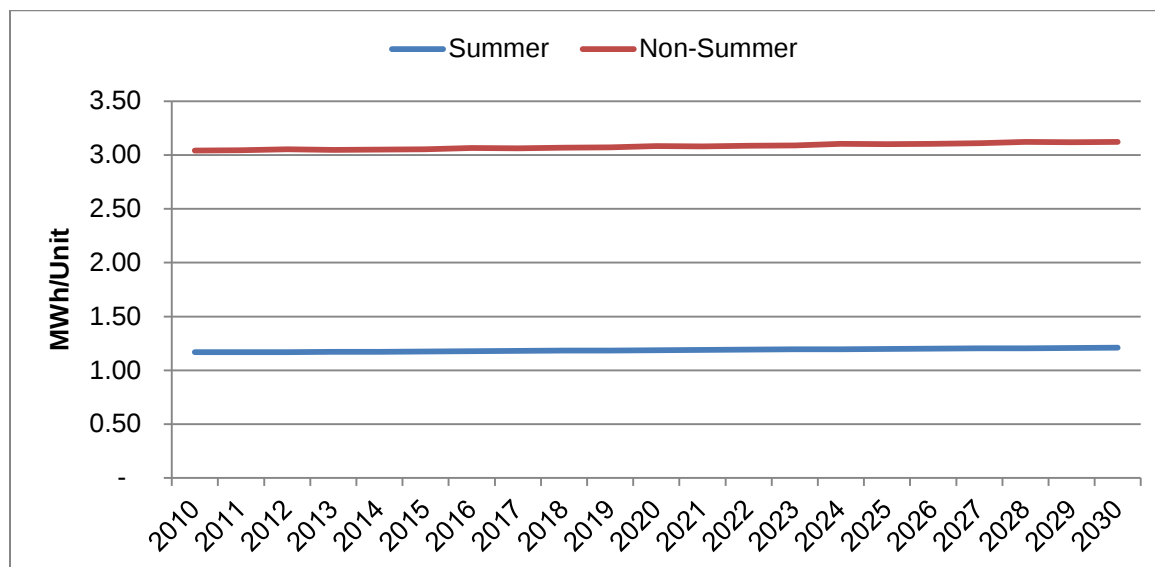
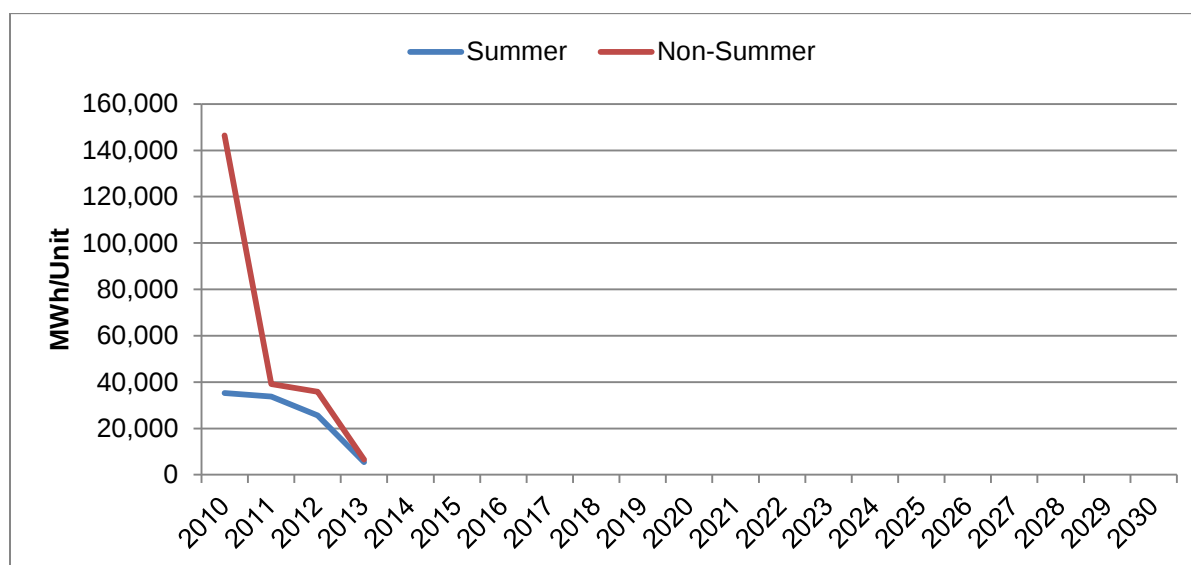


Forecast of Commercial Energy Use per Unit by Revenue Class (MWh/Unit)



¹⁶ 4 CSR 240-22.030(8)(A)2.B

Forecast of Industrial Energy Use per Unit by Revenue Class (MWh/Unit)**Forecast of Noranda Energy Use per Unit by Revenue Class (MWh/Unit)**

Forecast of Lighting Use per Unit by Revenue Class (MWh/Unit)**Forecast of Wholesale Energy per Unit by Revenue Class (MWh/Unit)**

Forecast of Summer Energy Use per Unit by Revenue Class (MWh/Unit)

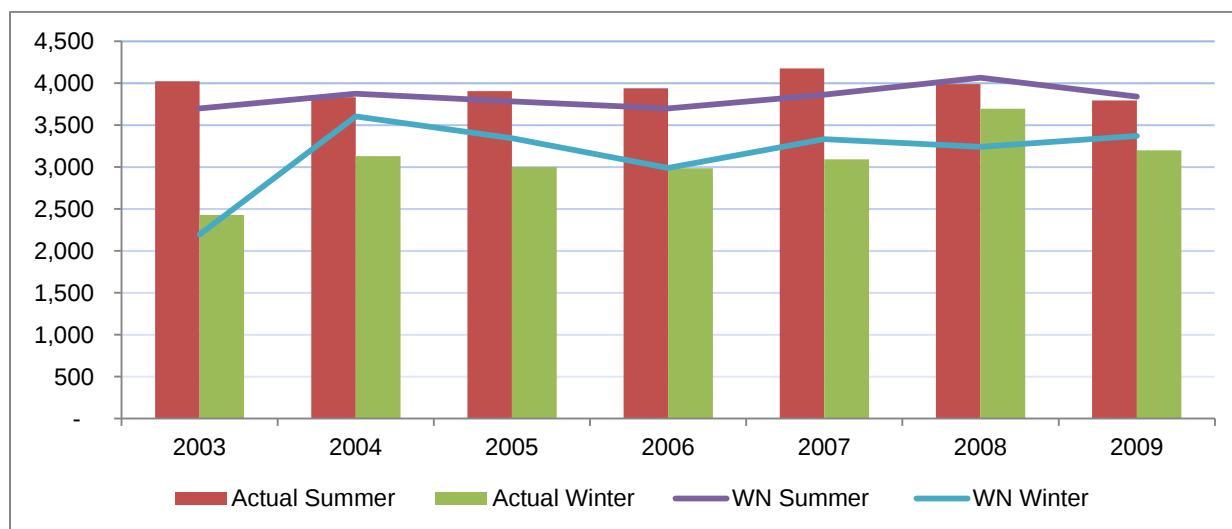
Forecast Year	Residential	Commercial	Industrial	Noranda	Lighting	Wholesale
2010	4.69	36.2	377	1,376,160	1.17	35,259
2011	4.56	36.5	414	1,365,522	1.17	33,703
2012	4.53	36.7	431	1,365,522	1.17	25,554
2013	4.48	36.5	440	1,365,522	1.17	5,403
2014	4.46	36.2	446	1,365,522	1.17	
2015	4.45	36.0	451	1,365,522	1.17	
2016	4.44	35.8	455	1,365,522	1.18	
2017	4.44	35.7	459	1,365,522	1.18	
2018	4.44	35.6	463	1,365,522	1.18	
2019	4.45	35.6	468	1,365,522	1.18	
2020	4.44	35.6	472	1,365,522	1.19	
2021	4.45	35.6	477	1,365,522	1.19	
2022	4.46	35.6	482	1,365,522	1.19	
2023	4.48	35.7	487	1,365,522	1.19	
2024	4.49	35.8	492	1,365,522	1.20	
2025	4.51	35.8	497	1,365,522	1.20	
2026	4.53	35.9	503	1,365,522	1.20	
2027	4.56	36.0	509	1,365,522	1.20	
2028	4.58	36.1	514	1,365,522	1.21	
2029	4.60	36.3	518	1,365,522	1.21	
2030	4.62	36.4	523	1,365,522	1.21	

Forecast of Non-Summer Energy Use per Unit by Revenue Class (MWh/Unit)

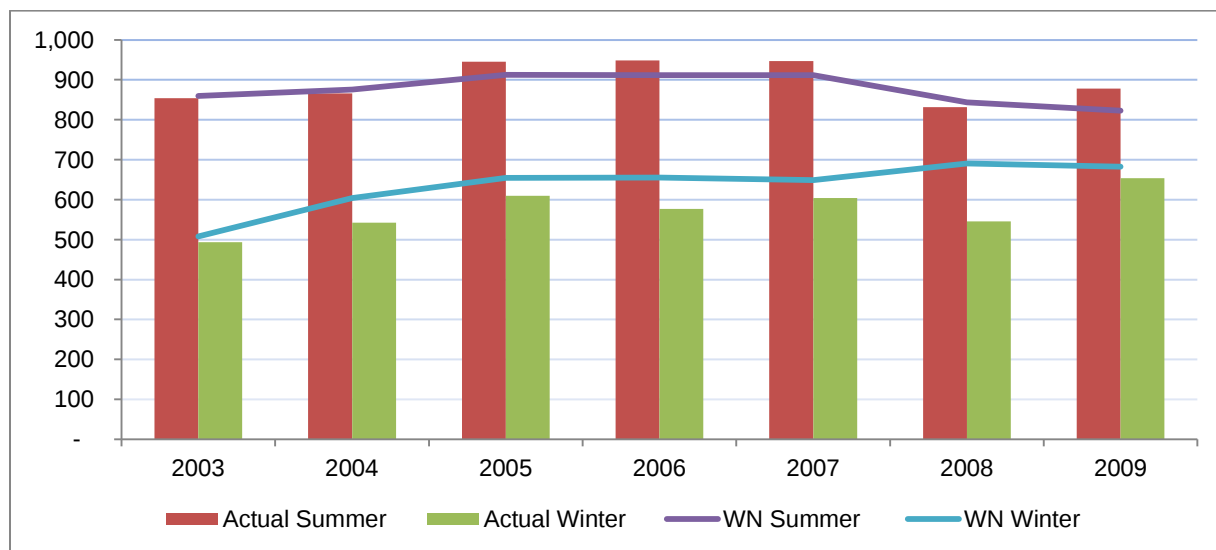
Forecast Year	Residential	Commercial	Industrial	Noranda	Lighting	Wholesale
2010	8.76	63.8	661	2,593,109	3.04	146,488
2011	8.46	64.0	739	2,726,195	3.04	39,096
2012	8.44	64.4	771	2,737,496	3.05	35,791
2013	8.31	64.0	788	2,726,195	3.05	6,564
2014	8.28	63.6	800	2,726,195	3.05	
2015	8.27	63.4	810	2,726,195	3.05	
2016	8.30	63.5	821	2,737,496	3.07	
2017	8.24	63.1	825	2,726,195	3.06	
2018	8.23	63.1	832	2,726,195	3.07	
2019	8.24	63.2	841	2,726,195	3.07	
2020	8.27	63.6	854	2,737,496	3.08	
2021	8.24	63.5	859	2,726,195	3.08	
2022	8.25	63.7	868	2,726,195	3.09	
2023	8.27	63.9	878	2,726,195	3.09	
2024	8.34	64.3	891	2,737,496	3.10	
2025	8.34	64.3	898	2,726,195	3.10	
2026	8.37	64.5	909	2,726,195	3.10	
2027	8.41	64.8	920	2,726,195	3.11	
2028	8.49	65.4	934	2,737,496	3.12	
2029	8.48	65.4	939	2,726,195	3.12	
2030	8.51	65.8	949	2,726,195	3.12	

Class Demand per Unit and Total Demand at the time of Summer and Winter System Peak¹⁷

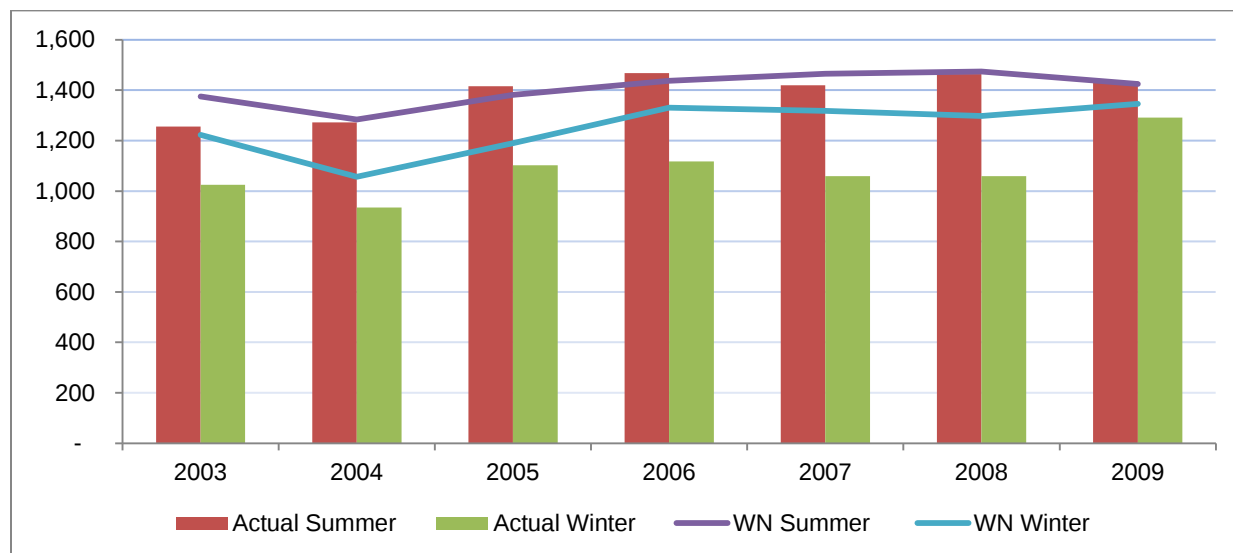
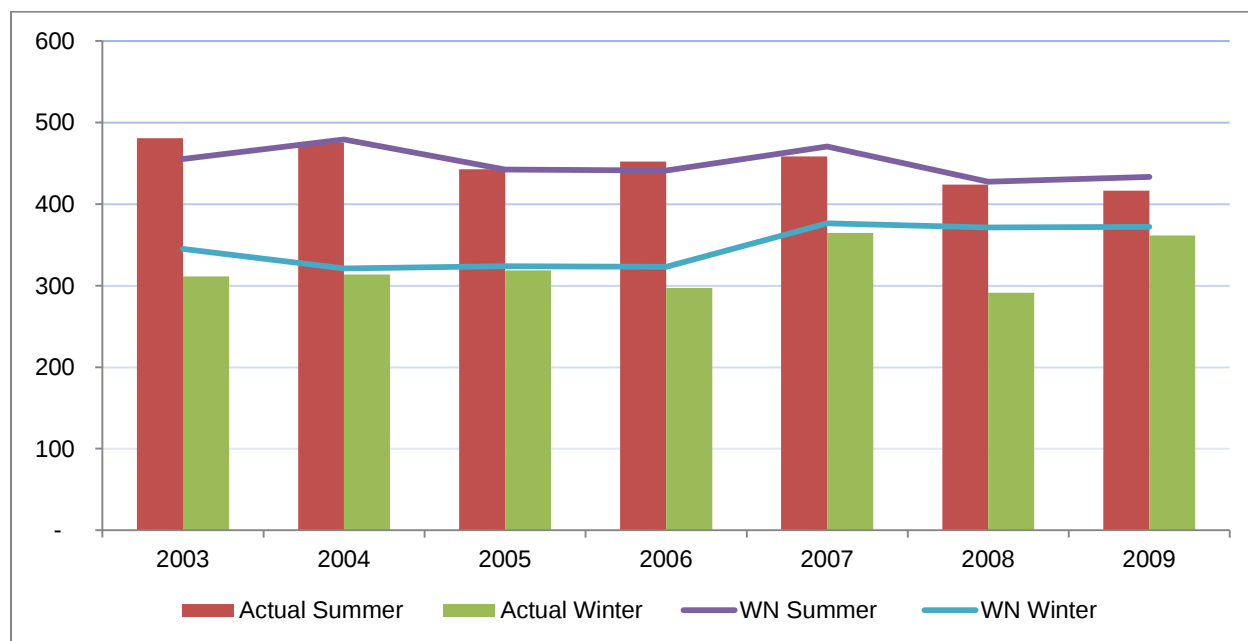
Historical Actual and Weather Normalized Summer and Winter Coincident Peak for Residential Class (MW)

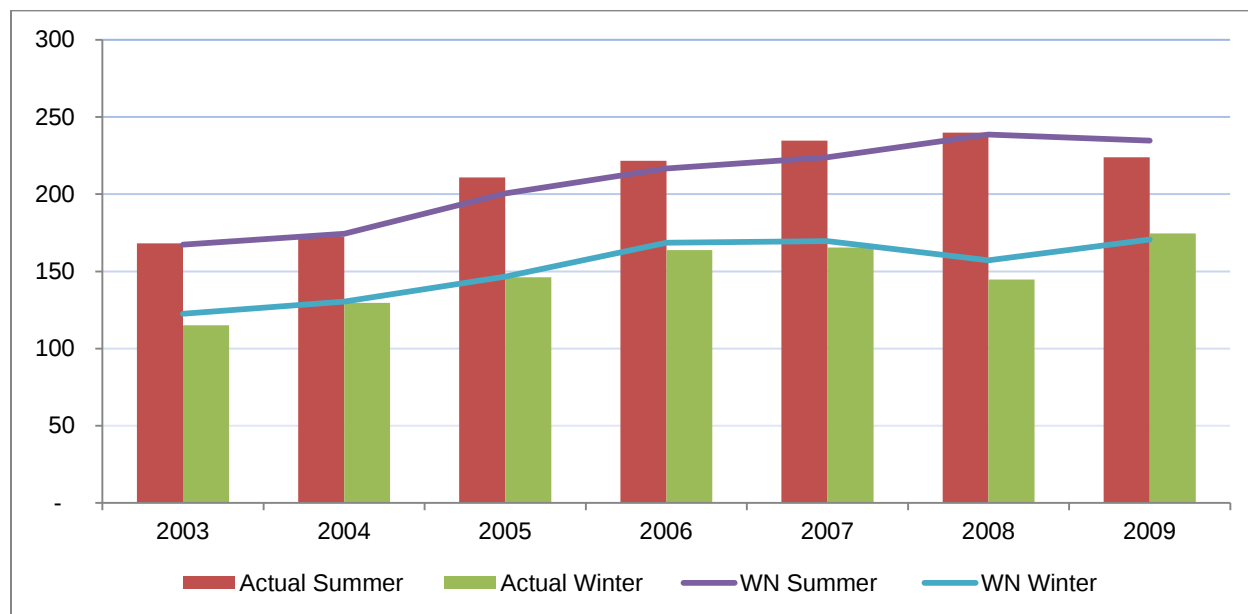
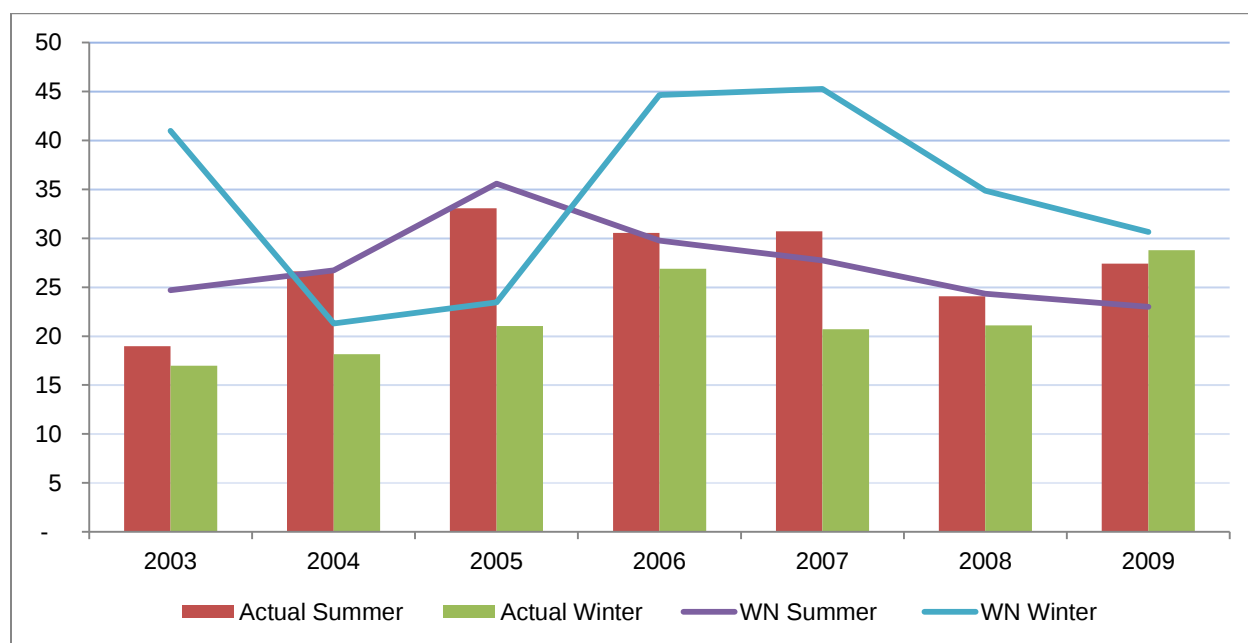


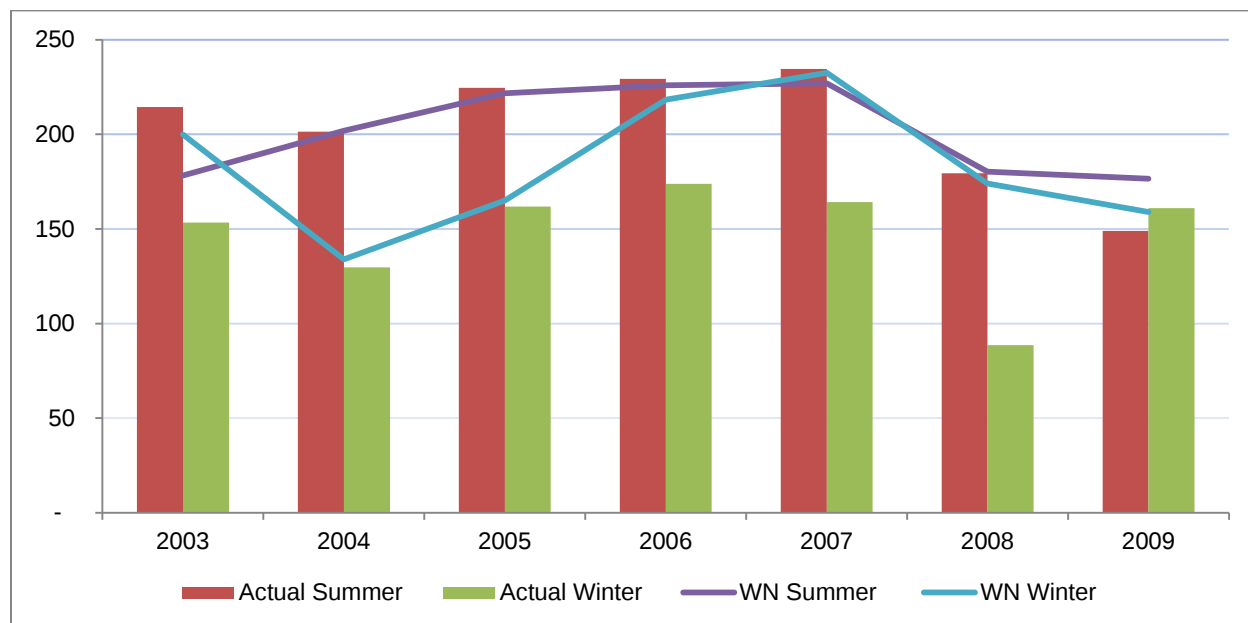
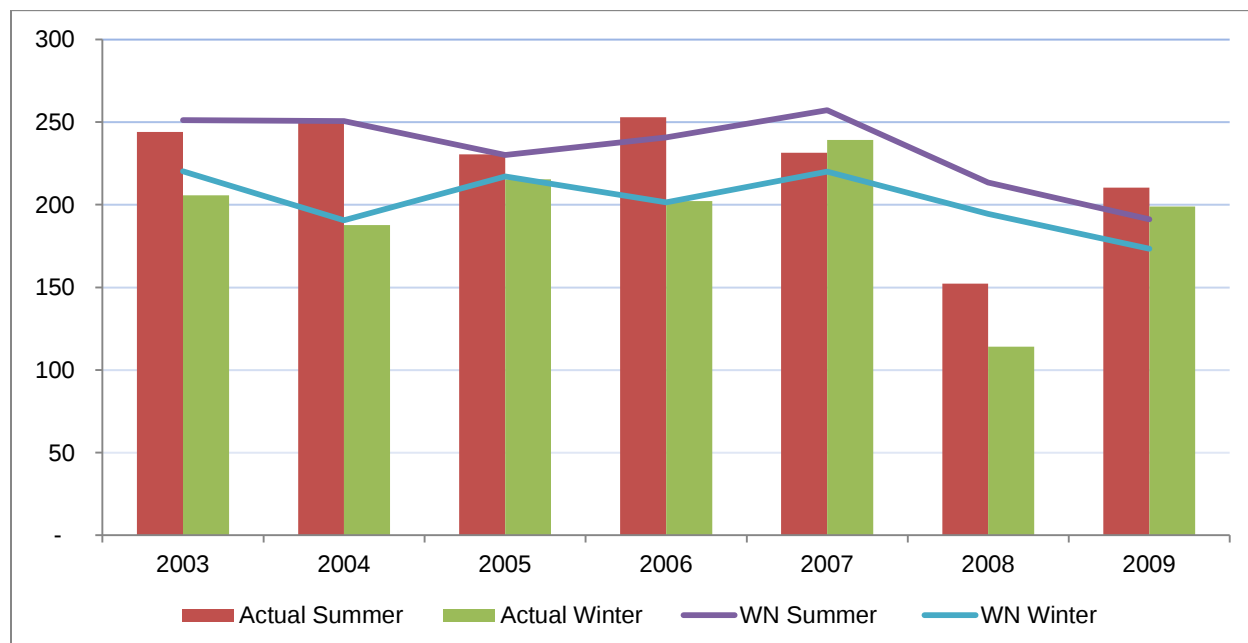
Historical Actual and Weather Normalized Summer and Winter Coincident Peak for Commercial SGS (MW)

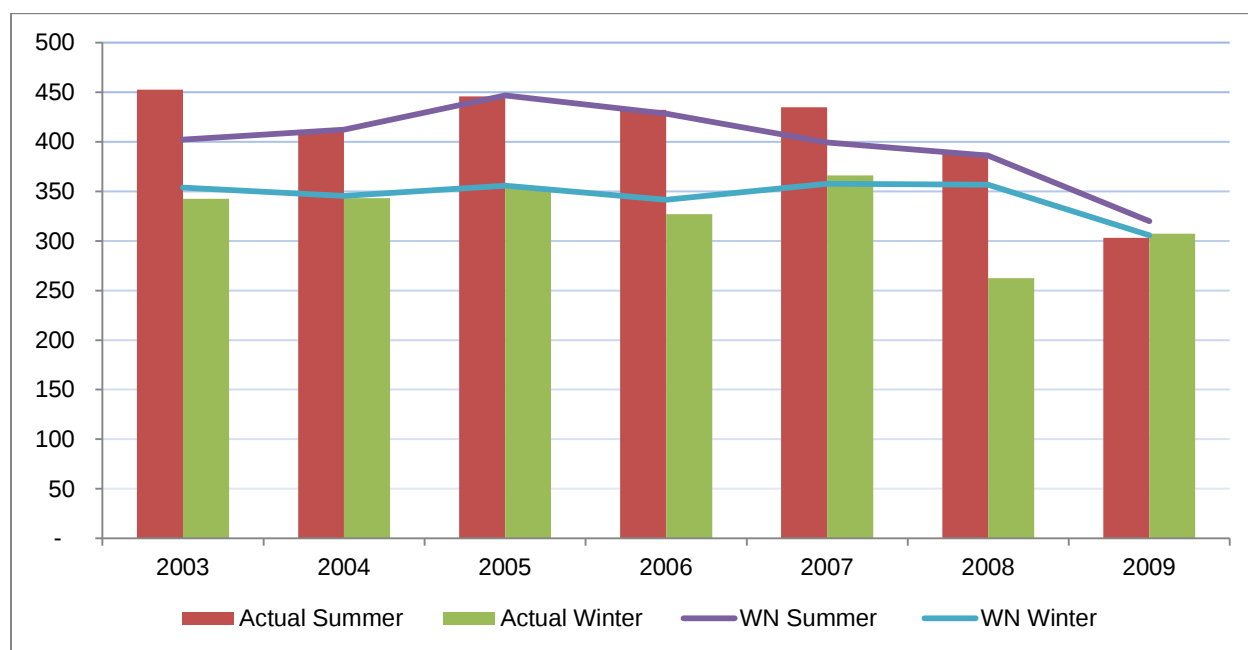
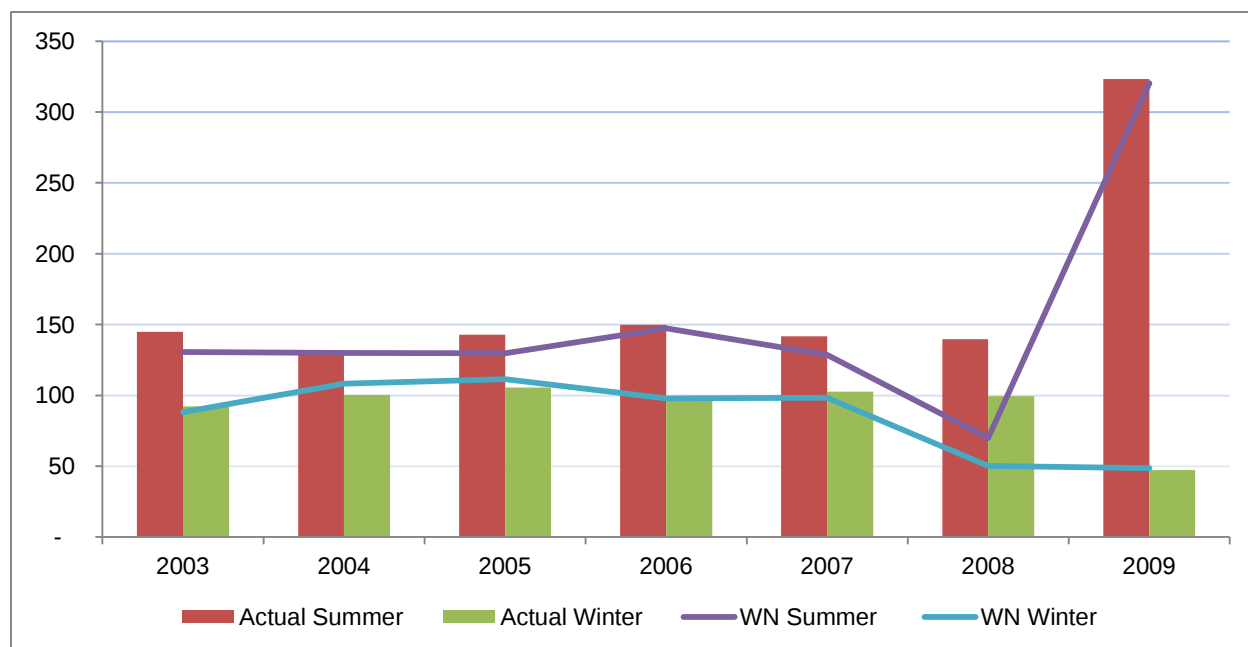


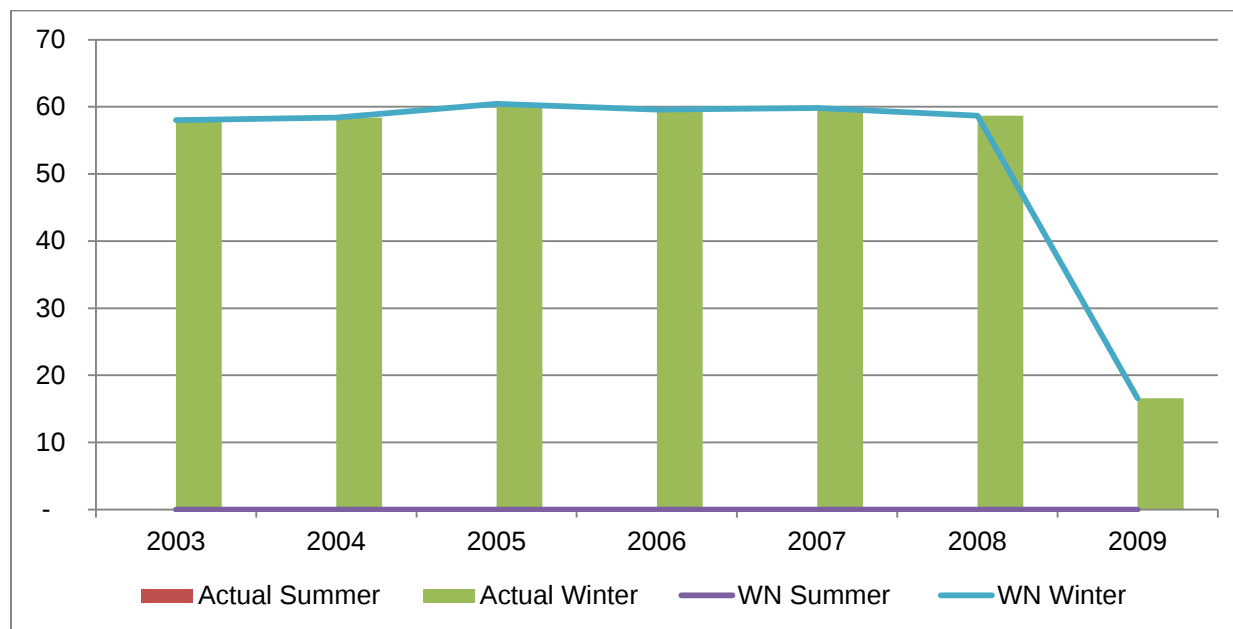
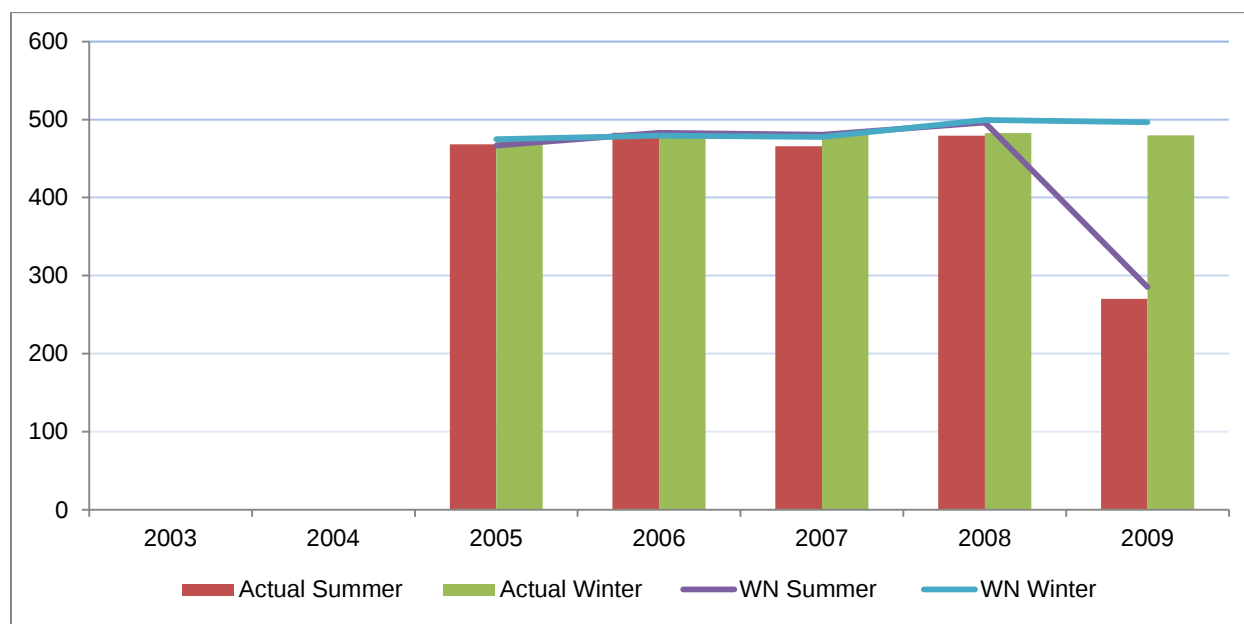
¹⁷ 4 CSR 240-22.030(8)(B), 4 CSR 240-22.030(1)(B)1

Historical Actual and Weather Normalized Summer and Winter Coincident Peak for Commercial LGS (MW)**Historical Actual and Weather Normalized Summer and Winter Coincident Peak for Commercial SPS (MW)**

Historical Actual and Weather Normalized Summer and Winter Coincident Peak for Commercial LPS (MW)**Historical Actual and Weather Normalized Summer and Winter Coincident Peak for Industrial SGS (MW)**

Historical Actual and Weather Normalized Summer and Winter Coincident Peak for Industrial LGS (MW)**Historical Actual and Weather Normalized Summer and Winter Coincident Peak for Industrial SPS (MW)**

Historical Actual and Weather Normalized Summer and Winter Coincident Peak for Industrial LPS (MW)**Historical Actual and Weather Normalized Summer and Winter Coincident Peak for Wholesale (MW)**

Historical Actual and Weather Normalized Summer and Winter Coincident Peak for Lighting (MW)**Historical Actual and Weather Normalized Summer and Winter Coincident Peak for Noranda (MW)**

Historical Summer Coincident Peak by Class (MW)

	2003	2004	2005	2006	2007	2008	2009
RES	4,023	3,830	3,904	3,938	4,174	3,986	3,793
COMSGS	854	866	945	948	947	831	878
COMLGS	1,255	1,273	1,415	1,468	1,419	1,463	1,435
COMSPS	481	475	442	452	458	424	416
COMLPS	168	172	211	222	235	240	224
INDSGS	19	27	33	31	31	24	27
INDLGS	214	201	225	229	235	179	149
INDSPS	244	250	231	253	231	152	210
INDLPS	453	411	446	432	435	389	303
WS	145	129	143	150	142	140	323
Lighting	-	-	-	-	-	-	-
Noranda	-	-	468	483	466	479	270

Historical Winter Coincident Peak by Class (MW)

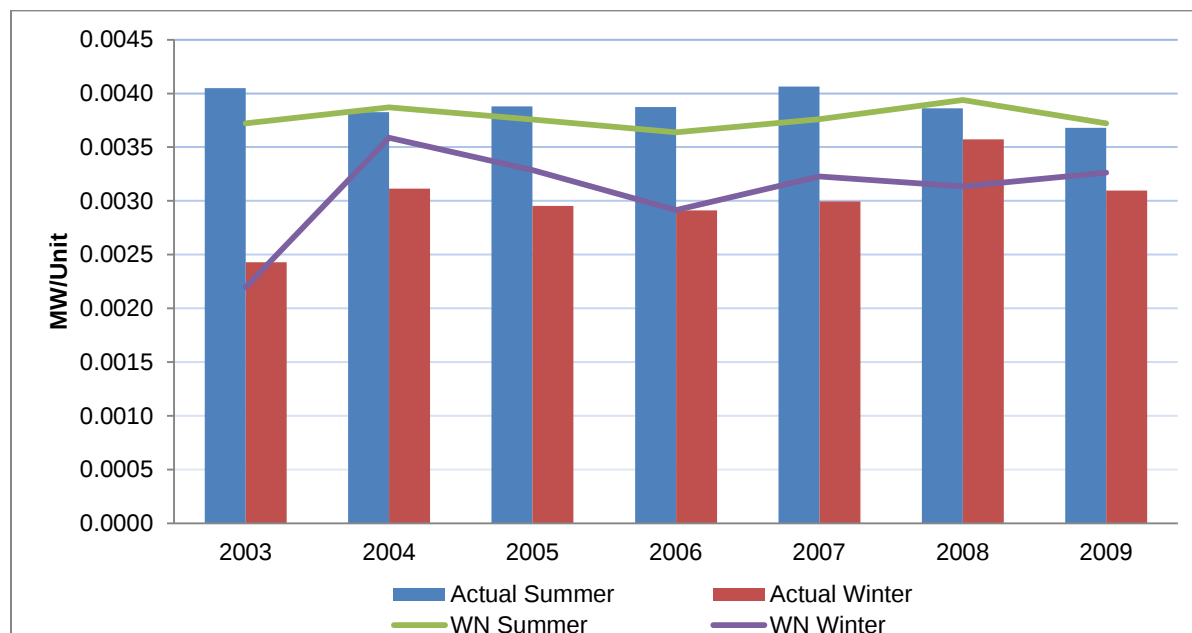
	2003	2004	2005	2006	2007	2008	2009
RES	2,426	3,128	3,001	2,984	3,092	3,694	3,199
COMSGS	494	542	609	577	604	546	653
COMLGS	1,025	935	1,103	1,118	1,059	1,059	1,291
COMSPS	311	314	319	297	364	291	362
COMLPS	115	130	146	164	165	145	175
INDSGS	17	18	21	27	21	21	29
INDLGS	153	130	162	174	164	89	161
INDSPS	206	188	215	202	239	114	199
INDLPS	342	343	354	327	366	262	307
WS	92	100	106	99	103	100	47
Lighting	58	58	60	60	60	59	17
Noranda	-	-	475	482	482	483	480

Historical Weather Normalized Summer Coincident Peak by Class (MW)

Year	2003	2004	2005	2006	2007	2008	2009
RES	3,697	3,875	3,783	3,700	3,862	4,065	3,838
COMSGS	860	875	912	911	912	844	823
COMLGS	1,375	1,284	1,381	1,438	1,465	1,473	1,424
COMSPS	455	479	442	441	470	427	433
COMLPS	167	174	201	217	224	239	235
INDSGS	25	27	36	30	28	24	23
INDLGS	178	202	222	226	227	180	176
INDSPS	251	251	230	241	257	213	191
INDLPS	402	412	447	428	399	386	320
WS	131	130	130	147	129	70	320
Lighting	-	-	-	-	-	-	-
Noranda			467	483	480	496	285

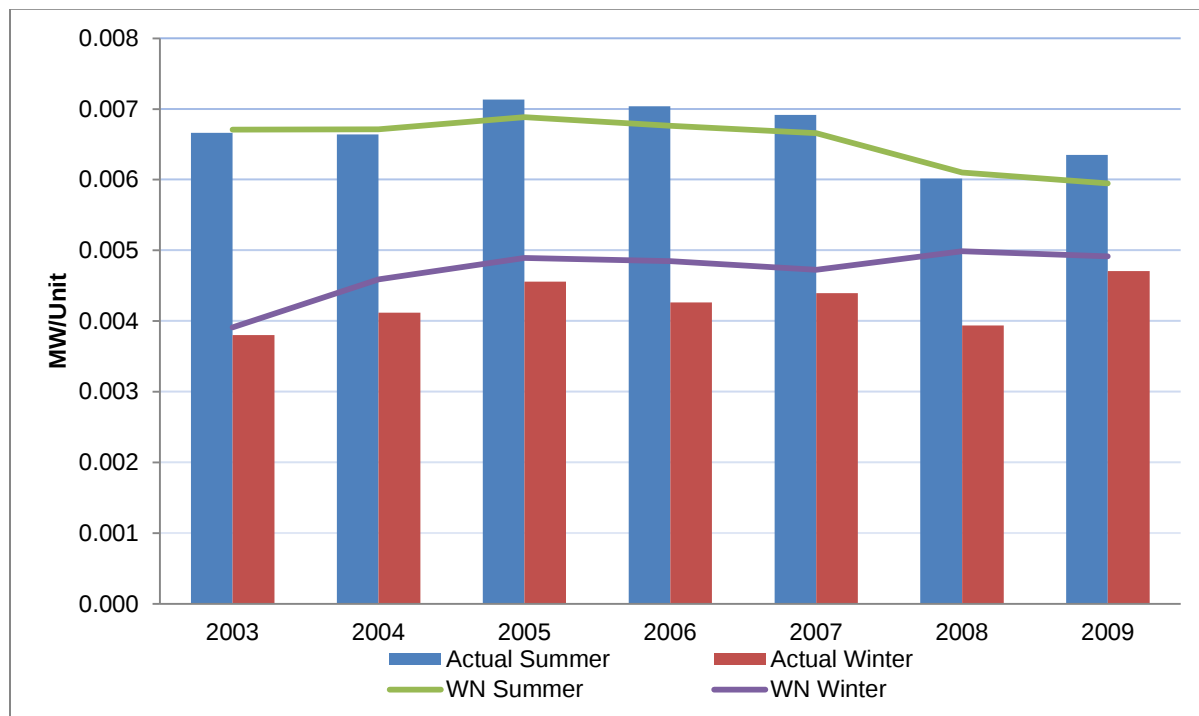
Historical Weather Normalized Winter Coincident Peak by Class (MW)

Year	2003	2004	2005	2006	2007	2008	2009
RES	2,196	3,603	3,342	2,988	3,331	3,240	3,371
COMSGS	508	604	655	655	649	691	682
COMLGS	1,223	1,056	1,189	1,331	1,318	1,297	1,346
COMSPS	345	321	324	323	376	371	372
COMLPS	123	130	147	169	170	157	171
INDSGS	41	21	23	45	45	35	31
INDLGS	200	134	165	218	233	174	159
INDSPS	220	190	217	201	220	195	173
INDLPS	354	345	356	341	357	357	306
WS	88	108	111	98	98	50	49
Lighting	58	58	60	60	60	59	17
Noranda			475	479	477	499	497

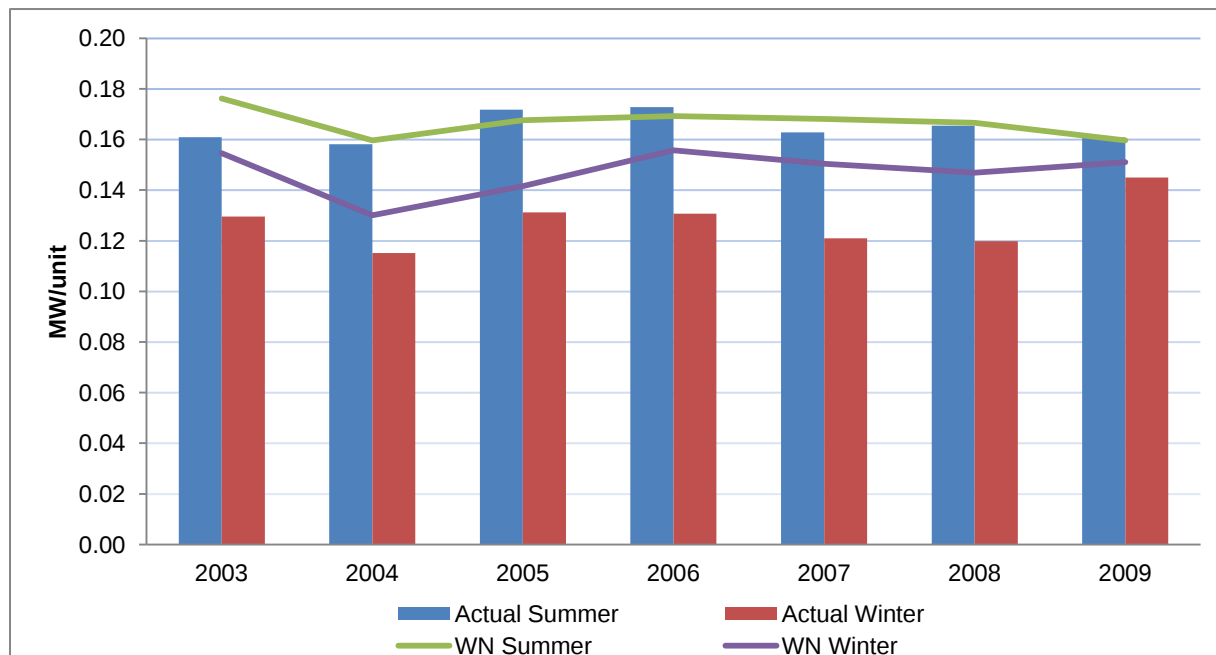
Actual and Weather Normalized Summer and Winter Coincident Peak Demand per Unit for Residential Class (MW/Unit)¹⁸

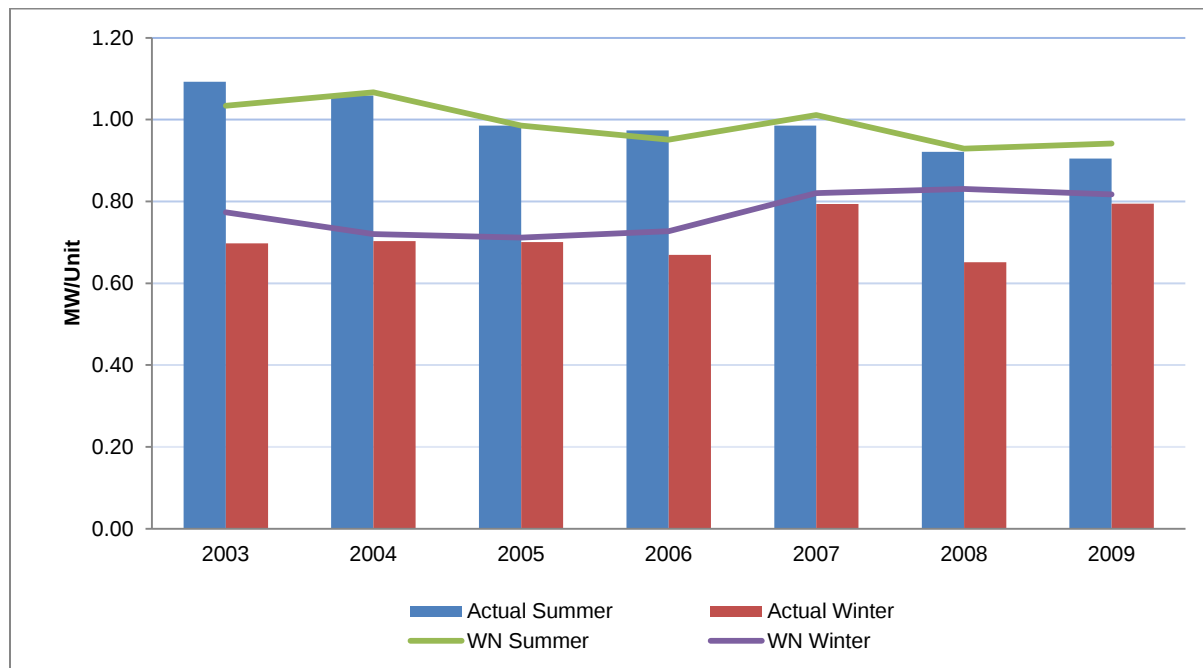
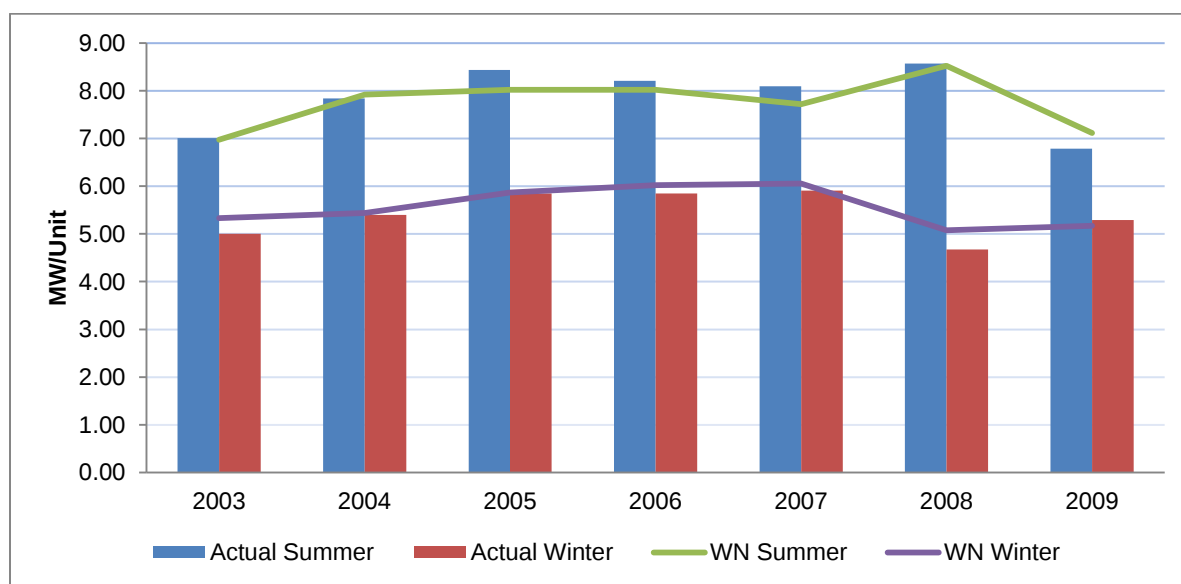
¹⁸ 4 CSR 240-22.030(8)(B), 4 CSR 240-22.030(1)(B)1

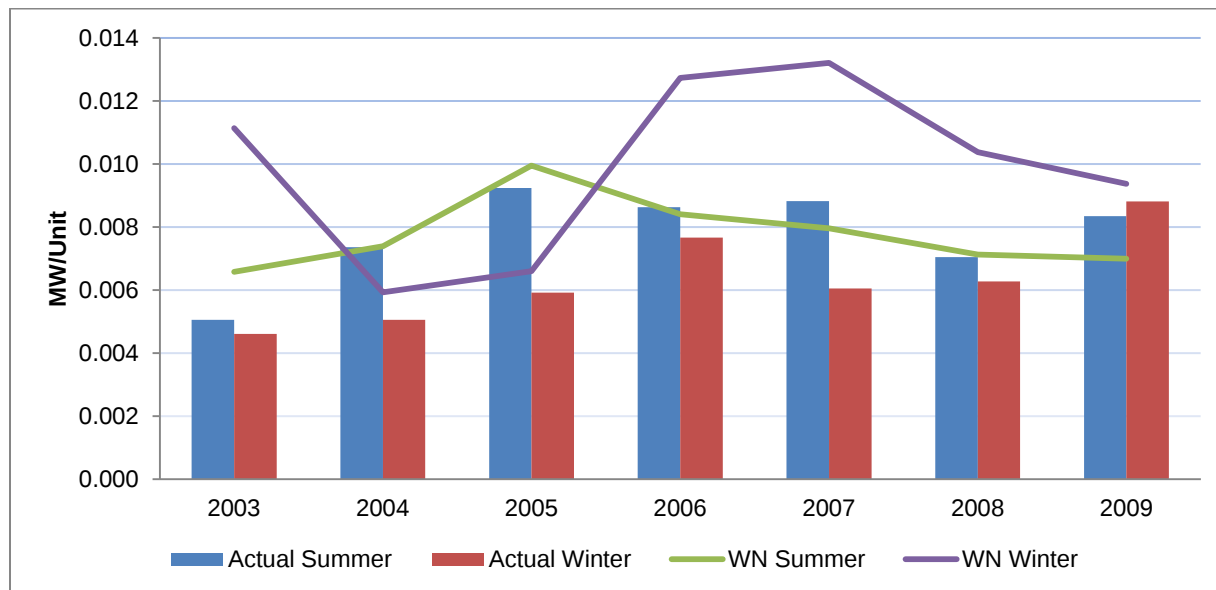
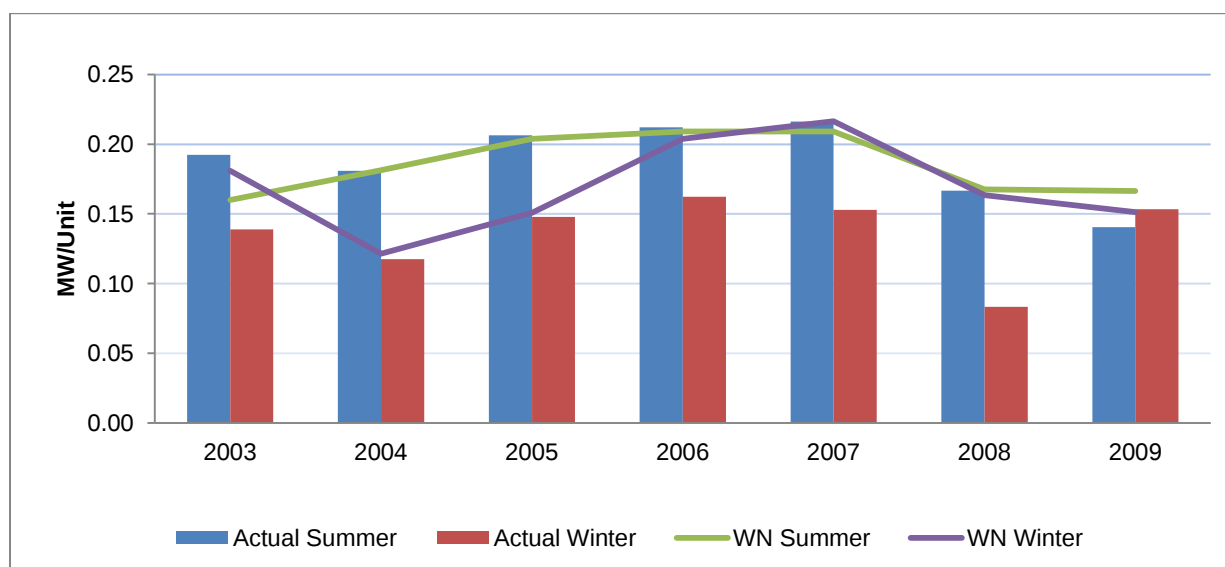
Actual and Weather Normalized Summer and Winter Coincident Peak Demand per Unit for Commercial SGS (MW/Unit)

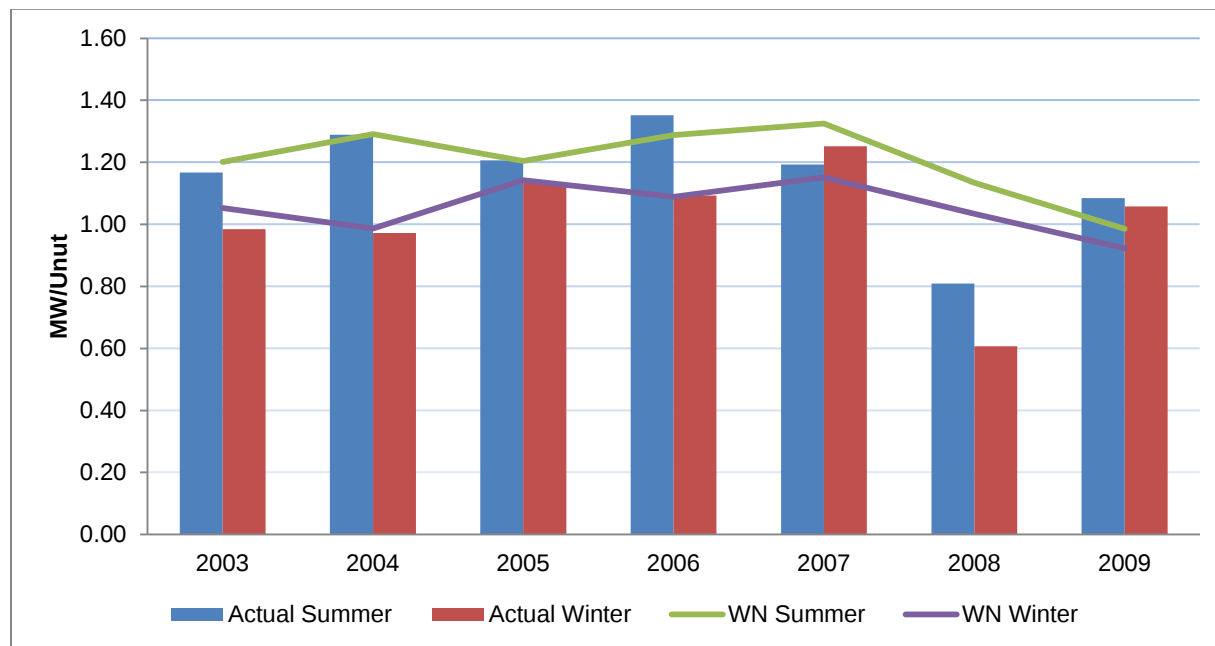
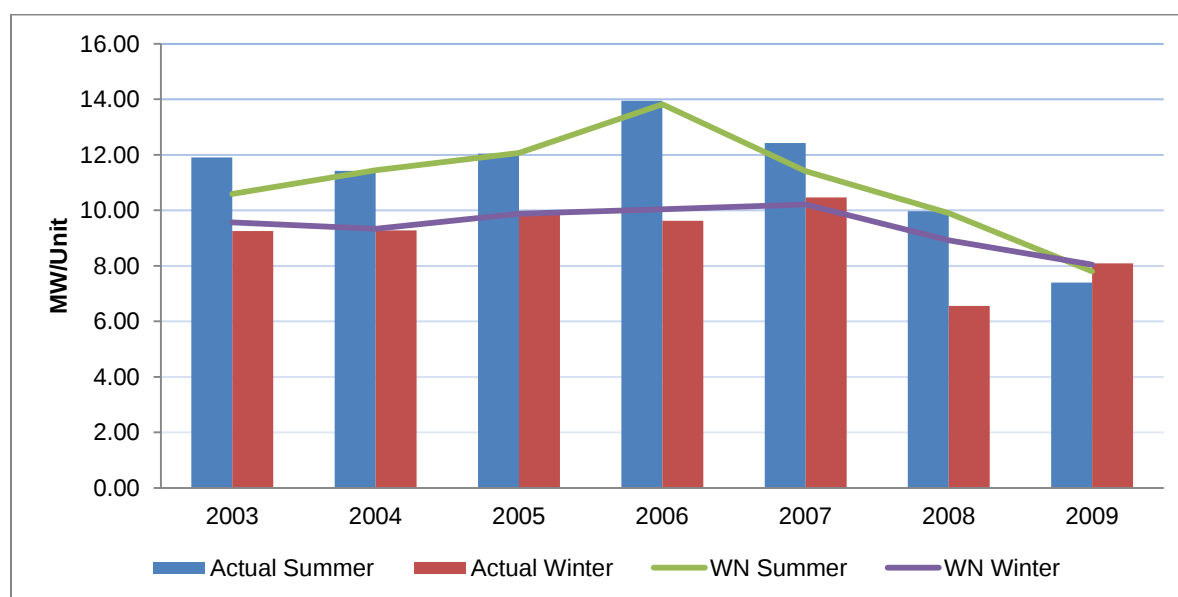


Actual and Weather Normalized Summer and Winter Coincident Peak Demand per Unit for Commercial LGS (MW/Unit)



Actual and Weather Normalized Summer and Winter Coincident Peak Demand per Unit for Commercial SPS (MW/Unit)**Actual and Weather Normalized Summer and Winter Coincident Peak Demand per Unit for Commercial LPS (MW/Unit)**

Actual and Weather Normalized Summer and Winter Coincident Peak Demand per Unit for Industrial SGS (MW/Unit)**Actual and Weather Normalized Summer and Winter Coincident Peak Demand per Unit for Industrial LGS (MW/Unit)**

Actual and Weather Normalized Summer and Winter Coincident Peak Demand per Unit for Industrial SPS (MW/Unit)**Actual and Weather Normalized Summer and Winter Coincident Peak Demand per Unit for Industrial LPS (MW/Unit)**

Actual Summer Coincident Peak Demand per Unit by Class (MW/Unit)

	2003	2004	2005	2006	2007	2008	2009
RES	0.0040	0.0038	0.0039	0.0039	0.0041	0.0039	0.0037
COMSGS	0.0067	0.0066	0.0071	0.0070	0.0069	0.0060	0.0063
COMLGS	0.16	0.16	0.17	0.17	0.16	0.17	0.16
COMSPS	1.09	1.06	0.99	0.97	0.99	0.92	0.90
COMLPS	7.00	7.84	8.44	8.20	8.09	8.57	6.78
INDSGS	0.0051	0.0074	0.0092	0.0086	0.0088	0.0070	0.0083
INDLGS	0.19	0.18	0.21	0.21	0.22	0.17	0.14
INDSPS	1.17	1.29	1.21	1.35	1.19	0.81	1.08
INDLPS	11.91	11.42	12.04	13.94	12.42	9.97	7.39

Actual Winter Coincident Peak Demand per Unit by Class (MW/Unit)

	2003	2004	2005	2006	2007	2008	2009
RES	0.0024	0.0031	0.0030	0.0029	0.0030	0.0036	0.0031
COMSGS	0.0038	0.0041	0.0046	0.0043	0.0044	0.0039	0.0047
COMLGS	0.1295	0.1151	0.1313	0.1307	0.1209	0.1199	0.1449
COMSPS	0.698	0.703	0.700	0.669	0.794	0.651	0.795
COMLPS	5.004	5.399	5.844	5.847	5.907	4.671	5.290
INDSGS	0.0046	0.0051	0.0059	0.0077	0.0060	0.0063	0.0088
INDLGS	0.139	0.118	0.148	0.162	0.153	0.083	0.153
INDSPS	0.984	0.972	1.133	1.093	1.252	0.607	1.058
INDLPS	9.254	9.276	9.845	9.620	10.460	6.559	8.090

**Weather Normalized Summer Coincident Peak Demand per Unit by Class
(MW/Unit)**

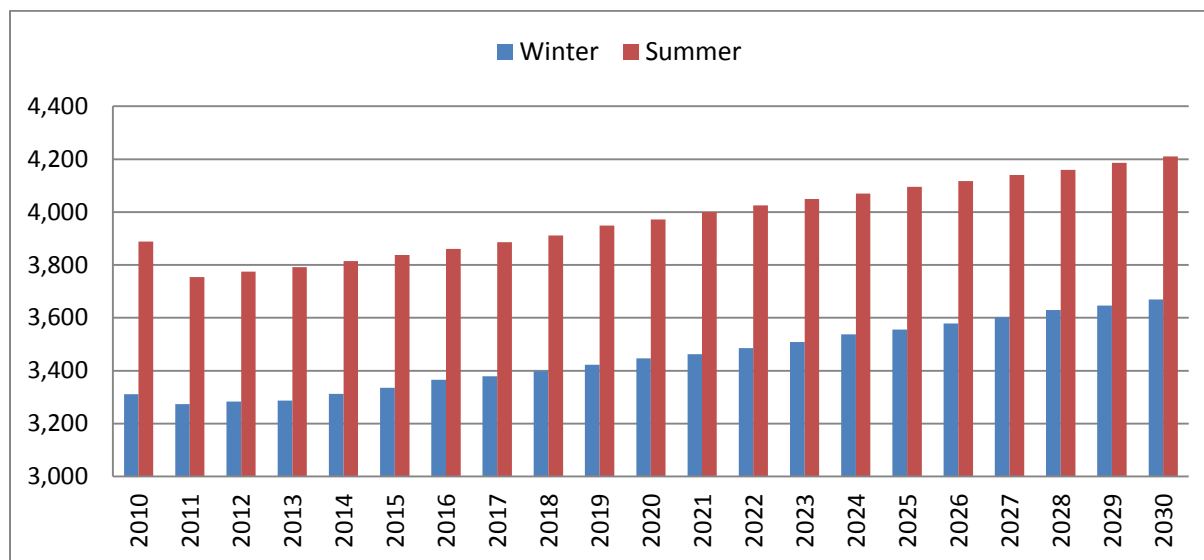
	2003	2004	2005	2006	2007	2008	2009
RES	0.0037	0.0039	0.0038	0.0036	0.0038	0.0039	0.0037
COMSGS	0.0067	0.0067	0.0069	0.0068	0.0067	0.0061	0.0059
COMLGS	0.1762	0.1596	0.1676	0.1693	0.1680	0.1666	0.1596
COMSPS	1.034	1.067	0.985	0.951	1.012	0.929	0.942
COMLPS	6.972	7.921	8.020	8.020	7.718	8.518	7.113
INDSGS	0.0066	0.0074	0.0099	0.0084	0.0080	0.0071	0.0070
INDLGS	0.160	0.181	0.204	0.209	0.209	0.168	0.166
INDSPS	1.202	1.291	1.204	1.288	1.325	1.135	0.985
INDLPS	10.586	11.446	12.071	13.817	11.410	9.894	7.801

**Weather Normalized Winter Coincident Peak Demand per Unit by Class
(MW/Unit)**

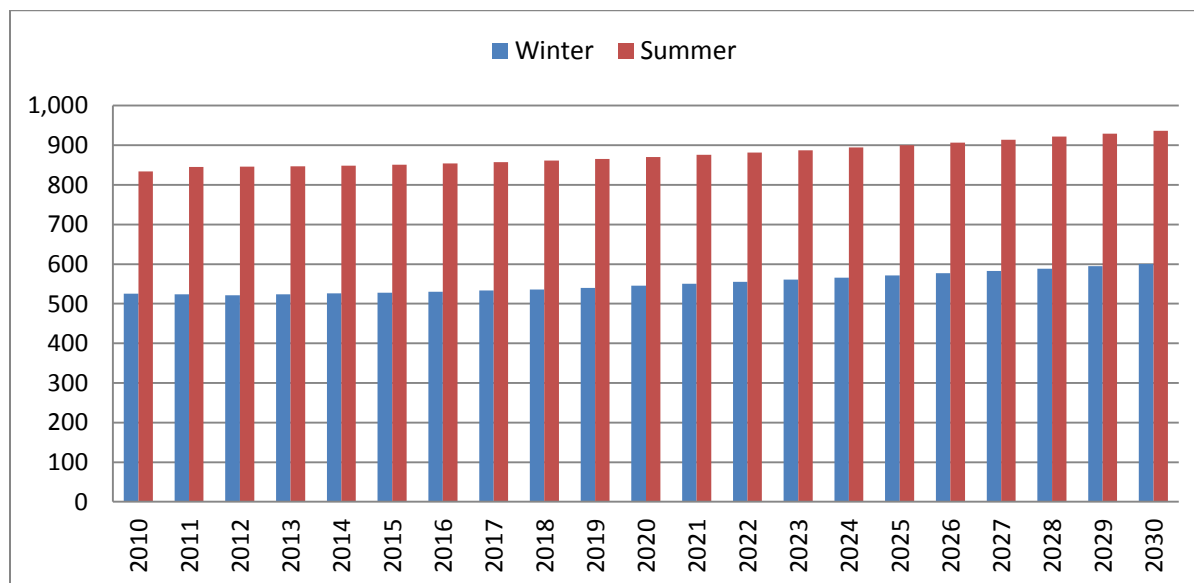
	2003	2004	2005	2006	2007	2008	2009
RES	0.0022	0.0036	0.0033	0.0029	0.0032	0.0031	0.0033
COMSGS	0.0039	0.0046	0.0049	0.0048	0.0047	0.0050	0.0049
COMLGS	0.1545	0.1300	0.1415	0.1557	0.1504	0.1469	0.1511
COMSPS	0.773	0.720	0.711	0.728	0.820	0.830	0.817
COMLPS	5.332	5.434	5.864	6.020	6.055	5.072	5.169
INDSGS	0.0111	0.0059	0.0066	0.0127	0.0132	0.0104	0.0094
INDLGS	0.181	0.121	0.151	0.204	0.216	0.163	0.151
INDSPS	1.053	0.987	1.143	1.088	1.152	1.035	0.922
INDLPS	9.563	9.336	9.880	10.041	10.213	8.915	8.041

Forecasted Total Demand at the time of Summer and Winter System Peak for Planning Case¹⁹

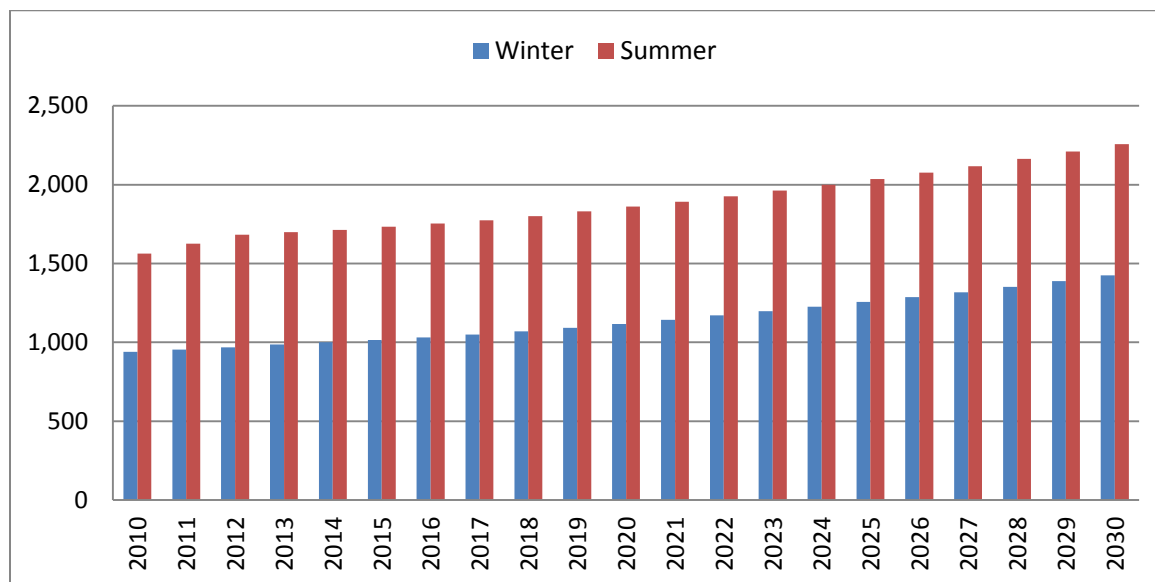
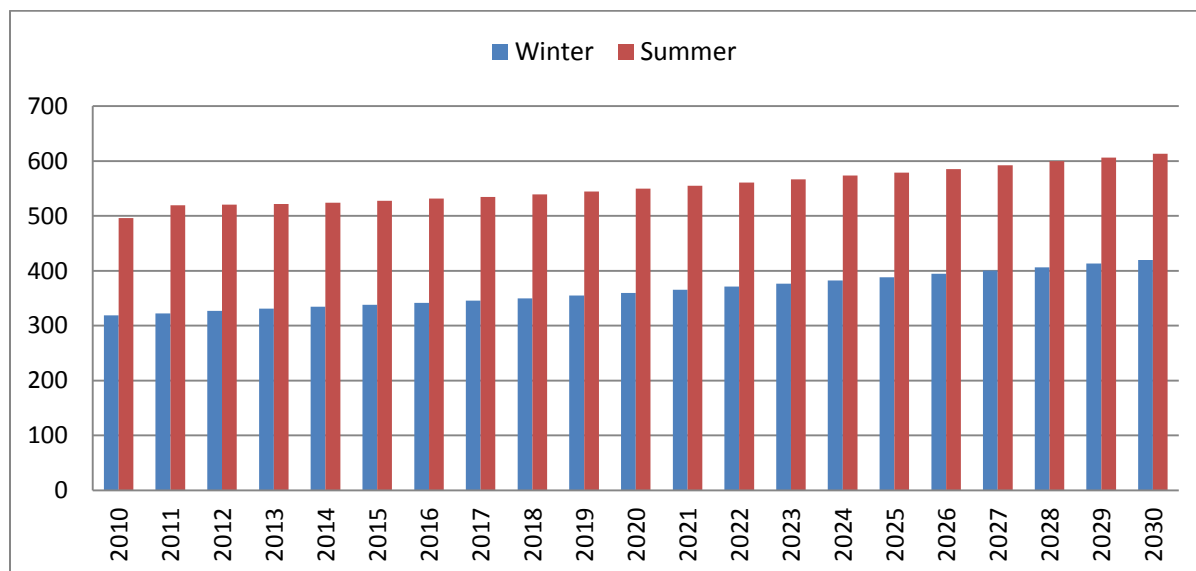
Forecast of Residential Coincident Peak Demand (MW)

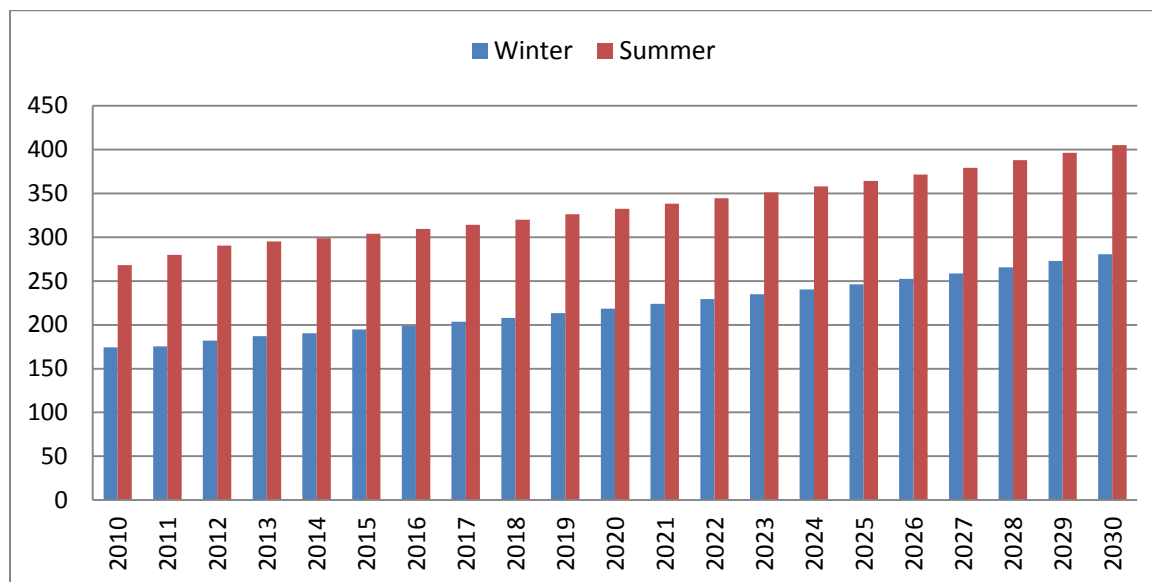
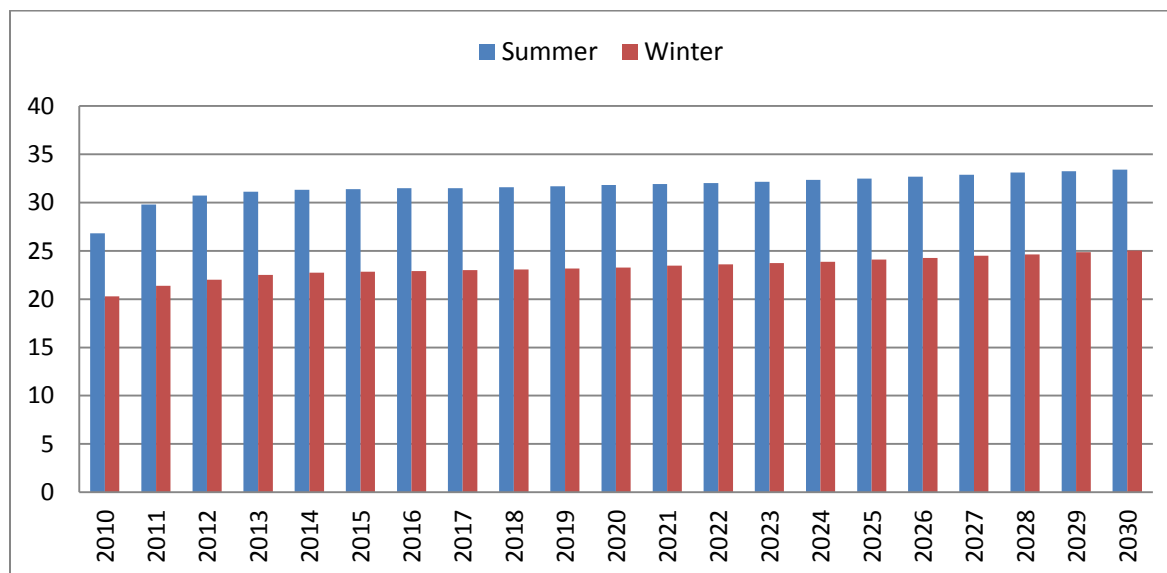


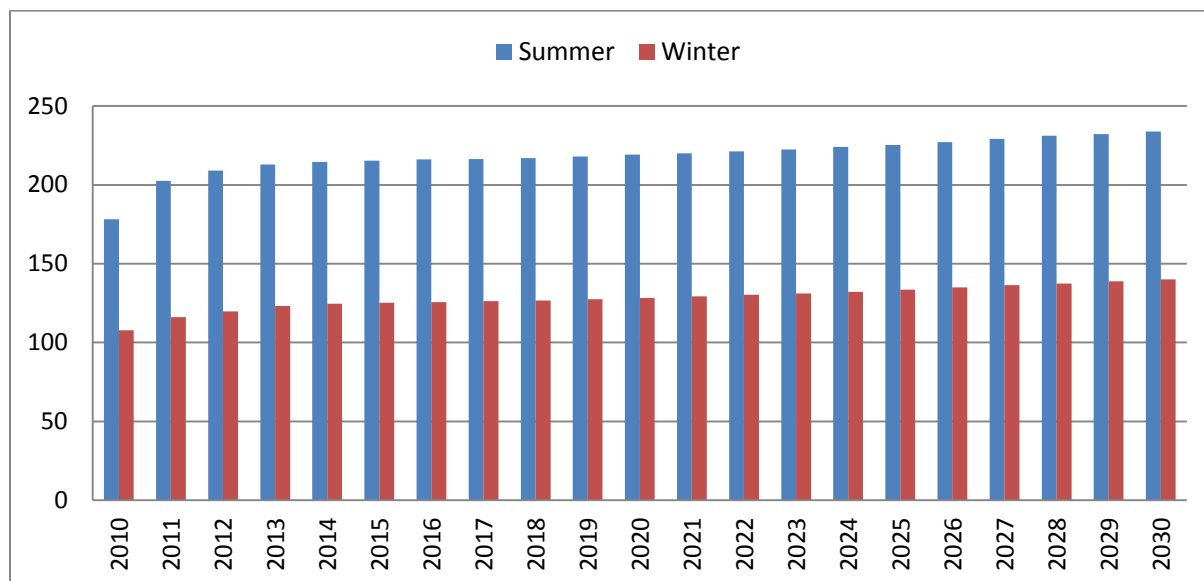
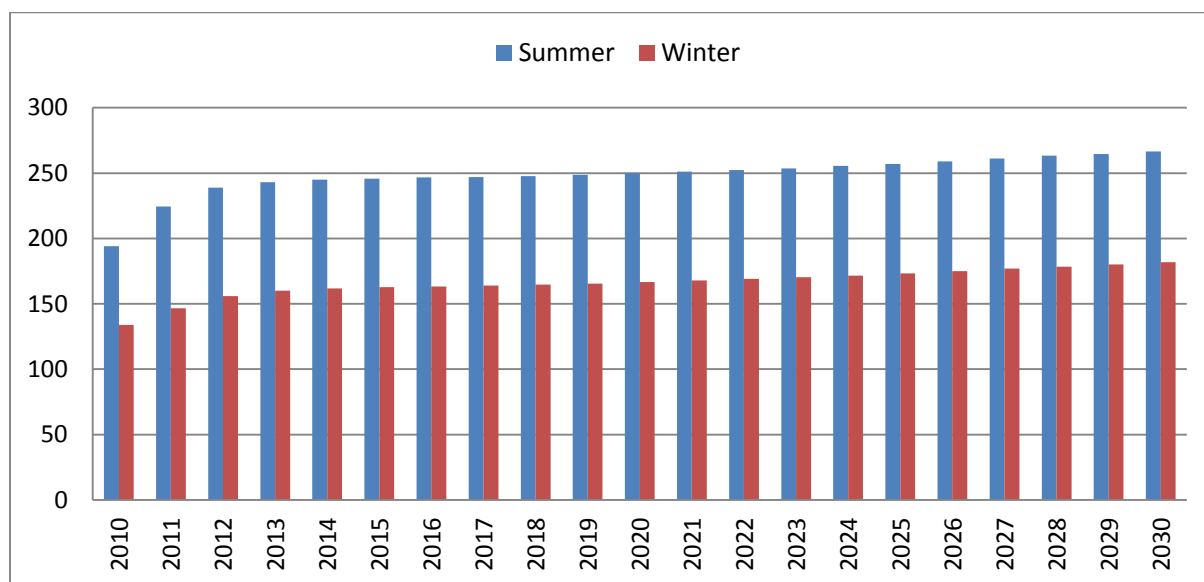
Forecast of Commercial SGS Coincident Peak Demand (MW)

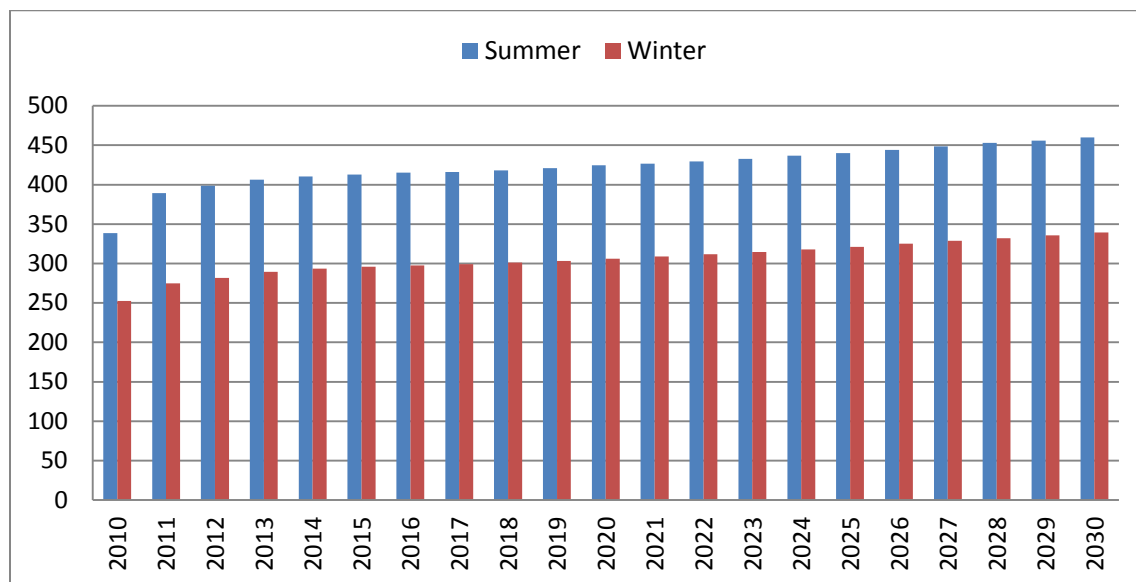
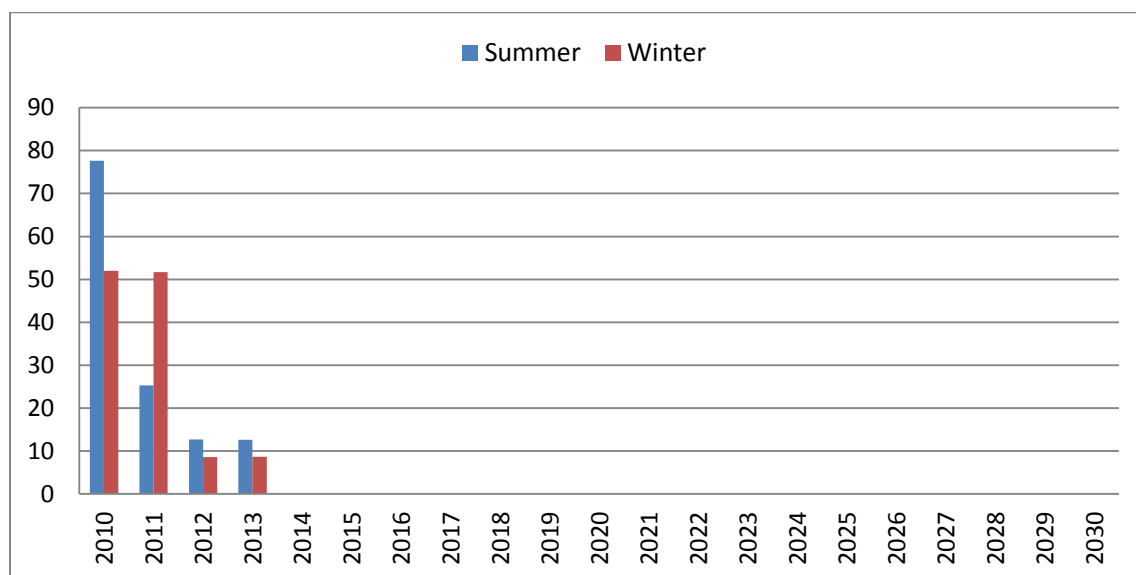


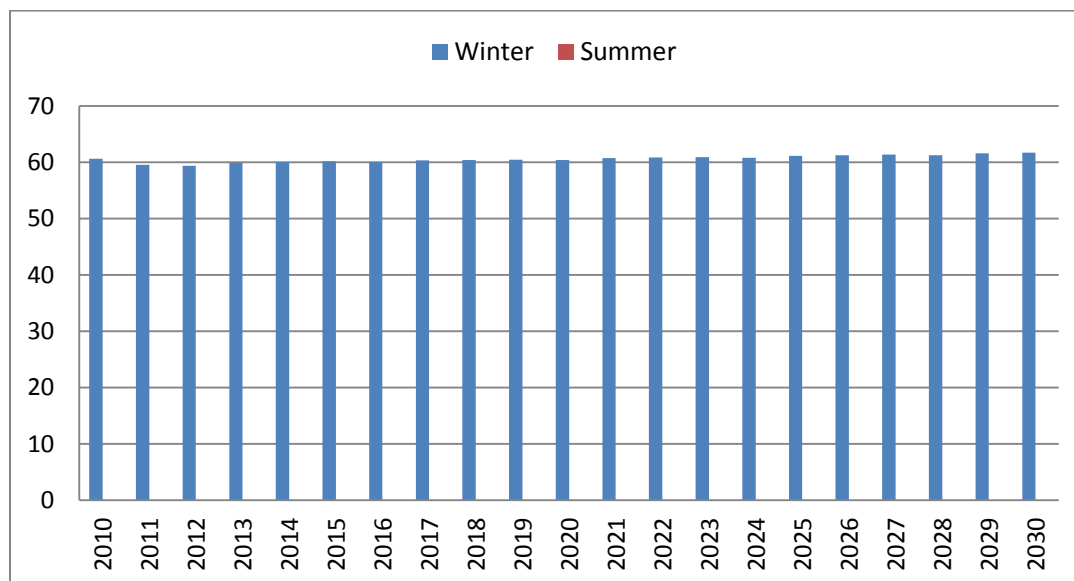
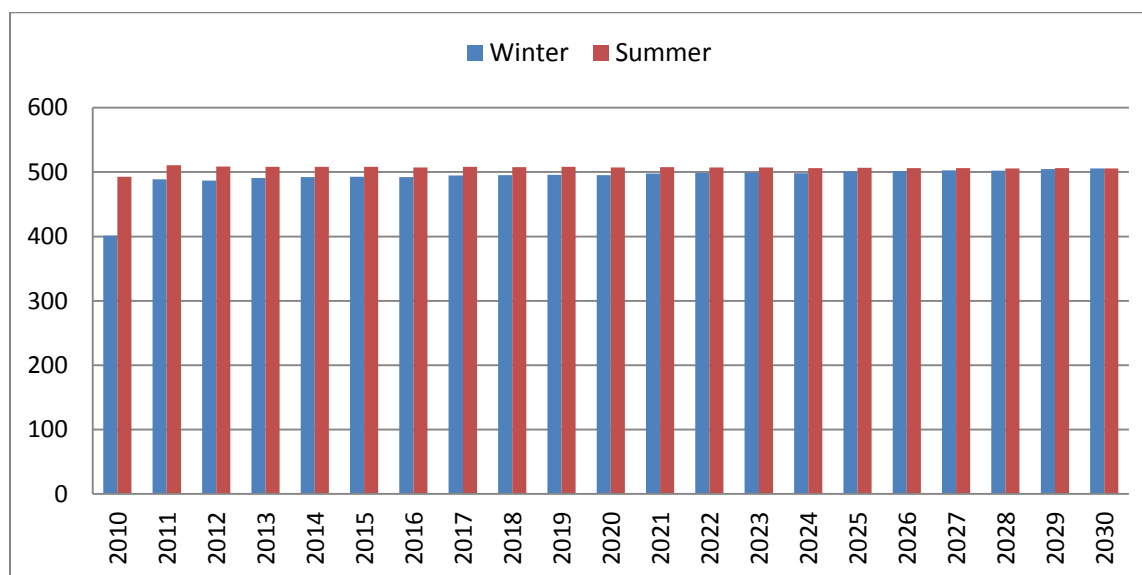
¹⁹ 4 CSR 240-22.030(8)(B), 4 CSR 240-22.030(8)(B)2

Forecast of Commercial LGS Coincident Peak Demand (MW)**Forecast of Commercial SPS Coincident Peak Demand (MW)**

Forecast of Commercial LPS Coincident Peak Demand (MW)**Forecast of Industrial SGS Coincident Peak Demand (MW)**

Forecast of Industrial LGS Coincident Peak Demand (MW)**Forecast of Industrial SPS Coincident Peak Demand (MW)**

Forecast of Industrial LPS Coincident Peak Demand (MW)**Forecast of Wholesale Coincident Peak Demand (MW)**

Forecast of Lighting Coincident Peak Demand (MW)**Forecast of Noranda Coincident Peak Demand (MW)**

Forecast of Class Demand at the Time of Summer System Peak (MW)

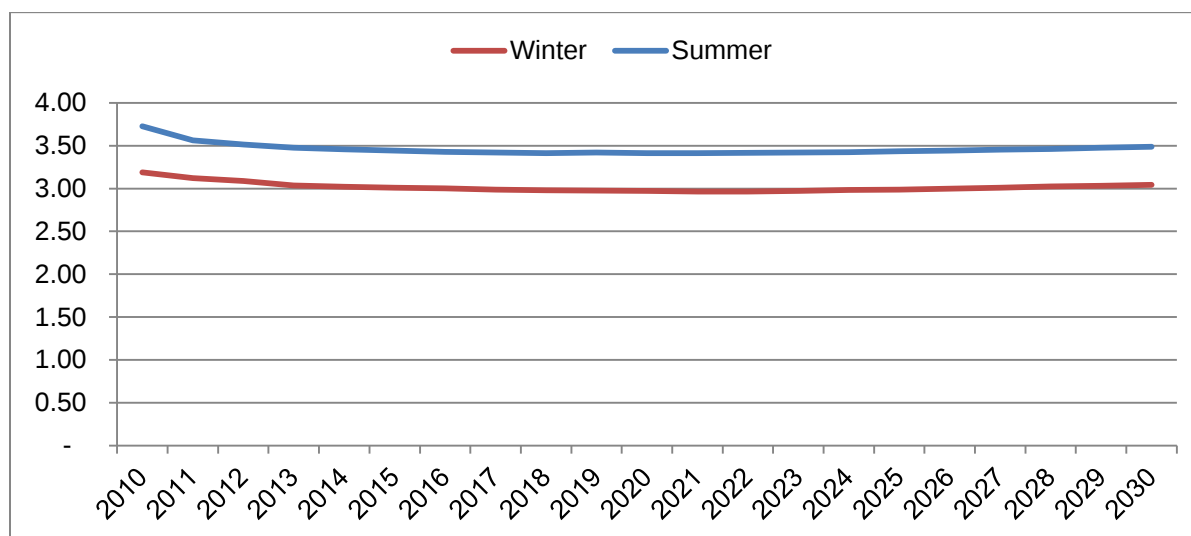
Year	RES	COM SGS	COM LGS	COM SPS	COM LPS	IND SGS	IND LGS	IND SPS	IND LPS	WS	Lighting	Noranda	Total
2010	3,889	834	1,564	496	268	26.8	178	194	338	77.62	-	493	8,359
2011	3,754	845	1,626	519	280	29.8	203	225	389	25.31	-	511	8,407
2012	3,774	846	1,682	521	290	30.7	209	239	399	12.65	-	509	8,512
2013	3,791	847	1,699	522	295	31.1	213	243	406	12.64	-	508	8,568
2014	3,814	848	1,714	524	299	31.3	215	245	410		-	508	8,610
2015	3,838	851	1,734	527	304	31.4	215	246	413		-	508	8,668
2016	3,861	854	1,754	532	309	31.5	216	247	415		-	507	8,727
2017	3,886	857	1,774	535	314	31.5	216	247	416		-	508	8,785
2018	3,912	861	1,800	539	320	31.6	217	248	418		-	508	8,855
2019	3,949	866	1,830	544	326	31.7	218	249	421		-	508	8,943
2020	3,972	870	1,860	550	332	31.8	219	250	424		-	507	9,018
2021	3,999	876	1,892	555	338	31.9	220	251	427		-	508	9,098
2022	4,025	881	1,926	561	345	32.0	221	252	430		-	507	9,180
2023	4,049	887	1,962	567	351	32.2	222	254	433		-	507	9,264
2024	4,070	894	2,000	574	358	32.3	224	256	437		-	506	9,351
2025	4,095	900	2,036	579	364	32.5	225	257	440		-	507	9,436
2026	4,118	907	2,075	586	372	32.7	227	259	444		-	506	9,526
2027	4,140	914	2,118	592	379	32.9	229	261	448		-	506	9,621
2028	4,160	922	2,165	600	388	33.1	231	263	453		-	505	9,720
2029	4,186	929	2,211	606	396	33.2	232	265	456		-	506	9,820
2030	4,210	936	2,258	613	405	33.4	234	267	460		-	506	9,922

Forecast of Class Demand at the Time of Winter System Peak (MW)

Year	RES	COM SGS	COM LGS	COM SPS	COM LPS	IND SGS	IND LGS	IND SPS	IND LPS	WS	Lighting	Noranda	Total
2010	3,311	525	941	319	174	20.3	108	134	252	51.96	60.64	402	6,299
2011	3,274	524	953	322	175	21.4	116	147	275	51.73	59.59	489	6,408
2012	3,284	522	968	327	182	22.0	120	156	282	8.62	59.40	487	6,416
2013	3,288	524	986	331	187	22.5	123	160	290	8.69	59.88	491	6,470
2014	3,313	526	1,000	334	191	22.7	125	162	294		60.09	492	6,519
2015	3,336	528	1,016	338	195	22.8	125	163	296		60.16	493	6,572
2016	3,365	531	1,032	342	199	22.9	126	163	298		60.06	492	6,630
2017	3,379	533	1,050	346	203	23.0	126	164	299		60.36	495	6,679
2018	3,398	536	1,070	350	208	23.1	127	165	301		60.42	495	6,733
2019	3,423	540	1,093	355	213	23.2	127	166	303		60.48	496	6,799
2020	3,447	545	1,117	360	218	23.3	128	167	306		60.42	495	6,867
2021	3,463	550	1,144	366	224	23.5	129	168	309		60.74	498	6,935
2022	3,485	555	1,171	371	229	23.6	130	169	312		60.84	499	7,006
2023	3,509	561	1,199	377	235	23.7	131	170	315		60.95	499	7,080
2024	3,537	566	1,226	382	240	23.9	132	172	318		60.83	498	7,156
2025	3,555	571	1,256	388	246	24.1	134	173	321		61.15	501	7,232
2026	3,578	577	1,286	394	252	24.3	135	175	325		61.25	502	7,311
2027	3,602	583	1,318	401	259	24.5	136	177	329		61.36	503	7,393
2028	3,629	588	1,351	407	266	24.6	137	178	332		61.26	502	7,478
2029	3,647	594	1,389	413	273	24.9	139	180	336		61.59	505	7,562
2030	3,670	601	1,425	420	281	25.0	140	182	339		61.71	506	7,650

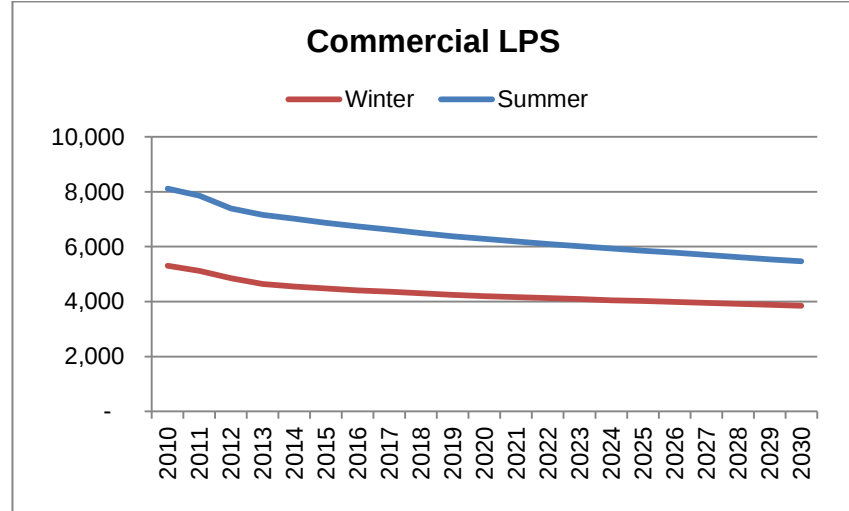
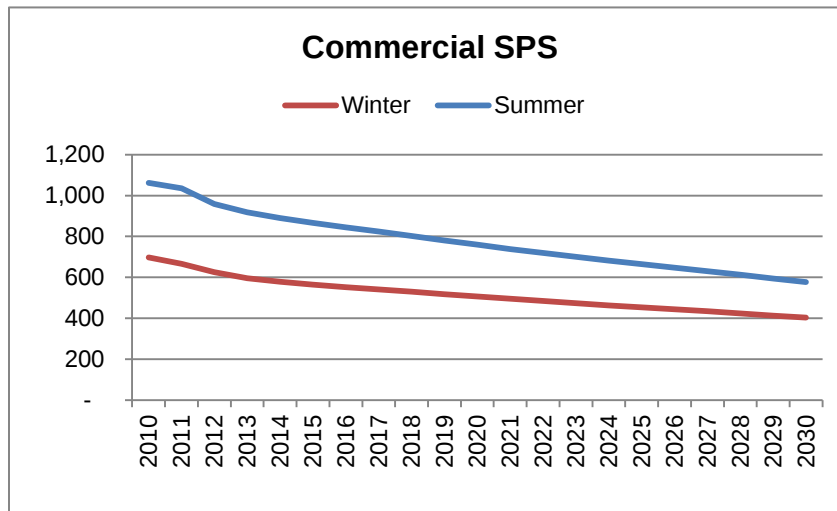
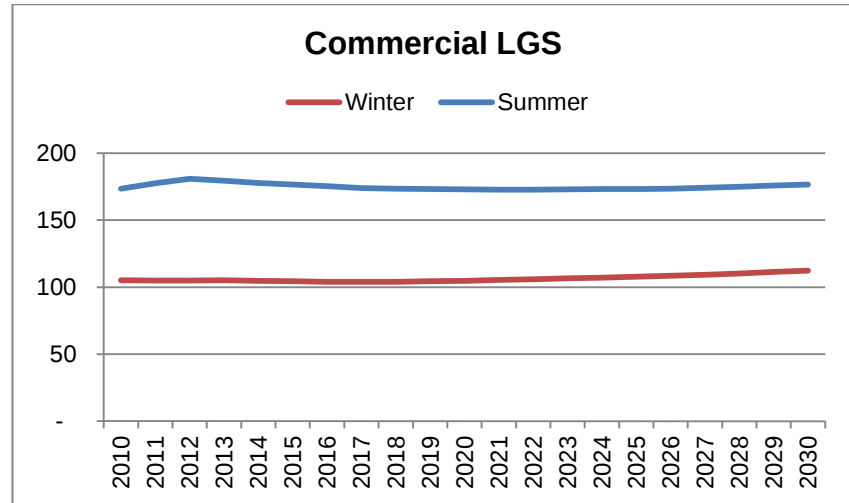
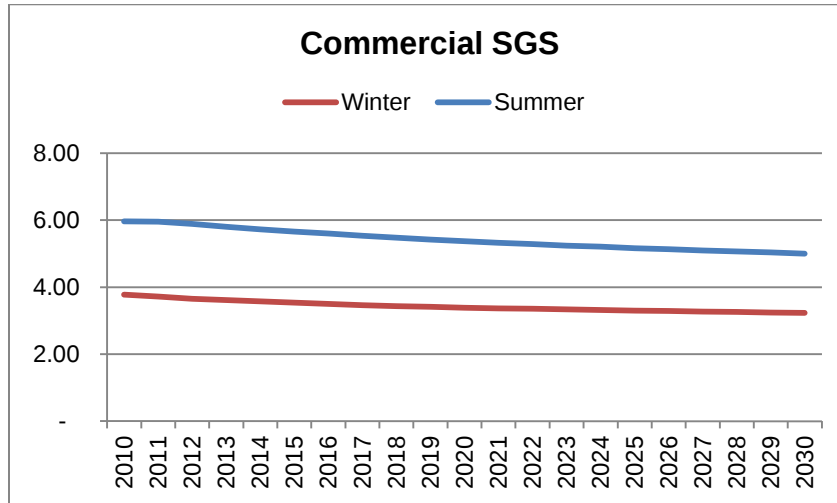
Forecasted Demand per Unit at the time of Summer and Winter System Peak for Planning Case²⁰

Forecast of Residential Coincident Demand per Unit (MW/Unit)

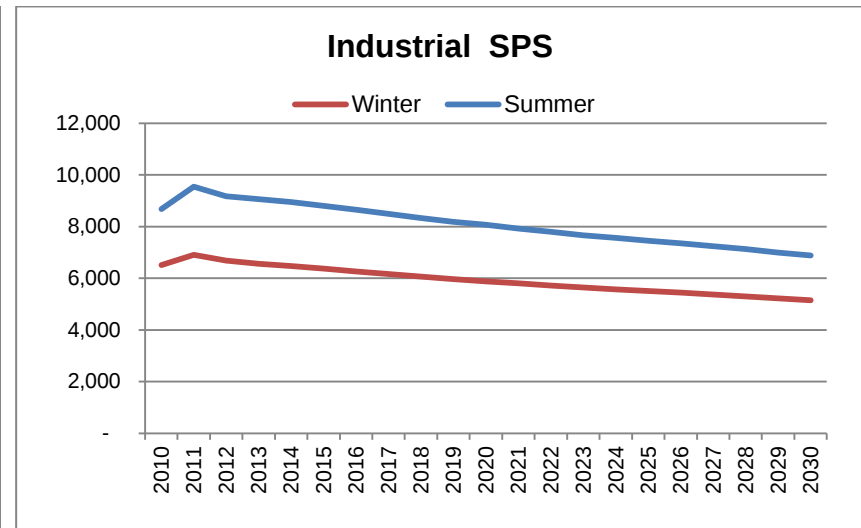
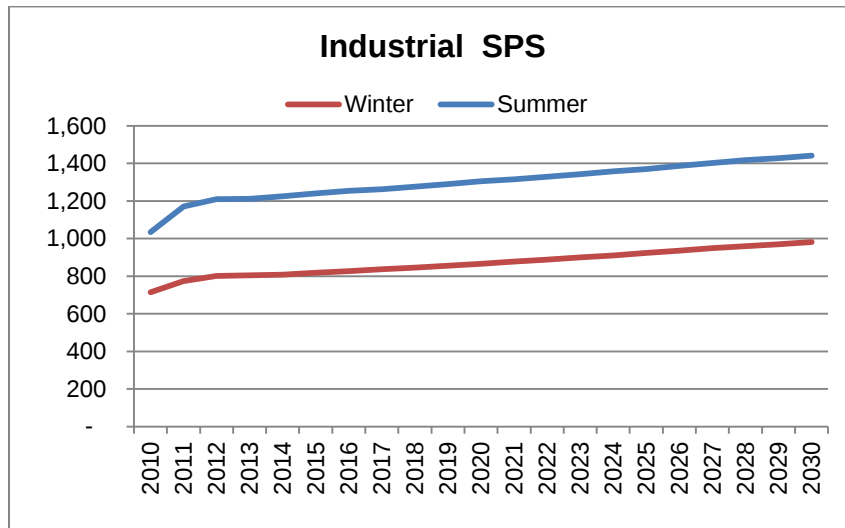
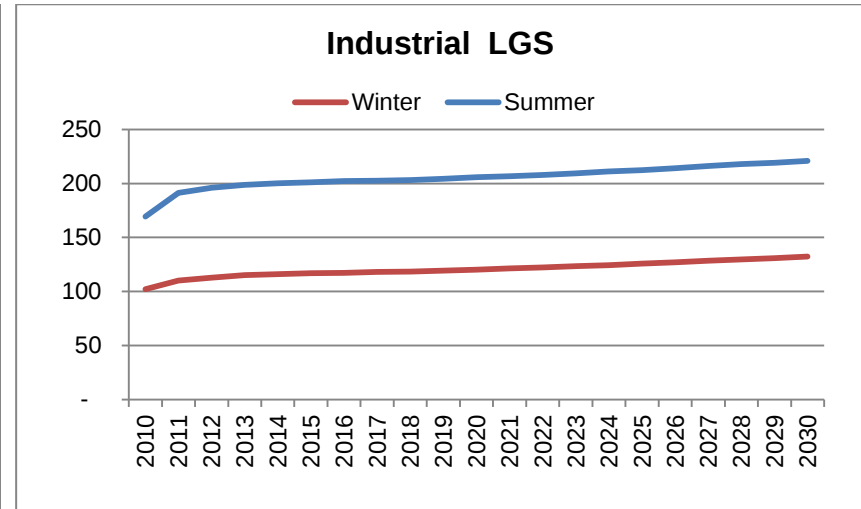
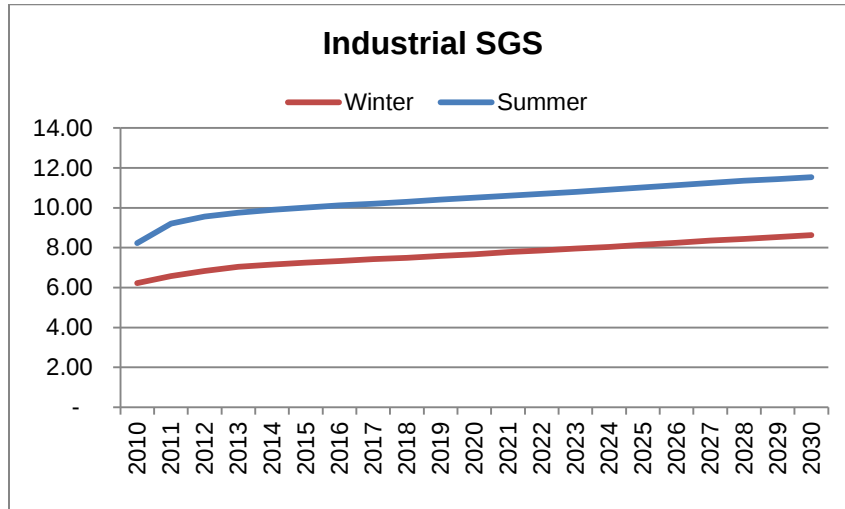


²⁰ 4 CSR 240-22.030(8)(B), 4 CSR 240-22.030(8)(B)2

Forecast of Coincident Demand per Unit for Commercial Classes (MW/Unit)



Forecast of Coincident Demand per Unit for Industrial Classes (MW/Unit)



Forecast of Summer Coincident Demand per Unit (MW/Unit)

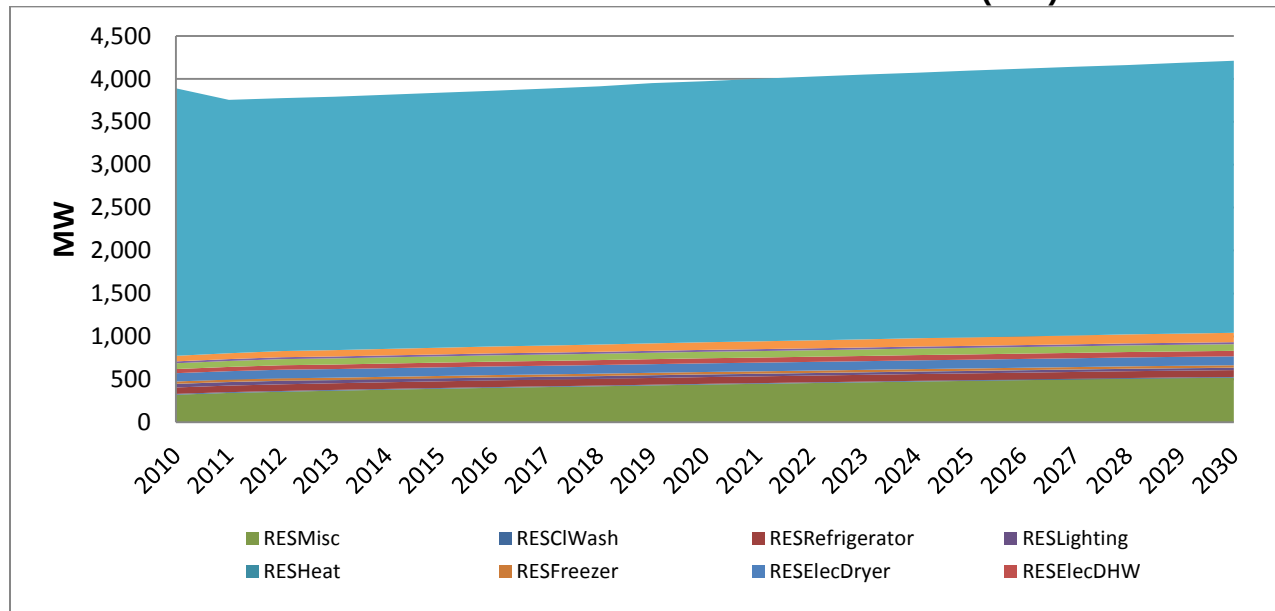
Forecast Year	Res	COM SGS	COM LGS	COM SPS	COM LPS	IND SGS	IND LGS	IND SPS	IND LPS
2010	3.73	5.96	173	1,062	8,107	8.22	169	1,035	8,680
2011	3.56	5.96	177	1,035	7,861	9.21	191	1,171	9,544
2012	3.51	5.88	181	959	7,390	9.56	196	1,211	9,177
2013	3.48	5.80	179	918	7,155	9.76	199	1,212	9,055
2014	3.46	5.73	178	890	7,013	9.90	200	1,225	8,949
2015	3.44	5.66	176	866	6,865	10.02	201	1,240	8,797
2016	3.43	5.60	175	844	6,739	10.12	202	1,254	8,652
2017	3.42	5.53	174	823	6,616	10.21	202	1,263	8,488
2018	3.41	5.47	173	802	6,498	10.30	203	1,276	8,334
2019	3.42	5.42	173	780	6,379	10.41	204	1,290	8,185
2020	3.41	5.37	173	760	6,284	10.52	206	1,305	8,065
2021	3.41	5.32	173	739	6,188	10.61	207	1,315	7,920
2022	3.42	5.28	173	719	6,098	10.71	208	1,328	7,791
2023	3.42	5.24	173	700	6,013	10.81	209	1,342	7,667
2024	3.43	5.20	173	682	5,934	10.92	211	1,358	7,565
2025	3.44	5.16	173	665	5,855	11.01	212	1,371	7,450
2026	3.44	5.13	174	647	5,777	11.13	214	1,386	7,345
2027	3.45	5.09	174	629	5,700	11.24	216	1,402	7,243
2028	3.46	5.07	175	612	5,623	11.36	218	1,418	7,134
2029	3.48	5.03	176	593	5,536	11.44	219	1,428	6,992
2030	3.49	5.00	176	577	5,466	11.54	221	1,442	6,880

Forecast of Winter Coincident Demand per Unit (MW/Unit)

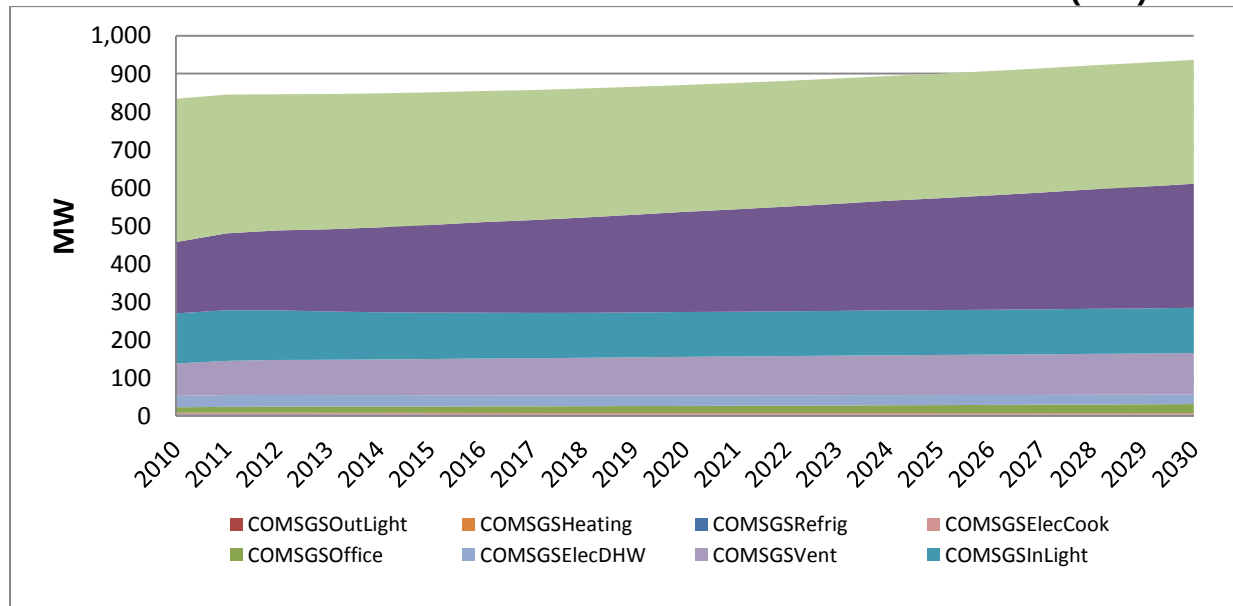
Forecast Year	RES	Res	COM SGS	COM LGS	COM SPS	COM LPS	IND SGS	IND LGS	IND SPS
2010	3.19	3.78	105	698	5,305	6.22	102	715	6,513
2011	3.12	3.72	105	665	5,118	6.59	110	773	6,900
2012	3.09	3.65	105	626	4,853	6.83	113	801	6,683
2013	3.04	3.61	105	595	4,638	7.04	115	804	6,554
2014	3.02	3.58	105	578	4,542	7.16	116	808	6,472
2015	3.01	3.54	104	564	4,478	7.25	117	818	6,376
2016	3.00	3.50	104	551	4,412	7.33	117	827	6,266
2017	2.99	3.47	104	541	4,357	7.42	118	837	6,166
2018	2.98	3.43	104	529	4,303	7.50	119	846	6,067
2019	2.97	3.41	104	517	4,250	7.59	119	856	5,968
2020	2.97	3.39	105	506	4,201	7.67	120	867	5,880
2021	2.97	3.37	105	495	4,165	7.78	121	878	5,801
2022	2.97	3.35	106	484	4,126	7.87	122	888	5,718
2023	2.97	3.34	107	474	4,090	7.96	123	899	5,639
2024	2.98	3.32	107	463	4,050	8.04	124	910	5,563
2025	2.99	3.30	108	454	4,020	8.15	126	923	5,501
2026	3.00	3.29	108	444	3,990	8.25	127	936	5,439
2027	3.01	3.27	109	434	3,957	8.35	129	949	5,375
2028	3.03	3.26	110	423	3,920	8.44	130	960	5,298
2029	3.03	3.24	111	413	3,885	8.54	131	971	5,216
2030	3.04	3.23	112	403	3,850	8.63	132	982	5,141

Forecasted Summer and Non-summer Coincident Peak for various Classes by End Use²¹

Forecast for Summer Coincident Peaks for Residential End Use (MW)

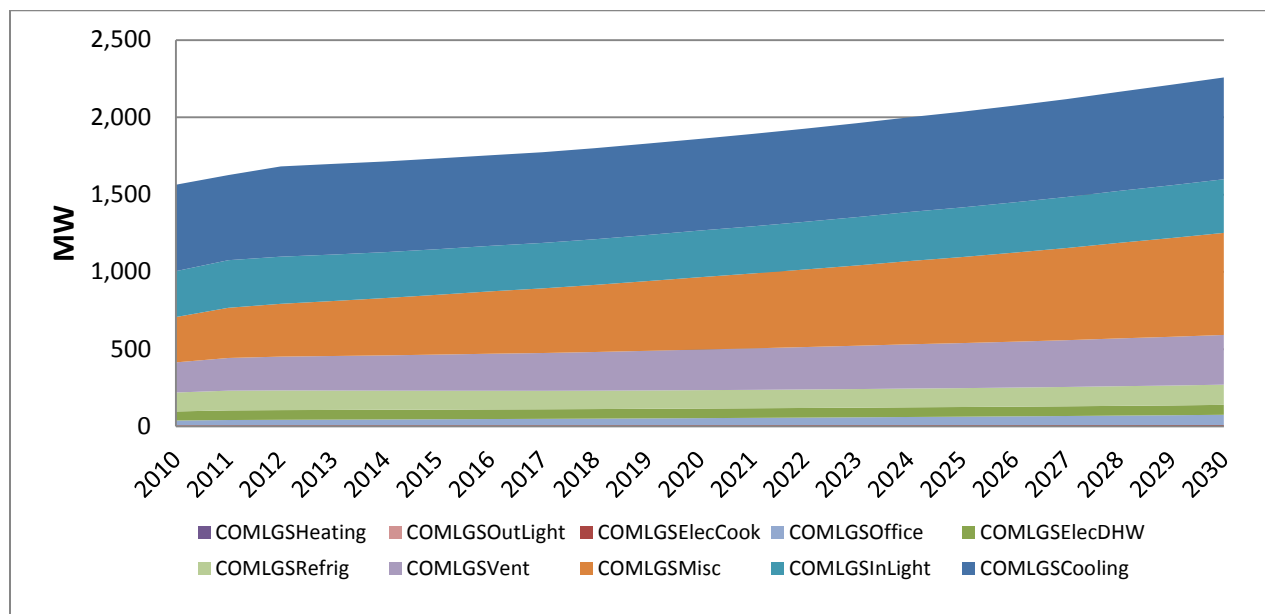


Forecast for Summer Coincident Peaks for Commercial SGS End Use (MW)

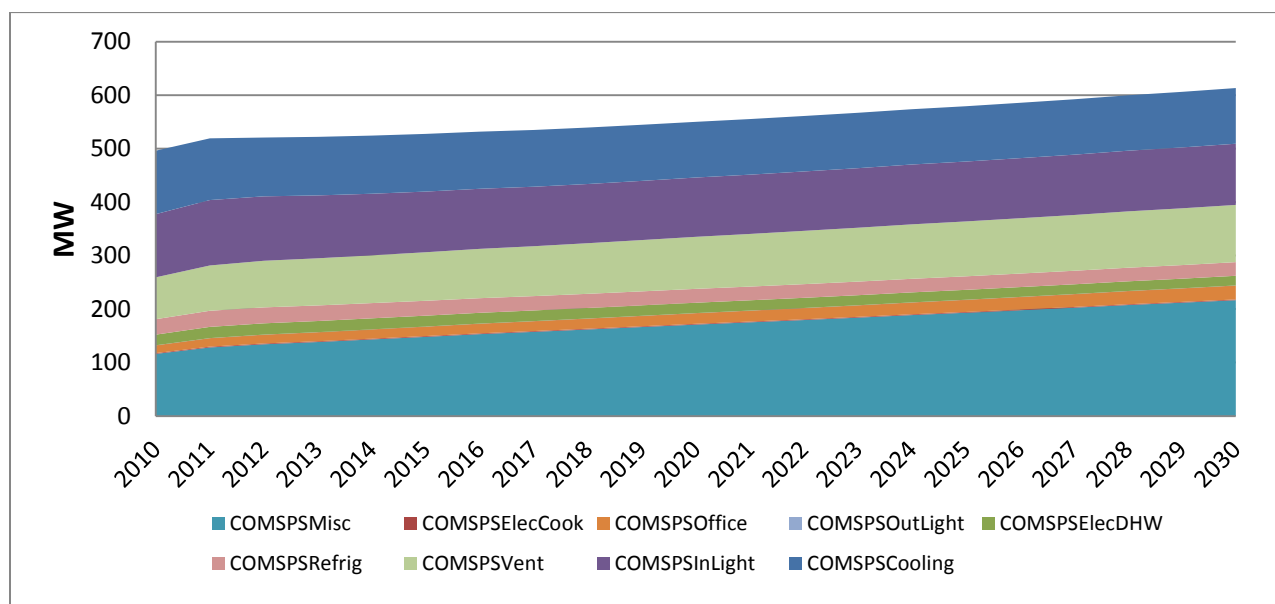


²¹ 4 CSR 240-22.030(8)(B), 4 CSR 240-22.030(8)(B)2

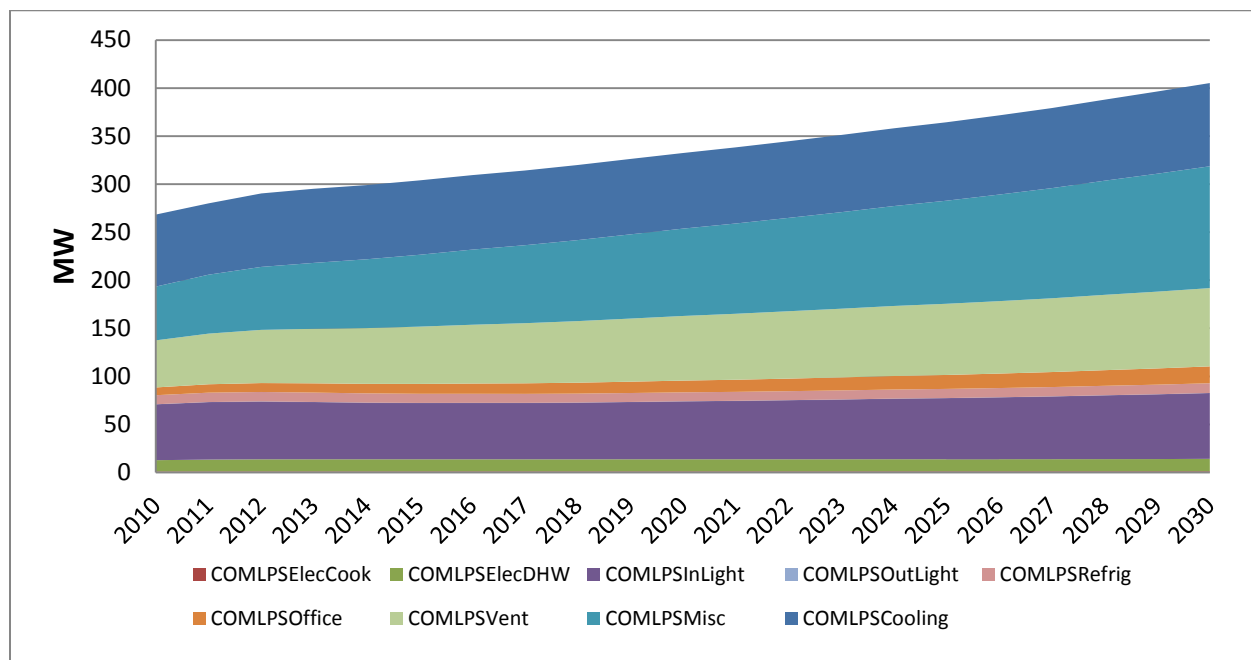
Forecast for Summer Coincident Peak for Commercial LGS End Use (MW)



Forecast for Summer Coincident Peak for Commercial SPS End Use (MW)



Forecast for Summer Coincident Peak for Commercial LPS End Use (MW)



Forecast for Summer Coincident Peaks for Residential End Uses (MW)

Year	CI Wash	Refrig	Misc	Lighting	Heating	Freezer	Dryer	DHW	Cooker	Dishwasher	Cooling	TV	Total
2010	9.56	74.83	321	41.39	1.66	26.99	96.61	47.96	67.38	22.08	3,115	65	3,889
2011	9.41	75.93	342	40.85	1.76	27.10	98.15	49.65	68.98	22.30	2,951	68	3,754
2012	9.31	77.52	355	40.72	1.74	27.41	100.28	51.78	71.21	22.69	2,945	71	3,774
2013	9.04	77.53	368	36.21	1.74	27.20	100.28	52.76	71.53	22.63	2,951	74	3,791
2014	8.81	77.74	380	34.53	1.75	27.10	100.50	53.84	72.16	22.64	2,960	76	3,814
2015	8.62	77.94	390	33.52	1.76	27.04	100.63	54.83	72.73	22.64	2,970	78	3,838
2016	8.47	78.21	401	32.92	1.78	27.05	100.84	55.87	73.52	22.68	2,978	81	3,861
2017	8.34	78.21	410	32.15	1.78	26.99	100.63	56.58	73.57	22.64	2,993	82	3,886
2018	8.26	78.33	419	31.65	1.78	27.00	100.59	57.34	73.92	22.65	3,007	85	3,912
2019	8.24	78.60	429	31.31	1.79	27.09	100.76	58.14	74.39	22.70	3,031	87	3,949
2020	8.25	78.81	439	30.23	1.81	27.19	101.02	58.95	75.07	22.76	3,040	89	3,972
2021	8.24	78.81	447	29.48	1.80	27.22	101.03	59.48	75.10	22.76	3,057	91	3,999
2022	8.26	78.90	456	29.00	1.81	27.27	101.23	60.08	75.42	22.79	3,071	93	4,025
2023	8.27	78.96	465	28.63	1.81	27.32	101.46	60.62	75.70	22.84	3,083	95	4,049
2024	8.30	79.12	474	28.45	1.83	27.40	101.89	61.23	76.28	22.93	3,092	97	4,070
2025	8.30	79.08	482	28.06	1.82	27.40	102.07	61.57	76.21	22.99	3,107	99	4,095
2026	8.31	79.17	490	27.84	1.83	27.44	102.45	62.01	76.45	23.09	3,118	101	4,118
2027	8.33	79.28	498	27.63	1.83	27.49	102.86	62.44	76.69	23.22	3,129	103	4,140
2028	8.35	79.51	507	27.54	1.84	27.57	103.44	62.99	77.24	23.38	3,136	105	4,160
2029	8.36	79.58	513	27.20	1.84	27.59	103.76	63.31	77.14	23.50	3,154	107	4,186
2030	8.38	79.76	519	27.00	1.84	27.66	104.25	63.75	77.38	23.65	3,168	109	4,210

Forecast for Summer Coincident Peaks for Commercial SGS End Uses (MW)

Year	Refrig.	Outdoor Light	Office	Misc	Indoor Light	Heating	Electric DHW	Electric Cook	Cooling	Vent	Total
2010	4.13	-	14.27	187	132	0.07	29.97	4.56	376.8	85.21	834
2011	4.20	-	15.21	202	133	0.08	30.88	4.70	364.6	90.06	845
2012	4.13	-	15.68	210	130	0.07	30.78	4.69	357.9	92.10	846
2013	4.03	-	16.00	216	127	0.07	30.34	4.63	355.5	92.91	847
2014	3.93	-	16.36	223	124	0.07	29.97	4.59	352.2	93.87	848
2015	3.83	-	16.71	230	122	0.07	29.58	4.55	348.7	95.21	851
2016	3.76	-	17.10	238	121	0.07	29.24	4.52	344.7	96.58	854
2017	3.68	-	17.44	244	119	0.07	28.81	4.48	341.8	97.55	857
2018	3.62	-	17.83	250	118	0.07	28.46	4.45	339.3	98.71	861
2019	3.57	-	18.24	257	118	0.07	28.14	4.42	336.4	99.88	866
2020	3.53	-	18.69	263	118	0.07	27.85	4.40	333.4	101.11	870
2021	3.49	-	19.10	269	118	0.06	27.49	4.37	332.1	102.05	876
2022	3.46	-	19.55	275	118	0.06	27.20	4.35	330.6	103.11	881
2023	3.44	-	20.03	282	118	0.06	26.92	4.33	329.4	103.96	887
2024	3.43	-	20.54	288	118	0.06	26.68	4.32	328.0	104.87	894
2025	3.41	-	21.01	294	118	0.06	26.35	4.30	327.5	105.43	900
2026	3.40	-	21.53	301	118	0.06	26.06	4.28	326.9	106.07	907
2027	3.40	-	22.08	307	118	0.06	25.78	4.27	326.5	106.70	914
2028	3.40	-	22.67	314	119	0.06	25.55	4.26	325.9	107.52	922
2029	3.40	-	23.22	320	119	0.06	25.25	4.25	326.1	108.05	929
2030	3.40	-	23.81	326	119	0.06	25.37	4.27	325.8	108.69	936

Forecast for Summer Coincident Peaks for Commercial LGS End Uses (MW)

Year	Cooling	Electric Cook	Electric DHW	Heating	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
2010	559	7.36	58.88	0.02	297	294	30.70	-	122	195	1,564
2011	551	7.78	62.24	0.02	308	325	33.57	-	128	211	1,626
2012	584	7.86	62.76	0.02	305	342	35.02	-	127	219	1,682
2013	587	7.86	62.63	0.02	301	356	36.17	-	126	223	1,699
2014	587	7.87	62.50	0.02	297	371	37.35	-	124	228	1,714
2015	587	7.88	62.37	0.02	295	387	38.58	-	122	234	1,734
2016	586	7.91	62.24	0.02	294	404	39.86	-	121	239	1,754
2017	587	7.91	61.97	0.02	294	418	41.07	-	120	244	1,774
2018	589	7.95	61.93	0.02	295	434	42.48	-	119	250	1,800
2019	591	8.00	61.99	0.02	298	451	44.01	-	119	256	1,830
2020	593	8.06	62.10	0.02	302	468	45.63	-	119	263	1,860
2021	598	8.11	62.07	0.02	305	485	47.21	-	119	268	1,892
2022	602	8.17	62.19	0.02	309	502	48.94	-	120	275	1,926
2023	608	8.24	62.32	0.02	313	519	50.76	-	120	280	1,962
2024	613	8.32	62.54	0.02	317	539	52.73	-	121	286	2,000
2025	619	8.38	62.51	0.02	321	557	54.59	-	122	291	2,036
2026	626	8.45	62.64	0.02	325	576	56.67	-	124	297	2,075
2027	633	8.54	62.80	0.02	330	596	58.87	-	125	303	2,118
2028	641	8.65	63.10	0.02	336	618	61.31	-	127	309	2,165
2029	650	8.74	63.26	0.02	341	639	63.71	-	129	315	2,211
2030	659	8.90	64.43	0.02	347	660	66.24	-	131	322	2,258

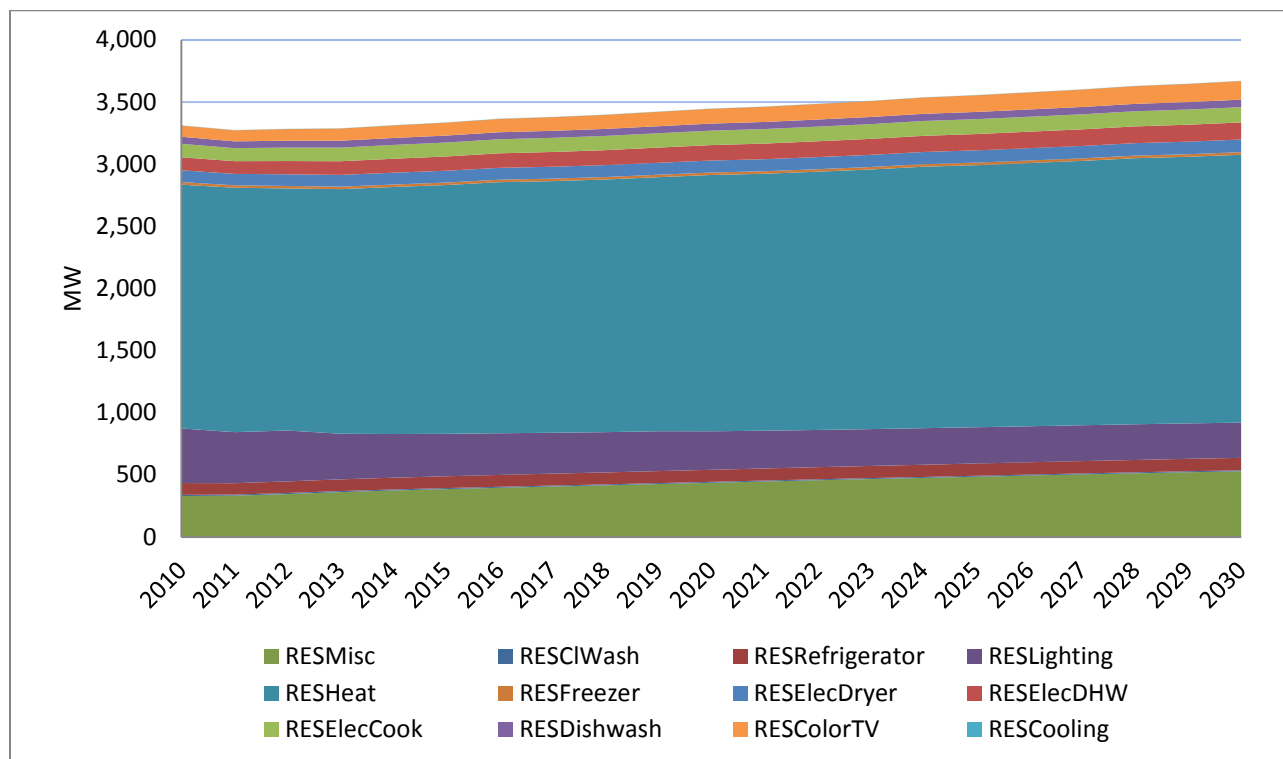
Forecast for Summer Coincident Peaks for Commercial SPS End Uses (MW)

Year	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
2010	118.64	1.45	19.94	118.13	116.17	14.63	-	28.87	78.28	496.12
2011	115.39	1.53	21.03	122.31	128.17	15.95	-	30.08	84.69	519.16
2012	109.95	1.54	21.09	120.44	134.12	16.55	-	29.80	87.14	520.63
2013	109.49	1.52	20.85	117.54	138.34	16.93	-	29.11	88.16	521.94
2014	108.70	1.51	20.64	115.17	143.19	17.35	-	28.46	89.26	524.28
2015	107.84	1.50	20.41	113.43	147.99	17.76	-	27.83	90.71	527.47
2016	106.80	1.49	20.21	112.33	153.10	18.21	-	27.32	92.18	531.65
2017	106.08	1.48	19.95	111.26	157.34	18.60	-	26.81	93.29	534.81
2018	105.54	1.48	19.75	110.68	161.80	19.05	-	26.42	94.59	539.31
2019	104.85	1.47	19.57	110.67	166.36	19.54	-	26.11	95.92	544.49
2020	104.14	1.47	19.41	110.84	170.92	20.06	-	25.89	97.31	550.02
2021	103.94	1.46	19.20	110.80	175.14	20.54	-	25.65	98.42	555.16
2022	103.69	1.46	19.04	111.03	179.44	21.08	-	25.50	99.66	560.89
2023	103.55	1.45	18.88	111.35	183.94	21.63	-	25.40	100.70	566.91
2024	103.34	1.45	18.76	111.86	188.72	22.24	-	25.38	101.82	573.57
2025	103.41	1.45	18.56	111.99	193.09	22.80	-	25.29	102.58	579.18
2026	103.45	1.45	18.41	112.34	197.77	23.42	-	25.28	103.44	585.55
2027	103.56	1.44	18.25	112.75	202.46	24.07	-	25.31	104.29	592.15
2028	103.63	1.45	18.13	113.41	207.49	24.77	-	25.41	105.35	599.63
2029	103.93	1.44	17.96	113.82	211.89	25.44	-	25.46	106.12	606.06
2030	104.08	1.45	18.08	114.38	216.51	26.15	-	25.52	107.00	613.17

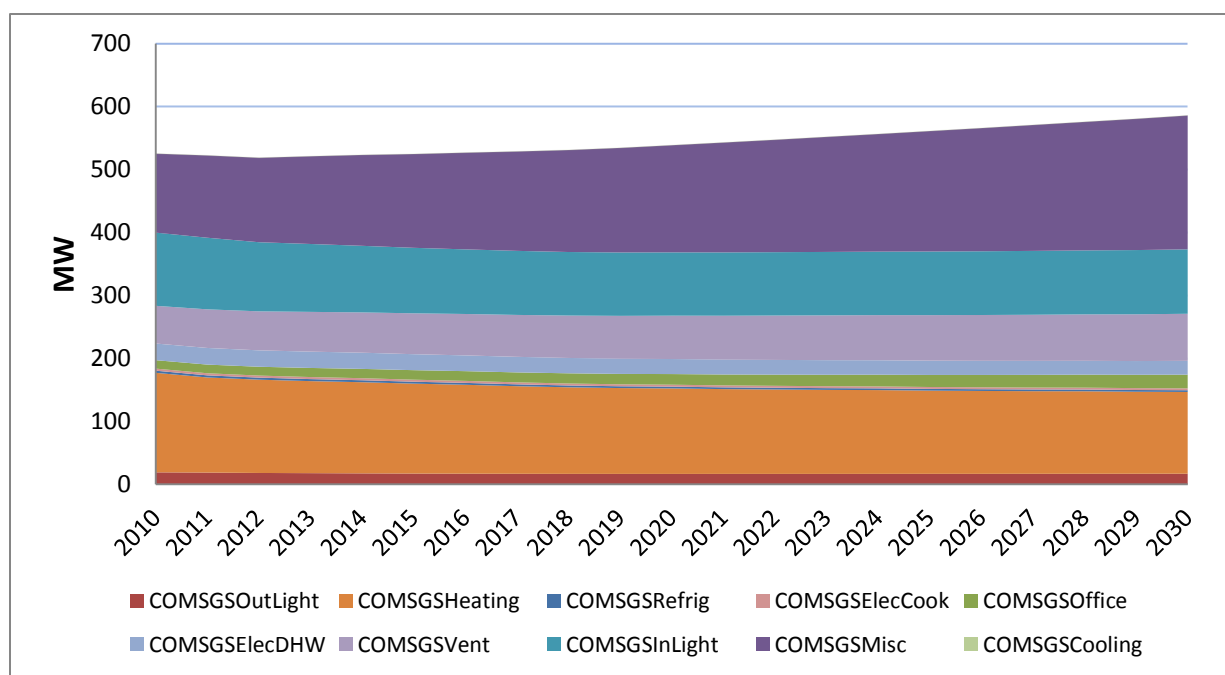
Forecast for Summer Coincident Peaks for Commercial LPS End Uses (MW)

Year	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
2010	75	0.98	11.74	58	56	8.07	-	9.43	49	268
2011	74	1.03	12.30	60	61	8.75	-	9.76	53	280
2012	76	1.06	12.60	60	66	9.27	-	9.87	55	290
2013	77	1.06	12.63	60	69	9.62	-	9.78	57	295
2014	77	1.07	12.61	59	72	9.94	-	9.65	58	299
2015	77	1.07	12.61	59	75	10.28	-	9.54	60	304
2016	78	1.08	12.61	59	78	10.65	-	9.46	61	309
2017	78	1.08	12.58	59	81	10.99	-	9.38	63	314
2018	78	1.08	12.58	59	84	11.38	-	9.34	64	320
2019	78	1.09	12.60	60	88	11.79	-	9.33	66	326
2020	79	1.10	12.61	60	91	12.22	-	9.34	67	332
2021	79	1.10	12.59	61	94	12.63	-	9.33	69	338
2022	80	1.11	12.60	61	97	13.07	-	9.36	70	345
2023	80	1.12	12.60	62	100	13.54	-	9.41	71	351
2024	81	1.13	12.63	63	104	14.04	-	9.48	73	358
2025	82	1.13	12.60	64	107	14.52	-	9.53	74	364
2026	82	1.14	12.61	64	111	15.05	-	9.61	75	372
2027	83	1.15	12.63	65	115	15.62	-	9.72	77	379
2028	84	1.17	12.68	66	119	16.25	-	9.86	78	388
2029	86	1.18	12.71	67	123	16.88	-	10.00	80	396
2030	87	1.20	12.94	69	127	17.55	-	10.13	81	405

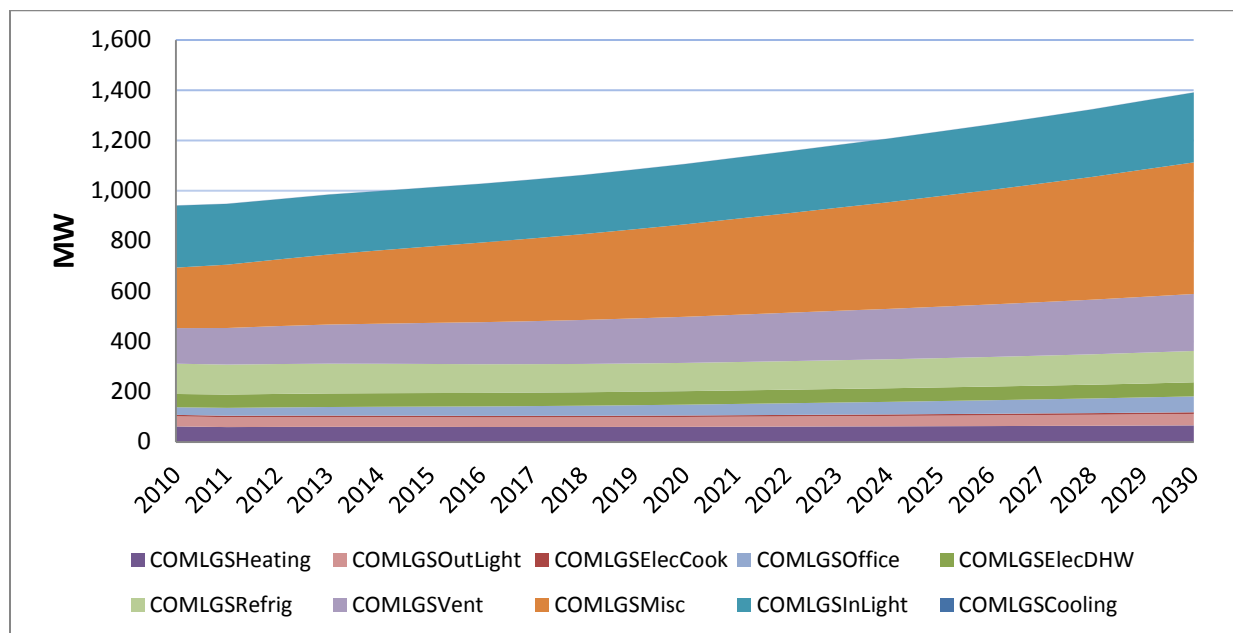
Forecast for Winter Coincident Peaks for Residential End Uses (MW)



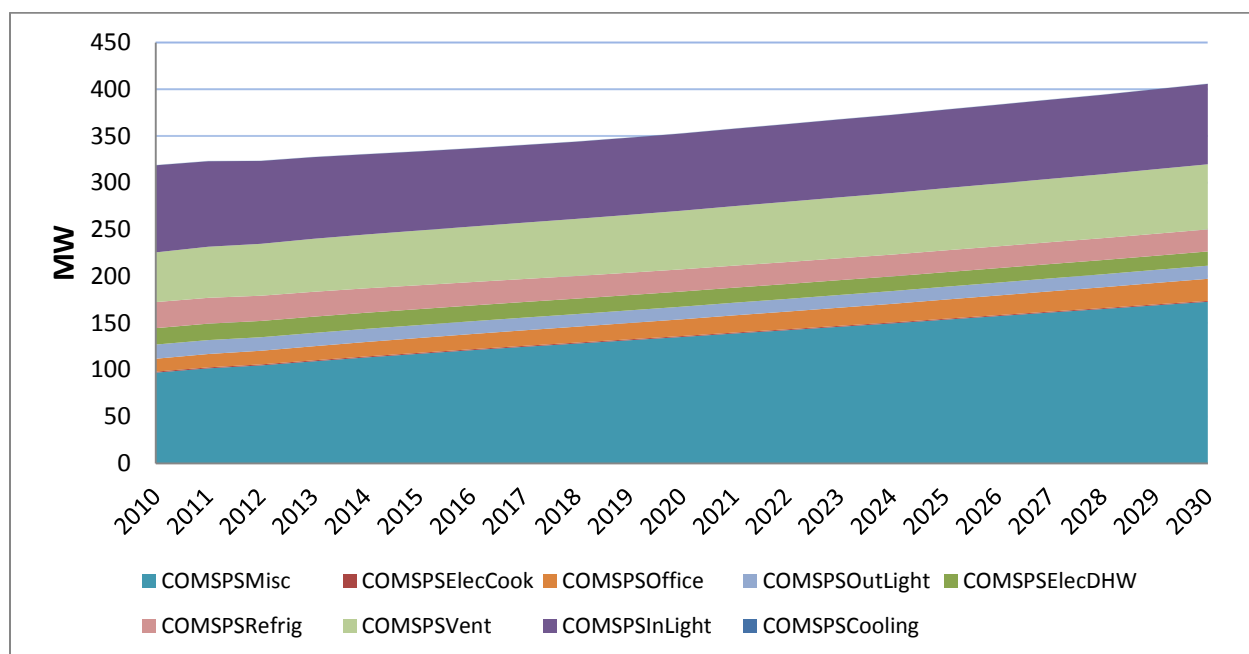
Forecast for Winter Coincident Peaks for Commercial SGS End Uses (MW)



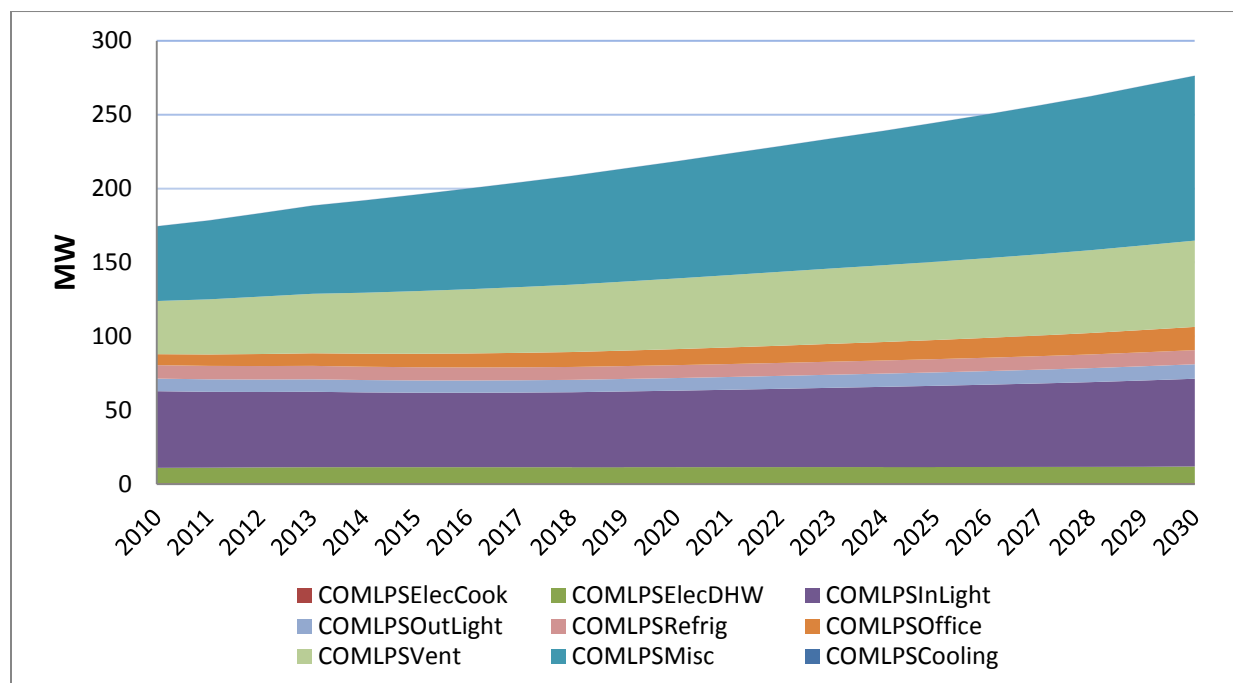
Forecast for Winter Coincident Peaks for Commercial LGS End Uses (MW)



Forecast for Commercial SPS Winter Coincident Peaks by End Uses (MW)



Forecast for Winter Coincident Peaks for Commercial LPS End Uses (MW)



Forecast for Winter Coincident Peaks for Residential End Uses (MW)

Year	CI Wash	Refrig	Misc	Lighting	Heating	Freezer	Dryer	DHW	Cooker	Dish washer	Cooling	TV	Total
2010	9.35	95.13	330	439	1,962	20.63	95.38	105	108	57.08	-	90	3,311
2011	8.72	91.44	333	411	1,967	19.62	91.77	102	105	54.63	-	89	3,274
2012	8.63	93.30	346	409	1,948	19.83	93.72	107	108	55.55	-	94	3,284
2013	8.45	94.18	362	367	1,968	19.86	94.59	110	110	55.91	-	98	3,288
2014	8.27	94.76	375	351	1,988	19.86	95.12	112	111	56.12	-	101	3,313
2015	8.10	95.15	386	342	2,002	19.84	95.40	115	112	56.22	-	104	3,336
2016	7.96	95.46	397	335	2,020	19.84	95.57	117	113	56.31	-	107	3,365
2017	7.86	95.81	407	329	2,025	19.88	95.73	119	114	56.42	-	110	3,379
2018	7.80	96.06	416	324	2,033	19.91	95.79	121	114	56.49	-	113	3,398
2019	7.79	96.49	427	321	2,044	19.99	96.05	122	115	56.67	-	116	3,423
2020	7.80	96.80	437	310	2,062	20.07	96.35	124	116	56.86	-	119	3,447
2021	7.83	97.23	447	304	2,068	20.18	96.78	126	117	57.10	-	122	3,463
2022	7.86	97.54	457	299	2,078	20.27	97.18	127	118	57.31	-	125	3,485
2023	7.89	97.84	467	296	2,089	20.35	97.63	129	118	57.55	-	128	3,509
2024	7.91	98.02	476	294	2,104	20.40	98.03	130	119	57.79	-	131	3,537
2025	7.95	98.41	486	292	2,109	20.50	98.64	131	120	58.18	-	134	3,555
2026	7.98	98.72	495	290	2,118	20.57	99.21	133	120	58.57	-	137	3,578
2027	8.01	99.07	504	288	2,127	20.65	99.81	134	121	59.01	-	140	3,602
2028	8.03	99.35	513	287	2,141	20.71	100.36	135	122	59.43	-	143	3,629
2029	8.08	99.87	522	285	2,145	20.81	101.12	136	122	59.97	-	146	3,647
2030	8.11	100.33	529	284	2,155	20.91	101.82	137	123	60.49	-	150	3,670

Forecast for Winter Coincident Peaks for Commercial SGS End Uses (MW)

Year	Refrig	Outdoor Light	Office	Misc	Indoor Light	Heating	Electric DHW	Electric Cook	Cooling	Vent	Total
2010	3.40	19.09	13.35	125	116	158	26.49	3.33	-	59.84	525
2011	3.28	18.29	13.48	128	111	160	25.85	3.25	-	59.90	524
2012	3.23	17.89	13.89	133	109	154	25.75	3.24	-	61.23	522
2013	3.17	17.58	14.30	138	107	152	25.61	3.23	-	62.35	524
2014	3.11	17.24	14.67	143	105	151	25.39	3.21	-	63.20	526
2015	3.04	16.98	15.01	148	103	149	25.10	3.19	-	64.21	528
2016	2.97	16.78	15.36	153	102	148	24.80	3.17	-	65.11	531
2017	2.92	16.65	15.72	157	101	146	24.53	3.15	-	66.01	533
2018	2.88	16.54	16.09	162	101	144	24.26	3.13	-	66.87	536
2019	2.84	16.52	16.48	166	101	143	24.01	3.12	-	67.73	540
2020	2.81	16.52	16.89	170	101	143	23.77	3.10	-	68.60	545
2021	2.79	16.55	17.33	175	101	142	23.57	3.10	-	69.54	550
2022	2.78	16.59	17.79	179	101	141	23.38	3.09	-	70.41	555
2023	2.77	16.64	18.26	184	101	141	23.18	3.08	-	71.15	561
2024	2.76	16.67	18.72	188	102	141	22.97	3.07	-	71.77	566
2025	2.75	16.73	19.24	193	102	140	22.79	3.07	-	72.47	571
2026	2.75	16.78	19.76	197	102	140	22.59	3.06	-	73.06	577
2027	2.75	16.84	20.30	202	103	139	22.39	3.06	-	73.65	583
2028	2.76	16.89	20.84	206	103	139	22.19	3.06	-	74.21	588
2029	2.77	16.99	21.44	211	103	139	22.02	3.06	-	74.91	594
2030	2.78	17.07	22.04	216	104	138	22.17	3.08	-	75.52	601

Forecast for Winter Coincident Peaks for Commercial LGS End Uses (MW)

Year	Cooling	Electric Cook	Electric DHW	Heating	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
2010	-	5.70	52.93	61.85	247	241	30.27	40.18	121	142	941
2011	-	5.71	53.00	64.30	242	252	31.35	39.50	119	146	953
2012	-	5.77	53.41	62.16	240	265	32.68	39.09	119	150	968
2013	-	5.82	53.80	62.52	239	279	34.07	38.88	118	155	986
2014	-	5.84	53.87	62.60	237	292	35.31	38.53	117	159	1,000
2015	-	5.87	53.84	62.45	235	305	36.53	38.35	115	163	1,016
2016	-	5.88	53.72	62.07	235	318	37.73	38.26	114	167	1,032
2017	-	5.91	53.69	62.26	236	331	39.02	38.36	113	171	1,050
2018	-	5.94	53.70	62.34	237	344	40.40	38.57	113	175	1,070
2019	-	5.99	53.81	62.69	239	357	41.90	39.00	113	180	1,093
2020	-	6.04	53.94	62.93	242	371	43.46	39.48	113	184	1,117
2021	-	6.10	54.15	63.68	246	386	45.17	40.04	114	189	1,144
2022	-	6.16	54.37	64.27	249	400	46.93	40.63	115	194	1,171
2023	-	6.22	54.60	64.90	253	415	48.78	41.26	116	199	1,199
2024	-	6.28	54.79	65.29	257	431	50.66	41.87	117	203	1,226
2025	-	6.35	55.01	66.09	261	447	52.69	42.53	118	207	1,256
2026	-	6.42	55.23	66.77	265	463	54.80	43.20	119	212	1,286
2027	-	6.50	55.49	67.57	270	481	57.05	43.93	121	216	1,318
2028	-	6.59	55.76	68.16	274	498	59.42	44.71	123	221	1,351
2029	-	6.68	56.14	69.24	280	517	62.01	45.60	125	226	1,389
2030	-	6.82	57.31	70.10	285	536	64.62	46.46	127	231	1,425

Forecast for Winter Coincident Peaks for Commercial SPS End Uses (MW)

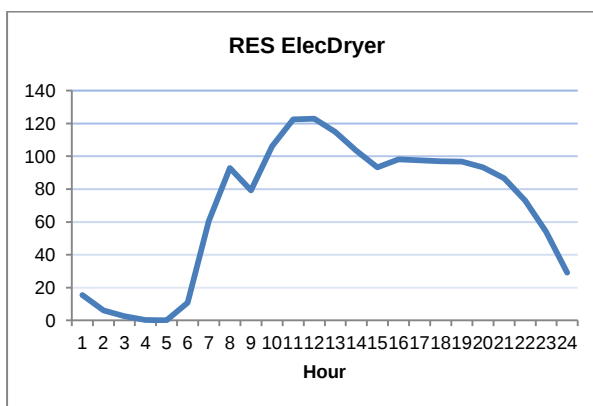
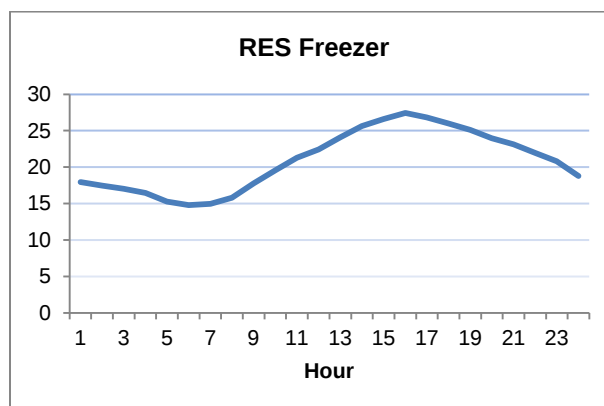
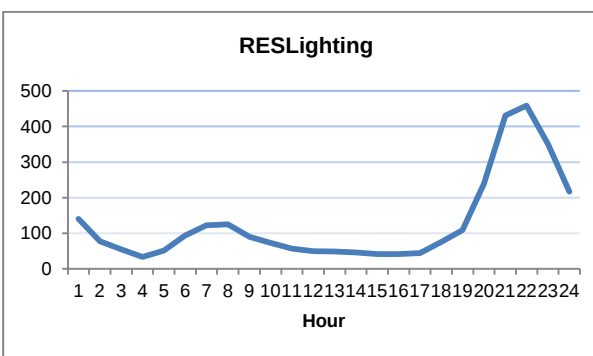
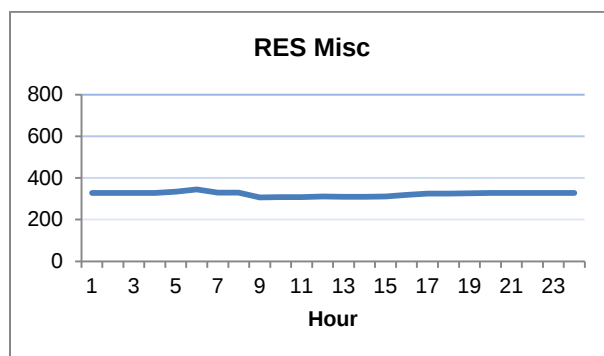
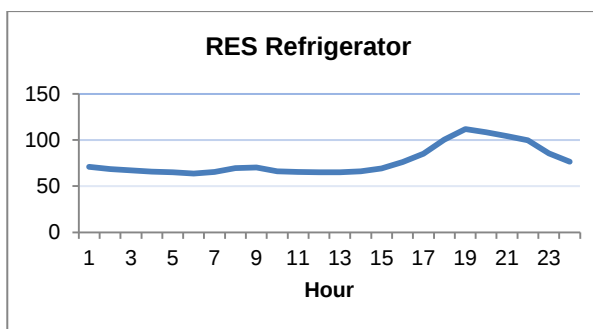
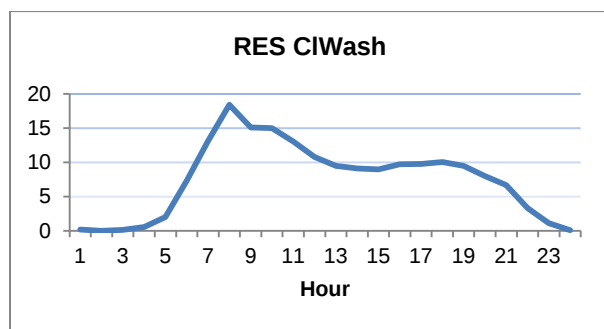
Year	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
2010	-	1.06	17.56	93.13	97	13.79	15.13	27.86	53.14	319
2011	-	1.06	17.54	91.32	101	14.25	14.84	27.49	54.45	322
2012	-	1.06	17.58	89.89	106	14.78	14.61	27.22	55.99	327
2013	-	1.06	17.54	88.54	110	15.26	14.39	26.84	57.18	331
2014	-	1.06	17.42	87.05	115	15.69	14.15	26.33	58.08	334
2015	-	1.05	17.26	85.87	119	16.09	13.95	25.79	59.12	338
2016	-	1.05	17.08	85.01	123	16.48	13.82	25.31	60.07	342
2017	-	1.04	16.93	84.52	127	16.90	13.73	24.92	61.01	346
2018	-	1.04	16.77	84.17	130	17.33	13.68	24.59	61.93	350
2019	-	1.03	16.64	84.24	134	17.79	13.69	24.33	62.86	355
2020	-	1.03	16.51	84.42	138	18.27	13.72	24.13	63.81	360
2021	-	1.03	16.41	84.76	142	18.80	13.77	24.02	64.82	366
2022	-	1.03	16.30	85.12	146	19.33	13.83	23.93	65.78	371
2023	-	1.03	16.21	85.55	150	19.89	13.90	23.89	66.62	377
2024	-	1.03	16.09	85.93	154	20.44	13.96	23.86	67.34	382
2025	-	1.03	16.00	86.42	158	21.05	14.04	23.89	68.15	388
2026	-	1.03	15.90	86.86	162	21.67	14.12	23.93	68.86	394
2027	-	1.03	15.80	87.37	166	22.31	14.20	24.01	69.58	401
2028	-	1.04	15.69	87.87	170	22.96	14.28	24.10	70.28	407
2029	-	1.04	15.61	88.57	175	23.68	14.39	24.26	71.10	413
2030	-	1.05	15.75	89.21	179	24.40	14.50	24.36	71.85	420

Forecast for Winter Coincident Peaks for Commercial LPS End Uses (MW)

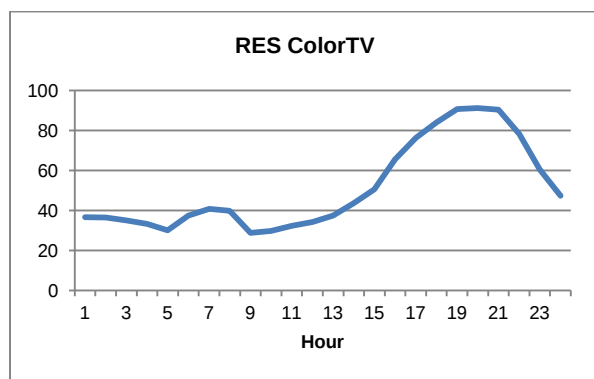
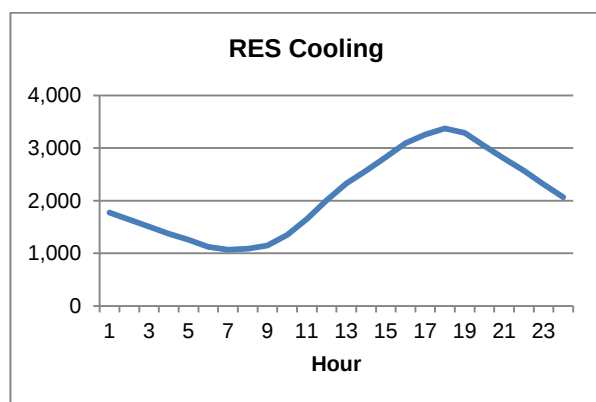
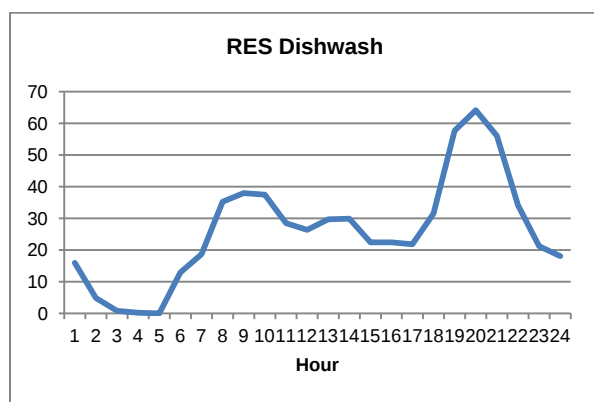
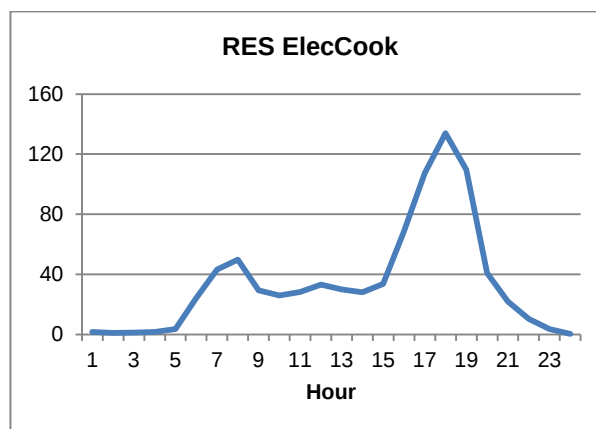
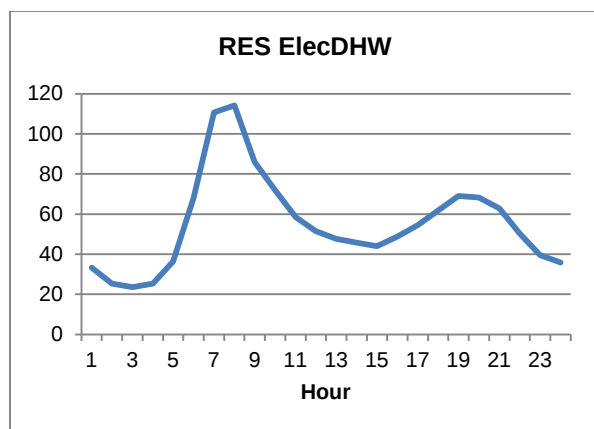
Year	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
2010	-	0.72	10.43	51.84	50.50	7.42	8.52	9.10	35.96	174
2011	-	0.71	10.35	50.52	52.45	7.62	8.30	8.93	36.62	175
2012	-	0.73	10.59	50.76	56.00	8.06	8.34	9.02	38.44	182
2013	-	0.74	10.72	50.73	59.14	8.44	8.34	9.02	39.82	187
2014	-	0.75	10.74	50.31	61.97	8.76	8.27	8.93	40.81	191
2015	-	0.75	10.75	50.15	64.82	9.08	8.24	8.84	41.98	195
2016	-	0.75	10.76	50.18	67.75	9.40	8.25	8.77	43.10	199
2017	-	0.76	10.77	50.39	70.59	9.74	8.28	8.72	44.22	203
2018	-	0.76	10.78	50.69	73.41	10.09	8.33	8.69	45.34	208
2019	-	0.77	10.80	51.28	76.36	10.46	8.43	8.69	46.52	213
2020	-	0.77	10.82	51.88	79.25	10.85	8.53	8.70	47.67	218
2021	-	0.78	10.85	52.55	82.29	11.26	8.64	8.74	48.86	224
2022	-	0.79	10.88	53.25	85.25	11.68	8.75	8.79	50.03	229
2023	-	0.80	10.91	54.00	88.37	12.13	8.88	8.85	51.12	235
2024	-	0.80	10.93	54.71	91.44	12.57	8.99	8.92	52.12	240
2025	-	0.81	10.96	55.49	94.78	13.06	9.12	9.00	53.20	246
2026	-	0.82	10.99	56.29	98.18	13.56	9.25	9.10	54.26	252
2027	-	0.83	11.03	57.18	101.72	14.11	9.40	9.22	55.36	259
2028	-	0.84	11.07	58.15	105.39	14.68	9.56	9.36	56.54	266
2029	-	0.85	11.14	59.30	109.36	15.32	9.75	9.53	57.87	273
2030	-	0.87	11.37	60.38	113.23	15.95	9.93	9.68	59.12	281

Load Profile by Class and End Uses on System Peak Days²²

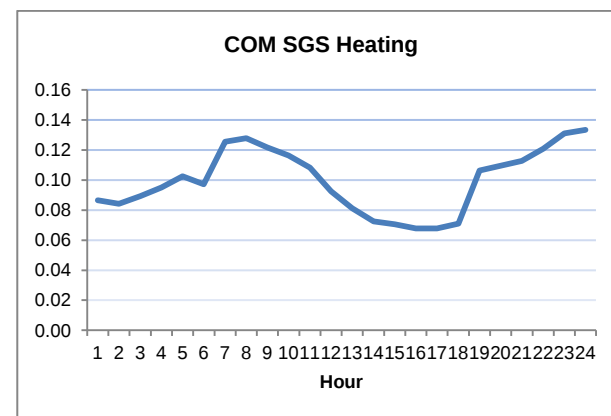
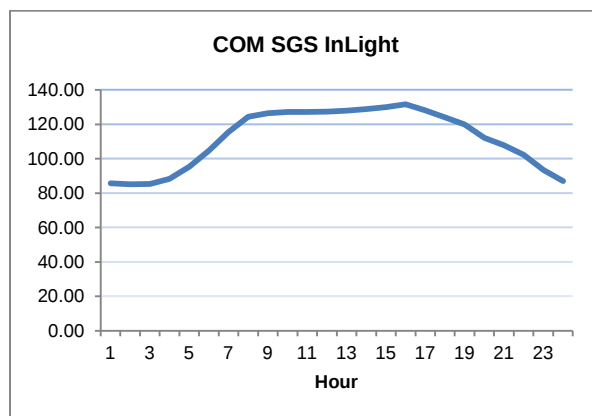
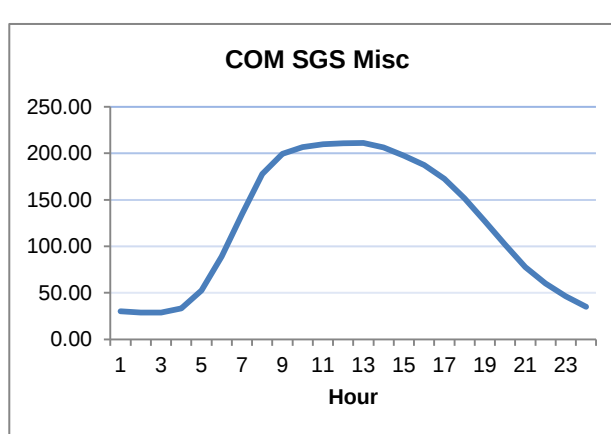
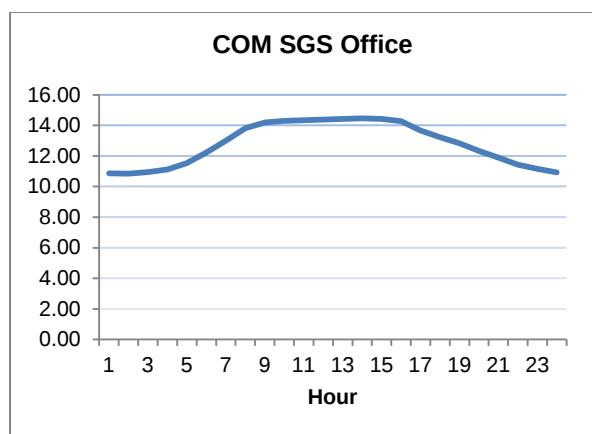
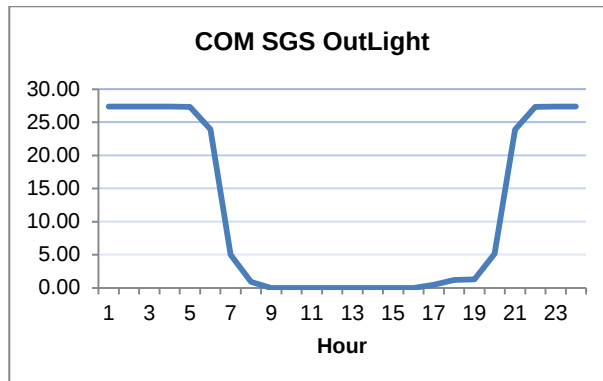
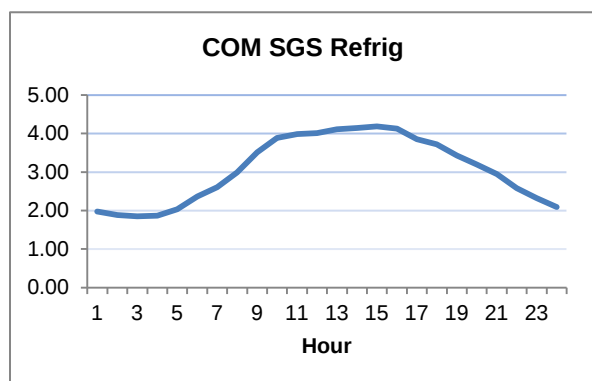
Profile Shapes for Residential End Uses

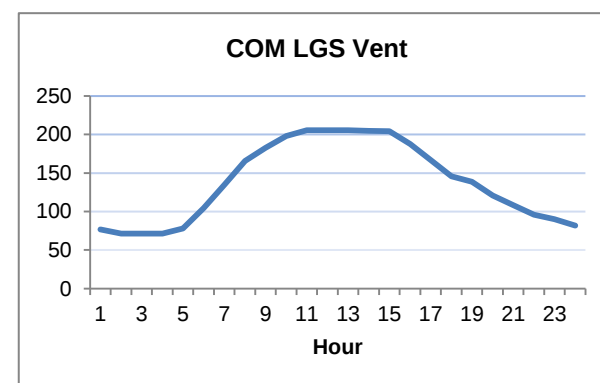
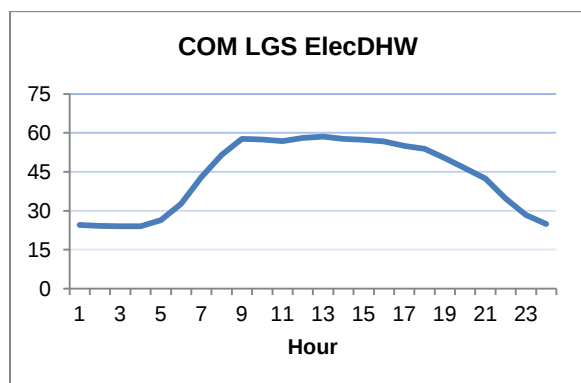
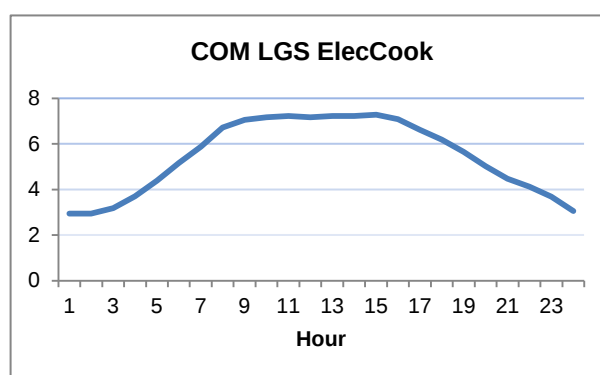
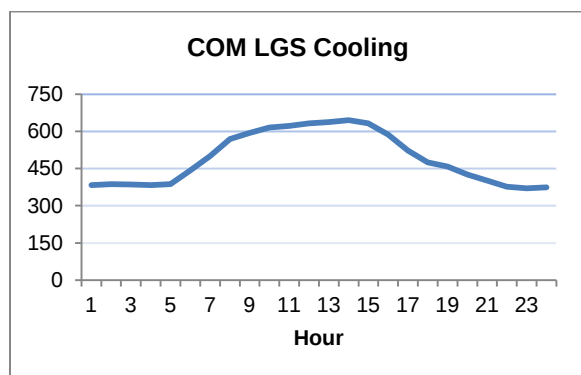
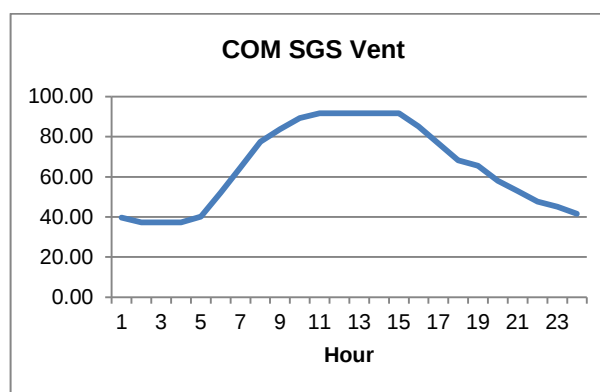
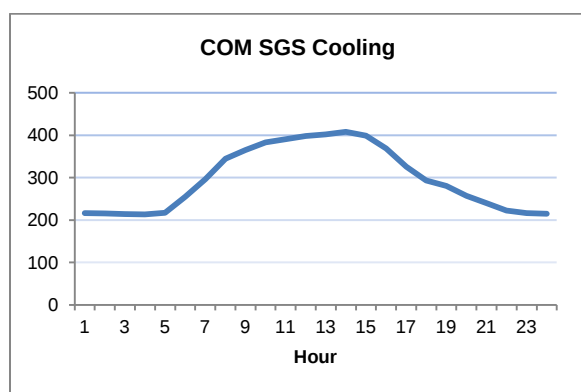
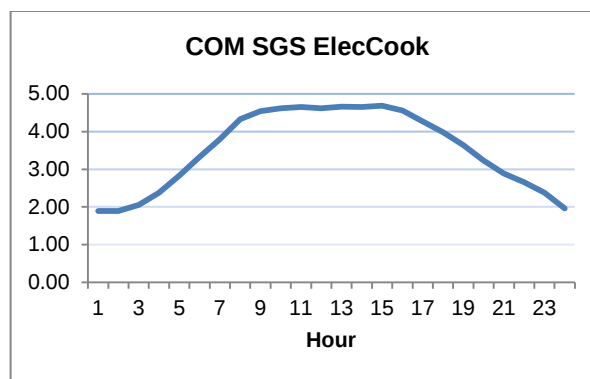
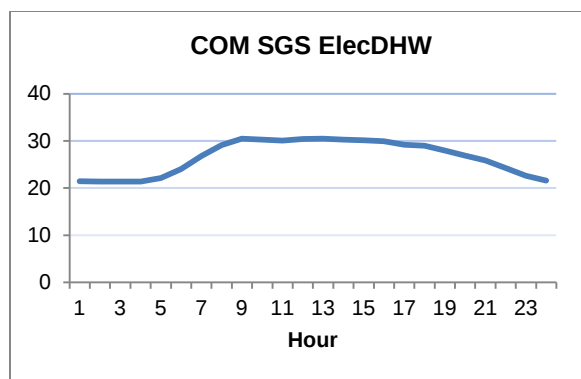


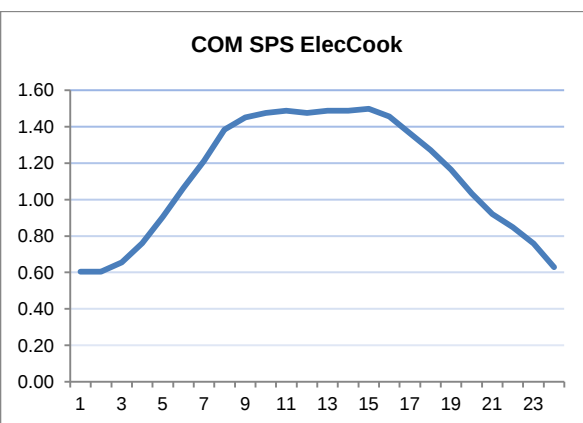
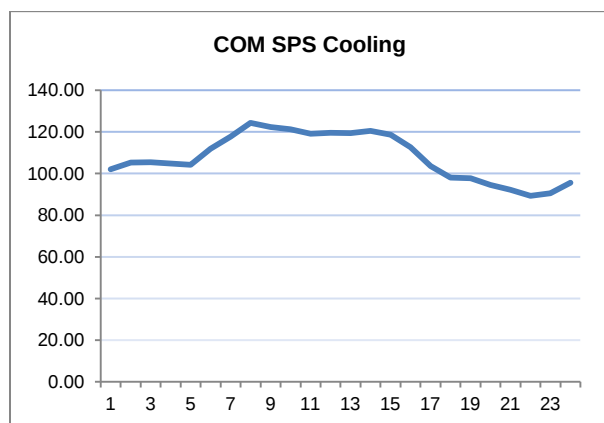
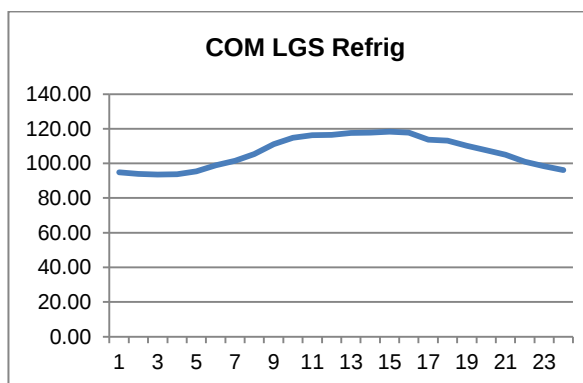
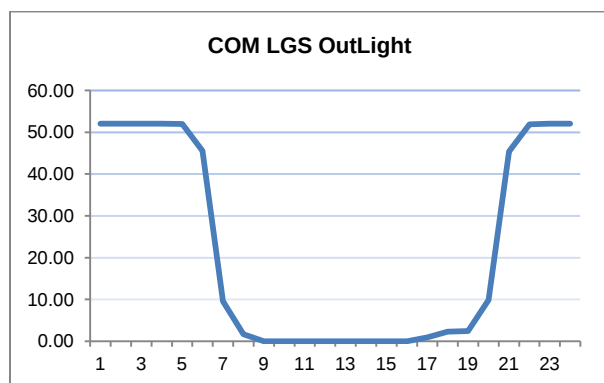
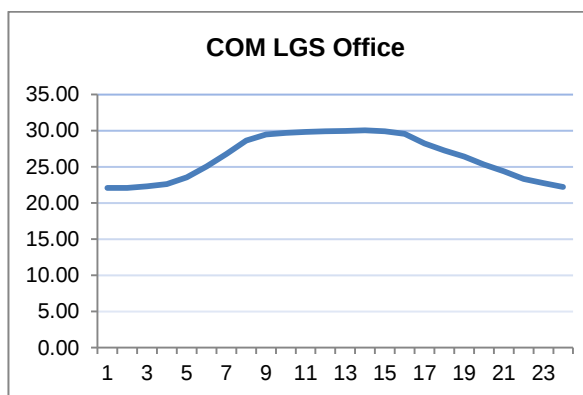
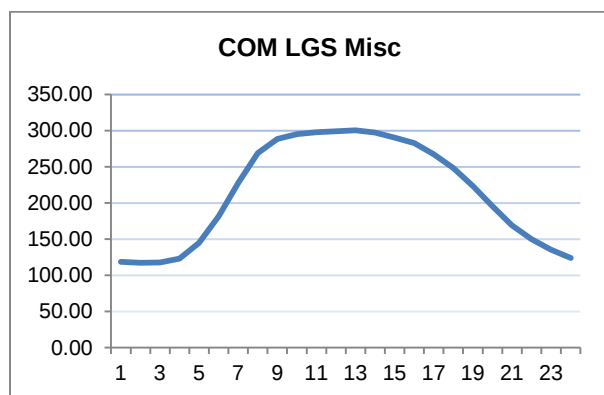
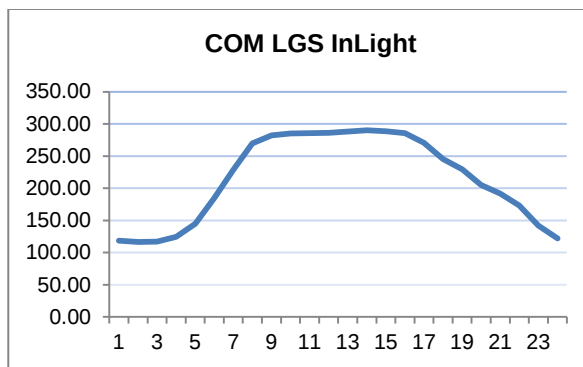
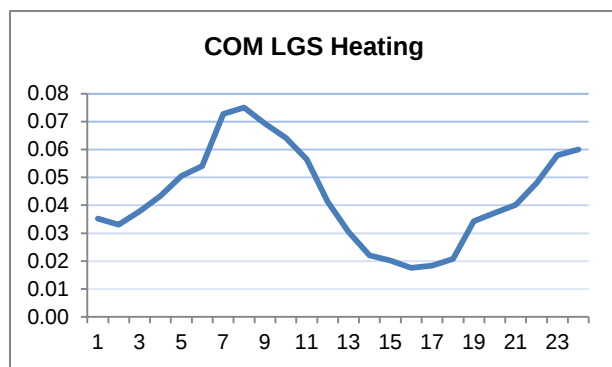
²² 4 CSR 240-22.030(8)(E)1.; 4 CSR 240-22.030(8)(E)2.

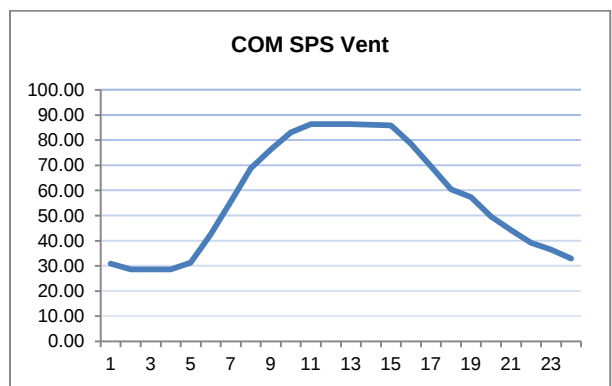
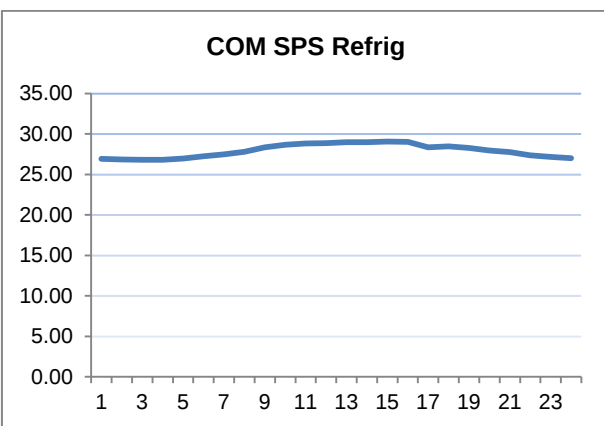
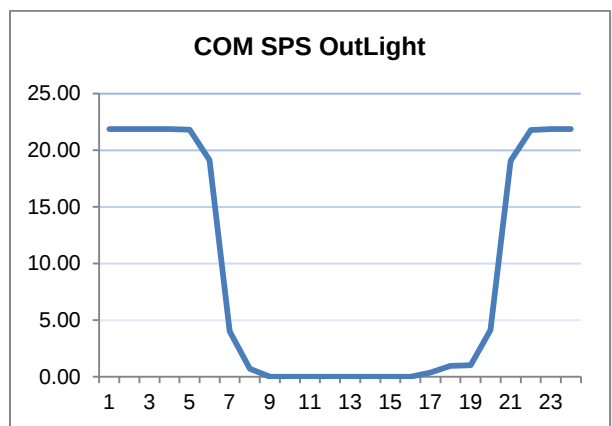
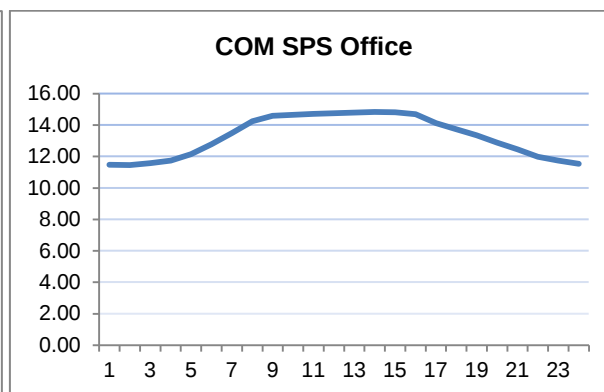
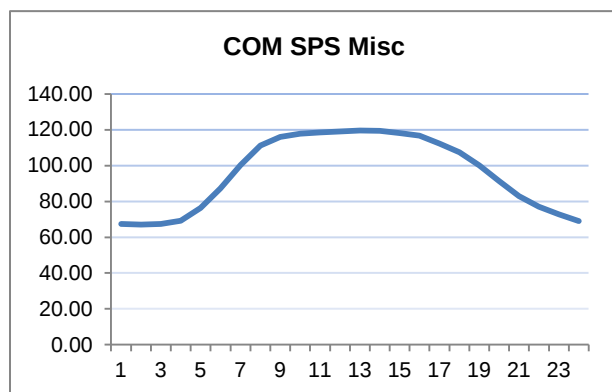
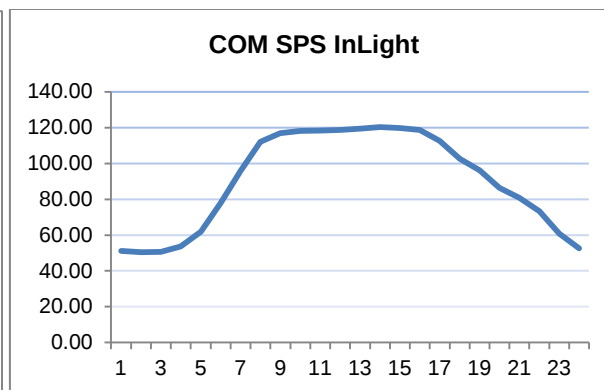
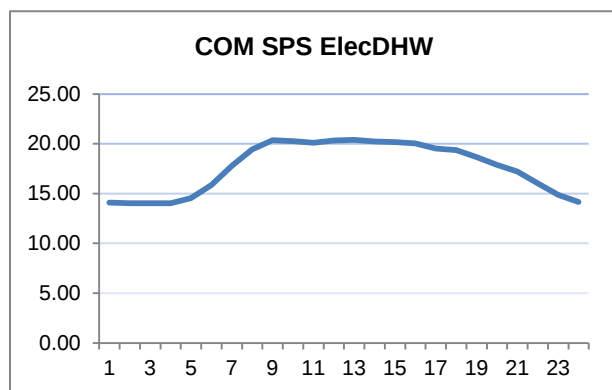


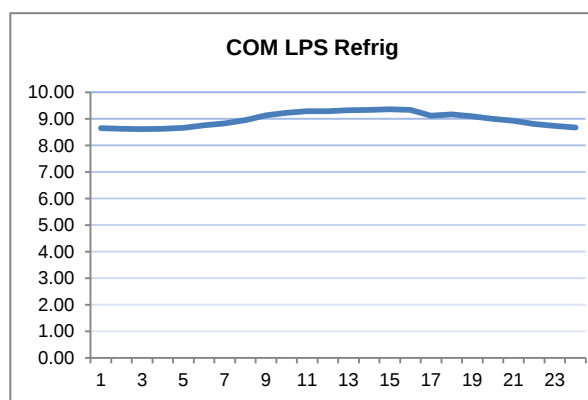
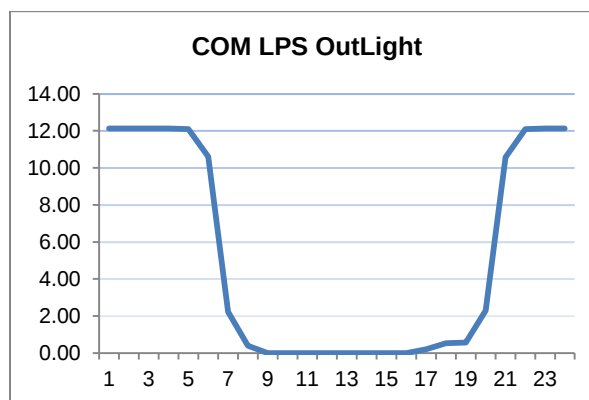
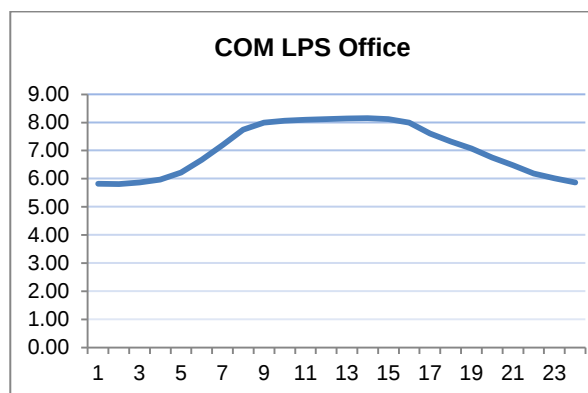
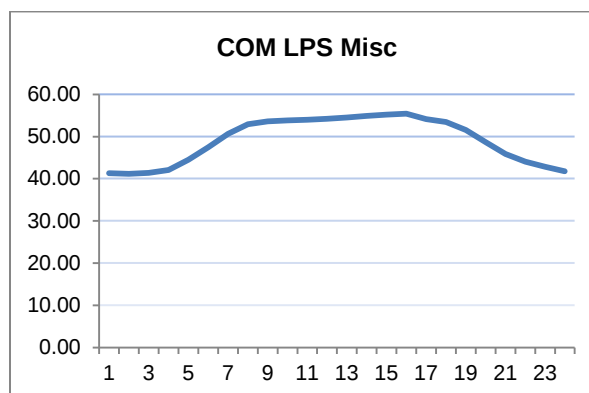
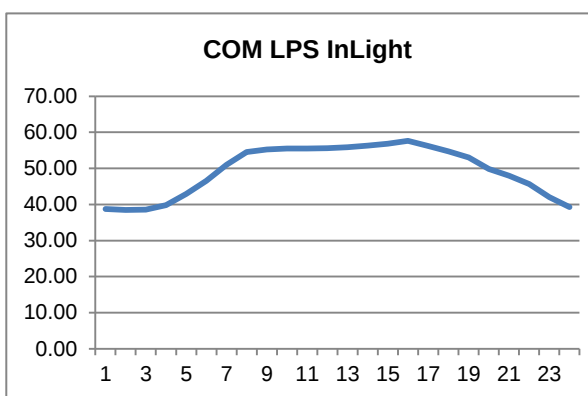
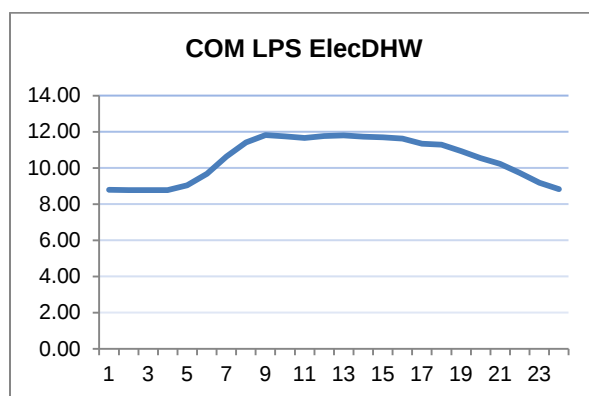
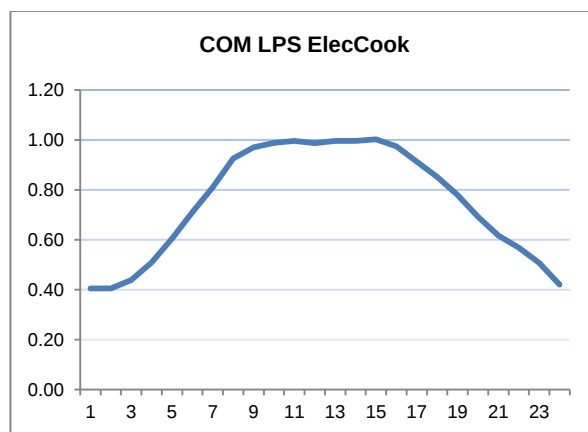
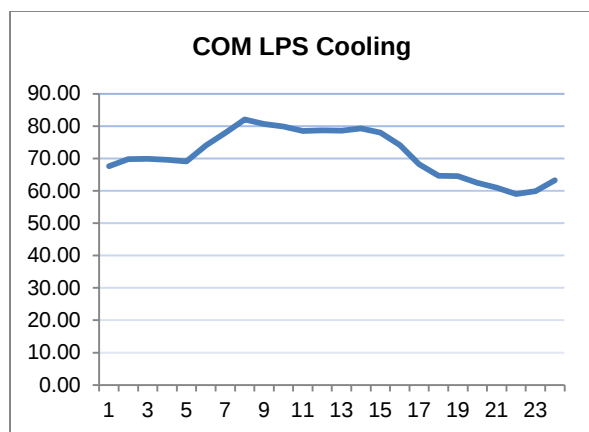
Profile Shapes for Commercial End Uses

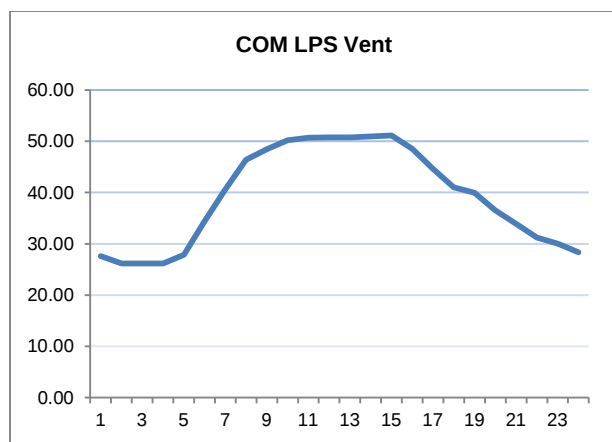






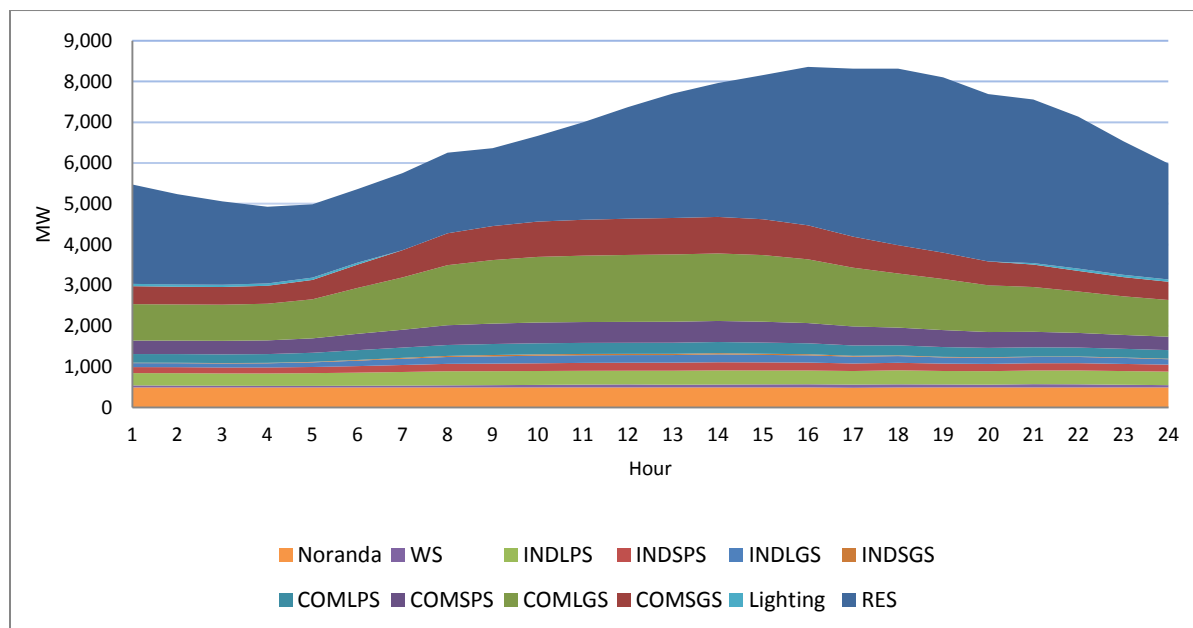




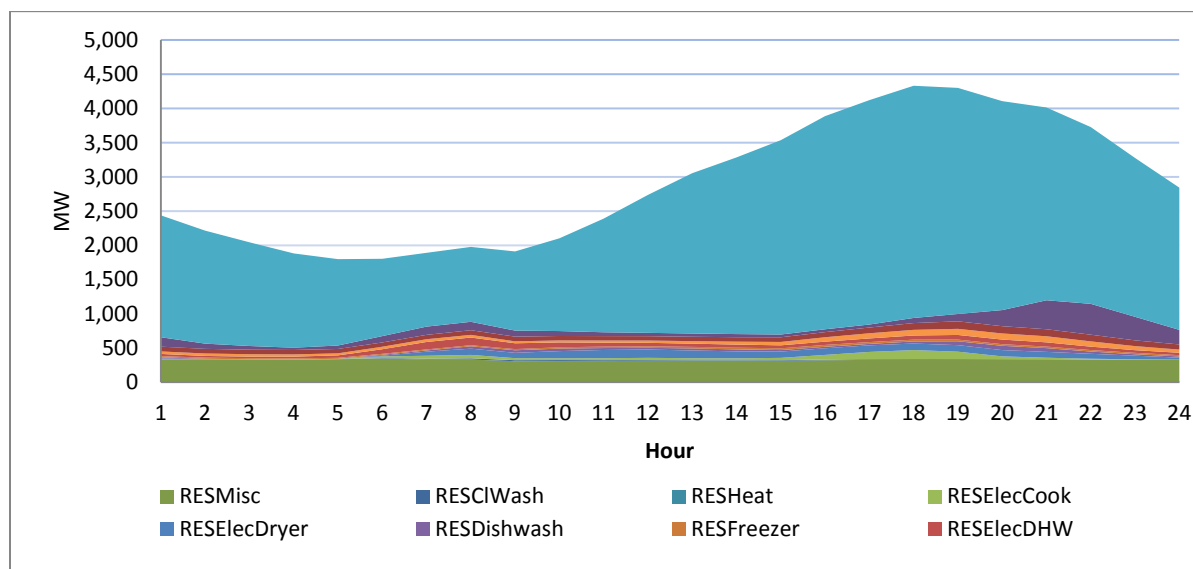


Summer and Winter Peak Day Profiles – System by Class and Class by End Use – 2010, 2015, 2020, 2030²³

System Load Profiles for Summer 2010 System Peak Day (MW)

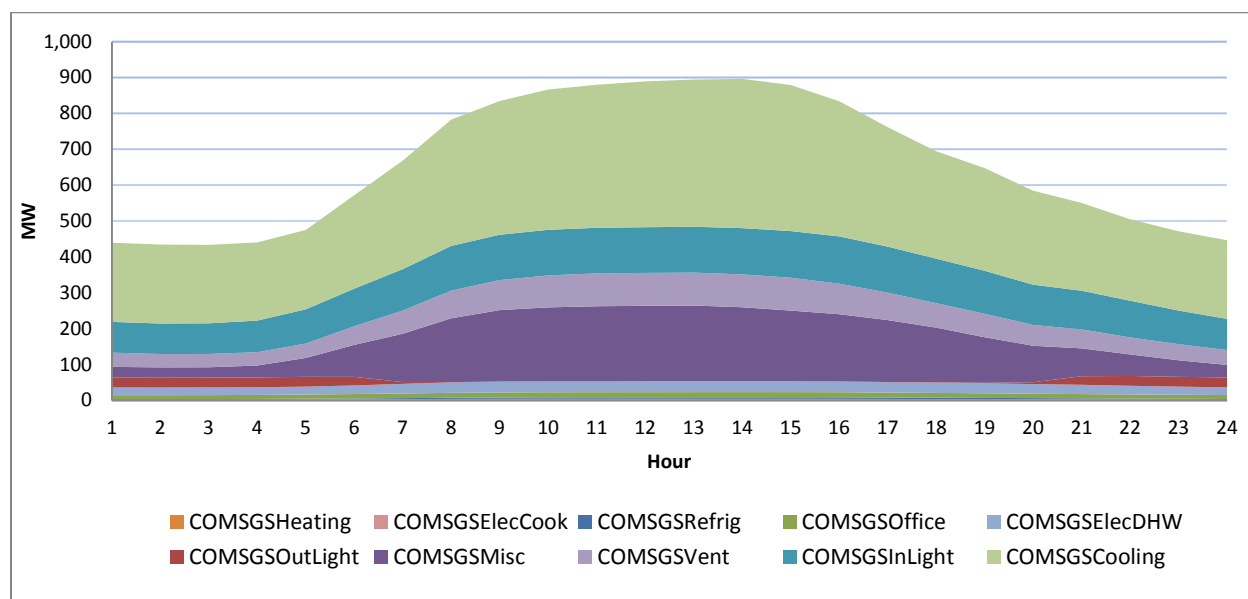


Summer 2010 System Peak Day: Residential End-Use Profiles (MW)

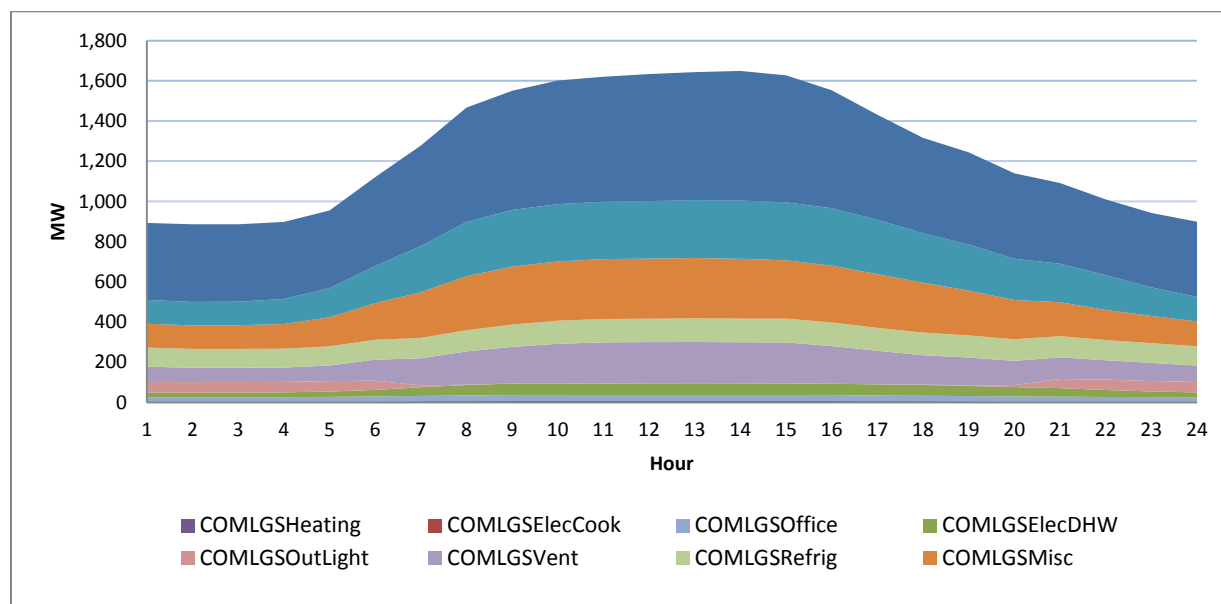


²³ 4 CSR 240-22.030(8)(E), 4 CSR 240-22.030(8)(E)1, 4 CSR 240-22.030(8)(E)2, 4 CSR 240-22.030(8)(F), 4 CSR 240-22.030(8)(F)1, 4 CSR 240-22.030(8)(F)2

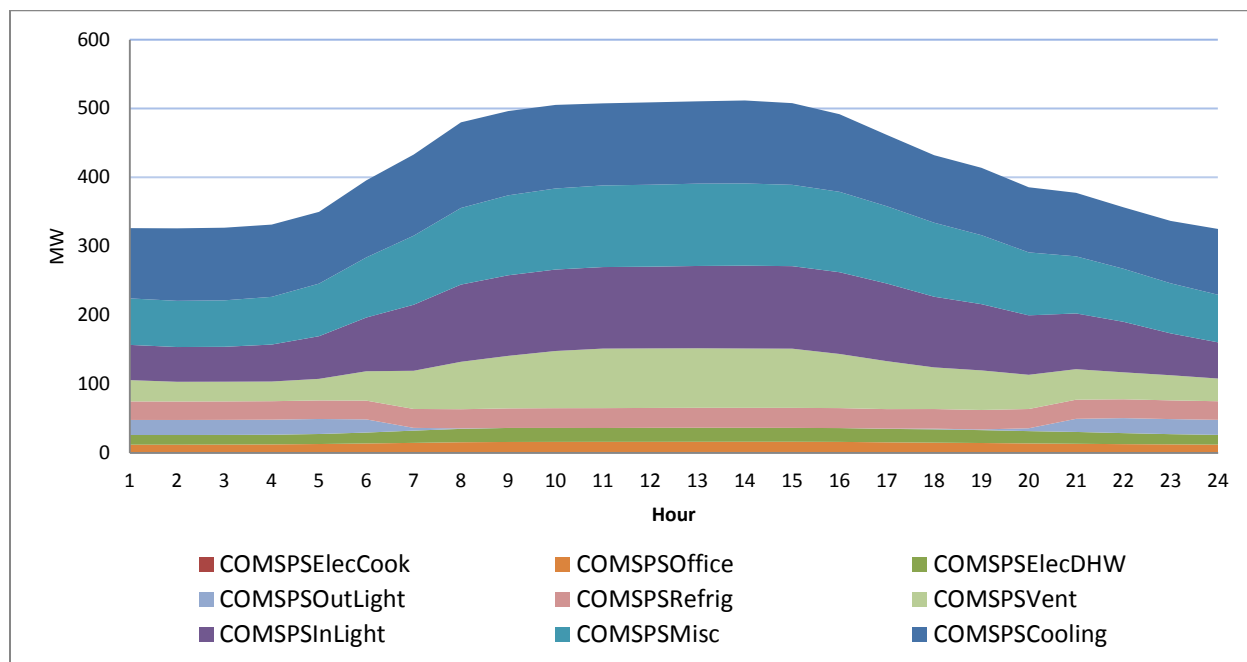
Summer 2010 System Peak Day: Commercial SGS End-Use Profiles (MW)



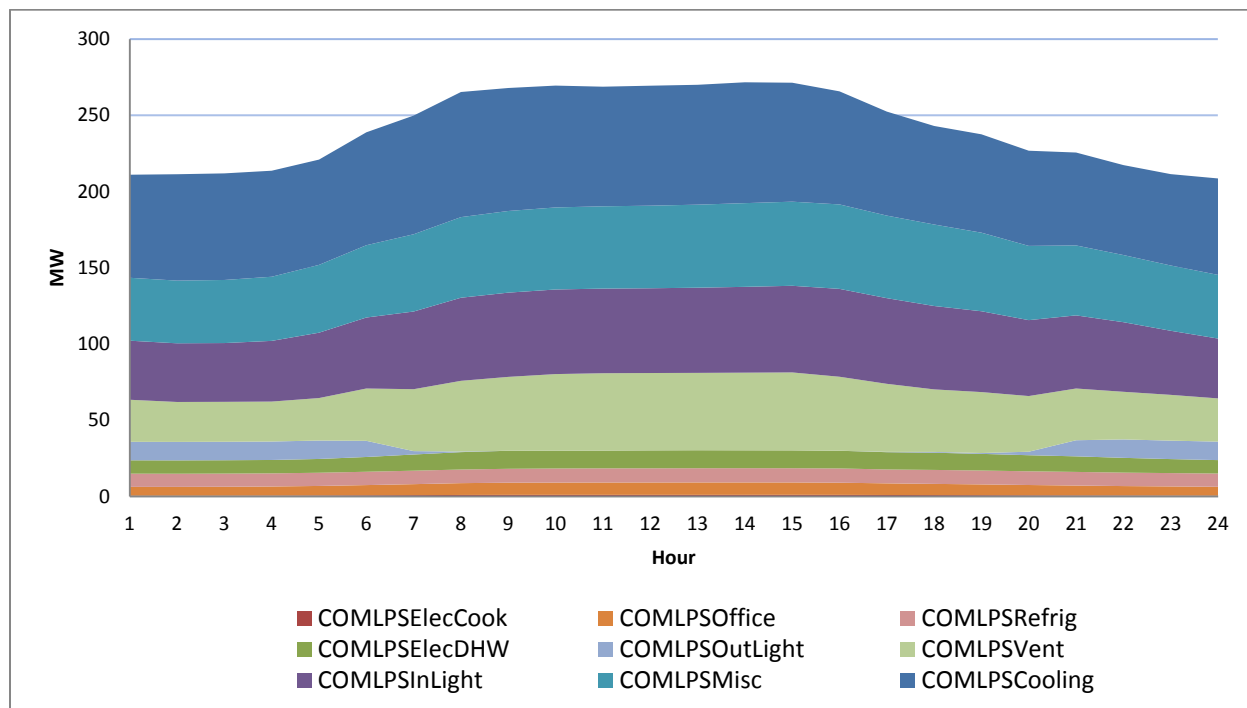
Summer 2010 System Peak Day: Commercial LGS End-Use Profiles (MW)



Summer 2010 System Peak Day: Commercial SPS End Use Profiles (MW)



Summer 2010 System Peak Day: Commercial LPS End-Use Profiles (MW)



Load Profiles for Summer 2010 System Peak Day (MW)

Hour	RES	COM SGS	COM LGS	COM SPS	COM LPS	IND SGS	IND LGS	IND SPS	IND LPS	WS	Lighting	Noranda	Total
1	2,439	440	894	331	213	10.27	97	147	302	49.99	56.81	492	5,473
2	2,215	435	887	330	213	10.15	98	148	305	44.97	56.81	492	5,236
3	2,045	434	887	331	214	9.83	99	147	302	41.36	56.81	492	5,059
4	1,882	441	900	336	216	10.26	103	147	304	38.52	56.81	492	4,927
5	1,799	475	959	354	223	12.19	114	151	312	38.49	56.81	492	4,987
6	1,804	572	1,126	400	241	17.71	134	160	322	41.14	49.23	492	5,360
7	1,891	669	1,284	438	252	21.69	154	172	334	44.91	-	492	5,753
8	1,978	783	1,474	485	268	26.45	169	181	347	50.59	-	492	6,254
9	1,911	835	1,559	501	270	32.81	178	186	343	55.85	-	492	6,365
10	2,103	867	1,610	510	272	32.94	186	190	341	62.05	-	492	6,666
11	2,391	880	1,629	512	271	31.19	189	194	339	69.59	-	492	6,998
12	2,738	889	1,642	513	272	29.65	188	195	337	74.13	-	492	7,371
13	3,055	895	1,652	515	272	29.74	187	198	344	66.87	-	492	7,706
14	3,286	896	1,657	516	274	29.69	193	199	348	70.81	-	492	7,963
15	3,537	879	1,636	512	274	28.51	183	199	341	74.88	-	492	8,158
16	3,889	834	1,564	496	268	26.81	178	194	338	77.62	-	493	8,359
17	4,123	762	1,443	466	255	20.60	167	185	333	77.99	-	485	8,316
18	4,333	695	1,328	436	245	17.84	165	183	345	77.75	-	491	8,316
19	4,301	648	1,253	417	240	14.28	151	182	330	73.22	-	492	8,102
20	4,108	585	1,147	389	229	11.81	152	179	331	68.20	-	492	7,692
21	4,015	551	1,099	381	228	10.63	152	178	336	80.24	35.98	492	7,559
22	3,728	505	1,017	360	219	11.11	153	178	340	76.75	56.81	492	7,138
23	3,277	472	947	340	213	10.62	147	175	335	66.12	56.81	492	6,534
24	2,843	447	902	329	210	12.41	133	171	333	55.98	56.81	492	5,986

Summer 2010 System Peak Day: Profile for Residential End Uses (MW)

Hour	CI Wash	Refrig.	Misc	Lighting	Heating	Freezer	Dryer	DHW	Cooker	Dishwasher	Cooling	TV	Total
1	0.2	69.8	330	138	1.2	17.65	15.3	32.7	1.7	15.73	1,782	36.0	2,439
2	0.0	67.5	330	77	1.2	17.15	6.0	24.8	0.9	4.73	1,651	35.8	2,215
3	0.1	65.8	329	54	1.1	16.74	2.5	23.2	1.1	0.84	1,515	34.4	2,045
4	0.5	64.5	329	33	1.1	16.17	0.3	24.9	1.5	0.23	1,378	32.8	1,882
5	1.9	64.0	336	51	1.1	15.03	0.0	35.7	3.4	(0.00)	1,262	29.6	1,799
6	7.2	62.5	346	93	0.0	14.53	10.7	66.8	23.8	12.71	1,130	36.8	1,804
7	12.9	64.1	331	120	1.1	14.70	59.6	108.7	42.4	18.34	1,078	40.1	1,891
8	18.1	68.1	331	123	1.1	15.52	91.3	112.3	49.0	34.64	1,095	39.1	1,978
9	14.8	69.0	307	88	1.2	17.48	77.9	84.5	28.8	37.37	1,156	28.4	1,911
10	14.7	65.0	309	72	1.3	19.25	104.4	70.7	25.4	36.87	1,355	29.2	2,103
11	12.8	64.2	309	56	1.4	20.92	120.4	57.6	27.8	28.01	1,661	31.8	2,391
12	10.6	63.7	312	49	1.5	22.07	120.8	50.6	32.7	25.90	2,016	33.6	2,738
13	9.3	63.9	311	48	1.6	23.70	112.9	46.9	29.5	29.21	2,342	36.8	3,055
14	8.9	65.1	311	45	1.7	25.18	101.7	44.9	27.5	29.37	2,582	42.9	3,286
15	8.8	68.0	313	41	1.7	26.16	91.7	43.3	32.9	22.07	2,840	49.7	3,537
16	9.6	74.8	321	41	1.7	26.99	96.6	48.0	67.4	22.08	3,115	64.6	3,889
17	9.6	83.6	326	44	1.5	26.39	96.0	53.6	105.5	21.50	3,279	75.2	4,123
18	9.9	98.8	327	75	1.5	25.58	95.5	60.9	131.7	31.03	3,393	82.6	4,333
19	9.3	109.9	328	107	1.5	24.69	95.1	67.9	107.7	56.74	3,304	89.3	4,301
20	7.8	106.3	329	235	1.5	23.54	91.6	67.1	40.2	63.04	3,053	89.6	4,108
21	6.6	102.4	329	424	1.4	22.72	85.2	61.7	21.6	55.14	2,817	88.9	4,015
22	3.2	97.9	329	451	1.4	21.58	71.8	49.5	10.3	33.59	2,583	76.9	3,728
23	1.1	84.0	329	345	1.3	20.43	53.1	38.9	3.6	20.84	2,321	59.5	3,277
24	0.1	75.0	329	213	1.3	18.46	28.7	35.3	0.4	17.83	2,078	46.6	2,843

Summer 2010 System Peak Day: Profile for Commercial SGS End Uses (MW)

Hour	Refrig	Outdoor Light	Office	Misc	Indoor Light	Heating	Electric DHW	Electric Cook	Cooling	Vent	Total
1	1.98	27.37	10.86	30.04	85.7	0.09	21.5	1.9	221	39.66	440
2	1.88	27.37	10.85	28.78	85.1	0.09	21.4	1.9	220	37.20	435
3	1.85	27.37	10.95	28.82	85.3	0.09	21.4	2.1	219	37.20	434
4	1.86	27.37	11.12	33.19	88.2	0.10	21.4	2.4	218	37.20	441
5	2.03	27.31	11.53	52.64	95.4	0.11	22.1	2.8	221	40.14	475
6	2.36	23.96	12.22	89.12	104.6	-	24.0	3.3	260	52.04	572
7	2.61	5.02	12.99	134.63	115.5	0.13	26.8	3.8	303	64.69	669
8	2.98	0.87	13.82	177.76	124.4	0.13	29.1	4.3	352	77.40	783
9	3.51	0.00	14.19	199.20	126.5	0.13	30.4	4.5	373	83.63	835
10	3.88	0.00	14.28	206.36	127.1	0.12	30.3	4.6	391	89.15	867
11	3.98	0.00	14.34	209.47	127.1	0.11	30.0	4.7	399	91.67	880
12	4.00	0.00	14.38	210.47	127.3	0.10	30.4	4.6	406	91.67	889
13	4.11	0.00	14.42	210.97	127.9	0.08	30.5	4.7	410	91.67	895
14	4.14	0.00	14.46	206.29	128.9	0.07	30.2	4.7	416	91.65	896
15	4.18	0.00	14.41	197.08	130.0	0.07	30.1	4.7	407	91.64	879
16	4.13	0.00	14.27	187.46	131.7	0.07	30.0	4.6	377	85.21	834
17	3.85	0.47	13.67	172.61	128.1	0.07	29.2	4.3	333	76.69	762
18	3.72	1.20	13.24	151.80	124.1	0.07	29.0	4.0	300	68.25	695
19	3.43	1.28	12.83	127.09	119.8	0.11	28.0	3.6	286	65.49	648
20	3.19	5.17	12.33	101.65	112.1	0.11	26.9	3.2	262	58.06	585
21	2.94	23.87	11.89	77.70	107.8	0.12	25.9	2.9	245	52.81	551
22	2.58	27.29	11.42	60.02	102.3	0.12	24.2	2.7	227	47.56	505
23	2.32	27.37	11.15	46.18	93.5	0.14	22.6	2.4	221	45.01	472
24	2.09	27.37	10.92	34.97	86.9	0.14	21.6	2.0	219	41.55	447

Summer 2010 System Peak Day: Profile for Commercial LGS End Uses (MW)

Hour	Cooling	Electric Cook	Electric DHW	Heating	Indoor Light	Misc	Office	Outdoor Light	Refrigerator	Vent	Total
1	365	3.05	25.42	0.04	123	123	22.9	54.1	99	80	894
2	368	3.05	25.11	0.04	121	122	22.9	54.1	98	74	887
3	367	3.31	25.01	0.04	122	122	23.1	54.1	97	74	887
4	365	3.84	25.01	0.05	129	128	23.5	54.1	97	74	900
5	368	4.56	27.41	0.06	150	150	24.4	53.9	99	81	959
6	421	5.37	33.95	0.00	192	189	26.0	47.3	103	109	1,126
7	476	6.11	44.62	0.08	238	236	27.8	9.9	105	140	1,284
8	542	6.98	53.46	0.08	280	279	29.7	1.7	109	172	1,474
9	564	7.32	59.86	0.08	293	299	30.6	0.0	115	190	1,559
10	585	7.45	59.68	0.07	296	306	30.8	0.0	119	205	1,610
11	592	7.50	59.04	0.06	296	309	30.9	0.0	121	213	1,629
12	602	7.44	60.24	0.05	297	311	31.0	0.0	121	213	1,642
13	606	7.50	60.77	0.03	299	312	31.1	0.0	122	213	1,652
14	614	7.50	59.86	0.02	301	309	31.2	0.0	122	213	1,657
15	601	7.56	59.48	0.02	300	301	31.1	0.0	123	212	1,636
16	559	7.36	58.88	0.02	297	294	30.7	0.0	122	195	1,564
17	498	6.89	57.11	0.02	281	278	29.3	1.0	118	173	1,443
18	452	6.43	55.99	0.02	255	258	28.3	2.4	118	151	1,328
19	436	5.87	52.20	0.04	238	232	27.4	2.5	114	144	1,253
20	405	5.22	48.17	0.04	213	203	26.3	10.2	112	125	1,147
21	382	4.65	44.09	0.04	199	175	25.3	47.2	109	112	1,099
22	358	4.28	35.99	0.05	180	156	24.2	53.9	105	100	1,017
23	353	3.83	29.45	0.06	148	141	23.6	54.1	102	93	947
24	356	3.17	25.86	0.07	127	128	23.1	54.1	100	85	902

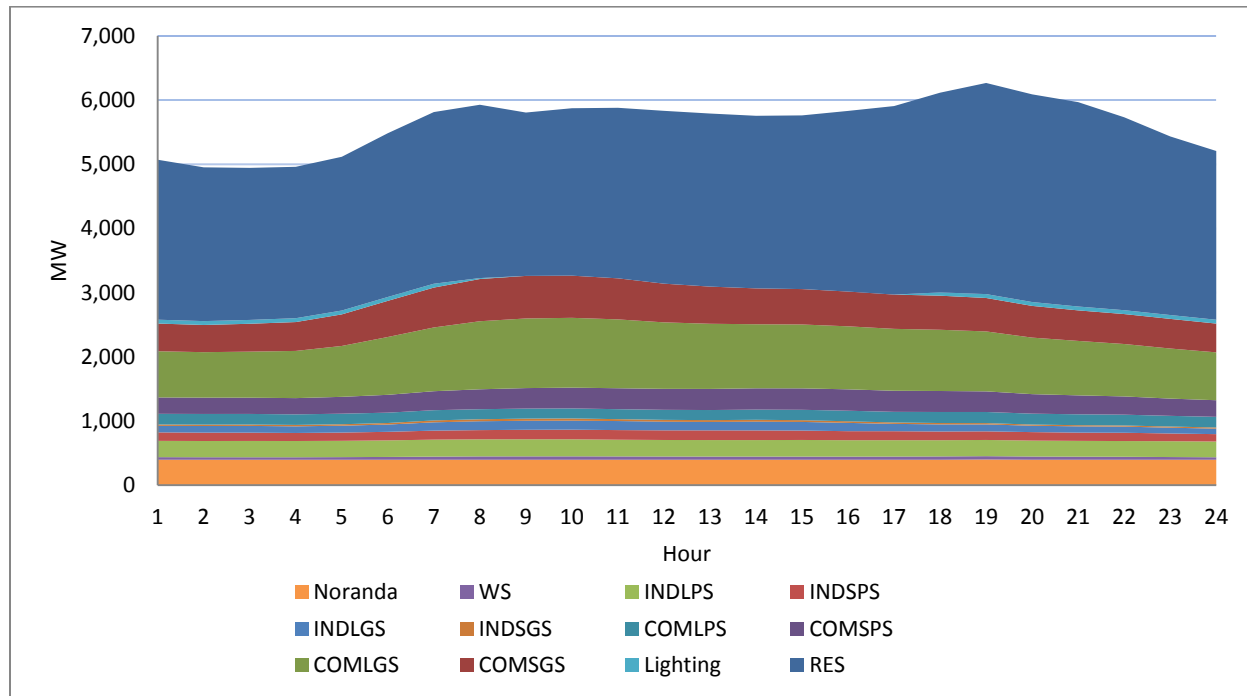
Summer 2010 System Peak Day: Profile for Commercial SPS End Uses (MW)

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrigerator	Vent	Total
1	107	0.60	14.01	50.9	67	11	21.7	26.8	30.7	331
2	111	0.60	13.97	50.2	67	11	21.7	26.7	28.4	330
3	111	0.65	13.95	50.4	67	12	21.7	26.7	28.4	331
4	110	0.76	13.95	53.4	69	12	21.7	26.7	28.4	336
5	110	0.90	14.47	61.6	76	12	21.7	26.8	31.1	354
6	118	1.06	15.77	77.6	87	13	19.0	27.1	42.4	400
7	124	1.20	17.70	95.3	100	13	4.0	27.3	55.1	438
8	131	1.38	19.32	111.5	111	14	0.7	27.7	68.5	485
9	129	1.44	20.25	116.3	115	15	0.0	28.2	75.9	501
10	128	1.47	20.14	117.6	117	15	0.0	28.5	82.6	510
11	125	1.48	19.99	117.7	118	15	0.0	28.7	86.0	512
12	126	1.47	20.21	118.0	118	15	0.0	28.7	86.0	513
13	126	1.48	20.28	118.8	119	15	0.0	28.8	86.0	515
14	127	1.48	20.13	119.6	119	15	0.0	28.8	85.7	516
15	125	1.49	20.05	119.2	117	15	0.0	28.9	85.5	512
16	119	1.45	19.94	118.1	116	15	0.0	28.9	78.3	496
17	109	1.36	19.43	112.2	112	14	0.4	28.2	69.3	466
18	103	1.27	19.30	102.2	107	14	1.0	28.4	60.2	436
19	103	1.16	18.57	95.6	100	13	1.0	28.1	57.1	417
20	99	1.03	17.79	85.8	91	13	4.1	27.8	49.4	389
21	97	0.92	17.11	80.5	82	12	19.0	27.6	44.1	381
22	94	0.84	15.93	73.0	77	12	21.7	27.2	38.9	360
23	95	0.75	14.79	60.4	72	12	21.7	27.0	36.3	340
24	101	0.62	14.07	52.2	69	11	21.7	26.8	32.8	329

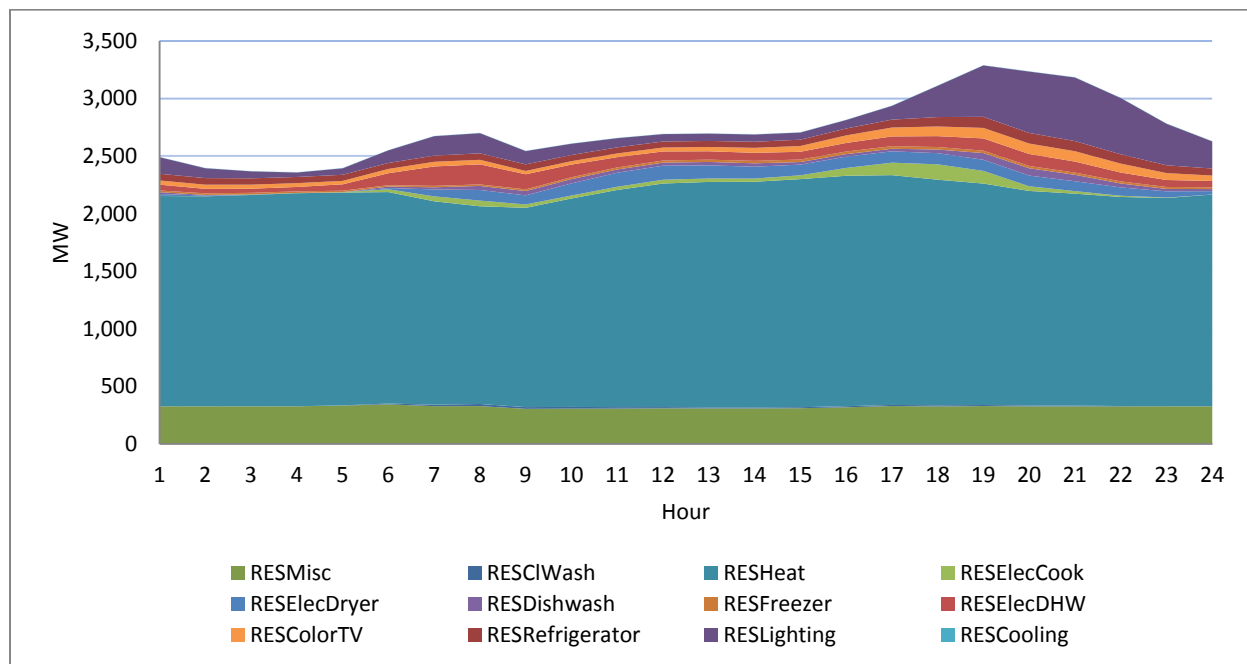
Summer 2010 System Peak Day: Profile for Commercial LPS End Uses (MW)

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrigerator	Vent	Total
1	68.25	0.41	8.87	39.1	41.65	5.87	12.23	8.7	27.8	213
2	70.44	0.41	8.85	38.8	41.51	5.87	12.23	8.7	26.4	213
3	70.60	0.44	8.84	38.9	41.75	5.92	12.23	8.7	26.4	214
4	70.22	0.51	8.84	40.2	42.45	6.02	12.23	8.7	26.4	216
5	69.73	0.61	9.12	43.3	44.88	6.28	12.20	8.7	28.1	223
6	74.81	0.72	9.77	47.0	47.85	6.74	10.70	8.8	34.6	241
7	78.62	0.82	10.72	51.4	51.12	7.26	2.24	8.9	41.0	252
8	82.87	0.93	11.51	55.0	53.35	7.81	0.39	9.0	46.8	268
9	81.44	0.98	11.92	55.8	54.05	8.06	0.00	9.2	48.9	270
10	80.68	1.00	11.85	56.0	54.30	8.13	0.00	9.3	50.6	272
11	79.23	1.00	11.77	56.0	54.45	8.17	0.00	9.4	51.2	271
12	79.46	1.00	11.88	56.1	54.65	8.20	0.00	9.4	51.2	272
13	79.39	1.00	11.90	56.4	54.97	8.22	0.00	9.4	51.2	272
14	80.06	1.00	11.83	56.8	55.39	8.23	0.00	9.4	51.4	274
15	78.79	1.01	11.79	57.3	55.66	8.19	0.00	9.4	51.6	274
16	74.96	0.98	11.74	58.2	55.95	8.07	0.00	9.4	49.0	268
17	68.93	0.92	11.45	56.7	54.68	7.69	0.21	9.2	45.1	255
18	65.34	0.86	11.40	55.2	53.98	7.40	0.54	9.3	41.4	245
19	65.15	0.79	11.03	53.5	52.00	7.13	0.57	9.2	40.3	240
20	63.04	0.70	10.64	50.2	49.13	6.81	2.31	9.1	36.8	229
21	61.54	0.62	10.32	48.4	46.29	6.54	10.66	9.0	34.2	228
22	59.57	0.57	9.81	46.1	44.45	6.24	12.19	8.9	31.5	219
23	60.50	0.51	9.26	42.4	43.21	6.07	12.23	8.8	30.3	213
24	63.88	0.42	8.90	39.6	42.15	5.92	12.23	8.8	28.6	210

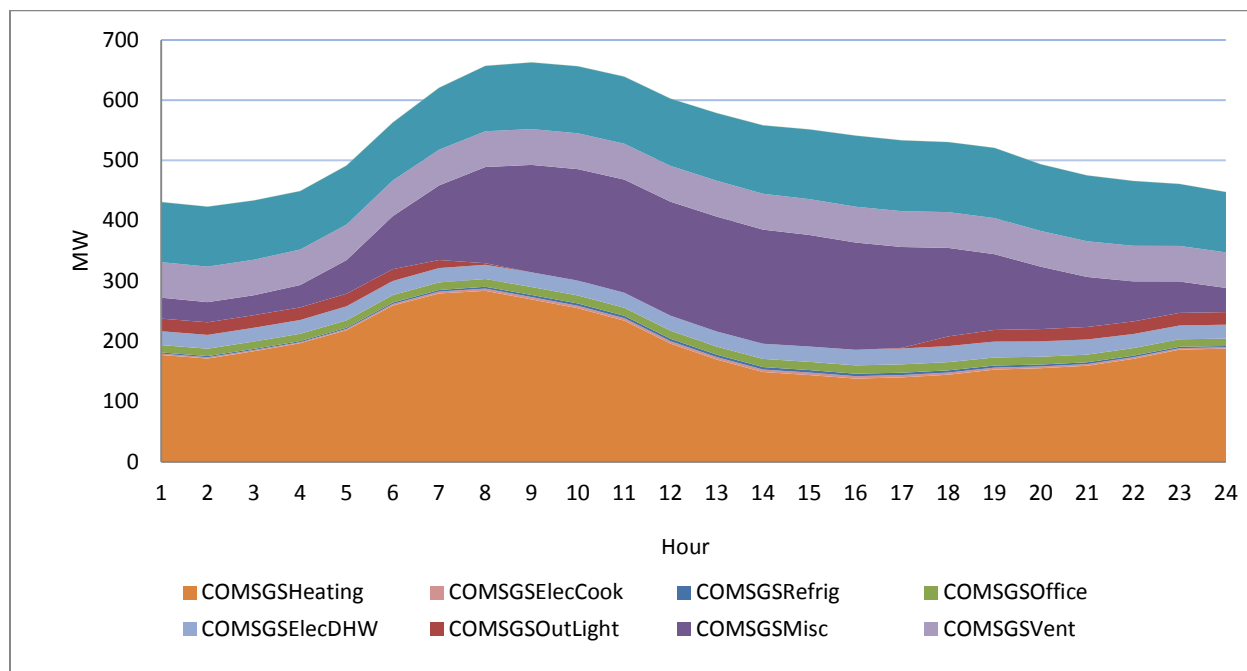
Load Profiles for Winter 2010 System Peak Day (MW)



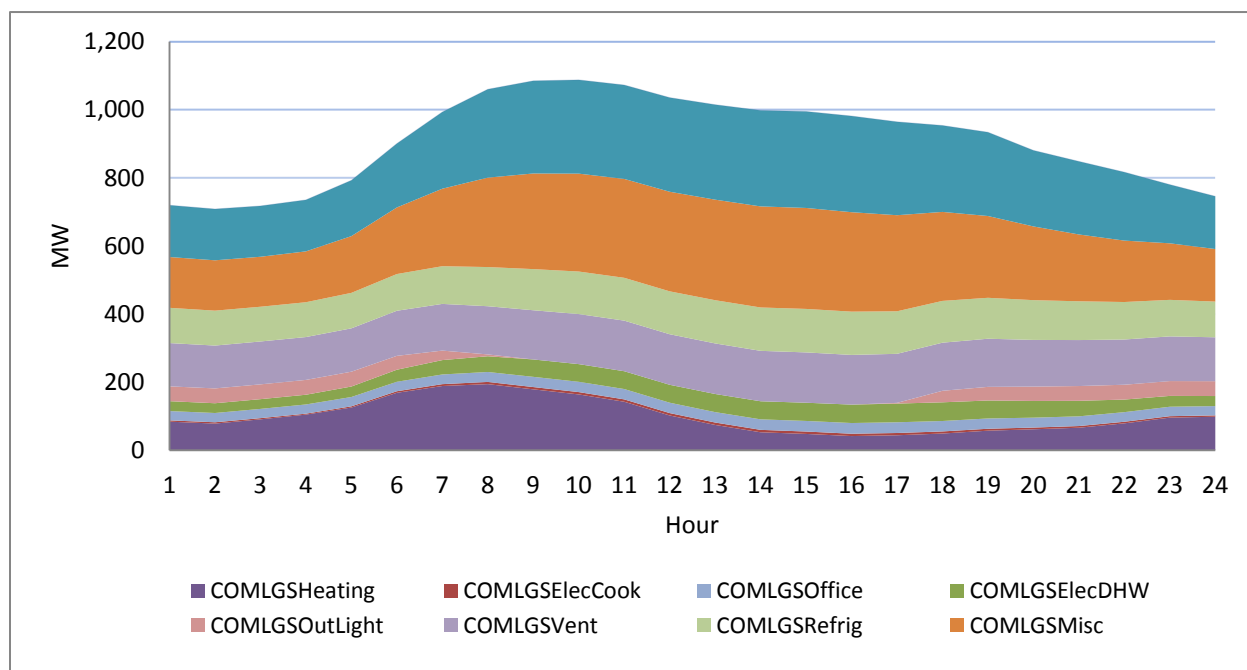
Winter 2010 System Peak Day: Residential End-Use Profiles (MW)



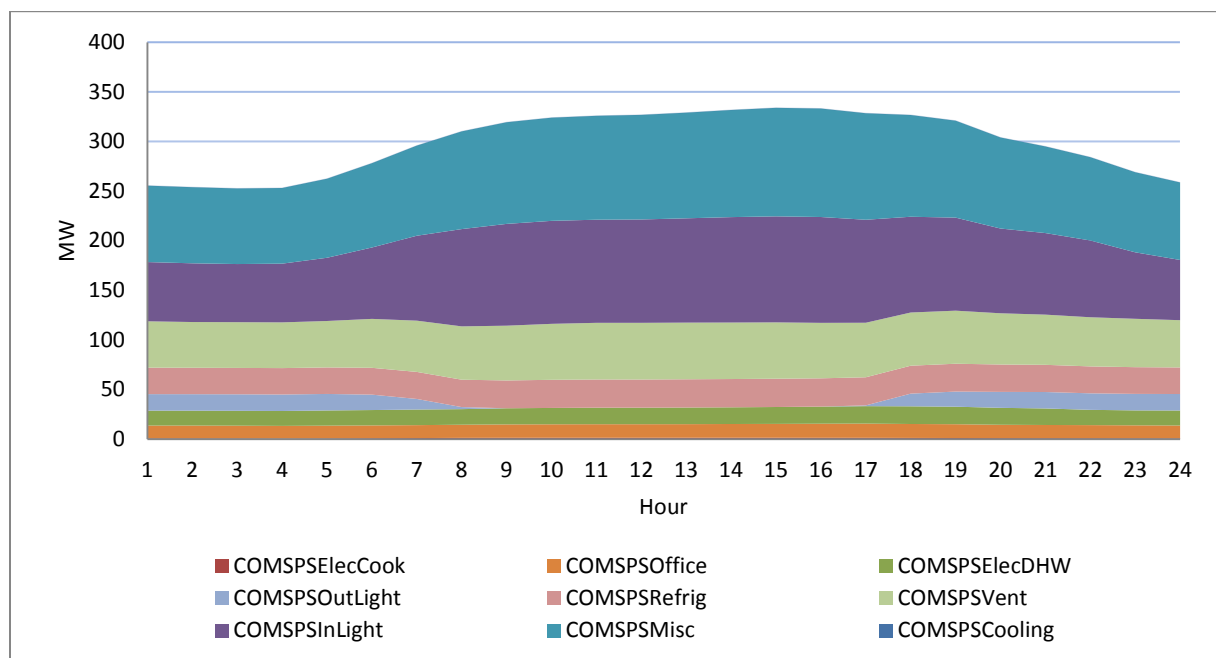
Winter 2010 System Peak Day: Commercial SGS End-Use Profiles (MW)



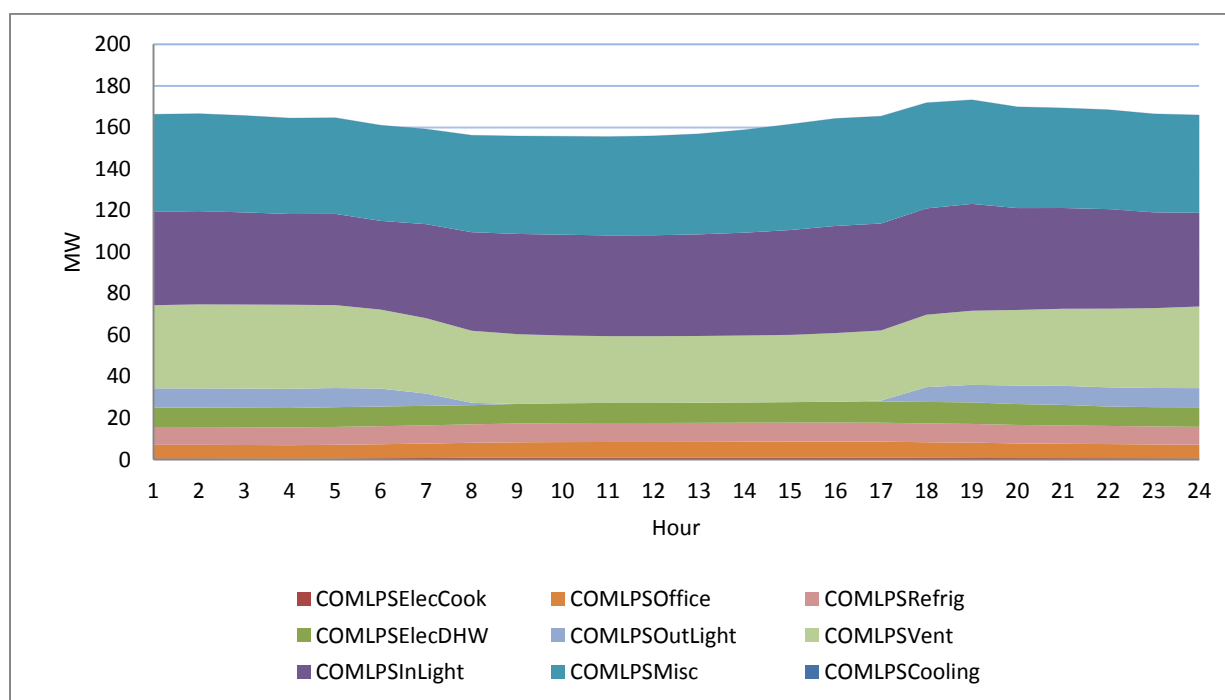
Winter 2010 System Peak Day: Commercial LGS End-Use Profiles (MW)



Winter 2010 System Peak Day: Commercial SPS End-Use Profiles (MW)



Winter 2010 System Peak Day: Commercial LPS End-Use Profiles (MW)



Load Profiles for Winter 2010 System Peak Day (MW)

Hour	RES	COM SGS	COM LGS	COM SPS	COM LPS	IND SGS	IND LGS	IND SPS	IND LPS	WS	Lighting	Noranda	Total
1	2,524	436	728	254	167	20.75	102	132	254	40	60	398	5,115
2	2,429	428	716	252	168	20.83	104	130	253	39	60	398	4,998
3	2,403	439	726	251	167	21.05	105	129	254	39	60	398	4,992
4	2,394	455	745	251	166	22.03	103	125	253	39	60	398	5,011
5	2,430	498	804	261	166	22.06	107	129	254	41	60	398	5,168
6	2,583	571	915	276	162	24.03	113	133	258	43	60	398	5,537
7	2,701	629	1,010	294	160	29.68	129	140	264	49	60	398	5,864
8	2,725	665	1,077	308	157	31.75	138	143	266	52	15	398	5,976
9	2,572	671	1,101	317	157	33.38	141	147	266	52	-	398	5,856
10	2,638	664	1,103	322	157	34.97	140	149	265	53	-	398	5,923
11	2,688	646	1,086	324	157	29.62	141	150	260	52	-	398	5,930
12	2,725	608	1,046	325	157	29.42	134	150	257	50	-	398	5,880
13	2,729	583	1,023	327	158	28.44	131	151	257	50	-	398	5,836
14	2,722	562	1,005	329	160	28.79	136	151	256	50	-	398	5,798
15	2,740	555	1,001	332	163	27.32	135	146	259	49	-	398	5,805
16	2,847	545	987	331	165	24.97	129	141	255	49	-	398	5,873
17	2,968	537	971	326	167	21.60	114	140	254	50	-	398	5,947
18	3,139	534	960	324	173	21.29	111	136	252	52	51	398	6,152
19	3,311	525	941	319	174	20.30	108	134	252	52	61	402	6,299
20	3,257	498	888	302	171	18.13	100	132	248	50	60	398	6,121
21	3,206	480	856	293	171	18.33	98	129	246	48	60	398	6,000
22	3,029	471	825	282	170	17.54	96	129	245	46	60	398	5,767
23	2,809	466	789	267	168	17.82	90	120	247	42	60	398	5,474
24	2,659	453	755	257	167	17.97	86	115	245	38	60	398	5,251

Winter 2010 System Peak Day: Profile for Residential End Uses (MW)

Hour	CI Wash	Refrig	Misc	Lighting	Heating	Freezer	Dryer	DHW	Cooker	Dishwasher	Cooling	TV	Total
1	0.16	57	329	142	1,863	14.61	15.22	50	1.67	15.69	-	36	2,524
2	(0.00)	56	329	85	1,860	14.20	5.99	38	0.92	4.71	-	36	2,429
3	0.13	54	329	60	1,872	13.86	2.50	35	1.10	0.84	-	34	2,403
4	0.53	53	329	38	1,887	13.39	0.33	38	1.52	0.23	-	33	2,394
5	1.93	52	335	56	1,885	12.44	0.00	54	3.36	(0.00)	-	29	2,430
6	7.17	51	345	108	1,873	12.03	10.66	102	23.71	12.67	-	37	2,583
7	12.78	53	330	166	1,802	12.17	59.20	166	42.14	18.29	-	40	2,701
8	17.96	56	330	172	1,752	12.85	90.75	171	48.70	34.54	-	39	2,725
9	14.73	56	306	114	1,766	14.47	77.41	129	28.63	37.26	-	28	2,572
10	14.62	53	308	96	1,847	15.94	103.74	108	25.31	36.75	-	29	2,638
11	12.70	52	308	79	1,924	17.32	119.72	88	27.67	27.92	-	32	2,688
12	10.52	52	311	64	1,981	18.27	120.10	77	32.49	25.82	-	34	2,725
13	9.24	52	310	63	1,997	19.63	112.25	72	29.35	29.12	-	37	2,729
14	8.88	52	310	62	1,999	20.85	101.08	69	27.33	29.28	-	43	2,722
15	8.73	54	312	61	2,021	21.66	91.12	66	32.75	22.01	-	49	2,740
16	9.49	59	320	73	2,041	22.34	95.99	73	67.01	22.00	-	64	2,847
17	9.70	68	331	117	2,036	22.20	96.98	83	106.59	21.78	-	76	2,968
18	9.86	80	327	267	1,999	21.25	95.23	93	131.49	31.04	-	83	3,139
19	9.35	95	330	439	1,962	20.63	95.38	105	108.13	57.08	-	90	3,311
20	7.78	91	328	525	1,901	19.49	91.03	102	39.98	62.85	-	89	3,257
21	6.53	87	328	544	1,878	18.81	84.66	94	21.46	54.98	-	89	3,206
22	3.23	80	328	481	1,852	17.86	71.40	76	10.20	33.49	-	77	3,029
23	1.07	67	328	355	1,845	16.91	52.75	59	3.53	20.78	-	59	2,809
24	0.06	60	328	232	1,877	15.29	28.51	54	0.37	17.77	-	46	2,659

Winter 2010 System Peak Day: Profile for Commercial SGS End Uses (MW)

Hour	Refrig	Outdoor Light	Office	Misc	Indoor Light	Heating	Electric DHW	Electric Cook	Cooling	Vent	Total
1	1.96	20.84	12.19	35	99	183	22.96	2.27	-	59	436
2	1.87	20.84	12.18	33	99	177	22.89	2.27	-	59	428
3	1.83	20.84	12.14	33	98	189	22.87	2.06	-	59	439
4	1.85	20.84	12.11	37	97	203	22.87	1.56	-	59	455
5	2.01	20.84	12.21	56	98	225	23.30	2.10	-	59	498
6	2.34	19.50	12.33	88	96	268	23.45	2.69	-	59	571
7	2.59	13.32	12.53	123	103	288	23.74	3.21	-	59	629
8	2.96	2.59	12.86	159	108	293	23.54	3.78	-	59	665
9	3.47	-	13.15	178	110	278	24.31	3.98	-	59	671
10	3.84	-	13.23	184	111	263	24.65	4.07	-	59	664
11	3.92	-	13.30	187	111	242	24.94	4.11	-	59	646
12	3.94	-	13.33	189	111	202	24.86	4.10	-	59	608
13	4.03	-	13.37	190	112	175	25.02	4.17	-	59	583
14	4.06	-	13.50	189	113	154	25.13	4.19	-	59	562
15	4.10	-	13.60	185	115	149	25.40	4.14	-	59	555
16	4.05	-	13.78	178	118	143	25.81	4.01	-	59	545
17	3.85	0.98	13.87	167	117	145	26.29	3.90	-	59	537
18	3.67	16.05	13.53	146	116	149	26.65	3.60	-	59	534
19	3.40	19.09	13.35	125	116	158	26.49	3.33	-	60	525
20	3.16	20.13	12.89	103	110	160	25.61	2.99	-	59	498
21	2.91	20.77	12.67	83	109	165	25.07	2.87	-	59	480
22	2.56	20.84	12.55	66	107	176	23.31	2.75	-	59	471
23	2.31	20.84	12.37	52	103	192	22.87	2.52	-	59	466
24	2.08	20.84	12.23	40	100	194	23.05	2.29	-	59	453

Winter 2010 System Peak Day: Profile for Commercial LGS End Uses (MW)

Hour	Cooling	Electric Cook	Electric DHW	Heating	Indoor Light	Misc	Office	Outdoor Light	Refrigerator	Vent	Total
1	-	3.89	29.11	90	153	150	27.32	43.66	104	128	728
2	-	3.89	28.76	84	151	148	27.30	43.66	103	126	716
3	-	3.52	28.65	98	150	147	27.21	43.66	102	126	726
4	-	2.68	28.65	113	152	150	27.16	43.66	103	126	745
5	-	3.60	30.89	135	164	167	27.46	43.65	104	128	804
6	-	4.61	35.50	181	188	196	27.87	40.84	108	133	915
7	-	5.49	42.33	203	226	228	28.47	27.95	111	138	1,010
8	-	6.47	46.29	209	260	263	29.36	5.48	115	142	1,077
9	-	6.82	51.22	192	273	282	30.08	-	121	145	1,101
10	-	6.96	52.05	176	276	288	30.30	-	125	147	1,103
11	-	7.04	52.48	153	277	291	30.46	-	126	149	1,086
12	-	7.02	52.83	110	277	293	30.53	-	126	149	1,046
13	-	7.13	53.48	80	280	296	30.63	-	127	149	1,023
14	-	7.17	53.27	57	283	298	30.91	-	128	149	1,005
15	-	7.09	53.70	52	284	297	31.12	-	128	148	1,001
16	-	6.87	54.30	45	283	293	31.48	-	127	146	987
17	-	6.68	55.05	47	275	283	31.59	2.12	125	144	971
18	-	6.17	55.05	53	255	262	30.75	33.87	123	142	960
19	-	5.70	52.93	62	247	241	30.27	40.18	121	142	941
20	-	5.12	49.20	66	224	217	29.16	42.25	117	138	888
21	-	4.91	45.75	71	215	197	28.60	43.52	114	135	856
22	-	4.71	37.09	85	202	181	28.25	43.66	110	133	825
23	-	4.32	31.91	103	173	167	27.80	43.66	108	132	789
24	-	3.93	29.61	106	155	155	27.42	43.66	105	129	755

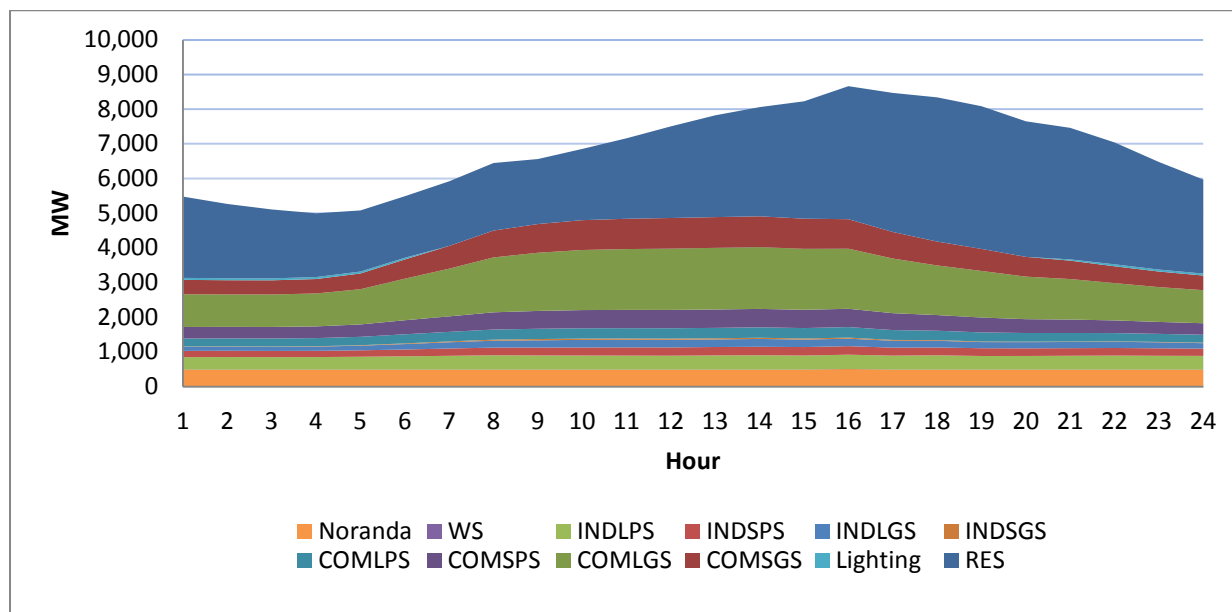
Winter 2010 System Peak Day: Profile for Commercial SPS End Uses (MW)

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrigerator	Vent	Total
1	-	0.72	14.97	59	77	12.78	16.52	26.51	46	254
2	-	0.72	14.92	59	76	12.77	16.52	26.43	46	252
3	-	0.65	14.90	58	76	12.73	16.52	26.41	46	251
4	-	0.50	14.90	59	76	12.69	16.52	26.42	46	251
5	-	0.67	15.21	63	79	12.76	16.52	26.56	46	261
6	-	0.86	15.38	71	84	12.80	15.45	26.83	49	276
7	-	1.02	15.66	85	90	12.90	10.56	27.06	51	294
8	-	1.20	15.60	97	98	13.15	2.05	27.42	53	308
9	-	1.26	16.16	102	102	13.41	-	27.85	55	317
10	-	1.29	16.38	103	103	13.48	-	28.15	56	322
11	-	1.31	16.57	103	104	13.54	-	28.20	57	324
12	-	1.30	16.53	103	105	13.57	-	28.21	57	325
13	-	1.32	16.64	104	106	13.61	-	28.27	57	327
14	-	1.33	16.70	106	107	13.75	-	28.30	57	329
15	-	1.31	16.89	106	109	13.88	-	28.32	56	332
16	-	1.27	17.15	106	109	14.10	-	28.28	56	331
17	-	1.24	17.47	103	107	14.23	0.78	28.12	55	326
18	-	1.14	17.69	96	102	13.94	12.72	27.93	53	324
19	-	1.06	17.56	93	97	13.79	15.13	27.86	53	319
20	-	0.95	16.95	85	91	13.36	15.96	27.44	51	302
21	-	0.91	16.55	82	87	13.17	16.47	27.22	50	293
22	-	0.87	15.31	77	83	13.08	16.52	26.96	49	282
23	-	0.80	14.95	67	80	12.93	16.52	26.77	48	267
24	-	0.73	15.03	60	78	12.81	16.52	26.60	47	257

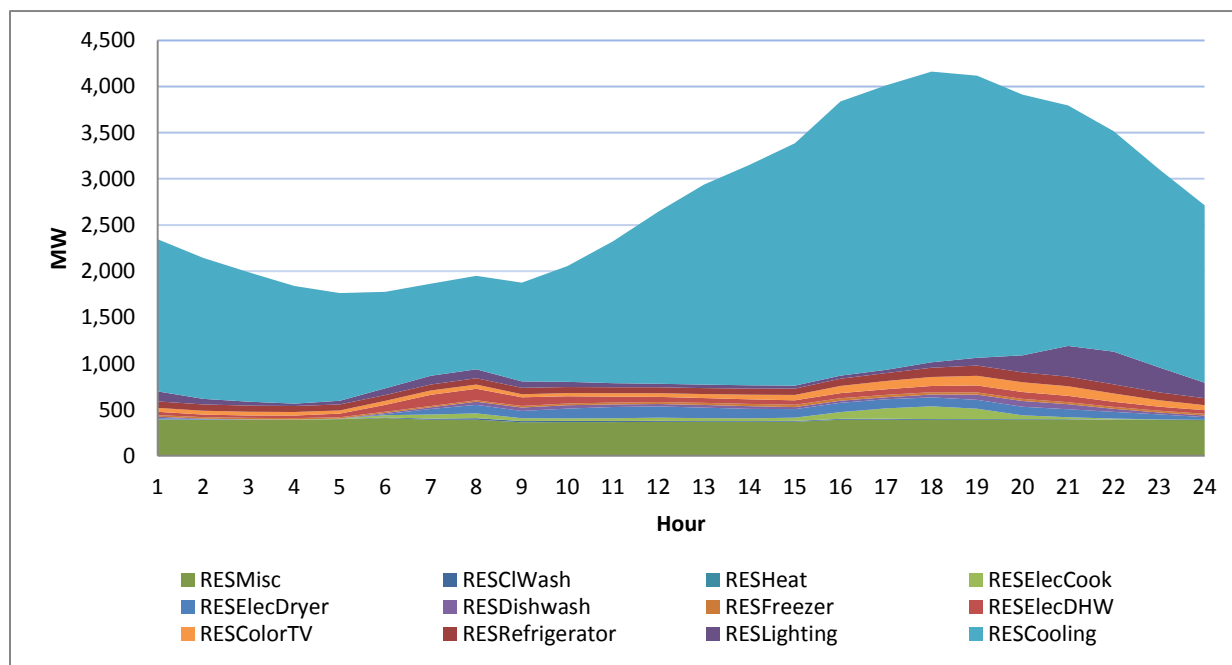
Winter 2010 System Peak Day: Profile for Commercial LPS End Uses (MW)

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrigerator	Vent	Total
1	-	0.49	9.47	45	47	6.59	9.30	8.65	40	167
2	-	0.49	9.45	45	47	6.58	9.30	8.63	41	168
3	-	0.44	9.44	45	47	6.56	9.30	8.62	41	167
4	-	0.34	9.44	44	47	6.56	9.30	8.62	41	166
5	-	0.45	9.57	44	47	6.65	9.30	8.67	40	166
6	-	0.58	9.52	43	46	6.80	8.70	8.76	38	162
7	-	0.69	9.48	46	46	7.00	5.94	8.84	37	160
8	-	0.81	9.29	48	47	7.27	1.16	8.96	35	157
9	-	0.86	9.50	49	48	7.47	-	9.10	34	157
10	-	0.88	9.63	49	48	7.53	-	9.20	33	157
11	-	0.89	9.75	49	48	7.57	-	9.22	32	157
12	-	0.89	9.71	49	48	7.59	-	9.22	32	157
13	-	0.90	9.76	49	49	7.62	-	9.24	32	158
14	-	0.90	9.81	50	50	7.68	-	9.25	33	160
15	-	0.89	9.92	51	51	7.73	-	9.26	33	163
16	-	0.87	10.09	52	52	7.79	-	9.24	33	165
17	-	0.84	10.28	52	52	7.79	0.44	9.19	34	167
18	-	0.78	10.44	52	51	7.56	7.16	9.13	35	173
19	-	0.72	10.43	52	51	7.42	8.52	9.10	36	174
20	-	0.64	10.13	49	49	7.12	8.99	8.96	37	171
21	-	0.62	9.98	49	49	6.96	9.27	8.89	37	171
22	-	0.59	9.42	48	48	6.86	9.30	8.80	38	170
23	-	0.54	9.35	46	48	6.73	9.30	8.74	39	168
24	-	0.50	9.50	45	47	6.62	9.30	8.68	40	167

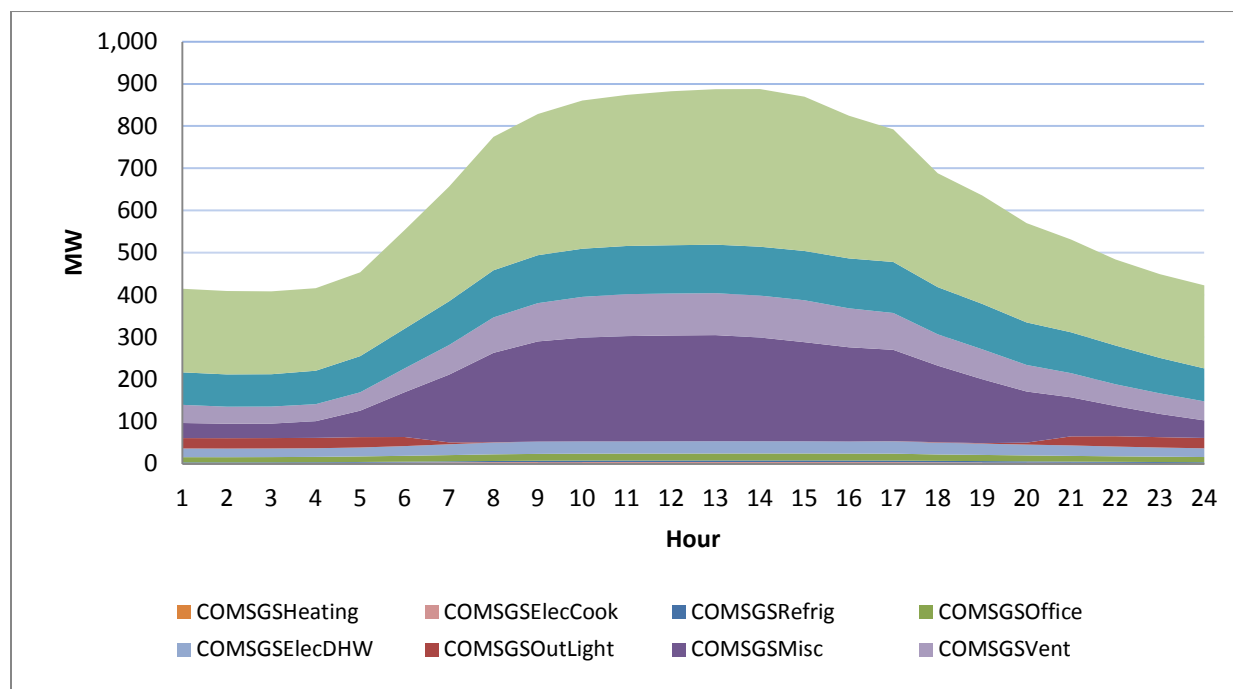
Load Profiles for Summer 2015 System Peak Day (MW)



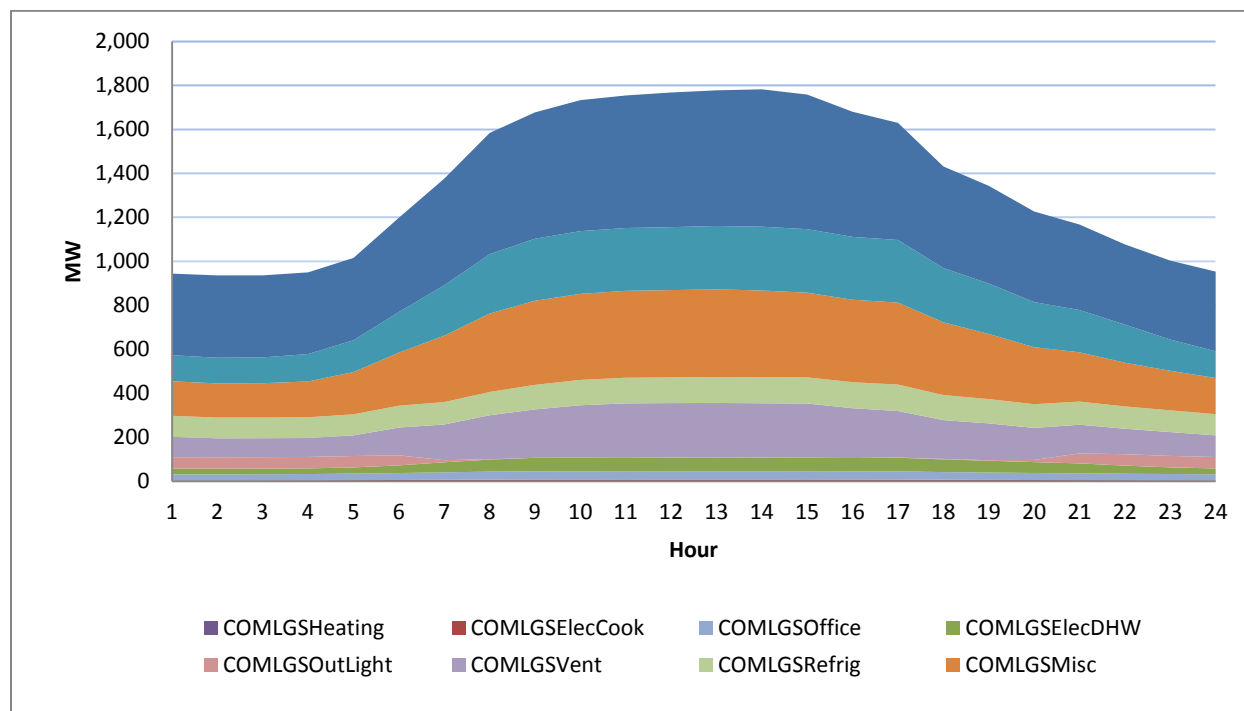
Summer 2015 System Peak Day: Residential End-Use Profiles (MW)



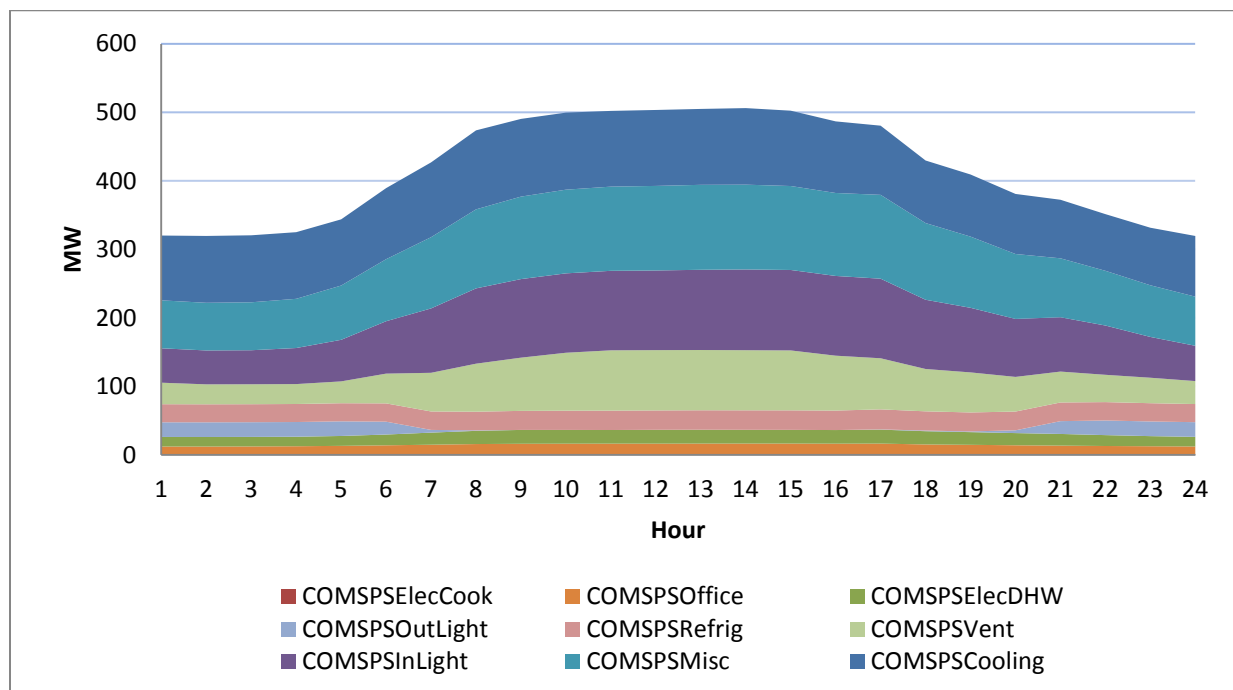
Summer 2015 System Peak Day: Commercial SGS End-Use Profiles (MW)



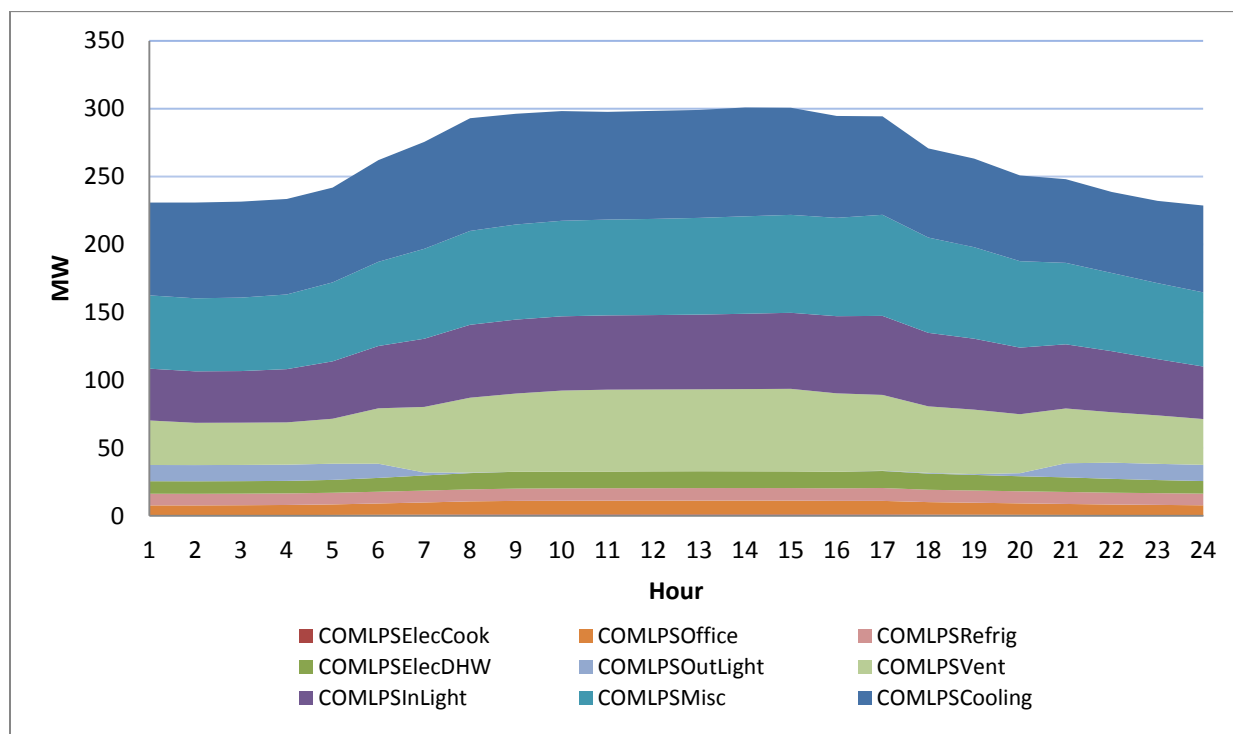
Summer 2015 System Peak Day: Commercial LGS End-Use Profiles (MW)



Summer 2015 System Peak Day: Commercial SPS End-Use Profiles (MW)



Summer 2015 System Peak Day: Commercial LPS End-Use Profiles (MW)



Load Profiles for Summer 2015 System Peak Day (MW)

Hour	RES	COM SGS	COM LGS	COM SPS	COM LPS	IND SGS	IND LGS	IND SPS	IND LPS	WS	Lighting	Noranda	Total
1	2,345	415	945	333	231	11.67	114	181	358	-	56.81	492	5,481
2	2,143	410	936	332	231	11.53	115	181	361	-	56.81	492	5,269
3	1,987	409	937	333	231	11.17	116	180	357	-	56.81	492	5,111
4	1,840	416	950	338	233	11.66	121	181	360	-	56.81	492	5,000
5	1,763	454	1,016	358	242	13.85	134	185	369	-	56.81	492	5,083
6	1,776	554	1,199	406	262	20.12	157	196	381	-	49.23	492	5,493
7	1,864	657	1,377	447	275	24.64	180	211	396	-	-	492	5,923
8	1,949	775	1,585	496	293	30.05	198	222	411	-	-	492	6,451
9	1,875	829	1,678	515	296	37.28	208	228	406	-	-	492	6,566
10	2,055	861	1,734	525	298	37.42	218	233	404	-	-	492	6,857
11	2,322	874	1,755	528	298	35.44	221	238	401	-	-	492	7,165
12	2,644	883	1,769	529	298	33.69	221	239	399	-	-	492	7,509
13	2,937	888	1,778	531	299	33.79	219	243	407	-	-	492	7,828
14	3,151	888	1,783	532	301	33.73	226	245	412	-	-	492	8,064
15	3,386	870	1,759	528	301	32.39	215	244	404	-	-	492	8,231
16	3,838	851	1,734	527	304	31.40	215	246	413	-	-	508	8,668
17	4,012	766	1,576	488	285	23.78	199	231	400	-	-	492	8,473
18	4,161	689	1,432	451	271	20.34	194	226	410	-	-	492	8,346
19	4,117	636	1,344	430	263	16.22	177	223	391	-	-	492	8,089
20	3,911	570	1,227	399	251	13.42	178	220	392	-	-	492	7,654
21	3,794	532	1,168	388	248	12.08	179	219	397	-	35.98	492	7,465
22	3,516	484	1,077	365	239	12.63	179	219	402	-	56.81	492	7,044
23	3,103	450	1,004	345	232	12.07	173	215	397	-	56.81	492	6,480
24	2,713	423	954	332	229	14.10	156	211	394	-	56.81	492	5,974

Summer 2015 System Peak Day: Residential End-Use Profiles (MW)

Hour	Cl. Wash	Refrig.	Misc	Lighting	Heating	Freezer	Dryer	Electric DHW	Cooker	Dish washer	Cooling	TV	Total
1	0.14	70	389	108	1.22	17.14	15.46	36.22	1.76	15.65	1,647	42.23	2,345
2	(0.00)	68	389	60	1.19	16.67	6.08	27.53	0.96	4.70	1,527	42.07	2,143
3	0.12	66	389	43	1.15	16.26	2.54	25.71	1.16	0.84	1,401	40.42	1,987
4	0.47	65	389	26	1.11	15.71	0.33	27.59	1.60	0.23	1,275	38.47	1,840
5	1.69	65	396	40	1.09	14.60	0.00	39.57	3.54	(0.00)	1,167	34.71	1,763
6	6.31	63	409	73	-	14.12	10.83	74.11	24.94	12.65	1,045	43.20	1,776
7	11.25	65	390	95	1.09	14.28	60.16	120.58	44.34	18.25	997	47.08	1,864
8	15.80	69	391	96	1.14	15.07	92.22	124.52	51.24	34.46	1,012	45.95	1,949
9	12.97	70	363	69	1.21	16.98	78.66	93.66	30.12	37.17	1,069	33.34	1,875
10	12.87	66	365	57	1.31	18.70	105.42	78.38	26.63	36.67	1,253	34.34	2,055
11	11.17	65	365	44	1.43	20.32	121.66	63.85	29.12	27.86	1,536	37.33	2,322
12	9.26	64	368	38	1.55	21.44	122.05	56.10	34.18	25.77	1,864	39.51	2,644
13	8.13	65	367	38	1.65	23.03	114.06	52.02	30.88	29.06	2,166	43.17	2,937
14	7.82	66	367	36	1.74	24.46	102.71	49.84	28.75	29.22	2,387	50.35	3,151
15	7.68	69	369	32	1.78	25.42	92.59	47.98	34.46	21.96	2,626	58.32	3,386
16	8.62	78	390	34	1.76	27.04	100.63	54.83	72.73	22.64	2,970	78.22	3,838
17	8.54	86	391	35	1.57	26.05	98.55	60.37	112.14	21.73	3,081	89.68	4,012
18	8.67	100	387	59	1.56	24.94	96.77	67.76	138.35	30.97	3,148	97.33	4,161
19	8.15	111	387	84	1.56	23.98	96.04	75.24	112.74	56.44	3,055	104.81	4,117
20	6.85	107	388	185	1.53	22.87	92.50	74.37	42.06	62.71	2,823	105.21	3,911
21	5.74	103	388	333	1.45	22.07	86.03	68.38	22.58	54.85	2,605	104.36	3,794
22	2.84	99	388	354	1.41	20.96	72.55	54.90	10.73	33.41	2,388	90.28	3,516
23	0.94	85	389	271	1.36	19.85	53.60	43.13	3.72	20.73	2,146	69.82	3,103
24	0.05	76	388	167	1.29	17.94	28.97	39.17	0.39	17.73	1,922	54.71	2,713

Summer 2015 System Peak Day: Commercial SGS End-Use Profiles (MW)

Hour	Refrig	Outdoor Light	Office	Misc	Indoor Light	Heating	Electric DHW	Electric Cook	Cooling	Vent	Total
1	1.78	24.58	12.33	36	77	0.09	20.55	1.83	198	42.97	415
2	1.70	24.58	12.32	34	76	0.08	20.49	1.83	198	40.31	410
3	1.67	24.58	12.44	34	77	0.09	20.47	1.99	196	40.31	409
4	1.68	24.58	12.62	40	79	0.09	20.47	2.30	196	40.31	416
5	1.83	24.53	13.09	63	86	0.10	21.20	2.74	199	43.50	454
6	2.13	21.52	13.87	106	94	-	22.99	3.22	234	56.39	554
7	2.35	4.50	14.76	160	104	0.12	25.66	3.67	272	70.11	657
8	2.69	0.78	15.69	212	112	0.13	27.88	4.19	316	83.87	775
9	3.17	-	16.12	237	114	0.12	29.13	4.39	335	90.63	829
10	3.50	-	16.22	246	114	0.11	28.98	4.47	351	96.61	861
11	3.59	-	16.29	250	114	0.11	28.76	4.51	358	99.34	874
12	3.61	-	16.33	251	114	0.09	29.07	4.47	365	99.34	883
13	3.70	-	16.37	251	115	0.08	29.15	4.51	368	99.34	888
14	3.73	-	16.42	246	116	0.07	28.94	4.51	373	99.32	888
15	3.77	-	16.37	235	117	0.07	28.85	4.54	366	99.31	870
16	3.83	-	16.72	230	122	0.07	29.58	4.55	349	95.21	851
17	3.53	0.43	15.77	209	117	0.07	28.41	4.20	304	84.43	766
18	3.37	1.08	15.09	181	112	0.07	27.88	3.87	270	74.21	689
19	3.09	1.15	14.57	151	108	0.10	26.78	3.52	257	70.97	636
20	2.88	4.64	14.00	121	101	0.11	25.70	3.13	235	62.91	570
21	2.65	21.44	13.51	93	97	0.11	24.77	2.79	220	57.22	532
22	2.32	24.51	12.97	72	92	0.12	23.19	2.57	204	51.54	484
23	2.10	24.58	12.66	55	84	0.13	21.63	2.30	198	48.77	450
24	1.89	24.58	12.40	42	78	0.13	20.63	1.90	197	45.03	423

Summer 2015 System Peak Day: Commercial LGS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Heating	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	371	3.17	26.11	0.04	119	157	27.94	52.11	95	93	945
2	374	3.17	25.79	0.04	117	155	27.90	52.11	94	86	936
3	373	3.44	25.69	0.04	117	156	28.18	52.11	94	86	937
4	372	3.99	25.69	0.05	125	163	28.62	52.11	94	86	950
5	375	4.74	28.16	0.06	145	192	29.75	51.99	96	94	1,016
6	429	5.58	34.87	-	185	242	31.69	45.62	99	126	1,199
7	485	6.35	45.84	0.08	229	302	33.89	9.57	102	162	1,377
8	552	7.25	54.92	0.09	270	357	36.21	1.68	106	200	1,585
9	575	7.61	61.49	0.08	282	383	37.27	-	112	220	1,678
10	596	7.74	61.31	0.07	285	392	37.54	-	115	239	1,734
11	603	7.80	60.65	0.06	286	395	37.70	-	117	248	1,755
12	613	7.74	61.88	0.05	286	397	37.82	-	117	248	1,769
13	617	7.80	62.43	0.03	288	399	37.92	-	118	248	1,778
14	625	7.80	61.49	0.02	290	395	38.00	-	118	247	1,783
15	612	7.85	61.10	0.02	289	385	37.86	-	119	247	1,759
16	587	7.88	62.37	0.02	295	387	38.58	-	122	234	1,734
17	515	7.27	59.60	0.02	276	361	36.32	0.93	116	205	1,576
18	462	6.70	57.71	0.02	247	331	34.66	2.31	114	177	1,432
19	444	6.10	53.63	0.04	230	296	33.40	2.45	111	167	1,344
20	412	5.42	49.48	0.04	205	259	32.01	9.85	108	146	1,227
21	389	4.83	45.29	0.05	192	224	30.81	45.45	105	131	1,168
22	365	4.45	36.97	0.05	173	199	29.51	51.96	101	116	1,077
23	359	3.98	30.25	0.07	142	180	28.76	52.11	99	108	1,004
24	362	3.29	26.56	0.07	122	164	28.12	52.11	97	98	954

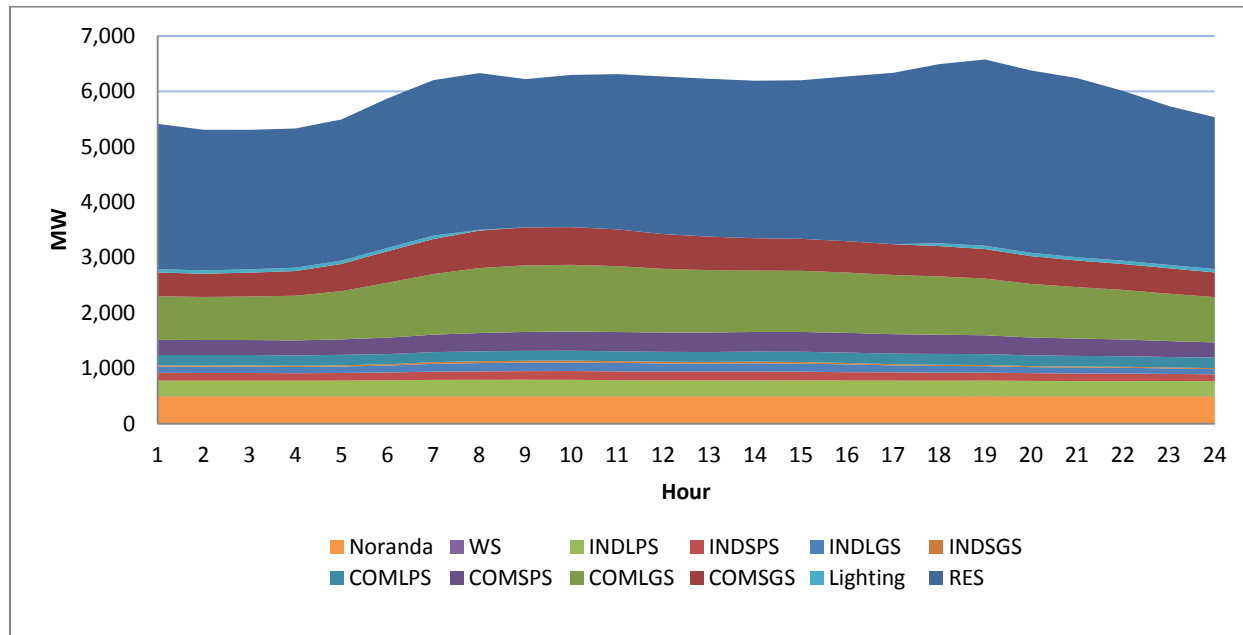
Summer 2015 System Peak Day: Commercial SPS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	95	0.60	13.91	47.42	83	13.44	20.24	25.01	34.50	333
2	98	0.60	13.86	46.74	82	13.42	20.24	24.94	31.96	332
3	98	0.66	13.85	46.95	83	13.55	20.24	24.92	31.95	333
4	97	0.76	13.85	49.72	85	13.75	20.24	24.93	31.95	338
5	97	0.90	14.36	57.34	94	14.22	20.19	25.05	35.00	358
6	104	1.06	15.65	72.27	107	14.96	17.71	25.32	47.70	406
7	109	1.21	17.57	88.78	123	15.79	3.71	25.53	61.96	447
8	115	1.38	19.17	103.82	137	16.68	0.65	25.85	76.97	496
9	113	1.45	20.10	108.32	143	17.08	-	26.36	85.30	515
10	112	1.47	20.00	109.49	145	17.17	-	26.64	92.85	525
11	111	1.49	19.84	109.62	146	17.23	-	26.81	96.62	528
12	111	1.47	20.06	109.88	146	17.28	-	26.83	96.62	529
13	111	1.49	20.13	110.64	147	17.32	-	26.93	96.61	531
14	112	1.49	19.98	111.37	147	17.38	-	26.95	96.32	532
15	110	1.50	19.91	110.96	145	17.35	-	27.01	96.04	528
16	108	1.50	20.41	113.43	148	17.76	-	27.83	90.71	527
17	98	1.39	19.60	106.13	140	16.82	0.35	26.78	79.17	488
18	91	1.28	19.22	95.48	133	16.15	0.89	26.59	67.89	451
19	91	1.16	18.43	89.07	123	15.64	0.95	26.27	64.20	430
20	88	1.03	17.66	79.94	112	15.07	3.82	26.00	55.50	399
21	86	0.92	16.98	74.92	102	14.58	17.65	25.80	49.56	388
22	83	0.85	15.81	67.94	95	14.04	20.18	25.44	43.76	365
23	84	0.76	14.68	56.27	89	13.76	20.24	25.26	40.79	345
24	89	0.63	13.97	48.65	85	13.51	20.24	25.09	36.84	332

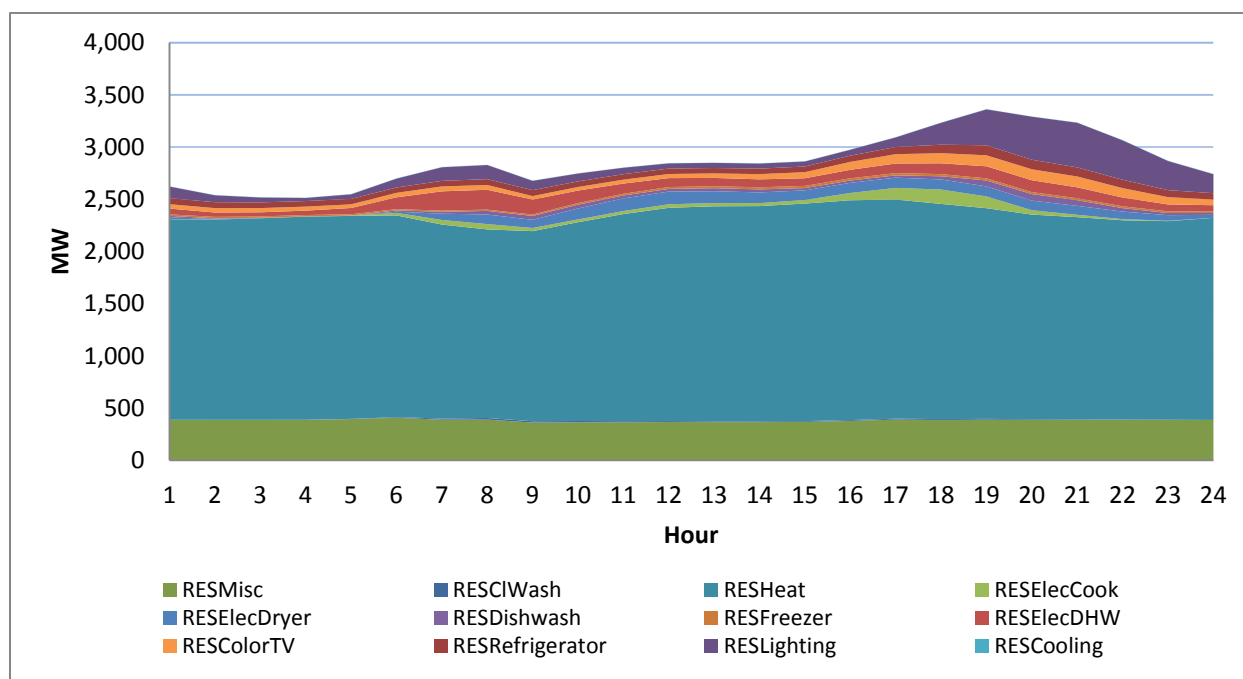
Summer 2015 System Peak Day: Commercial LPS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	68	0.43	9.24	38	54	7.26	11.95	8.56	32.82	231
2	71	0.43	9.22	38	54	7.25	11.95	8.53	31.14	231
3	71	0.47	9.21	38	54	7.32	11.95	8.53	31.15	231
4	70	0.54	9.21	39	55	7.44	11.95	8.53	31.15	233
5	70	0.64	9.49	42	58	7.76	11.92	8.57	33.14	242
6	75	0.76	10.18	46	62	8.32	10.46	8.67	40.83	262
7	79	0.86	11.16	50	66	8.97	2.19	8.74	48.31	275
8	83	0.98	11.99	54	69	9.65	0.38	8.85	55.17	293
9	82	1.03	12.41	54	70	9.96	-	9.03	57.66	296
10	81	1.05	12.34	55	70	10.04	-	9.13	59.71	298
11	79	1.06	12.25	55	71	10.09	-	9.19	60.34	298
12	80	1.05	12.37	55	71	10.13	-	9.19	60.35	298
13	80	1.06	12.39	55	71	10.15	-	9.23	60.35	299
14	80	1.06	12.32	55	72	10.17	-	9.24	60.59	301
15	79	1.07	12.28	56	72	10.12	-	9.26	60.83	301
16	77	1.07	12.61	59	75	10.28	-	9.54	59.58	304
17	70	0.99	12.11	56	72	9.65	0.21	9.18	53.99	285
18	66	0.91	11.91	54	70	9.17	0.52	9.11	49.02	271
19	65	0.83	11.49	52	67	8.81	0.56	9.00	47.54	263
20	63	0.74	11.08	49	64	8.42	2.25	8.90	43.44	251
21	62	0.66	10.75	47	60	8.08	10.42	8.83	40.36	248
22	60	0.60	10.21	45	58	7.71	11.91	8.71	37.16	239
23	61	0.54	9.65	41	56	7.50	11.95	8.65	35.73	232
24	64	0.45	9.26	39	55	7.31	11.95	8.59	33.74	229

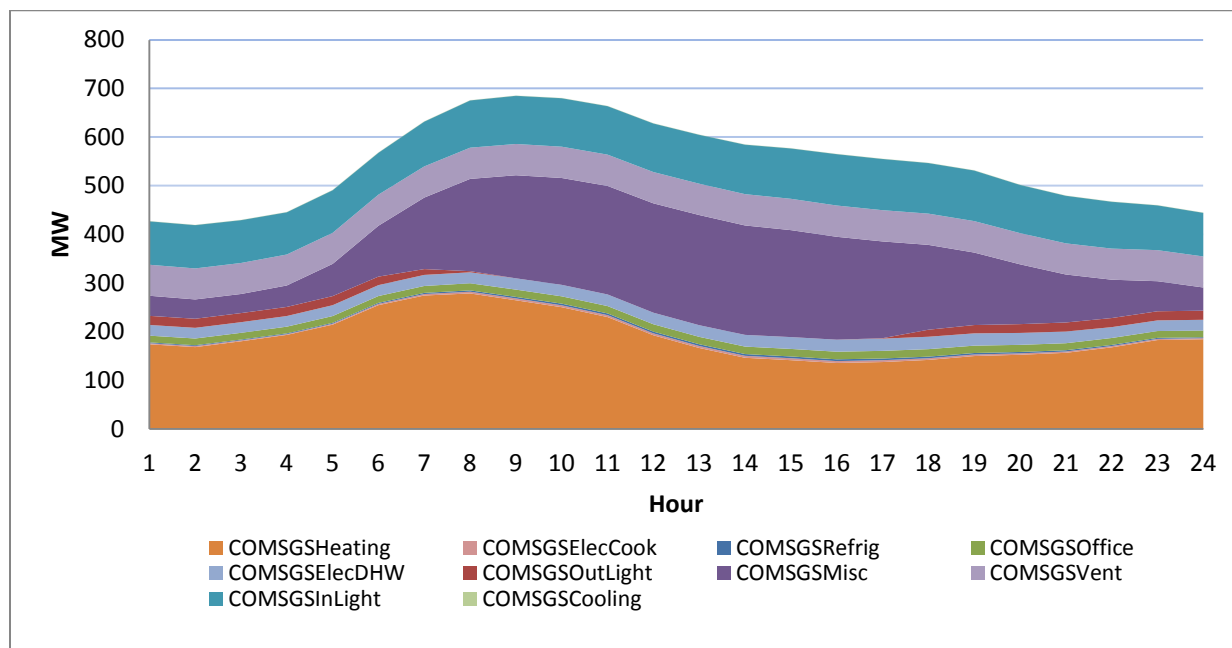
Load Profiles for Winter 2015 System Peak Day (MW)



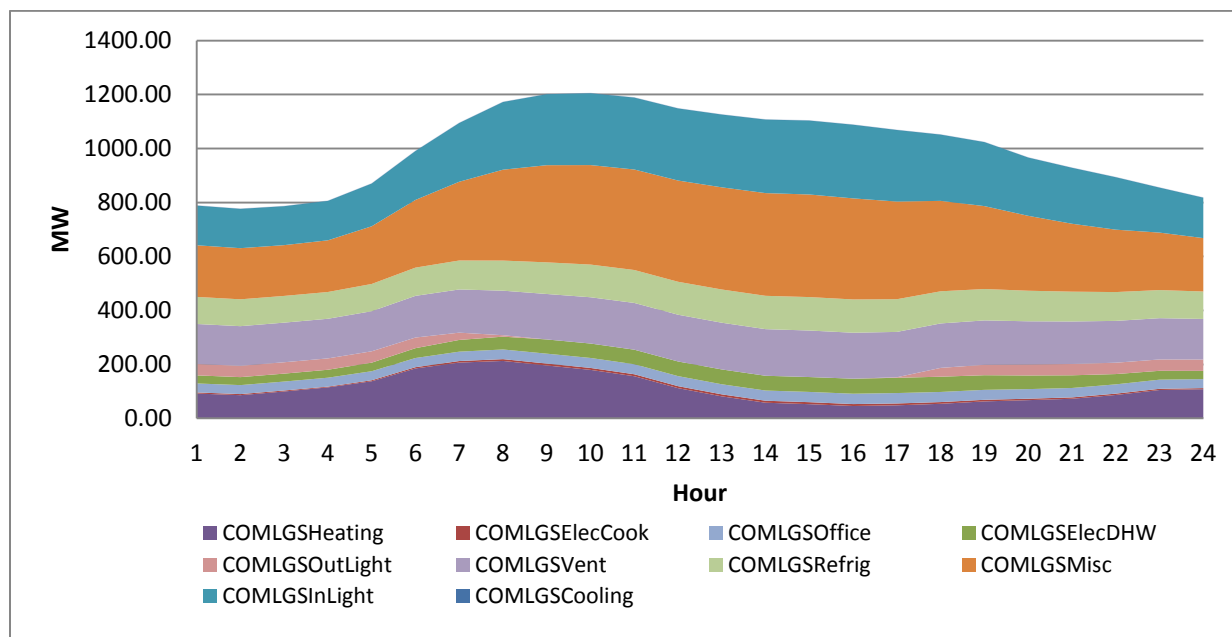
Winter 2015 Peak Day: Residential End-Use Profiles (MW)



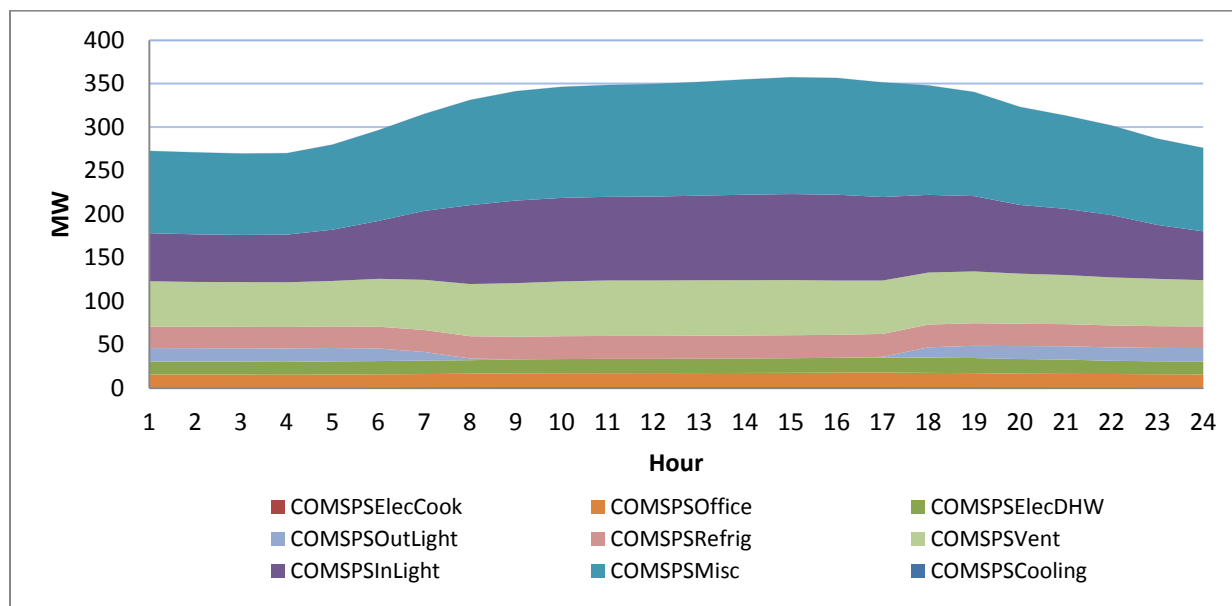
Winter 2015 Peak Day: Commercial SGS End-Use Profiles (MW)



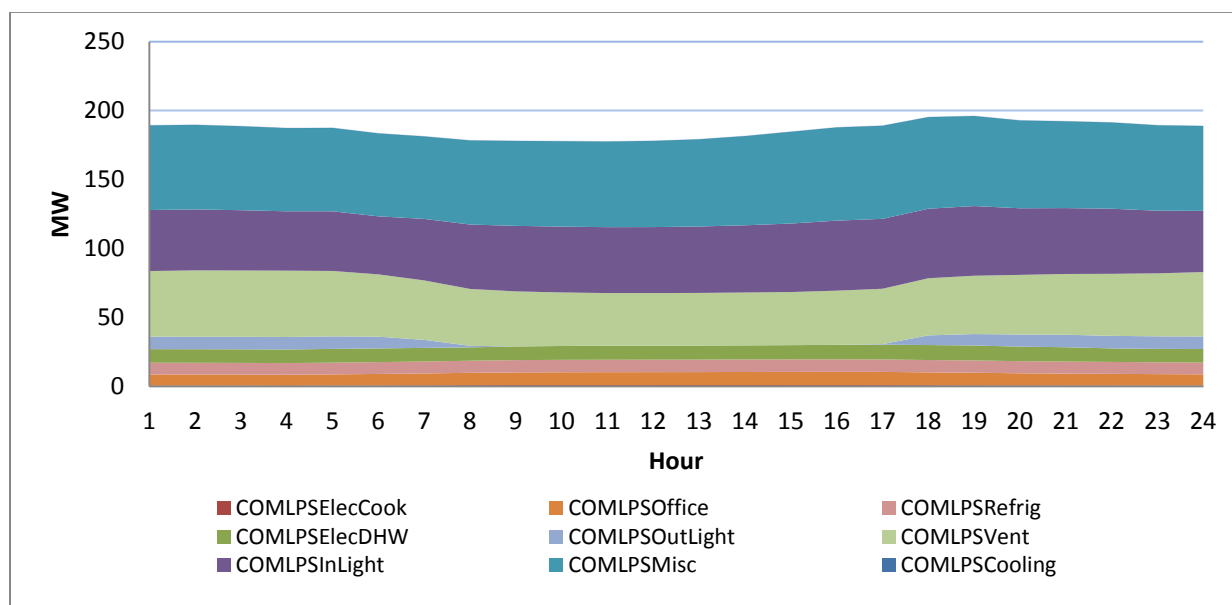
Winter 2015 Peak Day: Commercial LGS End-Use Profiles (MW)



Winter 2015 Peak Day: Commercial SPS End-Use Profiles (MW)



Winter 2015 Peak Day: Commercial LPS End Uses (MW)



Load Profiles for Winter 2015 System Peak Day (MW)

Hour	RES	COM SGS	COM LGS	COM SPS	COM LPS	IND SGS	IND LGS	IND SPS	IND LPS	WS	Lighting	Noranda	Total
1	2,622	427	788	273	189	23.58	119	162	300	-	60.48	493	5,458
2	2,538	419	776	271	190	23.67	122	160	299	-	60.48	493	5,352
3	2,517	430	786	270	189	23.91	123	159	300	-	60.48	493	5,351
4	2,513	446	806	270	187	25.03	121	153	300	-	60.48	493	5,375
5	2,547	491	870	280	187	25.07	126	158	301	-	60.48	493	5,539
6	2,697	568	991	297	183	27.30	133	164	305	-	60.48	493	5,919
7	2,806	632	1,094	315	181	33.72	151	172	313	-	60.48	493	6,253
8	2,828	676	1,172	331	178	36.07	162	176	315	-	15.12	493	6,382
9	2,676	685	1,201	341	178	37.92	165	181	315	-	-	493	6,275
10	2,746	680	1,205	346	178	39.73	165	183	314	-	-	493	6,350
11	2,802	664	1,189	348	178	33.66	165	184	307	-	-	493	6,364
12	2,843	628	1,148	350	178	33.43	157	184	304	-	-	493	6,321
13	2,848	605	1,126	352	179	32.31	154	185	304	-	-	493	6,279
14	2,842	585	1,107	355	182	32.71	160	185	303	-	-	493	6,244
15	2,862	577	1,103	357	185	31.04	158	180	306	-	-	493	6,252
16	2,974	565	1,088	357	188	28.36	151	173	301	-	-	493	6,319
17	3,092	555	1,068	351	189	24.54	134	172	301	-	-	493	6,381
18	3,232	547	1,051	348	195	24.18	130	167	298	-	51.40	493	6,538
19	3,336	528	1,016	338	195	22.84	125	163	296	-	60.43	493	6,572
20	3,290	502	966	323	193	20.59	117	162	294	-	60.48	493	6,421
21	3,232	480	928	313	192	20.82	114	158	291	-	60.48	493	6,283
22	3,064	467	893	302	191	19.93	112	158	290	-	60.48	493	6,052
23	2,866	460	855	287	189	20.25	105	148	292	-	60.48	493	5,776
24	2,740	445	818	276	189	20.42	101	141	290	-	60.48	493	5,573

Winter 2015 System Peak Day: Residential End-Use Profiles (MW)

Hour	Cl. Wash	Refrig.	Misc	Lighting	Heating	Freezer	Dryer	Electric DHW	Cooker	Dish washer	Cooling	TV	Total
1	0.14	58	388	111	1,920	14.19	15.37	55	1.75	15.60	-	42	2,622
2	(0.00)	57	388	66	1,917	13.80	6.05	42	0.96	4.69	-	42	2,538
3	0.12	55	388	47	1,929	13.46	2.52	39	1.15	0.84	-	40	2,517
4	0.46	53	388	30	1,945	13.01	0.33	42	1.59	0.23	-	38	2,513
5	1.68	52	395	44	1,943	12.09	0.00	60	3.52	(0.00)	-	35	2,547
6	6.27	52	408	85	1,931	11.69	10.76	113	24.81	12.61	-	43	2,697
7	11.18	53	389	130	1,857	11.82	59.80	184	44.11	18.19	-	47	2,806
8	15.71	56	390	135	1,805	12.48	91.67	190	50.97	34.35	-	46	2,828
9	12.89	57	362	90	1,820	14.06	78.19	143	29.96	37.06	-	33	2,676
10	12.79	53	364	76	1,903	15.48	104.79	120	26.49	36.56	-	34	2,746
11	11.10	52	364	62	1,983	16.83	120.93	97	28.97	27.78	-	37	2,802
12	9.20	52	367	50	2,041	17.75	121.31	86	34.00	25.69	-	39	2,843
13	8.08	52	366	49	2,058	19.07	113.38	79	30.72	28.97	-	43	2,848
14	7.77	52	366	49	2,060	20.25	102.10	76	28.60	29.13	-	50	2,842
15	7.63	54	368	48	2,083	21.04	92.04	73	34.28	21.89	-	58	2,862
16	8.30	60	378	57	2,104	21.70	96.96	81	70.13	21.88	-	76	2,974
17	8.48	69	390	92	2,098	21.57	97.96	92	111.56	21.66	-	89	3,092
18	8.62	81	386	210	2,060	20.65	96.19	103	137.63	30.88	-	97	3,232
19	8.10	95	386	342	2,002	19.84	95.40	115	112.07	56.22	-	104	3,336
20	6.81	92	387	412	1,959	18.94	91.94	113	41.84	62.52	-	105	3,290
21	5.71	87	387	427	1,936	18.28	85.51	104	22.46	54.69	-	104	3,232
22	2.82	80	387	378	1,909	17.35	72.12	84	10.68	33.31	-	90	3,064
23	0.94	67	388	279	1,901	16.43	53.28	66	3.70	20.67	-	70	2,866
24	0.05	61	387	182	1,934	14.85	28.79	60	0.38	17.68	-	55	2,740

Winter 2015 System Peak Day: Commercial SGS End-Use Profiles (MW)

Hour	Refrig	Outdoor Light	Office	Misc	Indoor Light	Heating	Electric DHW	Electric Cook	Cooling	Vent	Total
1	1.77	18.72	13.84	41	89	174	21.98	2.20	-	64	427
2	1.68	18.72	13.83	40	89	168	21.91	2.20	-	64	419
3	1.65	18.72	13.79	39	88	180	21.89	1.99	-	64	430
4	1.67	18.72	13.75	44	87	194	21.89	1.51	-	64	446
5	1.81	18.71	13.87	66	88	215	22.31	2.03	-	64	491
6	2.11	17.51	14.00	105	86	255	22.45	2.61	-	64	568
7	2.33	11.96	14.23	147	92	275	22.73	3.11	-	64	632
8	2.67	2.33	14.60	190	97	279	22.54	3.66	-	64	676
9	3.13	-	14.93	212	99	265	23.27	3.86	-	64	685
10	3.46	-	15.03	220	100	250	23.59	3.94	-	64	680
11	3.53	-	15.10	223	100	230	23.87	3.98	-	64	664
12	3.55	-	15.13	225	100	193	23.80	3.97	-	64	628
13	3.64	-	15.18	227	101	167	23.95	4.03	-	64	605
14	3.66	-	15.33	225	102	147	24.05	4.06	-	64	585
15	3.70	-	15.45	220	104	142	24.32	4.01	-	64	577
16	3.65	-	15.65	212	106	136	24.70	3.89	-	64	565
17	3.47	0.88	15.75	199	105	138	25.16	3.78	-	64	555
18	3.31	14.41	15.37	174	104	142	25.50	3.49	-	64	547
19	3.04	16.98	15.01	148	103	149	25.10	3.19	-	64	528
20	2.84	18.08	14.64	123	99	153	24.51	2.89	-	64	502
21	2.62	18.65	14.39	99	98	157	24.00	2.78	-	64	480
22	2.30	18.72	14.25	79	96	168	22.31	2.66	-	64	467
23	2.08	18.72	14.05	62	92	183	21.89	2.44	-	64	460
24	1.87	18.72	13.88	48	90	185	22.06	2.22	-	64	445

Winter 2015 System Peak Day: Commercial LGS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Heating	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	-	4.04	29.90	92	147	191	33.29	42.08	100	148	788
2	-	4.04	29.54	86	146	190	33.27	42.08	99	147	776
3	-	3.66	29.43	100	144	188	33.17	42.08	99	147	786
4	-	2.78	29.43	115	146	191	33.10	42.08	99	147	806
5	-	3.74	31.73	138	158	214	33.47	42.07	101	149	870
6	-	4.79	36.47	185	181	251	33.96	39.36	105	154	991
7	-	5.71	43.49	207	218	292	34.70	26.94	107	160	1,094
8	-	6.72	47.55	213	251	337	35.78	5.28	112	165	1,172
9	-	7.09	52.61	196	263	360	36.66	-	117	169	1,201
10	-	7.24	53.46	180	266	369	36.93	-	121	171	1,205
11	-	7.32	53.91	156	266	372	37.12	-	122	173	1,189
12	-	7.30	54.27	112	267	375	37.21	-	122	173	1,148
13	-	7.42	54.93	82	270	379	37.32	-	123	173	1,126
14	-	7.45	54.73	58	272	381	37.67	-	123	173	1,107
15	-	7.37	55.16	53	274	380	37.93	-	124	172	1,103
16	-	7.14	55.78	46	273	374	38.36	-	123	170	1,088
17	-	6.95	56.55	48	265	362	38.50	2.04	121	168	1,068
18	-	6.41	56.55	54	245	335	37.48	32.64	119	165	1,051
19	-	5.87	53.84	62	235	305	36.53	38.35	115	163	1,016
20	-	5.32	50.54	68	216	278	35.54	40.72	113	160	966
21	-	5.10	47.00	73	207	252	34.85	41.94	110	157	928
22	-	4.90	38.10	87	194	231	34.43	42.08	107	155	893
23	-	4.49	32.78	105	167	213	33.88	42.08	104	153	855
24	-	4.08	30.42	108	150	198	33.42	42.08	102	150	818

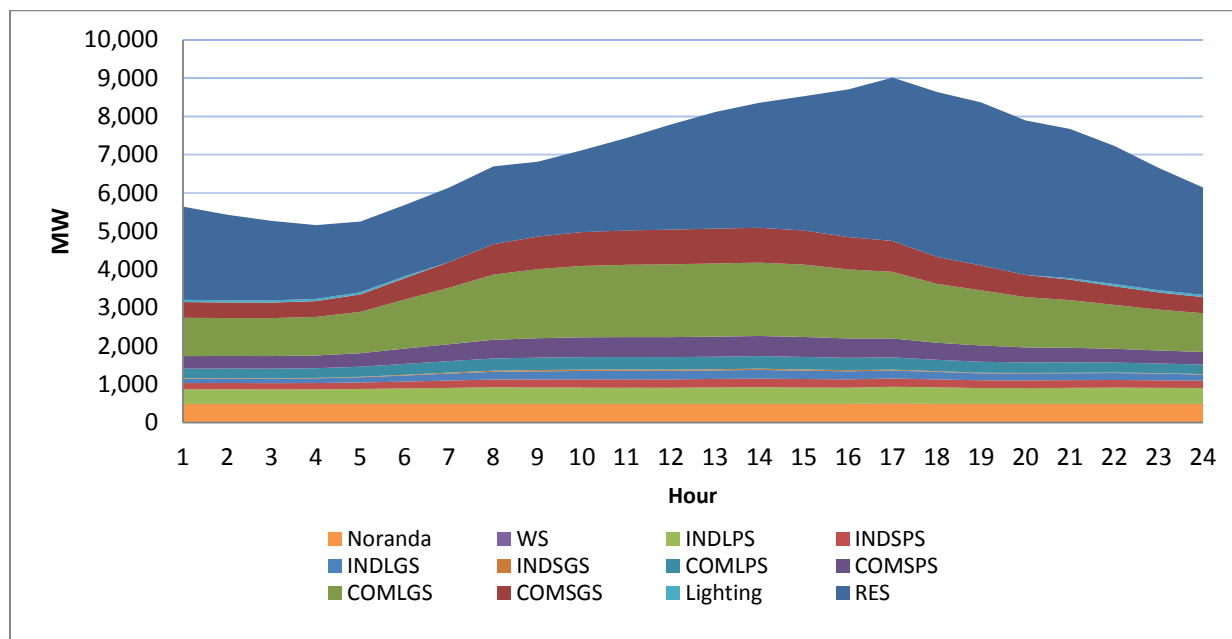
Winter 2015 System Peak Day: Commercial SPS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	-	0.72	14.85	55	95	15.05	15.39	24.78	52	273
2	-	0.72	14.81	55	94	15.04	15.39	24.71	51	271
3	-	0.66	14.79	54	93	14.99	15.39	24.68	51	270
4	-	0.50	14.79	55	94	14.95	15.39	24.70	51	270
5	-	0.67	15.10	59	98	15.03	15.38	24.82	52	280
6	-	0.86	15.26	67	104	15.07	14.39	25.08	55	297
7	-	1.02	15.55	79	111	15.20	9.83	25.30	58	315
8	-	1.20	15.48	91	121	15.49	1.91	25.63	60	331
9	-	1.27	16.04	95	126	15.79	-	26.03	62	341
10	-	1.30	16.26	96	128	15.88	-	26.31	63	346
11	-	1.31	16.45	96	128	15.95	-	26.36	64	348
12	-	1.31	16.41	96	129	15.98	-	26.36	64	350
13	-	1.33	16.52	97	131	16.02	-	26.42	64	352
14	-	1.34	16.58	98	132	16.20	-	26.45	64	355
15	-	1.32	16.76	99	134	16.34	-	26.47	63	357
16	-	1.28	17.02	99	134	16.60	-	26.43	62	357
17	-	1.24	17.34	96	132	16.76	0.72	26.28	61	351
18	-	1.15	17.56	89	126	16.42	11.84	26.10	60	348
19	-	1.05	17.26	86	119	16.09	13.95	25.79	59	338
20	-	0.95	16.82	79	113	15.73	14.86	25.64	58	323
21	-	0.91	16.43	76	107	15.51	15.33	25.44	56	313
22	-	0.88	15.19	72	103	15.40	15.38	25.20	55	302
23	-	0.80	14.84	62	99	15.23	15.39	25.02	54	287
24	-	0.73	14.92	56	96	15.09	15.39	24.86	53	276

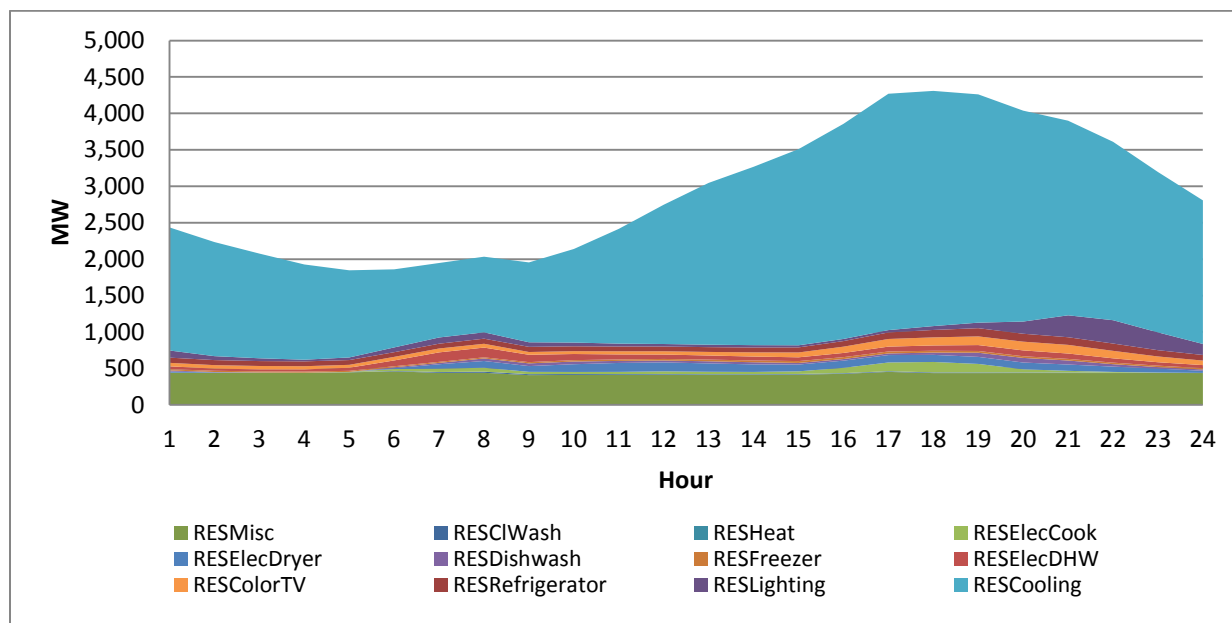
Winter 2015 System Peak Day: Commercial LPS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	-	0.52	9.86	44	61	8.14	9.09	8.48	48	189
2	-	0.52	9.84	44	61	8.13	9.09	8.46	48	190
3	-	0.47	9.83	44	61	8.11	9.09	8.45	48	189
4	-	0.36	9.83	43	60	8.10	9.09	8.46	48	187
5	-	0.48	9.97	43	60	8.22	9.09	8.50	47	187
6	-	0.61	9.92	42	60	8.40	8.50	8.59	45	183
7	-	0.73	9.87	45	60	8.65	5.81	8.67	43	181
8	-	0.86	9.67	47	61	8.98	1.13	8.78	41	178
9	-	0.91	9.90	48	62	9.23	-	8.92	40	178
10	-	0.92	10.03	48	62	9.30	-	9.02	39	178
11	-	0.93	10.15	48	62	9.36	-	9.04	38	178
12	-	0.93	10.11	48	63	9.38	-	9.04	38	178
13	-	0.95	10.16	48	63	9.41	-	9.06	38	179
14	-	0.95	10.22	49	65	9.49	-	9.07	38	182
15	-	0.94	10.33	50	67	9.55	-	9.08	38	185
16	-	0.91	10.51	51	68	9.63	-	9.06	39	188
17	-	0.89	10.71	51	68	9.63	0.43	9.01	40	189
18	-	0.82	10.87	50	66	9.34	7.00	8.95	41	195
19	-	0.75	10.75	50	65	9.08	8.24	8.84	42	195
20	-	0.68	10.55	48	64	8.80	8.78	8.79	43	193
21	-	0.65	10.39	48	63	8.60	9.06	8.72	44	192
22	-	0.63	9.81	47	63	8.47	9.09	8.63	45	191
23	-	0.57	9.74	45	62	8.31	9.09	8.57	46	189
24	-	0.52	9.89	44	62	8.18	9.09	8.51	47	189

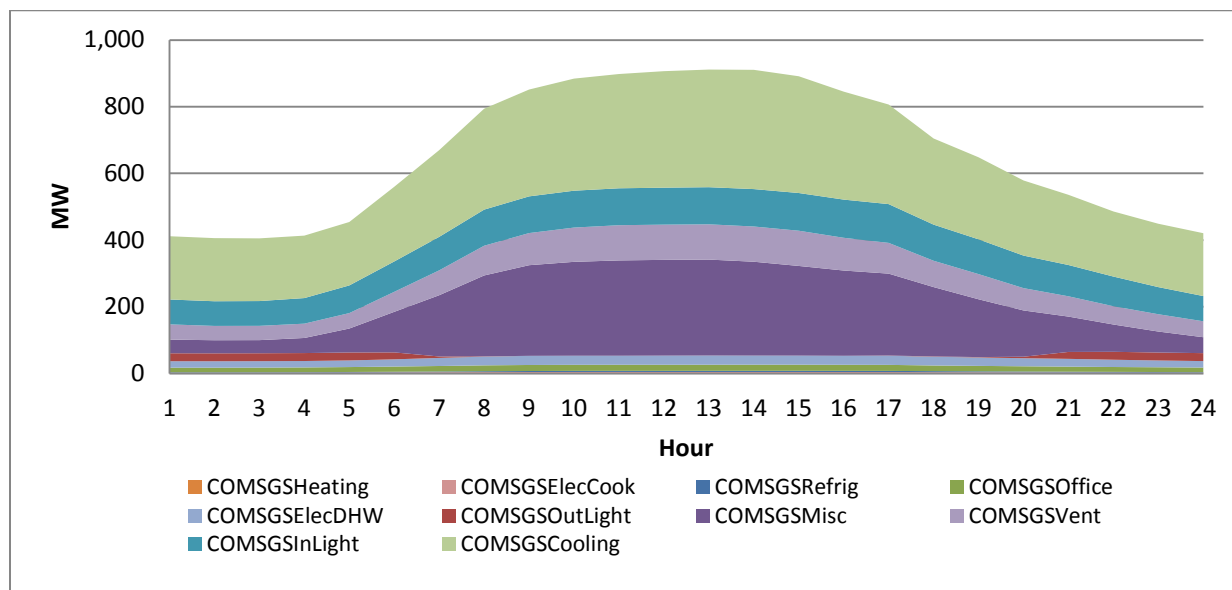
Load Profiles for Summer 2020 System Peak Day (MW)



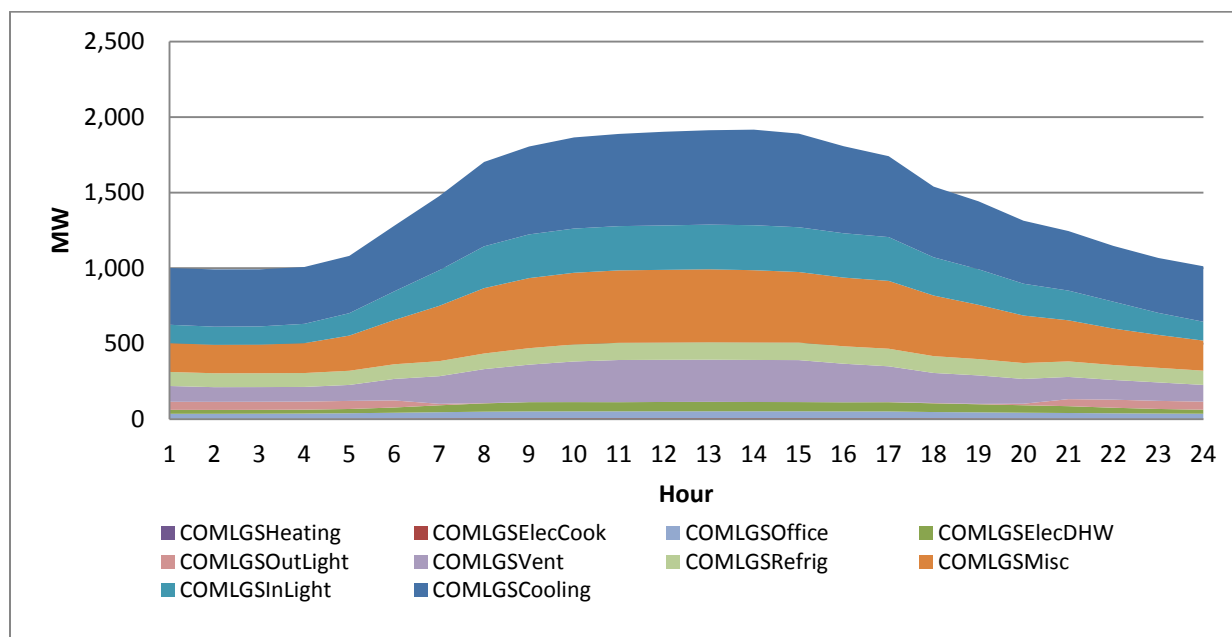
Summer 2020 Peak Day: Residential End-Use Profiles (MW)



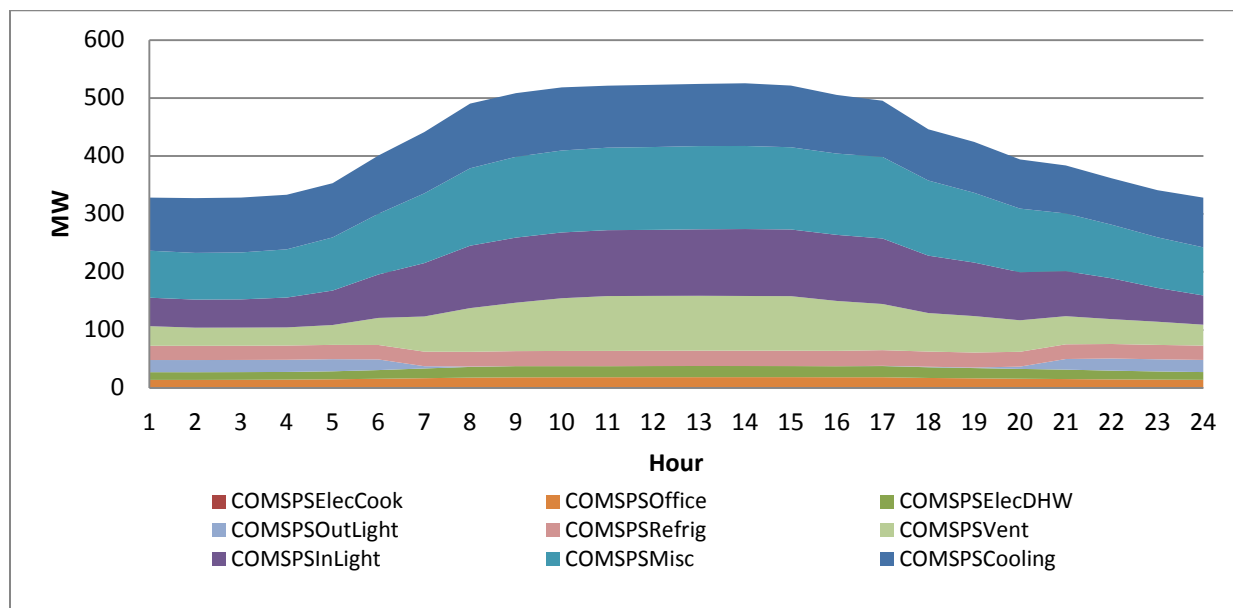
Summer 2020 Peak Day: Commercial SGS End-Use Profiles (MW)



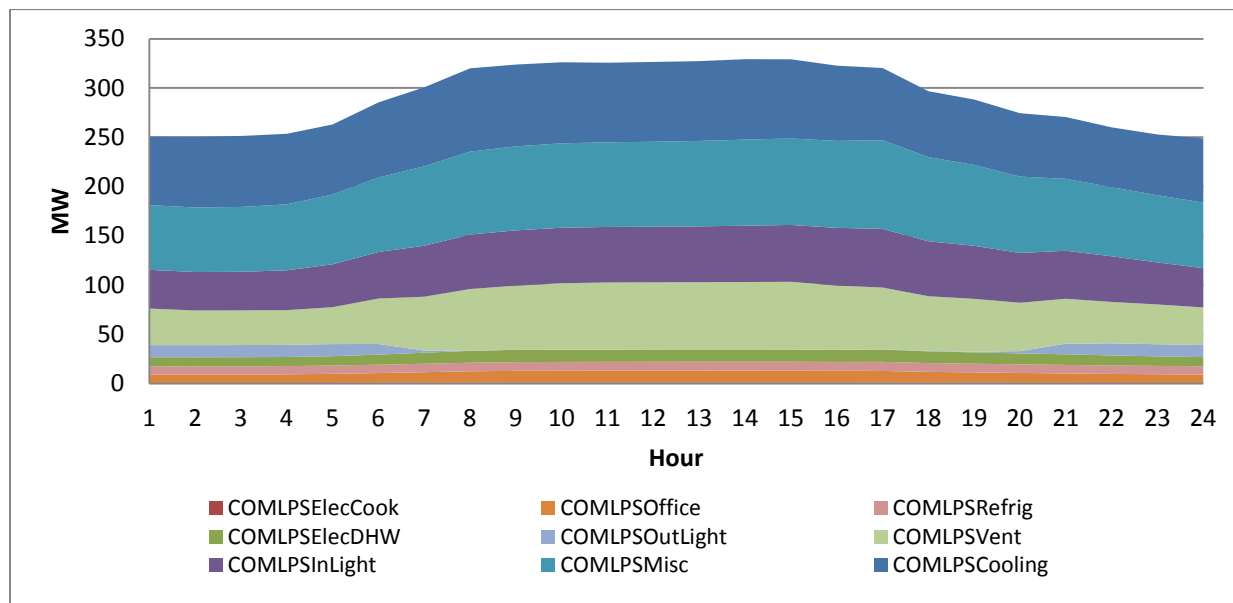
Summer 2020 Peak Day: Commercial LGS End-Use Profiles (MW)



Summer 2020 Peak Day: Commercial SPS End-Use Profiles (MW)



Summer 2020 Peak Day: Commercial LPS End-Use Profiles (MW)



Load Profiles for Summer 2020 System Peak Day (MW)

Hour	RES	COM SGS	COM LGS	COM SPS	COM LPS	IND SGS	IND LGS	IND SPS	IND LPS	WS	Lighting	Noranda	Total
1	2,435	411	1,001	343	251	11.84	116	184	368	-	58.13	492	5,673
2	2,234	406	992	342	251	11.71	117	185	371	-	58.13	492	5,459
3	2,076	405	992	343	251	11.33	118	183	368	-	58.13	492	5,299
4	1,927	413	1,007	348	254	11.83	123	184	370	-	58.13	492	5,190
5	1,847	454	1,081	369	263	14.06	136	189	380	-	58.13	492	5,285
6	1,860	560	1,280	420	285	20.43	160	200	392	-	51.34	492	5,723
7	1,947	670	1,477	465	301	25.01	184	215	407	-	-	492	6,183
8	2,033	794	1,703	517	320	30.50	202	226	423	-	-	492	6,742
9	1,955	851	1,805	537	324	37.84	212	233	418	-	-	492	6,866
10	2,140	884	1,865	548	326	37.99	222	237	416	-	-	492	7,169
11	2,415	898	1,888	551	326	35.97	225	242	413	-	-	492	7,488
12	2,747	907	1,902	553	327	34.19	225	244	411	-	-	492	7,841
13	3,047	911	1,913	555	327	34.30	223	248	419	-	-	492	8,169
14	3,267	911	1,916	556	329	34.24	231	250	424	-	-	492	8,410
15	3,510	891	1,890	551	329	32.88	219	249	416	-	-	492	8,581
16	3,972	870	1,861	550	332	31.82	219	250	424	-	-	507	9,018
17	4,158	785	1,695	510	312	24.14	203	236	412	-	-	492	8,828
18	4,309	705	1,539	472	297	20.64	197	230	422	-	-	492	8,684
19	4,261	648	1,442	448	288	16.46	181	228	402	-	-	492	8,407
20	4,038	579	1,314	415	274	13.62	182	224	403	-	-	492	7,935
21	3,900	536	1,245	402	271	12.26	182	223	409	-	37.78	492	7,710
22	3,610	486	1,147	378	260	12.82	182	223	414	-	58.13	492	7,265
23	3,195	449	1,067	357	253	12.25	176	220	409	-	58.13	492	6,689
24	2,806	421	1,012	344	249	14.31	159	215	405	-	58.13	492	6,176

Summer 2020 System Peak Day: Residential End-Use Profiles

Hour	Cl. Wash	Refrig.	Misc	Lighting	Heating	Freezer	Dryer	Electric DHW	Cooker	Dish washer	Cooling	TV	Total
1	0.14	71	438	98	1.25	17.27	15.55	39	1.82	15.76	1,689	48	2,435
2	(0.00)	69	438	54	1.22	16.79	6.12	30	1.00	4.74	1,565	48	2,234
3	0.11	67	438	39	1.18	16.38	2.55	28	1.20	0.85	1,437	46	2,076
4	0.45	66	438	23	1.14	15.83	0.33	30	1.65	0.23	1,307	44	1,927
5	1.62	65	446	36	1.12	14.70	0.00	43	3.66	(0.00)	1,196	40	1,847
6	6.05	64	461	66	-	14.22	10.89	80	25.79	12.73	1,071	49	1,860
7	10.78	66	440	86	1.11	14.38	60.50	130	45.85	18.37	1,022	54	1,947
8	15.15	70	440	87	1.17	15.18	92.75	134	52.98	34.70	1,038	52	2,033
9	12.43	71	409	63	1.24	17.11	79.10	101	31.14	37.43	1,096	38	1,955
10	12.33	66	411	51	1.34	18.84	106.02	84	27.53	36.92	1,285	39	2,140
11	10.71	66	411	40	1.47	20.47	122.35	69	30.11	28.05	1,574	43	2,415
12	8.87	65	414	35	1.59	21.59	122.74	60	35.34	25.94	1,911	45	2,747
13	7.79	65	413	34	1.70	23.20	114.71	56	31.93	29.26	2,220	49	3,047
14	7.49	67	413	32	1.79	24.64	103.29	54	29.73	29.42	2,448	57	3,267
15	7.36	70	416	29	1.83	25.60	93.12	52	35.63	22.11	2,692	66	3,510
16	8.25	79	439	30	1.81	27.19	101.03	59	75.07	22.76	3,040	89	3,972
17	8.18	87	441	32	1.62	26.24	99.11	65	115.96	21.88	3,158	102	4,158
18	8.31	101	436	53	1.60	25.12	97.32	73	143.05	31.18	3,227	111	4,309
19	7.82	112	436	76	1.60	24.16	96.59	81	116.57	56.83	3,132	119	4,261
20	6.56	109	437	167	1.57	23.04	93.02	80	43.49	63.14	2,894	120	4,038
21	5.51	105	437	301	1.49	22.23	86.52	74	23.34	55.23	2,671	119	3,900
22	2.72	100	437	320	1.44	21.11	72.96	59	11.10	33.64	2,448	103	3,610
23	0.91	86	438	245	1.40	19.99	53.90	46	3.84	20.87	2,200	80	3,195
24	0.05	77	437	151	1.33	18.07	29.13	42	0.40	17.85	1,970	62	2,806

Summer 2020 System Peak Day: Commercial SGS End-Use Profiles

Hour	Refrig	Outdoor Light	Office	Misc	Indoor Light	Heating	Electric DHW	Electric Cook	Cooling	Vent	Total
1	1.64	23.82	13.81	41	75	0.08	19.38	1.78	190	46	411
2	1.56	23.82	13.79	39	74	0.08	19.32	1.78	189	43	406
3	1.54	23.82	13.93	39	74	0.08	19.31	1.92	188	43	405
4	1.55	23.82	14.14	45	77	0.09	19.31	2.23	187	43	413
5	1.69	23.77	14.66	72	83	0.10	19.99	2.65	190	46	454
6	1.96	20.85	15.54	122	91	-	21.68	3.12	224	60	560
7	2.17	4.37	16.53	184	100	0.12	24.19	3.55	260	75	670
8	2.48	0.76	17.57	243	108	0.12	26.29	4.06	303	89	794
9	2.92	-	18.05	272	110	0.11	27.47	4.26	320	96	851
10	3.23	-	18.16	282	111	0.11	27.32	4.33	336	103	884
11	3.31	-	18.24	286	111	0.10	27.12	4.36	343	106	898
12	3.33	-	18.29	287	111	0.09	27.41	4.33	349	106	907
13	3.41	-	18.34	288	111	0.08	27.49	4.36	353	106	911
14	3.44	-	18.39	281	112	0.07	27.29	4.36	358	106	911
15	3.48	-	18.33	269	113	0.07	27.20	4.39	350	106	891
16	3.53	-	18.69	263	118	0.07	27.85	4.40	333	101	870
17	3.26	0.41	17.67	239	113	0.06	26.79	4.07	291	90	785
18	3.11	1.05	16.90	208	108	0.07	26.29	3.75	258	79	705
19	2.85	1.12	16.32	173	104	0.10	25.25	3.41	246	75	648
20	2.66	4.50	15.68	139	98	0.10	24.24	3.03	225	67	579
21	2.45	20.77	15.13	106	94	0.11	23.35	2.70	210	61	536
22	2.14	23.75	14.52	82	89	0.11	21.87	2.49	195	55	486
23	1.93	23.82	14.18	63	81	0.12	20.40	2.23	190	52	449
24	1.74	23.82	13.89	48	76	0.13	19.46	1.84	188	48	421

Summer 2020 System Peak Day: Commercial LGS End-Use Profiles

Hour	Cooling	Electric Cook	Electric DHW	Heating	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	376	3.25	26	0.04	122	191	33	53.42	93	104	1,001
2	379	3.25	26	0.04	120	188	33	53.42	92	97	992
3	378	3.52	26	0.04	120	189	33	53.42	92	97	992
4	376	4.09	26	0.05	128	198	34	53.42	92	97	1,007
5	379	4.86	28	0.06	148	233	35	53.29	94	106	1,081
6	434	5.72	35	-	190	293	38	46.76	97	142	1,280
7	491	6.51	46	0.08	235	366	40	9.81	99	183	1,477
8	558	7.43	55	0.09	277	432	43	1.72	103	225	1,703
9	582	7.80	61	0.08	289	464	44	-	109	248	1,805
10	603	7.93	61	0.07	292	474	44	-	113	269	1,865
11	610	7.99	60	0.06	293	479	45	-	114	279	1,888
12	620	7.93	62	0.05	294	481	45	-	114	279	1,902
13	625	7.99	62	0.03	296	483	45	-	115	279	1,913
14	632	7.99	61	0.03	298	478	45	-	116	278	1,916
15	620	8.05	61	0.02	296	467	45	-	116	278	1,890
16	593	8.07	62	0.02	302	468	46	-	119	263	1,861
17	521	7.45	59	0.02	282	437	43	0.95	113	230	1,695
18	468	6.87	58	0.02	253	401	41	2.37	111	199	1,539
19	450	6.26	53	0.04	235	359	40	2.51	108	188	1,442
20	417	5.56	49	0.04	210	314	38	10.10	105	164	1,314
21	394	4.95	45	0.05	197	272	37	46.59	103	147	1,245
22	369	4.56	37	0.05	178	241	35	53.26	99	130	1,147
23	363	4.08	30	0.07	146	218	34	53.42	96	122	1,067
24	367	3.37	26	0.07	125	199	33	53.42	94	111	1,012

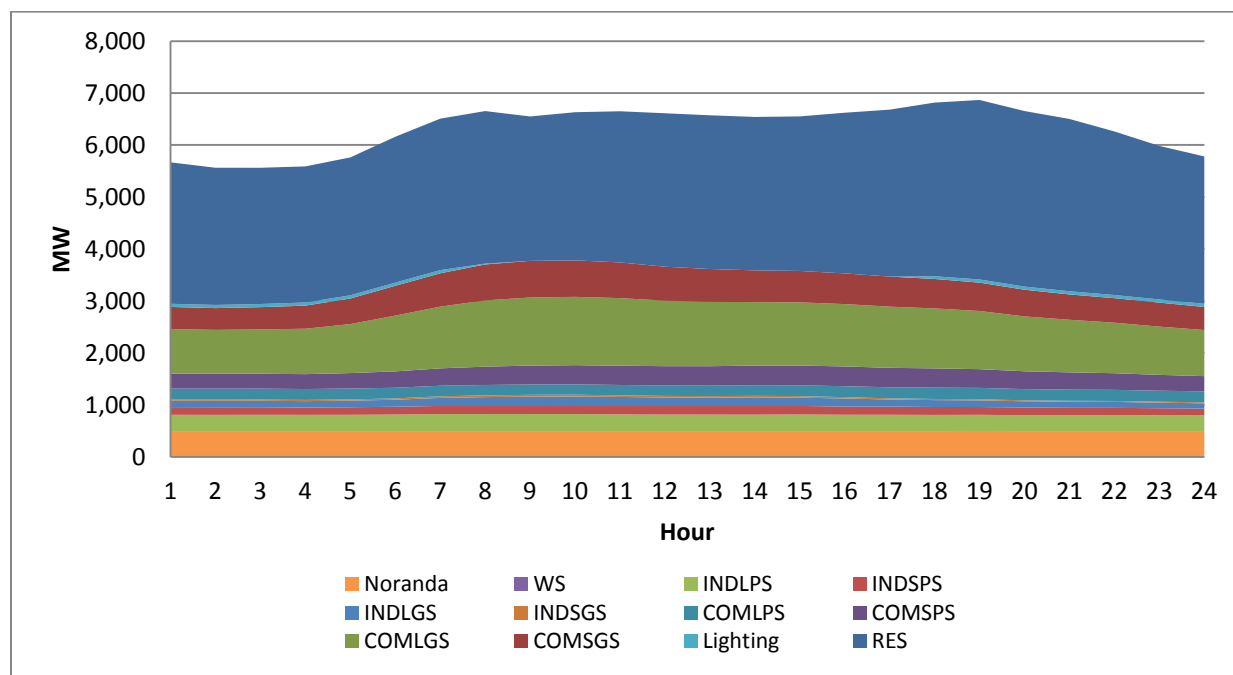
Summer 2020 System Peak Day: Commercial SPS End-Use Profiles

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	92	0.59	13.25	46	96	15.20	19.81	23.31	37	343
2	94	0.59	13.20	46	95	15.18	19.81	23.24	34	342
3	95	0.64	13.19	46	96	15.33	19.81	23.22	34	343
4	94	0.74	13.19	49	98	15.55	19.81	23.23	34	348
5	93	0.88	13.68	56	109	16.08	19.76	23.35	38	369
6	100	1.04	14.91	71	124	16.92	17.34	23.59	51	420
7	106	1.18	16.74	87	142	17.86	3.63	23.79	67	465
8	112	1.35	18.26	102	158	18.86	0.63	24.09	83	517
9	110	1.42	19.15	106	165	19.32	-	24.57	92	537
10	109	1.44	19.05	107	167	19.42	-	24.83	100	548
11	107	1.45	18.90	107	168	19.49	-	24.98	104	551
12	107	1.44	19.11	108	169	19.54	-	25.00	104	553
13	107	1.45	19.17	108	170	19.59	-	25.09	104	555
14	108	1.45	19.03	109	170	19.66	-	25.12	104	556
15	106	1.46	18.96	109	168	19.62	-	25.17	103	551
16	104	1.47	19.41	111	171	20.06	-	25.89	97	550
17	94	1.36	18.66	104	162	19.03	0.34	24.96	85	510
18	88	1.25	18.30	93	153	18.27	0.87	24.78	73	472
19	88	1.14	17.56	87	142	17.69	0.93	24.48	69	448
20	85	1.01	16.82	78	130	17.05	3.74	24.23	60	415
21	83	0.90	16.17	73	118	16.50	17.27	24.04	53	402
22	80	0.83	15.06	67	109	15.89	19.75	23.70	47	378
23	81	0.74	13.99	55	103	15.56	19.81	23.54	44	357
24	86	0.61	13.30	48	98	15.28	19.81	23.38	40	344

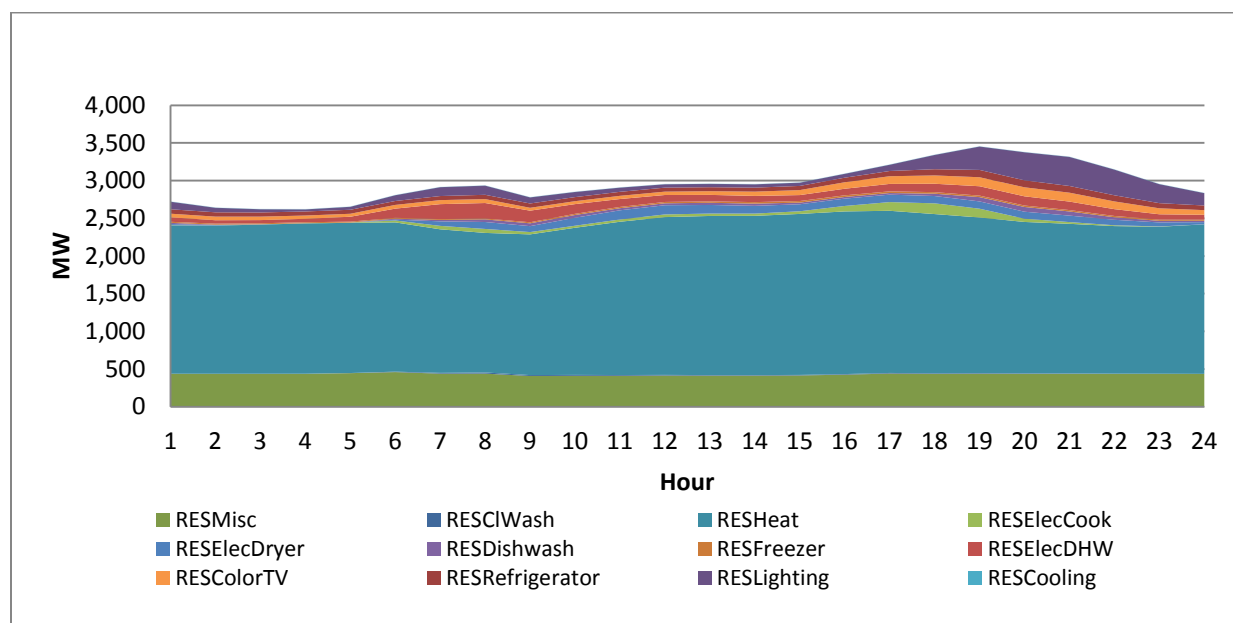
Summer 2020 System Peak Day: Commercial LPS End-Use Profiles

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	70	0.44	9.26	39	66	8.64	12.31	8.39	37	251
2	72	0.44	9.24	39	66	8.63	12.31	8.37	35	251
3	72	0.48	9.23	39	66	8.71	12.31	8.36	35	251
4	72	0.56	9.23	40	67	8.85	12.31	8.37	35	254
5	71	0.66	9.52	44	71	9.23	12.28	8.41	37	263
6	76	0.78	10.20	47	76	9.91	10.77	8.50	46	285
7	80	0.89	11.19	52	81	10.68	2.26	8.57	55	301
8	85	1.01	12.01	55	84	11.48	0.39	8.68	62	320
9	83	1.06	12.44	56	85	11.86	-	8.85	65	324
10	82	1.08	12.37	56	86	11.96	-	8.95	68	326
11	81	1.09	12.28	56	86	12.01	-	9.01	68	326
12	81	1.08	12.40	56	86	12.05	-	9.01	68	327
13	81	1.09	12.42	57	87	12.09	-	9.05	68	327
14	82	1.09	12.35	57	87	12.10	-	9.06	69	329
15	80	1.10	12.31	58	88	12.04	-	9.08	69	329
16	79	1.10	12.61	60	91	12.22	-	9.34	67	332
17	71	1.02	12.14	58	88	11.48	0.21	9.00	61	312
18	67	0.94	11.94	56	85	10.92	0.54	8.93	55	297
19	66	0.85	11.52	54	82	10.49	0.58	8.82	54	288
20	64	0.76	11.11	51	78	10.02	2.32	8.73	49	274
21	63	0.67	10.77	49	73	9.62	10.73	8.66	46	271
22	61	0.62	10.24	46	70	9.18	12.27	8.54	42	260
23	62	0.56	9.67	43	68	8.92	12.31	8.48	40	253
24	65	0.46	9.29	40	67	8.70	12.31	8.42	38	249

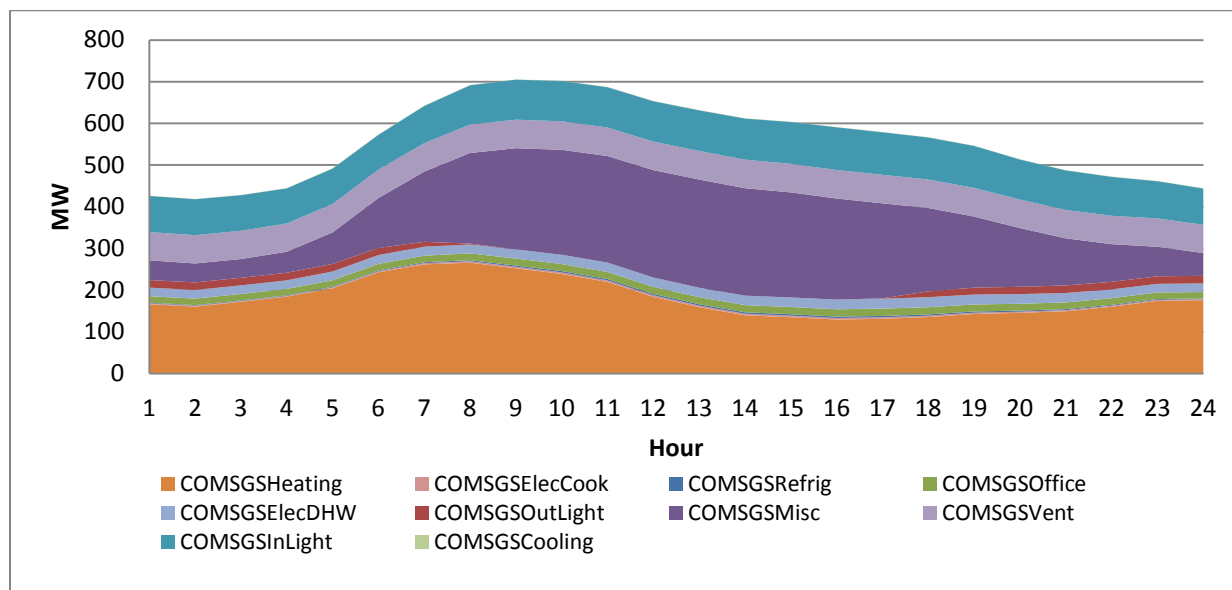
Load Profiles for Winter 2020 System Peak Day (MW)



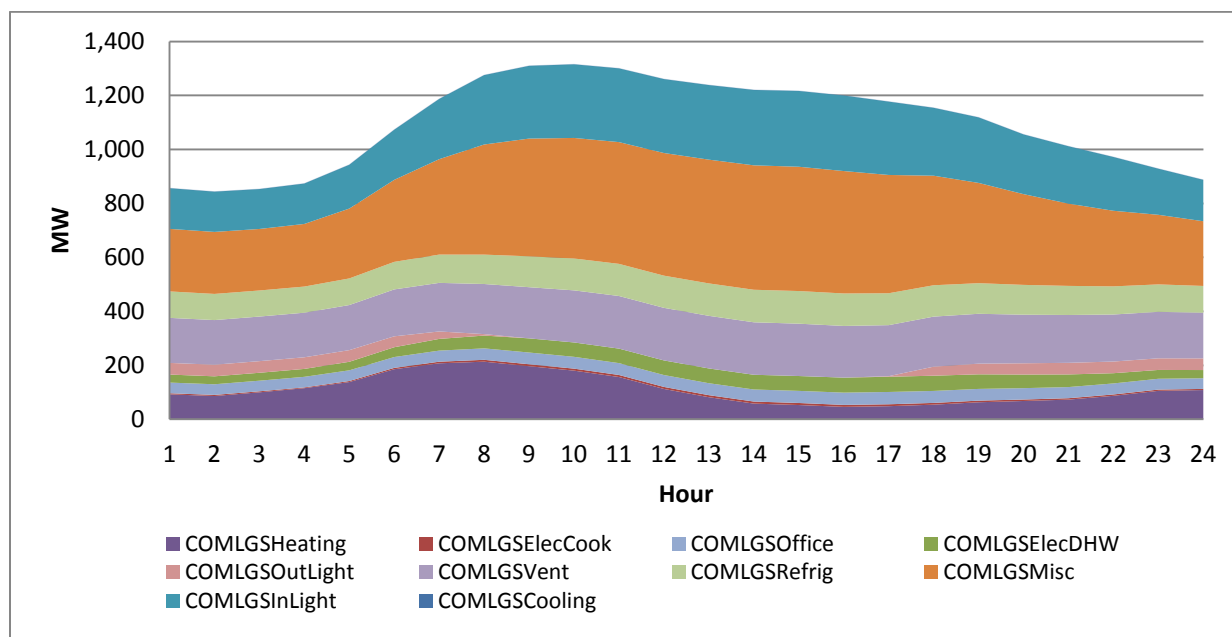
Winter 2020 System Peak Day: Residential End-Use Profiles



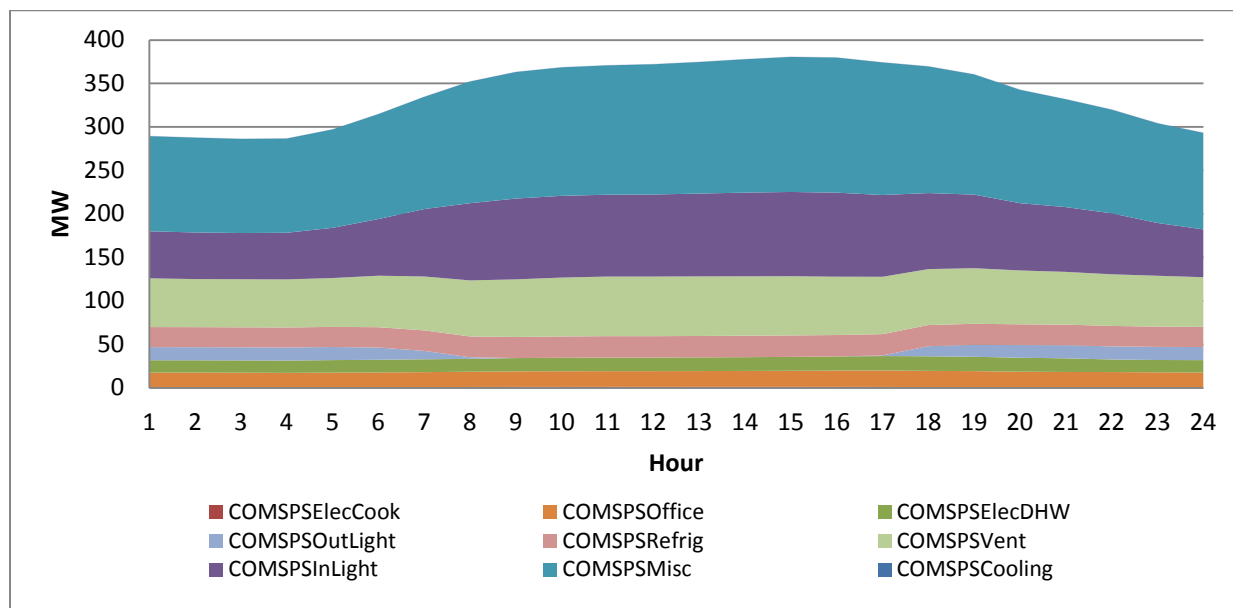
Winter 2020 System Peak Day: Commercial SGS End-Use Profiles (MW)



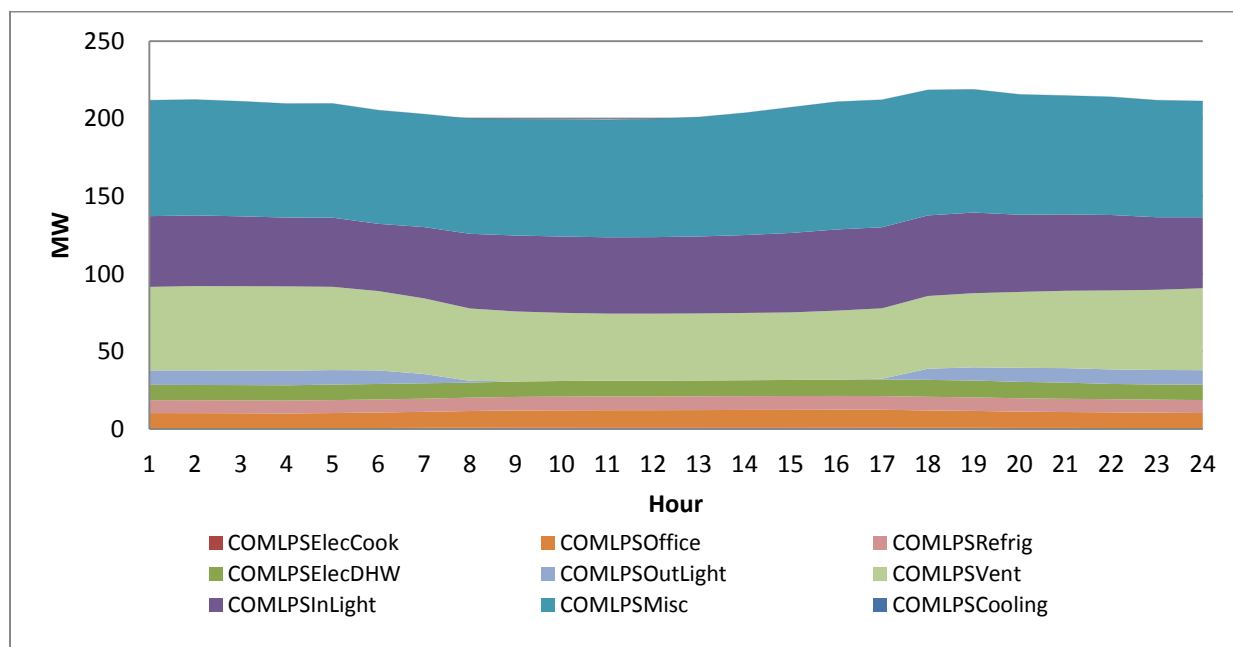
Winter 2020 System Peak Day: Commercial LGS End-Use Profiles (MW)



Winter 2020 System Peak Day: Commercial SPS End-Use Profiles (MW)



Winter 2020 System Peak Day: Commercial LPS End-Use Profiles (MW)



Load Profiles for Winter 2020 System Peak Day (MW)

Hour	RES	COM SGS	COM LGS	COM SPS	COM LPS	IND SGS	IND LGS	IND SPS	IND LPS	WS	Lighting	Noranda	Total
1	2,721	426	856	289	212	23.93	122	165	309	-	61	493	5,678
2	2,640	418	843	288	212	24.02	124	163	308	-	61	493	5,575
3	2,620	428	853	286	211	24.27	126	162	309	-	61	493	5,574
4	2,618	444	874	287	210	25.41	123	156	309	-	61	493	5,600
5	2,653	492	943	297	210	25.44	128	161	309	-	61	493	5,773
6	2,807	573	1,073	315	205	27.71	136	167	314	-	61	493	6,171
7	2,914	642	1,187	335	203	34.23	154	176	322	-	61	493	6,521
8	2,934	692	1,275	352	200	36.61	165	179	324	-	16	493	6,667
9	2,778	705	1,310	363	200	38.49	168	184	325	-	-	493	6,564
10	2,850	702	1,315	369	199	40.33	168	187	323	-	-	493	6,647
11	2,907	687	1,300	371	199	34.16	168	188	316	-	-	493	6,664
12	2,952	653	1,260	372	200	33.93	160	188	313	-	-	493	6,626
13	2,957	631	1,238	375	201	32.79	157	189	313	-	-	493	6,587
14	2,951	612	1,220	378	204	33.20	163	189	312	-	-	493	6,555
15	2,973	603	1,217	381	207	31.50	161	183	315	-	-	493	6,565
16	3,091	591	1,200	380	211	28.79	154	176	310	-	-	493	6,635
17	3,211	579	1,177	374	212	24.91	137	175	310	-	-	493	6,694
18	3,341	566	1,154	370	219	24.55	133	170	307	-	52	493	6,829
19	3,447	545	1,117	360	218	23.28	128	167	306	-	61	495	6,867
20	3,376	513	1,056	343	216	20.90	119	165	303	-	61	493	6,665
21	3,315	487	1,012	332	215	21.13	117	161	299	-	61	493	6,513
22	3,146	472	972	320	214	20.23	114	161	298	-	61	493	6,273
23	2,953	461	928	304	212	20.55	108	151	301	-	61	493	5,993
24	2,835	444	887	293	211	20.73	103	144	299	-	61	493	5,790

Winter 2020 System Peak Day: Residential End-Use Profiles (MW)

Hour	Cl. Wash	Refrig.	Misc	Lighting	Heating	Freezer	Dryer	Electric DHW	Cooker	Dish washer	Cooling	TV	Total
1	0.14	59	437	101	1,969	14.30	15.46	60	1.81	15.71	-	48	2,721
2	(0.00)	57	437	60	1,966	13.90	6.08	45	0.99	4.72	-	48	2,640
3	0.11	55	437	43	1,979	13.56	2.54	42	1.19	0.84	-	46	2,620
4	0.44	54	437	27	1,995	13.10	0.33	45	1.65	0.23	-	44	2,618
5	1.61	53	445	40	1,993	12.17	0.00	65	3.64	(0.00)	-	39	2,653
6	6.01	52	459	77	1,980	11.78	10.82	122	25.66	12.69	-	49	2,807
7	10.71	54	439	118	1,905	11.91	60.14	198	45.61	18.32	-	53	2,914
8	15.05	57	439	122	1,852	12.57	92.19	205	52.70	34.59	-	52	2,934
9	12.35	58	408	81	1,867	14.16	78.63	154	30.98	37.32	-	38	2,778
10	12.26	54	410	68	1,952	15.60	105.38	129	27.39	36.81	-	39	2,850
11	10.64	53	410	56	2,034	16.95	121.62	105	29.95	27.97	-	42	2,907
12	8.82	53	413	45	2,094	17.88	122.00	92	35.16	25.87	-	45	2,952
13	7.75	53	412	45	2,111	19.20	114.02	86	31.77	29.17	-	49	2,957
14	7.45	53	412	44	2,113	20.40	102.68	82	29.58	29.33	-	57	2,951
15	7.32	55	415	44	2,136	21.20	92.56	79	35.45	22.04	-	66	2,973
16	7.96	61	425	52	2,158	21.86	97.51	87	72.52	22.03	-	86	3,091
17	8.13	69	440	83	2,152	21.73	98.52	99	115.35	21.81	-	102	3,211
18	8.26	82	435	190	2,113	20.80	96.74	111	142.31	31.09	-	110	3,341
19	7.80	97	437	310	2,062	20.07	96.35	124	116.37	56.85	-	119	3,447
20	6.52	93	436	372	2,009	19.07	92.47	122	43.26	62.95	-	119	3,376
21	5.47	89	436	386	1,985	18.41	86.00	112	23.22	55.07	-	118	3,315
22	2.70	81	436	341	1,958	17.48	72.53	90	11.04	33.54	-	102	3,146
23	0.90	68	437	252	1,950	16.55	53.58	71	3.82	20.81	-	79	2,953
24	0.05	61	436	165	1,984	14.96	28.96	64	0.40	17.80	-	62	2,835

Winter 2020 System Peak Day: Commercial SGS End-Use Profiles (MW)

Hour	Refrig	Outdoor Light	Office	Misc	Indoor Light	Heating	Electric DHW	Electric Cook	Cooling	Vent	Total
1	1.63	18.14	15.50	47	87	166	20.72	2.13	-	68	426
2	1.55	18.14	15.49	45	86	161	20.66	2.13	-	68	418
3	1.52	18.14	15.44	45	85	172	20.64	1.93	-	68	428
4	1.54	18.14	15.40	50	84	185	20.64	1.47	-	68	444
5	1.67	18.13	15.53	76	85	205	21.03	1.97	-	68	492
6	1.95	16.97	15.68	120	84	243	21.17	2.53	-	68	573
7	2.15	11.59	15.93	168	89	262	21.43	3.01	-	68	642
8	2.46	2.25	16.35	217	94	266	21.25	3.54	-	68	692
9	2.89	-	16.72	243	96	252	21.94	3.74	-	68	705
10	3.19	-	16.83	252	97	239	22.25	3.82	-	68	702
11	3.26	-	16.91	256	97	220	22.51	3.86	-	69	687
12	3.28	-	16.95	257	97	184	22.44	3.85	-	69	653
13	3.35	-	17.00	259	98	159	22.58	3.91	-	69	631
14	3.38	-	17.17	258	99	140	22.68	3.93	-	69	612
15	3.41	-	17.30	252	100	135	22.93	3.88	-	68	603
16	3.36	-	17.53	242	102	130	23.29	3.76	-	68	591
17	3.20	0.85	17.63	228	102	131	23.73	3.66	-	68	579
18	3.05	13.96	17.21	200	101	136	24.05	3.38	-	68	566
19	2.81	16.52	16.89	170	101	143	23.77	3.10	-	69	545
20	2.62	17.52	16.40	141	96	146	23.11	2.80	-	68	513
21	2.42	18.08	16.11	113	95	149	22.63	2.69	-	68	487
22	2.12	18.14	15.96	90	93	160	21.04	2.58	-	68	472
23	1.92	18.14	15.73	71	89	174	20.64	2.37	-	68	461
24	1.73	18.14	15.55	55	87	176	20.81	2.15	-	68	444

Winter 2020 System Peak Day: Commercial LGS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Heating	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	-	4.14	29.83	92	151	232	39	43.14	98	167	856
2	-	4.14	29.47	86	149	230	39	43.14	97	165	843
3	-	3.75	29.35	100	148	228	39	43.14	97	165	853
4	-	2.85	29.35	115	150	232	39	43.14	97	165	874
5	-	3.83	31.65	138	162	259	40	43.13	99	167	943
6	-	4.91	36.38	186	186	304	40	40.35	102	174	1,073
7	-	5.85	43.38	207	223	354	41	27.61	105	180	1,187
8	-	6.89	47.42	213	257	408	42	5.42	109	186	1,275
9	-	7.26	52.48	197	270	436	43	-	114	190	1,310
10	-	7.42	53.33	180	273	447	44	-	118	193	1,315
11	-	7.50	53.77	157	273	451	44	-	119	195	1,300
12	-	7.48	54.13	112	274	454	44	-	119	195	1,260
13	-	7.60	54.79	82	276	459	44	-	120	195	1,238
14	-	7.64	54.59	58	279	461	45	-	121	194	1,220
15	-	7.55	55.02	53	281	461	45	-	121	194	1,217
16	-	7.32	55.63	46	280	454	45	-	120	192	1,200
17	-	7.12	56.40	49	272	438	46	2.09	118	189	1,177
18	-	6.57	56.41	54	252	406	44	33.46	116	185	1,154
19	-	6.04	53.93	63	242	371	43	39.47	113	184	1,117
20	-	5.45	50.41	68	221	336	42	41.74	111	180	1,056
21	-	5.23	46.88	73	213	305	41	42.99	108	177	1,012
22	-	5.02	38.00	87	199	280	41	43.13	104	174	972
23	-	4.60	32.70	105	171	258	40	43.14	102	172	928
24	-	4.18	30.34	108	153	240	40	43.14	99	169	887

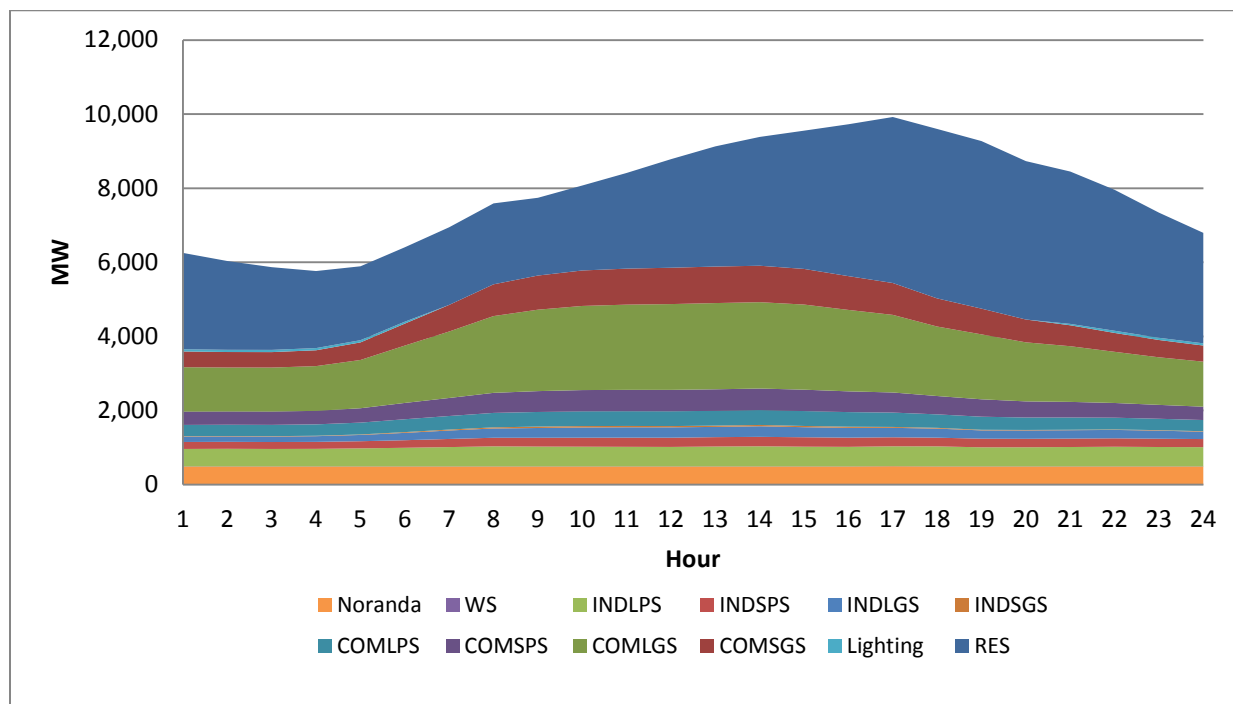
Winter 2020 System Peak Day: Commercial SPS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	-	0.71	14.15	54	109	17.03	15.06	23.09	56	289
2	-	0.71	14.10	54	109	17.02	15.06	23.02	55	288
3	-	0.64	14.09	53	108	16.96	15.06	23.00	55	286
4	-	0.49	14.09	54	108	16.91	15.06	23.01	55	287
5	-	0.66	14.38	58	113	17.00	15.06	23.13	56	297
6	-	0.84	14.54	65	121	17.05	14.09	23.37	59	315
7	-	1.00	14.81	78	129	17.19	9.62	23.57	62	335
8	-	1.18	14.75	89	140	17.52	1.87	23.88	64	352
9	-	1.24	15.28	93	145	17.86	-	24.26	66	363
10	-	1.27	15.49	94	148	17.96	-	24.52	68	369
11	-	1.28	15.67	94	149	18.04	-	24.56	69	371
12	-	1.28	15.63	94	150	18.07	-	24.57	69	372
13	-	1.30	15.73	95	151	18.13	-	24.62	69	375
14	-	1.31	15.79	96	153	18.32	-	24.65	68	378
15	-	1.29	15.96	97	155	18.48	-	24.67	68	381
16	-	1.25	16.22	97	155	18.78	-	24.63	67	380
17	-	1.22	16.51	94	152	18.96	0.71	24.49	66	374
18	-	1.12	16.73	87	146	18.57	11.59	24.33	64	370
19	-	1.03	16.51	84	138	18.27	13.72	24.13	64	360
20	-	0.93	16.02	77	130	17.80	14.55	23.90	62	343
21	-	0.89	15.65	74	124	17.54	15.01	23.71	61	332
22	-	0.86	14.47	70	119	17.43	15.06	23.49	59	320
23	-	0.79	14.13	61	115	17.23	15.06	23.32	58	304
24	-	0.72	14.21	55	111	17.07	15.06	23.17	57	293

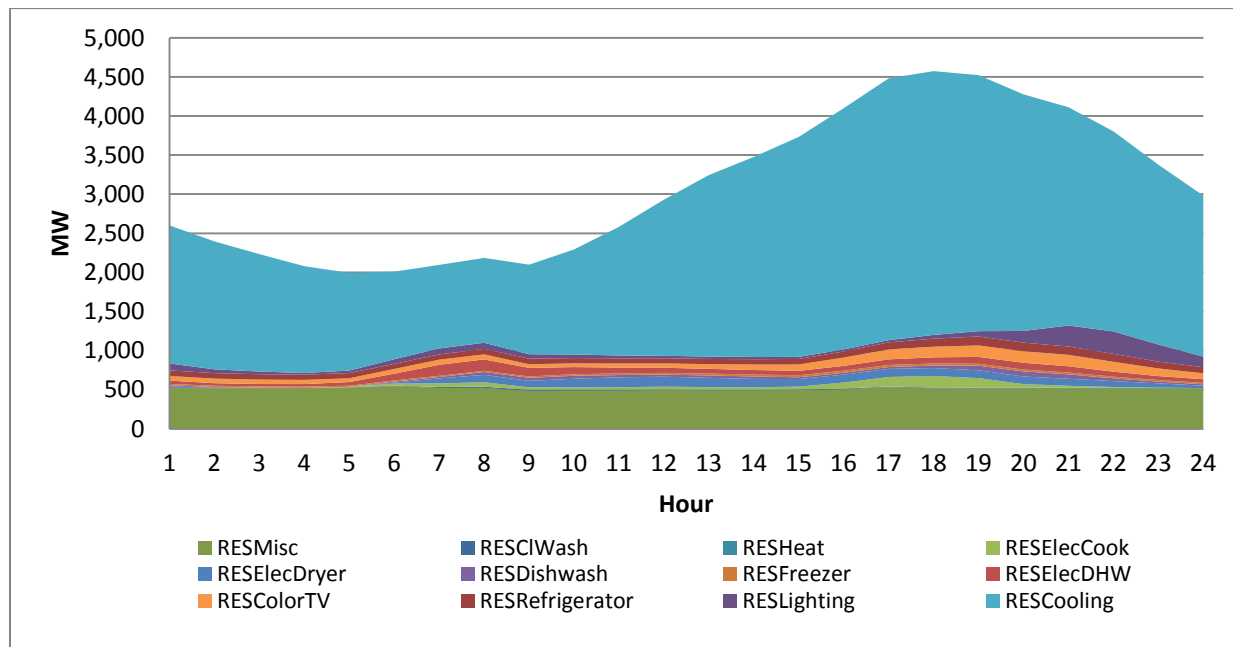
Winter 2020 System Peak Day: Commercial LPS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	-	0.53	9.88	46	75	9.69	9.36	8.32	54	212
2	-	0.53	9.86	46	75	9.68	9.36	8.30	54	212
3	-	0.48	9.85	45	74	9.65	9.36	8.29	54	211
4	-	0.37	9.85	44	73	9.64	9.36	8.29	54	210
5	-	0.49	9.99	45	74	9.78	9.36	8.34	54	210
6	-	0.63	9.94	43	73	10.00	8.76	8.42	51	205
7	-	0.75	9.89	46	73	10.29	5.98	8.50	49	203
8	-	0.88	9.69	48	74	10.69	1.16	8.61	47	200
9	-	0.93	9.92	49	75	10.98	-	8.75	45	200
10	-	0.95	10.05	49	75	11.08	-	8.85	44	199
11	-	0.96	10.17	49	76	11.14	-	8.86	43	199
12	-	0.96	10.13	49	76	11.17	-	8.86	43	200
13	-	0.98	10.19	50	77	11.20	-	8.88	43	201
14	-	0.98	10.24	50	79	11.30	-	8.89	43	204
15	-	0.97	10.36	51	81	11.36	-	8.90	44	207
16	-	0.94	10.53	52	82	11.46	-	8.89	44	211
17	-	0.91	10.73	52	82	11.46	0.44	8.84	45	212
18	-	0.84	10.90	52	81	11.12	7.21	8.78	47	219
19	-	0.77	10.82	52	79	10.85	8.53	8.70	48	218
20	-	0.70	10.57	50	78	10.48	9.04	8.62	49	216
21	-	0.67	10.42	49	77	10.24	9.33	8.55	50	215
22	-	0.64	9.83	49	76	10.09	9.36	8.47	51	214
23	-	0.59	9.76	47	75	9.90	9.36	8.40	52	212
24	-	0.54	9.91	46	75	9.74	9.36	8.35	53	211

Load Profiles for Summer 2030 System Peak Day (MW)



Summer 2030 System Peak Day: Residential End-Use Profiles (MW)



Summer 2030 System Peak Day: Commercial SGS End-Use Profiles (MW)

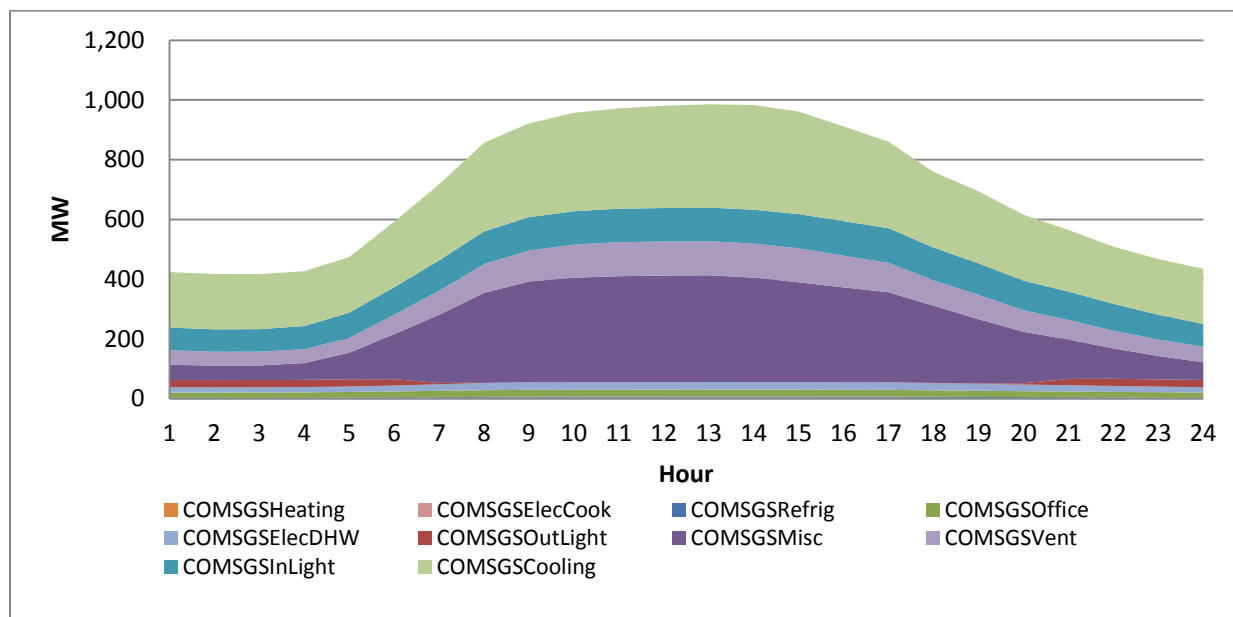
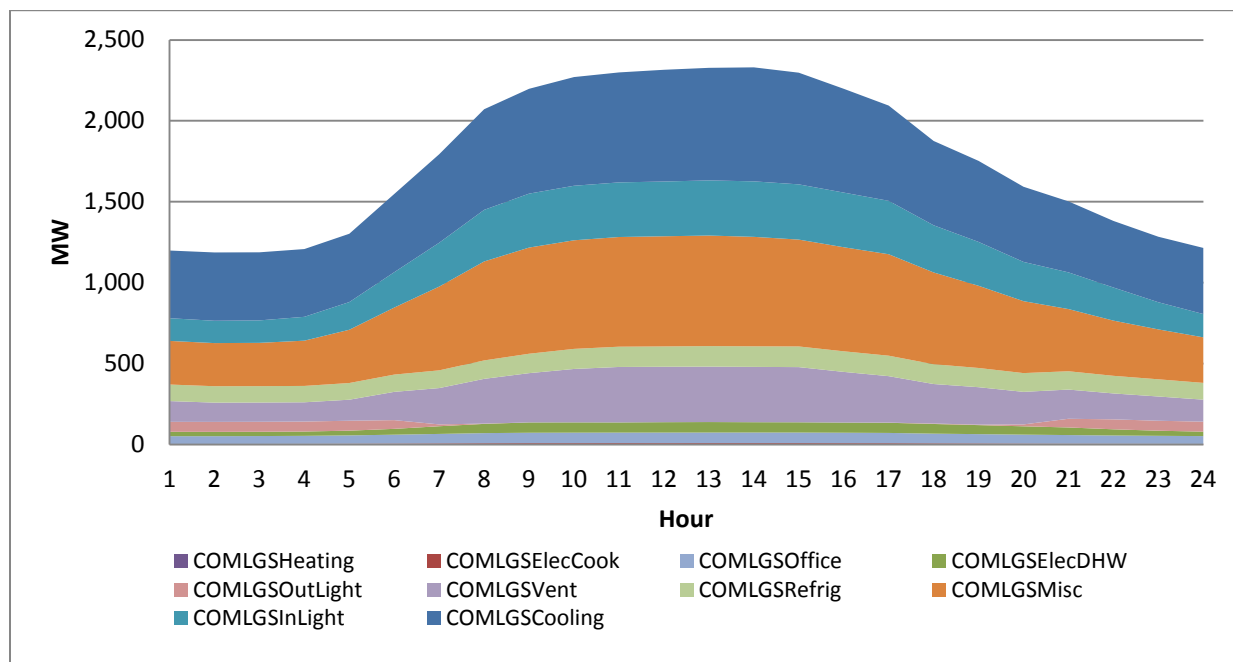
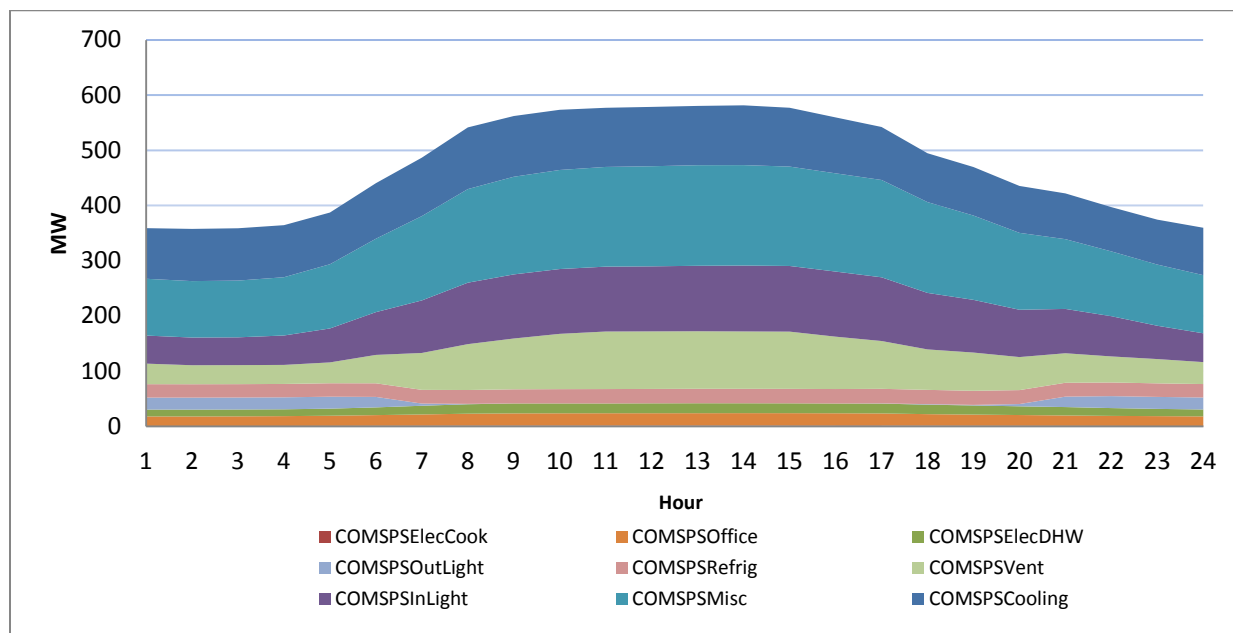


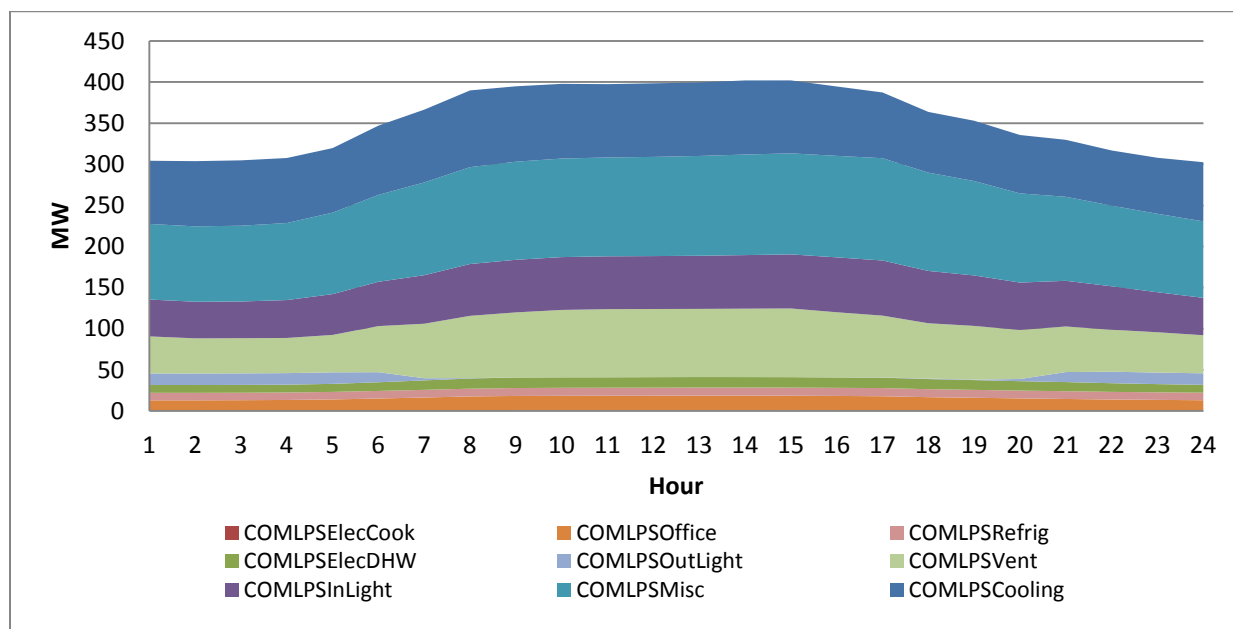
Figure Summer 2030 System Peak Day: Commercial LGS End-Use Profiles (MW)



Summer 2030 System Peak Day: Commercial SPS End-Use Profiles (MW)



Summer 2030 System Peak Day: Commercial LPS End-Use Profiles (MW)



Load Profiles for Summer 2030 System Peak Day (MW)

Hour	RES	COM SGS	COM LGS	COM SPS	COM LPS	IND SGS	IND LGS	IND SPS	IND LPS	WS	Lighting	Noranda	Total
1	2,600	424	1,199	379	304	12.47	124	197	400	-	59	491	6,190
2	2,396	418	1,187	377	304	12.33	125	197	403	-	59	491	5,970
3	2,233	417	1,188	378	305	11.93	127	196	399	-	59	491	5,806
4	2,079	427	1,208	384	308	12.46	132	197	402	-	59	491	5,700
5	1,994	475	1,302	409	320	14.81	146	202	413	-	59	491	5,826
6	2,008	593	1,548	466	347	21.51	171	214	426	-	52	491	6,338
7	2,095	718	1,794	518	366	26.34	197	229	442	-	-	491	6,877
8	2,184	857	2,072	576	390	32.12	216	242	460	-	-	491	7,520
9	2,098	922	2,198	599	395	39.84	227	249	454	-	-	491	7,673
10	2,293	957	2,271	612	398	40.00	238	254	452	-	-	491	8,004
11	2,582	972	2,299	616	397	37.88	241	259	449	-	-	491	8,344
12	2,930	981	2,316	618	398	36.01	241	261	446	-	-	491	8,717
13	3,244	986	2,328	619	399	36.11	239	264	455	-	-	491	9,062
14	3,476	983	2,331	620	402	36.05	247	266	461	-	-	491	9,314
15	3,732	961	2,298	616	402	34.62	234	266	452	-	-	491	9,486
16	4,211	937	2,258	613	405	33.42	234	267	460	-	-	505	9,922
17	4,418	848	2,065	571	382	25.42	217	252	448	-	-	491	9,717
18	4,573	759	1,876	528	364	21.73	211	246	459	-	-	491	9,528
19	4,521	694	1,753	501	353	17.34	193	243	437	-	-	491	9,204
20	4,275	616	1,593	463	335	14.34	194	239	438	-	-	491	8,661
21	4,111	565	1,502	446	330	12.91	195	238	444	-	38	491	8,374
22	3,803	509	1,382	419	317	13.50	195	238	450	-	59	491	7,878
23	3,377	468	1,284	396	308	12.90	188	235	444	-	59	491	7,262
24	2,982	435	1,215	380	302	15.07	170	229	440	-	59	491	6,720

Summer 2030 System Peak Day: Residential End-Use Profiles (MW)

Hour	Cl. Wash	Refrig.	Misc	Lighting	Heating	Freezer	Dryer	Electric DHW	Cooker	Dish washer	Cooling	TV	Total
1	0.14	72	520	88	1.28	17.61	16.09	42	1.88	16.42	1,765	59	2,600
2	(0.00)	70	520	49	1.25	17.12	6.33	32	1.03	4.93	1,636	59	2,396
3	0.12	68	519	35	1.21	16.71	2.64	30	1.24	0.88	1,501	57	2,233
4	0.46	67	519	21	1.17	16.14	0.34	32	1.71	0.24	1,366	54	2,079
5	1.66	66	529	32	1.14	14.99	0.00	46	3.78	(0.00)	1,250	49	1,994
6	6.16	65	546	59	-	14.50	11.27	87	26.65	13.26	1,120	60	2,008
7	10.98	67	521	77	1.14	14.67	62.60	141	47.38	19.14	1,068	66	2,095
8	15.43	71	522	78	1.20	15.49	95.96	145	54.75	36.14	1,085	64	2,184
9	12.66	72	484	56	1.27	17.45	81.84	109	32.19	38.99	1,146	47	2,098
10	12.57	67	487	46	1.37	19.21	109.69	92	28.46	38.46	1,343	48	2,293
11	10.91	67	487	36	1.51	20.88	126.59	75	31.11	29.22	1,645	52	2,582
12	9.04	66	491	31	1.62	22.02	126.99	66	36.53	27.02	1,997	55	2,930
13	7.94	66	490	31	1.74	23.66	118.68	61	33.00	30.48	2,320	60	3,244
14	7.63	68	490	29	1.83	25.13	106.87	58	30.73	30.64	2,558	70	3,476
15	7.50	71	493	26	1.87	26.11	96.34	56	36.83	23.03	2,813	82	3,732
16	8.38	80	519	27	1.84	27.66	104.26	64	77.39	23.65	3,169	109	4,211
17	8.34	88	523	28	1.65	26.76	102.54	70	119.84	22.79	3,301	125	4,418
18	8.47	103	517	48	1.64	25.62	100.69	79	147.84	32.48	3,373	136	4,573
19	7.96	114	517	68	1.64	24.64	99.93	88	120.47	59.19	3,274	147	4,521
20	6.69	110	518	149	1.60	23.49	96.24	87	44.95	65.77	3,025	147	4,275
21	5.61	106	518	269	1.53	22.68	89.51	80	24.13	57.53	2,791	146	4,111
22	2.77	102	518	287	1.48	21.53	75.49	64	11.47	35.04	2,559	126	3,803
23	0.92	87	519	219	1.43	20.39	55.77	50	3.97	21.74	2,299	98	3,377
24	0.05	78	518	135	1.36	18.43	30.14	46	0.41	18.60	2,059	77	2,982

Summer 2030 System Peak Day: Commercial SGS End-Use Profiles (MW)

Hour	Refrig	Outdoor Light	Office	Misc	Indoor Light	Heating	Electric DHW	Electric Cook	Cooling	Vent	Total
1	1.59	24.09	17.65	51	75	0.08	17.69	1.72	186	49	424
2	1.51	24.09	17.62	49	75	0.08	17.64	1.72	185	46	418
3	1.48	24.09	17.80	49	75	0.08	17.63	1.87	184	46	417
4	1.50	24.09	18.06	56	78	0.08	17.63	2.17	183	46	427
5	1.63	24.04	18.74	89	84	0.09	18.25	2.58	186	50	475
6	1.90	21.09	19.85	151	92	-	19.80	3.03	219	65	593
7	2.10	4.42	21.12	228	102	0.11	22.09	3.45	255	80	718
8	2.40	0.77	22.45	301	109	0.11	24.01	3.94	296	96	857
9	2.82	-	23.06	337	111	0.11	25.09	4.13	314	104	922
10	3.12	-	23.21	350	112	0.10	24.95	4.21	329	111	957
11	3.20	-	23.30	355	112	0.10	24.77	4.24	336	114	972
12	3.22	-	23.37	357	112	0.08	25.03	4.20	342	114	981
13	3.30	-	23.43	357	113	0.07	25.10	4.24	346	114	986
14	3.32	-	23.50	349	113	0.06	24.92	4.24	350	114	983
15	3.36	-	23.42	334	114	0.06	24.84	4.27	343	114	961
16	3.40	-	23.82	326	119	0.06	25.37	4.27	326	109	937
17	3.15	0.42	22.57	297	115	0.06	24.46	3.95	285	97	848
18	3.00	1.06	21.59	258	110	0.06	24.00	3.64	253	85	759
19	2.75	1.13	20.85	215	105	0.09	23.06	3.32	241	81	694
20	2.57	4.55	20.03	172	99	0.10	22.13	2.95	221	72	616
21	2.36	21.01	19.33	132	95	0.10	21.33	2.63	206	66	565
22	2.07	24.02	18.55	102	90	0.11	19.97	2.42	191	59	509
23	1.87	24.09	18.12	78	82	0.12	18.63	2.16	186	56	468
24	1.68	24.09	17.75	59	77	0.12	17.77	1.79	185	52	435

Summer 2030 System Peak Day: Commercial LGS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Heating	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	418	3.59	27	0.04	140	269	48	61.55	102	128	1,199
2	422	3.59	27	0.04	138	266	48	61.55	101	119	1,187
3	421	3.90	27	0.05	139	268	49	61.55	101	119	1,188
4	419	4.52	27	0.05	147	280	49	61.55	101	119	1,208
5	422	5.38	29	0.06	171	329	51	61.40	103	130	1,302
6	483	6.32	36	-	219	414	55	53.88	107	175	1,548
7	547	7.20	48	0.09	271	518	58	11.30	109	224	1,794
8	622	8.23	57	0.09	319	611	62	1.98	114	276	2,072
9	648	8.63	64	0.09	333	656	64	-	120	305	2,198
10	672	8.78	64	0.08	337	671	65	-	124	330	2,271
11	679	8.84	63	0.07	337	678	65	-	125	343	2,299
12	690	8.77	64	0.05	338	681	65	-	126	343	2,316
13	696	8.84	65	0.04	341	683	65	-	127	343	2,328
14	704	8.84	64	0.03	343	676	66	-	127	342	2,331
15	690	8.90	63	0.03	341	660	65	-	128	341	2,298
16	659	8.90	64	0.02	347	660	66	-	131	322	2,258
17	580	8.25	62	0.02	325	618	63	1.10	125	283	2,065
18	521	7.60	60	0.03	291	567	60	2.73	123	244	1,876
19	501	6.92	56	0.04	271	508	58	2.89	119	231	1,753
20	464	6.15	51	0.05	242	444	55	11.64	116	201	1,593
21	438	5.48	47	0.05	227	384	53	53.68	113	180	1,502
22	411	5.05	38	0.06	205	341	51	61.37	109	160	1,382
23	405	4.51	31	0.07	168	308	50	61.55	106	150	1,284
24	408	3.73	28	0.07	144	281	48	61.55	104	136	1,215

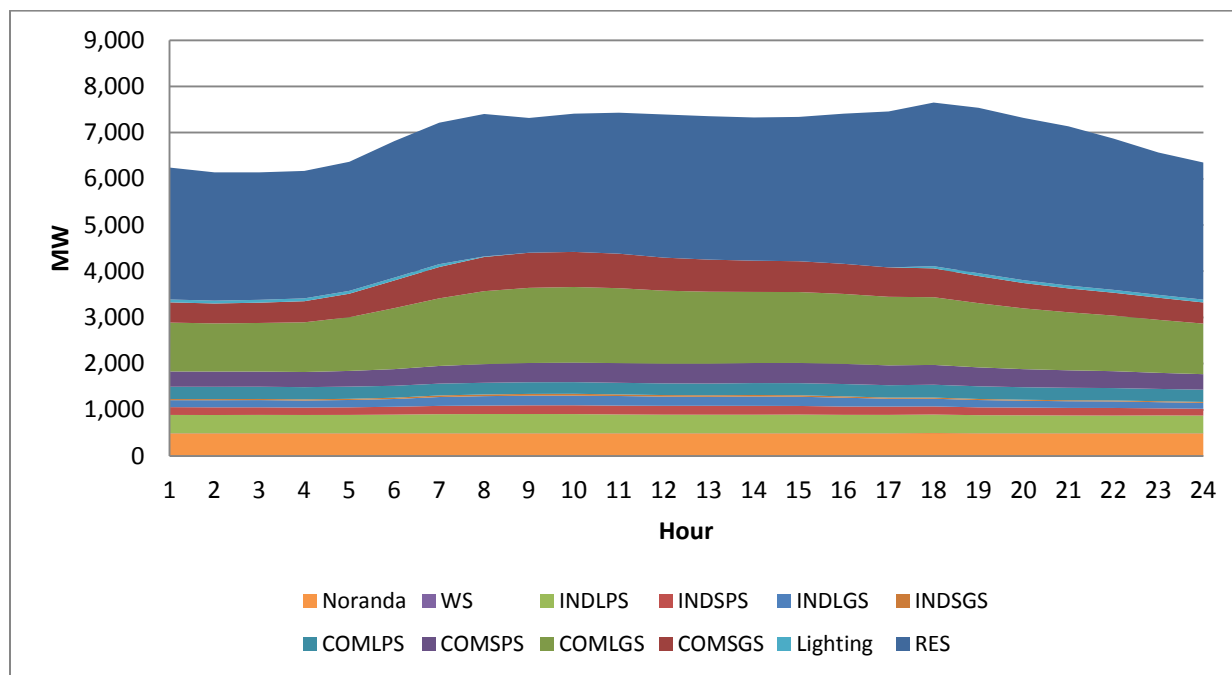
Summer 2030 System Peak Day: Commercial SPS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	92	0.59	12.37	48	122	19.87	20.50	23.03	41	379
2	95	0.59	12.33	47	121	19.85	20.50	22.97	38	377
3	95	0.64	12.32	48	122	20.04	20.50	22.95	38	378
4	94	0.74	12.32	50	125	20.33	20.50	22.96	38	384
5	94	0.88	12.78	58	138	21.02	20.45	23.07	41	409
6	101	1.03	13.92	73	158	22.11	17.94	23.32	57	466
7	106	1.18	15.63	90	181	23.34	3.76	23.51	73	518
8	112	1.34	17.06	105	201	24.66	0.65	23.81	91	576
9	110	1.41	17.88	110	210	25.25	-	24.28	101	599
10	109	1.43	17.79	111	213	25.38	-	24.54	110	612
11	107	1.44	17.66	111	214	25.48	-	24.69	114	616
12	107	1.43	17.85	111	215	25.54	-	24.71	114	618
13	107	1.44	17.91	112	216	25.60	-	24.80	114	619
14	108	1.44	17.77	113	215	25.70	-	24.82	114	620
15	107	1.45	17.71	112	213	25.65	-	24.88	114	616
16	104	1.45	18.08	114	217	26.15	-	25.52	107	613
17	95	1.35	17.43	107	206	24.87	0.35	24.66	94	571
18	89	1.24	17.10	97	195	23.88	0.90	24.49	80	528
19	88	1.13	16.40	90	181	23.13	0.96	24.19	76	501
20	85	1.00	15.71	81	165	22.29	3.87	23.94	66	463
21	83	0.89	15.11	76	150	21.56	17.87	23.76	59	446
22	80	0.82	14.07	69	139	20.76	20.43	23.43	52	419
23	81	0.74	13.06	57	131	20.34	20.50	23.27	48	396
24	86	0.61	12.43	49	125	19.97	20.50	23.11	44	380

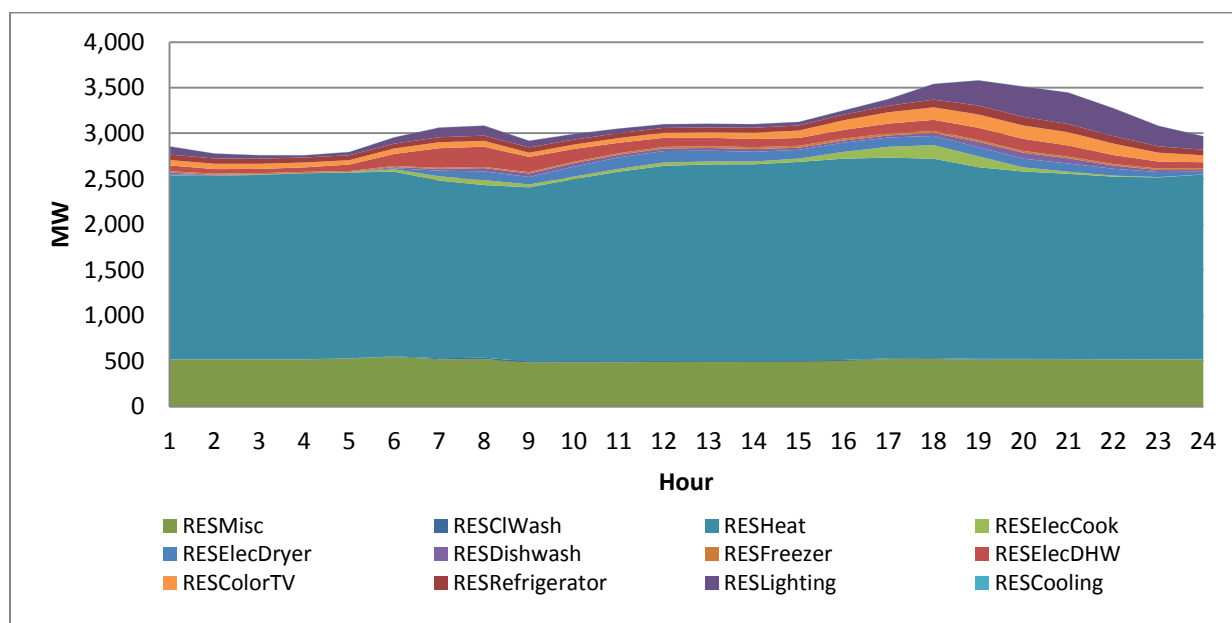
Summer 2030 System Peak Day: Commercial LPS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	77	0.49	9.52	45	92	12.44	14.02	9.13	45	304
2	79	0.49	9.50	45	92	12.42	14.02	9.11	43	304
3	79	0.53	9.50	45	92	12.54	14.02	9.10	43	305
4	79	0.61	9.50	46	94	12.75	14.02	9.11	43	308
5	78	0.73	9.79	50	99	13.29	13.99	9.15	46	320
6	84	0.85	10.49	54	106	14.26	12.27	9.25	56	347
7	88	0.97	11.51	59	113	15.37	2.57	9.33	66	366
8	93	1.11	12.36	63	118	16.53	0.45	9.45	76	390
9	92	1.16	12.80	64	119	17.07	-	9.64	79	395
10	91	1.18	12.72	64	120	17.21	-	9.74	82	398
11	89	1.19	12.64	64	120	17.29	-	9.80	83	397
12	89	1.18	12.75	64	121	17.35	-	9.81	83	398
13	89	1.19	12.78	65	121	17.40	-	9.85	83	399
14	90	1.19	12.70	65	122	17.42	-	9.86	83	402
15	89	1.20	12.66	66	123	17.34	-	9.88	84	402
16	87	1.20	12.94	69	127	17.55	-	10.14	81	405
17	79	1.11	12.49	66	123	16.53	0.24	9.79	74	382
18	74	1.02	12.28	64	120	15.72	0.62	9.72	67	364
19	73	0.93	11.85	61	115	15.10	0.66	9.60	65	353
20	71	0.83	11.43	58	108	14.43	2.65	9.50	60	335
21	69	0.74	11.08	55	102	13.84	12.23	9.43	55	330
22	67	0.68	10.53	53	98	13.22	13.98	9.29	51	317
23	68	0.61	9.95	49	95	12.84	14.02	9.23	49	308
24	72	0.50	9.55	45	93	12.52	14.02	9.16	46	302

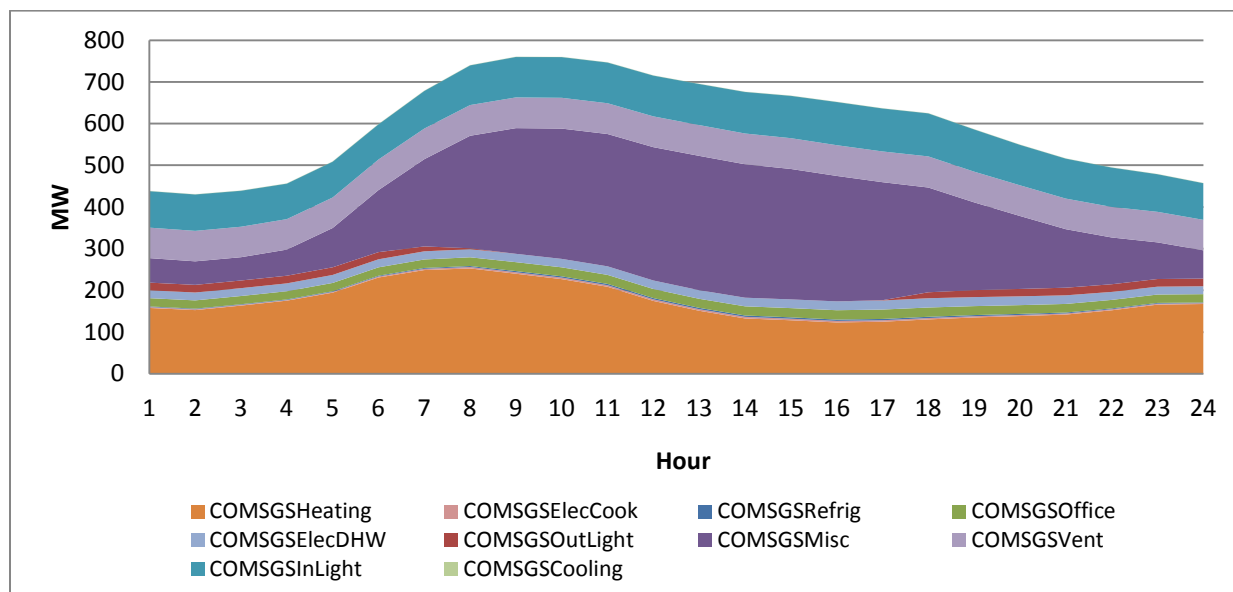
Load Profiles for Winter 2030 System Peak Day (MW)



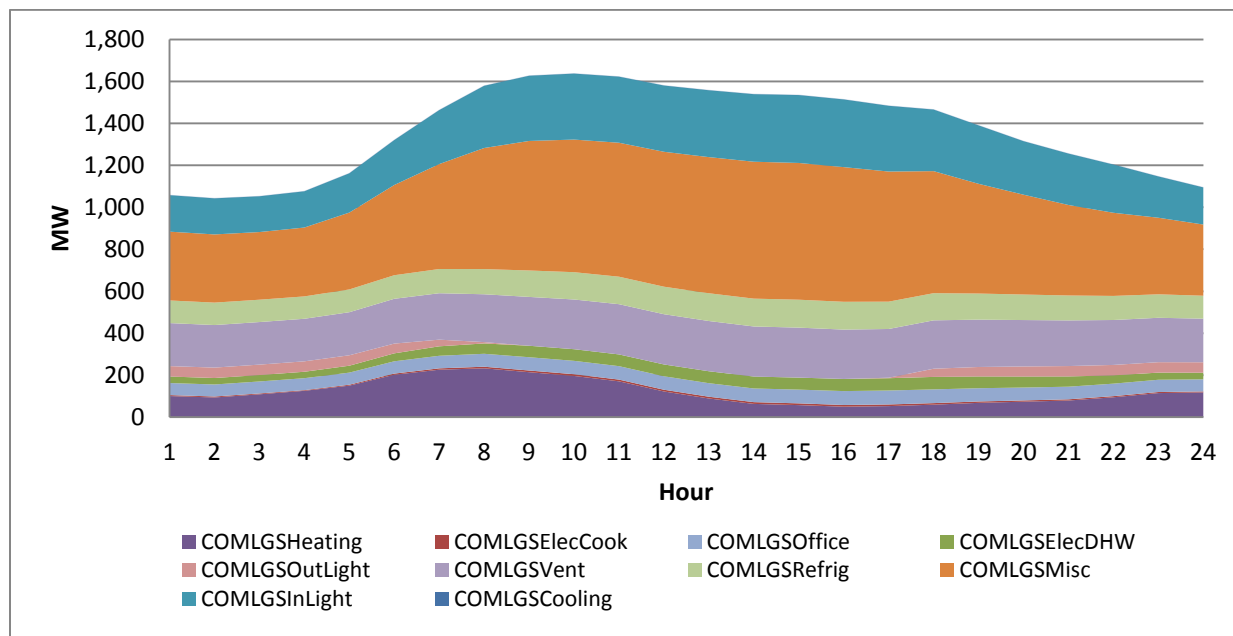
Winter 2030 System Peak Day: Residential End-Use Profiles (MW)



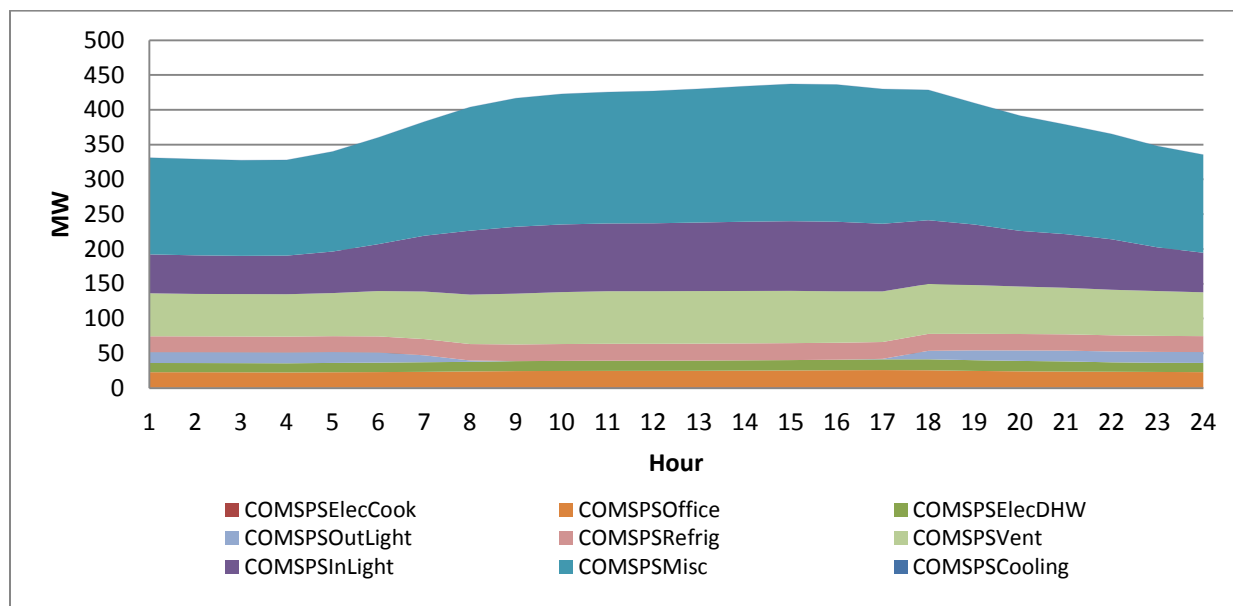
Winter 2030 System Peak Day: Commercial SGS End-Use Profiles (MW)



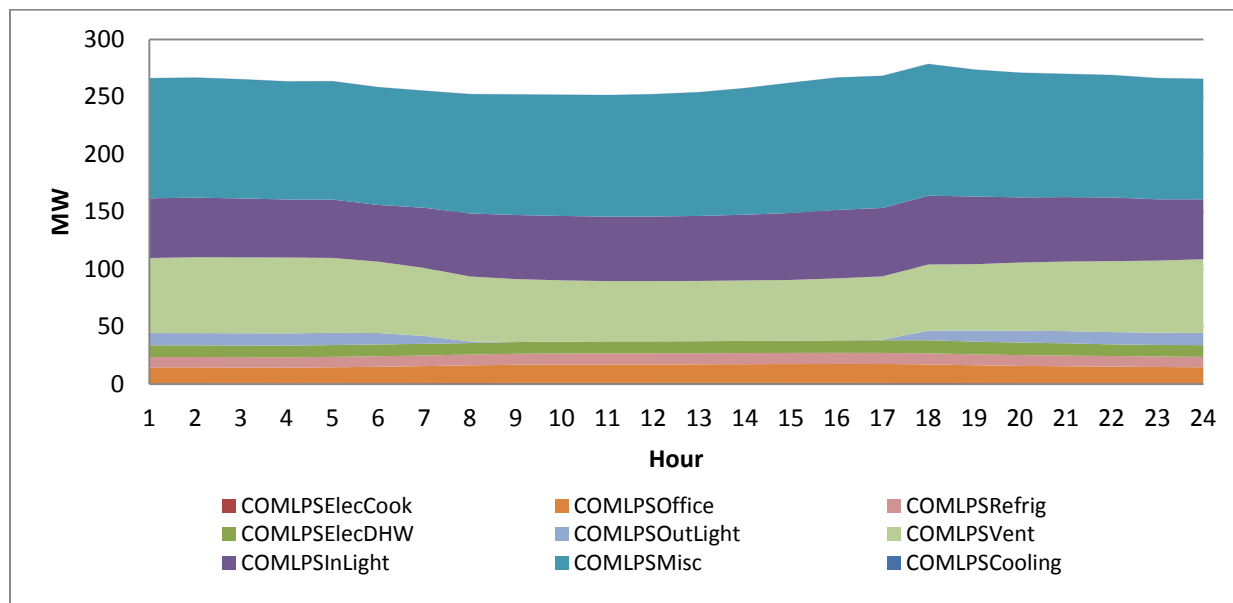
Winter 2030 System Peak Day: Commercial LGS End-Use Profiles (MW)



Winter 2030 System Peak Day: Commercial SPS End-Use Profiles (MW)



Winter 2030 System Peak Day: Commercial LPS End-Use Profiles (MW)



Load Profiles for Winter 2030 System Peak Day (MW)

Hour	RES	COM SGS	COM LGS	COM SPS	COM LPS	IND SGS	IND LGS	IND SPS	IND LPS	WS	Lighting	Noranda	Total
1	2,855	438	1,058	331	266	25.20	130	177	336	-	62	493	6,171
2	2,777	430	1,043	329	267	25.29	133	174	335	-	62	493	6,067
3	2,758	439	1,052	328	265	25.56	134	173	336	-	62	493	6,066
4	2,758	456	1,076	328	263	26.76	132	167	335	-	62	493	6,098
5	2,794	509	1,162	340	264	26.79	137	172	336	-	62	493	6,295
6	2,954	598	1,320	360	258	29.18	145	178	341	-	62	493	6,740
7	3,062	678	1,463	383	255	36.04	165	188	350	-	62	493	7,135
8	3,083	740	1,579	404	252	38.55	176	191	352	-	12	493	7,321
9	2,917	760	1,627	417	252	40.53	180	197	353	-	-	493	7,235
10	2,992	760	1,637	423	252	42.47	179	200	351	-	-	493	7,329
11	3,051	747	1,622	425	251	35.97	180	200	344	-	-	493	7,351
12	3,099	715	1,580	427	252	35.73	171	201	340	-	-	493	7,315
13	3,104	695	1,557	430	254	34.53	168	202	340	-	-	493	7,278
14	3,100	676	1,539	434	258	34.96	174	201	339	-	-	493	7,249
15	3,124	667	1,535	437	262	33.17	172	196	342	-	-	493	7,261
16	3,250	652	1,514	436	267	30.32	165	188	337	-	-	493	7,333
17	3,376	636	1,483	430	268	26.23	146	187	337	-	-	493	7,383
18	3,497	617	1,448	423	275	25.85	142	181	333	-	46	493	7,483
19	3,669	601	1,425	420	280	25.04	140	182	339	-	63	506	7,650
20	3,512	549	1,315	392	271	22.01	127	176	329	-	62	493	7,248
21	3,446	516	1,256	379	270	22.25	125	172	325	-	62	493	7,066
22	3,274	495	1,203	365	269	21.30	122	172	324	-	62	493	6,802
23	3,082	479	1,147	348	266	21.64	115	161	327	-	62	493	6,501
24	2,967	457	1,095	335	266	21.83	110	153	325	-	62	493	6,285

Winter 2030 System Peak Day: Residential End-Use Profiles (MW)

Hour	Cl. Wash	Refrig.	Misc	Lighting	Heating	Freezer	Dryer	Electric DHW	Cooker	Dish washer	Cooling	TV	Total
1	0.14	60	518	90	2,015	14.58	15.99	65	1.87	16.37	-	59	2,855
2	(0.00)	58	518	54	2,012	14.17	6.29	49	1.02	4.92	-	59	2,777
3	0.12	56	518	38	2,025	13.83	2.62	46	1.23	0.88	-	56	2,758
4	0.45	55	518	24	2,042	13.36	0.34	49	1.70	0.24	-	54	2,758
5	1.65	54	528	35	2,040	12.41	0.00	71	3.76	(0.00)	-	48	2,794
6	6.13	53	545	69	2,027	12.01	11.20	132	26.52	13.22	-	60	2,954
7	10.92	55	520	106	1,949	12.14	62.22	215	47.14	19.08	-	66	3,062
8	15.34	58	521	109	1,895	12.82	95.38	222	54.47	36.03	-	64	3,083
9	12.59	58	483	72	1,910	14.44	81.35	167	32.02	38.87	-	46	2,917
10	12.49	55	486	61	1,998	15.91	109.03	140	28.31	38.35	-	48	2,992
11	10.85	54	486	50	2,081	17.29	125.83	114	30.95	29.13	-	52	3,051
12	8.99	54	490	40	2,143	18.23	126.23	100	36.34	26.94	-	55	3,099
13	7.89	53	489	40	2,161	19.59	117.97	93	32.83	30.39	-	60	3,104
14	7.59	54	489	40	2,162	20.80	106.23	89	30.57	30.55	-	70	3,100
15	7.46	56	492	39	2,186	21.62	95.77	85	36.64	22.96	-	81	3,124
16	8.11	61	504	46	2,208	22.29	100.89	95	74.95	22.95	-	106	3,250
17	8.29	70	522	75	2,202	22.16	101.93	108	119.22	22.72	-	125	3,376
18	8.42	84	516	170	2,162	21.21	100.09	121	147.07	32.38	-	136	3,497
19	8.11	100	529	283	2,155	20.91	101.81	137	122.83	60.48	-	150	3,669
20	6.65	94	517	333	2,056	19.45	95.67	133	44.71	65.57	-	147	3,512
21	5.58	90	517	346	2,032	18.77	88.98	122	24.00	57.36	-	145	3,446
22	2.76	83	517	305	2,004	17.83	75.04	98	11.41	34.94	-	126	3,274
23	0.92	69	518	226	1,996	16.88	55.44	77	3.95	21.68	-	97	3,082
24	0.05	62	517	147	2,030	15.26	29.96	70	0.41	18.54	-	76	2,967

Winter 2030 System Peak Day: Commercial SGS End-Use Profiles (MW)

Hour	Refrig	Outdoor Light	Office	Misc	Indoor Light	Heating	Electric DHW	Electric Cook	Cooling	Vent	Total
1	1.58	18.35	19.80	59	88	158	18.92	2.07	-	73	438
2	1.50	18.35	19.79	56	87	153	18.87	2.07	-	73	430
3	1.47	18.35	19.73	56	86	163	18.85	1.88	-	73	439
4	1.48	18.35	19.68	63	85	175	18.85	1.42	-	73	456
5	1.62	18.34	19.85	94	86	194	19.21	1.91	-	73	509
6	1.88	17.16	20.04	149	85	231	19.33	2.46	-	73	598
7	2.08	11.72	20.36	209	90	249	19.57	2.93	-	74	678
8	2.38	2.28	20.89	270	95	253	19.41	3.44	-	74	740
9	2.79	-	21.36	301	97	240	20.04	3.63	-	74	760
10	3.08	-	21.50	312	98	227	20.32	3.71	-	74	760
11	3.15	-	21.61	317	98	209	20.55	3.75	-	74	747
12	3.16	-	21.65	320	98	175	20.49	3.74	-	74	715
13	3.24	-	21.72	322	99	151	20.62	3.80	-	74	695
14	3.26	-	21.93	320	100	133	20.71	3.82	-	74	676
15	3.30	-	22.10	313	102	128	20.94	3.77	-	74	667
16	3.25	-	22.40	301	104	123	21.27	3.66	-	74	652
17	3.09	0.86	22.53	283	103	125	21.67	3.56	-	74	636
18	2.95	14.12	21.99	248	102	129	21.96	3.28	-	74	617
19	2.77	17.07	22.03	216	104	138	22.17	3.08	-	76	601
20	2.53	17.72	20.95	175	97	138	21.10	2.72	-	74	549
21	2.33	18.28	20.59	140	96	142	20.66	2.61	-	73	516
22	2.05	18.34	20.39	112	95	152	19.21	2.51	-	73	495
23	1.85	18.35	20.10	88	90	166	18.85	2.30	-	73	479
24	1.67	18.35	19.87	68	88	167	19.00	2.09	-	73	457

Winter 2030 System Peak Day: Commercial LGS End-Use Profiles (MW)

Hour	Cooling	Electric Cook	Electric DHW	Heating	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	-	4.58	31	101	174	328	57	49.70	108	205	1,058
2	-	4.58	31	94	172	325	57	49.70	107	203	1,043
3	-	4.15	31	109	170	322	57	49.70	106	203	1,052
4	-	3.15	31	126	173	328	57	49.70	107	203	1,076
5	-	4.24	33	150	187	366	58	49.69	109	205	1,162
6	-	5.44	38	202	214	430	59	46.49	112	213	1,320
7	-	6.48	45	226	257	500	60	31.81	115	221	1,463
8	-	7.62	49	233	296	577	62	6.24	120	228	1,579
9	-	8.04	55	214	311	617	63	-	126	233	1,627
10	-	8.21	55	197	314	632	64	-	130	237	1,637
11	-	8.30	56	171	315	638	64	-	131	239	1,622
12	-	8.28	56	123	316	643	64	-	131	239	1,580
13	-	8.41	57	89	318	649	64	-	132	239	1,557
14	-	8.45	57	63	322	652	65	-	133	239	1,539
15	-	8.36	57	58	323	651	65	-	133	238	1,535
16	-	8.10	58	50	322	642	66	-	132	235	1,514
17	-	7.88	59	53	313	620	66	2.41	130	232	1,483
18	-	7.27	59	59	290	574	65	38.55	128	228	1,448
19	-	6.82	57	70	285	536	65	46.45	127	231	1,425
20	-	6.03	52	74	255	476	61	48.09	122	221	1,315
21	-	5.79	49	79	245	431	60	49.54	119	218	1,256
22	-	5.55	40	95	229	396	59	49.69	115	214	1,203
23	-	5.09	34	115	197	365	58	49.70	112	211	1,147
24	-	4.63	32	118	177	339	58	49.70	109	208	1,095

Winter 2030 System Peak Day: Commercial SPS End-Use Profiles (MW)

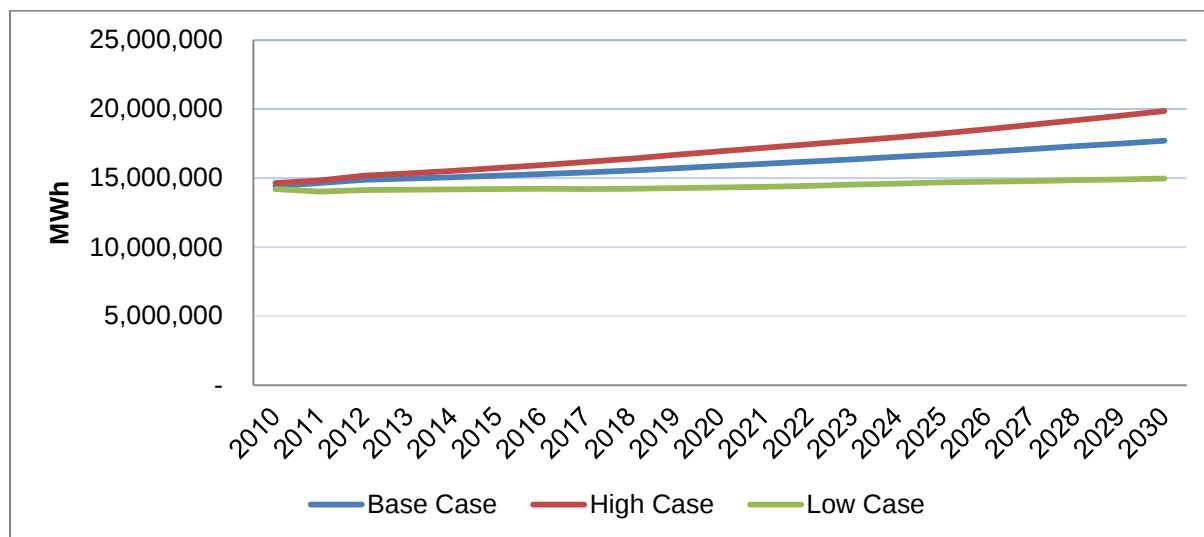
Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	-	0.70	13.22	56	139	22.25	15.58	22.82	62	331
2	-	0.70	13.18	55	138	22.24	15.58	22.75	61	329
3	-	0.64	13.16	55	137	22.17	15.58	22.73	61	328
4	-	0.48	13.16	55	137	22.10	15.58	22.74	61	328
5	-	0.65	13.43	60	144	22.22	15.58	22.86	62	340
6	-	0.84	13.58	67	153	22.28	14.57	23.10	65	360
7	-	1.00	13.83	80	164	22.47	9.96	23.30	68	383
8	-	1.17	13.77	92	178	22.90	1.94	23.60	71	404
9	-	1.24	14.27	96	185	23.35	-	23.97	73	417
10	-	1.26	14.47	97	187	23.48	-	24.23	75	423
11	-	1.28	14.64	97	189	23.58	-	24.27	76	425
12	-	1.27	14.60	98	190	23.62	-	24.28	76	427
13	-	1.29	14.70	98	192	23.69	-	24.33	76	430
14	-	1.30	14.75	100	195	23.95	-	24.36	75	434
15	-	1.28	14.91	100	197	24.16	-	24.38	75	437
16	-	1.24	15.15	100	197	24.54	-	24.34	74	436
17	-	1.21	15.43	97	194	24.78	0.73	24.21	73	430
18	-	1.12	15.62	90	185	24.27	12.00	24.04	71	423
19	-	1.05	15.75	89	179	24.39	14.49	24.36	72	420
20	-	0.93	14.97	80	165	23.26	15.05	23.62	68	392
21	-	0.89	14.62	77	157	22.93	15.53	23.43	67	379
22	-	0.85	13.52	72	151	22.78	15.58	23.21	65	365
23	-	0.78	13.20	63	146	22.52	15.58	23.05	64	348
24	-	0.71	13.28	57	141	22.31	15.58	22.90	63	335

Winter 2030 System Peak Day: Commercial LPS End-Use Profiles (MW)

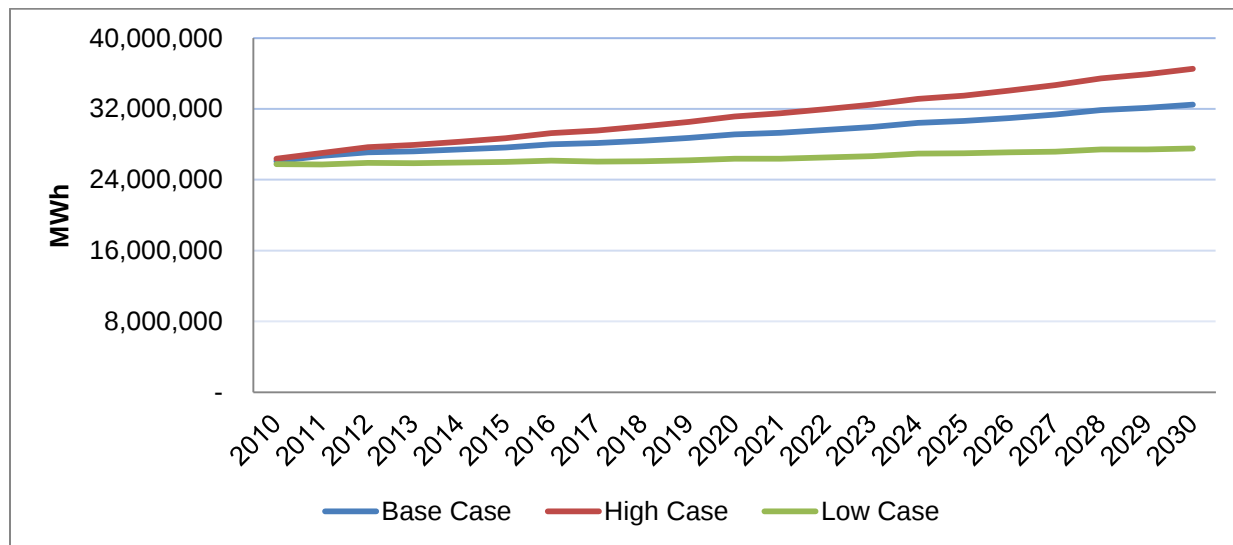
Hour	Cooling	Electric Cook	Electric DHW	Indoor Light	Misc	Office	Outdoor Light	Refrig	Vent	Total
1	-	0.58	10.17	52	104	13.95	10.67	9.06	65	266
2	-	0.58	10.14	52	104	13.94	10.67	9.03	66	267
3	-	0.53	10.14	51	104	13.90	10.67	9.02	66	265
4	-	0.40	10.14	51	103	13.88	10.67	9.03	66	263
5	-	0.54	10.28	51	103	14.08	10.67	9.07	65	264
6	-	0.69	10.23	49	102	14.39	9.98	9.17	62	258
7	-	0.82	10.18	52	102	14.82	6.82	9.25	59	255
8	-	0.97	9.97	55	104	15.38	1.33	9.37	57	252
9	-	1.02	10.20	56	105	15.81	-	9.52	55	252
10	-	1.04	10.34	56	105	15.94	-	9.63	53	252
11	-	1.05	10.47	56	106	16.03	-	9.65	52	251
12	-	1.05	10.42	56	106	16.07	-	9.65	52	252
13	-	1.07	10.48	57	108	16.12	-	9.67	52	254
14	-	1.07	10.54	57	110	16.26	-	9.68	53	258
15	-	1.06	10.66	58	113	16.36	-	9.69	53	262
16	-	1.03	10.83	60	115	16.50	-	9.68	54	267
17	-	1.00	11.04	60	115	16.50	0.50	9.62	55	268
18	-	0.92	11.21	59	113	16.00	8.21	9.55	57	275
19	-	0.87	11.37	60	113	15.95	9.92	9.68	59	280
20	-	0.77	10.88	57	108	15.08	10.30	9.38	59	271
21	-	0.73	10.72	56	107	14.74	10.63	9.30	61	270
22	-	0.70	10.11	55	107	14.52	10.67	9.21	62	269
23	-	0.65	10.04	53	105	14.25	10.67	9.15	63	266
24	-	0.59	10.20	52	105	14.01	10.67	9.09	64	266

Energy Forecast for High-Low-Base* Case Scenarios²⁴

High-Low-Base Case Energy Usage Forecast for Summer Months (MWh)



High-Low-Base Case Energy Usage Forecast for Non-summer Months (MWh)



²⁴ 4 CSR 240-22.030(8)(D), 4 CSR 240-22.030(8)(D)1, 4 CSR 240-22.030(8)(D)3

* "High" scenario refers to "High Load Low Gas Carbon Mandates" scenario, "Low" scenario refers to "Low Load Low Gas Cap and Trade Carbon Policy" scenario and "Base" case refers to weighted average of all the 10 load scenarios considered for IRP 2011. "Base" case is also referred to as "Planning Case"

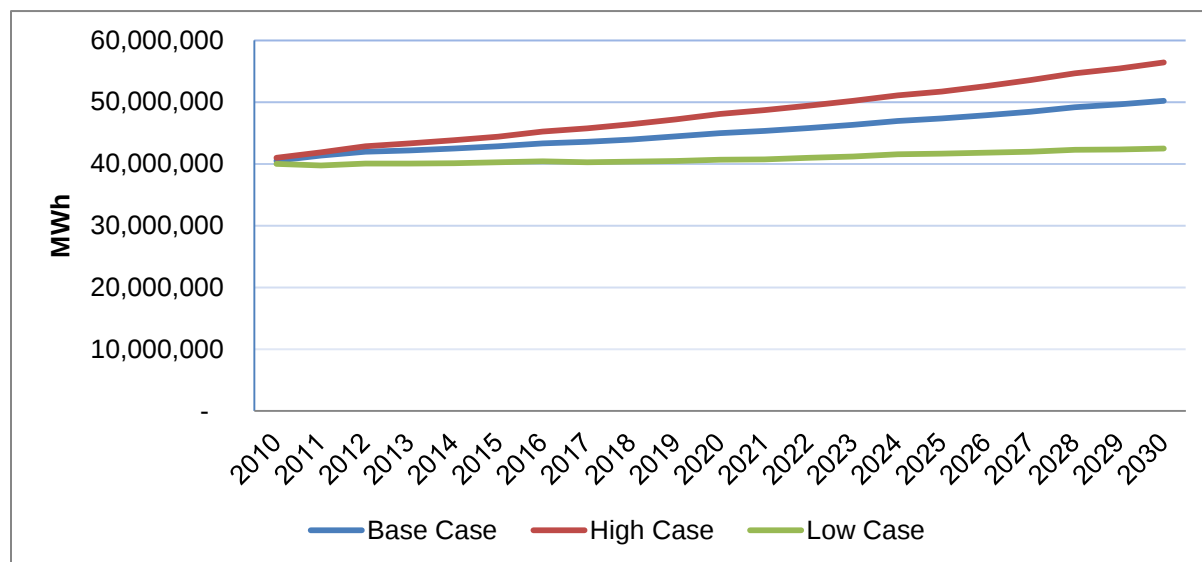
High-Low-Base Case Energy Usage Forecast for Summer Months (MWh)

Year	Base Case	High Case	Low Case
2010	14,426,916	14,644,969	14,211,395
2011	14,648,071	14,839,079	14,021,808
2012	14,878,299	15,180,468	14,145,656
2013	14,975,558	15,358,749	14,171,032
2014	15,062,543	15,527,256	14,184,731
2015	15,180,837	15,732,174	14,222,663
2016	15,300,587	15,953,411	14,226,666
2017	15,418,335	16,172,345	14,223,724
2018	15,557,984	16,415,558	14,242,041
2019	15,726,650	16,689,063	14,289,170
2020	15,874,046	16,937,854	14,320,992
2021	16,035,636	17,195,088	14,380,772
2022	16,201,219	17,448,054	14,453,937
2023	16,372,662	17,707,283	14,532,573
2024	16,550,000	17,973,569	14,615,856
2025	16,725,267	18,236,350	14,698,677
2026	16,913,950	18,547,131	14,749,166
2027	17,109,744	18,873,018	14,797,971
2028	17,313,047	19,203,485	14,858,003
2029	17,515,892	19,531,921	14,919,875
2030	17,722,011	19,867,732	14,981,072

High-Low-Base Case Energy Usage Forecast for Non-summer Months (MWh)

Year	Base Case	High Case	Low Case
2010	26,088,084	26,348,180	25,764,132
2011	26,696,940	27,025,113	25,709,708
2012	27,087,866	27,660,196	25,888,397
2013	27,192,804	27,924,404	25,852,162
2014	27,396,293	28,282,297	25,915,631
2015	27,638,145	28,686,183	26,006,998
2016	28,006,800	29,248,885	26,158,991
2017	28,121,248	29,550,642	26,050,801
2018	28,385,045	30,008,715	26,087,546
2019	28,698,462	30,518,985	26,174,033
2020	29,114,109	31,134,740	26,361,648
2021	29,295,822	31,493,251	26,357,178
2022	29,611,291	31,974,227	26,498,868
2023	29,938,112	32,467,157	26,651,457
2024	30,406,212	33,113,940	26,930,789
2025	30,610,581	33,474,523	26,972,999
2026	30,965,639	34,052,820	27,077,576
2027	31,334,966	34,666,734	27,172,628
2028	31,851,432	35,437,284	27,404,856
2029	32,091,741	35,900,021	27,398,690
2030	32,475,596	36,527,108	27,513,296

High-Low-Base Case Annual Energy Forecast (MWh)

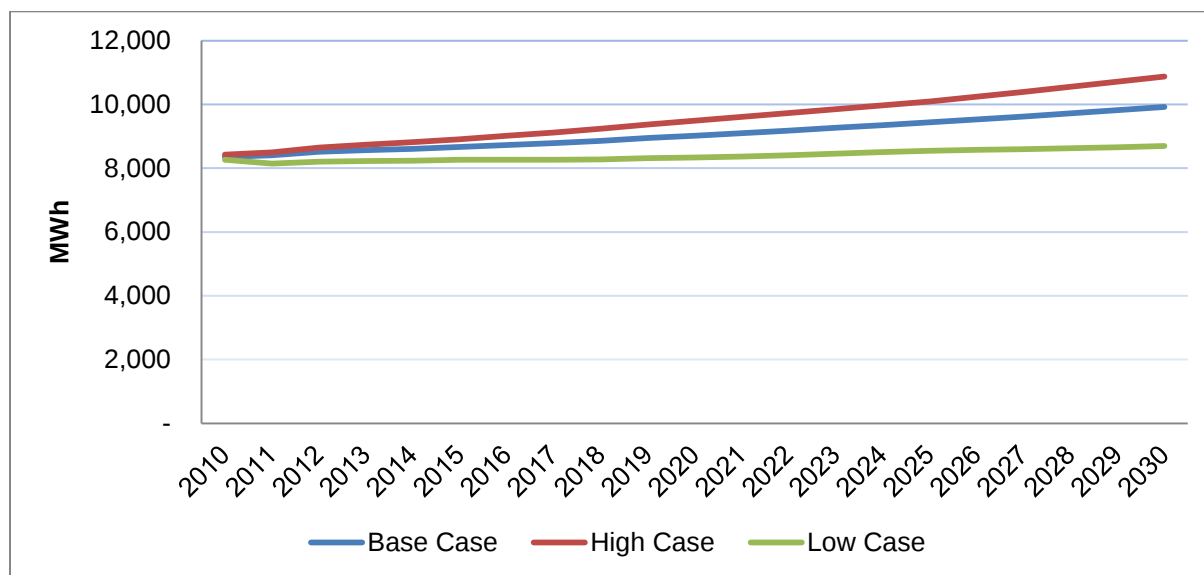


High-Low-Base Case Annual Energy Forecast (MWh)

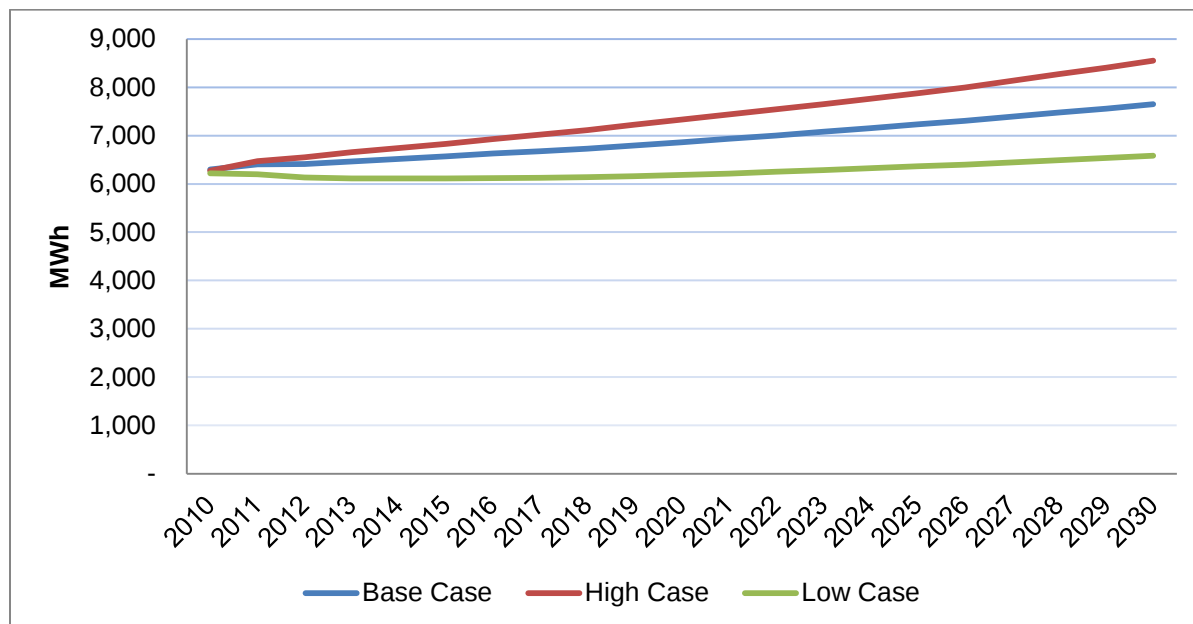
Year	Base Case	High Case	Low Case
2010	40,515,000	40,993,149	39,975,527
2011	41,345,011	41,864,192	39,731,516
2012	41,966,165	42,840,664	40,034,054
2013	42,168,362	43,283,152	40,023,195
2014	42,458,836	43,809,552	40,100,362
2015	42,818,982	44,418,356	40,229,661
2016	43,307,387	45,202,296	40,385,658
2017	43,539,583	45,722,987	40,274,526
2018	43,943,030	46,424,272	40,329,587
2019	44,425,112	47,208,048	40,463,203
2020	44,988,155	48,072,594	40,682,639
2021	45,331,457	48,688,339	40,737,950
2022	45,812,510	49,422,281	40,952,805
2023	46,310,774	50,174,440	41,184,030
2024	46,956,213	51,087,509	41,546,645
2025	47,335,848	51,710,873	41,671,677
2026	47,879,589	52,599,951	41,826,742
2027	48,444,711	53,539,752	41,970,600
2028	49,164,479	54,640,768	42,262,859
2029	49,607,633	55,431,942	42,318,565
2030	50,197,607	56,394,840	42,494,368

Peak Demand Forecasts for Base, High and Low Case Scenarios²⁵

High-Low-Base Case Peak Demand Forecast for Summer Months (MWh)



High-Low-Base Case Peak Demand Forecast for Winter Months (MWh)



²⁵ 4 CSR 240-22.030(8)(D), 4 CSR 240-22.030(8)(D)2, 4 CSR 240-22.030(8)(D)3

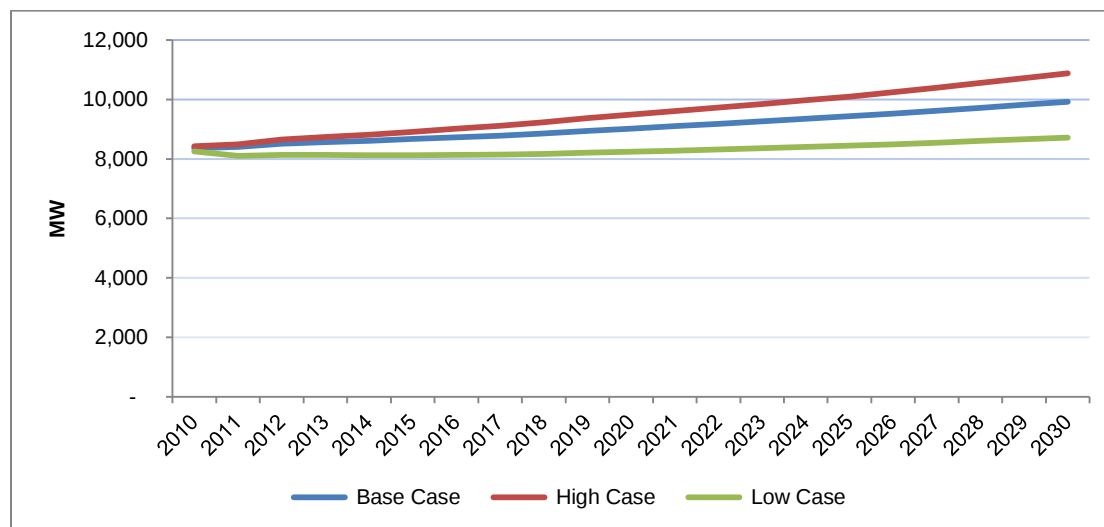
High-Low-Base Case Peak Demand Forecast for Summer Months (MWh)

Year	Base Case	High Case	Low Case
2010	8,359	8,422	8,267
2011	8,407	8,493	8,141
2012	8,512	8,648	8,200
2013	8,568	8,739	8,224
2014	8,610	8,817	8,236
2015	8,668	8,911	8,261
2016	8,727	9,016	8,266
2017	8,785	9,118	8,266
2018	8,855	9,235	8,278
2019	8,943	9,368	8,310
2020	9,018	9,488	8,331
2021	9,098	9,611	8,365
2022	9,180	9,729	8,408
2023	9,264	9,850	8,454
2024	9,351	9,974	8,501
2025	9,436	10,093	8,547
2026	9,526	10,240	8,572
2027	9,621	10,396	8,596
2028	9,720	10,555	8,627
2029	9,820	10,714	8,659
2030	9,922	10,876	8,693

High-Low-Base Case Peak Demand Forecast for Winter Months (MWh)

Year	Base Case	High Case	Low Case
2010	6,299	6,274	6,271
2011	6,408	6,474	6,253
2012	6,416	6,552	6,210
2013	6,470	6,659	6,215
2014	6,519	6,745	6,232
2015	6,572	6,832	6,254
2016	6,630	6,930	6,271
2017	6,679	7,022	6,269
2018	6,733	7,117	6,273
2019	6,799	7,226	6,289
2020	6,867	7,334	6,308
2021	6,935	7,442	6,333
2022	7,006	7,547	6,369
2023	7,080	7,656	6,407
2024	7,156	7,767	6,447
2025	7,232	7,877	6,486
2026	7,311	8,000	6,515
2027	7,393	8,136	6,536
2028	7,478	8,274	6,561
2029	7,562	8,411	6,588
2030	7,650	8,551	6,617

High-Low-Base Case Annual Peak Demand Forecast (MW)



High-Low-Base Case Annual Peak Demand Forecast (MW)

Forecast Year	Base Case	High Case	Low Case
2010	8,359	8,422	8,267
2011	8,407	8,493	8,141
2012	8,512	8,648	8,200
2013	8,568	8,739	8,224
2014	8,610	8,817	8,236
2015	8,668	8,911	8,261
2016	8,727	9,016	8,266
2017	8,785	9,118	8,266
2018	8,855	9,235	8,278
2019	8,943	9,368	8,310
2020	9,018	9,488	8,331
2021	9,098	9,611	8,365
2022	9,180	9,729	8,408
2023	9,264	9,850	8,454
2024	9,351	9,974	8,501
2025	9,436	10,093	8,547
2026	9,526	10,240	8,572
2027	9,621	10,396	8,596
2028	9,720	10,555	8,627
2029	9,820	10,714	8,659
2030	9,922	10,876	8,693

Weather Normalized Energy Models²⁶

Residential Weather Normalization Energy Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	13,499,246	5,221,382	2.59	0.01
DOWBinary.Monday	-1,965,123	289,863	-6.78	0.00
DOWBinary.Tuesday	-2,573,703	287,207	-8.96	0.00
DOWBinary.Wednesday	-2,860,960	288,462	-9.92	0.00
DOWBinary.Thursday	-2,716,200	287,734	-9.44	0.00
DOWBinary.Friday	-2,645,223	286,656	-9.23	0.00
DOWBinary.Saturday	-936,684	286,105	-3.27	0.00
MonthBinary.Jan	-1,338,235	424,742	-3.15	0.00
MonthBinary.Feb	-2,636,115	417,754	-6.31	0.00
MonthBinary.Mar	30,315,547	4,937,964	6.14	0.00
MonthBinary.Apr	28,478,848	4,989,421	5.71	0.00
MonthBinary.May	-9,787,240	799,791	-12.24	0.00
MonthBinary.Jun	-7,310,802	886,980	-8.24	0.00
MonthBinary.Jul	-6,369,651	892,530	-7.14	0.00
MonthBinary.Aug	-6,021,118	882,856	-6.82	0.00
MonthBinary.Sep	-9,088,752	842,922	-10.78	0.00
MonthBinary.Oct	-8,902,141	684,824	-13.00	0.00
MonthBinary.Nov	29,862,488	4,932,516	6.05	0.00
ResSplines.AvgT	352,687	82,847	4.26	0.00
ResSplines.ColdAvgT	-1,182,591	87,463	-13.52	0.00
ResSplines.CoolAvgT	-906,832	93,770	-9.67	0.00
ResSplines.WarmAvgT	1,122,334	95,253	11.78	0.00
ResSplines.HotAvgT	1,898,509	153,287	12.39	0.00
ResSplines.ColdDummy	63,270,590	5,269,609	12.01	0.00
ResSplines.CoolDummy	53,907,905	5,683,764	9.49	0.00
ResSplines.WarmDummy	-76,902,468	6,326,127	-12.16	0.00
ResSplines.HotDummy	-139,443,505	11,970,213	-11.65	0.00
ResSplines.ShoulderAvgT	-606,711	75,540	-8.03	0.00
ResSplines.ShoulderColdAvgT	767,140	148,679	5.16	0.00
ResSplines.ShoulderCoolAvgT	516,386	96,522	5.35	0.00
ResSplines.ShoulderColdDummy	-40,683,652	6,523,759	-6.24	0.00
ResSplines.ShoulderCoolDummy	-32,233,064	5,807,133	-5.55	0.00

²⁶ 4 CSR 240-22.030(1)(C)2.C.; 4 CSR 240-22.030(2)(B)

Residential Weather Normalization Energy Models Statistics

Model Statistic	Value of the Statistic
Deg. of Freedom for Error	667
R-Squared	0.964
Adjusted R-Squared	0.963
F-Statistic	580
Prob (F-Statistic)	0.000
Mean Abs. % Err. (MAPE)	0.041
Durbin-Watson Statistic	1.253

Commercial SGS Weather Normalization Energy Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	5,876,655	722,875	8.13	0.00
DOWBinary.TWT	1,261,667	180,873	6.98	0.00
DOWBinary.MonFri	1,120,138	181,150	6.18	0.00
DOWBinary.Saturday	560,481	55,188	10.16	0.00
MonthBinary.Feb	-143,261	67,269	-2.13	0.03
MonthBinary.Mar	386,287	240,475	1.61	0.11
MonthBinary.Apr	433,698	259,331	1.67	0.09
MonthBinary.May	-1,032,096	140,853	-7.33	0.00
MonthBinary.Jun	-668,435	162,652	-4.11	0.00
MonthBinary.Jul	-787,431	163,503	-4.82	0.00
MonthBinary.Aug	-735,477	161,467	-4.56	0.00
MonthBinary.Sep	-822,714	153,106	-5.37	0.00
MonthBinary.Oct	-1,008,850	116,216	-8.68	0.00
MonthBinary.Nov	434,221	244,388	1.78	0.08
COMSGSSplines.AvgT	40,380	12,493	3.23	0.00
COMSGSSplines.ColdAvgT	-154,982	13,846	-11.19	0.00
COMSGSSplines.CoolAvgT	-122,676	17,843	-6.88	0.00
COMSGSSplines.WarmAvgT	52,893	31,227	1.69	0.09
COMSGSSplines.HotAvgT	186,502	13,992	13.33	0.00
COMSGSSplines.ColdDummy	7,622,930	737,962	10.33	0.00
COMSGSSplines.CoolDummy	6,441,156	930,108	6.93	0.00
COMSGSSplines.WarmDummy	-3,105,316	2,053,177	-1.51	0.13
COMSGSSplines.HotDummy	-12,674,556	891,362	-14.22	0.00
COMSGSSplines.ShoulderAvgT	-23,927	5,314	-4.50	0.00
COMSGSSplines.ShoulderCoolAvgT	33,311	16,720	1.99	0.05
COMSGSSplines.ShoulderCoolDummy	-1,556,330	782,745	-1.99	0.05
COMSGSSplines.WkndAvgT	-21,649	2,751	-7.87	0.00
COMSGSSplines.WkndColdAvgT	36,155	10,477	3.45	0.00
COMSGSSplines.WkndColdDummy	-1,490,264	346,027	-4.31	0.00

Note: Five variables with marginal statistical significance ($>.05$ p-value) were retained in the model because of the interpretive value they provide, given the fact that the coefficients make sense in direction and magnitude and they provide consistency to the model structure.

ComSGS Weather Normalization Energy Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	707
Deg. of Freedom for Error	678
R-Squared	0.950
Adjusted R-Squared	0.948
F-Statistic	461
Prob (F-Statistic)	0.000
Mean Abs. % Err. (MAPE)	0.032
Durbin-Watson Statistic	1.477

ComLGS Weather Normalization Energy Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	18,257,093	826,482	22.09	0.00
DOWBinary.TWT	2,911,896	155,592	18.72	0.00
DOWBinary.MonFri	2,549,842	156,581	16.28	0.00
DOWBinary.Saturday	883,312	76,857	11.49	0.00
MonthBinary.Jan	-274,344	116,283	-2.36	0.02
MonthBinary.Feb	-115,809	112,458	-1.03	0.30
MonthBinary.Mar	979,829	309,742	3.16	0.00
MonthBinary.Apr	1,744,326	332,214	5.25	0.00
MonthBinary.May	994,928	197,420	5.04	0.00
MonthBinary.Jun	-2,641,261	1,077,632	-2.45	0.01
MonthBinary.Jul	-2,700,223	1,080,365	-2.50	0.01
MonthBinary.Aug	-2,218,183	1,077,137	-2.06	0.04
MonthBinary.Sep	-2,350,322	1,053,747	-2.23	0.03
MonthBinary.Oct	1,165,828	164,640	7.08	0.00
MonthBinary.Nov	1,334,576	312,853	4.27	0.00
COMLGSSplines.NonSummerAvgT	-58,422	15,648	-3.73	0.00
COMLGSSplines.NonSummerColdAvgT	-130,357	22,087	-5.90	0.00
COMLGSSplines.NonSummerCoolAvgT	-107,427	16,719	-6.43	0.00
COMLGSSplines.WarmAvgT	178,281	19,237	9.27	0.00
COMLGSSplines.HotAvgT	309,805	9,041	34.27	0.00
COMLGSSplines.NonSummerColdDummy	5,903,069	885,986	6.66	0.00
COMLGSSplines.NonSummerCoolDummy	5,111,746	858,099	5.96	0.00
COMLGSSplines.WarmDummy	-10,113,197	1,086,190	-9.31	0.00
COMLGSSplines.HotDummy	-19,240,130	716,271	-26.86	0.00
COMSGSSplines.ShoulderAvgT	-19,175	6,998	-2.74	0.01
COMSGSSplines.WkndAvgT	-23,434	2,505	-9.35	0.00

ComLGS Weather Normalization Energy Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	685
Deg. of Freedom for Error	659
R-Squared	0.96
Adjusted R-Squared	0.96
F-Statistic	657
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.02
Durbin-Watson Statistic	1.57

ComSPS Weather Normalization Energy Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	65,942,656	6,149,643	10.72	0.00
DOWBinary.MonFri	911,571	20,808	43.81	0.00
DOWBinary.TWT	978,749	19,592	49.96	0.00
DOWBinary.Saturday	185,165	23,853	7.76	0.00
MonthBinary.Jan	129,829	43,278	3.00	0.00
MonthBinary.Feb	195,334	40,402	4.84	0.00
MonthBinary.Mar	-113,527	44,258	-2.57	0.01
MonthBinary.Apr	-694,903	136,963	-5.07	0.00
MonthBinary.May	-552,463	142,180	-3.89	0.00
MonthBinary.Jun	-405,308	144,498	-2.81	0.01
MonthBinary.Jul	-287,907	144,607	-1.99	0.05
MonthBinary.Aug	-471,242	143,943	-3.27	0.00
MonthBinary.Sep	-256,959	142,452	-1.80	0.07
MonthBinary.Oct	-568,317	136,962	-4.15	0.00
MonthBinary.Nov	-522,667	127,615	-4.10	0.00
COMSPSSplines.AvgT	16,466	5,212	3.16	0.00
COMLGSSplines.ColdAvgT	-32,346	7,244	-4.47	0.00
COMSPSSplines.CoolAvgT	-26,293	5,784	-4.55	0.00
COMSPSSplines.WarmAvgT	34,905	5,945	5.87	0.00
COMSPSSplines.HotAvgT	76,743	7,751	9.90	0.00
COMSPSSplines.WinterAvgT	-11,776	2,737	-4.30	0.00
COMLGSSplines.ColdDummy	1,432,662	312,140	4.59	0.00
COMSPSSplines.CoolDummy	1,297,783	303,814	4.27	0.00
COMSPSSplines.WarmDummy	-2,120,453	349,318	-6.07	0.00
COMSPSSplines.HotDummy	-5,301,347	547,340	-9.69	0.00
MonthBinary.TrendVar2	-1,523	153	-9.93	0.00
MonthBinary.Yr2008	-123,464	49,901	-2.47	0.01

Note: The MonthBinary.Sep variable was retained in the model despite being only marginally statistically significant (p-value>.05). The direction and magnitude of the coefficient is reasonable, the standard error is consistent with the other seasonal variables, and the interpretation of all of the seasonal variables is cleaner with the inclusion of this variable.

Com SPS Weather Normalization Energy Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	680
Deg. of Freedom for Error	653
R-Squared	0.95
Adjusted R-Squared	0.95
F-Statistic	480
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.02
Durbin-Watson Statistic	0.93

Com LPS Weather Normalization Energy Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-10,133,165	4,881,748	-2.08	0.04
DOWBinary.TWT	360,381	34,316	10.50	0.00
DOWBinary.MonFri	327,736	34,614	9.47	0.00
DOWBinary.Saturday	90,826	17,172	5.29	0.00
MonthBinary.Jan	-235,183	30,309	-7.76	0.00
MonthBinary.Feb	-271,362	28,610	-9.49	0.00
MonthBinary.Mar	164,360	121,408	1.35	0.18
MonthBinary.Apr	331,487	123,521	2.68	0.01
MonthBinary.May	-173,679	49,427	-3.51	0.00
MonthBinary.Jun	-73,966	55,221	-1.34	0.18
MonthBinary.Jul	-61,737	55,586	-1.11	0.27
MonthBinary.Aug	98,690	54,892	1.80	0.07
MonthBinary.Sep	154,674	52,359	2.95	0.00
MonthBinary.Oct	87,414	44,419	1.97	0.05
MonthBinary.Nov	627,667	121,899	5.15	0.00
COMLPSSplines.AvgT	20,422	3,381	6.04	0.00
COMLPSSplines.CoolAvgT	-22,196	3,604	-6.16	0.00
COMLPSSplines.WarmAvgT	12,303	3,711	3.32	0.00
COMLPSSplines.HotAvgT	26,594	4,409	6.03	0.00
COMLPSSplines.CoolDummy	1,090,662	178,439	6.11	0.00
COMLPSSplines.WarmDummy	-744,901	208,447	-3.57	0.00
COMLPSSplines.HotDummy	-1,796,542	290,358	-6.19	0.00
MonthBinary.Yr2008	-456,631	37,616	-12.14	0.00
MonthBinary.TrendVar2	-356	123	-2.91	0.00
MonthBinary.TrendVar22	674	100	6.73	0.00
COMLPSSplines.ShoulderAvgT	-10,106	2,156	-4.69	0.00
COMLPSSplines.ShoulderCoolAvgT	9,865	4,655	2.12	0.03
COMLPSSplines.ShoulderCoolDummy	-513,224	196,352	-2.61	0.01
COMLPSSplines.WkndAvgT	-1,934	556	-3.48	0.00

Note: Four monthly binary variables were retained in the model despite being only marginally statistically significant ($p\text{-value} > .05$). The direction and magnitude of the coefficients are reasonable, the standard errors are consistent with the other seasonal variables, and the interpretation of all of the seasonal variables is cleaner with the inclusion of these variables.

Com LPS Weather Normalization Energy Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	690
Deg. of Freedom for Error	661
R-Squared	0.94
Adjusted R-Squared	0.93
F-Statistic	344
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.02
Durbin-Watson Statistic	1.00

Ind SGS Weather Normalization Energy Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	730,447	937,901	0.78	0.44
DOWBinary.Monday	152,016	5,029	30.23	0.00
DOWBinary.Tuesday	155,358	5,017	30.97	0.00
DOWBinary.Wednesday	160,343	5,016	31.97	0.00
DOWBinary.Thursday	154,214	5,058	30.49	0.00
DOWBinary.Friday	154,730	5,082	30.44	0.00
DOWBinary.Saturday	24,214	4,990	4.85	0.00
MonthBinary.Mar	12,992	6,425	2.02	0.04
MonthBinary.Apr	4,506	7,353	0.61	0.54
MonthBinary.May	22,804	8,464	2.69	0.01
MonthBinary.Jun	30,943	10,172	3.04	0.00
MonthBinary.Jul	30,265	10,230	2.96	0.00
MonthBinary.Aug	29,153	9,971	2.92	0.00
MonthBinary.Sep	42,528	9,192	4.63	0.00
MonthBinary.Oct	83,841	7,280	11.52	0.00
MonthBinary.Nov	85,990	6,698	12.84	0.00
INDSGSSplines.AvgT	-1,312	793	-1.65	0.10
INDSGSSplines.CoolAvgT	-3,354	831	-4.04	0.00
INDSGSSplines.WarmAvgT	8,233	948	8.68	0.00
INDSGSSplines.CoolDummy	201,369	48,724	4.13	0.00
INDSGSSplines.WarmDummy	-544,316	61,989	-8.78	0.00
MonthBinary.TrendVar2	-101	11	-8.85	0.00
MonthBinary.TrendVar22	88	27	3.23	0.00

Note: One monthly binary variable and the intercept were retained in the model despite being statistically insignificant (p-value>.05). The direction and magnitude of the coefficients are reasonable, the standard errors are consistent with the other seasonal variables, and the interpretation of all of the seasonal variables is cleaner with the inclusion of these variables. Additionally, the AvgT variable was retained with marginal statistical significance. The temperature range represented by this variable exhibits little load-temperature response, so the coefficient is not expected to be very different from zero and the inclusion of the variable does not cause any model predictions that are unreasonable.

Ind SGS Weather Normalization Energy Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	705
Deg. of Freedom for Error	682
R-Squared	0.84
Adjusted R-Squared	0.84
F-Statistic	168
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.09
Durbin-Watson Statistic	1.18

IndLGS Weather Normalization Energy Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	30,241,212	7,994,770	3.78	0.00
DOWBinary.Monday	1,125,855	42,770	26.32	0.00
DOWBinary.Tuesday	1,353,607	42,715	31.69	0.00
DOWBinary.Wednesday	1,408,126	42,897	32.83	0.00
DOWBinary.Thursday	1,352,458	43,123	31.36	0.00
DOWBinary.Friday	1,018,432	43,231	23.56	0.00
DOWBinary.Saturday	213,337	42,977	4.96	0.00
MonthBinary.Jan	178,174	58,173	3.06	0.00
MonthBinary.Feb	77,426	58,686	1.32	0.19
MonthBinary.Mar	31,156	57,602	0.54	0.59
MonthBinary.Apr	-53,709	60,815	-0.88	0.38
MonthBinary.May	51,176	65,500	0.78	0.43
MonthBinary.Jun	262,358	83,008	3.16	0.00
MonthBinary.Jul	361,442	84,234	4.29	0.00
MonthBinary.Aug	332,081	80,941	4.10	0.00
MonthBinary.Sep	300,228	73,663	4.08	0.00
MonthBinary.Oct	106,422	58,183	1.83	0.07
MonthBinary.Nov	243,911	60,050	4.06	0.00
INDLGSSplines.WarmAvgT	13,002	3,873	3.36	0.00
INDLGSSplines.WarmDummy	-829,556	263,582	-3.15	0.00
MonthBinary.TrendVar2	-1,652	98	-16.84	0.00
MonthBinary.TrendVar22	931	233	3.99	0.00

Note: Five monthly binary variables were retained in the model despite being only marginally statistically significant (p-value>.05). The direction and magnitude of the coefficients are reasonable, the standard errors are consistent with the other seasonal variables, and the interpretation of all of the seasonal variables is cleaner with the inclusion of these variables.

IndLGS Weather Normalization Energy Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	687
Deg. of Freedom for Error	665
R-Squared	0.81
Adjusted R-Squared	0.80
F-Statistic	134
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.09
Durbin-Watson Statistic	0.66

IndSPS Weather Normalization Energy Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-18,432,124	3,005,652	-6.13	0.00
DOWBinary.Monday	1,145,809	16,082	71.25	0.00
DOWBinary.Tuesday	1,364,279	15,948	85.55	0.00
DOWBinary.Wednesday	1,369,575	15,989	85.66	0.00
DOWBinary.Thursday	1,369,459	16,018	85.50	0.00
DOWBinary.Friday	1,192,004	16,101	74.03	0.00
DOWBinary.Saturday	309,149	15,982	19.34	0.00
MonthBinary.Jan	-56,160	18,621	-3.02	0.00
MonthBinary.Mar	-122,663	19,467	-6.30	0.00
MonthBinary.Apr	21,810	21,924	1.00	0.32
MonthBinary.May	98,302	25,470	3.86	0.00
MonthBinary.Jun	244,636	31,093	7.87	0.00
MonthBinary.Jul	179,407	31,787	5.64	0.00
MonthBinary.Aug	193,915	30,613	6.33	0.00
MonthBinary.Sep	177,944	27,790	6.40	0.00
MonthBinary.Oct	56,300	21,346	2.64	0.01
MonthBinary.Nov	27,744	20,500	1.35	0.18
INDSPSSplines.WarmAvgT	8,279	1,329	6.23	0.00
INDSPSSplines.HotAvgT	28,918	2,326	12.43	0.00
INDSPSSplines.WarmDummy	-462,517	77,514	-5.97	0.00
INDSPSSplines.HotDummy	-2,017,764	181,630	-11.11	0.00
MonthBinary.TrendVar2	-1,699	36	-46.85	0.00
MonthBinary.TrendVar22	2,211	87	25.27	0.00

Note: Two monthly binary variables were retained in the model despite being only marginally statistically significant ($p\text{-value} > .05$). The direction and magnitude of the coefficients are reasonable, the standard errors are consistent with the other seasonal variables, and the interpretation of all of the seasonal variables is cleaner with the inclusion of these variables.

IndSPS Weather Normalization Energy Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	680
Deg. of Freedom for Error	657
R-Squared	0.97
Adjusted R-Squared	0.97
F-Statistic	891
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.03
Durbin-Watson Statistic	1.34

Ind LPS Weather Normalization Energy Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	5,384,565	43,448	123.93	0.00
DOWBinary.Monday	704,450	34,076	20.67	0.00
DOWBinary.Tuesday	815,307	33,509	24.33	0.00
DOWBinary.Wednesday	854,031	33,489	25.50	0.00
DOWBinary.Thursday	900,454	33,665	26.75	0.00
DOWBinary.Friday	724,110	33,816	21.41	0.00
DOWBinary.Saturday	169,835	33,438	5.08	0.00
MonthBinary.Jan	47,156	48,816	0.97	0.33
MonthBinary.Feb	-149,618	49,173	-3.04	0.00
MonthBinary.Mar	-534,653	60,873	-8.78	0.00
MonthBinary.Apr	344,986	68,371	5.05	0.00
MonthBinary.May	535,454	77,026	6.95	0.00
MonthBinary.Jun	431,598	83,772	5.15	0.00
MonthBinary.Jul	389,095	82,780	4.70	0.00
MonthBinary.Aug	465,360	82,669	5.63	0.00
MonthBinary.Sep	190,880	80,341	2.38	0.02
MonthBinary.Oct	25,576	69,457	0.37	0.71
MonthBinary.Nov	-14,685	71,570	-0.21	0.84
INDLPSSplines.WarmAvgT	12,338	3,020	4.09	0.00
INDLPSSplines.HotAvgT	16,071	3,178	5.06	0.00
INDLPSSplines.WarmDummy	-681,180	165,629	-4.11	0.00
INDLPSSplines.HotDummy	-904,166	238,843	-3.79	0.00

Note: Three monthly binary variables were retained in the model despite being only marginally statistically significant ($p\text{-value} > .05$). The direction and magnitude of the coefficients are reasonable, the standard errors are consistent with the other seasonal variables, and the interpretation of all of the seasonal variables is cleaner with the inclusion of these variables.

Ind LPS Weather Normalization Energy Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	345
Deg. of Freedom for Error	323
R-Squared	0.92
Adjusted R-Squared	0.91
F-Statistic	174
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.02
Durbin-Watson Statistic	1.27

Wholesale Weather Normalization Energy Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-7,013,794	971,124	-7.22	0.00
DOWBinary.Monday	106,151	5,269	20.15	0.00
DOWBinary.Tuesday	106,370	5,204	20.44	0.00
DOWBinary.Wednesday	107,273	5,218	20.56	0.00
DOWBinary.Thursday	106,759	5,285	20.20	0.00
DOWBinary.Friday	89,705	5,314	16.88	0.00
DOWBinary.Saturday	16,428	5,256	3.13	0.00
MonthBinary.Jan	-15,506	7,064	-2.20	0.03
MonthBinary.Feb	-35,902	7,100	-5.06	0.00
MonthBinary.Mar	-42,338	8,105	-5.22	0.00
MonthBinary.Apr	-69,726	9,466	-7.37	0.00
MonthBinary.May	-46,975	7,582	-6.20	0.00
MonthBinary.Sep	-53,323	6,677	-7.99	0.00
MonthBinary.Oct	-99,350	8,744	-11.36	0.00
MonthBinary.Nov	-95,976	9,310	-10.31	0.00
WHSLSplines.AvgT	-2,028	826	-2.46	0.01
WHSLSplines.CoolAvgT	-5,367	916	-5.86	0.00
WHSLSplines.WarmAvgT	20,909	1,250	16.72	0.00
WHSLSplines.HotAvgT	38,955	1,501	25.95	0.00
WHSLSplines.CoolDummy	272,779	50,124	5.44	0.00
WHSLSplines.WarmDummy	-1,347,343	82,102	-16.41	0.00
WHSLSplines.HotDummy	-2,727,467	112,647	-24.21	0.00
WHSLSplines.WinterAvgT	-892	217	-4.11	0.00
WHSLSplines.ShoulderWarmAvgT	-8,330	3,142	-2.65	0.01
WHSLSplines.ShoulderWarmDummy	560,041	212,818	2.63	0.01
MonthBinary.TrendVar2	-228	12	-19.07	0.00
MonthBinary.TrendVar22	424	28	14.98	0.00

Wholesale Weather Normalization Energy Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	709
Deg. of Freedom for Error	682
R-Squared	0.95
Adjusted R-Squared	0.95
F-Statistic	510
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.03
Durbin-Watson Statistic	1.07

Weather Normalized Peak Demand Models²⁷

Residential Weather Normalization Peak Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	1,175,582	589,158	2.00	0.05
DOWBinary.Monday	-17,063	25,137	-0.68	0.50
DOWBinary.Tuesday	-79,306	24,963	-3.18	0.00
DOWBinary.Wednesday	-86,738	25,082	-3.46	0.00
DOWBinary.Thursday	-94,368	24,976	-3.78	0.00
DOWBinary.Friday	-132,233	24,811	-5.33	0.00
DOWBinary.Saturday	-116,225	24,803	-4.69	0.00
MonthBinary.Jan	-136,378	36,764	-3.71	0.00
MonthBinary.Feb	-204,643	36,064	-5.67	0.00
MonthBinary.Mar	-70,292	174,418	-0.40	0.69
MonthBinary.Apr	-149,615	175,980	-0.85	0.40
MonthBinary.May	-598,025	68,537	-8.73	0.00
MonthBinary.Jun	-434,129	76,385	-5.68	0.00
MonthBinary.Jul	-370,088	76,976	-4.81	0.00
MonthBinary.Aug	-309,306	76,212	-4.06	0.00
MonthBinary.Sep	-561,274	72,737	-7.72	0.00
MonthBinary.Oct	-545,480	57,722	-9.45	0.00
MonthBinary.Nov	-72,601	174,462	-0.42	0.68
ResSplines.AvgT	13,628	9,559	1.43	0.15
ResSplines.ColdAvgT	-49,833	9,850	-5.06	0.00
ResSplines.CoolAvgT	-36,193	9,774	-3.70	0.00
ResSplines.WarmAvgT	72,438	10,407	6.96	0.00
ResSplines.HotAvgT	100,262	13,047	7.69	0.00
ResSplines.ColdDummy	2,555,785	593,255	4.31	0.00
ResSplines.CoolDummy	2,119,982	601,272	3.53	0.00
ResSplines.WarmDummy	-4,807,366	668,753	-7.19	0.00
ResSplines.HotDummy	-7,045,156	946,488	-7.44	0.00
ResSplines.ShoulderAvgT	-6,976	3,659	-1.91	0.06
ResSplines.ShoulderColdAvgT	23,164	11,617	1.99	0.05
ResSplines.ShoulderWarmAvgT	-45,922	14,731	-3.12	0.00
ResSplines.ShoulderHotAvgT	-7,409	2,537	-2.92	0.00
ResSplines.ShoulderColdDummy	-751,328	405,901	-1.85	0.06
ResSplines.ShoulderWarmDummy	3,033,489	1,022,926	2.97	0.00

Note: Three monthly binary variables and one weekday binary variable were retained in the model despite being statistically insignificant (p-value>.05). The direction and magnitude of the coefficients are

²⁷ 4 CSR 240-22.030(1)(C)2.C.; 4 CSR 240-22.030(2)(B); EO-2007-0409 – Stipulation and Agreement #11

reasonable, the standard errors are fairly consistent with the other seasonal and weekday variables, and the interpretation of all of the seasonal and weekday variables is cleaner with the inclusion of these variables. Additionally, the AvgT variable was retained with marginal statistical significance. The temperature range represented by this variable exhibits little load-temperature response, so the coefficient is not expected to be very different from zero and the inclusion of the variable does not cause any model predictions that are unreasonable.

Residential Weather Normalization Peak Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	699
Deg. of Freedom for Error	666
R-Squared	0.91
Adjusted R-Squared	0.91
F-Statistic	213
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.06
Durbin-Watson Statistic	1.63

Com SGS Weather Normalization Peak Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	385,147	75,501	5.10	0.00
DOWBinary.TWT	38,400	14,950	2.57	0.01
DOWBinary.MonFri	30,336	14,936	2.03	0.04
DOWBinary.Saturday	33,382	4,164	8.02	0.00
MonthBinary.Mar	-21,142	5,481	-3.86	0.00
MonthBinary.Apr	-10,235	6,154	-1.66	0.10
MonthBinary.May	-1,836	7,067	-0.26	0.80
MonthBinary.Jun	20,549	8,600	2.39	0.02
MonthBinary.Jul	6,034	8,714	0.69	0.49
MonthBinary.Aug	21,892	8,515	2.57	0.01
MonthBinary.Sep	16,879	7,825	2.16	0.03
MonthBinary.Oct	-14,443	6,302	-2.29	0.02
MonthBinary.Nov	-14,988	5,625	-2.67	0.01
COMSGSSplines.AvgT	1,377	1,308	1.05	0.29
COMSGSSplines.ColdAvgT	-6,456	1,362	-4.74	0.00
COMSGSSplines.CoolAvgT	-4,346	1,506	-2.89	0.00
COMSGSSplines.WarmAvgT	7,211	1,709	4.22	0.00
COMSGSSplines.HotAvgT	12,203	1,407	8.67	0.00
COMSGSSplines.ColdDummy	327,971	76,195	4.30	0.00
COMSGSSplines.CoolDummy	232,910	83,190	2.80	0.01
COMSGSSplines.WarmDummy	-429,915	104,854	-4.10	0.00
COMSGSSplines.HotDummy	-795,216	85,366	-9.32	0.00
COMSGSSplines.WkndAvgT	-2,768	224	-12.34	0.00
COMSGSSplines.WkndColdAvgT	3,782	695	5.44	0.00
COMSGSSplines.WkndColdDummy	-176,347	25,160	-7.01	0.00

Note: Three monthly binary variables were retained in the model despite being statistically insignificant (p-value>.05). The direction and magnitude of the coefficients are reasonable, the standard errors are consistent with the other seasonal variables, and the interpretation of all of the seasonal variables is cleaner with the inclusion of these variables. Additionally, the AvgT variable was retained despite being only marginally statistically significant. The temperature range represented by this variable exhibits little load-temperature response, so the coefficient is not expected to be very different from zero and the inclusion of the variable does not cause any model predictions that are unreasonable.

Com SGS Weather Normalization Peak Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	707
Deg. of Freedom for Error	682
R-Squared	0.94
Adjusted R-Squared	0.94
F-Statistic	450
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.05
Durbin-Watson Statistic	2.32

Com LGS Weather Normalization Peak Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	788,495	71,324	11.06	0.00
DOWBinary.TWT	294,206	5,273	55.79	0.00
DOWBinary.MonFri	274,629	5,632	48.76	0.00
DOWBinary.Saturday	46,303	6,504	7.12	0.00
MonthBinary.Mar	23,587	8,706	2.71	0.01
MonthBinary.Apr	58,476	9,835	5.95	0.00
MonthBinary.May	86,600	11,130	7.78	0.00
MonthBinary.Jun	-141,619	94,922	-1.49	0.14
MonthBinary.Jul	-157,687	95,184	-1.66	0.10
MonthBinary.Aug	-121,622	94,874	-1.28	0.20
MonthBinary.Sep	-108,037	92,813	-1.16	0.24
MonthBinary.Oct	79,816	9,955	8.02	0.00
MonthBinary.Nov	33,978	9,070	3.75	0.00
COMLGSSplines.NonSummerAvgT	-3,411	1,350	-2.53	0.01
COMLGSSplines.NonSummerColdAvgT	-4,049	1,493	-2.71	0.01
COMLGSSplines.NonSummerCoolAvgT	-4,339	1,790	-2.42	0.02
COMLGSSplines.WarmAvgT	12,145	1,636	7.42	0.00
COMLGSSplines.HotAvgT	15,224	759	20.06	0.00
COMLGSSplines.NonSummerColdDummy	201,550	73,469	2.74	0.01
COMLGSSplines.NonSummerCoolDummy	206,119	87,861	2.35	0.02
COMLGSSplines.WarmDummy	-673,894	90,214	-7.47	0.00
COMLGSSplines.HotDummy	-874,049	60,887	-14.36	0.00

Note: Four monthly binary variables and one weekday binary variable were retained in the model despite being only marginally statistically significant (p-value>.05). The direction and magnitude of the coefficients are reasonable and the interpretation of all of the seasonal variables is cleaner with the inclusion of these variables.

Com LGS Weather Normalization Peak Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	685
Deg. of Freedom for Error	663
R-Squared	0.94
Adjusted R-Squared	0.93
F-Statistic	462
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.03
Durbin-Watson Statistic	1.87

Com SPS Weather Normalization Peak Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	1,904,164	82,389	23.11	0.00
DOWBinary.Monday	39,547	2,753	14.36	0.00
DOWBinary.Tuesday	39,848	2,730	14.60	0.00
DOWBinary.Wednesday	40,765	2,748	14.83	0.00
DOWBinary.Thursday	41,023	2,752	14.91	0.00
DOWBinary.Friday	36,408	2,751	13.24	0.00
DOWBinary.Saturday	10,077	1,312	7.68	0.00
MonthBinary.Feb	5,702	1,660	3.44	0.00
MonthBinary.Mar	-27,810	7,421	-3.75	0.00
MonthBinary.Apr	-25,242	7,799	-3.24	0.00
MonthBinary.May	-75,138	12,483	-6.02	0.00
MonthBinary.Jun	-71,411	12,921	-5.53	0.00
MonthBinary.Jul	-69,242	12,936	-5.35	0.00
MonthBinary.Aug	-72,775	12,904	-5.64	0.00
MonthBinary.Sep	-59,303	12,744	-4.65	0.00
MonthBinary.Oct	-68,181	11,822	-5.77	0.00
MonthBinary.Nov	-20,121	7,524	-2.67	0.01
MonthBinary.TrendVar	-40	2	-19.80	0.00
COMSPSSplines.AvgT	798	216	3.69	0.00
COMSPSSplines.CoolAvgT	-396	243	-1.63	0.10
COMSPSSplines.WarmAvgT	1,895	222	8.53	0.00
COMSPSSplines.HotAvgT	3,514	276	12.72	0.00
COMSPSSplines.WinterAvgT	-1,312	244	-5.37	0.00
COMSPSSplines.CoolDummy	15,934	8,134	1.96	0.05
COMSPSSplines.WarmDummy	-100,316	12,180	-8.24	0.00
COMSPSSplines.HotDummy	-220,833	18,042	-12.24	0.00
COMSPSSplines.ShoulderAvgT	-889	164	-5.41	0.00
COMSPSSplines.WkndAvgT	-444	43	-10.40	0.00

Note: The CoolAvgT variable was retained in the model despite being only marginally statistically significant ($p\text{-value} > .05$) because the coefficient makes sense in magnitude and direction and the standard error is consistent with the other weather spline variables.

Com SPS Weather Normalization Peak Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	680
Deg. of Freedom for Error	652
R-Squared	0.95
Adjusted R-Squared	0.95
F-Statistic	506
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.02
Durbin-Watson Statistic	1.15

Com LPS Weather Normalization Peak Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	115,218	7,796	14.78	0.00
DOWBinary.Monday	29,039	902	32.19	0.00
DOWBinary.Tuesday	29,647	896	33.11	0.00
DOWBinary.Wednesday	29,933	902	33.17	0.00
DOWBinary.Thursday	28,942	900	32.18	0.00
DOWBinary.Friday	27,818	904	30.78	0.00
DOWBinary.Saturday	3,945	896	4.40	0.00
MonthBinary.Jan	-8,347	1,318	-6.33	0.00
MonthBinary.Feb	-10,283	1,294	-7.95	0.00
MonthBinary.Mar	-14,326	1,456	-9.84	0.00
MonthBinary.Apr	-9,452	1,587	-5.96	0.00
MonthBinary.May	-4,635	1,740	-2.66	0.01
MonthBinary.Jun	348	2,026	0.17	0.86
MonthBinary.Jul	139	2,059	0.07	0.95
MonthBinary.Aug	7,506	2,011	3.73	0.00
MonthBinary.Sep	10,328	1,880	5.49	0.00
MonthBinary.Oct	4,765	1,617	2.95	0.00
MonthBinary.Nov	5,309	1,487	3.57	0.00
COMLPSSplines.AvgT	741	151	4.90	0.00
COMLPSSplines.CoolAvgT	-778	163	-4.78	0.00
COMLPSSplines.WarmAvgT	575	185	3.11	0.00
COMLPSSplines.HotAvgT	1,306	212	6.17	0.00
COMLPSSplines.CoolDummy	37,055	8,018	4.62	0.00
COMLPSSplines.WarmDummy	-35,304	10,324	-3.42	0.00
COMLPSSplines.HotDummy	-87,993	14,013	-6.28	0.00
MonthBinary.Yr2008	-16,146	565	-28.60	0.00

Note: Two monthly binary variables were retained in the model despite being statistically insignificant (p-value>.05). The direction and magnitude of the coefficients are reasonable, the standard errors are consistent with the other seasonal variables, and the interpretation of all of the seasonal variables is cleaner with the inclusion of these variables.

Com LPS Weather Normalization Peak Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	690
Deg. of Freedom for Error	664
R-Squared	0.93
Adjusted R-Squared	0.93
F-Statistic	359
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.03
Durbin-Watson Statistic	1.28

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Ind SGS Weather Normalization Peak Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	6,439	4,028	1.60	0.11
DOWBinary.Monday	14,852	499	29.77	0.00
DOWBinary.Tuesday	14,882	497	29.95	0.00
DOWBinary.Wednesday	15,523	497	31.25	0.00
DOWBinary.Thursday	15,274	502	30.44	0.00
DOWBinary.Friday	15,770	504	31.28	0.00
DOWBinary.Saturday	1,982	495	4.00	0.00
MonthBinary.Mar	2,363	637	3.71	0.00
MonthBinary.Apr	2,947	700	4.21	0.00
MonthBinary.May	4,706	823	5.72	0.00
MonthBinary.Jun	5,798	1,003	5.78	0.00
MonthBinary.Jul	4,609	1,012	4.56	0.00
MonthBinary.Aug	5,236	991	5.28	0.00
MonthBinary.Sep	6,729	910	7.39	0.00
MonthBinary.Oct	8,426	719	11.71	0.00
MonthBinary.Nov	6,626	663	10.00	0.00
INDSGSSplines.AvgT	-31	66	-0.47	0.64
INDSGSSplines.CoolAvgT	-165	71	-2.34	0.02
INDSGSSplines.WarmAvgT	386	87	4.44	0.00
INDSGSSplines.CoolDummy	10,153	4,150	2.45	0.01
INDSGSSplines.WarmDummy	-26,241	5,941	-4.42	0.00

Note: The intercept was retained in the model despite being only marginally statistically significant. With the intercept retained, the model results are still reasonable and the other model statistics retain their interpretive value with the presence of an intercept. Additionally, the AvgT variable was retained despite being statistically insignificant. The temperature range represented by this variable exhibits little load-temperature response, so the coefficient is not expected to be very different from zero and the inclusion of the variable does not cause any model predictions that are unreasonable.

Ind SGS Weather Normalization Peak Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	705
Deg. of Freedom for Error	684
R-Squared	0.80
Adjusted R-Squared	0.79
F-Statistic	133
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.14
Durbin-Watson Statistic	1.53

Ind LGS Weather Normalization Peak Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	67,439	2,728	24.72	0.00
DOWBinary.Monday	66,204	2,228	29.71	0.00
DOWBinary.Tuesday	73,178	2,225	32.89	0.00
DOWBinary.Wednesday	76,213	2,237	34.08	0.00
DOWBinary.Thursday	73,079	2,248	32.52	0.00
DOWBinary.Friday	59,164	2,253	26.26	0.00
DOWBinary.Saturday	10,030	2,240	4.48	0.00
MonthBinary.Jan	13,140	3,113	4.22	0.00
MonthBinary.Feb	7,826	3,137	2.50	0.01
MonthBinary.Mar	5,692	3,067	1.86	0.06
MonthBinary.Apr	4,345	3,021	1.44	0.15
MonthBinary.May	6,069	3,178	1.91	0.06
MonthBinary.Jun	19,205	4,126	4.65	0.00
MonthBinary.Jul	28,035	4,231	6.63	0.00
MonthBinary.Aug	19,273	4,060	4.75	0.00
MonthBinary.Sep	17,745	3,688	4.81	0.00
MonthBinary.Oct	2,155	2,992	0.72	0.47
MonthBinary.Nov	7,647	3,111	2.46	0.01
INDLGSSplines.WarmAvgT	580	245	2.37	0.02
INDLGSSplines.WarmDummy	-39,265	17,875	-2.20	0.03
MonthBinary.Yr2008	24,523	1,402	17.50	0.00

Note: Four monthly binary variables were retained in the model despite being only marginally statistically significant ($p\text{-value} > .05$). The direction and magnitude of the coefficients are reasonable, the standard errors are consistent with the other seasonal variables, and the interpretation of all of the seasonal variables is cleaner with the inclusion of these variables.

Ind LGS Weather Normalization Peak Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	687
Deg. of Freedom for Error	666
R-Squared	0.83
Adjusted R-Squared	0.82
F-Statistic	160
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.10
Durbin-Watson Statistic	0.91

Ind SPS Weather Normalization Peak Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-659,129	147,309	-4.47	0.00
DOWBinary.TWT	66,448	640	103.86	0.00
DOWBinary.MonFri	60,576	680	89.02	0.00
DOWBinary.Saturday	12,591	785	16.05	0.00
MonthBinary.Jan	-2,603	1,123	-2.32	0.02
MonthBinary.Feb	-194	1,137	-0.17	0.86
MonthBinary.Mar	-4,822	1,266	-3.81	0.00
MonthBinary.Apr	3,665	1,428	2.57	0.01
MonthBinary.May	6,571	1,543	4.26	0.00
MonthBinary.Jun	13,432	1,759	7.64	0.00
MonthBinary.Jul	10,014	1,788	5.60	0.00
MonthBinary.Aug	10,702	1,737	6.16	0.00
MonthBinary.Sep	12,010	1,637	7.34	0.00
MonthBinary.Oct	5,669	1,395	4.06	0.00
MonthBinary.Nov	3,102	1,307	2.37	0.02
INDSPSSplines.WarmAvgT	258	47	5.46	0.00
INDSPSSplines.HotAvgT	1,143	130	8.81	0.00
INDSPSSplines.WarmDummy	-14,409	2,572	-5.60	0.00
INDSPSSplines.HotDummy	-78,572	10,257	-7.66	0.00
MonthBinary.TrendVar2	-70	2	-39.04	0.00
MonthBinary.TrendVar22	89	4	20.65	0.00

Note: One monthly binary variable was retained in the model despite being statistically insignificant (p-value>.05). The direction and magnitude of the coefficient is reasonable, the standard error is consistent with the other seasonal variables, and the interpretation of all of the seasonal variables is cleaner with the inclusion of this variable.

Ind SPS Weather Normalization Peak Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	680
Deg. of Freedom for Error	659
R-Squared	0.97
Adjusted R-Squared	0.97
F-Statistic	987
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.03
Durbin-Watson Statistic	1.74

Ind LPS Weather Normalization Peak Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	231,305	1,320	175.21	0.00
DOWBinary.Monday	39,518	1,671	23.65	0.00
DOWBinary.Tuesday	43,116	1,642	26.26	0.00
DOWBinary.Wednesday	44,089	1,646	26.78	0.00
DOWBinary.Thursday	47,793	1,657	28.84	0.00
DOWBinary.Friday	39,701	1,660	23.91	0.00
DOWBinary.Saturday	8,749	1,643	5.33	0.00
MonthBinary.Feb	-5,916	1,754	-3.37	0.00
MonthBinary.Mar	-24,046	1,684	-14.28	0.00
MonthBinary.Apr	10,711	1,759	6.09	0.00
MonthBinary.May	19,754	2,197	8.99	0.00
MonthBinary.Jun	12,943	2,786	4.65	0.00
MonthBinary.Jul	12,256	2,662	4.61	0.00
MonthBinary.Aug	18,868	2,700	6.99	0.00
MonthBinary.Sep	6,493	2,369	2.74	0.01
INDLPSSplines.WarmAvgT	771	127	6.08	0.00
INDLPSSplines.WarmDummy	-42,398	8,609	-4.93	0.00

Ind LPS Weather Normalization Peak Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	345
Deg. of Freedom for Error	328
R-Squared	0.91
Adjusted R-Squared	0.90
F-Statistic	203
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.02
Durbin-Watson Statistic	1.60

Wholesale Weather Normalization Peak Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-263,874	53,838	-4.90	0.00
DOWBinary.Monday	5,174	387	13.36	0.00
DOWBinary.Tuesday	4,635	382	12.14	0.00
DOWBinary.Wednesday	4,836	383	12.61	0.00
DOWBinary.Thursday	4,616	390	11.83	0.00
DOWBinary.Friday	3,399	392	8.68	0.00
MonthBinary.Mar	-2,538	509	-4.99	0.00
MonthBinary.Apr	-1,809	554	-3.27	0.00
MonthBinary.Sep	-2,705	507	-5.34	0.00
MonthBinary.Oct	-4,247	521	-8.15	0.00
MonthBinary.Nov	-3,049	547	-5.57	0.00
WHSLSplines.CoolAvgT	-223	68	-3.29	0.00
WHSLSplines.WarmAvgT	1,508	95	15.87	0.00
WHSLSplines.HotAvgT	1,961	123	15.94	0.00
WHSLSplines.CoolDummy	10,957	3,692	2.97	0.00
WHSLSplines.WarmDummy	-96,693	6,301	-15.34	0.00
WHSLSplines.HotDummy	-130,287	9,323	-13.98	0.00
MonthBinary.TrendVar	8	1	5.72	0.00
WHSLSplines.AvgT	-113	61	-1.85	0.06
MonthBinary.Yr2008	4,612	535	8.62	0.00
WHSLSplines.ShoulderWarmAvgT	-887	264	-3.36	0.00
WHSLSplines.ShoulderWarmDummy	58,552	17,879	3.28	0.00

The AvgT variable was retained despite being only marginally statistically significant. The temperature range represented by this variable exhibits little load-temperature response, so the coefficient is not expected to be very different from zero and the inclusion of the variable does not cause any model predictions that are unreasonable.

Wholesale Weather Normalization Peak Models Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	709
Deg. of Freedom for Error	687
R-Squared	0.91
Adjusted R-Squared	0.90
F-Statistic	317
Prob (F-Statistic)	0.00
Mean Abs. % Err. (MAPE)	0.05
Durbin-Watson Statistic	1.28

Energy Sales Forecast Models²⁸

Residential Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
ResidentialVars.XHeat	2.14	0.04	52.63	0.00
ResidentialVars.XCool	1.46	0.02	68.15	0.00
ResidentialVars.XOther	0.61	0.01	55.05	0.00

Residential Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	60
Deg. of Freedom for Error	57
R-Squared	0.988
Adjusted R-Squared	0.988
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	1.8%
Durbin-Watson Statistic	1.602

Note: The F-Statistic and associated probability cannot be computed in a regression model, such as the usual SAE specification, that does not include an intercept.

²⁸ 4 CSR 240-22.030(2)(B); EO-2007-0409 – Stipulation and Agreement #11

Commercial SGS Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CommercialVars.SGS_XHeat	585.28	30.18	19.40	0.00
CommercialVars.SGS_XCool	919.04	32.23	28.51	0.00
CommercialVars.SGS_XOther	41.90	0.57	73.39	0.00

Commercial SGS Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	83
Deg. of Freedom for Error	80
R-Squared	0.921
Adjusted R-Squared	0.919
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	2.8%
Durbin-Watson Statistic	1.589

Note: The F-Statistic and associated probability cannot be computed in a regression model, such as the usual SAE specification, that does not include an intercept.

Commercial LGS Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CommercialVars.LGS_XCool	1,392.17	51.07	27.26	0.00
CommercialVars.LGS_XOther	80.99	0.85	95.90	0.00
CommercialVars.LGS_XHeat	288.74	55.67	5.19	0.00

Commercial LGS Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	84
Deg. of Freedom for Error	81
R-Squared	0.917
Adjusted R-Squared	0.915
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	2.3%
Durbin-Watson Statistic	1.992

Note: The F-Statistic and associated probability cannot be computed in a regression model, such as the usual SAE specification, that does not include an intercept.

Commercial SPS Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CommercialVars.SPS_XCool	286.57	17.53	16.35	0.00
CommercialVars.SPS_XOther	32.80	0.25	130.61	0.00
BinaryVars.Year_2009	(16,929.21)	2,743.82	(6.17)	0.00

Commercial SPS Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	60
Deg. of Freedom for Error	57
R-Squared	0.816
Adjusted R-Squared	0.810
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	3.0%
Durbin-Watson Statistic	1.442

Note: The F-Statistic and associated probability cannot be computed in a regression model, such as the usual SAE specification, that does not include an intercept.

Commercial LPS Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
CommercialVars.LPS_XCool	162.51	11.71	13.88	0.00
CommercialVars.LPS_XOther	17.69	0.18	100.47	0.00

Commercial LPS Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	60
Deg. of Freedom for Error	58
R-Squared	0.799
Adjusted R-Squared	0.795
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	4.3%
Durbin-Watson Statistic	0.977

Note: The F-Statistic and associated probability cannot be computed in a regression model, such as the usual SAE specification, that does not include an intercept.

Industrial SGS Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
Econ_trans.SGS_Index	4,152.66	195.26	21.27	0.00
Weather_Trans.Bill_CDD_index	11,953.23	1,716.03	6.97	0.00
Weather_Trans.Bill_HDD_Index	19,528.67	2,706.03	7.22	0.00
Binary_vars.Year_2009	(946.48)	289.45	(3.27)	0.00
Binary_vars.October	3,214.23	431.53	7.45	0.00
Binary_vars.November	3,761.78	435.01	8.65	0.00

Industrial SGS Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	72
Deg. of Freedom for Error	66
R-Squared	0.748
Adjusted R-Squared	0.729
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	5.4%
Durbin-Watson Statistic	1.116

Note: The F-Statistic and associated probability cannot be computed in a regression model that does not include an intercept.

Industrial LGS Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
Econ_trans.LGS_Index	41,298.59	226.40	182.42	0.00
Weather_Trans.Bill_CDD_index	48,390.29	3,149.78	15.36	0.00
Binary_vars.Year_2009	(6,037.62)	878.79	(6.87)	0.00
Binary_vars.Summer_2006	(2,652.35)	1,766.96	(1.50)	0.14
Binary_vars.January	(6,645.58)	1,263.11	(5.26)	0.00

Industrial LGS Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	72
Deg. of Freedom for Error	67
R-Squared	0.903
Adjusted R-Squared	0.897
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	2.3%
Durbin-Watson Statistic	1.832

Note: The F-Statistic and associated probability cannot be computed in a regression model that does not include an intercept.

Industrial SPS Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
Econ_trans.SPS_Index	53,120.46	373.55	142.20	0.00
Weather_Trans.Bill_CDD_index	47,031.27	4,894.24	9.61	0.00
Binary_vars.Year_2009	(8,878.11)	1,435.82	(6.18)	0.00

Industrial SPS Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	108
Deg. of Freedom for Error	102
R-Squared	0.632
Adjusted R-Squared	0.614
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	4.9%
Durbin-Watson Statistic	1.904

Note: The F-Statistic and associated probability cannot be computed in a regression model that does not include an intercept.

Industrial LPS Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
Econ_trans.LPS_Index	123,224	1,184	104.06	0.00
Weather_Trans.Bill_CDD_index	121,278	13,493	8.99	0.00
Binary_vars.March	-16,605	5,680	-2.92	0.00
Binary_vars.Year_2007	-10,014	4,893	-2.05	0.04
Binary_vars.Chrysler_end_shift_LPS	-15,066	9,439	-1.60	0.11
Binary_vars.Year_2009	-17,238	7,337	-2.35	0.02

Industrial LPS Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	108
Deg. of Freedom for Error	102
R-Squared	0.632
Adjusted R-Squared	0.614
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	4.9%
Durbin-Watson Statistic	1.904

Note: The F-Statistic and associated probability cannot be computed in a regression model that does not include an intercept.

Residential DTD Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
Binary_Vars.January	1,487,802.63	31,919.86	46.61	0.00
Binary_Vars.February	1,185,600.74	30,748.79	38.56	0.00
Binary_Vars.March	892,323.52	30,621.69	29.14	0.00
Binary_Vars.April	599,620.32	30,846.09	19.44	0.00
Binary_Vars.May	285,444.34	30,693.35	9.30	0.00
Binary_Vars.August	154,941.77	30,691.70	5.05	0.00
Binary_Vars.September	431,657.26	30,938.15	13.95	0.00
Binary_Vars.October	722,233.32	30,732.22	23.50	0.00
Binary_Vars.November	1,038,436.43	30,827.74	33.69	0.00
Binary_Vars.December	1,349,351.02	31,405.04	42.97	0.00
Utility_Data.Billing_days	79,706.57	584.45	136.38	0.00

Residential DTD Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	48
Deg. of Freedom for Error	37
R-Squared	0.993
Adjusted R-Squared	0.991
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	1.0%
Durbin-Watson Statistic	1.600

Note: The F-Statistic and associated probability cannot be computed in a regression model that does not include an intercept.

Commercial DTD Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
Binary_Vars.March	(462,247.47)	88,465.37	(5.23)	0.00
Binary_Vars.April	(1,079,693.45)	88,884.91	(12.15)	0.00
Binary_Vars.May	(1,552,831.50)	88,565.78	(17.53)	0.00
Binary_Vars.June	(1,979,902.50)	89,135.52	(22.21)	0.00
Binary_Vars.July	(2,062,225.27)	89,077.28	(23.15)	0.00
Binary_Vars.August	(1,734,477.65)	88,573.10	(19.58)	0.00
Binary_Vars.September	(1,368,243.27)	88,961.28	(15.38)	0.00
Binary_Vars.October	(813,521.76)	88,662.10	(9.18)	0.00
Utility_Data.Billing_days	200,093.83	1,280.30	156.29	0.00

Commercial DTD Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	72
Deg. of Freedom for Error	63
R-Squared	0.959
Adjusted R-Squared	0.954
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	2.6%
Durbin-Watson Statistic	1.206

Note: The F-Statistic and associated probability cannot be computed in a regression model that does not include an intercept.

Industrial DTD Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
Binary_Vars.January	4,709.0	1,240.86	3.80	0.00
Binary_Vars.March	(10,304.0)	1,191.15	(8.65)	0.00
Binary_Vars.April	(19,705.6)	1,200.89	(16.41)	0.00
Binary_Vars.May	(30,452.3)	1,193.49	(25.52)	0.00
Binary_Vars.June	(41,926.7)	1,206.69	(34.75)	0.00
Binary_Vars.July	(42,168.4)	1,205.34	(34.99)	0.00
Binary_Vars.August	(35,124.1)	1,193.66	(29.43)	0.00
Binary_Vars.September	(29,086.1)	1,202.66	(24.19)	0.00
Binary_Vars.October	(18,029.2)	1,195.72	(15.08)	0.00
Binary_Vars.November	(6,661.9)	1,198.59	(5.56)	0.00
Utility_Data.Billing_days	3,991.0	22.65	176.20	0.00

Industrial DTD Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	72
Deg. of Freedom for Error	61
R-Squared	0.985
Adjusted R-Squared	0.983
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	1.6%
Durbin-Watson Statistic	1.146

Note: The F-Statistic and associated probability cannot be computed in a regression model that does not include an intercept.

SLPA Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
Utility_Data.Population	3,332	831	4.01	0.00
Binary_Vars.January	952,290	229,480	4.15	0.00
Binary_Vars.March	-1,398,930	166,313	-8.41	0.00
Binary_Vars.April	-1,970,010	155,640	-12.66	0.00
Binary_Vars.May	-2,850,276	166,650	-17.10	0.00
Binary_Vars.June	-3,873,769	153,861	-25.18	0.00
Binary_Vars.July	-4,501,961	153,842	-29.26	0.00
Binary_Vars.August	-3,849,114	167,273	-23.01	0.00
Binary_Vars.September	-3,269,420	154,991	-21.09	0.00
Binary_Vars.October	-2,121,916	163,812	-12.95	0.00
Binary_Vars.November	-783,443	159,449	-4.91	0.00
Utility_Data.Billing_days	151,997	68,087	2.23	0.03

SLPA Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	75
Deg. of Freedom for Error	63
R-Squared	0.975
Adjusted R-Squared	0.971
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	1.6%
Durbin-Watson Statistic	2.214

Note: The F-Statistic and associated probability cannot be computed in a regression model that does not include an intercept.

City of perry Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
Econ_trans.perry_index	914,487	62,052	14.74	0.00
WeatherTrans.CAL_CDD_Index	1,954,699	359,948	5.43	0.00
WeatherTrans.CAL_HDD_Index	1,413,258	385,329	3.67	0.00
Binary_Vars.y2009	-251,247	68,186	-3.69	0.00
Binary_Vars.Nov_08	-166,356	144,630	-1.15	0.26
Binary_Vars.Sept_08	-326,827	144,058	-2.27	0.03

City of perry Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	41
Deg. of Freedom for Error	35
R-Squared	0.664
Adjusted R-Squared	0.616
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	9.3%
Durbin-Watson Statistic	0.462

Note: The F-Statistic and associated probability cannot be computed in a regression model that does not include an intercept.

City of Kirkwood Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
Econ_trans.kirkwood_index	14,213,360	415,533	34.21	0.00
WeatherTrans.CAL_CDD_Index	46,081,793	2,404,245	19.17	0.00
WeatherTrans.CAL_HDD_Index	18,989,484	2,654,199	7.16	0.00

City of Kirkwood Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	53
Deg. of Freedom for Error	50
R-Squared	0.916
Adjusted R-Squared	0.912
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	3.8%
Durbin-Watson Statistic	0.861

Note: The F-Statistic and associated probability cannot be computed in a regression model that does not include an intercept.

City of Marceline Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
Econ_trans.Marceline_Index	2,079,978	36,298	57.30	0.00
WeatherTrans.CAL_CDD_Index	4,773,619	211,712	22.55	0.00
WeatherTrans.CAL_HDD_Index	3,844,819	233,444	16.47	0.00

City of Marceline Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	101
Deg. of Freedom for Error	98
R-Squared	0.865
Adjusted R-Squared	0.862
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	4.3%
Durbin-Watson Statistic	1.207

Note: The F-Statistic and associated probability cannot be computed in a regression model that does not include an intercept.

City of Kahoka Energy Sales Forecast Model Coefficients

Variable	Coefficient	StdErr	T-Stat	P-Value
WeatherTrans.CAL_CDD_Index	3,201,853	168,438	19.01	0.00
WeatherTrans.CAL_HDD_Index	3,667,268	182,663	20.08	0.00
Econ_trans.kahoka_index	1,398,260	28,119	49.73	0.00

City of Kahoka Energy Sales Forecast Model Statistics

Model Statistic	Value of the Statistic
Adjusted Observations	113
Deg. of Freedom for Error	110
R-Squared	0.846
Adjusted R-Squared	0.843
F-Statistic	#NA
Prob (F-Statistic)	#NA
Mean Abs. % Err. (MAPE)	4.4%
Durbin-Watson Statistic	0.898

Note: The F-Statistic and associated probability cannot be computed in a regression model that does not include an intercept.

Compliance References

4 CSR 240-22.030(1)(B)	68
4 CSR 240-22.030(1)(B)1	76
4 CSR 240-22.030(1)(C)2.C	200, 213
4 CSR 240-22.030(2)(B)	200, 213, 227
4 CSR 240-22.030(8)(A)	1, 7, 17, 22, 27, 32, 36, 40
4 CSR 240-22.030(8)(A)1	1, 7, 17, 22, 27, 32, 36, 40
4 CSR 240-22.030(8)(A)2.A	1, 7, 17, 22, 27
4 CSR 240-22.030(8)(A)2.B	47, 55, 57, 60, 63
4 CSR 240-22.030(8)(B)	76, 83, 91, 96
4 CSR 240-22.030(8)(B)1.	68
4 CSR 240-22.030(8)(B)2	83, 91, 96
4 CSR 240-22.030(8)(D)	44, 192, 196
4 CSR 240-22.030(8)(D)1	44, 192
4 CSR 240-22.030(8)(D)2	196
4 CSR 240-22.030(8)(D)3	44, 192, 196
4 CSR 240-22.030(8)(E)	120
4 CSR 240-22.030(8)(E)1	112, 120
4 CSR 240-22.030(8)(E)2	112, 120
4 CSR 240-22.030(8)(F).....	120
4 CSR 240-22.030(8)(F)1.....	120
4 CSR 240-22.030(8)(F)2.....	120
4 CSR 240-22.030(8)(G)	1
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Abbreviations

Res:	Residential
Com :	Commercial
Ind:	Industrial
WS:	Wholesale
DTD:	Dusk to Dawn
SLPA:	Street Light and Public Authority
SGS:	Small General Service
LGS:	Large General Service
SPS:	Small Primary Service
LPS:	Large Primary Service
WN:	Weather Normalized
LTS:	Large Transmission Service
I. Lighting:	Indoor Lighting
O. Lighting:	Outdoor Lighting
Refrig:	Refrigerator
Whsl:	Wholesale
CI Wash:	Clothes Washing Machine
Elec DHW:	Electric Water Heating