Public

Integrated Resource Plan

4 CSR 240-22.030

Load Analysis and Forecasting

Volume 1

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4 CSR 240-22.030 Load Analysis and Forecasting

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

(1) Historical Data Base. The utility shall develop and maintain data on the actual historical patterns of energy usage within its service territory. The following information shall be maintained and updated on an ongoing basis:

(A) Customer Class Detail. The historical data base shall be maintained for each of the following major classes: residential, commercial, industrial, interruptible and other classes that may be required for forecasting (for example, large power, wholesale, outdoor lighting and public authorities).

1. Taking into account the requirement for an unbiased forecast as well as the cost of developing data at the subclass level, the utility shall determine what level of subclass detail is required for forecasting and what methods to use in gathering subclass information for each major class.

Class and subclass data are acquired from AmerenUE's CSS bill data and stored in 'Forecast Manager' - a database application built by Itron.

The following class and subclass details are used for forecasting:

Major Class	Subclass
Residential	None
Commercial	Small General Service (SGS), Large General Service (LGS), Small Primary Service (SPS), Large Primary Service (LPS)
Industrial	SGS, LGS, SPS, LPS, Large Transmission Service
Wholesale	None
Street Lighting (SLPA)	None
Outdoor Lighting (DtD)	None

2. The utility shall consider the following categories of subclasses: for residential, dwelling type; for commercial, building or business type; and for industrial, product type. If the utility uses subclasses which do not fit into these categories, it must explain the reasons for its choice of subclasses;

The class and subclass divisions were chosen based on data availability and format in AmerenUE's billing system. A consistent monthly historical data series by dwelling, building or product type is not available; therefore, forecast models were developed at the rate class level of detail. The Statistically Adjusted End-Use (SAE) forecasting approach does not require dwelling/building type data and it effectively accounts for inherent residential and smaller commercial usage patterns. The lowest level of subclass or unit is monthly customer estimates which are based on the number of bills sent out each month. Disaggregating customer data below the rate class level is not necessary for constructing accurate long-term forecast and was not a data requirement for the DSM analysis for 2008 filing.

Monthly customer data by each major class and subclass can be found in the table below:

Table (1) (A)-1: Customer Data

Month	Res	ComSGS	ComLGS	ComSPS	ComLPS	IndSGS	IndLGS	IndSPS	IndLPS	Nonenda	0.10	SLPA	Wholesale	Total
Jan-96	932,535	102,392	5,468	346	15	4,961	1,103	208	27	0	12,543	1,518	6	1,048,208
Feb-96	932,921	102,345	5,494	346	15	4,977	1,104	205	27	0	12,582	1,516	6	1,048,566
Mar-96	934,568	102,597	5,508	347	15	4,963	1,102	207	27	0	12,624	1,518	6	1,050,469
Apr-96	933,873	102,718	5,514	348	15	4,956	1,103	209	27	0	12,628	1,519	6	1,049,930
May-96	932,960	102,790	5,526	351	15	4,613	1,106	209	26	0	12,639	1,519	6	1,048,721
Jun-96	931,900	102,961	5,518	348	15	4,623	1,099	212	26	0	12,668	1,518	6	1,048,226
Jul-96	931,268	102,796	5,532	355	15	4,577	1,130	213	26	0	12,646	1,516	6	1,048,074
Aug-96	932,031	102,933	5,624	363	15	4,568	1,140	213	26	0	12,625	1,516	6	1,048,425
Sep-96	934,196	103,008	5,680	365	15	4,557	1,149	213	27	0	12,641	1,516	6	1,050,692
Oct-96	935,023	103,117	5,720	364	15	4,561	1,153	215	27	0	12,618	1,517	6	1,051,708
Nov-96	935,384	103,443	5,738	365	15	4,541	1,144	216	26	0	12,624	1,519	6	1,052,397
Dec-96	936,253	103,582	5,755	365	15	4,534	1,147	218	26	0	12,624	1,517	6	1,053,656
Jan-96	938,064	103,587	5,782	368	15	4,533	1,147	218	26	0	12,619	1,517	6	1,055,669
Feb-96	938,234	104,142	5,804	365	15	4,519	1,146	218	27	0	12,579	1,517	6	1,056,583
Mar-96	939,941	104,364	5,815	366	15	4,503	1,145	219	26	0	12,584	1,516	6	1,057,916
Apr-96	939,556	104,645	5,833	367	15	4,477	1,145	220	25	0	12,582	1,513	6	1,057,344
May-96	938,778	104,915	5,851	368	15	4,457	1,143	221	25	0	12,595	1,511	6	1,057,256
Jun-96	937,331	105,045	5,857	369	16	4,446	1,145	221	27	0	12,546	1,509	6	1,055,972
Jul-96	936,715	105,196	5,930	371	16	4,417	1,168	222	26	0	12,547	1,508	6	1,055,575
Aug-96	937,031	105,411	5,961	373	16	4,409	1,170	222	27	0	12,535	1,509	6	1,056,135
Sep-96	938,150	105,723	5,983	377	16	4,404	1,173	221	26	0	12,563	1,512	6	1,057,596
Oct-96	939,249	105,801	6,011	380	17	4,401	1,179	223	27	0	12,480	1,507	6	1,058,801
Nov-96	941,160	106,097	6,007	382	17	4,410	1,180	225	26	0	12,488	1,507	6	1,061,017
Dec-96	943,193	106,523	6,014	380	18	4,436	1,177	224	26	0	12,497	1,504	6	1,063,501
Jan-97	944,545	106,755	6,024	381	18	4,431	1,176	224	26	0	12,437	1,504	6	1,065,090
Feb-97	945,283	107,002	6,025	385	18	4,433	1,172	227	26	0	12,427	1,505	6	1,066,086
Mar-97	945,711	107,229	6,050	388	18	4,427	1,167	226	27	0	12,424	1,506	6	1,066,755
Apr-97	945,966	107,549	6,053	389	18	4,423	1,166	227	26	0	12,438	1,508	6	1,067,324
May-97	945,157	107,870	6,065	389	17	4,408	1,163	226	26	0	12,414	1,506	6	1,066,243
Jun-97	944,470	108,205	6,096	389	18	4,405	1,164	226	27	0	12,417	1,506	6	1,066,482
Jul-97	944,623	108,495	6,120	401	18	4,380	1,189	225	26	0	12,422	1,503	6	1,066,586
Aug-97	944,972	108,763	6,150	396	18	4,372	1,197	225	26	0	12,411	1,504	6	1,067,629
Sep-97	945,282	108,964	6,182	396	18	4,367	1,197	226	27	0	12,400	1,502	6	1,068,766
Oct-97	944,506	108,742	6,202	392	18	4,328	1,208	228	26	0	12,422	1,491	6	1,067,547
Nov-97	946,566	109,066	6,206	391	18	4,332	1,204	227	26	0	12,404	1,491	6	1,069,554
Dec-97	949,183	109,531	6,204	388	18	4,333	1,190	230	26	0	12,418	1,489	6	1,072,653
Jan-98	951,095	109,874	6,215	392	18	4,322	1,194	235	26	0	12,396	1,487	6	1,074,234
Feb-98	952,407	110,402	6,209	392	18	4,306	1,188	237	27	0	12,363	1,476	6	1,076,668
Mar-98	953,844	110,837	6,198	396	18	4,305	1,181	234	27	0	12,375	1,488	6	1,078,333
Apr-98	953,769	111,125	6,190	393	18	4,319	1,171	234	27	0	12,357	1,487	6	1,078,739
May-98	952,572	111,408	6,188	396	18	4,303	1,176	234	28	0	12,352	1,488	6	1,077,817
Jun-98	951,468	111,848	6,186	396	18	4,296	1,178	232	28	0	12,336	1,490	6	1,077,145
Jul-98	952,012	112,158	6,296	399	18	4,245	1,199	233	29	0	12,325	1,490	6	1,078,124
Aug-98	952,258	112,461	6,321	400	18	4,230	1,207	233	28	0	12,307	1,492	6	1,078,664
Sep-98	952,562	112,748	6,362	399	18	4,223	1,218	231	28	0	12,285	1,490	6	1,079,705
Oct-98	953,911	112,632	6,387	402	18	4,204	1,215	234	26.5	0	0	1,497	6	1,080,532
Nov-98	954,840	112,516	6,411	404	18	4,185	1,211	237	25	0	51,745	1,504	6	1,081,267
Dec-98	956,514	112,209	6,323	156	3	4,020	857	213	25	0	51,739	1,181	6	1,081,547
Jan-99	958,293	113,057	6,323	303	14	4,084	1,052	213	20	0	51,738	1,323	6	1,085,288
Feb-99	960,156	113,529	6,323	377	17	4,103	1,143	211	23	0	51,823	1,348	6	1,087,236
Mar-99	961,126	113,694	6,086	365	14	4,070	1,090	206	23	0	51,964	1,340	6	1,088,020
Apr-99	961,015	114,084	6,268	382	17	4,059	1,099	213	25	0	51,926	1,339	6	1,088,507
May-99	960,062	114,574	6,299	380	14	4,063	1,101	215	24	0	51,894	1,350	6	1,088,088
Jun-99	959,612	115,017	6,327	382	17	4,059	1,110	213	21	0	51,969	1,352	6	1,088,116
Jul-99	959,908	115,371	6,402	388	20	4,042	1,115	212	26	0	51,969	1,350	6	1,088,845
Aug-99	960,259	115,596	6,370	387	18	4,006	1,104	210	29	0	51,954	1,350	6	1,089,375
Sep-99	961,430	116,142	6,421	385	19	3,989	1,103	208	30	0	51,921	1,345	6	1,091,078
Oct-99	962,008	116,576	6,489	392	19	3,970	1,112	196	33	0	51,939	1,356	6	1,092,134
Nov-99	963,036	117,186	6,433	337	19	3,982	1,093	182	24	0	52,008	1,360	6	1,093,668
Dec-99	965,025	117,831	6,489	352	14	3,962	1,093	196	30	0	52,082	1,385	6	1,096,385
Jan-00	967,330	118,461	6,657	405	22	3,996	1,116	213	31	0	52,201	1,387	6	1,099,594
Feb-00	969,301	119,041	6,622	401	19	3,944	1,104	205	31	0	52,126	1,388	6	1,102,062
Mar-00	969,209	119,642	6,647	397	14	3,954	1,139	201	28	0	52,188	1,387	6	1,103,224
Apr-00	969,501	119,950	6,714	408	18	3,962	1,150	218	34	0	52,194	1,385	6	1,103,396
May-00	968,300	120,187	6,709	410	18	3,939	1,182	215	32	0	52,170	1,381	6	1,102,409
Jun-00	967,359	120,407	6,781	419	19	3,915	1,190	213	34	0	52,233	1,385	6	1,101,723
Jul-00	967,737	120,961	6,838	415	19	3,908	1,186	212	27	0	52,315	1,384	6	1,102,250
Aug-00	968,486	120,725	6,862	423	19	3,885	1,183	215	27	0	52,200	1,383	6	1,103,214
Sep-00	969,696	120,914	6,960	424	19	3,864	1,187	212	27	0	52,280	1,387	6	1,104,636
Oct-00	971,075	121,104	7,006	418	20	3,853	1,175	211	26	0	52,296	1,386	6	1,106,279
Nov-00	971,545	121,388	7,006	418	20	3,843	1,175	211	26	0	52,443	1,387	6	1,107,025
Dec-00	973,653	121,726	6,963	417	19	3,828	1,158	209	27	0	52,336	1,386	6	1,109,422
Jan-01	975,181	121,996	7,036	447	20	3,822	1,206	228	28	0	52,431	1,401	6	1,111,631
Feb-01	976,083	121,952	7,042	421	20	3,792	1,145	206	27	0	52,437	1,388	6	1,112,082
Mar-01	976,641	122,072	7,060	411	17	3,800	1,142	199	23	0	52,479	1,386	6	1,112,766
Apr-01	976,686	122,174	7,056	423	20	3,796	1,138	206	25	0	52,563	1,381	6	1,112,910
May-01	975,058	122,294	7,079	425	20	3,796	1,135	204	27	0	52,530	1,385	6	1,111,433
Jun-01	973,822	122,380	7,172	435	20	3,801	1,141	205	27	0	52,561	1,391	6	1,110,400

Month	Res	ComSGS	ComLGS	ComSPS	ComLPS	IndSGS	IndLGS	IndSPS	IndLPS	Noranda	DID	SLPA	Wholesale	Total
Jul-01	974,022	122,457	7,174	433	20	3,794	1,136	203	27	0	52,531	1,385	6	1,110,860
Aug-01	974,259	122,512	7,314	436	20	3,782	1,136	202	27	0	52,538	1,381	6	1,111,681
Sep-01	976,210	122,732	7,324	434	20	3,784	1,130	204	27	0	52,552	1,369	6	1,113,240
Oct-01	976,517	122,565	7,353	434	20	3,808	1,126	202	26	0	52,476	1,380	6	1,113,527
Nov-01	977,475	123,131	7,184	428	21	3,830	1,101	196	25	0	52,599	1,380	6	1,114,777
Dec-01	978,527	123,321	7,196	424	19	3,861	1,111	201	27	0	52,644	1,413	6	1,116,106
Jan-02	980,458	123,628	7,642	480	20	3,889	1,156	208	38	0	12,159	1,589	6	1,119,094
Feb-02	981,629	123,880	7,516	453	20	3,897	1,125	202	39	0	12,160	1,572	6	1,120,319
Mar-02	982,369	124,130	7,488	444	20	3,900	1,131	205	38	0	12,162	1,567	6	1,121,289
Apr-02	982,507	124,299	7,444	423	20	3,898	1,128	198	38	0	12,145	1,571	6	1,121,532
May-02	984,058	123,854	7,437	439	20	3,842	1,130	198	37	0	12,338	1,417	6	1,122,438
Jun-02	982,810	123,485	7,512	448	21	3,827	1,114	202	36	0	13,387	1,419	6	1,120,880
Jul-02	983,014	123,709	7,565	441	20	3,822	1,120	199	38	0	13,270	1,438	6	1,121,372
Aug-02	983,257	123,637	7,558	445	20	3,797	1,114	194	38	0	13,149	1,431	6	1,122,097
Sep-02	985,220	123,741	7,648	436	20	3,786	1,124	208	37	0	13,231	1,435	6	1,123,661
Oct-02	985,530	124,151	7,706	460	20	3,781	1,108	208	36	0	13,234	1,438	6	1,124,444
Nov-02	986,497	124,396	7,661	460	19	3,775	1,105	202	37	0	13,129	1,449	6	1,125,606
Dec-02	987,559	125,188	7,609	474	20	3,780	1,105	203	41	0	12,772	1,482	6	1,127,467
Jan-03	993,596	125,561	7,769	459	20	3,780	1,121	210	37	0	11,625	1,471	6	1,134,410
Feb-03	994,475	125,161	7,693	440	23	3,780	1,140	201	36	0	11,805	1,459	6	1,134,414
Mar-03	995,044	125,410	7,660	453	20	3,780	1,109	208	36	0	11,948	1,456	6	1,135,181
Apr-03	996,090	127,526	7,996	446	22	3,762	1,106	206	39	0	10,534	1,462	6	1,137,231
May-03	993,431	127,804	7,695	448	22	3,761	1,105	213	35	0	10,683	1,463	6	1,135,753
Jun-03	992,172	127,760	7,714	438	23	3,740	1,102	209	35	0	11,295	1,466	6	1,134,895
Jul-03	993,494	128,138	7,803	440	24	3,751	1,114	209	38	0	52,584	1,475	6	1,136,492
Aug-03	992,509	128,169	7,831	452	24	3,722	1,119	206	36	0	52,480	1,473	6	1,135,957
Sep-03	995,312	128,398	7,858	442	22	3,709	1,105	194	37	0	52,530	1,471	6	1,138,554
Oct-03	996,225	128,898	7,935	454	25	3,707	1,109	197	40	0	52,531	1,483	6	1,140,079
Nov-03	995,723	129,070	7,981	459	22	3,687	1,114	218	38	0	52,520	1,474	6	1,139,797
Dec-03	998,995	129,272	7,916	446	23	3,680	1,105	209	37	0	52,686	1,482	6	1,143,781
Jan-04	999,743	129,637	7,977	437	26	3,683	1,105	193	42	0	52,768	1,497	6	1,144,946
Feb-04	1,001,187	129,660	7,965	459	22	3,674	1,127	199	36	0	52,902	1,499	6	1,146,834
Mar-04	1,002,157	130,032	7,969	450	22	3,673	1,111	197	37	0	52,971	1,502	6	1,147,156
Apr-04	999,046	129,946	7,971	453	22	3,670	1,102	196	41	0	52,827	1,503	6	1,143,996
May-04	998,233	130,016	7,942	458	22	3,646	1,111	197	35	0	52,907	1,501	6	1,143,166
Jun-04	1,000,954	130,264	7,997	451	22	3,639	1,110	192	37	0	53,009	1,496	6	1,146,168
Jul-04	1,000,832	130,349	8,045	449	22	3,615	1,113	194	36	0	52,895	1,499	6	1,146,210
Aug-04	998,792	130,449	8,090	448	22	3,619	1,098	193	36	0	53,088	1,496	6	1,144,248
Sep-04	1,004,587	131,224	8,111	444	22	3,631	1,099	196	35	0	53,155	1,505	6	1,150,860
Oct-04	1,002,067	131,199	8,127	459	23	3,611	1,111	203	36	0	53,124	1,510	6	1,148,352
Nov-04	1,004,252	131,457	8,128	437	23	3,621	1,096	188	38	0	53,340	1,512	6	1,151,268
Dec-04	1,004,589	131,636	8,123	446	24	3,594	1,103	193	37	0	53,328	1,512	6	1,151,263
Jan-05	1,008,136	131,812	8,138	459	24	3,600	1,093	196	37	0	53,482	1,523	6	1,155,023
Feb-05	1,011,396	132,024	8,142	435	24	3,607	1,096	190	37	0	53,614	1,523	6	1,158,480
Mar-05	1,011,153	131,944	8,164	456	24	3,618	1,088	194	37	0	53,458	1,519	6	1,158,203
Apr-05	1,010,179	132,233	8,160	457	25	3,621	1,093	192	37	0	53,569	1,521	6	1,157,524
May-05	1,007,353	132,333	8,148	451	25	3,604	1,081	196	37	0	53,596	1,525	6	1,154,759
Jun-05	1,008,142	132,609	8,203	451	25	3,576	1,089	196	37	0	53,523	1,525	6	1,155,268
Jul-05	1,006,761	132,541	8,241	449	25	3,577	1,088	191	37	1	53,701	1,523	6	1,154,440
Aug-05	1,013,239	133,057	8,346	444	25	3,576	1,093	192	37	1	53,578	1,527	6	1,161,543
Sep-05	1,013,316	133,125	8,361	453	25	3,568	1,094	196	37	1	53,690	1,523	6	1,161,894
Oct-05	1,010,432	133,335	8,346	451	25	3,556	1,090	193	37	1	53,646	1,523	6	1,158,995
Nov-05	1,013,811	133,543	8,395	442	25	3,565	1,089	193	37	1	53,766	1,533	6	1,162,910
Dec-05	1,016,367	133,762	8,402	455	25	3,562	1,095	190	37	1	53,822	1,529	6	1,165,421
Jan-06	1,019,147	134,032	8,380	464	25	3,568	1,099	196	36	1	53,888	1,536	6	1,168,480
Feb-06	1,018,019	133,909	8,401	448	25	3,539	1,090	192	36	1	53,833	1,534	6	1,167,200
Mar-06	1,021,275	134,253	8,402	438	25	3,547	1,074	191	36	1	53,937	1,540	6	1,170,788
Apr-06	1,019,073	134,187	8,401	448	24	3,544	1,076	191	36	1	53,888	1,553	6	1,168,540
May-06	1,017,019	134,322	8,413	446	23	3,531	1,073	190	36	1	53,936	1,565	6	1,166,629
Jun-06	1,018,106	134,476	8,523	453	27	3,525	1,094	191	36	1	53,905	1,574	6	1,168,012

It should be noted that AmerenUE had more than 6 wholesale customers prior to January 2004, but those sales/customers have not been used in forecasting as they do not represent the current load/customer composition of AmerenUE.

4 CSR 240-22.030 (1) (B) 1

(B) Load Data Detail. The historical load data base shall contain the following data:

1. For each jurisdiction under which the utility has rates established and for which it prepares customer and energy forecasts, each major class, and to the extent data is required to support the detail specified in paragraph (1)(A)1., for each subclass, actual monthly energy usage and number of customers and weather-normalized monthly energy usage;

The data for each major class and corresponding subclasses are stored in 'Forecast Manager'. Customer detail is shown above in Table (1) (A)-1. Revenue month actual and weather normalized sales can be found in Table (1) (B)-1 and Table (1) (B)-2, respectively.

It is important to note that for the wholesale class, actual calendar month sales were used in forecasting and actual calendar month sales are reported above instead of revenue month sales. Currently, AmerenUE has 6 wholesale customers; however, the historical wholesale billing data includes wholesale customers like City of California or City of Jackson that used to buy power from AmerenUE prior to switching to other suppliers. AmerenUE's load research program tracks the individual wholesale customers; it was more efficient to gather the remaining 6 wholesale customers' calendar month sales data from load research rather than changing the historical billing data. It should also be noted that the data for one of the wholesale customers-[redacted] starts in January 1997. The same is true for the weather normalized wholesale data reported in Table (1) (B)-2.

Table (1) (B)-1: Actual revenue month sales (MWh)

MWh	Res	ComSGS	ComLGS	ComSPS	ComLPS	IndSGS	IndLGS	IndSPS	IndLPS	Noranda	ST	SLEA	Wholesale	Total
Jan-95	1,231 449	266 934	427,798	181 529	66,053	18,863	111 919	160 926	158,275		9,215	12 281	38 727	2,485,946
Feb-95	982 038	257 011	405,150	163 117	63,383	17,195	107 842	159 683	146,262		8,085	10 789	33 418	2,359,536
Mar-95	953 000	240 571	397,450	160 637	67,288	17,503	100 944	167 331	155,336		8,053	10 432	33 453	2,230,113
Apr-95	825 175	213 646	365,764	162 956	61,803	16,002	102 213	166 408	153,525		6,962	9 434	30 033	1,894,010
May-95	705 052	191 100	357,121	164 013	66,007	13,407	102 074	166 309	154,235		6,497	8 002	31 040	1,801,007
Jun-95	873 074	220 796	405,912	187 024	72,785	14,092	109 133	163 537	175,593		5,943	8 669	39 553	2,076,067
Jul-95	1,035 354	270 837	457,318	207 476	83,167	16,577	117 039	177 570	179,268		6,137	8 579	50 403	2,613,496
Aug-95	1,213 116	293 604	491,742	213 126	85,076	17,837	122 491	183 230	183,907		6,915	8 858	56 121	2,985,204
Sep-95	1,262 418	302 836	515,343	221 077	78,033	18,212	130 772	188 461	167,546		7,519	9 685	34 250	3,044,041
Oct-95	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14,102	[illegible]	[illegible]	[illegible]		[illegible]	10 042	[illegible]	[illegible]
Nov-95	744 579	200 050	364,772	154 220	64,706	20,057	102 002	160 769	150,000		6,902	10 014	30 077	1,929,700
Dec-95	872 548	238 439	399,388	173 721	64,559	20,111	104 309	170 133	147,293		9,707	11 948	37 431	2,253,610
Jan-96	1,131 821	280 517	450,392	183 534	69,675	19,013	106 395	179 286	165,669		9,583	12 172	39 652	2,651,615
Feb-96	1,081 224	275 838	430,505	181 355	64,456	17,880	107 577	174 707	148,582		8,157	10 773	36 327	2,537,731
Mar-96	[illegible]	264 156	414,041	177 575	64,875	17,707	108 371	180 165	160,836		8,034	10 440	36 252	2,344,660
Apr-96	797 056	219 526	365,400	177 717	67,010	16,077	105 074	176 204	159,725		7,045	9 050	31 045	2,149,720
May-96	847 132	208 178	377,326	173 320	66,248	13,555	103 178	173 039	163,326		6,503	8 824	36 976	1,985,906
Jun-96	915 558	242 931	425,139	200 274	76,788	14,603	115 481	180 272	167,084		5,991	8 531	43 552	2,316,927
Jul-96	1,161 833	295 670	488,325	215 256	86,883	16,777	120 956	181 568	182,205		6,411	8 511	47 058	2,811,533
Aug-96	1,117 443	265 325	471,567	211 328	82,280	16,849	121 604	177 100	181,730		6,042	8 887	40 627	2,710,673
Sep-96	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	9 718	[illegible]	[illegible]
Oct-96	900 480	212 950	399,704	160 015	72,030	16,050	109 040	170 005	167,745		6,724	10 071	30 014	2,030,741
Nov-96	874 972	213 472	391,980	175 257	67,899	21,405	107 981	177 831	159,237		9,035	11 113	35 750	2,048,905
Dec-96	945 150	250 137	421,126	182 117	76,284	20,911	108 378	177 714	156,552		9,812	12 152	39 008	2,700,731
Jan-97	1,155 720	286 022	464,738	180 357	70,704	10,034	107 085	182 428	158,853		9,652	12 584	44 835	2,712,061
Feb-97	1,062 720	272 150	432,010	175 770	71,672	17,402	106 512	178 206	148,585		8,212	10 917	37 310	2,523,658
Mar-97	957 240	239 430	402,127	167 079	74,975	16,777	106 451	181 024	150,010		8,251	10 770	30 070	2,230,207
Apr-97	715 231	217 408	394,349	171 424	74,192	14,631	103 925	181 440	156,119		7,125	9 750	34 725	2,083,900
May-97	595 750	198 237	358,396	172 770	75,821	13,337	100 614	177 998	153,741		6,571	8 855	34 724	1,897,904
Jun-97	874 352	226 528	422,307	189 156	83,677	13,687	111 991	187 002	176,047		6,033	8 698	47 438	2,143,913
Jul-97	1,132 027	282 054	498,518	217 420	93,865	16,735	122 873	196 160	178,448		6,465	8 683	57 627	2,810,886
Aug-97	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
Sep-97	1,220 779	272 031	495,302	203 980	90,500	10,103	122 100	189 901	191,207		7,073	9 024	42 272	2,905,010
Oct-97	747 736	237 453	436,554	194 142	81,256	16,183	116 381	185 049	174,100		8,703	10 529	39 758	2,247,944
Nov-97	755 612	221 950	403,318	175 803	71,801	22,330	111 261	177 957	163,243		9,223	11 568	38 358	2,171,914
Dec-97	935 725	248 253	428,200	180 852	78,030	21,380	108 946	180 430	174,010		9,073	12 322	42 720	2,424,016
Jan-98	1,125 372	282 002	466,272	192 754	75,664	18,003	108 770	179 201	162,600		9,841	12 827	42 722	2,678,087
Feb-98	901 179	255 012	417,001	171 142	69,509	16,002	106 200	173 904	165,592		8,307	11 099	36 574	2,412,907
Mar-98	890 751	246 093	424,918	175 030	74,895	16,473	109 401	182 515	170,473		8,943	10 980	40 822	2,351,501
Apr-98	721 915	225 011	405,359	177 222	73,859	15,015	106 789	170 602	167,717		7,272	9 895	35 313	2,119,250
May-98	874 113	217 730	395,207	175 635	75,829	13,681	103 732	168 360	174,160		6,613	9 083	43 912	2,058,368
Jun-98	975 257	260 645	488,572	205 427	90,613	15,813	121 991	186 860	197,004		6,153	8 883	48 474	2,618,526
Jul-98	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
Aug-98	1,270 003	297 024	500,014	221 500	90,590	17,053	124 702	190 190	175,025		7,104	9 244	55 524	2,910,709
Sep-98	1,165 124	291 537	512,345	221 574	85,506	16,873	124 160	188 119	191,602		7,702	9 526	43 646	2,859,693
Oct-98	941 719	260 677	478,547	195 853	76,946	16,393	116 264	186 759	172,525		8,752	11 966	37 425	2,373,833
Nov-98	875 305	221 551	412,502	187 057	75,422	10,211	100 421	181 035	168,027		9,267	10 006	38 226	2,110,070
Dec-98	942 050	274 820	326,077	95 215	16,270	14,413	83 623	162 969	174,010		9,743	6 991	43 429	2,046,506
Jan-99	1,217 012	290 070	454,390	157 474	56,000	17,572	99 501	161 059	162,590		9,001	6 427	40 550	2,071,202
Feb-99	968 947	259 248	440,234	230 116	76,567	16,677	113 482	158 714	203,806		8,144	7 192	38 255	2,520,405
Mar-99	903 759	251 636	436,394	205 653	56,591	15,613	107 764	182 523	174,623		8,183	12 012	40 920	2,391,777
Apr-99	754 633	260 954	488,550	205 129	83,803	14,553	117 950	195 575	179,227		7,083	5 889	37 353	2,350,813
May-99	951 822	260 033	443,060	182 424	75,007	13,383	150 084	160 017	221,642		6,602	6 411	40 456	2,230,884
Jun-99	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
Jul-99	1,200 919	300 990	500,100	222 027	144,040	16,550	120 290	166 000	229,071		6,403	5 100	67 909	3,027,010
Aug-99	1,423 440	327 946	548,321	342 357	80,994	16,672	126 869	174 214	209,490		7,053	14 996	57 777	3,332,162
Sep-99	1,257 757	291 506	511,704	281 039	109,377	17,323	122 899	170 402	218,760		7,633	5 289	45 312	2,841,809
Oct-99	704 526	243 530	484,505	181 978	83,640	13,263	107 177	182 459	191,210		8,651	5 036	30 055	2,247,085
Nov-99	963 355	234 802	467,087	167 115	83,210	13,342	102 324	130 668	143,240		9,135	6 310	30 056	2,070,601
Dec-99	[illegible]	250 146	490,179	192 470	50,090	14,417	105 100	170 101	209,105		9,927	7 049	45 070	2,454,549

MWh	Res	Com SGS	Com LGS	Com SPS	Com LPS	Ind SGS	Ind LGS	Ind SPS	Ind LPS	Noranda	OIE	SLPA	Wholesale*	Total
Jan-00	1,110,761	333,372	492,315	256,208	103,821	17,672	105,986	159,386	191,198		9,771	7,212	47,198	2,852,374
Feb-00	1,267,065	280,173	512,037	214,958	120,435	15,819	114,129	158,419	215,635		8,831	6,726	40,563	2,759,377
Mar-00	818,143	221,377	421,715	224,510	61,129	14,555	107,434	146,140	181,629		8,295	8,970	41,551	2,235,398
Apr-00	892,215	219,625	480,723	176,378	63,681	12,303	105,526	209,202	191,801		7,172	5,736	38,280	2,155,578
May-00	881,855	231,437	418,338	179,506	65,387	12,564	105,822	148,553	175,706		6,601	5,318	38,275	2,055,154
Jun-00	1,006,305	263,605	520,753	217,178	83,115	13,780	117,010	158,567	215,043		6,113	5,270	51,143	2,604,015
Jul-00	1,700,755	304,261	580,703	258,008	84,504	15,140	115,834	160,878	237,133		5,407	5,118	60,135	3,072,577
Aug-00	1,753,135	308,127	588,704	226,055	80,145	15,003	121,473	160,620	207,444		7,107	5,277	66,446	3,078,507
Sep-00	1,280,005	314,637	540,787	255,57[illegible]	80,037	14,643	127,205	160,400	271,001		7,735	8,070	50,143	3,112,17[illegible]
Oct-00	[illegible]	261,103	470,456	[illegible]	83,095	16,256	[illegible]	[illegible]	234,351		8,200	6,000	40,280	[illegible]
Nov-00	701,164	241,107	479,101	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	219,101		4,019	6,122	[illegible]	[illegible]
Dec-00	[illegible]	292,912	519,900	150,100	74,905	15,425	95,720	154,594	252,990		10,004	7,150	[illegible]	2,779,[illegible]
Jan-01	[illegible]	243,004	607,294	220,202	69,442	17,002	115,200	159,072	220,021		9,522	7,227	40,501	3,220,944
Feb-01	1,290,102	209,672	457,274	270,105	73,032	14,549	104,200	174,200	240,900		9,104	6,520	42,790	2,727,449
Mar-01	800,975	200,500	400,159	155,200	53,001	14,022	105,534	129,207	200,121		9,041	6,230	40,207	2,470,130
Apr-01	795,553	241,582	443,705	203,344	61,191	12,274	100,041	146,823	213,909		7,223	5,809	39,592	2,231,952
May-01	740,585	247,137	472,253	151,391	77,915	11,882	101,006	151,867	237,637		8,740	5,712	44,504	2,250,766
Jun-01	890,072	263,605	551,508	213,395	83,402	12,071	105,613	148,826	253,132		8,185	5,370	50,541	2,572,176
Jul-01	1,266,552	327,823	585,130	232,263	83,162	14,113	113,930	157,639	233,295		8,595	5,157	62,511	3,059,279
Aug-01	1,423,151	313,793	692,527	213,309	93,767	14,525	125,999	159,517	272,908		7,203	5,357	62,217	3,352,103
Sep-01	1,205,022	310,123	562,531	239,309	93,095	19,842	113,009	157,843	275,713		7,795	5,774	46,570	3,054,555
Oct-01	731,301	242,375	483,453	225,716	73,173	14,036	102,400	148,611	223,156		8,832	5,055	41,206	2,255,034
Nov-01	700,667	222,672	475,156	171,256	83,687	16,000	94,050	150,060	235,224		7,347	6,447	38,567	2,156,23[illegible]
Dec-01	963,477	242,085	494,507	156,567	73,015	15,600	97,046	156,074	257,023		10,007	7,073	44,746	2,474,727
Jan-02	1,255,305	300,441	514,567	213,242	73,201	14,420	95,376	150,255	237,125		9,019	7,542	46,537	2,971,144
Feb-02	[illegible]	271,377	554,406	[illegible]	75,044	14,114	[illegible]	[illegible]	[illegible]		1,022	18,213	40,168	[illegible]
Mar-02	[illegible]	262,901	[illegible]	217,270	[illegible]	12,102	91,771	[illegible]	[illegible]		[illegible]	[illegible]	40,522	2,416,[illegible]
Apr-02	[illegible]	273,042	400,447	153,025	75,042	11,799	107,790	124,107	254,290		7,705	10,744	41,214	2,422,702
May-02	[illegible]	279,242	490,509	220,040	81,402	10,210	94,720	125,000	242,919		5,021	9,045	42,779	2,220,707
Jun-02	[illegible]	270,052	491,230	224,702	82,574	11,770	111,232	120,050	251,070		8,002	8,710	54,270	2,570,330
Jul-02	1,402,975	351,003	602,125	220,140	87,008	14,174	103,000	140,700	220,222		8,704	8,230	64,302	3,001,470
Aug-02	1,463,963	363,945	608,729	252,798	100,797	14,278	105,897	141,228	310,714		8,705	8,539	63,392	3,429,391
Sep-02	1,300,537	321,640	591,431	250,331	95,437	13,594	112,232	150,938	265,692		7,565	9,735	51,159	3,178,353
Oct-02	853,579	262,631	522,318	238,710	83,513	14,876	103,199	140,509	275,118		8,155	10,551	43,758	2,555,279
Nov-02	802,540	252,531	412,765	157,775	65,935	15,495	93,147	128,812	247,812		8,861	11,752	42,730	2,228,960
Dec-02	1,122,585	172,740	482,312	154,754	79,925	15,413	93,030	134,067	243,534		10,501	12,733	47,164	2,609,141
Jan-03	1,222,995	249,025	530,558	203,588	81,415	14,094	94,305	130,672	233,256		10,983	13,853	51,767	2,855,553
Feb-03	1,243,657	285,072	530,313	103,38[illegible]	81,203	13,379	97,243	129,746	234,503		9,573	12,727	44,130	2,855,388
Mar-03	1,208,705	301,277	507,135	231,320	75,507	13,070	95,512	125,041	217,350		9,005	11,570	44,562	2,676,527
Apr-03	770,254	224,175	455,702	177,280	81,645	10,748	97,331	128,063	255,834		7,724	10,557	41,577	2,251,704
May-03	707,114	222,515	466,295	275,460	81,687	10,620	91,805	154,651	237,526		5,073	9,557	43,735	2,278,341
Jun-03	788,544	261,300	517,241	211,351	82,154	10,505	94,410	126,264	254,650		5,669	9,113	40,572	2,348,[illegible]
Jul-03	1,292,961	[illegible]	542,132	217,100	96,107	12,120	101,917	139,019	249,642		1,401	9,154	66,242	3,146,107
Aug-03	1,357,922	321,792	590,270	234,100	95,220	12,790	105,401	130,100	263,997		5,097	9,047	66,110	3,220,029
Sep-03	1,200,902	315,951	564,204	241,090	97,044	12,140	105,404	125,519	271,990		7,557	9,710	46,200	3,117,020
Oct-03	720,002	240,217	540,204	222,027	93,092	12,072	97,001	127,470	252,019		9,192	10,715	40,200	2,329,359
Nov-03	701,005	205,004	404,202	221,029	90,145	10,011	90,070	120,409	272,100		9,057	11,911	40,101	2,070,792
Dec-03	1,268,625	263,755	568,594	229,785	82,387	14,415	93,625	126,402	229,835		10,375	13,271	49,214	2,739,100
Jan-04	1,281,591	302,415	539,585	219,986	87,022	13,039	83,758	117,567	243,751		10,993	14,051	53,795	2,979,320
Feb-04	1,277,431	303,473	529,312	220,160	81,743	12,694	95,407	126,367	232,035		9,221	12,559	47,523	2,918,177
Mar-04	873,113	261,495	481,305	191,756	73,551	11,293	90,973	119,360	222,805		8,562	11,258	44,588	2,455,396
Apr-04	817,963	241,551	475,242	206,358	87,593	10,314	85,624	128,827	281,750		8,037	10,855	42,106	2,374,349
May-04	797,823	243,515	500,760	222,180	87,572	9,625	95,450	129,303	247,332		7,190	10,014	50,186	2,427,367
Jun-04	1,066,152	300,015	577,317	231,713	102,340	11,300	103,425	130,313	254,040		6,805	9,050	53,774	2,828,583
Jul-04	1,225,535	310,557	504,744	246,516	101,717	12,027	104,352	135,647	282,224		6,647	8,551	57,540	3,055,775
Aug-04	1,175,067	302,325	565,581	242,226	103,317	11,590	104,021	136,178	255,736		5,773	8,052	52,775	3,051,776
Sep-04	1,076,677	305,135	582,782	254,442	101,765	11,701	101,257	128,466	265,076		7,622	9,875	48,508	2,857,516
Oct-04	[illegible]	263,639	526,490	243,70[illegible]	95,865	14,800	101,845	149,547	254,116		8,362	10,770	42,437	2,610,414
Nov-04	701,044	201,009	454,101	[illegible]	[illegible]	15,700	91,100	119,217	251,720		4,210	12,140	44,122	2,211,174
Dec-04	1,207,095	272,002	520,299	227,303	94,277	13,020	95,020	125,727	242,710		10,497	13,010	51,249	2,721,090
Jan-05	1,352,125	275,702	574,311	222,724	93,272	14,000	95,901	129,902	207,950		11,001	14,154	54,109	3,010,970
Feb-05	1,174,002	200,052	514,320	159,020	92,442	11,479	95,074	110,590	202,002		9,517	13,015	45,442	2,754,090
Mar-05	1,025,575	254,940	504,209	187,000	85,292	11,129	92,213	110,174	220,500		9,042	11,420	40,290	2,570,501
Apr-05	858,458	254,945	502,526	203,267	91,332	10,310	94,708	118,647	245,309		8,143	11,154	43,158	2,441,367
May-05	769,583	243,777	497,291	203,362	91,737	9,393	90,951	120,174	240,530		7,112	9,856	46,398	2,331,273
Jun-05	1,237,904	292,829	575,312	230,243	108,015	10,715	101,098	127,027	253,306		8,831	9,152	60,328	2,817,289
Jul-05	1,465,814	342,605	646,217	238,182	115,915	12,605	105,920	129,069	269,922	[redacted]	8,692	8,620	60,225	[redacted]
Aug-05	1,529,861	343,822	656,597	218,347	127,412	12,654	103,092	129,104	245,855	[redacted]	8,837	8,950	70,514	[redacted]
Sep-05	1,350,055	331,795	646,312	230,952	125,351	12,124	103,390	135,831	291,336	[redacted]	7,722	9,855	67,311	[redacted]
Oct-05	872,802	282,175	580,220	220,530	113,062	14,022	103,852	127,850	261,127	[redacted]	8,371	10,703	58,504	[redacted]
Nov-05	811,185	245,307	400,944	176,245	103,867	13,080	94,024	121,150	257,663	[redacted]	9,275	18,044	44,503	[redacted]
Dec-05	1,200,585	300,027	565,704	170,558	101,605	12,566	94,317	122,145	234,830	[redacted]	11,565	13,250	45,554	[redacted]
Jan-06	1,344,055	315,607	570,150	225,555	100,255	12,437	97,046	126,008	237,608	[redacted]	11,115	14,256	50,508	[redacted]
Feb-06	1,118,[illegible]	275,204	518,402	114,466	91,464	11,184	[illegible]	116,247	231,831	[redacted]	1,612	6,820	47,436	[redacted]
Mar-06	[illegible]	264,221	510,100	152,124	92,307	10,201	102,100	111,904	217,710	[redacted]	1,211	11,410	47,201	[redacted]
Apr-06	1,002,495	250,092	501,229	155,411	94,402	9,740	97,030	114,002	220,011	[redacted]	7,702	10,912	40,311	[redacted]
May-06	724,429	241,402	509,312	157,092	103,702	9,009	92,020	112,909	224,521	[redacted]	7,152	9,722	40,200	[redacted]
Jun-06	1,290,002	294,092	607,200	221,142	115,702	10,477	95,032	120,100	267,020	[redacted]	9,952	9,250	57,725	[redacted]

Table (1) (B)-2: Weather normalized revenue month sales (MWh)

MWh	Res	ComSGS	ComLGS	ComSPS	ComLPS	IndSGS	IndLGS	IndSPS	IndLPS	Streetlite	OthPub	SLPA	Wholesale*	Total
Jan-96	1,137,259		439,199	181,529	68,053						9,218	12,261		
Feb-96	1,013,359	261,240	408,725	169,147	62,383	17,156	107,843	159,683	146,262		8,036	10,739		2,365,314
Mar-96	873,301	242,324	399,692	169,637	67,250	17,512	109,868	167,356	166,356		8,096	10,432		2,221,025
Apr-96	697,225	220,155	363,393	162,966	61,837	16,004	102,308	155,642	153,663		6,963	9,434		1,950,230
May-96	628,031	196,573	363,657	164,613	68,231	13,568	102,626	157,233	156,088		6,497	8,882		1,866,591
Jun-96	724,591	227,247	414,159	189,705	72,816	14,190	109,825	164,664	176,742		5,949	8,669		2,108,618
Jul-96	1,078,529	275,940	464,207	209,803	83,152	16,632	117,642	178,485	180,192		6,437	8,549		2,619,707
Aug-96	1,155,795	271,779	453,684	204,525	84,968	17,453	119,258	179,292	175,951		6,919	8,858		2,693,133
Sep-96	1,137,341	285,162	452,681	211,246	78,241	17,397	123,512	185,204	164,851		7,514	9,625		2,718,734
Oct-96	694,690	225,318	408,518	184,992	72,849	14,598	109,606	175,126	170,933		8,521	10,347		2,075,225
Nov-96	632,345	201,807	363,625	154,267	64,736	20,058	102,215	168,790	153,087		8,562	10,814		1,881,215
Dec-96	962,332	238,482	399,638	179,721	64,961	20,118	104,338	170,190	147,343		9,707	11,948		2,208,378
Jan-97	1,116,942	278,208	449,246	189,594	69,675	19,049	106,396	179,288	166,671		9,583	12,172		2,596,224
Feb-97	1,034,759	268,985	425,150	181,385	64,456	17,879	107,574	174,792	148,578		8,157	10,773		2,442,108
Mar-97	905,243	262,681	413,178	177,575	64,874	17,703	108,343	180,119	160,797		8,034	10,440		2,299,587
Apr-97	757,095	216,476	382,341	173,717	67,019	16,105	105,868	176,607	160,018		7,049	9,658		2,071,913
May-97	622,028	206,030	374,188	179,320	68,236	13,524	102,917	172,602	162,913		6,503	8,824		1,917,085
Jun-97	753,695	234,152	433,790	196,574	76,442	14,469	114,426	178,625	165,957		5,984	8,534		2,182,299
Jul-97	1,163,036	294,786	487,177	214,893	86,879	16,762	120,850	181,410	182,046		6,411	8,511		2,757,762
Aug-97	1,200,301	276,026	485,492	216,906	82,344	17,023	122,991	178,996	183,996		6,940	8,887		2,779,573
Sep-97	1,081,477	291,100	486,795	215,836	83,796	16,825	126,947	176,996	173,790		7,513	9,719		2,670,367
Oct-97	712,198	224,273	414,488	196,369	72,896	16,243	110,912	178,927	169,681		8,564	10,371		2,113,911
Nov-97	661,805	211,880	380,643	178,663	67,842	21,420	108,041	177,925	159,325		9,035	11,113		1,997,675
Dec-97	901,247	244,758	416,620	182,147	76,285	20,946	108,405	177,759	156,592		9,812	12,152		2,306,724
Jan-98	1,188,319	290,408	468,381	189,387	79,794	19,004	107,586	182,430	168,895		9,652	12,584	41,284	2,748,113
Feb-98	1,049,026	269,815	431,145	175,779	71,672	17,490	106,512	178,297	148,585		8,219	10,917	36,478	2,502,936
Mar-98	912,351	250,185	410,723	168,809	74,977	16,557	106,485	181,682	156,360		8,251	10,778	38,484	2,336,644
Apr-98	759,778	223,092	400,246	171,424	74,202	14,660	104,134	181,805	156,433		7,126	9,750	35,004	2,137,854
May-98	612,238	204,333	396,000	170,770	75,257	13,438	101,409	179,361	154,910		6,571	8,895	37,673	1,931,405
Jun-98	739,449	243,815	445,278	196,403	83,757	13,926	113,949	190,272	179,122		6,009	8,688	43,258	2,314,996
Jul-98	1,086,714	277,118	491,972	215,170	93,240	16,696	122,288	194,230	177,568		6,466	8,833	55,420	2,755,154
Aug-98	1,206,961	291,172	487,593	213,621	87,360	16,962	123,245	194,777	174,251		7,053	8,969	56,543	2,868,128
Sep-98	1,073,081	278,345	493,196	213,446	88,614	16,295	122,797	190,596	192,400		7,670	9,824	61,567	2,728,540
Oct-98	705,544	227,696	423,256	186,277	81,204	16,019	115,200	183,170	172,333		8,703	10,529	39,173	2,169,702
Nov-98	675,537	217,552	393,509	176,014	71,783	22,247	110,846	177,294	162,634		9,223	11,963	37,800	2,096,007
Dec-98	932,396	248,318	427,964	180,852	78,040	21,387	108,979	180,485	174,964		9,979	12,322	42,072	2,417,718
Jan-99	1,230,416	299,188	478,673	190,754	75,664	18,003	108,780	179,203	162,592		9,841	12,827	40,586	2,806,527
Feb-99	1,089,627	274,382	430,960	171,142	69,569	16,662	106,206	173,504	165,592		8,387	11,099	34,233	2,551,366
Mar-99	908,528	250,396	427,513	176,030	74,694	16,467	109,379	182,478	170,439		8,343	10,980	41,414	2,376,651
Apr-99	759,224	225,927	406,724	177,222	73,849	14,984	106,543	170,241	167,362		7,242	9,896	36,475	2,155,688
May-99	666,293	212,942	388,960	175,635	75,797	13,589	103,031	167,223	172,584		6,649	9,083	42,330	2,034,545
Jun-99	830,706	248,141	459,843	196,418	80,506	15,452	119,513	183,054	193,884		6,153	8,883	43,580	2,396,181
Jul-99	1,163,884	286,136	493,231	213,452	88,240	17,319	120,480	183,661	182,722		6,522	9,364	58,143	2,824,364
Aug-99	1,211,537	296,975	505,841	221,354	90,596	17,044	124,740	196,130	174,966		7,164	9,244	53,404	2,908,596
Sep-99	1,063,746	277,896	493,246	213,296	83,437	16,651	122,549	185,678	189,116		7,702	9,528	39,792	2,703,208
Oct-99	743,872	243,069	425,125	181,760	76,852	16,094	114,146	183,356	169,382		8,752	11,996	39,364	2,214,239
Nov-99	705,627	223,529	415,068	186,510	75,418	19,196	109,337	180,896	168,798		9,267	10,006	38,589	2,142,641
Dec-99	968,948	291,690	460,645	193,165	10,270	16,650	96,582	188,224	202,015		9,748	5,991	42,912	2,487,841
Jan-00	1,191,218	239,318	451,634	150,434	50,383	19,696	111,594	181,422	182,241		9,601	6,427	44,166	2,688,133
Feb-00	1,129,808	234,697	459,439	230,116	76,967	16,617	113,482	196,714	203,807		8,144	7,192	36,702	2,723,345
Mar-00	935,251	252,419	441,233	205,823	96,991	15,649	104,803	182,992	174,839		8,189	12,042	41,802	2,437,044
Apr-00	796,928	263,968	491,767	205,109	83,803	14,537	117,802	196,330	178,966		7,082	5,889	37,001	2,397,222
May-00	696,940	267,401	441,654	183,424	75,007	11,175	132,806	141,849	126,030		6,602	6,411	43,674	2,161,974
Jun-00	824,329	269,409	488,685	201,337	128,054	15,484	127,327	181,476	205,205		6,056	5,303	48,736	2,501,400
Jul-00	1,190,618	296,022	499,899	219,889	144,840	16,461	119,968	185,084	227,779		6,436	5,108	60,462	2,954,173
Aug-00	1,248,427	305,343	517,055	226,853	80,594	18,277	124,186	170,529	205,069		7,056	14,996	61,863	2,980,638
Sep-00	1,096,545	299,686	518,507	234,252	109,377	17,413	123,496	171,223	219,519		7,635	5,239	45,771	2,902,116
Oct-00	732,235	247,676	480,479	185,034	83,640	13,320	107,998	183,175	191,961		8,651	5,936	42,689	2,292,394
Nov-00	711,971	237,243	469,623	165,850	82,210	17,014	130,415	177,871	182,963		9,135	6,310	40,235	2,230,480
Dec-00	961,502	271,871	504,144	192,473	58,093	14,409	105,137	176,076	238,989		9,920	7,049	45,438	2,585,501
Jan-01	1,231,676	302,871	506,350	200,153	103,821	17,572	108,987	169,358	191,200		9,774	7,242	45,915	2,894,969
Feb-01	1,107,367	287,155	516,997	214,968	120,436	15,816	114,109	163,420	215,646		8,334	6,726	39,357	2,810,321
Mar-01	940,661	238,293	434,659	204,510	61,129	14,337	107,351	145,960	181,405		8,295	8,970	43,329	2,388,899
Apr-01	759,244	227,507	439,466	176,378	66,884	12,317	105,643	209,434	192,016		7,170	5,766	39,275	2,241,089
May-01	667,877	229,464	411,750	179,605	85,364	12,476	108,068	147,511	174,473		6,604	5,318	39,257	2,067,747
Jun-01	868,964	277,683	521,480	214,638	96,085	13,709	117,239	167,615	217,830		6,113	5,279	52,141	2,549,636
Jul-01	1,235,667	307,344	534,645	239,414	84,519	15,192	119,234	161,288	239,817		6,466	5,118	63,703	3,012,441

Month	Res	ComSGS	ComLGS	ComSPS	ComLPS	IndSGS	IndLGS	IndSPS	IndLPS	Muni	OL	SLPA	Wholesale*	Total
Aug-00	1,293,848	313,144	545,781	228,679	89,172	13,840	111,392	155,980	269,091		7,109	5,227	61,481	3,094,324
Sep-00	1,129,184	293,893	520,491	222,960	83,929	14,378	118,026	157,504	267,096		7,735	5,909	49,835	2,873,941
Oct-00	796,027	247,315	474,715	203,644	83,211	15,288	111,910	159,297	233,774		8,791	6,010	44,914	2,385,496
Nov-00	733,681	235,784	473,208	201,217	83,196	14,932	111,578	159,424	233,082		9,284	6,172	43,025	2,305,184
Dec-00	1,016,340	278,968	502,144	198,188	74,508	15,423	95,708	154,569	250,963		10,004	7,190	47,990	2,651,984
Jan-01	1,237,007	319,241	539,393	203,282	69,442	17,282	119,207	169,674	228,623		9,525	7,267	45,272	3,066,415
Feb-01	1,133,713	296,318	462,496	201,931	73,632	14,949	104,203	174,401	246,931		8,104	6,568	39,031	2,762,267
Mar-01	967,565	267,660	456,243	191,341	57,302	14,027	105,603	169,348	203,195		8,341	6,296	44,241	2,492,152
Apr-01	770,191	235,340	434,356	203,944	81,149	12,170	99,191	145,576	212,092		7,223	5,809	39,513	2,246,553
May-01	633,808	224,320	440,441	161,691	77,224	11,602	101,555	148,052	232,036		6,740	5,412	44,574	2,087,496
Jun-01	969,145	296,126	528,099	212,641	83,388	12,042	108,384	148,472	252,960		6,186	5,370	49,470	2,541,881
Jul-01	1,242,986	324,626	580,540	230,805	88,144	14,070	113,636	157,154	238,573		6,996	5,197	59,527	3,061,435
Aug-01	1,257,951	292,764	602,288	232,308	93,669	14,260	123,701	156,607	266,967		7,203	5,387	53,444	3,110,540
Sep-01	1,127,881	299,792	547,758	233,015	98,044	15,667	112,011	166,361	276,281		7,795	5,474	46,610	2,940,688
Oct-01	773,486	248,570	462,331	210,370	78,204	14,121	103,020	149,510	224,516		8,838	5,966	43,170	2,352,091
Nov-01	758,409	228,012	431,969	192,326	83,696	16,023	96,084	131,146	236,969		9,340	6,442	40,223	2,229,960
Dec-01	1,030,373	263,442	512,606	186,667	70,014	15,502	97,068	136,091	257,966		10,050	7,003	45,579	2,632,381
Jan-02	1,345,548	313,854	525,296	213,242	78,291	14,429	98,374	130,253	233,121		9,914	7,542	44,491	3,014,325
Feb-02	1,179,502	296,136	501,233	203,435	75,348	14,014	97,140	131,563	238,652		9,027	18,253	38,254	2,802,095
Mar-02	1,021,363	268,627	468,473	217,776	70,891	12,666	95,801	134,122	209,110		8,939	5,007	46,142	2,558,178
Apr-02	838,064	271,566	453,662	183,325	75,023	11,735	107,244	103,567	252,563		7,789	10,744	38,585	2,366,896
May-02	697,128	241,369	486,323	208,348	81,381	10,495	84,309	124,755	248,707		6,521	9,345	45,860	2,244,502
Jun-02	892,397	274,457	475,339	220,138	82,519	11,651	110,083	137,185	248,707		6,808	8,786	47,953	2,516,021
Jul-02	1,222,763	326,083	564,493	241,415	87,681	13,809	105,300	140,080	222,340		6,704	8,296	56,915	2,995,849
Aug-02	1,240,967	314,969	565,768	247,461	100,646	13,916	103,210	137,643	302,828		6,706	8,539	59,578	3,101,830
Sep-02	1,152,496	302,944	564,019	239,243	96,344	13,363	110,376	148,366	264,131		7,982	9,736	47,033	2,954,615
Oct-02	789,161	252,525	507,619	230,887	88,460	14,736	102,220	139,176	275,480		8,156	10,581	44,366	2,463,155
Nov-02	778,850	232,521	443,615	199,538	85,950	15,530	92,360	128,909	248,385		8,864	11,752	43,452	2,289,725
Dec-02	1,130,450	296,509	493,760	184,754	79,930	15,418	93,068	134,129	243,608		10,501	12,763	48,409	2,703,688
Jan-03	1,308,253	261,560	540,328	223,588	84,446	14,094	94,306	130,674	239,258		10,563	13,963	47,919	2,969,862
Feb-03	1,226,900	282,936	518,787	193,881	81,293	13,379	97,243	129,745	234,504		9,575	12,797	40,227	2,840,985
Mar-03	1,050,887	294,671	502,274	201,829	76,502	13,074	96,536	125,984	210,423		8,905	11,570	46,308	2,638,962
Apr-03	822,464	226,110	456,607	197,239	80,625	10,206	89,967	107,657	254,263		7,724	10,537	41,982	2,305,060
May-03	727,850	221,889	496,154	205,460	80,671	10,012	91,648	134,422	230,134		6,973	9,567	46,966	2,231,727
Jun-03	902,448	296,327	524,273	217,627	82,328	10,686	95,834	128,175	262,580		6,665	9,093	51,920	2,587,965
Jul-03	1,278,948	313,371	579,408	236,511	96,819	12,606	103,735	139,145	264,083		6,480	8,394	65,013	3,104,515
Aug-03	1,306,589	315,222	580,469	250,743	95,191	12,672	108,726	137,231	285,349		6,697	8,847	59,914	3,147,700
Sep-03	1,147,582	300,297	580,707	232,267	96,966	12,361	104,267	133,562	267,985		7,557	9,703	48,230	2,942,174
Oct-03	764,253	253,603	553,506	225,975	96,922	12,134	98,331	128,124	254,613		8,190	10,715	45,773	2,453,145
Nov-03	805,715	237,417	487,349	221,517	90,147	16,605	96,041	122,409	273,081		9,057	11,911	43,591	2,420,843
Dec-03	1,137,141	277,507	576,110	209,785	82,366	14,413	93,612	126,385	229,836		10,375	13,271	48,837	2,820,037
Jan-04	1,414,730	322,623	554,963	219,586	87,022	13,035	89,759	117,569	249,754		10,563	14,081	50,481	3,144,700
Feb-04	1,264,094	301,507	527,457	220,160	81,743	12,836	96,408	126,367	232,065		9,224	12,599	47,145	2,930,805
Mar-04	1,052,832	273,545	480,646	191,756	78,553	11,256	91,009	119,409	222,896		8,562	11,283	48,324	2,600,116
Apr-04	863,043	245,934	478,347	206,258	87,582	10,191	88,420	123,543	261,148		8,037	10,825	41,133	2,430,124
May-04	713,697	233,162	477,640	222,480	87,486	9,754	94,786	127,072	243,066		7,190	10,014	47,152	2,273,496
Jun-04	885,068	285,832	540,015	221,184	92,224	11,019	100,857	127,077	248,618		6,805	9,069	53,371	2,561,189
Jul-04	1,248,917	313,444	568,425	247,932	101,732	12,059	104,642	136,010	252,960		6,640	8,951	59,736	3,122,068
Aug-04	1,258,761	317,567	609,387	250,420	98,400	12,181	105,607	138,203	260,649		6,773	8,932	61,086	3,163,386
Sep-04	1,179,501	308,502	600,937	241,974	99,830	11,338	102,456	124,973	269,222		7,622	9,896	49,259	3,005,950
Oct-04	824,570	280,607	531,401	240,977	96,837	14,759	100,505	142,057	258,123		8,352	10,772	44,385	2,532,366
Nov-04	826,960	243,780	500,147	201,805	88,317	15,766	93,802	119,166	261,623		9,201	12,346	44,877	2,407,392
Dec-04	1,146,809	284,434	529,228	207,603	94,276	13,625	95,010	125,736	248,677		10,497	13,363	51,023	2,820,279
Jan-05	1,394,956	321,177	567,018	221,452	96,215	14,063	95,562	129,934	237,960		11,001	14,184	51,529	3,155,529
Feb-05	1,210,841	299,378	504,319	189,600	86,091	11,479	93,374	116,550	232,802		9,517	13,035	44,111	2,810,537
Mar-05	1,064,296	262,021	509,689	197,823	85,256	11,133	92,253	118,219	220,670		8,843	11,460	50,246	2,631,979
Apr-05	893,929	296,030	503,689	203,267	91,319	10,237	94,496	118,380	244,757		8,143	11,164	42,816	2,478,275
May-05	732,287	238,689	489,001	203,662	91,705	9,330	90,342	119,362	238,918		7,110	9,696	48,738	2,278,816
Jun-05	934,171	278,142	553,227	224,067	105,942	10,568	99,620	125,170	255,515		6,831	9,152	52,430	2,654,826
Jul-05	1,322,973	324,722	618,385	230,328	115,811	12,360	105,093	126,884	265,312	[redacted]	6,682	8,600	58,502	[redacted]
Aug-05	1,365,765	325,621	623,735	237,257	127,229	12,388	106,770	126,362	243,627		6,837	8,960	67,156	
Sep-05	1,199,878	312,640	617,275	239,223	125,162	11,913	104,540	133,469	236,319		7,720	9,966	61,566	
Oct-05	853,694	263,400	560,138	214,632	112,971	14,642	101,913	125,461	256,229		8,371	10,703	59,926	
Nov-05	842,645	249,624	502,493	196,008	103,852	13,585	94,896	121,152	253,605		9,276	18,044	45,043	
Dec-05	1,168,231	285,742	551,341	199,568	101,693	12,569	94,270	122,084	234,723		10,568	13,239	44,434	
Jan-06	1,450,136	337,701	586,596	225,666	100,258	12,437	97,047	126,909	230,700		11,115	14,296	49,944	
Feb-06	1,274,018	296,896	536,081	194,496	99,462	11,084	89,458	116,247	231,832		9,612	6,879	44,537	
Mar-06	1,089,486	275,774	520,429	192,124	92,588	10,733	87,670	111,967	205,828		8,782	11,480	50,774	
Apr-06	884,934	249,158	499,301	196,411	94,464	9,701	87,008	113,542	224,704		7,763	10,912	43,586	
May-06	781,225	244,010	514,324	197,392	106,714	8,899	88,722	113,065	224,771		7,152	9,752	48,629	
Jun-06	964,144	278,222	575,546	214,238	115,027	10,306	95,279	121,175	263,301		6,996	9,293	54,381	

AmerenUE's methodology to estimate the weather normalized class energy has changed over the years; therefore, historical weather normalized sales data are not consistent across time. As part of the Stipulation and Agreement, AmerenUE agreed to

use weather normalized sales in forecast models and comparing those results to the forecasted energy using actual sales and actual weather data for the history. This provision of the Stipulation and Agreement necessitated weather normalizing monthly sales going back to 1995 to have enough weather normalized data points to be used in forecasting, which was achieved by using monthly use-per-billing day models. Explanatory variables like HDD and CDD based on 65/55/70 degrees depending on the weather responsiveness of each class were used, as well as weather variables interacting with seasons or months and trend variables that account for growth. The models were estimated using actual HDD/CDD per billing day, then the models were simulated using normal HDD/CDD per billing day and the difference that is due to weather was subtracted from the actual per billing day sales data. Then, per billing weather normalized sales were multiplied by the number of billing days to get the total monthly weather normalized sales. The weather normalized sales from these models are reported in Table (1) (B)-2. Model specifications are below:

Residential Weather Normalization Model (WN_Res.NDM)

Residential sales were weather normalized on a use per customer per billing day basis.

$$AvgUse\_PBD_{y,m} = C + b_1 x\ TrendVar_{y,m} + b_2 x\ January + b_3 x\ March + b_4 x\ July + b_5 x\ August + b_6 x\ September + b_7 x\ Trend\_Winter_{y,m} + b_8 x\ CDD65_{y,m} + b_9 x\ SummerCDD70_{y,m} + b_{10} x\ HDD65_{y,m} + b_{11} x\ HDD55_{y,m} + b_{12} x\ MA(1) + \varepsilon_{y,m}$$

where $TrendVar_{y,m}$ is a variable that captures positive or negative growth

January is a variable equal to 1 for only January

March is a variable equal to 1 for only March

July is a variable equal to 1 for only July

August is a variable equal to 1 for only August

September is a variable equal to 1 for only September

Trend_Winter is a variable that captures positive or negative growth for winter months (December, January, February, March)

$CDD65_{y,m}$ is the number of cooling degree days based on 65° divided by number of billing days in year (y) and revenue month (m)

$SummerCDD70_{y,m}$ is the number of cooling degree days based on 70° divided by number of billing days in year (y) and revenue month (m) for months June thru September

$HDD65_{y,m}$ is the number of heating degree days based on 65° divided by number of billing days in year (y) and revenue month (m)

$HDD55_{y,m}$ is the number of heating degree days based on 55° divided by number of billing days in year (y) and revenue month (m)

MA(1) is the first order moving average variable for the error term

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	15.595	0.844	18.477	0.00%
BinaryVars.TrendVar	0.289	0.037	7.876	0.00%
BinaryVars.Jan	0.981	0.287	3.413	0.09%
BinaryVars.Mar	-0.899	0.301	-2.985	0.34%
BinaryVars.Jul	1.532	0.557	2.752	0.68%
BinaryVars.Aug	2.301	0.713	3.226	0.16%
BinaryVars.Sep	1.604	0.548	2.925	0.41%
BinaryVars.Trend_Winter	0.205	0.032	6.348	0.00%
RevWthrVars.CDD65	1.571	0.133	11.816	0.00%
RevWthrVars.SummerCDD70	0.245	0.135	1.818	7.15%
RevWthrVars.HDD65	0.364	0.103	3.524	0.06%
RevWthrVars.HDD55	0.223	0.12	1.863	6.48%
MA(1)	0.411	0.085	4.824	0.00%

Regression Statistics	
Iterations	17
Adjusted Observations	138
Deg. of Freedom for Error	125
R-Squared	0.99
Adjusted R-Squared	0.98
Durbin-Watson Statistic	1.84
Durbin-H Statistic	#NA
AIC	-0.02
BIC	0.25
F-Statistic	713.79
Prob (F-Statistic)	0.00
Log-Likelihood	-181.3
Model Sum of Squares	7667
Sum of Squared Errors	112
Mean Squared Error	0.9
Std. Error of Regression	95.00%
Mean Abs. Dev. (MAD)	0.69
Mean Abs. % Err. (MAPE)	2.09%
Ljung-Box Statistic	15.01
Prob (Ljung-Box)	0.92

Commercial SGS Weather Normalization Model (WN_ComSGS.NDM)

$$Use\_PBD_{y,m} = C + b_1 x\ TrendVar_{y,m} + b_2 x\ CDD65_{y,m} + b_3 x\ HDD50_{y,m} + b_4 x\ WinterHDD65_{y,m} + b_5 x\ Jan\_00 + b_6 x\ May\_02 + b_7 x\ Jun\_02 + b_8 x\ Aug\_02 + b_9 x\ Nov\_02 + b_{10} x\ Dec\_02 + b_{11} x\ AR(1) + \varepsilon_{y,m}$$

where $TrendVar_{y,m}$ is a variable that captures positive or negative growth

$CDD65_{y,m}$ is the number of cooling degree days based on 65° divided by number of billing days in year (y) and revenue month (m)

$HDD50_{y,m}$ is the number of heating degree days based on 50° divided by number of billing days in year (y) and revenue month (m)

$WinterHDD65_{y,m}$ is the number of heating degree days based on 65° divided by number of billing days in year (y) and revenue month (m) for December, January through March

Jan_00 is a variable equal to 1 for only January 2000

May_02 is a variable equal to 1 for only May 2002

Jun_02 is a variable equal to 1 for only June 2002

Aug_02 is a variable equal to 1 for only August 2002

Nov_02 is a variable equal to 1 for only November 2002

Dec_02 is a variable equal to 1 for only December 2002

AR(1) is the first order autoregressive variable for the error term

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	6093.687	160.265	38.022	0.00%
RevWthrVars.CDD65	223.338	8.381	26.647	0.00%
BinaryVars.TrendVar	117.939	12.909	9.136	0.00%
Dummy.Jan_00	1671.627	350.359	4.771	0.00%
Dummy.May_02	1180.162	368.941	3.199	0.18%
Dummy.Jun_02	-2438.311	362.905	-6.719	0.00%
Dummy.Aug_02	1437.891	356.644	4.032	0.01%
Dummy.Nov_02	4149.709	365.223	11.362	0.00%
Dummy.Dec_02	-2677.949	363.642	-7.364	0.00%
RevWthrVars.HDD50	78.945	15.954	4.948	0.00%
RevWthrVars.WinterHDD65	11.371	7.657	1.485	14.01%
AR(1)	0.27	0.089	3.045	0.28%

Regression Statistics	
Iterations	16
Adjusted Observations	137
Deg. of Freedom for Error	125
R-Squared	0.92
Adjusted R-Squared	0.91
Durbin-Watson Statistic	2.00
Durbin-H Statistic	#NA
AIC	11.86
BIC	12.11
F-Statistic	130.96
Prob (F-Statistic)	0.00
Log-Likelihood	-987.3
Model Sum of Squares	186924324
Sum of Squared Errors	16220430
Mean Squared Error	129763.44
Std. Error of Regression	360
Mean Abs. Dev. (MAD)	234.38
Mean Abs. % Err. (MAPE)	2.74%
Ljung-Box Statistic	18.05
Prob (Ljung-Box)	0.80

Commercial LGS Weather Normalization Model (WN_ComLGS.NDM)

$$Use\_PBD_{y,m} = C + b_1 x\ TrendVar_{y,m} + b_2 x\ Dec\_98 + b_3 x\ Feb\_02 + b_4 x\ Mar\_02 + b_5 x\ Sep + b_6 x\ Oct + b_7 x\ CDD65_{y,m} + b_8 x\ CDD65\_Trend_{y,m} + b_9 x\ HDD55_{y,m} + \varepsilon_{y,m}$$

where $TrendVar_{y,m}$ is a variable that captures positive or negative growth

Dec_98 is a variable equal to 1 for only December 1998

Feb_02 is a variable equal to 1 for only February 2002

Mar_02 is a variable equal to 1 for only March 2002

September is a variable equal to 1 for only September

October is a variable equal to 1 for only October

$CDD65_{y,m}$ is the number of cooling degree days based on 65° divided by number of billing days in year (y) and revenue month (m)

$CDD65\_Trend_{y,m}$ is a trend variable that interacts with the number of cooling degree days based on 65° divided by number of billing days in year (y) and revenue month (m)

$HDD55_{y,m}$ is the number of heating degree days based on 55° divided by number

of billing days in year (y) and revenue month (m)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	9719.958	251.688	38.619	0.00%
BinaryVars.TrendVar	414.915	19.617	21.151	0.00%
Dummy.Dec_98	-3778.393	611.037	-6.184	0.00%
Dummy.Feb_02	2353.832	610.386	3.856	0.02%
Dummy.Mar_02	-2469.251	610.269	-4.046	0.01%
BinaryVars.Sep	406.13	209.452	1.939	5.47%
BinaryVars.Oct	824.332	200.883	4.104	0.01%
RevWthrVars.CDD65	249.915	35.181	7.104	0.00%
RevWthrVars.CDD65_Trend	6.106	2.961	2.062	4.12%
RevWthrVars.HDD55	66.893	8.352	8.009	0.00%

Regression Statistics	
Iterations	1
Adjusted Observations	138
Deg. of Freedom for Error	128
R-Squared	0.93
Adjusted R-Squared	0.93
Durbin-Watson Statistic	1.82
Durbin-H Statistic	#NA
AIC	12.88
BIC	13.09
F-Statistic	189.35
Prob (F-Statistic)	0.00
Log-Likelihood	-1074.6
Model Sum of Squares	623972648
Sum of Squared Errors	46867106
Mean Squared Error	366149.26
Std. Error of Regression	605
Mean Abs. Dev. (MAD)	424.11
Mean Abs. % Err. (MAPE)	2.67%
Ljung-Box Statistic	60.83
Prob (Ljung-Box)	0.00

Commercial SPS Weather Normalization Model (WN_ComSPS.NDM)

$$Use\_PBD_{y,m} = C + b_1 x\ TrendVar_{y,m} + b_2 x\ Dec\_98 + b_3 x\ Aug\_99 + b_4 x\ Feb\_01 + b_5 x\ Mar\_01 + b_6 x\ Feb + b_7 x\ Jan\_00 + b_8 x\ JunCDD_y + b_9 x\ JulCDD_y + b_{10} x\ AugCDD_y + b_9 x\ SepCDD_y + b_9 x\ FallCDD65_{y,m} + \varepsilon_{y,m}$$

where $TrendVar_{y,m}$ is a variable that captures positive or negative growth

Dec_98 is a variable equal to 1 for only December 1998

Aug_99 is a variable equal to 1 for only August 1999

Feb_01 is a variable equal to 1 for only February 2001

Mar_01 is a variable equal to 1 for only March 2001

February is a variable equal to 1 for only February

Jan_00 is a variable equal to 1 for only January 2000

$JunCDD_y$ is the number of cooling degree days based on 65° divided by number of days in year (y) and revenue month June

$JulCDD_y$ is the number of cooling degree days based on 65° divided by number of days in revenue month July and year (y)

$AugCDD_y$ is the number of cooling degree days based on 65° divided by number of days in revenue month August and year (y)

$SepCDD_y$ is the number of cooling degree days based on 65° divided by number of days in revenue month September and year (y)

$FallCDD65_{y,m}$ is the number of cooling degree days based on 65° divided by number of days in revenue month (m) and year (y) for October and November

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	5085.685	126.744	40.126	0.00%
BinaryVars.TrendVar	108.645	10.814	10.047	0.00%
Dummy.Dec_98	-2980.506	423.567	-7.037	0.00%
Dummy.Aug_99	3501.479	446.781	7.837	0.00%
Dummy.Feb_01	2214.7	438.738	5.048	0.00%
Dummy.Mar_01	-1188.62	423.203	-2.809	0.58%
BinaryVars.Feb	255.295	136.701	1.868	6.42%
Dummy.Jan_00	1731.119	423.217	4.09	0.01%
RevWthrVars.JunCDD	93.805	19.904	4.713	0.00%
RevWthrVars.JulCDD	101.832	10.69	9.526	0.00%
RevWthrVars.AugCDD	116.833	9.869	11.838	0.00%
RevWthrVars.SepCDD	136.016	11.463	11.865	0.00%
RevWthrVars.FallCDD65	174.278	31.476	5.537	0.00%

Regression Statistics	
Iterations	1
Adjusted Observations	138
Deg. of Freedom for Error	125
R-Squared	0.84
Adjusted R-Squared	0.83
Durbin-Watson Statistic	1.989
Durbin-H Statistic	#NA
AIC	12.17
BIC	12.446
F-Statistic	55.029
Prob (F-Statistic)	0.00
Log-Likelihood	-1022.55
Model Sum of Squares	1.16E+08
Sum of Squared Errors	22052268
Mean Squared Error	176418.1
Std. Error of Regression	420.02
Mean Abs. Dev. (MAD)	263.84
Mean Abs. % Err. (MAPE)	3.93%
Ljung-Box Statistic	29.67
Prob (Ljung-Box)	0.20

Commercial LPS Weather Normalization Model (WN_ComLPS.NDM)

$$Use\_PBD_{y,m} = C + b_1 x\ TrendVar_{y,m} + b_2 x\ Trend\_AftMar01_{y,m} + b_3 x\ Trend\_Winter + b_4 x\ AfterMar01 + b_5 x\ CDD65_{y,m} + b_6 x\ Af305JulCDD_y + b_7 x\ Af305AugCDD_y + b_8 x\ Af305SepCDD_y + b_9 x\ Oct + b_{10} x\ Jan + b_9 x\ Mar\_01 + b_9 x\ AR(1) + \varepsilon_{y,m}$$

where $TrendVar_{y,m}$ is a variable that captures positive or negative growth

$Trend\_AftMar01$ is a variable that captures positive or negative growth for m>=Mar'01

$Trend\_Winter$ is a variable that captures positive or negative growth for winter months

AfterMar01 is a variable equal to 1 for m>=Mar'01

$CDD65_{y,m}$ is the number of cooling degree days based on 65° divided by number of billing days in year (y) and revenue month (m)

$Af305JulCDD_y$ is the number of cooling degree days based on 65° divided by number of billing days in July for year>=2005

$Af305AugCDD_y$ is the number of cooling degree days based on 65° divided by number of billing days in August for year>=2005

$Af305SepCDD_y$ is the number of cooling degree days based on 65° divided by number of billing days in September for year>=2005

October is a variable equal to 1 for only October

January is a variable equal to 1 for only January

Mar_01 is a variable equal to 1 for only March 2001

AR(1) is the first order autoregressive variable for the error term

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	1999.208	105.038	19.033	0.00%
BinaryVars.TrendVar	55.225	13.35	4.137	0.01%
BinaryVars.Trend_AftMar01	124.772	19.952	6.254	0.00%
BinaryVars.Trend_Winter	-12.136	3.146	-3.858	0.02%
Dummy.AfterMar01	-1613.048	231.749	-6.96	0.00%
RevWthrVars.CDD65	34.158	3.226	10.59	0.00%
RevWthrVars.Af305JulCDD	6.877	9.933	0.692	49.02%
RevWthrVars.Af305AugCDD	32.344	9.126	3.544	0.06%
RevWthrVars.Af305SepCDD	30.628	10.807	2.834	0.55%
BinaryVars.Oct	92.587	44.518	2.08	4.00%
BinaryVars.Jan	-103.544	47.514	-2.179	3.15%
Dummy.Mar_01	-439.098	141.057	-3.113	0.24%
AR(1)	0.211	0.094	2.245	2.69%

Regression Statistics	
Iterations	11
Adjusted Observations	120
Deg. of Freedom for Error	107
R-Squared	0.91
Adjusted R-Squared	0.90
Durbin-Watson Statistic	1.885
Durbin-H Statistic	#NA
AIC	9.936
BIC	10.238
F-Statistic	90.133
Prob (F-Statistic)	0.00
Log-Likelihood	-753.46
Model Sum of Squares	20188399
Sum of Squared Errors	1997190
Mean Squared Error	18665.33
Std. Error of Regression	136.62
Mean Abs. Dev. (MAD)	103.8
Mean Abs. % Err (MAPE)	3.80%
Ljung-Box Statistic	40.57
Prob (Ljung-Box)	0.02

Industrial Weather Normalization Model (WN_Ind.NDM)

$$Use\_PBD_{y,m} = C + b_1 x\ CDD65_{y,m} + b_2 x\ Trend\_Winter_{y,m} + b_3 x\ Dec\_98 + b_4 x\ Jan\_99 + b_5 x\ May\_99 + b_6 x\ Nov\_99 + b_7 x\ Aug\_00 + b_8 x\ Jan + b_9 x\ Mar + b_{10} x\ Apr + b_{11} x\ May + b_{12} x\ Jun + b_{13} x\ Jul + b_{14} x\ AR(1) + b_{15} x\ MA(1) + \varepsilon_{y,m}$$

where $CDD65_{y,m}$ is the number of cooling degree days based on 65° divided by number of billing days in year (y) and revenue month (m)

$Trend\_Winter_{y,m}$ is a variable that captures positive or negative growth in winter months

Dec_98 is a variable equal to 1 for only December 1998

Jan_99 is a variable equal to 1 for only January 1999

May_99 is a variable equal to 1 for only May 1999

Nov_99 is a variable equal to 1 for only November 1999

Aug_00 is a variable equal to 1 for only August 2000

Jan is a variable equal to 1 for only January

Mar is a variable equal to 1 for only March

Apr is a variable equal to 1 for only April

May is a variable equal to 1 for only May

Jun is a variable equal to 1 for only June

July is a variable equal to 1 for only July

AR(1) is the first order autoregressive variable for the error term

MA(1) is the first order moving average variable for the error term

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	16217.036	424.373	38.214	0.00%
RevWthrVars.CDD65	110.606	12.929	8.555	0.00%
BinaryVars.Trend_Winter	-66.148	13.773	-4.803	0.00%
Dummy.Dec_98	-2131.118	538.541	-3.957	0.01%
Dummy.Jan_99	-1616.985	554.16	-2.918	0.42%
Dummy.May_99	3114.931	551.192	5.651	0.00%
Dummy.Nov_99	-3660.67	535.473	-6.836	0.00%
Dummy.Aug_00	1761.239	532.725	3.306	0.13%
BinaryVars.Jan	-910.26	173.592	-5.244	0.00%
BinaryVars.Mar	-362.199	176.989	-2.046	4.29%
BinaryVars.Apr	-637.253	191.332	-3.331	0.12%
BinaryVars.May	-914.978	189.394	-4.831	0.00%
BinaryVars.Jun	-620.425	169.687	-3.656	0.04%
BinaryVars.Jul	-791.19	181.243	-4.365	0.00%
AR(1)	0.968	0.032	30.449	0.00%
MA(1)	-0.737	0.079	-9.282	0.00%

Regression Statistics	
Iterations	20
Adjusted Observations	137
Deg. of Freedom for Error	121
R-Squared	0.84
Adjusted R-Squared	0.82
Durbin-Watson Statistic	2.201
Durbin-H Statistic	#NA
AIC	12.744
BIC	13.085
F-Statistic	41.43
Prob (F-Statistic)	0.00
Log-Likelihood	-1043.68
Model Sum of Squares	1.91E+08
Sum of Squared Errors	37143164
Mean Squared Error	306968.3
Std. Error of Regression	554.05
Mean Abs. Dev. (MAD)	408.24
Mean Abs. % Err. (MAPE)	2.53%
Ljung-Box Statistic	25.3
Prob (Ljung-Box)	0.39

Wholesale Weather Normalization Model (WN_Wholesale.NDM)

Wholesale weather normalization was done on a calendar month basis as explained earlier in this section.

$$Use\_PCD_{y,m} = C + b_1 x\ TrendVar_{y,m} + b_2 x\ HDD65_{y,m} + b_3 x\ CDD70_{y,m} + b_4 x\ JulCDD_y + b_5 x\ AugCDD_y + b_6 x\ Sep + b_7 x\ Oct + b_8 x\ Mar + b_9 x\ MA(1) + \varepsilon_{y,m}$$

where $TrendVar_{y,m}$ is a variable that captures positive or negative growth

$HDD65_{y,m}$ is the number of heating degree days based on 65° divided by number of calendar days in year (y) and revenue month (m)

$CDD70_{y,m}$ is the number of cooling degree days based on 70° divided by number of calendar days in year (y) and revenue month (m)

$JulCDD_y$ is the number of cooling degree days based on 65° divided by number of days in calendar month July and year (y)

$AugCDD_y$ is the number of cooling degree days based on 65° divided by number of days in calendar month August and year (y)

Sep is a variable equal to 1 for only September

Oct is a variable equal to 1 for only October

Mar is a variable equal to 1 for only March

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	852.417	52.695	16.176	0.00%
BinaryVars.TrendVar	37.034	3.889	9.522	0.00%
CalWthrVars.HDD65	5.377	1.073	5.012	0.00%
CalWthrVars.CDD70	61.981	5.188	11.947	0.00%
CalWthrVars.JulCDD	6.576	2.734	2.405	1.80%
CalWthrVars.AugCDD	16.527	3.353	4.928	0.00%
BinaryVars.Sep	113.778	33.736	3.373	0.11%
BinaryVars.Oct	103.331	27.506	3.757	0.03%
BinaryVars.Mar	102.035	20.468	4.985	0.00%
MA(1)	0.549	0.087	6.275	0.00%

Regression Statistics	
Iterations	9
Adjusted Observations	114
Deg. of Freedom for Error	104
R-Squared	0.93
Adjusted R-Squared	0.92
Durbin-Watson Statistic	1.99
Durbin-H Statistic	#NA
AIC	8.70
BIC	8.94
F-Statistic	154.55
Prob (F-Statistic)	0.00
Log-Likelihood	-647.8
Model Sum of Squares	7696774
Sum of Squared Errors	575496
Mean Squared Error	5533.61
Std. Error of Regression	74
Mean Abs. Dev. (MAD)	52.86
Mean Abs. % Err. (MAPE)	3.29%
Ljung-Box Statistic	18.08
Prob (Ljung-Box)	0.80

AmerenUE's current weather normalization process that was updated in January 2007 is discussed in (1) (C) 2.

4 CSR 22.030 (1) (B) 2

2. For each major class, estimated actual and weather normalized demands at the time of monthly peaks;

Actual demands at the time of system peak for each major class (and each subclass) are obtained by running 'domains ratio analysis' on AmerenUE's latest load research sample for the time period July 2003-June 2006. There is load research data prior to July 2003, but this data is not used for any purposes as it includes Metro East that has been transferred to AmerenCIPS and does not represent AmerenUE's current load composition. The initial results from the domains analyses were brought up to the generation level by the respective loss multipliers and, then, residuals were allocated among the classes according to hourly precisions and each class' contribution to the total peak. Hourly lighting profile, which consists of both SLPA and DtD, was created using

sun rise and sun set times. No residuals were allocated to the lighting profile as well as the wholesale and Noranda profiles, which are 100% samples. The estimated demands at the time of monthly system peaks are as follows:

Table (1) (B)-3: Class demands at the time of system peak (MW)

Date	Hour	System	Res	ComSGS	ComLGS	ComSPS	ComLPS	IndSGS	IndLGS	IndSPS	IndLPS	Noranda	Lighting	Wholesale
07/09/03	17	7,242	3,476	834	1,344	448	165	24	177	249	400	#N/A	-	125
08/21/03	17	7,856	4,023	854	1,255	481	168	19	214	244	453	#N/A	-	145
09/11/03	17	5,850	2,484	616	1,210	415	162	24	165	225	440	#N/A	-	109
10/20/03	17	4,433	1,349	570	1,006	404	167	20	165	224	449	#N/A	-	78
11/24/03	19	4,768	1,971	464	929	351	127	26	113	206	412	#N/A	85	84
12/10/03	19	5,266	2,426	494	1,025	311	115	17	153	206	342	#N/A	85	92
01/30/04	8	5,846	2,582	630	1,158	377	136	40	182	214	421	#N/A	13	94
02/03/04	8	5,270	2,261	545	1,026	382	140	28	188	226	382	#N/A	7	86
03/16/04	19	4,611	2,102	453	783	302	119	8	137	197	366	#N/A	75	69
04/19/04	16	4,591	1,459	612	1,021	393	151	18	198	229	430	#N/A	-	81
05/21/04	17	6,269	2,831	716	1,216	435	160	15	111	233	436	#N/A	-	116
06/14/04	17	6,778	3,173	785	1,241	437	158	22	204	241	394	#N/A	-	122
07/13/04	17	7,634	3,830	866	1,273	475	172	27	201	250	411	#N/A	-	129
08/03/04	18	7,096	3,692	690	1,160	438	165	16	144	240	431	#N/A	-	119
09/14/04	17	5,967	2,514	716	1,190	417	174	22	165	218	449	#N/A	-	103
10/29/04	16	4,689	1,473	623	1,158	428	162	29	81	239	418	#N/A	-	78
11/30/04	19	4,864	2,074	507	897	317	136	27	157	190	387	#N/A	85	87
12/22/04	19	5,912	3,128	542	935	314	130	18	130	188	343	#N/A	85	100
01/18/05	8	5,683	2,477	577	1,131	373	151	37	214	215	388	#N/A	24	95
02/10/05	8	5,251	2,316	545	1,021	333	152	24	173	210	388	#N/A	-	89
03/01/05	8	5,101	2,149	517	1,074	354	134	29	205	211	339	#N/A	-	87
04/20/05	16	4,531	1,421	646	1,052	372	168	15	183	181	409	#N/A	-	83
05/11/05	17	5,827	2,276	731	1,213	442	180	9	185	251	436	#N/A	-	104
06/29/05	17	[redacted]	3,847	867	1,341	441	187	22	194	223	413	[redacted]	-	128
07/25/05	16	[redacted]	3,904	945	1,415	442	211	33	225	231	446	[redacted]	-	143
08/03/05	17	[redacted]	3,832	851	1,323	445	224	22	209	222	404	[redacted]	-	137
09/22/05	16	[redacted]	2,889	841	1,336	448	203	30	201	249	470	[redacted]	-	128
10/04/05	16	[redacted]	2,512	777	1,254	438	201	41	165	240	474	[redacted]	-	115
11/29/05	18	[redacted]	2,249	592	1,023	318	155	31	166	201	382	[redacted]	85	94
12/08/05	19	[redacted]	3,001	609	1,103	319	146	21	162	215	354	[redacted]	85	106
01/05/06	18	[redacted]	2,511	539	920	304	150	10	104	181	358	[redacted]	85	92
02/18/06	10	[redacted]	2,775	546	1,028	300	147	17	120	162	342	[redacted]	-	83
03/21/06	19	[redacted]	2,404	495	895	312	138	13	134	180	320	[redacted]	68	86
04/14/06	17	[redacted]	2,332	664	1,141	369	185	7	95	159	339	[redacted]	-	94
05/30/06	16	[redacted]	2,872	789	1,264	415	213	32	61	201	408	[redacted]	-	116
06/21/06	17	[redacted]	3,444	841	1,470	408	204	23	191	229	427	[redacted]	-	132

To weather normalize the class peaks, daily regression models were used. Weather response functions were then simulated with normal weather and the difference was added to the actual data. The methodology outlined by Missouri PSC staff in "Weather Normalization of Electric Loads, Part A: Hourly Net System Loads", November 1990, was used to weather normalize the hourly class profiles; this is

explained more in detail in section (1) (B) 3. The weather-normalized class loads were then calibrated to the weather-normalized system hourly loads.

Normal weather was estimated using rank and order methodology to capture the extreme coldest and hottest conditions. The steps used to estimate normal weather are:

- Average the daily high and low temperatures for the time period that span 1971-2000.
- Calculate daily HDD's based on 50-55-65 degrees, and CDD's based on 65-70-80 degrees.
- Sort HDD50 from highest to lowest for each year. Repeat the same for HDD55 and HDD65.
- Sort CDD65 from highest to lowest for each year. Repeat the same for CDD70 and CDD80.
- Calculate the average of HDD50's for each rank across the years. Repeat for HDD55 and HDD65.
- Calculate the average of CDD65's for each rank across the years. Repeat for CDD70 and CDD80.
- Map the calculated normal degree days to actual calendar weather making sure that the monthly maximum/minimum degree days fall on week days.

Weather-normalized class monthly peaks at the time of system peak can be found in the following table.

Table (1) (B)-4: Weather-normalized class demands at the time of system peak (MW)

Date	Hour	System	Res	ComSGS	ComLGS	ComSPS	ComLPS	IndSGS	IndLGS	IndSPS	IndLPS	Noranda	Lighting	Wholesale
07/09/03	17	7,541	3,697	860	1,375	455	167	25	178	251	402	#N/A	-	131
08/21/03	17	7,348	3,645	808	1,206	468	163	18	211	241	448	#N/A	-	136
09/11/03	17	5,581	2,309	580	1,174	406	159	23	162	222	433	#N/A	-	104
10/20/03	17	4,133	1,183	535	957	390	161	19	160	218	437	#N/A	-	73
11/24/03	19	4,849	2,025	473	944	352	127	27	114	206	413	#N/A	85	85
12/10/03	19	5,179	2,362	487	1,012	310	115	17	153	206	342	#N/A	85	91
01/30/04	8	5,365	2,258	587	1,071	371	135	36	175	212	418	#N/A	13	88
02/03/04	8	5,359	2,317	555	1,043	383	140	29	189	226	382	#N/A	7	87
03/16/04	19	4,724	2,168	467	808	303	119	9	138	198	368	#N/A	75	70
04/19/04	16	5,369	1,886	715	1,146	430	165	21	212	243	455	#N/A	-	96
05/21/04	17	6,495	2,994	737	1,239	441	162	15	112	235	439	#N/A	-	120
06/14/04	17	6,658	3,083	775	1,230	435	157	22	204	240	393	#N/A	-	119
07/13/04	17	7,709	3,875	875	1,284	479	174	27	202	251	412	#N/A	-	130
08/03/04	18	7,032	3,640	686	1,156	437	165	15	144	240	430	#N/A	-	118
09/14/04	17	5,575	2,266	673	1,136	401	167	21	161	214	440	#N/A	-	96
10/29/04	16	4,694	1,481	625	1,154	428	162	29	81	239	417	#N/A	-	78
11/30/04	19	4,943	2,121	517	914	318	136	28	158	191	388	#N/A	85	88
12/22/04	19	6,599	3,603	604	1,056	321	130	21	134	190	345	#N/A	85	108
01/18/05	8	5,871	2,593	598	1,170	375	152	39	217	216	389	#N/A	24	97
02/10/05	8	5,379	2,403	557	1,044	334	152	25	175	211	388	#N/A	-	90
03/01/05	8	5,219	2,223	530	1,098	356	135	30	207	212	340	#N/A	-	88
04/20/05	16	3,600	959	514	877	324	148	12	165	164	373	#N/A	-	64
05/11/05	17	5,288	1,941	869	1,137	420	171	8	179	244	424	#N/A	-	94
06/29/05	17	[redacted]	3,433	819	1,285	427	182	21	191	219	408	[redacted]	-	119
07/25/05	16	[redacted]	3,623	904	1,370	431	206	32	222	226	441	[redacted]	-	136
08/03/05	17	[redacted]	3,282	778	1,246	426	217	21	205	217	397	[redacted]	-	125
09/22/05	16	[redacted]	2,533	789	1,277	433	196	29	198	246	464	[redacted]	-	119
10/04/05	16	[redacted]	2,109	699	1,162	412	190	39	159	231	458	[redacted]	-	103
11/29/05	18	[redacted]	2,346	606	1,049	319	155	32	167	202	383	[redacted]	85	96
12/08/05	19	[redacted]	3,342	655	1,189	324	147	23	165	217	356	[redacted]	85	111
01/05/06	18	[redacted]	2,683	566	969	307	150	11	104	183	360	[redacted]	85	95
02/18/06	10	[redacted]	2,772	551	1,035	301	147	17	120	162	342	[redacted]	-	83
03/21/06	19	[redacted]	2,630	526	954	316	138	15	136	182	322	[redacted]	68	89
04/14/06	17	[redacted]	1,922	604	1,059	350	177	6	90	153	329	[redacted]	-	84
05/30/06	16	[redacted]	2,498	722	1,186	393	204	30	57	194	396	[redacted]	-	106
06/21/06	17	[redacted]	3,158	805	1,430	399	201	22	189	226	423	[redacted]	-	125

The daily class peak weather-normalization model specifications and results are as follows:

Residential Daily Peak Weather Normalization Model (UERes.NDM)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-3533.931	883.48	-4	0.01%
DBinT.TrendVar	0.152	0.023	6.684	0.00%
Calendar.Monday	-40.102	15.881	-2.525	1.17%
Calendar.Tuesday	-70.834	17.832	-3.972	0.01%
Calendar.Wednesday	-79.643	18.453	-4.316	0.00%
Calendar.Thursday	-93.999	18.487	-5.084	0.00%
Calendar.Friday	-145.149	17.866	-8.124	0.00%
Calendar.Saturday	-131.937	14.087	-9.366	0.00%
Calendar.January	-62.355	32.468	-1.921	5.51%
Calendar.February	-97.922	33.612	-2.913	0.37%
Calendar.March	-192.432	33.947	-5.669	0.00%
Calendar.April	-395.16	37.261	-10.605	0.00%
Calendar.May	-429.804	42.191	-10.187	0.00%
Calendar.June	-344.298	69.38	-4.962	0.00%
Calendar.July	-210.085	64.378	-3.263	0.11%
Calendar.August	-25.725	44.969	-0.572	56.74%
Calendar.September	-135.851	41.51	-3.273	0.11%
Calendar.October	-336.115	37.046	-9.073	0.00%
Calendar.November	-282.823	34.004	-8.317	0.00%
Calendar.GoodFriday	-134.324	79.713	-1.685	9.23%
Calendar.MemorialDay	127.478	81.844	1.558	11.96%
Calendar.July4thHol	-85.143	81.147	-1.049	29.43%
Calendar.LaborDay	123.602	80.563	1.534	12.53%
Calendar.XMasWkB4	41.403	38.422	1.078	28.15%
Sun.FracDark20	-632.288	137.211	-4.608	0.00%
Wthr.HDD50	9.675	2.073	4.667	0.00%
Wthr.HDD65	11.662	1.621	7.194	0.00%
Wthr.CDD80	21.423	5.24	4.088	0.00%
DWthrT.CDD65Trend	0.002	0	34.144	0.00%
DWthrT.CDD65WkEnd	5.54	1.564	3.543	0.04%
DBinT.Jun27_04	-313.347	136.676	-2.293	2.21%
DBinT.Jul24_04	-341.818	145.943	-2.342	1.94%
DBinT.Jul25_04	-359.47	155.042	-2.319	2.06%
DBinT.Jul26_04	-384.167	146.298	-2.626	0.88%
DWthrT2.LagCDD65	4.229	1.685	2.509	1.22%
AR(1)	0.36	0.03	11.925	0.00%

Regression Statistics	
Iterations	6
Adjusted Observations	1095
Deg. of Freedom for Error	1059
R-Squared	0.94
Adjusted R-Squared	0.94
Durbin-Watson Statistic	1.98
Durbin-H Statistic	#NA
AIC	9.975
BIC	10.139
F-Statistic	471.681
Prob (F-Statistic)	0.00
Log-Likelihood	-6972.48
Model Sum of Squares	3.43E+08
Sum of Squared Errors	22018485
Mean Squared Error	20791.77
Std. Error of Regression	144.19
Mean Abs. Dev. (MAD)	103.96
Mean Abs. % Err. (MAPE)	5.36%
Ljung-Box Statistic	20.03
Prob (Ljung-Box)	0.70

ComSGS Daily Peak Weather Normalization Model (UEComSGS.NDM)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-731.541	183.522	-3.986	0.01%
DBinT.TrendVar	0.027	0.005	5.581	0.00%
Calendar.Monday	186.627	2.921	63.886	0.00%
Calendar.Tuesday	195.123	3.317	58.827	0.00%
Calendar.Wednesday	202.896	3.452	58.779	0.00%
Calendar.Thursday	193.207	3.486	55.42	0.00%
Calendar.Friday	184.481	3.348	55.098	0.00%
Calendar.Saturday	46.327	2.581	17.95	0.00%
Calendar.January	16.89	8.334	2.027	4.29%
Calendar.February	15.306	8.464	1.808	7.08%
Calendar.March	1.07	8.501	0.126	89.98%
Calendar.April	6.539	8.85	0.739	46.02%
Calendar.May	24.313	9.004	2.7	0.70%
Calendar.June	60.463	9.488	6.373	0.00%
Calendar.July	72.452	9.856	7.351	0.00%
Calendar.August	49.262	9.698	5.08	0.00%
Calendar.September	74.892	9.758	7.675	0.00%
Calendar.October	-2.379	8.802	-0.27	78.70%
Calendar.November	-4.488	8.443	-0.532	59.52%
Calendar.GoodFriday	-57.449	14.675	-3.915	0.01%
Calendar.MemorialDay	-216.763	14.868	-14.579	0.00%
Calendar.July4thHol	-192.744	14.897	-12.939	0.00%
Calendar.LaborDay	-232.459	14.873	-15.63	0.00%
Calendar.Thanksgiving	-204.051	15.781	-12.93	0.00%
Calendar.FriAftThanks	-89.564	15.799	-5.669	0.00%
DBinT.XMasHol	-88.957	17.942	-4.958	0.00%
Calendar.XMasLights	24.281	13.047	1.861	6.30%
Calendar.NYEve	-39.727	15.289	-2.599	0.95%
DBinT.NYHol	-89.998	14.765	-6.095	0.00%
Wthr.CDD65	11.847	0.318	37.271	0.00%
DWthrT.CDD65WkEnd	-5.056	0.291	-17.354	0.00%
Wthr.HDD50	2.99	0.21	14.271	0.00%
DBinT.Dec25_03	-44.777	31.119	-1.439	15.05%
DBinT.Dec24_05	-152.46	26.207	-5.818	0.00%
DBinT.Sep13_03	-36.971	25.225	-1.466	14.30%
DBinT.Sep30_03	-60.918	25.729	-2.368	1.81%
DBinT.Sep03	-70.898	10.446	-6.787	0.00%
DWthrT2.lagCDD70	1.291	0.379	3.405	0.07%
DWthrT2.lagHDD50	0.793	0.205	3.864	0.01%
AR(1)	0.411	0.029	14.265	0.00%

Regression Statistics	
Iterations	6
Adjusted Observations	1095
Deg. of Freedom for Error	1055
R-Squared	0.96
Adjusted R-Squared	0.96
Durbin-Watson Statistic	2.04
Durbin-H Statistic	#NA
AIC	6.628
BIC	6.81
F-Statistic	641.739
Prob (F-Statistic)	0.00
Log-Likelihood	-5137.76
Model Sum of Squares	18250358
Sum of Squared Errors	769309
Mean Squared Error	729.2
Std. Error of Regression	27
Mean Abs. Dev. (MAD)	20.72
Mean Abs. % Err. (MAPE)	4.20%
Ljung-Box Statistic	76.8
Prob (Ljung-Box)	0.00

ComLGS Daily Peak Weather Normalization Model (UEComLGS.NDM)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-1619.702	322.246	-5.026	0.00%
DBinT.TrendVar	0.059	0.008	6.999	0.00%
Calendar.Monday	240.729	3.551	67.796	0.00%
Calendar.Tuesday	248.881	4.186	59.46	0.00%
Calendar.Wednesday	256.174	4.448	57.599	0.00%
Calendar.Thursday	247.749	4.489	55.196	0.00%
Calendar.Friday	238.911	4.22	56.62	0.00%
Calendar.Saturday	59.4	3.113	19.08	0.00%
Calendar.January	-49.977	13.02	-3.839	0.01%
Calendar.February	-80.832	13.353	-6.054	0.00%
Calendar.March	-61.365	13.342	-4.599	0.00%
Calendar.April	0.444	13.814	0.032	97.44%
Calendar.May	48.91	14.119	3.464	0.06%
Calendar.June	106.533	14.879	7.16	0.00%
Calendar.July	77.507	15.395	5.035	0.00%
Calendar.August	60.896	15.182	4.011	0.01%
Calendar.September	90.821	14.295	6.353	0.00%
Calendar.October	33.44	13.673	2.446	1.46%
Calendar.November	-4.739	12.785	-0.371	71.09%
Calendar.GoodFriday	-76.798	17.637	-4.354	0.00%
Calendar.MemorialDay	-222.9	17.934	-12.429	0.00%
Calendar.July4thHol	-189.692	17.878	-10.61	0.00%
Calendar.LaborDay	-237.681	17.834	-13.327	0.00%
Calendar.Thanksgiving	-279.723	19.656	-14.231	0.00%
Calendar.FriAftThanks	-113.429	19.679	-5.764	0.00%
DBinT.XMasHol	-121.666	17.912	-6.792	0.00%
Calendar.XMasLights	7.239	18.319	0.395	69.28%
Calendar.NYEve	-44.442	19.04	-2.334	1.98%
DBinT.NYHol	-87.464	21.481	-4.072	0.01%
Wthr.CDD65	13.27	0.406	32.714	0.00%
DWthrT.CDD65WkEnd	-2.348	0.363	-6.466	0.00%
Wthr.HDD50	5.442	0.267	20.41	0.00%
DBinT.Jan01_04	-158.825	37.95	-4.185	0.00%
DWthrT2.LagCDD65	1.432	0.397	3.612	0.03%
DWthrT2.lagHDD50	1.098	0.262	4.193	0.00%
AR(1)	0.582	0.026	22.725	0.00%

Regression Statistics	
Iterations	6
Adjusted Observations	1095
Deg. of Freedom for Error	1059
R-Squared	0.96
Adjusted R-Squared	0.96
Durbin-Watson Statistic	2.053
Durbin-H Statistic	#NA
AIC	7.131
BIC	7.295
F-Statistic	697.124
Prob (F-Statistic)	0.00
Log-Likelihood	-5417.01
Model Sum of Squares	29532108
Sum of Squared Errors	1281777
Mean Squared Error	1210.37
Std. Error of Regression	34.79
Mean Abs. Dev. (MAD)	26.71
Mean Abs. % Err. (MAPE)	2.97%
Ljung-Box Statistic	126.46
Prob (Ljung-Box)	0.00

ComSPS Daily Peak Weather Normalization Model (UEComSPS.NDM)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	1298.875	140.241	9.262	0.00%
DBinT.TrendVar	-0.028	0.004	-7.528	0.00%
Calendar.Monday	72.231	1.091	66.202	0.00%
Calendar.Tuesday	74.943	1.309	57.273	0.00%
Calendar.Wednesday	75.502	1.404	53.767	0.00%
Calendar.Thursday	74.301	1.417	52.446	0.00%
Calendar.Friday	68.943	1.32	52.222	0.00%
Calendar.Saturday	14.259	0.957	14.902	0.00%
Calendar.January	18.631	4.535	4.108	0.00%
Calendar.February	15.032	4.68	3.212	0.14%
Calendar.March	16.399	4.676	3.507	0.05%
Calendar.April	24.798	4.796	5.171	0.00%
Calendar.May	46.552	4.88	9.539	0.00%
Calendar.June	43.953	5.075	8.662	0.00%
Calendar.July	45.33	5.216	8.691	0.00%
Calendar.August	53.144	5.148	10.323	0.00%
Calendar.September	41.803	4.904	8.525	0.00%
Calendar.October	45.334	4.697	9.653	0.00%
Calendar.November	23.204	4.306	5.389	0.00%
Calendar.GoodFriday	-25.865	5.386	-4.802	0.00%
Calendar.MemorialDay	-79.35	5.476	-14.489	0.00%
Calendar.July4thHol	-58.961	5.454	-10.811	0.00%
Calendar.LaborDay	-73.719	5.456	-13.512	0.00%
Calendar.Thanksgiving	-75.513	6.096	-12.387	0.00%
Calendar.FriAftThanks	-43.458	6.111	-7.112	0.00%
Calendar.XMasEve	-12.427	5.398	-2.302	2.15%
DBinT.XMasHol	-34.017	5.42	-6.276	0.00%
Calendar.NYEve	-10.411	5.892	-1.767	7.75%
DBinT.NYHol	-25.656	6.547	-3.919	0.01%
Wthr.CDD65	3.293	0.129	25.488	0.00%
DWthrT.CDD65WkEnd	-0.659	0.112	-5.868	0.00%
Wthr.HDD50	0.245	0.084	2.924	0.35%
DBinT.Jan01_04	-48.247	11.64	-4.145	0.00%
DWthrT2.lagCDD70	0.515	0.156	3.303	0.10%
AR(1)	0.693	0.023	30.635	0.00%

Regression Statistics	
Iterations	8
Adjusted Observations	1095
Deg. of Freedom for Error	1060
R-Squared	0.96
Adjusted R-Squared	0.95
Durbin-Watson Statistic	2.147
Durbin-H Statistic	#NA
AIC	4.857
BIC	5.017
F-Statistic	656.315
Prob (F-Statistic)	0.00
Log-Likelihood	-4174.14
Model Sum of Squares	2781701
Sum of Squared Errors	132137
Mean Squared Error	124.66
Std. Error of Regression	11.17
Mean Abs. Dev. (MAD)	8.33
Mean Abs. % Err. (MAPE)	2.48%
Ljung-Box Statistic	91.25
Prob (Ljung-Box)	0.00

ComLPS Daily Peak Weather Normalization Model (UEComLPS.NDM)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-1389.388	82.702	-16.8	0.00%
DBinT.TrendVar	0.039	0.002	18.18	0.00%
Calendar.Monday	22.105	0.429	51.513	0.00%
Calendar.Tuesday	22.532	0.521	43.282	0.00%
Calendar.Wednesday	23.425	0.562	41.701	0.00%
Calendar.Thursday	23.178	0.566	40.923	0.00%
Calendar.Friday	21.092	0.525	40.158	0.00%
Calendar.Saturday	3.371	0.377	8.95	0.00%
Calendar.January	6.062	2.286	2.652	0.81%
Calendar.February	9.147	2.406	3.801	0.02%
Calendar.March	-1.11	2.423	-0.458	64.69%
Calendar.April	6.933	2.453	2.827	0.48%
Calendar.May	13.29	2.484	5.351	0.00%
Calendar.June	7.838	2.546	3.079	0.21%
Calendar.July	15.31	2.579	5.935	0.00%
Calendar.August	25.066	2.548	9.838	0.00%
Calendar.September	20.305	2.455	8.271	0.00%
Calendar.October	22.512	2.33	9.662	0.00%
Calendar.November	12.579	2.042	6.159	0.00%
Calendar.GoodFriday	-0.945	2.109	-0.448	65.41%
Calendar.MemorialDay	-17.347	2.152	-8.062	0.00%
Calendar.July4thHol	-12.12	2.135	-5.677	0.00%
Calendar.LaborDay	-16.298	2.144	-7.603	0.00%
Calendar.Thanksgiving	-16.969	2.402	-7.065	0.00%
Calendar.FriAftThanks	-13.916	2.404	-5.788	0.00%
Calendar.XMasEve	-6.306	2.108	-2.992	0.28%
DBinT.XMasHol	-11.941	2.117	-5.642	0.00%
Calendar.NYEve	-4.899	2.381	-2.058	3.99%
DBinT.NYHol	-11.113	2.128	-5.222	0.00%
Wthr.CDD65	1.193	0.052	22.842	0.00%
DWthrT.CDD65WkEnd	-0.207	0.044	-4.679	0.00%
DWthrT2.lagCDD70	0.37	0.063	5.858	0.00%
AR(1)	0.788	0.019	41.163	0.00%

Regression Statistics	
Iterations	6
Adjusted Observations	1095
Deg. of Freedom for Error	1062
R-Squared	0.96
Adjusted R-Squared	0.96
Durbin-Watson Statistic	2.336
Durbin-H Statistic	#NA
AIC	3.071
BIC	3.222
F-Statistic	757.15
Prob (F-Statistic)	0.00
Log-Likelihood	-3199.31
Model Sum of Squares	507293
Sum of Squared Errors	22236
Mean Squared Error	20.94
Std. Error of Regression	4.58
Mean Abs. Dev. (MAD)	3.44
Mean Abs. % Err. (MAPE)	2.33%
Ljung-Box Statistic	124.62
Prob (Ljung-Box)	0.00

IndSGS Daily Peak Weather Normalization Model (UEIndSGS.NDM)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-42.54	33.947	-1.253	21.04%
DBinT.TrendVar	0.001	0.001	1.593	11.16%
Calendar.Monday	18.001	0.496	36.266	0.00%
Calendar.Tuesday	17.761	0.568	31.285	0.00%
Calendar.Wednesday	18.579	0.596	31.186	0.00%
Calendar.Thursday	17.783	0.601	29.573	0.00%
Calendar.Friday	16.99	0.572	29.728	0.00%
Calendar.Saturday	3.159	0.434	7.284	0.00%
Calendar.January	-2.935	1.208	-2.43	1.53%
Calendar.February	-6.58	1.253	-5.251	0.00%
Calendar.March	-6.534	1.258	-5.193	0.00%
Calendar.April	-4.467	1.324	-3.375	0.08%
Calendar.May	-5.384	1.353	-3.98	0.01%
Calendar.June	0.567	1.442	0.393	69.42%
Calendar.July	1.161	1.498	0.775	43.83%
Calendar.August	-0.307	1.468	-0.209	83.42%
Calendar.September	-0.691	1.37	-0.504	61.40%
Calendar.October	3.771	1.311	2.876	0.41%
Calendar.November	16.099	1.256	12.815	0.00%
Calendar.MLKing	-5.516	2.468	-2.235	2.56%
Calendar.GoodFriday	-13.34	2.467	-5.408	0.00%
Calendar.MemorialDay	-18.76	2.493	-7.524	0.00%
Calendar.July4thHol	-15.694	2.506	-6.264	0.00%
Calendar.LaborDay	-18.415	2.49	-7.394	0.00%
Calendar.Thanksgiving	-26.498	2.692	-9.844	0.00%
Calendar.FriAftThanks	-15.111	2.696	-5.604	0.00%
DBinT.NYHol	-10.793	2.475	-4.361	0.00%
DBinT.XMasHol	-10.719	2.458	-4.36	0.00%
Wthr.CDD65	0.385	0.051	7.558	0.00%
DWthrT.CDD65WkEnd	-0.337	0.05	-6.781	0.00%
Wthr.HDD50	0.23	0.034	6.829	0.00%
AR(1)	0.469	0.027	17.214	0.00%

Regression Statistics	
Iterations	4
Adjusted Observations	1095
Deg. of Freedom for Error	1063
R-Squared	0.84
Adjusted R-Squared	0.83
Durbin-Watson Statistic	2.02
Durbin-H Statistic	#NA
AIC	3.10
BIC	3.25
F-Statistic	178.57
Prob (F-Statistic)	0.00
Log-Likelihood	-3217.75
Model Sum of Squares	119768
Sum of Squared Errors	22998
Mean Squared Error	21.64
Std. Error of Regression	4.65
Mean Abs. Dev. (MAD)	3.25
Mean Abs. % Err. (MAPE)	14.22%
Ljung-Box Statistic	302.01
Prob (Ljung-Box)	0.00

IndLGS Daily Peak Weather Normalization Model (UEIndLGS.NDM)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	98.059	119.471	0.821	41.20%
DBinT.TrendVar	0	0.003	-0.081	93.57%
Calendar.Monday	87.025	1.534	56.748	0.00%
Calendar.Tuesday	88.768	1.786	49.711	0.00%
Calendar.Wednesday	88.517	1.887	46.906	0.00%
Calendar.Thursday	88.257	1.906	46.306	0.00%
Calendar.Friday	71.999	1.8	39.991	0.00%
Calendar.Saturday	12.093	1.357	8.91	0.00%
Calendar.January	-0.571	4.417	-0.129	89.71%
Calendar.February	-10.641	4.488	-2.371	1.79%
Calendar.March	-12.145	4.48	-2.711	0.68%
Calendar.April	6.665	4.668	1.428	15.36%
Calendar.May	-6.033	4.754	-1.269	20.48%
Calendar.June	28.795	5.026	5.73	0.00%
Calendar.July	29.935	5.187	5.771	0.00%
Calendar.August	17.171	5.094	3.37	0.08%
Calendar.September	7.838	4.801	1.632	10.29%
Calendar.October	-12.084	4.617	-2.617	0.90%
Calendar.November	6.21	4.425	1.403	16.08%
Calendar.GoodFriday	-50.002	7.64	-6.544	0.00%
Calendar.MemorialDay	-80.905	7.727	-10.47	0.00%
Calendar.July4thHol	-72.171	7.759	-9.302	0.00%
Calendar.LaborDay	-92.434	7.721	-11.971	0.00%
Calendar.Thanksgiving	-103.069	8.665	-11.895	0.00%
Calendar.FriAftThanks	-82.129	9.542	-8.608	0.00%
DBinT.SatAftThanks	-28.798	8.611	-3.344	0.09%
Calendar.XMasEve	-32.213	7.69	-4.189	0.00%
DBinT.XMasHol	-58.436	7.713	-7.576	0.00%
DBinT.NYHol	-32.447	9.326	-3.479	0.05%
Calendar.NYEve	-14.417	8.161	-1.766	7.76%
Wthr.CDD65	1.02	0.164	6.204	0.00%
DWthrT.CDD65WkEnd	-1.278	0.156	-8.214	0.00%
Wthr.HDD50	0.515	0.109	4.733	0.00%
DBinT.May27_04	31.253	13.144	2.378	1.76%
DBinT.Jan01_04	-37.357	16.429	-2.274	2.32%
DBinT.Dec22ToDec31_04	-47.227	8.67	-5.447	0.00%
AR(1)	0.522	0.027	19.506	0.00%

Regression Statistics	
Iterations	7
Adjusted Observations	1095
Deg. of Freedom for Error	1058
R-Squared	0.91
Adjusted R-Squared	0.90
Durbin-Watson Statistic	2.11
Durbin-H Statistic	#NA
AIC	5.41
BIC	5.58
F-Statistic	284.19
Prob (F-Statistic)	0.00
Log-Likelihood	-4475.61
Model Sum of Squares	2217198
Sum of Squared Errors	229286
Mean Squared Error	216.72
Std. Error of Regression	14.72
Mean Abs. Dev. (MAD)	10.93
Mean Abs. % Err. (MAPE)	7.93%
Ljung-Box Statistic	71.90
Prob (Ljung-Box)	0.00

IndSPS Daily Peak Weather Normalization Model (UEIndSPS.NDM)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	738.092	117.689	6.272	0.00%
DBinT.TrendVar	-0.016	0.003	-5.05	0.00%
Calendar.Monday	69.032	0.772	89.452	0.00%
Calendar.Tuesday	72.135	0.932	77.431	0.00%
Calendar.Wednesday	70.242	1.002	70.073	0.00%
Calendar.Thursday	71.131	1.011	70.366	0.00%
Calendar.Friday	64.258	0.938	68.473	0.00%
Calendar.Saturday	11.284	0.677	16.67	0.00%
Calendar.January	-14.397	3.878	-3.712	0.02%
Calendar.February	-6.106	3.943	-1.548	12.18%
Calendar.March	-10.156	3.93	-2.584	0.99%
Calendar.April	-11.314	4.009	-2.822	0.49%
Calendar.May	5.91	4.058	1.456	14.56%
Calendar.June	5.626	4.154	1.354	17.59%
Calendar.July	6.861	4.195	1.635	10.23%
Calendar.August	4.681	4.164	1.124	26.13%
Calendar.September	-2.377	4.038	-0.589	55.62%
Calendar.October	6.493	3.871	1.678	9.37%
Calendar.November	-10.494	3.46	-3.033	0.25%
Calendar.GoodFriday	-42.673	3.797	-11.24	0.00%
Calendar.MemorialDay	-71.183	3.861	-18.435	0.00%
Calendar.July4thHol	-63.598	3.842	-16.553	0.00%
Calendar.LaborDay	-66.764	3.846	-17.358	0.00%
Calendar.Thanksgiving	-71.599	4.324	-16.558	0.00%
Calendar.FriAftThanks	-65.422	4.335	-15.091	0.00%
Calendar.XMasEve	-21.298	3.816	-5.582	0.00%
DBinT.XMasHol	-35.236	3.832	-9.195	0.00%
Calendar.NYEve	-1.624	4.378	-0.371	71.07%
DBinT.NYHol	-43.44	3.848	-11.29	0.00%
Wthr.CDD65	0.878	0.092	9.547	0.00%
DWthrT.CDD65WkEnd	-0.585	0.08	-7.356	0.00%
Wthr.HDD50	0.072	0.06	1.199	23.08%
DBinT.Dec23toDec31	-31.277	4.01	-7.8	0.00%
AR(1)	0.737	0.021	34.41	0.00%

Regression Statistics	
Iterations	11
Adjusted Observations	1095
Deg. of Freedom for Error	1061
R-Squared	0.95
Adjusted R-Squared	0.95
Durbin-Watson Statistic	1.99
Durbin-H Statistic	#NA
AIC	4.20
BIC	4.36
F-Statistic	651.68
Prob (F-Statistic)	0.00
Log-Likelihood	-3816.90
Model Sum of Squares	1393886
Sum of Squared Errors	68769
Mean Squared Error	64.82
Std. Error of Regression	8.05
Mean Abs. Dev. (MAD)	5.63
Mean Abs. % Err. (MAPE)	3.24%
Ljung-Box Statistic	80.86
Prob (Ljung-Box)	0.00

IndLPS Daily Peak Weather Normalization Model (UEIndLPS.NDM)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	699.629	203.326	3.441	0.06%
DBinT.TrendVar	-0.011	0.005	-2.132	3.32%
Calendar.Monday	57.568	1.212	47.479	0.00%
Calendar.Tuesday	66.11	1.464	45.153	0.00%
Calendar.Wednesday	68.944	1.577	43.71	0.00%
Calendar.Thursday	65.693	1.59	41.308	0.00%
Calendar.Friday	66.238	1.475	44.903	0.00%
Calendar.Saturday	22.256	1.061	20.975	0.00%
Calendar.January	37.686	6.682	5.64	0.00%
Calendar.February	38.423	6.963	5.518	0.00%
Calendar.March	8.543	6.99	1.222	22.20%
Calendar.April	46.937	7.052	6.655	0.00%
Calendar.May	45.503	7.117	6.393	0.00%
Calendar.June	48.248	7.265	6.641	0.00%
Calendar.July	71.97	7.299	9.86	0.00%
Calendar.August	59.692	7.216	8.272	0.00%
Calendar.September	72.211	7.045	10.249	0.00%
Calendar.October	67.628	6.748	10.022	0.00%
Calendar.November	56.83	5.948	9.554	0.00%
Calendar.GoodFriday	-14.292	5.942	-2.405	1.63%
Calendar.MemorialDay	-71.599	6.037	-11.86	0.00%
Calendar.July4thHol	-54.079	6.013	-8.994	0.00%
Calendar.LaborDay	-65.101	6.023	-10.808	0.00%
Calendar.Thanksgiving	-41.8	6.763	-6.18	0.00%
Calendar.FriAftThanks	-70.816	6.77	-10.46	0.00%
Calendar.XMasEve	-22.384	8.425	-2.657	0.80%
Calendar.XMasLights	31.978	9.921	3.223	0.13%
DBinT.XMasHol	-21.1	6.034	-3.497	0.05%
Calendar.NYEve	11.25	6.763	1.663	9.65%
DBinT.NYHol	-30.666	6.032	-5.084	0.00%
DBinT.Dec24to31_04	-19.083	10.617	-1.797	7.25%
DBinT.Jan16_06	-46.128	10.186	-4.529	0.00%
Wthr.CDD65	1.514	0.145	10.429	0.00%
DWthrT.CDD65WkEnd	-0.436	0.125	-3.494	0.05%
AR(1)	0.759	0.021	36.837	0.00%

Regression Statistics	
Iterations	10
Adjusted Observations	1095
Deg. of Freedom for Error	1060
R-Squared	0.91
Adjusted R-Squared	0.91
Durbin-Watson Statistic	2.21
Durbin-H Statistic	#NA
AIC	5.12
BIC	5.28
F-Statistic	331.21
Prob (F-Statistic)	0.00
Log-Likelihood	-4318.39
Model Sum of Squares	1827408
Sum of Squared Errors	172011
Mean Squared Error	162.27
Std. Error of Regression	12.74
Mean Abs. Dev. (MAD)	9.55
Mean Abs. % Err. (MAPE)	2.68%
Ljung-Box Statistic	110.50
Prob (Ljung-Box)	0.00

Wholesale Daily Peak Weather Normalization Model (UEWhls.NDM)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-172.758	45.884	-3.765	0.02%
DBinT.TrendVar	0.006	0.001	5.213	0.00%
Calendar.Monday	11.197	0.433	25.831	0.00%
Calendar.Tuesday	11.247	0.515	21.821	0.00%
Calendar.Wednesday	11.111	0.551	20.177	0.00%
Calendar.Thursday	10.571	0.555	19.039	0.00%
Calendar.Friday	8.465	0.52	16.276	0.00%
Calendar.Saturday	0.587	0.38	1.544	12.30%
Calendar.January	1.07	1.736	0.617	53.77%
Calendar.February	-2.536	1.791	-1.416	15.72%
Calendar.March	-6.634	1.79	-3.705	0.02%
Calendar.April	-8.504	1.825	-4.659	0.00%
Calendar.May	-5.784	1.857	-3.114	0.19%
Calendar.June	0.32	1.935	0.165	86.86%
Calendar.July	6.289	2.004	3.138	0.17%
Calendar.August	3.727	1.97	1.892	5.88%
Calendar.September	0.436	1.868	0.233	81.57%
Calendar.October	-5.437	1.798	-3.024	0.26%
Calendar.November	-2.754	1.673	-1.647	9.99%
Calendar.GoodFriday	-7.265	2.148	-3.383	0.07%
Calendar.MemorialDay	-9.992	2.184	-4.575	0.00%
Calendar.July4thHol	-12.681	2.177	-5.826	0.00%
Calendar.LaborDay	-12.398	2.177	-5.696	0.00%
Calendar.Thanksgiving	-17.46	2.41	-7.245	0.00%
Calendar.FriAftThanks	-7.369	2.416	-3.05	0.23%
DBinT.XMasHol	-5.095	2.179	-2.338	1.96%
Calendar.XMasLights	3.405	2.347	1.451	14.70%
Calendar.NYEve	-1.86	2.31	-0.805	42.10%
DBinT.NYHol	-4.381	2.165	-2.023	4.33%
Wthr.CDD65	1.954	0.06	32.633	0.00%
DWthrT.CDD65WkEnd	-0.119	0.044	-2.675	0.76%
Wthr.CDD80	0.294	0.16	1.837	6.64%
Wthr.HDD50	0.369	0.033	11.197	0.00%
DWthrT2.lagCDD70	0.116	0.062	1.883	6.00%
AR(1)	0.635	0.026	24.265	0.00%

Regression Statistics	
Iterations	8
Adjusted Observations	1095
Deg. of Freedom for Error	1060
R-Squared	0.94
Adjusted R-Squared	0.94
Durbin-Watson Statistic	2.07
Durbin-H Statistic	#NA
AIC	2.97
BIC	3.12
F-Statistic	527.79
Prob (F-Statistic)	0.00
Log-Likelihood	-3139.02
Model Sum of Squares	337145
Sum of Squared Errors	19915
Mean Squared Error	18.79
Std. Error of Regression	4.33
Mean Abs. Dev. (MAD)	3.11
Mean Abs. % Err. (MAPE)	3.72%
Ljung-Box Statistic	77.48
Prob (Ljung-Box)	0.00

4 CSR 22.030 (1) (B) 3

3. For the system, actual and weather-normalized hourly net system load;

Actual hourly net system load data specific to AmerenUE's current service territory is available back to 2001; system hourly data from January 2001 to December 2006 with and without Noranda are provided in 4 CSR 240-22.030 Appendix A Table's 1 and 2.

The methodology outlined by Missouri PSC staff in "Weather Normalization of Electric Loads, Part A: Hourly Net System Loads", November 1990, was used to weather normalize the hourly net system load. To weather-normalize the system hourly loads, first, daily peak load and average daily load were modeled as a function of daily degree days, months, day types, and holidays. Once the best models that explained the load-temperature relationship were attained, these were simulated with the normal degree days that were estimated using the rank and order method as explained in the previous section. Weather-normalized daily peak loads and weather-normalized daily average loads were

estimated by adding the difference that is due to weather to the actual daily peaks and actual daily average loads.

Missouri PSC staff's methodology is then used to adjust the hourly loads according to the weather-normalized daily peaks and weather-normalized daily average loads. The methodology maintains hourly load relationship to the daily peaks and average daily energy. Below is the explanation from the Missouri PSC staff's documentation[1].

"A fairly simple technique is to calculate a form of unitized hourly loads by subtracting the average daily load from each hourly load, then dividing by the difference between the peak and the average load; i.e.,

$$D_{ht}(0) = \frac{MW_{ht}(0) - Avg_t(0)}{PK_t(0) - Avg_t(0)}$$

By subtracting the daily average from each of the twenty four loads, the average of the resulting twenty four loads is forced to be equal to zero. By dividing each of these by the difference between the daily peak and average load, the peak for each day is forced to be equal to one.

In order to calculate the normalized load curve, the algebraic form of the above equation is solved for the hourly megawatts, and the weather normalized values for the peak and average are combined with the unitized hourly loads; i.e.,

$$MW_{ht}(0)' = Avg_t(0)' + D_{ht}(0)\,[PK_t(0)' - Avg_t(0)']$$

Two examples of this procedure are given on Schedules 1 and 2..."

[1] "Weather Normalization of Electric Loads, Part A: Hourly Net System Loads", (November 28, 1990), Research and Planning Department, Missouri Public Service Commission, Draft Report, page 7

Daily System Peak Weather Normalization Model (UEwoNoranda Hourly WN.NDM)

$PkMW_t = C + b_1 \times TrendVar_t + b_2 \times Monday + b_3 \times Tuesday + b_4 \times Wednesday + b_5 \times Thursday + b_6 \times Friday + b_7 \times Saturday + b_8 \times January + b_9 \times March + b_{10} \times April + b_{11} \times May + b_{12} \times June + b_{13} \times August + b_{14} \times September + b_{15} \times October + b_{16} \times November + b_{17} \times GoodFriday_t + b_{18} \times MemorialDay_t + b_{19} \times July4thHol_t + b_{20} \times LaborDay_t + b_{21} \times XmasDay_t + b_{22} \times XmasEve_t + b_{23} \times XmasLights_t + b_{24} \times NYEve_t + b_{25} \times NYDay_t + b_{26} \times FracDark20_t + b_{27} \times HDD65_t + b_{28} \times HDD50_t + b_{29} \times CDD65_t + b_{30} \times CDD70_t + b_{31} \times CDD65Wkend + b_{32} \times Storm\_summer + b_{33} \times Storm\_winter + b_{34} \times LagCDD65_t + b_{35} \times lagHDD50_t + \varepsilon_t$

where $TrendVar_t$ is a variable that captures positive or negative growth

Monday is a variable equal to 1 for only Monday

Tuesday is a variable equal to 1 for only Tuesday

Wednesday is a variable equal to 1 for only Wednesday

Thursday is a variable equal to 1 for only Thursday

Friday is a variable equal to 1 for only Friday

Saturday is a variable equal to 1 for only Saturday

January is a variable equal to 1 only for days in January

March is a variable equal to 1 only for days in March

April is a variable equal to 1 only for days in April

June is a variable equal to 1 only for days in June

August is a variable equal to 1 only for days in August

September is a variable equal to 1 only for days in September

October is a variable equal to 1 only for days in October

November is a variable equal to 1 only for days in November

$GoodFriday_t$ is a variable equal to 1 for only Good Friday

$MemorialDay_t$ is a variable equal to 1 for only Memorial Day

$Jul4thHol_t$ is a variable equal to 1 for only 4th of July

$LaborDay_t$ is a variable equal to 1 for only Labor Day

$Xmasday_t$ is a variable equal to 1 for only Christmas Day

$XMasEve_t$ is a variable equal to 1 for only Christmas Eve

$XMasLights_t$ is a variable equal to 1 from the beginning of December to Christmas

$NYEve_t$ is a variable equal to 1 for only New Year's Eve

$NYDay_t$ is a variable equal to 1 for only New Year's Day

$FracDark20_t$ is a variable that captures the fraction of darkness at 8pm throughout the year

$HDD65_t$ is the number of heating degree days based on 65° on day (t)

$HDD50_t$ is the number of heating degree days based on 50° on day (t)

$CDD65_t$ is the number of cooling degree days based on 65° on day (t)

$CDD70_t$ is the number of cooling degree days based on 70° on day (t)

$CDD65Wkend_t$ is the number of cooling degree days based on 65° on weekend days

Storm_summer is a variable equal to 1 only for days July 20-26, 2006

Storm_winter is a variable equal to 1 only for days December 1-2, 2006

$LagCDD65_t$ is the number of cooling degree days based on 65° on day (t-1)

$LagHDD50_t$ is the number of heating degree days based on 50° on day (t-1)

The results are as follows:

Regression Statistics	
Iterations	1
Adjusted Observations	2191
Deg. of Freedom for Error	2155
R-Squared	0.95
Adjusted R-Squared	0.95
Durbin-Watson Statistic	1.17
Durbin-H Statistic	#NA
AIC	10.85
BIC	10.94
F-Statistic	1189.18
Prob (F-Statistic)	0.00
Log-Likelihood	-14951.1
Model Sum of Squares	2.11E+09
Sum of Squared Errors	1.09E+08
Mean Squared Error	50646.63
Std. Error of Regression	225.05
Mean Abs. Dev. (MAD)	164.46
Mean Abs. % Err. (MAPE)	3.44%
Ljung-Box Statistic	553.98
Prob (Ljung-Box)	0.00

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-2856.979	301.335	-9.481	0.00%
DBinT.TrendVar	0.188	0.008	24.307	0.00%
Calendar.Monday	488.823	19.58	24.965	0.00%
Calendar.Tuesday	504.611	19.416	25.99	0.00%
Calendar.Wednesday	515.082	19.406	26.543	0.00%
Calendar.Thursday	470.211	19.387	24.253	0.00%
Calendar.Friday	393.577	19.43	20.256	0.00%
Calendar.Saturday	16.307	18.003	0.906	36.51%
Calendar.January	69.07	22.238	3.106	0.19%
Calendar.March	-140.003	22.396	-6.251	0.00%
Calendar.April	-354.975	25.325	-14.017	0.00%
Calendar.May	-290.081	23.447	-12.372	0.00%
Calendar.June	-81.305	25.955	-3.133	0.18%
Calendar.August	252.945	29.036	8.711	0.00%
Calendar.September	83.046	28.355	2.929	0.34%
Calendar.October	-191.083	24.755	-7.719	0.00%
Calendar.November	-125.577	23.238	-5.404	0.00%
Calendar.GoodFriday	-279.451	93.642	-2.984	0.29%
Calendar.MemorialDay	-484.617	95.214	-5.09	0.00%
Calendar.July4thHol	-708.946	96.14	-7.374	0.00%
Calendar.LaborDay	-420.059	95.517	-4.398	0.00%
Calendar.XMasDay	-616.024	93.284	-6.604	0.00%
Calendar.XMasEve	-613.894	98.384	-6.24	0.00%
Calendar.XMasLights	254.939	40.072	6.362	0.00%
Calendar.NYEve	-207.36	93.087	-2.228	2.60%
Calendar.NYDay	-295.123	94.652	-3.118	0.18%
Sun.FracDark20	-631.663	73.697	-8.571	0.00%
Wthr.HDD65	6.7	1.604	4.177	0.00%
Wthr.HDD50	27.849	2.122	13.125	0.00%
Wthr.CDD65	106.443	4.938	21.554	0.00%
Wthr.CDD70	26.162	5.81	4.503	0.00%
DWthrT.CDD65WkEnd	-6.725	1.576	-4.267	0.00%
DBinT.Storm_summer	-512.678	86.821	-5.905	0.00%
DBinT.Storm_Winter	-331.765	160.417	-2.068	3.87%
DWthrT.LagCDD65	11.657	1.823	6.393	0.00%
DWthrT.lagHDD50	3.966	1.154	3.437	0.06%

It should be noted that when the July 2006 storm hit AmerenUE service area, the temperatures dropped dramatically; however, this happened after the peak hour was reached. Taking the average of the lowest and highest temperatures for July 19, 2006 will result in weather-normalizing the daily peak, which is also the annual peak for 2006, upwards. Huge drop in temperature was disregarded as it happened after the peak hour, and the average of the lowest temperature in the morning and the highest temperature was taken for daily degree day calculation. The actual high and low temperatures on the peak day were 100^{o}F and 72^{o}F, respectively; since the normal temperature for the peak day is

88.3°F, weather-normalizing the peak load without changing the low temperature would result in an unreasonably high weather-normalized peak demand, which ultimately would flow into the peak demand forecast. AmerenUE's forecast team changed the low temperature for the day to 78°F, which was the lowest temperature in the morning. This change resulted in an average temperature of 87°F that caused the weather-normalized peak load to be lower than the actual peak load. Actual and weather normalized hourly net system peaks can be found in Table 3 and Table 4 in 4 CSR 240-22.030 Appendix A.

Table (1) (B)-5: Actual monthly system peak loads (MW) - including Noranda

Date	2001	2002	2003	2004	2005	2006
January	5,512	5,257	5,911	5,846	5,683	
February	5,424	5,372	5,414	5,270	5,251	
March	5,085	5,355	5,017	4,611	5,101	
April	5,185	5,361	4,533	4,591	4,531	
May	6,279	6,402	5,241	6,269	5,827	
June	6,737	6,823	6,731	6,778		
July	7,529	7,527	7,242	7,634		
August	7,409	7,510	7,856	7,096		
September	6,634	6,717	5,850	5,967		
October	4,316	5,887	4,433	4,689		
November	4,811	4,766	4,768	4,864		
December	4,974	5,314	5,266	5,912		

Table (1) (B)-6: Weather-normalized monthly system peak loads (MW) - including Noranda

Date	2001	2002	2003	2004	2005	2006
January	6,016	5,589	6,013	5,365	5,871	
February	5,556	6,109	5,588	5,359	5,379	
March	5,191	5,782	4,820	4,724	5,219	
April	5,180	4,405	4,819	5,369	3,600	
May	6,162	5,729	5,073	6,495	5,288	
June	6,281	5,968	6,640	6,658		
July	7,430	7,604	7,541	7,709		
August	7,192	6,845	7,346	7,032		
September	6,079	6,502	5,581	5,575		
October	3,739	5,366	4,133	4,694		
November	4,921	4,888	4,849	4,943		
December	5,411	5,608	5,179	6,599		

4 CSR 22.030 (1) (C) 1

(C) Load Component Detail. The historical data base for major class monthly energy usage and demands at time of monthly peaks shall be disaggregated into a number of units component and a use kilowatt-hour (kWh) per unit component, for both actual and weather-normalized loads.

1. Typical units for the major classes are – residential, number of customers; commercial, square feet of floor space or commercial employment level; and industrial, production output or employment level. If the utility uses a different unit measure, it must explain the reason for choosing different units.

In energy forecast models, total sales are used as the dependent variable for all classes other than residential class, which is modeled on a use-per-customer basis. However, when the models are done, the forecast staff checks the use-per-customer monthly energy usage as well as the growth rates. In the following tables, energy usage and demands at the time of monthly system peaks are disaggregated into number of units component. For commercial and industrial classes commercial employment and manufacturing employment data acquired from Economy.com are used as the units; for all other classes, number of customers used in the use per unit estimation.

Table (1) (C)-1: Commercial employment (000's)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995												
1996												
1997												
1998												
1999												
2000												
2001												
2002												
2003												
2004												
2005												
2006												

Source: Economy.com

Table (1) (C)-2: Manufacturing employment (000's)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995	[redacted]											
1996												
1997												
1998												
1999												
2000												
2001												
2002												
2003												
2004												
2005												
2006												

Source: Economy.com

Table (1) (C)-3: Residential use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995	1.106	1.053	0.913	0.671	0.649	0.722	1.114	1.415	1.359	0.688	0.689	0.930
1996	1.207	1.152	0.970	0.849	0.689	0.871	1.244	1.193	1.170	0.880	0.717	1.003
1997	1.225	1.125	0.902	0.759	0.634	0.714	1.199	1.340	1.088	0.791	0.801	0.989
1998	1.186	1.030	0.934	0.760	0.708	1.028	1.387	1.274	1.227	0.882	0.710	0.880
1999	1.269	1.010	0.939	0.785	0.679	0.926	1.289	1.482	1.100	0.732	0.692	0.886
2000	1.148	1.101	0.844	0.714	0.704	0.937	1.250	1.294	1.329	0.818	0.753	1.145
2001	1.481	1.125	1.013	0.815	0.760	0.914	1.300	1.460	1.234	0.749	0.717	0.882
2002	1.280	1.042	1.003	0.885	0.710	1.003	1.458	1.508	1.320	0.866	0.814	1.137
2003	1.231	1.251	1.104	0.774	0.712	0.793	1.301	1.368	1.274	0.727	0.764	1.068
2004	1.282	1.276	0.971	0.819	0.799	1.065	1.224	1.177	1.072	0.831	0.758	1.063
2005	1.341	1.162	1.014	0.850	0.764	1.030	1.455	1.510	1.332	0.963	0.800	1.181
2006	1.319	1.098	1.021	0.846	0.713	1.077						

Table (1) (C)-4: Weather-normalized residential use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995	1.220	1.087	0.934	0.747	0.673	0.778	1.157	1.240	1.218	0.743	0.676	0.921
1996	1.191	1.102	0.964	0.806	0.663	0.804	1.236	1.261	1.153	0.758	0.703	0.956
1997	1.258	1.110	0.965	0.803	0.648	0.836	1.160	1.277	1.134	0.747	0.714	0.982
1998	1.294	1.144	0.953	0.796	0.699	0.873	1.223	1.272	1.121	0.780	0.739	1.014
1999	1.242	1.177	0.973	0.828	0.695	0.859	1.240	1.300	1.144	0.761	0.739	0.997
2000	1.273	1.142	0.970	0.783	0.690	0.899	1.277	1.336	1.164	0.789	0.755	1.044
2001	1.320	1.161	0.991	0.789	0.650	0.893	1.276	1.290	1.155	0.792	0.776	1.053
2002	1.372	1.202	1.040	0.854	0.708	0.908	1.244	1.261	1.170	0.801	0.790	1.145
2003	1.317	1.233	1.056	0.827	0.733	0.910	1.287	1.316	1.153	0.768	0.809	1.138
2004	1.415	1.263	1.051	0.869	0.715	0.884	1.249	1.300	1.174	0.823	0.823	1.142
2005	1.384	1.197	1.053	0.885	0.727	0.927	1.314	1.338	1.184	0.850	0.831	1.149
2006	1.462	1.251	1.067	0.868	0.768	0.947						

Table (1) (C)-5: Commercial use-per-commercial employment (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995	[redacted]											
1996												
1997												
1998												
1999												
2000												
2001												
2002												
2003												
2004												
2005												
2006												

Table (1) (C)-6: Weather-normalized commercial use-per-commercial employment (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995	[redacted]											
1996												
1997												
1998												
1999												
2000												
2001												
2002												
2003												
2004												
2005												
2006												

Table (1) (C)-7: Industrial use-per-manufacturing employment (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995	[redacted]											
1996												
1997												
1998												
1999												
2000												
2001												
2002												
2003												
2004												
2005												
2006												

Table (1) (C)-8: Weather-normalized industrial use-per-manufacturing employment (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995	[redacted]											
1996												
1997												
1998												
1999												
2000												
2001												
2002												
2003												
2004												
2005												
2006												

Table (1) (C)-9: Wholesale use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995	7,745	6,684	6,693	6,007	6,330	7,917	10,081	11,224	6,852	6,507	6,727	7,486
1996	7,972	7,267	7,256	6,329	7,395	8,712	9,420	9,907	7,250	6,723	7,156	7,802
1997	7,478	6,218	6,148	5,784	5,787	7,406	9,611	8,542	7,045	6,633	6,395	7,118
1998	7,132	6,092	6,804	5,886	7,319	8,079	9,594	9,254	7,274	6,234	6,371	7,235
1999	7,766	6,381	6,817	6,231	6,749	8,577	11,323	9,629	7,552	6,664	6,514	7,601
2000	7,866	6,761	6,942	6,347	6,379	8,524	10,021	11,074	8,357	7,130	7,269	8,547
2001	8,150	7,132	7,281	6,649	7,434	8,473	10,423	10,336	7,778	6,834	6,478	7,374
2002	7,756	6,828	7,320	6,919	7,130	9,113	10,730	10,615	8,526	7,293	7,122	7,911
2003	8,628	7,355	7,444	6,896	7,206	8,262	11,041	11,018	7,677	7,167	7,193	8,169
2004	8,966	7,970	7,481	7,018	8,414	8,962	9,641	8,796	8,150	7,073	7,345	8,642
2005	9,026	7,574	8,016	7,193	7,783	10,055	10,038	11,824	11,219	9,782	7,434	7,642
2006	8,468	7,906	7,956	7,169	8,110	9,621						

Table (1) (C)-10: Weather-normalized wholesale use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997	6,881	5,913	6,414	5,834	6,279	7,310	9,237	9,257	6,998	6,529	6,300	7,012
1998	6,764	5,705	6,902	6,079	7,055	7,263	9,690	8,901	6,632	6,644	6,498	7,152
1999	7,361	6,117	6,967	6,167	7,279	8,123	10,077	10,311	7,628	7,115	6,706	7,573
2000	7,652	6,559	7,222	6,546	6,543	8,690	10,617	10,247	8,306	7,486	7,171	7,998
2001	7,545	6,505	7,373	6,586	7,429	8,245	9,921	9,741	7,768	7,195	6,804	7,596
2002	7,415	6,382	7,690	6,431	7,643	7,992	9,486	9,930	7,839	7,393	7,242	8,068
2003	7,986	6,804	7,718	6,995	7,826	8,653	10,836	9,986	8,038	7,629	7,265	8,139
2004	8,413	7,858	8,054	6,855	7,859	8,895	9,956	10,181	8,210	7,398	7,479	8,504
2005	8,588	7,352	8,374	7,136	8,123	8,738	9,750	11,193	10,332	9,988	7,507	7,406
2006	8,324	7,490	8,462	7,331	8,105	9,063						

Table (1) (C)-11: Dusk-to-dawn use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995	0.181	0.159	0.158	0.137	0.127	0.117	0.126	0.136	0.147	0.167	0.176	0.190
1996	0.188	0.160	0.158	0.138	0.128	0.118	0.126	0.136	0.147	0.168	0.177	0.192
1997	0.189	0.161	0.162	0.140	0.129	0.118	0.127	0.138	0.150	0.171	0.181	0.196
1998	0.193	0.164	0.164	0.142	0.130	0.121	0.128	0.140	0.151	0.172	0.179	0.188
1999	0.186	0.157	0.158	0.137	0.127	0.117	0.124	0.136	0.147	0.167	0.176	0.190
2000	0.187	0.160	0.159	0.137	0.127	0.117	0.124	0.136	0.148	0.168	0.177	0.191
2001	0.182	0.154	0.159	0.137	0.128	0.118	0.126	0.137	0.148	0.168	0.178	0.192
2002	0.191	0.174	0.172	0.150	0.125	0.131	0.129	0.129	0.146	0.157	0.170	0.202
2003	0.211	0.184	0.171	0.149	0.134	0.128	0.123	0.128	0.144	0.156	0.172	0.197
2004	0.208	0.174	0.162	0.152	0.136	0.128	0.126	0.128	0.143	0.157	0.172	0.197
2005	0.206	0.178	0.165	0.152	0.133	0.128	0.125	0.128	0.144	0.156	0.173	0.196
2006	0.206	0.178	0.163	0.144	0.133	0.129						

Due to the inconsistency of the DtD customer counts, total DtD sales for Jan'95-Oct'98 were divided by 51,000 and DtD sales for Jan'02-Jun'03 were divided by 52,000.

Table (1) (C)-12: SLPA use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1995	8.077	7.117	6.872	6.211	5.847	5.711	5.639	5.843	6.389	6.821	7.119	7.876
1996	8.024	7.102	6.887	6.383	5.840	5.655	5.644	5.889	6.428	6.882	7.374	8.080
1997	8.367	7.254	7.157	6.466	5.880	5.776	5.777	5.983	6.541	7.062	7.759	8.275
1998	8.626	7.520	7.379	6.654	6.104	5.962	6.285	6.196	6.393	7.993	6.653	5.073
1999	4.858	5.335	8.987	4.398	4.749	3.922	3.784	11.108	3.932	4.378	4.640	5.090
2000	5.221	4.846	6.467	4.163	3.851	3.812	3.698	3.779	6.423	4.336	4.450	5.188
2001	5.187	4.725	4.513	4.206	3.896	3.861	3.750	3.901	3.999	4.315	4.668	4.956
2002	4.746	11.637	3.196	6.839	6.595	6.192	5.748	5.967	6.784	7.358	8.110	8.612
2003	9.425	8.771	7.952	7.242	6.533	6.203	5.691	6.006	6.596	7.226	8.081	8.895
2004	9.406	8.405	7.515	7.242	6.671	6.062	5.705	5.975	6.574	7.134	8.166	8.838
2005	9.313	8.559	7.544	7.340	6.338	6.001	5.647	5.867	6.543	7.027	11.770	8.658
2006	9.288	4.484	7.461	7.026	6.231	5.904						

All demand data reported in Tables (1) (C)-13 thru Table (1) (C)-21 are the demands at the time of monthly system peak. Industrial demands do not include Noranda load.

Table (1) (C)-13: Residential demand per customer (MW)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003							0.0035	0.0041	0.0025	0.0014	0.0020	0.0024
2004	0.0026	0.0023	0.0021	0.0015	0.0028	0.0032	0.0038	0.0037	0.0025	0.0015	0.0021	0.0031
2005	0.0025	0.0023	0.0021	0.0014	0.0023	0.0038	0.0039	0.0038	0.0029	0.0025	0.0022	0.0030
2006	0.0025	0.0027	0.0024	0.0023	0.0028	0.0034						

Table (1) (C)-14: Weather-normalized residential demand per customer (MW)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003							0.0037	0.0037	0.0023	0.0012	0.0020	0.0024
2004	0.0023	0.0023	0.0022	0.0019	0.0030	0.0031	0.0039	0.0036	0.0023	0.0015	0.0021	0.0036
2005	0.0026	0.0024	0.0022	0.0009	0.0019	0.0034	0.0036	0.0032	0.0025	0.0021	0.0023	0.0033
2006	0.0026	0.0027	0.0026	0.0019	0.0025	0.0031						

Table (1) (C)-15: Commercial demand per commercial employment (MW)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004												
2005												
2006												

Table (1) (C)-16: Weather-normalized commercial demand per commercial employment (MW)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004												
2005												
2006												

Table (1) (C)-17: Industrial demand per manufacturing employment (MW)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004												
2005												
2006												

Table (1) (C)-18: Weather-normalized industrial demand per manufacturing employment (MW)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004												
2005												
2006												

Table (1) (C)-19: Wholesale demand per customer (MW)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003							20.899	24.146	18.139	13.065	13.976	15.373
2004	15.697	14.257	11.517	13.479	19.356	20.251	21.447	19.856	17.185	12.977	14.515	16.719
2005	15.832	14.767	14.508	13.850	17.297	21.366	23.802	22.831	21.371	19.219	15.659	17.598
2006	15.260	13.799	14.253	15.722	19.350	22.021						

Table (1) (C)-20: Weather-normalized wholesale demand per customer (MW)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003							21.760	22.675	17.304	12.131	14.134	15.199
2004	14.745	14.424	11.715	16.022	20.017	19.900	21.644	19.663	16.025	13.020	14.663	18.046
2005	16.176	15.017	14.736	10.655	15.712	19.851	22.661	20.773	19.878	17.247	15.940	18.555
2006	15.757	13.802	14.889	14.000	17.651	20.904						

Table (1) (C)-21: Lighting demand per customer (MW)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003							0.00000	0.00000	0.00000	0.00000	0.00157	0.00156
2004	0.00023	0.00013	0.00137	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00154	0.00154
2005	0.00044	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00153	0.00153
2006	0.00153	0.00000	0.00122	0.00000	0.00000	0.00000						

Table (1) (C)-21 includes both SLPA and DtD demands since the lighting profile was created using both classes.

4 CSR 22.030 (C) 2.A

2. The utility shall develop and implement a procedure to routinely measure and regularly update estimates of the effect of departures from normal weather on class and system electric loads.

A. The estimates of the effect of weather on class and system loads shall incorporate the nonlinear response of loads to daily weather and seasonal variations in loads.

Beginning in January 1992, AmerenUE, with the aid of ICF Resources, co-developed the weather normalization (billing cycle analysis) enhancement to HELM-PC. HELM-PC allowed the user to input load research data, daily temperature data, calendar data, and customer billing data by rate and revenue class to produce monthly actual and normal calendar month and billing month sales. Load research data was used to create weather response functions that capture the seasonality and variability of the demand for electricity.

AmerenUE updated its customer billing system in 1998 to better handle customer billing. One of the results of this change was the inability to obtain billing cycle data for the classes and subclasses modeled within HELM-PC. AmerenUE chose to replace HELM-PC tool with a new set of tools from Itron due to the ability of the Itron toolset to handle the new format of the customer billing data. These toolsets were Forecast Manager, MetrixND and Billed/Unbilled Calculator. One of the major advantages of the Itron toolset, in addition to the ability to handle the new format of the customer billing

the use of a centralized data repository – Forecast Manager. The toolset has been developed to interface seamlessly with the standard Microsoft Office tools such as Access and Excel. Again, just like HELM-PC, load research data, daily temperature data, day types, etc. are used in the MetrixND project files to create the weather response functions to weather-normalize energy usage and estimate unbilled sales by class. At the end of 2006, Forecast Manager was updated to handle billing cycle data and do the weather normalization of billed sales by cycle; Billed/Unbilled Calculator was incorporated into Forecast Manager at this time.

Current weather response functions used in weather-normalization of billed and calendar sales are a combination of daily artificial neural network models and regression models that use average use-per-customer by class as the dependent variable. Daily normal weather is used in a separate project file with the same model structure and coefficients to project the use-per-customer energy usage given normal weather conditions.

Unbilled Calculation and Weather-Normalization Methodology

On Execution of *Calculate Impacts*, the Analyst is prompted to input the analysis month. The application will then execute daily weather response models for actual and normal daily weather conditions for each customer class where a model has been assigned.

The models will return an estimated average daily use (kWh) for each class and day. The results will be written to the Table **PredictValue**. **Error! Reference source not found.** shows the table layout.

Daily Predicted Values

Date	Company	Class	PredAct	PredNormal
6/1/2006	17	10	37.4	38.8
6/2/2006	17	10	35.2	40.2
6/3/2006	17	10	37.9	38.9

Estimate UPC for Analysis Period: For each company, class, and billing cycle period, the application calculates the following;

- Predicted load over the billing period (start-date to end-date) (*Bill_Predict*)
- Predicted load over the calendar month (first day of the month to last day of the month) (*Cal_Predict*)
- Predicted load over the unbilled period (end-date plus 1 to the last day of the month) (*Unbill_Predict*)

These load estimates are used to calculate unbilled sales, calendar-month sales, weather normal revenue-month sales and weather normal calendar-month sales. The analyst is able to view results in *ForecastManager* and Export results to Excel.

Calculate Calendar Sales Estimates: Calendar sales will be calculated for each customer class and billing cycle. Uncalibrated calendar month sales for month m, class c, and cycle b are calculated as:

$$CalSales_{mcb} = BillSales_{mcb} * CalMoRatio_{mcb}$$

Where:

$$CalMoRatio_{mcb} = \sum Cal\_Predict_{mc} / Bill\_Predict_{mcb}$$

Calibration: The application calibrates estimated calendar month sales to a monthly control total. The control total is defined for each service supplier. *ForecastManage2.0* allows for the input of monthly system net energy for each company and service supplier through an Excel spreadsheet.

A set of calibration constants will be generated for each rate/revenue class and service supply code. The calibration constant for month m, supply code s, and rate/revenue class c is calculated as:

$$Calibfactor_{mcs} = CalSales_{mcs} / \sum_c CalSales_{mcs}$$

Calibrated sales for month m and class c are then derived as:

$CalibSales_{mcs} = ServSupplyDeliveries_{ms} * Calibfactor_{mcs}$

Calculate Unbilled Sales Estimates: Unbilled sales will be calculated using the prior-month unbilled approach. The prior month approach entails calculating current month unbilled from calendar month sales, billed sales, and prior month unbilled sales. Unbilled sales for month m and customer class c are calculated as;

$$UnBillSales_{mc} = (CalibSales_{mc} + Unbilled\ Sales_{m\text{-}1\,c}) - BillSales_{mc}$$

The unbilled sales estimates will be written to *ForecastManager* database. An Excel interface allows the Analyst to update, if necessary, prior unbilled sales estimate. Unbilled estimates read from the input spreadsheet will over-write any existing unbilled sales estimate in the database. The application will not generate unbilled sales estimates without a prior-month unbilled sales starting point.

Direct Unbilled Sales Estimate: The application also estimates unbilled sales using the direct approach at the billing cycle level. An unbilled ratio is calculated for each billing cycle b as:

$$UnBillRatio_{mcb} = UnbillPredict_{mcb} / BillPredict_{mcb}$$

Unbilled sales for each class and billing cycle are then estimated by applying the unbilled ratio to billed cycle sales:

$$UnBillSales_{mcb} = BillSales_{mcb} * UnBillRatio_{mcb}$$

The direct unbilled sales estimates will not be calibrated and shown only at the billing cycle level.

Calculate Weather Normal Sales: Weather normal revenue-month and calendar-month sales are calculated in a manner similar to that of calendar-month sales. Normal daily weather is executed through the rate class weather response functions with results (predicted daily use per customer) stored in the Daily Predicted Load Table as PredNormal.

Calculate Weather Adj Ratio: The daily predicted value for normal weather conditions is summed across the cycle billing period. For each revenue-month (m), billing cycle (b) and customer class (c) a weather adjustment ratio is calculated as:

$$WeatherAdj_{mcb} = \sum_m PredNormal_{mcb} / \sum_m PredActual_{mcb}$$

Calculate Cycle Normal Sales: Weather normal revenue-month sales are calculated for each billing cycle by applying the weather adjustment ratio to cycle bill sales:

$$WN\_BillSales_{mcb} = BillSales_{mcb} * WeatherAdj_{mcb}$$

Calculate Revenue-Month Weather Normal Sales: Total revenue month weather normal sales are derived by summing across weather normal cycle sales:

$$WN\_BillSales_{mc} = \sum_b WN\_BillSales_{mcb}$$

Calculate Calendar-Month Weather Normal Sales: Calendar-month weather normal sales are derived by first calculating a calendar month weather adjustment factor for each billing cycle. The calendar month adjustment factors are calculated for each billing cycle (b) and customer class c) as:

$$CalWeathAdj_{mbc} = \sum_{calmo} PredictNormal_{calmo,c} / \sum_m PredictActual_{mbc}$$

Weather normal billing cycle sales are calculated by applying calendar month weather adjustment sales to cycle-billed sales:

$$WN\_CalSales_{mcb} = BillSales_{mcb} * CalWeatherAdj_{mcb}$$

Calibrated weather normal sales are calculated by applying the calibration constant to uncalibrated weather normal sales estimate by service supplier:

$$Calib\_WNSales_{mcs} = Calibfactor_{mcs} * \sum_b WN\_CalSales_{mcbs}$$

In *ForecastManager2.0*, the function *Review Monthly Estimates* first shows the detail calculations. Detail calculations are presented by billing cycle and include:

- Billed Sales
- Calendar Month Sales (Uncalibrated)
- Direct Unbilled Sales (Uncalibrated)
- Weather Normal Bill Sales
- Weather Normal Calendar Sales (Uncalibrated)

Results can be exported to Excel.

The Summary button will show estimates at an aggregate class level. Summary will show the following:

- Billed Sales
- Calendar Month Sales (Calibrated)
- Unbilled Sales (Prior-Month Approach)
- Weather Normal Bill Sales
- Weather Normal Calendar Sales (Calibrated)

The daily model results used in the weather normalization and calendar sales estimation are shown below:

ResNN (Residential Neural Network Model)

Variable	Coefficient	StdErr	T-Stat	P-Value
Node1:TrendVar	0.097	0.006	16.786	0.00%
Node1:Intercept	-2.674	0.588	-4.544	0.00%
Node1:Jan	-0.007	0.015	-0.463	64.34%
Node1:Feb	-0.021	0.015	-1.346	17.86%
Node1:Mar	-0.026	0.022	-1.19	23.42%
Node1:Apr	-0.032	0.027	-1.2	23.03%
Node1:May	-0.018	0.032	-0.566	57.13%
Node1:Jun	0.03	0.032	0.93	35.25%
Node1:Jul	0.002	0.031	0.069	94.54%
Node1:Aug	0.033	0.028	1.154	24.88%
Node1:Sep	-0.033	0.023	-1.423	15.50%
Node1:Oct	-0.021	0.02	-1.031	30.29%
Node1:Nov	-0.032	0.014	-2.233	2.57%
Node1:Monday	0.002	0.055	0.043	96.56%
Node1:Tuesday	-0.012	0.056	-0.213	83.14%
Node1:Wednesday	-0.014	0.056	-0.256	79.83%
Node1:Thursday	-0.001	0.055	-0.019	98.50%
Node1:Friday	-0.023	0.055	-0.414	67.87%
Node1:Saturday	-0.03	0.007	-4.099	0.00%
Node1:NYEve	-0.003	0.006	-0.567	57.05%
Node1:NYDay	-0.001	0.006	-0.117	90.67%
Node1:MemorialDay	0.01	0.006	1.766	7.76%
Node1:July4thHol	0.014	0.006	2.409	1.61%
Node1:LaborDay	0.021	0.006	3.671	0.03%
Node1:Thanksgiving	0.006	0.006	1.047	29.51%
Node1:FriAftThanks	-0.002	0.006	-0.365	71.51%
Node1:XMasDay	0.029	0.006	4.669	0.00%
Node1:XMasEve	0.006	0.006	1.007	31.41%
Node1:AftXMasToNYEve	0.021	0.009	2.351	1.89%
Node1:XMasLights	0.033	0.012	2.651	0.81%
Node1:HLight	0.024	0.047	0.508	61.18%
Node1:DST	-0.023	0.024	-0.969	33.26%
Node1:Jul99	0.084	0.007	12.539	0.00%
Node1:Sep00	-0.076	0.006	-12.133	0.00%
Node2:Slope	4.08	0.574	7.105	0.00%
Node2:Bias	-3.437	0.735	-4.677	0.00%
Node2:WeekEnd	0.019	0.02	0.981	32.69%
Node2:WinterFuzzy	-0.586	0.202	-2.897	0.38%
Node2:SummerFuzzy	0.349	0.051	6.827	0.00%
Node2:HDD65	-2.106	1.22	-1.726	8.46%
Node2:HDD50	2.14	1.085	1.972	4.88%
Node2:CDD65	0.995	0.116	8.54	0.00%
Node2:CDD80	-0.538	0.115	-4.686	0.00%
Node2:LagCDD65	0.317	0.051	6.214	0.00%
Node2:LagHDD65	-0.405	0.316	-1.281	20.05%
Node3:Slope	5.332	1.113	4.79	0.00%
Node3:Bias	-0.526	0.164	-3.212	0.14%
Node3:WeekEnd	0.036	0.055	0.659	51.01%
Node3:WinterFuzzy	0.043	0.023	1.923	5.46%
Node3:SummerFuzzy	-0.047	0.028	-1.65	9.93%
Node3:HDD65	0.274	0.071	3.858	0.01%
Node3:HDD50	0.077	0.032	2.408	1.62%
Node3:CDD65	-0.143	0.072	-1.992	4.65%
Node3:CDD80	0.458	0.073	6.318	0.00%
Node3:LagCDD65	0.023	0.041	0.556	57.85%
Node3:LagHDD65	0.127	0.032	3.942	0.01%

SGSNN (SGS Neural Network Model)

Variable	Coefficient	StdErr	T-Stat	P-Value
Node1:TrendVar	-0.001	0.007	-0.12	90.43%
Node1:Intercept	2.059	0.383	5.37	0.00%
Node1:Jan	-0.009	0.01	-0.941	34.67%
Node1:Feb	-0.057	0.014	-4.155	0.00%
Node1:Mar	-0.06	0.023	-2.645	0.83%
Node1:Apr	-0.047	0.03	-1.561	11.87%
Node1:May	0.023	0.037	0.625	53.22%
Node1:Jun	-0.031	0.037	-0.84	40.10%
Node1:Jul	0.001	0.036	0.019	98.51%
Node1:Aug	0.017	0.031	0.555	57.88%
Node1:Sep	-0.027	0.026	-1.018	30.89%
Node1:Oct	-0.048	0.021	-2.26	2.40%
Node1:Nov	-0.058	0.011	-5.16	0.00%
Node1:Monday	0.284	0.128	2.218	2.67%
Node1:Tuesday	0.308	0.128	2.403	1.64%
Node1:Wednesday	0.329	0.128	2.572	1.02%
Node1:Thursday	0.316	0.128	2.473	1.35%
Node1:Friday	0.297	0.128	2.322	2.04%
Node1:Saturday	0.149	0.009	16.859	0.00%
Node1:NYEve	-0.018	0.007	-2.63	0.86%
Node1:NYDay	-0.055	0.007	-7.822	0.00%
Node1:MemorialDay	-0.089	0.007	-12.53	0.00%
Node1:July4thHol	-0.084	0.007	-12.175	0.00%
Node1:LaborDay	-0.084	0.007	-11.936	0.00%
Node1:Thanksgiving	-0.101	0.007	-14.501	0.00%
Node1:FriAftThanks	-0.037	0.007	-5.347	0.00%
Node1:XMasDay	-0.087	0.007	-12.632	0.00%
Node1:XMasEve	-0.05	0.007	-7.281	0.00%
Node1:HLight	0.016	0.056	0.277	78.21%
Node1:DST	-0.037	0.03	-1.239	21.55%
Node2:Slope	-4.115	0.855	-4.814	0.00%
Node2:Bias	1.778	0.508	3.497	0.05%
Node2:WeekEnd	0.244	0.115	2.122	3.40%
Node2:SummerFuzzy	0.243	0.128	1.89	5.89%
Node2:WinterFuzzy	-0.194	0.058	-3.352	0.08%
Node2:CDD65	0.241	0.217	1.109	26.78%
Node2:HDD65	-0.571	0.116	-4.936	0.00%
Node2:LagCDD65	0.207	0.177	1.169	24.28%
Node2:LagHDD65	-0.274	0.06	-4.565	0.00%
Node3:Slope	5.681	0.936	6.069	0.00%
Node3:Bias	-2.2	0.31	-7.094	0.00%
Node3:WeekEnd	-0.276	0.074	-3.724	0.02%
Node3:SummerFuzzy	0.114	0.031	3.695	0.02%
Node3:WinterFuzzy	-0.228	0.056	-4.054	0.01%
Node3:CDD65	0.409	0.06	6.821	0.00%
Node3:HDD65	-0.806	0.198	-4.065	0.01%
Node3:LagCDD65	0.18	0.03	6.069	0.00%
Node3:LagHDD65	-0.293	0.105	-2.793	0.53%

LGSComNN (LGS Commercial Neural Network Model)

Variable	Coefficient	StdErr	T-Stat	P-Value
Node1:TrendVar	0.341	0.011	31.302	0.00%
Node1:Intercept	1.472	0.774	1.902	5.74%
Node1:Jan	-0.099	0.026	-3.806	0.01%
Node1:Feb	-0.023	0.027	-0.837	40.27%
Node1:Mar	-0.036	0.037	-0.971	33.17%
Node1:Apr	0.125	0.045	2.74	0.62%
Node1:May	0.103	0.054	1.905	5.70%
Node1:Jun	0.198	0.055	3.572	0.04%
Node1:Jul	0.077	0.054	1.42	15.60%
Node1:Aug	0.099	0.048	2.075	3.82%
Node1:Sep	0.065	0.041	1.575	11.55%
Node1:Oct	-0.033	0.035	-0.952	34.12%
Node1:Nov	-0.119	0.025	-4.71	0.00%
Node1:Monday	0.127	0.365	0.348	72.78%
Node1:Tuesday	0.135	0.364	0.371	71.06%
Node1:Wednesday	0.137	0.364	0.375	70.78%
Node1:Thursday	0.136	0.364	0.374	70.83%
Node1:Friday	0.106	0.364	0.291	77.08%
Node1:Saturday	0.109	0.012	8.802	0.00%
Node1:NYEve	0.002	0.01	0.215	82.96%
Node1:NYDay	-0.025	0.01	-2.622	0.88%
Node1:MLKing	-0.011	0.01	-1.14	25.43%
Node1:PresidentDay	-0.027	0.01	-2.806	0.51%
Node1:GoodFriday	-0.036	0.01	-3.737	0.02%
Node1:EasterSunday	-0.033	0.01	-3.373	0.08%
Node1:MemorialDay	-0.063	0.01	-6.429	0.00%
Node1:July3rd	0.002	0.012	0.145	88.50%
Node1:July4th	-0.016	0.011	-1.473	14.10%
Node1:July4thMonFri	-0.012	0.011	-1.062	28.84%
Node1:July4thHol	-0.048	0.012	-4.188	0.00%
Node1:LaborDay	-0.072	0.01	-7.39	0.00%
Node1:ColumbusDay	-0.007	0.01	-0.685	49.34%
Node1:VeteransDay	0.003	0.01	0.281	77.86%
Node1:Thanksgiving	-0.067	0.01	-6.996	0.00%
Node1:FriAftThanks	-0.04	0.01	-4.135	0.00%
Node1:XMasDay	-0.083	0.01	-7.969	0.00%
Node1:XMasEve	-0.028	0.01	-2.689	0.73%
Node1:XMasWkB4	-0.033	0.012	-2.666	0.78%
Node1:AftXMasToNYEve	-0.053	0.015	-3.507	0.05%
Node1:XMasLights	-0.024	0.024	-1.023	30.63%
Node1:HLight	-0.262	0.078	-3.359	0.08%
Node1:DST	-0.019	0.041	-0.464	64.25%
Node1:Jan01	-0.164	0.011	-14.719	0.00%
Node1:AftMar15_01	-0.103	0.011	-9.173	0.00%
Node1:May15_31_2000	-0.101	0.01	-9.888	0.00%
Node1:Nov10_30_2001	-0.103	0.011	-9.704	0.00%
Node2:Slope	0.704	0.253	2.787	0.54%
Node2:Bias	-0.929	0.38	-2.444	1.47%
Node2:WeekEnd	-0.531	0.238	-2.228	2.60%
Node2:SummerFuzzy	-0.451	0.395	-1.14	25.43%
Node2:WinterFuzzy	-0.01	0.385	-0.026	97.92%
Node2:CDD65	1.702	0.626	2.719	0.66%
Node2:HDD65	0.158	1.116	0.142	88.72%
Node2:HDD50	0.616	0.811	0.759	44.80%
Node2:LagCDD65	0.329	0.373	0.883	37.74%
Node2:LagHDD65	1.598	0.709	2.254	2.43%
Node3:Slope	-3.251	1.856	-1.752	8.00%
Node3:Bias	0.136	0.391	0.347	72.83%
Node3:WeekEnd	0.577	0.335	1.723	8.52%
Node3:SummerFuzzy	-0.134	0.085	-1.575	11.54%
Node3:WinterFuzzy	0.078	0.083	0.94	34.71%
Node3:CDD65	-0.301	0.177	-1.703	8.88%
Node3:HDD65	0.459	0.308	1.491	13.62%
Node3:HDD50	-0.448	0.286	-1.567	11.74%
Node3:LagCDD65	-0.119	0.078	-1.531	12.60%
Node3:LagHDD65	0.109	0.118	0.922	35.65%

SPSCom (SPS Commercial Model)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	18078.232	1121.827	16.115	0.00%
Daytypes.TrendVar	-1116.761	315.233	-3.543	0.04%
Calendar.Monday	2458.757	29.945	82.11	0.00%
Calendar.Tuesday	2668.012	36.805	72.491	0.00%
Calendar.Wednesday	2739.848	39.652	69.098	0.00%
Calendar.Thursday	2738.858	39.798	68.819	0.00%
Calendar.Friday	2490.358	36.812	67.651	0.00%
Calendar.Saturday	617.429	26.16	23.602	0.00%
Calendar.January	-38.534	631.82	-0.061	95.14%
Calendar.February	779.271	588.503	1.324	18.57%
Calendar.March	-597.478	558.47	-1.07	28.49%
Calendar.April	372.269	532.416	0.699	48.45%
Calendar.May	-2187.347	508.836	-4.299	0.00%
Calendar.June	-2346.899	465.078	-5.046	0.00%
Calendar.July	-3206.368	436.914	-7.339	0.00%
Calendar.August	-1646.835	394.05	-4.179	0.00%
Calendar.September	1011.095	335.817	3.011	0.27%
Calendar.October	-1147.534	278.256	-4.124	0.00%
Calendar.November	-77.962	200.199	-0.389	69.70%
Calendar.NYEve	-615.503	201.27	-3.058	0.23%
Calendar.NYDay	-1448.735	239.485	-6.049	0.00%
Calendar.MemorialDay	-2205.507	150.254	-14.679	0.00%
Calendar.July4thHol	-1545.051	150.761	-10.248	0.00%
Calendar.LaborDay	-2157.52	146.762	-14.701	0.00%
Calendar.Thanksgiving	-2561.253	167.772	-15.266	0.00%
Calendar.FriAftThanks	-1605.165	167.957	-9.557	0.00%
Calendar.XMasDay	-1570.086	177.419	-8.85	0.00%
Calendar.XMasEve	-745.368	175.637	-4.244	0.00%
Weather.CDD65	98.654	4.308	22.898	0.00%
WeatherTrans.WkDayCDD65	16.082	3.071	5.236	0.00%
WeatherTrans.LagCDD65	46.408	3.6	12.892	0.00%
AR(1)	0.97	0.007	140.526	0.00%

LGPComNN (LPS Commercial Neural Network Model)

Variable	Coefficient	StdErr	T-Stat	P-Value
Node1:TrendVar	-0.186	0.007	-25.5	0.00%
Node1:Intercept	-0.254	0.547	-0.464	64.24%
Node1:Jan	-0.043	0.009	-4.898	0.00%
Node1:Feb	-0.06	0.012	-4.985	0.00%
Node1:Mar	-0.128	0.02	-6.362	0.00%
Node1:Apr	-0.139	0.026	-5.253	0.00%
Node1:May	-0.134	0.032	-4.174	0.00%
Node1:Jun	-0.121	0.033	-3.673	0.02%
Node1:Jul	-0.074	0.032	-2.317	2.06%
Node1:Aug	-0.043	0.027	-1.575	11.54%
Node1:Sep	-0.042	0.023	-1.867	6.21%
Node1:Oct	0.016	0.018	0.863	38.80%
Node1:Nov	0.031	0.01	3.087	0.21%
Node1:Monday	0.028	0.076	0.365	71.53%
Node1:Tuesday	0.039	0.076	0.515	60.68%
Node1:Wednesday	0.046	0.076	0.607	54.40%
Node1:Thursday	0.043	0.076	0.571	56.79%
Node1:Friday	0.023	0.076	0.298	76.61%
Node1:Saturday	0.042	0.008	5.365	0.00%
Node1:NYEve	-0.021	0.006	-3.479	0.05%
Node1:NYDay	-0.023	0.006	-3.84	0.01%
Node1:MemorialDay	-0.038	0.006	-6.147	0.00%
Node1:July4thHol	-0.04	0.006	-6.518	0.00%
Node1:LaborDay	-0.028	0.006	-4.574	0.00%
Node1:Thanksgiving	-0.042	0.006	-6.748	0.00%
Node1:FriAftThanks	-0.029	0.006	-4.753	0.00%
Node1:XMasDay	-0.04	0.006	-6.492	0.00%
Node1:XMasEve	-0.028	0.006	-4.617	0.00%
Node1:HLight	0.199	0.05	3.982	0.01%
Node1:DST	0.119	0.024	4.885	0.00%
Node1:May_Dec2001	-0.269	0.007	-38.912	0.00%
Node1:AftSep02	0.183	0.008	24.339	0.00%
Node2:Slope	5.413	1.04	5.202	0.00%
Node2:Bias	-0.227	0.102	-2.228	2.60%
Node2:WeekEnd	-0.191	0.052	-3.636	0.03%
Node2:SummerFuzzy	-0.083	0.064	-1.292	19.66%
Node2:WinterFuzzy	0.224	0.056	3.991	0.01%
Node2:CDD65	0.812	0.131	6.185	0.00%
Node2:HDD65	0.291	0.067	4.317	0.00%
Node2:LagCDD65	-0.057	0.1	-0.577	56.38%
Node3:Slope	-3.23	0.978	-3.302	0.10%
Node3:Bias	0.89	0.166	5.347	0.00%
Node3:WeekEnd	0.159	0.042	3.809	0.01%
Node3:SummerFuzzy	-0.14	0.102	-1.373	16.98%
Node3:WinterFuzzy	0.244	0.093	2.635	0.85%
Node3:CDD65	0.747	0.23	3.248	0.12%
Node3:HDD65	0.872	0.177	4.929	0.00%
Node3:LagCDD65	-0.366	0.18	-2.036	4.19%

LGSInd (LGS Industrial Model)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	1663.524	137.903	12.063	0.00%
Daytypes.TrendVar	26.441	28.29	0.935	35.02%
Calendar.Monday	1869.065	33.732	55.409	0.00%
Calendar.Tuesday	2055.723	39.978	51.421	0.00%
Calendar.Wednesday	2079.943	42.344	49.12	0.00%
Calendar.Thursday	2084.094	42.554	48.975	0.00%
Calendar.Friday	1854.786	40.189	46.152	0.00%
Calendar.Saturday	307.62	29.929	10.278	0.00%
Daytypes.Jan	-248.593	110.605	-2.248	2.48%
Daytypes.Feb	-405.919	109.968	-3.691	0.02%
Daytypes.Mar	-232.256	107.755	-2.155	3.14%
Daytypes.Apr	-131.5	108.446	-1.213	22.56%
Daytypes.May	-222.335	108.537	-2.048	4.08%
Daytypes.Jun	-288.993	111.843	-2.584	0.99%
Daytypes.Jul	-303.602	118.639	-2.559	1.06%
Daytypes.Aug	-121.795	115.738	-1.052	29.29%
Daytypes.Sep	-226.391	108.739	-2.082	3.76%
Daytypes.Oct	-221.698	105.449	-2.102	3.58%
Daytypes.Nov	-446.414	102.135	-4.371	0.00%
Calendar.NYEve	-118.457	230.575	-0.514	60.75%
Calendar.NYDay	-1027.096	272.304	-3.772	0.02%
Calendar.MemorialDay	-1735.692	170.417	-10.185	0.00%
Calendar.July4thHol	-1208.52	174.217	-6.937	0.00%
Calendar.LaborDay	-1904.698	169.396	-11.244	0.00%
Calendar.Thanksgiving	-1920.159	223.489	-8.592	0.00%
Calendar.FriAftThanks	-1423.158	194.233	-7.327	0.00%
Calendar.XMasDay	-1939.944	211.222	-9.184	0.00%
Calendar.XMasEve	-1128.972	224.078	-5.038	0.00%
Weather.CDD65	17.481	4.395	3.978	0.01%
WeatherTrans.WkDayCDD65	23.773	3.473	6.845	0.00%
AR(1)	0.566	0.025	22.754	0.00%

SPSInd (SPS Industrial Model)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	44053.026	6018.021	7.32	0.00%
Daytypes.TrendVar	-1462.818	1587.237	-0.922	35.69%
Daytypes.Jan	-3961.166	1443.548	-2.744	0.62%
Daytypes.Feb	954.313	1581.439	0.603	54.63%
Daytypes.Mar	-3198.913	1660.855	-1.926	5.44%
Daytypes.Apr	-1021.777	1682.852	-0.607	54.39%
Daytypes.May	-2054.154	1694.783	-1.212	22.58%
Daytypes.Jun	-1034.254	1664.89	-0.621	53.46%
Daytypes.Jul	-3028.059	1594.2	-1.899	5.78%
Daytypes.Aug	-6562.82	1506.892	-4.355	0.00%
Daytypes.Sep	-5195.226	1386.557	-3.747	0.02%
Daytypes.Oct	-6178.94	1223.33	-5.051	0.00%
Daytypes.Nov	-4981.226	986.292	-5.05	0.00%
Calendar.Monday	6300.637	111.753	56.38	0.00%
Calendar.Tuesday	7739.189	143.027	54.11	0.00%
Calendar.Wednesday	8045.076	156.588	51.377	0.00%
Calendar.Thursday	7891.223	157.319	50.161	0.00%
Calendar.Friday	6832.466	143.67	47.557	0.00%
Calendar.Saturday	1852.69	110.694	16.737	0.00%
Calendar.NYEve	-4457.243	825.668	-5.398	0.00%
Calendar.NYDay	-6436.584	991.614	-6.491	0.00%
Calendar.MemorialDay	-5877.177	627.457	-9.367	0.00%
Calendar.July4thHol	-5011.789	606.259	-8.267	0.00%
Calendar.LaborDay	-5660.625	613.038	-9.234	0.00%
Calendar.Thanksgiving	-7547.655	706.095	-10.689	0.00%
Calendar.FriAftThanks	-6155.873	706.13	-8.718	0.00%
Calendar.XMasDay	-3888.581	700.73	-5.549	0.00%
Calendar.XMasEve	-3194.903	700.741	-4.559	0.00%
Weather.CDD65	54.847	14.749	3.719	0.02%
AR(1)	0.967	0.008	122.385	0.00%

LGPInd (LPS Industrial Model)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	164279.65	11245.67	14.608	0.00%
Daytypes.TrendVar	1322.421	2723.47	0.486	62.73%
Daytypes.Jan	19842.912	4002.914	4.957	0.00%
Daytypes.Feb	17442.976	4517.303	3.861	0.01%
Daytypes.Mar	14714.216	4839.823	3.04	0.24%
Daytypes.Apr	11006.018	4985.855	2.207	2.74%
Daytypes.May	9421.871	4983.61	1.891	5.88%
Daytypes.Jun	16409.64	4879.058	3.363	0.08%
Daytypes.Jul	11264.454	4715.03	2.389	1.70%
Daytypes.Aug	11389.85	4398.965	2.589	0.97%
Daytypes.Sep	5487.002	4002.452	1.371	17.06%
Daytypes.Oct	-1298.213	3459.434	-0.375	70.75%
Daytypes.Nov	-7753.961	2588.655	-2.995	0.28%
Calendar.Monday	34910.748	547.816	63.727	0.00%
Calendar.Tuesday	45715.962	714.101	64.019	0.00%
Calendar.Wednesday	47351.575	768.83	61.589	0.00%
Calendar.Thursday	47225.859	770.435	61.298	0.00%
Calendar.Friday	43218.572	713.216	60.597	0.00%
Calendar.Saturday	14017.638	481.934	29.086	0.00%
Calendar.NYEve	-11323.619	3029.94	-3.737	0.02%
Calendar.NYDay	-32336.389	3292.538	-9.821	0.00%
Calendar.MemorialDay	-36920.065	2382.264	-15.498	0.00%
Calendar.July4thHol	-22705.513	2469.125	-9.196	0.00%
Calendar.LaborDay	-36640.296	2374.084	-15.433	0.00%
Calendar.Thanksgiving	-46629.653	2715.415	-17.172	0.00%
Calendar.FriAftThanks	-43028.514	2714.401	-15.852	0.00%
Calendar.XMasDay	-21859.729	2974.594	-7.349	0.00%
Calendar.XMasEve	-24692.752	2763.899	-8.934	0.00%
Weather.CDD65	912.456	69.274	13.172	0.00%
WeatherTrans.WkDayCDD65	100.478	53.317	1.885	5.97%
AR(1)	0.795	0.023	34.119	0.00%
AR(2)	-0.071	0.03	-2.377	1.76%
AR(3)	0.097	0.03	3.261	0.11%
AR(4)	-0.075	0.03	-2.542	1.11%
AR(5)	0.01	0.03	0.351	72.58%
AR(6)	0.116	0.03	3.913	0.01%
AR(7)	0.087	0.023	3.783	0.02%

ResaleNN (Wholesale Neural Network Model)

Variable	Coefficient	StdErr	T-Stat	P-Value
Node1:TrendVar	0.19	0.011	17.428	0.00%
Node1:Intercept	2.873	0.93	3.089	0.20%
Node1:Jan	-0.077	0.019	-4.046	0.01%
Node1:Feb	-0.058	0.021	-2.699	0.70%
Node1:Mar	-0.104	0.029	-3.602	0.03%
Node1:Apr	-0.149	0.036	-4.163	0.00%
Node1:May	-0.16	0.042	-3.801	0.01%
Node1:Jun	-0.075	0.043	-1.72	8.57%
Node1:Jul	-0.038	0.042	-0.891	37.31%
Node1:Aug	0.002	0.037	0.055	95.60%
Node1:Sep	-0.103	0.032	-3.222	0.13%
Node1:Oct	-0.133	0.027	-4.909	0.00%
Node1:Nov	-0.093	0.019	-4.867	0.00%
Node1:Monday	0.481	0.327	1.473	14.08%
Node1:Tuesday	0.502	0.327	1.535	12.50%
Node1:Wednesday	0.513	0.326	1.572	11.61%
Node1:Thursday	0.51	0.326	1.563	11.82%
Node1:Friday	0.473	0.327	1.449	14.76%
Node1:Saturday	0.048	0.01	4.932	0.00%
Node1:NYEve	-0.015	0.008	-1.84	6.60%
Node1:NYDay	-0.023	0.008	-2.997	0.28%
Node1:MemorialDay	-0.049	0.008	-6.182	0.00%
Node1:July4thHol	-0.052	0.008	-6.86	0.00%
Node1:LaborDay	-0.024	0.008	-3.093	0.20%
Node1:Thanksgiving	-0.056	0.008	-7.319	0.00%
Node1:FriAftThanks	-0.038	0.008	-4.944	0.00%
Node1:XMasDay	-0.047	0.008	-5.627	0.00%
Node1:XMasEve	-0.034	0.008	-4.145	0.00%
Node1:AftXMasToNYEve	-0.039	0.012	-3.395	0.07%
Node1:XMasLights	0.006	0.016	0.392	69.51%
Node1:HLight	0.084	0.062	1.344	17.91%
Node1:DST	0.063	0.031	2.042	4.13%
Node1:Jul99	0.06	0.009	7.019	0.00%
Node1:Sep00	0.063	0.008	7.54	0.00%
Node1:Feb2_29_00	0.012	0.008	1.499	13.42%
Node1:Jan_Jun02	-0.09	0.012	-7.594	0.00%
Node1:Aft02	0.069	0.014	4.909	0.00%
Node1:Oct02	0.049	0.009	5.33	0.00%
Node2:Slope	4.692	4.45	1.054	29.18%
Node2:Bias	-1.173	0.686	-1.71	8.75%
Node2:WeekEnd	0.283	0.19	1.491	13.63%
Node2:SummerFuzzy	-0.129	0.155	-0.832	40.58%
Node2:WinterFuzzy	0.074	0.075	0.977	32.85%
Node2:CDD65	-0.141	0.189	-0.746	45.57%
Node2:HDD65	0.336	0.312	1.078	28.13%
Node3:Slope	-4.785	0.839	-5.706	0.00%
Node3:Bias	4.532	1.279	3.545	0.04%
Node3:WeekEnd	-0.064	0.063	-1.021	30.75%
Node3:SummerFuzzy	-0.168	0.046	-3.62	0.03%
Node3:WinterFuzzy	0.392	0.141	2.781	0.55%
Node3:CDD65	-0.909	0.119	-7.661	0.00%
Node3:HDD65	2.834	1.36	2.084	3.73%

Lighting (SLPA-DtD Model)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	27.479	0.01	2821.451	0.00%
Sun.HLight	-1.288	0.001	-1632.289	0.00%
AR(1)	0.642	0.029	22.484	0.00%

Model statistics:

Model	R-Sq	Adj R-Sq	F Stat	F-Stat Prob	Err DF	MAD	MAPE	AIC	BIC
ResNN	0.96	0.96	554.56	0.00	1371	1.74	5.35%	1.68	1.89
SGSNN	0.94	0.93	431.47	0.00	1410	3.17	4.02%	2.84	3.01
LGSComNN	0.88	0.87	153.54	0.00	1389	125.86	4.97%	10.24	10.48
SPSCom	0.97	0.97	1597.87	0.00	1417	302.62	1.87%	12.01	12.13
LGPComNN	0.94	0.94	550.78	0.00	1765	3304.33	2.21%	16.77	16.92
LGSInd	0.90	0.90	312.66	0.00	1056	237.99	8.93%	11.63	11.77
SPSInd	0.95	0.95	695.33	0.00	1054	929.97	2.39%	14.6	14.74
LGPInd	0.94	0.94	802.60	0.00	1777	4692.15	2.28%	17.64	17.75
ReSaleNN	0.90	0.90	311.20	0.00	1764	13072.15	5.35%	19.62	19.78
Lighting	1.00	1.00	10379462.14	0.00	725	0.01	0.10%	-8.51	-8.49

4 CSR 22.030 (1) (C) 2.B

B. For at least the base year of the forecast, the utility shall estimate the cooling, heating and nonweather-sensitive components of the weather-normalized major class loads.

AmerenUE forecast staff uses the Statistically Adjusted End-Use (SAE) modeling approach for residential, commercial SGS and commercial LGS class energy forecast. The methodology is explained in detail in 4 CSR 240-22.030(5). The results for the base year of the forecast are below:

Table (1) (C)-22: Residential calendar month forecast by end-use (MWh)

Year	Month	Total Res	Heating	Cooling	Other
2007	1				
2007	2				
2007	3				
2007	4				
2007	5				
2007	6				
2007	7				
2007	8				
2007	9				
2007	10				
2007	11				
2007	12				

Table (1) (C)-23: Commercial SGS calendar month forecast by end-use (MWh)

Year	Month	Total ComSGS	Heating	Cooling	Other
2007	1				
2007	2				
2007	3				
2007	4				
2007	5				
2007	6				
2007	7				
2007	8				
2007	9				
2007	10				
2007	11				
2007	12				

Table (1) (C)-24: Commercial LGS calendar month forecast by end-use (MWh)

Year	Month	Total ComLGS	Heating	Cooling	Other
2007	1				
2007	2				
2007	3				
2007	4				
2007	5				
2007	6				
2007	7				
2007	8				
2007	9				
2007	10				
2007	11				
2007	12				

AmerenUE peak forecast is completed using MetrixLT. The methodology is explained in detail in 4 CSR 240-22.030 (5). The contribution of residential heating, cooling and other-use to the total system peak can be found in the table below.

Table (1) (C)-25: Residential peak forecast by end-use (MW)

Year	Month	Total Res	Heating	Cooling	Other
2007	1	[redacted]			
2007	2				
2007	3				
2007	4				
2007	5				
2007	6				
2007	7				
2007	8				
2007	9				
2007	10				
2007	11				
2007	12				

4 CSR 22.030 (1) (C) 2.C

C. The utility shall document the methods used to develop weather measures and the methods used to estimate the effect of weather on electric loads. If statistical models are used, the documentation shall include at least: the functional form of the models; the estimation techniques employed; the data used to estimate the models, including the development of model input data from basic data; and the relevant statistical results of the models, including parameter estimates and tests of statistical significance;

AmerenUE uses the ASOS adjusted temperature data from St. Louis Lambert station. Normal weather calculation differs slightly for monthly sales and daily peak purposes.

The degree-day is calculated for each day. The calendar month degree-day for month m is calculated by summing daily degree-days over the calendar month. For calculating the revenue-month degree days, AmerenUE's meter read schedule is used. For each billing cycle, the daily degree days are summed from the beginning date to the end date of that billing cycle, and then the average of degree days for the 21 billing cycles is taken to calculate the revenue month degree days.

Normal daily degree-days are calculated for each temperature breakpoint using 30 years of daily degree-day data over the period 1971 to 2000. Daily normal degree-days are defined as the average degree-day for each calendar day – January 1, January 2… December 31 – for monthly sales forecasting purposes. Normal revenue-month and calendar-month degree-days are generated from normal daily degree-days and meter-read-schedule similar to the actual monthly degree-day calculation. The last 12-month calculated normal degree-days are used to represent the forecast period where meter read schedules are not available.

For peak weather-normalization purposes, rank and average method is used to estimate normal weather pattern as it preserves the "peakiness" of the daily or hourly system loads. Daily degree-days are calculated for 1971-2000, then for each year HDD's and CDD's are sorted from highest to lowest. The average of each daily rank is taken across the years to provide the "normal" weather pattern. Finally, the normal degree-days are rearranged to match the actual weather pattern that occurred during the time period in question.

The tables below show the monthly weather data used. Daily weather data and meter read schedule can be found in the Appendix.

Table (1) (C)-26: Actual degree-days based on 65 degrees

Actual		Revenue Month		Calendar Month	
Year	Month	HDD	CDD	HDD	CDD
1995	1	937.0	0.0	1104.9	0.0
1995	2	975.9	0.0	849.3	0.0
1995	3	738.0	0.0	548.4	0.0
1995	4	370.0	6.3	307.6	11.4
1995	5	243.9	21.6	117.4	53.5
1995	6	42.1	136.3	1.7	268.0
1995	7	0.7	336.3	0.0	451.1
1995	8	0.0	484.7	0.0	534.6
1995	9	15.6	394.0	84.3	123.1
1995	10	113.8	74.4	209.6	29.2
1995	11	394.2	17.3	719.7	0.0

Actual		Revenue Month		Calendar Month	
Year	Month	HDD	CDD	HDD	CDD
1995	12	799.9	0.0	1018.4	0.0
1996	1	1172.4	0.0	1156.4	0.0
1996	2	1125.8	0.1	850.8	2.8
1996	3	781.7	2.7	796.4	0.0
1996	4	608.8	2.3	369.6	6.9
1996	5	245.9	52.8	86.6	174.2
1996	6	43.3	204.5	14.0	302.0
1996	7	4.3	363.1	0.0	334.5
1996	8	0.0	338.2	0.0	391.5
1996	9	11.4	325.1	61.0	127.5
1996	10	117.8	58.9	240.5	24.0
1996	11	398.0	15.5	773.5	0.0
1996	12	859.9	0.3	915.5	0.0
1997	1	1086.1	0.0	1188.0	0.0
1997	2	1066.1	0.0	752.0	0.0
1997	3	676.7	0.3	540.0	1.0
1997	4	451.8	1.6	425.5	1.0
1997	5	301.2	11.8	146.0	41.5
1997	6	77.6	87.8	5.5	263.0
1997	7	1.1	381.2	0.0	469.0
1997	8	0.0	421.1	0.0	341.5
1997	9	5.1	289.7	14.0	168.5
1997	10	52.5	153.1	278.0	95.0
1997	11	489.4	33.8	691.5	0.0
1997	12	789.0	0.0	929.5	0.0
1998	1	963.2	0.0	887.5	0.0
1998	2	850.4	0.0	628.0	0.0
1998	3	745.2	2.5	695.0	19.5
1998	4	402.2	18.7	299.0	7.0
1998	5	144.0	70.5	20.0	212.0
1998	6	21.8	261.1	25.0	340.5
1998	7	4.8	450.7	0.0	430.5
1998	8	0.0	387.7	0.0	437.0
1998	9	0.5	376.1	2.0	300.5
1998	10	61.0	189.0	179.5	31.0

Actual		Revenue Month		Calendar Month	
Year	Month	HDD	CDD	HDD	CDD
1998	11	307.6	21.1	466.5	1.5
1998	12	528.8	4.4	865.0	3.0
1999	1	1187.8	0.6	1043.5	0.0
1999	2	757.2	0.0	631.0	0.0
1999	3	727.6	0.0	689.5	0.0
1999	4	406.8	15.6	221.0	27.5
1999	5	146.7	54.6	43.5	99.0
1999	6	21.2	210.2	7.5	304.0
1999	7	3.9	385.8	0.0	553.5
1999	8	0.0	487.3	0.0	356.5
1999	9	7.2	291.9	44.0	185.0
1999	10	117.4	90.4	228.5	34.5
1999	11	250.5	24.9	383.0	4.5
1999	12	564.3	3.7	830.5	0.0
2000	1	929.2	0.0	992.5	0.0
2000	2	969.1	0.8	645.0	4.5
2000	3	537.8	6.6	499.0	5.0
2000	4	402.5	4.7	303.0	7.5
2000	5	162.4	70.7	40.0	162.0
2000	6	31.4	192.2	8.0	244.0
2000	7	1.7	345.3	0.0	390.5
2000	8	0.0	363.7	0.0	475.5
2000	9	5.1	407.9	59.5	197.5
2000	10	136.9	119.6	181.0	65.5
2000	11	271.1	43.4	716.0	5.0
2000	12	945.7	2.1	1345.5	0.0
2001	1	1423.0	0.0	1071.0	0.0
2001	2	981.4	0.0	837.5	0.0
2001	3	823.5	0.0	729.0	0.0
2001	4	440.1	46.2	159.0	102.0
2001	5	82.8	150.1	49.0	162.0
2001	6	50.4	176.3	14.5	286.0
2001	7	2.0	373.5	0.0	485.0
2001	8	0.0	480.3	0.0	453.0
2001	9	3.5	361.3	52.0	164.0

Actual		Revenue Month		Calendar Month	
Year	Month	HDD	CDD	HDD	CDD
2001	10	116.8	81.3	252.5	27.0
2001	11	276.4	11.7	360.5	2.0
2001	12	465.8	0.8	780.0	0.5
2002	1	988.5	0.1	834.5	0.0
2002	2	769.4	0.0	720.0	0.0
2002	3	715.1	0.4	690.5	0.5
2002	4	498.6	32.0	239.5	72.5
2002	5	159.9	63.1	124.0	78.5
2002	6	59.4	214.4	0.0	390.0
2002	7	0.0	474.3	0.0	551.5
2002	8	0.0	517.4	0.0	463.5
2002	9	2.1	398.8	14.0	263.5
2002	10	92.6	154.0	344.0	42.0
2002	11	452.5	7.7	626.5	0.0
2002	12	763.5	0.0	855.0	0.0
2003	1	1002.5	0.0	1144.5	0.0
2003	2	1070.6	0.0	943.0	0.0
2003	3	861.0	0.2	543.0	1.0
2003	4	355.7	26.8	253.0	45.5
2003	5	154.5	49.6	67.0	68.5
2003	6	59.2	98.0	28.0	215.5
2003	7	3.9	367.4	0.0	462.5
2003	8	0.0	415.6	0.0	490.0
2003	9	2.1	385.2	52.5	133.0
2003	10	105.2	85.3	181.0	25.5
2003	11	270.3	19.6	478.5	8.0
2003	12	645.2	1.9	817.5	0.0
2004	1	916.5	0.0	1057.5	0.0
2004	2	1061.4	0.0	846.0	0.0
2004	3	642.8	0.0	474.0	3.5
2004	4	383.3	19.9	229.0	57.5
2004	5	148.9	117.8	56.5	236.0
2004	6	16.7	277.3	0.0	281.0
2004	7	0.1	346.2	1.5	401.5
2004	8	3.5	316.0	4.5	271.5

Actual		Revenue Month		Calendar Month	
Year	Month	HDD	CDD	HDD	CDD
2004	9	2.4	259.7	9.0	203.5
2004	10	79.0	123.7	178.5	28.5
2004	11	235.9	20.4	470.0	0.0
2004	12	634.2	1.9	870.0	0.0
2005	1	963.6	0.0	966.0	0.0
2005	2	871.5	0.0	688.0	0.0
2005	3	718.8	0.0	655.0	1.5
2005	4	407.3	19.4	220.5	39.5
2005	5	207.4	70.4	85.0	132.0
2005	6	24.4	230.9	0.0	413.0
2005	7	0.0	439.2	0.0	465.5
2005	8	0.0	481.1	0.0	463.5
2005	9	0.3	400.9	17.0	282.0
2005	10	65.0	194.1	247.5	53.0
2005	11	308.9	19.2	501.5	8.5
2005	12	819.2	3.4	1024.5	0.0
2006	1	901.1	0.0	703.5	0.0
2006	2	778.4	0.0	832.5	0.0
2006	3	697.9	0.9	577.0	4.5
2006	4	406.4	25.7	138.5	53.0
2006	5	114.6	38.0	98.5	137.0
2006	6	48.6	238.7	0.0	334.5
2006	7	0.0	417.9	0.0	548.5

Table (1) (C)-27: Normal degree-days based on 65 degrees

Normal Month	Revenue Month NHDD	Revenue Month NCDD	Calendar Month NHDD	Calendar Month NCDD
1	1,144.7	0.1	1,128.2	0.0
2	1,039.2	0.0	863.6	0.2
3	774.1	1.6	642.9	4.8
4	505.1	9.9	321.2	23.9
5	221.2	42.4	97.9	98.1
6	50.9	165.1	8.1	283.7
7	3.7	359.1	0.5	425.2
8	0.4	386.1	1.0	365.7
9	9.9	315.1	56.4	173.1
10	117.7	108.0	269.1	29.4
11	367.9	17.8	618.7	2.1
12	771.2	1.4	989.8	0.2

The methods and models used in estimating the effect of weather on electric loads are explained in sections (1)(B) 1, (1)(B) 2 and (1)(B) 3.

4 CSR 22.030 (1) (D) 1

(D) Length of Database. Once the utility has developed the historical data base, it shall retain that data base for the ten (10) most recent years or for the period of time used as the basis of the utility's forecast, whichever is longer.

1. AmerenUE will develop actual and weather-normalized monthly class and system energy usage and actual hourly net system loads that will give sufficient degrees of freedom in forecast models.

Consistent rate class level sales data is not available back to January 1982. Consistent rate class sales data is available back to January 1995. This represents more than ten years of monthly sales data – more than enough data to estimate rigorous

forecast models. Sales data back to January 1995 was used in the forecast models and reported in (1) (B) 1.

Actual hourly net system load data specific to AmerenUE's current service territory is available back to 2001; hourly system data going back to 1982 is available but was not used in forecasting or DSM analysis as it includes Metro East (Illinois) and wholesale loads, which cannot be reasonably separated. AmerenUE net system hourly load data from January 2001 through December 2006 has been reported in (1) (B) 3.

The weather normalization methodology of energy has significantly changed over the last twenty years. As a result any available historical weather normalized system and class energy is inconsistent across time. As an alternative, AmerenUE has done the class energy weather-normalization using per-billing-day approach as explained in (1) (B) 1. The models and results are also reported in the same section.

4 CSR 22.030 (1) (D) 2

2. Estimated actual and weather-normalized class and system monthly demands at the time of the system peak and weather normalized hourly system loads for the most recent three years or for the period of time used as the basis of the utility's forecast of these loads, whichever is longer.

Historical monthly class coincident demands (actual and weather normalized) back to 1990 are not available. As an alternative, AmerenUE has estimated subclass demands at the time of monthly system peak demand for actual and normal weather conditions back to July 2003, as prior to that load research sample included Metro East, which is not part of AmerenUE currently. Estimates of class demands at the time of monthly system peak are based on the class and system hourly profiles using data from July 2003 to June 2006. AmerenUE uses MetrixLT and MetrixND for its peak demand forecast, and uses hourly class profiles and hourly system load data; therefore, class profiles from July 2003 to June 2006 provide sufficient degree of freedom for the statistical models. Both actual and weather-normalized class system peaks are provided in (1) (B) 2.

4 CSR 240-22.030 (2) (A)

(2) Analysis of Number of Units. For each major class or subclass, the utility shall analyze the historical relationship between the number of units and the economic or demographic factors (driver variables) that affect the number of units for that major class or subclass.

(A) Choice of Driver Variables. The utility shall identify appropriate driver variables as predictors of the number of units for each major class or subclass. The critical assumptions that influence the driver variables shall also be identified.

AmerenUE chose the driver variables that best fit the number of units data and resulted in a reasonable number of units forecast for each subclass. Historical and forecast data for economic and demographic factors were acquired from Economy.com. A short summary from Economy.com on AmerenUE service territory economic conditions:

[redacted]

4 CSR 240-22.030 (2) (B)

(B) Documentation of statistical models shall include the elements specified in subparagraph (1) (C) 2.C. Documentation of mathematical models shall include a specification of the functional form of the equations.

Residential Customer Model

$$ResCusts_{y,m} = b_1 \times ResCusts_{y,(m-1)} + b_2 \times Pop_{y,m} + \varepsilon_{y,m}$$

where $Rescusts_{y,(m-1)}$ is the number of residential customers from the previous month

$Pop_{y,m}$ is the population for AmerenUE service territory for year (y) and month (m)

Variable	Coefficient	StdErr	T-Stat	P-Value
ResCusts.LagDep(1)	0.999	0.01	104.209	0.00%
Economics.Pop	1.124	6.89	0.163	87.06%

Regression Statistics	
Iterations	1
Adjusted Observations	137
Deg. of Freedom for Error	135
R-Squared	0.996
Adjusted R-Squared	0.996
Durbin-Watson Statistic	1.996
Durbin-H Statistic	0.023
AIC	14.755
BIC	14.798
F-Statistic	18460
Prob (F-Statistic)	0.00
Log-Likelihood	-1194
Model Sum of Squares	93115599014
Sum of Squared Errors	340485217
Mean Squared Error	2522113
Std. Error of Regression	1588
Mean Abs. Dev. (MAD)	1156
Mean Abs. % Err. (MAPE)	0.12%
Ljung-Box Statistic	124.16
Prob (Ljung-Box)	0.00

Commercial SGS Customer Model

$$SGSCusts_{y,m} = C + b_1 \times SGSCusts_{y,(m-1)} + b_2 \times AR(1) + \varepsilon_{y,m}$$

where $SGSCusts_{y,(m-1)}$ is the number of commercial SGS customers from the previous month

AR(1) is the first order autoregressive variable for the error term

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	533.075	1306.962	0.408	68.48%
SGSCusts.LagDep(1)	0.997	0.01	97.781	0.00%
AR(1)	-0.097	0.128	-0.762	44.91%

Regression Statistics	
Iterations	2
Adjusted Observations	64
Deg. of Freedom for Error	61
R-Squared	0.992
Adjusted R-Squared	0.992
Durbin-Watson Statistic	2.055
Durbin-H Statistic	-0.221
AIC	11.86
BIC	11.962
F-Statistic	3998
Prob (F-Statistic)	0.00
Log-Likelihood	-467
Model Sum of Squares	1081371056
Sum of Squared Errors	8249208
Mean Squared Error	135233
Std. Error of Regression	368
Mean Abs. Dev. (MAD)	209
Mean Abs. % Err. (MAPE)	0.16%
Ljung-Box Statistic	22.53
Prob (Ljung-Box)	0.55

Commercial LGS Customer Model

$$LGSCusts_{y,m} = b_1 \times LGSCusts_{y,(m-1)} + b_2 \times Dec\_98 + b_3 \times Jan\_99 + b_4 \times Jan\_01 + b_5 \times Jan\_02 + b_6 \times Mar + b_7 \times Jul + b_8 \times Nov + b_9 \times Pop_{y,m} + b_{10} \times AR(1) + \varepsilon_{y,m}$$

where $LGSCusts_{y,(m-1)}$ is the number of commercial LGS customers from the previous month

Dec_98 is a variable equal to 1 for only December 1998

Jan_99 is a variable equal to 1 for only January 1999

Jan_01 is a variable equal to 1 for only January 2001

Jan_02 is a variable equal to 1 for only January 2002

Mar is a variable equal to 1 for only March

Jul is a variable equal to 1 for only July

Nov is a variable equal to 1 for only November

$Pop_{y,m}$ is the population for AmerenUE service territory for year (y) and month (m

AR(1) is the first order autoregressive variable for the error term

Variable	Coefficient	StdErr	T-Stat	P-Value
LGSCusts.LagDep(1)	0.996	0.004	226.988	0.00%
BinaryVars.Dec_98	-93.886	54.065	-1.737	8.49%
BinaryVars.Jan_99	-42.505	54.132	-0.785	43.38%
BinaryVars.Jan_01	195.267	50.77	3.846	0.02%
BinaryVars.Jan_02	366.146	50.801	7.207	0.00%
BinaryVars.Mar	-65.875	17.054	-3.863	0.02%
BinaryVars.Jul	45.667	16.976	2.69	0.81%
BinaryVars.Nov	-43.307	17.003	-2.547	1.21%
Economics.Pop	0.015	0.009	1.625	10.66%
AR(1)	-0.404	0.086	-4.684	0.00%

Regression Statistics	
Iterations	14
Adjusted Observations	136
Deg. of Freedom for Error	126
R-Squared	0.997
Adjusted R-Squared	0.996
Durbin-Watson Statistic	2.065
Durbin-H Statistic	-0.378
AIC	8.053
BIC	8.268
F-Statistic	3796
Prob (F-Statistic)	0.00
Log-Likelihood	-731
Model Sum of Squares	111222781
Sum of Squared Errors	369185
Mean Squared Error	2930
Std. Error of Regression	54
Mean Abs. Dev. (MAD)	35
Mean Abs. % Err. (MAPE)	0.50%
Ljung-Box Statistic	50.8
Prob (Ljung-Box)	0.00

Commercial SPS Customer Model

$SPSCusts_{y,m} = b_1 \times SPSCusts_{y,(m-1)} + b_2 \times Pop_{y,m} + b_3 \times Jan + b_4 \times Feb + b_5 \times Dec\_02 + b_6 \times MA(1) + \varepsilon_{y,m}$

where $SPSCusts_{y,(m-1)}$ is the number of commercial SPS customers from the previous month

$Pop_{y,m}$ is the population for AmerenUE service territory for year (y) and month (m)

Jan is a variable equal to 1 for only January

Feb is a variable equal to 1 for only February

Mar is a variable equal to 1 for only March

Dec_02 is a variable equal to 1 for only December 2002

MA(1) is the first order moving average variable for the error term

Variable	Coefficient	StdErr	T-Stat	P-Value
SPSCusts.LagDep(1)	0.959	0.023	41.526	0.00%
Economics.Population	0.005	0.003	1.825	7.27%
BinaryVars.Jan	8.439	4.42	1.909	6.07%
BinaryVars.Feb	-11.17	4.399	-2.539	1.36%
BinaryVars.Dec_02	14.384	6.765	2.126	3.73%
MA(1)	-1.17	0.117	-9.965	0.00%

Regression Statistics	
Iterations	99
Adjusted Observations	72
Deg. of Freedom for Error	66
R-Squared	0.666
Adjusted R-Squared	0.641
Durbin-Watson Statistic	1.714
Durbin-H Statistic	1.236
AIC	4.276
BIC	4.466
F-Statistic	22
Prob (F-Statistic)	0.00
Log-Likelihood	-250
Model Sum of Squares	8746
Sum of Squared Errors	4386
Mean Squared Error	66
Std. Error of Regression	8
Mean Abs. Dev. (MAD)	6
Mean Abs. % Err. (MAPE)	1.36%
Ljung-Box Statistic	19.1
Prob (Ljung-Box)	0.75

Commercial LPS Customer Model

Due to the noise in the commercial LPS customer data, an exponential smoothing model with a seasonal component was used in forecasting LPS customers. There are no explanatory variables in exponential smoothing models. Exponential smoothing models are like taking a moving average; however, in moving averages the past observations are weighted equally, whereas exponential smoothing models assign exponentially decreasing weights as the observations get older. In other words, recent observations are given relatively more weight in forecasting than the older observations.

Variable	Coefficient
Simple	0.405
Seasonal	0.545

Regression Statistics	
Iterations	1
Adjusted Observations	72
Deg. of Freedom for Error	70
R-Squared	0.741
Adjusted R-Squared	0.737
AIC	0.4
BIC	0.5
F-Statistic	99.941
Prob (F-Statistic)	0
Log-Likelihood	-115
Model Sum of Squares	296.00
Sum of Squared Errors	104
Mean Squared Error	1
Std. Error of Regression	1
Mean Abs. Dev. (MAD)	1
Mean Abs. % Err. (MAPE)	0
Durbin-Watson Statistic	2
Durbin-H Statistic	0.00%
Ljung-Box Statistic	25
Prob (Ljung-Box)	0.41

Industrial SGS Customer Model

An exponential smoothing model with a seasonal component was used in forecasting industrial SGS customers.

Variable	Coefficient
Simple	1.0
Seasonal	476.5

Regression Statistics	
Iterations	1
Adjusted Observations	136
Deg. of Freedom for Error	134
R-Squared	0.995
Adjusted R-Squared	0.995
AIC	6.40
BIC	6.50
F-Statistic	12316.35
Prob (F-Statistic)	0.00
Log-Likelihood	-628.00
Model Sum of Squares	15008469.00
Sum of Squared Errors	81645
Mean Squared Error	609
Std. Error of Regression	25
Mean Abs. Dev. (MAD)	16
Mean Abs. % Err. (MAPE)	0
Durbin-Watson Statistic	1.79
Durbin-H Statistic	0.00%
Ljung-Box Statistic	21.56
Prob (Ljung-Box)	0.6058

Industrial LGS Customer Model

$$LGS\_Custs_{y,m} = C + b_1 \times Jan\_99 + b_2 \times Feb\_99 + b_3 \times Feb\_00 + b_4 \times Mar\_00 + b_5 \times Jan\_01 + b_6 \times Jan\_02 + b_7 \times Dec\_98 + b_8 \times ManEmp\_Ind + b_8 \times AR(1) + \varepsilon_{y,m}$$

where Jan_99 is a variable equal to 1 for only January 1999

Feb_99 is a variable equal to 1 for only February 1999

Feb_00 is a variable equal to 1 for only February 2000

Mar_00 is a variable equal to 1 for only March 2000

Jan_01 is a variable equal to 1 for only January 2001

Jan_02 is a variable equal to 1 for only January 2002

Dec_98 is a variable equal to 1 for only December 1998

$ManEmp\_Ind_{y,m}$ is the manufacturing employment index for AmerenUE service territory for year (y) and month (m)

AR(1) is the first order autoregressive variable for the error term

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	837.9	96.392	8.693	0.00%
BinaryVars.Jan_99	-98.8	12.269	-8.049	0.00%
BinaryVars.Feb_99	22.373	10.585	2.114	3.65%
BinaryVars.Feb_00	-36.741	9.921	-3.704	0.03%
BinaryVars.Mar_00	-26.325	9.917	-2.655	0.90%
BinaryVars.Jan_01	54.589	8.56	6.377	0.00%
BinaryVars.Jan_02	37.986	8.561	4.437	0.00%
BinaryVars.Dec_98	-323.777	10.606	-30.529	0.00%
EconVars.ManEmp_Ind	269.498	87.61	3.076	0.26%
AR(1)	0.899	0.037	24.119	0.00%

Regression Statistics	
Iterations	9
Adjusted Observations	137
Deg. of Freedom for Error	127
R-Squared	0.938
Adjusted R-Squared	0.934
Durbin-Watson Statistic	1.58
Durbin-H Statistic	#NA
AIC	4.96
BIC	5.17
F-Statistic	213.86
Prob (F-Statistic)	0.00
Log-Likelihood	-520
Model Sum of Squares	255010
Sum of Squared Errors	16827
Mean Squared Error	132
Std. Error of Regression	12
Mean Abs. Dev. (MAD)	8.06
Mean Abs. % Err. (MAPE)	0.72%
Ljung-Box Statistic	46.27
Prob (Ljung-Box)	0.00

Industrial SPS Customer Model

An exponential smoothing model with a seasonal component was used in forecasting industrial SPS customers.

Variable	Coefficient
Simple	0.502
Seasonal	0.332

Regression Statistics	
Iterations	1
Adjusted Observations	137
Deg. of Freedom for Error	135
R-Squared	0.764
Adjusted R-Squared	0.762
AIC	3.75
BIC	3.79
F-Statistic	218.55
Prob (F-Statistic)	0.00
Log-Likelihood	-446.01
Model Sum of Squares	18325.00
Sum of Squared Errors	5660
Mean Squared Error	42
Std. Error of Regression	6
Mean Abs. Dev. (MAD)	4
Mean Abs. % Err. (MAPE)	0
Durbin-Watson Statistic	1.72
Durbin-H Statistic	0.00%
Ljung-Box Statistic	29.21
Prob (Ljung-Box)	0.21

Industrial LPS Customer Model

An exponential smoothing model was used in forecasting industrial LPS customers.

Variable	Coefficient
Simple	0.125

Regression Statistics	
Iterations	1
Adjusted Observations	53
Deg. of Freedom for Error	52
R-Squared	-0.014
Adjusted R-Squared	-0.014
AIC	1.05
BIC	1.09
F-Statistic	-0.73
Prob (F-Statistic)	1.00
Log-Likelihood	-100.08
Model Sum of Squares	-2.00
Sum of Squared Errors	146
Mean Squared Error	2.80
Std. Error of Regression	1.67
Mean Abs. Dev. (MAD)	1.11
Mean Abs. % Err. (MAPE)	3.03%
Durbin-Watson Statistic	1.89
Durbin-H Statistic	0.00
Ljung-Box Statistic	18.46
Prob (Ljung-Box)	0.78

Dusk-to-Dawn Customer Model

$$DtDCusts_{y,m} = b_1 \times Aft02 + b_2 \times TrendVar_{y,m} + b_3 \times Pop + \varepsilon_{y,m}$$

where Aft02 is a variable equal to 1 for all months on and after January 2000

$TrendVar_{y,m}$ is a variable that captures positive or negative growth

$Pop_{y,m}$ is the population for AmerenUE service territory for year (y) and month (m)

Variable	Coefficient	StdErr	T-Stat	P-Value
BinaryVars.Aft02	-768.132	79.828	-9.622	0.00%
BinaryVars.TrendVar	65.584	17.613	3.724	0.04%
Economics.Pop	15.211	0.055	276.771	0.00%

Regression Statistics	
Iterations	1
Adjusted Observations	73
Deg. of Freedom for Error	70
R-Squared	0.967
Adjusted R-Squared	0.966
Durbin-Watson Statistic	0.428
Durbin-H Statistic	#NA
AIC	9.662
BIC	10
F-Statistic	674.92
Prob (F-Statistic)	0
Log-Likelihood	-447
Model Sum of Squares	30557041
Sum of Squared Errors	1056415
Mean Squared Error	15092
Std. Error of Regression	123
Mean Abs. Dev. (MAD)	9703.00%
Mean Abs. % Err. (MAPE)	0.18%
Ljung-Box Statistic	253.47
Prob (Ljung-Box)	0

SLPA Customer Model

$$SLPACusts_{y,m} = b_1 \times Jan\_Apr02 + b_2 \times Dec\_02 + b_3 \times Year99\_to\_01 + b_4 \times Dec\_98 + b_5 \times Pop_{y,m} + b_6 \times AR(1) + \varepsilon_{y,m}$$

where Jan_Apr02 is a variable equal to 1 from January 2002 to April 2002

Dec_02 is a variable equal to 1 for only December 2002

Year99_to_01 is a variable equal to 1 from January 1999 to December 2001

Dec_98 is a variable equal to 1 for only December 1998

$Pop_{y,m}$ is the population for AmerenUE service territory for year (y) and month (m)

AR(1) is the first order autoregressive variable for the error term

Variable	Coefficient	StdErr	T-Stat	P-Value
BinaryVars.Jan_Apr02	113.854	8.852	12.861	0.00%
BinaryVars.Dec_02	21.97	7.273	3.021	0.30%
BinaryVars.Year99_to_01	-102.032	10.062	-10.141	0.00%
BinaryVars.Dec_98	-283.517	8.854	-32.021	0.00%
Economics.Population	0.437	0.006	68.458	0.00%
AR(1)	0.96	0.02	47.221	0.00%

Regression Statistics	
Iterations	6
Adjusted Observations	137
Deg. of Freedom for Error	131
R-Squared	0.979
Adjusted R-Squared	0.978
Durbin-Watson Statistic	2.132
Durbin-H Statistic	#NA
AIC	4.66
BIC	4.79
F-Statistic	1017.21
Prob (F-Statistic)	0.00
Log-Likelihood	-504
Model Sum of Squares	619816
Sum of Squared Errors	13304
Mean Squared Error	102
Std. Error of Regression	10
Mean Abs. Dev. (MAD)	5.92
Mean Abs. % Err. (MAPE)	0.41%
Ljung-Box Statistic	24.92
Prob (Ljung-Box)	0.4103

No modeling was necessary for the wholesale class as there will be 6 customers until the end of 2008.

4 CSR 240-22.030 (2) (C)

(C) Where the utility has modeled the relationship between the number of units and the driver variables for a major class, but not for subclasses within that major class, it shall consider how a change in the subclass shares of major class units could affect the major class forecast.

AmerenUE has modeled the number units on the subclass level.

4 CSR 240-22.030 (3)

(3) Analysis of Use per Unit. For each major class, AmerenUE will analyze historical use per unit.

AmerenUE does not do a use-per-unit forecast for classes other than residential class; however as stated in the rationale for the waiver request to this section of the rule, the use-per-customer data is provided below.

Table (3)-1: Residential use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Growth
1995	1.11	1.05	0.91	0.67	0.65	0.72	1.11	1.42	1.36	0.69	0.69	0.93	11.31	
1996	1.21	1.15	0.97	0.85	0.69	0.87	1.24	1.19	1.17	0.68	0.72	1.00	11.74	3.8%
1997	1.22	1.13	0.90	0.76	0.63	0.71	1.20	1.34	1.09	0.79	0.80	0.99	11.57	-1.5%
1998	1.19	1.03	0.93	0.76	0.71	1.03	1.39	1.27	1.23	0.88	0.71	0.88	12.01	3.8%
1999	1.27	1.01	0.94	0.79	0.68	0.93	1.29	1.48	1.10	0.73	0.69	0.89	11.79	-1.8%
2000	1.15	1.10	0.84	0.71	0.70	0.94	1.25	1.29	1.33	0.82	0.75	1.15	12.04	2.1%
2001	1.48	1.13	1.01	0.81	0.76	0.91	1.30	1.46	1.23	0.75	0.72	0.88	12.45	3.4%
2002	1.28	1.04	1.00	0.89	0.71	1.00	1.46	1.51	1.32	0.87	0.81	1.14	13.02	4.6%
2003	1.23	1.25	1.10	0.77	0.71	0.79	1.30	1.37	1.27	0.73	0.76	1.07	12.37	-5.0%
2004	1.28	1.28	0.97	0.82	0.80	1.07	1.22	1.18	1.07	0.83	0.76	1.06	12.34	-0.2%
2005	1.34	1.16	1.01	0.85	0.76	1.03	1.46	1.51	1.33	0.96	0.80	1.18	13.40	8.6%
2006	1.32	1.10	1.02	0.85	0.71	1.08								

Table (3)-2: Weather-normalized residential use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Growth
1995	1.22	1.09	0.93	0.75	0.67	0.78	1.16	1.24	1.22	0.74	0.68	0.92	11.39	
1996	1.19	1.10	0.96	0.81	0.66	0.80	1.24	1.28	1.15	0.76	0.70	0.96	11.62	2.0%
1997	1.26	1.11	0.96	0.80	0.65	0.84	1.16	1.28	1.13	0.75	0.71	0.98	11.63	0.1%
1998	1.29	1.14	0.95	0.80	0.70	0.87	1.22	1.27	1.12	0.78	0.74	1.01	11.91	2.4%
1999	1.24	1.18	0.97	0.83	0.69	0.86	1.24	1.30	1.14	0.76	0.74	1.00	11.96	0.4%
2000	1.27	1.14	0.97	0.78	0.69	0.90	1.28	1.34	1.16	0.79	0.76	1.04	12.12	1.4%
2001	1.32	1.16	0.99	0.79	0.65	0.89	1.28	1.29	1.16	0.79	0.78	1.05	12.15	0.2%
2002	1.37	1.20	1.04	0.85	0.71	0.91	1.24	1.26	1.17	0.80	0.79	1.14	12.49	2.9%
2003	1.32	1.23	1.06	0.83	0.73	0.91	1.29	1.32	1.15	0.77	0.81	1.14	12.55	0.4%
2004	1.42	1.26	1.05	0.87	0.71	0.88	1.25	1.30	1.17	0.82	0.82	1.14	12.71	1.3%
2005	1.38	1.20	1.05	0.88	0.73	0.93	1.31	1.34	1.18	0.85	0.83	1.15	12.84	1.0%
2006	1.46	1.25	1.07	0.87	0.77	0.95								

Table (3)-3: Commercial use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Change
1995	8.72	8.26	8.07	7.31	7.20	8.14	9.37	9.98	10.26	7.95	7.18	8.02	100.47	
1996	8.99	8.63	8.33	7.63	7.50	8.67	9.74	9.22	9.67	7.77	7.57	8.23	101.96	1.5%
1997	9.01	8.40	7.79	7.52	7.02	8.04	9.49	9.56	9.15	8.23	7.60	8.05	99.86	-2.1%
1998	8.72	7.81	7.85	7.49	7.32	8.90	9.59	9.36	9.28	8.22	7.51	5.97	98.02	-1.8%
1999	7.93	8.37	7.91	8.60	8.00	9.16	9.65	10.62	9.73	8.05	7.67	8.04	103.74	5.8%
2000	9.48	8.94	7.17	7.03	7.21	8.75	9.05	9.08	9.27	7.93	7.83	8.35	100.10	-3.5%
2001	9.43	8.43	7.25	7.48	7.38	8.44	9.48	9.85	9.27	7.72	7.06	7.59	99.38	-0.7%
2002	8.39	8.37	7.13	7.53	8.04	7.68	9.83	10.32	9.55	8.41	8.14	6.98	100.37	1.0%
2003	8.10	8.11	8.14	7.06	7.18	7.70	9.03	9.24	9.21	8.11	7.50	8.17	97.54	-2.8%
2004	8.32	8.21	7.32	7.31	7.65	8.60	9.02	8.84	8.67	8.15	7.31	7.81	97.21	-0.3%
2005	8.61	7.80	7.42	7.46	7.36	8.53	9.51	9.72	9.54	8.54	7.33	8.05	99.87	2.7%
2006	8.54	7.62	7.47	7.28	7.37	8.59								

Table (3)-4: Weather-normalized commercial use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Change
1995		8.33	8.10	7.44	7.30	8.30	9.50	9.41	9.79	8.16	7.16	8.02	91.53	
1996	8.96	8.52	8.31	7.57	7.45	8.46	9.72	9.49	9.61	8.08	7.55	8.14	101.85	
1997	9.08	8.36	7.96	7.62	7.14	8.45	9.37	9.36	9.29	7.97	7.43	8.05	100.08	-1.7%
1998	8.96	8.08	7.91	7.51	7.23	8.40	9.10	9.35	8.94	7.76	7.55	8.05	98.84	-1.2%
1999	7.87	8.74	8.01	8.65	7.98	8.93	9.52	9.24	9.86	8.16	7.70	8.23	102.88	4.1%
2000	8.87	9.04	7.41	7.16	7.12	8.62	9.12	9.19	8.78	7.85	7.72	8.16	99.02	-3.7%
2001	9.11	7.99	7.51	7.36	6.96	8.39	9.41	9.37	9.03	7.87	7.16	7.89	98.05	-1.0%
2002	8.58	8.15	7.76	7.44	7.72	8.01	9.26	9.33	9.11	8.16	7.26	7.62	98.40	0.4%
2003	8.27	8.08	8.05	7.08	7.18	8.02	8.99	9.10	8.85	8.23	7.54	8.29	97.68	-0.7%
2004	8.58	8.19	7.47	7.36	7.37	8.07	9.08	9.18	8.95	8.07	7.38	7.96	97.67	0.0%
2005	8.59	7.68	7.50	7.48	7.26	8.22	9.13	9.26	9.12	8.10	7.37	7.98	97.68	0.0%
2006	8.81	7.91	7.55	7.26	7.42	8.25								

Table (3)-5: Industrial use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Change
1995	76	73	76	72	72	78	82	85	85	79	75	75	928	
1996	79	76	78	78	77	82	86	85	85	81	80	79	966	4.2%
1997	80	77	79	78	77	84	88	88	89	85	82	84	991	2.6%
1998	81	80	83	80	80	91	90	90	91	87	85	85	1,024	3.3%
1999	82	90	89	94	104	99	99	99	99	93	75	101	1,124	9.8%
2000	91	96	84	96	83	97	100	113	107	99	99	99	1,166	3.7%
2001	101	105	95	92	98	101	102	111	113	95	93	97	1,202	3.0%
2002	90	92	86	91	90	99	95	111	106	105	95	95	1,154	-4.0%
2003	93	92	87	91	91	96	102	104	104	97	102	92	1,151	-0.2%
2004	94	93	89	97	97	100	108	103	101	104	97	98	1,180	2.5%
2005	97	92	90	95	94	102	106	102	112	104	99	95	1,187	0.6%
2006	96	92	86	90	90	103								

Table (3)-6: Weather-normalized industrial use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Change
1995		73	76	72	72	78	83	84	83	79	75	75		
1996	79	76	78	78	77	81	86	86	85	82	80	79	967	
1997	80	77	79	78	77	85	88	88	90	84	82	84	992	2.5%
1998	81	80	83	80	80	89	88	90	90	85	85	98	1,030	3.9%
1999	92	90	89	94	87	98	98	97	100	93	96	101	1,135	10.2%
2000	91	96	84	96	82	96	100	104	105	99	99	99	1,153	1.6%
2001	101	105	95	91	96	101	101	109	112	95	93	97	1,196	3.7%
2002	90	92	86	90	90	98	93	108	104	104	95	95	1,144	-4.3%
2003	93	92	87	90	91	98	102	103	103	98	102	92	1,150	0.6%
2004	94	93	89	96	95	98	108	104	102	104	97	98	1,178	2.4%
2005	97	92	90	95	93	100	104	100	110	102	99	95	1,177	-0.1%
2006	96	92	86	90	90	101								

Table (3)-7: Wholesale use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Change
1995	7,745	6,684	6,693	6,007	6,330	7,917	10,081	11,224	6,852	6,507	6,727	7,486	90,252	
1996	7,972	7,267	7,256	6,329	7,395	8,712	9,420	9,907	7,250	6,723	7,156	7,802	93,190	3.3%
1997	7,478	6,218	6,148	5,784	5,787	7,406	9,611	8,542	7,045	6,633	6,395	7,118	84,166	-9.7%
1998	7,132	6,092	6,804	5,886	7,319	8,079	9,594	9,254	7,274	6,234	6,371	7,235	87,273	3.7%
1999	7,766	6,381	6,817	6,231	6,749	8,577	11,323	9,629	7,552	6,664	6,514	7,601	91,805	5.2%
2000	7,866	6,761	6,942	6,347	6,379	8,524	10,021	11,074	8,357	7,130	7,269	8,547	95,216	3.7%
2001	8,150	7,132	7,281	6,649	7,434	8,473	10,423	10,336	7,778	6,834	6,478	7,374	94,344	-0.9%
2002	7,756	6,828	7,320	6,919	7,130	9,113	10,730	10,615	8,526	7,293	7,122	7,911	97,263	3.1%
2003	8,628	7,355	7,444	6,896	7,206	8,262	11,041	11,018	7,677	7,167	7,193	8,169	98,056	0.8%
2004	8,966	7,970	7,481	7,018	8,414	8,962	9,641	8,796	8,150	7,073	7,345	8,642	98,458	0.4%
2005	9,026	7,574	8,016	7,193	7,783	10,055	10,038	11,824	11,219	9,782	7,434	7,642	107,585	9.3%
2006	8,468	7,906	7,956	7,169	8,110	9,621								

Table (3)-8: Weather-normalized wholesale use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Change
1997	6,881	5,913	6,414	5,834	6,279	7,310	9,237	9,257	6,998	6,529	6,300	7,012	83,963	
1998	6,764	5,705	6,902	6,079	7,055	7,263	9,690	8,901	6,832	6,644	6,498	7,152	85,287	1.6%
1999	7,361	6,117	6,967	6,167	7,279	8,123	10,077	10,311	7,828	7,115	6,706	7,573	91,423	7.2%
2000	7,652	6,559	7,222	6,546	6,543	8,690	10,617	10,247	8,306	7,486	7,171	7,998	95,037	4.0%
2001	7,545	6,505	7,373	6,586	7,429	8,245	9,921	9,741	7,768	7,195	6,804	7,596	92,709	-2.4%
2002	7,415	6,382	7,690	6,431	7,643	7,992	9,486	9,930	7,839	7,393	7,242	8,068	93,511	0.9%
2003	7,986	6,804	7,718	6,995	7,826	8,653	10,836	9,986	8,038	7,629	7,265	8,139	97,876	4.7%
2004	8,413	7,858	8,054	6,855	7,859	8,895	9,956	10,181	8,210	7,398	7,479	8,504	99,662	1.8%
2005	8,588	7,352	8,374	7,136	8,123	8,738	9,750	11,193	10,332	9,988	7,507	7,406	104,488	4.8%
2006	8,324	7,490	8,462	7,331	8,105	9,063								

The wholesale data prior to 1999 was not used since on a weather-normalized basis, wholesale energy use seems to be at a higher level on and after 1999.

Table (3)-9: Dusk-to-dawn use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Change
1995	0.18	0.16	0.16	0.14	0.13	0.12	0.13	0.14	0.15	0.17	0.18	0.19	1.82	
1996	0.19	0.16	0.16	0.14	0.13	0.12	0.13	0.14	0.15	0.17	0.18	0.19	1.84	0.8%
1997	0.19	0.16	0.16	0.14	0.13	0.12	0.13	0.14	0.15	0.17	0.18	0.20	1.86	1.5%
1998	0.19	0.16	0.16	0.14	0.13	0.12	0.13	0.14	0.15	0.17	0.18	0.19	1.87	0.6%
1999	0.19	0.16	0.16	0.14	0.13	0.12	0.12	0.14	0.15	0.17	0.18	0.19	1.82	-2.8%
2000	0.19	0.16	0.16	0.14	0.13	0.12	0.12	0.14	0.15	0.17	0.18	0.19	1.83	0.6%
2001	0.18	0.15	0.16	0.14	0.13	0.12	0.13	0.14	0.15	0.17	0.18	0.19	1.83	-0.2%
2002	0.19	0.17	0.17	0.15	0.13	0.13	0.13	0.13	0.15	0.16	0.17	0.20	1.87	2.6%
2003	0.21	0.18	0.17	0.15	0.13	0.13	0.12	0.13	0.14	0.16	0.17	0.20	1.90	1.2%
2004	0.21	0.17	0.16	0.15	0.14	0.13	0.13	0.13	0.14	0.16	0.17	0.20	1.88	-0.7%
2005	0.21	0.18	0.17	0.15	0.13	0.13	0.12	0.13	0.14	0.16	0.17	0.20	1.88	-0.1%
2006	0.21	0.18	0.16	0.14	0.13	0.13								

Table (3)-10: SLPA use-per-customer (MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Change
1995	8.08	7.12	6.87	6.21	5.85	5.71	5.64	5.84	6.39	6.82	7.12	7.88	79.52	
1996	8.02	7.10	6.89	6.38	5.84	5.66	5.64	5.89	6.43	6.88	7.37	8.08	80.19	0.8%
1997	8.37	7.25	7.16	6.47	5.88	5.78	5.78	5.98	6.54	7.06	7.76	8.28	82.30	2.6%
1998	8.63	7.52	7.38	6.65	6.10	5.96	6.28	6.20	6.39	7.99	6.65	5.07	80.84	-1.8%
1999	4.86	5.34	8.99	4.40	4.75	3.92	3.78	11.11	3.93	4.38	4.64	5.09	65.18	-19.4%
2000	5.22	4.85	6.47	4.16	3.85	3.81	3.70	3.78	6.42	4.34	4.45	5.19	56.23	-13.7%
2001	5.19	4.72	4.51	4.21	3.90	3.86	3.75	3.90	4.00	4.32	4.67	4.96	51.98	-7.6%
2002	4.75	11.64	3.20	6.84	6.59	6.19	5.75	5.97	6.78	7.36	8.11	8.61	81.78	57.3%
2003	9.42	8.77	7.95	7.24	6.53	6.20	5.69	6.01	6.60	7.23	8.08	8.90	88.62	8.4%
2004	9.41	8.41	7.52	7.24	6.67	6.06	5.70	5.97	6.57	7.13	8.17	8.84	87.69	-1.0%
2005	9.31	8.56	7.54	7.34	6.34	6.00	5.65	5.87	6.54	7.03	11.77	8.66	90.61	3.3%
2006	9.29	4.48	7.46	7.03	6.23	5.90								

The SLPA data prior to May 2002 was not used in the forecast model due to the noise in the data.

4 CSR 240-22.030 (3) (A) 1

(A) For each major class, use per unit shall be disaggregated by end use where information permits.

1. For residential, commercial SGS and commercial LGS classes, 'heating, cooling, and other' uses will be estimated.

AmerenUE uses SAE models for its residential, commercial SGS and LGS classes. The heating, cooling and other uses are estimated for these classes on an actual calendar month basis.

Table (3) (A)-1: Residential heating use-per-customer (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995		0.445	0.288	0.161	0.062	0.001	0.000	0.000	0.044	0.111	0.380	0.538	
1996	0.612	0.451	0.422	0.196	0.046	0.007	0.000	0.000	0.033	0.128	0.414	0.490	2.80
1997	0.637	0.404	0.290	0.229	0.079	0.003	0.000	0.000	0.008	0.150	0.374	0.503	2.68
1998	0.481	0.340	0.377	0.162	0.011	0.014	0.000	0.000	0.001	0.098	0.254	0.472	2.21
1999	0.570	0.345	0.376	0.121	0.024	0.004	0.000	0.000	0.024	0.125	0.209	0.454	2.25
2000	0.543	0.353	0.274	0.166	0.022	0.004	0.000	0.000	0.033	0.100	0.395	0.742	2.63
2001	0.591	0.463	0.403	0.088	0.027	0.008	0.000	0.000	0.029	0.140	0.200	0.434	2.38
2002	0.466	0.402	0.386	0.134	0.069	0.000	0.000	0.000	0.008	0.193	0.352	0.481	2.49
2003	0.646	0.532	0.307	0.143	0.038	0.016	0.000	0.000	0.030	0.103	0.272	0.466	2.55
2004	0.604	0.484	0.271	0.131	0.032	0.000	0.001	0.003	0.005	0.103	0.272	0.503	2.41
2005	0.560	0.399	0.380	0.128	0.049	0.000	0.000	0.000	0.010	0.145	0.293	0.600	2.56
2006	0.413	0.489	0.339	0.081	0.058	0.000							

Table (3) (A)-2: Residential cooling use-per-customer (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	0.000	0.000	0.000	0.020	0.093	0.465	0.783	0.929	0.214	0.051	0.000	0.000	2.55
1996	0.000	0.005	0.000	0.012	0.303	0.525	0.582	0.682	0.222	0.042	0.000	0.000	2.37
1997	0.000	0.000	0.002	0.002	0.072	0.458	0.818	0.596	0.294	0.166	0.000	0.000	2.41
1998	0.000	0.000	0.034	0.012	0.370	0.595	0.752	0.764	0.526	0.054	0.003	0.005	3.12
1999	0.000	0.000	0.000	0.048	0.172	0.529	0.962	0.620	0.322	0.060	0.008	0.000	2.72
2000	0.000	0.008	0.009	0.013	0.281	0.424	0.679	0.827	0.344	0.114	0.009	0.000	2.71
2001	0.000	0.000	0.000	0.177	0.282	0.497	0.844	0.789	0.286	0.047	0.003	0.001	2.93
2002	0.000	0.000	0.001	0.126	0.136	0.676	0.957	0.805	0.458	0.073	0.000	0.000	3.23
2003	0.000	0.000	0.002	0.079	0.119	0.376	0.807	0.856	0.233	0.045	0.014	0.000	2.53
2004	0.000	0.000	0.006	0.100	0.410	0.488	0.699	0.473	0.355	0.050	0.000	0.000	2.58
2005	0.000	0.000	0.003	0.070	0.233	0.730	0.823	0.821	0.500	0.094	0.015	0.000	3.29
2006	0.000	0.000	0.008	0.093	0.242	0.591							

Table (3) (A)-3: Residential other use-per-customer (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995		0.534	0.535	0.476	0.506	0.452	0.537	0.592	0.658	0.518	0.461	0.504	
1996	0.553	0.531	0.570	0.513	0.484	0.480	0.619	0.620	0.590	0.534	0.477	0.532	6.50
1997	0.602	0.521	0.551	0.520	0.474	0.509	0.541	0.624	0.571	0.517	0.476	0.551	6.46
1998	0.618	0.519	0.539	0.518	0.530	0.550	0.602	0.617	0.579	0.541	0.505	0.570	6.69
1999	0.585	0.559	0.555	0.525	0.528	0.536	0.623	0.655	0.598	0.535	0.510	0.559	6.77
2000	0.616	0.538	0.547	0.495	0.518	0.573	0.657	0.681	0.625	0.561	0.527	0.606	6.94
2001	0.648	0.534	0.569	0.501	0.477	0.568	0.657	0.642	0.595	0.564	0.550	0.624	6.93
2002	0.681	0.567	0.631	0.536	0.536	0.587	0.642	0.631	0.618	0.569	0.555	0.710	7.26
2003	0.621	0.611	0.630	0.535	0.564	0.577	0.666	0.663	0.590	0.541	0.573	0.684	7.26
2004	0.715	0.660	0.632	0.559	0.528	0.564	0.626	0.646	0.613	0.587	0.586	0.676	7.39
2005	0.742	0.628	0.622	0.569	0.548	0.595	0.685	0.681	0.615	0.601	0.584	0.679	7.55
2006	0.750	0.609	0.640	0.573	0.607	0.615							

Table (3) (A)-4: Residential total use-per-customer (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995		0.980	0.823	0.657	0.660	0.917	1.320	1.520	0.917	0.679	0.841	1.042	
1996	1.165	0.987	0.993	0.722	0.832	1.013	1.201	1.302	0.845	0.704	0.890	1.022	11.68
1997	1.239	0.925	0.843	0.751	0.625	0.971	1.359	1.220	0.873	0.833	0.849	1.053	11.54
1998	1.099	0.859	0.950	0.693	0.910	1.159	1.355	1.382	1.106	0.693	0.762	1.047	12.01
1999	1.155	0.904	0.932	0.694	0.724	1.069	1.585	1.275	0.944	0.720	0.727	1.013	11.74
2000	1.159	0.899	0.830	0.674	0.821	1.001	1.336	1.509	1.001	0.774	0.930	1.347	12.28
2001	1.239	0.997	0.972	0.766	0.785	1.074	1.501	1.431	0.910	0.751	0.754	1.059	12.24
2002	1.147	0.969	1.017	0.796	0.742	1.263	1.598	1.435	1.083	0.836	0.907	1.191	12.98
2003	1.267	1.143	0.939	0.758	0.721	0.969	1.473	1.519	0.853	0.689	0.860	1.150	12.34
2004	1.320	1.144	0.910	0.790	0.970	1.052	1.326	1.122	0.973	0.740	0.857	1.179	12.38
2005	1.302	1.027	1.005	0.766	0.830	1.325	1.508	1.501	1.125	0.840	0.893	1.279	13.40
2006	1.163	1.098	0.987	0.748	0.907	1.205							

Table (3) (A)-5: Commercial SGS heating use-per-customer (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995		0.545	0.352	0.198	0.076	0.001	0.000	0.000	0.055	0.136	0.468	0.661	
1996	0.754	0.555	0.520	0.241	0.056	0.009	0.000	0.000	0.040	0.161	0.519	0.617	3.47
1997	0.808	0.514	0.371	0.294	0.101	0.004	0.000	0.000	0.010	0.194	0.483	0.647	3.43
1998	0.615	0.434	0.478	0.206	0.014	0.017	0.000	0.000	0.001	0.123	0.322	0.601	2.81
1999	0.716	0.432	0.473	0.151	0.030	0.005	0.000	0.000	0.030	0.155	0.259	0.559	2.81
2000	0.661	0.428	0.330	0.200	0.026	0.005	0.000	0.000	0.040	0.120	0.475	0.891	3.18
2001	0.703	0.551	0.479	0.104	0.032	0.010	0.000	0.000	0.034	0.165	0.235	0.508	2.82
2002	0.538	0.463	0.443	0.154	0.080	0.000	0.000	0.000	0.009	0.221	0.403	0.546	2.86
2003	0.719	0.598	0.344	0.158	0.042	0.017	0.000	0.000	0.033	0.112	0.296	0.503	2.82
2004	0.648	0.517	0.289	0.140	0.034	0.000	0.001	0.003	0.005	0.109	0.287	0.533	2.57
2005	0.586	0.418	0.399	0.135	0.052	0.000	0.000	0.000	0.010	0.152	0.307	0.630	2.69
2006	0.428	0.508	0.352	0.085	0.060	0.000							

Table (3) (A)-6: Commercial SGS cooling use-per-customer (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	0.000	0.000	0.000	0.022	0.104	0.519	0.878	1.041	0.240	0.057	0.000	0.000	2.86
1996	0.000	0.006	0.000	0.014	0.341	0.593	0.659	0.775	0.253	0.048	0.000	0.000	2.69
1997	0.000	0.000	0.002	0.002	0.086	0.549	0.981	0.715	0.353	0.200	0.000	0.000	2.89
1998	0.000	0.000	0.040	0.014	0.435	0.698	0.881	0.895	0.615	0.064	0.003	0.006	3.65
1999	0.000	0.000	0.000	0.056	0.203	0.622	1.132	0.729	0.377	0.070	0.009	0.000	3.20
2000	0.000	0.009	0.010	0.015	0.321	0.484	0.776	0.948	0.393	0.130	0.010	0.000	3.10
2001	0.000	0.000	0.000	0.201	0.319	0.563	0.954	0.889	0.322	0.053	0.004	0.001	3.31
2002	0.000	0.000	0.001	0.140	0.152	0.757	1.068	0.899	0.510	0.081	0.000	0.000	3.61
2003	0.000	0.000	0.002	0.085	0.128	0.404	0.864	0.917	0.249	0.048	0.015	0.000	2.71
2004	0.000	0.000	0.006	0.106	0.434	0.515	0.738	0.500	0.374	0.053	0.000	0.000	2.73
2005	0.000	0.000	0.003	0.073	0.245	0.766	0.866	0.861	0.525	0.099	0.016	0.000	3.45
2006	0.000	0.000	0.008	0.098	0.255	0.623							

Table (3) (A)-7: Commercial SGS other use-per-customer (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995		1.863	1.903	1.866	1.733	1.815	2.003	1.969	2.136	1.954	1.707	1.766	
1996	1.820	1.835	1.784	1.667	1.776	1.844	2.125	1.901	2.097	1.882	1.711	1.730	22.17
1997	1.802	1.709	1.812	1.730	1.682	1.824	1.824	1.928	1.866	1.896	1.642	1.675	21.39
1998	1.748	1.562	1.746	1.741	1.785	1.829	1.824	1.918	1.851	1.956	1.711	1.756	21.43
1999	1.665	1.643	1.758	1.707	1.767	1.813	1.865	1.905	1.967	1.902	1.780	1.763	21.54
2000	1.726	1.613	1.695	1.587	1.782	1.777	1.860	1.888	1.811	1.823	1.715	1.728	21.00
2001	1.733	1.583	1.693	1.629	1.743	1.782	1.965	1.858	1.793	1.800	1.627	1.666	20.87
2002	1.641	1.555	1.741	1.798	1.771	1.814	1.944	1.865	1.801	1.824	1.644	1.662	21.06
2003	1.626	1.499	1.627	1.512	1.625	1.718	1.792	1.788	1.715	1.765	1.610	1.631	19.91
2004	1.653	1.669	1.698	1.572	1.654	1.690	1.758	1.788	1.768	1.779	1.636	1.633	20.30
2005	1.700	1.519	1.559	1.611	1.659	1.734	1.784	1.770	1.729	1.768	1.614	1.620	20.07
2006	1.700	1.499	1.657	1.600	1.731	1.686							

Table (3) (A)-8: Commercial SGS total use-per-customer (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995		2.408	2.255	2.086	1.913	2.335	2.881	3.011	2.431	2.147	2.176	2.427	
1996	2.574	2.395	2.304	1.921	2.173	2.446	2.784	2.676	2.391	2.091	2.230	2.347	28.33
1997	2.610	2.223	2.185	2.025	1.870	2.377	2.805	2.643	2.228	2.290	2.125	2.322	27.70
1998	2.363	1.996	2.265	1.961	2.234	2.544	2.706	2.813	2.467	2.143	2.036	2.363	27.89
1999	2.381	2.076	2.231	1.915	2.000	2.440	2.997	2.633	2.374	2.127	2.048	2.322	27.54
2000	2.386	2.050	2.035	1.802	2.130	2.266	2.636	2.835	2.244	2.074	2.200	2.619	27.28
2001	2.436	2.133	2.172	1.935	2.094	2.355	2.919	2.747	2.149	2.018	1.867	2.175	27.00
2002	2.179	2.018	2.185	2.091	2.003	2.570	3.013	2.764	2.320	2.127	2.047	2.209	27.53
2003	2.345	2.097	1.973	1.755	1.795	2.139	2.656	2.705	1.996	1.925	1.921	2.135	25.44
2004	2.300	2.186	1.994	1.818	2.122	2.205	2.497	2.291	2.147	1.940	1.924	2.166	25.59
2005	2.286	1.937	1.961	1.819	1.956	2.500	2.650	2.631	2.264	2.018	1.937	2.250	26.21
2006	2.129	2.007	2.018	1.783	2.046	2.309							

Table (3) (A)-9: Commercial LGS cooling use-per-customer (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	7.0	5.4	3.5	2.0	0.8	0.0	0.0	0.0	0.5	1.3	4.5	6.4	31.4
1996	7.2	5.3	5.0	2.3	0.5	0.1	0.0	0.0	0.4	1.5	4.9	5.8	32.9
1997	7.6	4.8	3.5	2.8	1.0	0.0	0.0	0.0	0.1	1.8	4.4	6.0	31.9
1998	5.7	4.0	4.5	1.9	0.1	0.2	0.0	0.0	0.0	1.1	2.9	5.5	25.9
1999	6.6	4.0	4.5	1.4	0.3	0.0	0.0	0.0	0.3	1.4	2.4	5.2	26.1
2000	6.0	3.9	3.0	1.8	0.2	0.0	0.0	0.0	0.4	1.1	4.2	8.0	28.8
2001	6.0	4.9	4.3	0.9	0.3	0.1	0.0	0.0	0.3	1.4	2.1	4.5	24.7
2002	4.5	3.9	3.8	1.3	0.7	0.0	0.0	0.0	0.1	1.9	3.4	4.7	24.3
2003	6.1	5.1	2.9	1.4	0.4	0.2	0.0	0.0	0.3	0.9	2.5	4.3	23.9
2004	5.5	4.4	2.4	1.2	0.3	0.0	0.0	0.0	0.0	0.9	2.4	4.5	21.6
2005	4.9	3.5	3.3	1.1	0.4	0.0	0.0	0.0	0.1	1.2	2.5	5.1	22.3
2006	3.5	4.2	2.9	0.7	0.5	0.0							

Table (3) (A)-10: Commercial LGS heating use-per-customer (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	0.0	0.0	0.0	0.6	2.9	14.7	24.6	29.0	6.6	1.6	0.0	0.0	80.0
1996	0.0	0.1	0.0	0.4	9.2	16.0	17.6	20.6	6.8	1.3	0.0	0.0	72.1
1997	0.0	0.0	0.1	0.1	2.3	14.8	26.1	19.0	9.3	5.2	0.0	0.0	76.8
1998	0.0	0.0	1.1	0.4	11.6	18.6	23.1	23.4	16.0	1.6	0.1	0.2	96.1
1999	0.0	0.0	0.0	1.5	5.4	16.4	29.6	19.3	9.9	1.8	0.2	0.0	84.2
2000	0.0	0.2	0.3	0.4	8.4	12.5	20.0	24.3	10.0	3.3	0.3	0.0	79.7
2001	0.0	0.0	0.0	5.1	8.1	14.1	23.8	21.8	7.9	1.3	0.1	0.0	82.2
2002	0.0	0.0	0.0	3.4	3.7	18.3	25.8	21.7	12.2	1.9	0.0	0.0	87.2
2003	0.0	0.0	0.0	2.1	3.2	9.9	21.0	22.2	6.0	1.1	0.4	0.0	66.0
2004	0.0	0.0	0.2	2.6	10.5	12.4	17.7	11.9	8.9	1.3	0.0	0.0	65.5
2005	0.0	0.0	0.1	1.7	5.8	18.1	20.4	20.1	12.2	2.3	0.4	0.0	81.1
2006	0.0	0.0	0.2	2.3	5.9	14.3							

Table (3) (A)-11: Commercial LGS other use-per-customer (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	73.4	67.2	68.0	62.4	63.2	65.2	64.1	62.1	69.1	66.0	60.7	64.2	785.6
1996	68.8	65.9	67.2	61.7	61.1	64.3	63.7	62.1	64.2	63.7	61.9	64.0	768.6
1997	68.1	63.3	62.9	62.5	57.7	63.8	60.6	58.5	62.1	62.7	59.9	63.3	745.4
1998	66.4	59.2	64.3	62.4	60.3	64.1	58.9	60.4	61.0	60.9	61.3	68.3	747.4
1999	62.6	63.0	67.6	74.0	67.6	67.3	59.0	60.8	64.4	70.3	69.6	71.6	797.9
2000	67.1	69.9	60.3	62.0	58.9	67.5	60.2	60.8	58.8	62.8	64.6	67.0	759.9
2001	72.7	57.1	60.6	58.5	59.8	59.7	63.5	59.1	59.1	62.1	57.3	66.2	735.7
2002	60.0	67.7	49.5	56.9	63.1	54.6	57.7	57.1	58.5	61.2	55.4	60.7	702.4
2003	61.2	60.5	62.1	56.6	58.7	59.8	58.2	57.4	59.2	59.1	58.3	67.8	718.7
2004	61.2	60.6	58.2	56.5	57.7	59.5	58.7	59.2	60.2	60.7	58.8	60.0	711.5
2005	64.2	57.8	59.0	58.3	58.0	59.5	59.4	58.6	59.8	62.5	57.3	61.2	715.6
2006	63.1	56.7	58.9	57.0	59.4	59.7							

Table (3) (A)-12: Commercial LGS total use-per-customer (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	80.4	72.6	71.5	65.0	66.9	79.9	88.7	91.1	76.2	68.9	65.2	70.6	897.0
1996	76.0	71.4	72.2	64.4	70.9	80.4	81.3	82.8	71.3	66.4	66.7	69.8	873.5
1997	75.6	68.1	66.4	65.3	61.0	78.6	86.7	77.5	71.5	69.7	64.4	69.3	854.1
1998	72.1	63.2	69.8	64.7	72.0	82.8	82.0	83.8	77.1	63.7	64.3	73.9	869.4
1999	69.2	67.0	72.2	76.9	73.3	83.7	88.7	80.0	74.7	73.6	72.3	76.8	908.2
2000	73.2	74.1	63.6	64.2	67.5	80.0	80.2	85.1	69.2	67.2	69.1	75.0	868.4
2001	78.7	62.0	64.9	64.5	68.1	73.9	87.4	80.9	67.3	64.8	59.5	70.7	842.6
2002	64.5	71.6	53.3	61.7	67.5	73.0	83.5	78.9	70.8	64.9	58.8	65.4	813.8
2003	67.2	65.6	65.0	60.1	62.3	69.9	79.2	79.5	65.4	61.1	61.1	72.1	808.6
2004	66.7	65.0	60.8	60.3	68.5	72.0	76.5	71.2	69.2	62.9	61.2	64.5	798.7
2005	69.1	61.3	62.4	61.1	64.2	77.6	79.8	78.7	72.1	66.1	60.2	66.4	818.9
2006	66.7	60.9	62.0	60.0	65.8	74.0							

4 CSR 240-22.030 (3) (A) 2

2.

Utility-specific survey information is not available for the 2008 filing. For this forecast, AmerenUE utilized the Missouri Statewide Residential Lighting and Appliance Saturation and Efficiency Study that was completed by RLW Analytics in 2006 and end-use data for the West North Central census region developed by the Energy Information Administration.

4 CSR 240-22.030 (3) (A) 3

3. If the utility has not yet acquired end-use information on space cooling or space heating for a major class, the utility shall determine the effect that weather has on the total load of that major class by disaggregating the load into its cooling, heating and non-weather-sensitive components. If the cooling or heating components are a significant portion of the total load of the major class, then the cooling or heating components of that load shall be designated as end uses for that major class.

Heating, cooling, other-uses are provided in (3) (A) 1.

4 CSR 240-22.030 (3) (A) 4

4.

AmerenUE is not using a bottom-up end-use forecasting approach as envisioned by the rule and the data that would support such methodology are not collected; therefore there is no foundation to comply with this rule. Total sales data for each rate and revenue class are available, and for residential and smaller commercial classes, using the SAE methodology, heating, cooling and other end-use loads are determined.

4 CSR 240-22.030 (3) (B) 1

(B) The database and historical analysis required for each end use shall include at least the following:

1.

For this forecast AmerenUE utilized the Missouri Statewide Residential Lighting and Appliance Saturation and Efficiency Study conducted by RLW Analytics and end-use data for the West North Central census region developed by the Energy Information Administration. AmerenUE is evaluating implementing utility-specific residential and commercial surveys going forward on a three-year basis. To control costs, AmerenUE will explore the possibility of conducting joint surveys with other Missouri utilities and assess the viability of jointly funding additional state-wide appliance saturation studies.

4 CSR 240-22.030 (3) (B) 2

2. AmerenUE will estimate major class actual and weather normalized monthly energies and demands at the time of monthly system peaks for the most recently available data. Where information is available for a major class, AmerenUE will disaggregate the monthly energies and demands at the time of monthly system peaks into heating, cooling and other uses.

Actual and weather normalized monthly energies and demands at the time of monthly system peaks for the most recently available data are provided in (1) (B) 1 and (1) (B) 2. Heating, cooling and other use data for residential, commercial SGS and commercial LGS on a use-per-customer basis are provided in (3) (A) 1; below are the monthly data for the same on a total basis:

Table (3) (B)-1: Residential heating use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995		415,371	268,872	150,798	57,527	828	0	0	41,510	103,400	355,625	503,945	
1996	574,505	423,377	397,044	184,354	43,207	6,981	0	0	30,539	120,685	389,237	462,171	2,632,100
1997	601,933	381,629	274,363	216,370	74,212	2,795	0	0	7,143	141,806	353,645	477,113	2,531,008
1998	457,302	324,257	359,507	154,823	10,351	12,935	0	0	1,038	93,310	242,880	451,388	2,107,793
1999	546,387	330,818	361,741	115,902	22,787	3,929	0	0	23,107	120,134	201,684	438,298	2,164,786
2000	526,449	342,455	265,436	161,260	21,279	4,253	0	0	31,761	96,807	383,325	722,256	2,554,281
2001	576,630	451,756	393,600	85,919	26,453	7,823	0	0	28,191	137,038	195,928	424,632	2,327,971
2002	496,813	394,691	378,926	131,528	68,263	0	0	0	7,734	190,289	347,294	475,017	2,450,555
2003	641,350	529,264	305,317	142,409	37,666	15,731	0	0	29,704	102,647	271,248	465,253	2,540,588
2004	604,290	484,574	272,002	131,072	32,349	0	864	2,588	5,212	103,213	272,976	505,625	2,414,765
2005	564,298	403,593	384,372	129,398	49,789	0	0	0	10,055	146,154	297,517	609,961	2,595,137
2006	620,911	497,912	346,430	83,047	58,992	0							

Table (3) (B)-2: Weather-normalized residential heating use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995		422,366	315,193	157,497	47,965	3,958	257	513	27,752	132,789	305,695	489,818	
1996	560,494	429,748	320,504	160,211	48,852	4,028	261	522	28,210	135,048	311,315	499,701	2,498,894
1997	571,627	438,275	326,627	163,344	49,764	4,106	266	532	28,749	137,278	316,390	508,087	2,545,045
1998	581,322	445,916	332,540	166,330	50,672	4,179	271	542	29,258	139,899	322,098	516,536	2,589,563
1999	590,730	452,776	337,275	168,464	51,286	4,232	274	548	29,591	141,491	325,777	522,391	2,624,834
2000	597,285	458,530	341,964	170,958	52,082	4,294	279	557	30,078	143,940	331,208	531,341	2,662,516
2001	607,421	466,847	347,096	173,579	52,895	4,358	283	565	30,548	146,059	336,232	538,870	2,703,711
2002	617,581	473,423	352,786	176,408	53,891	4,442	288	576	31,127	148,869	342,944	549,932	2,752,274
2003	632,209	484,713	361,469	180,811	55,040	4,538	295	588	31,880	152,622	350,697	563,336	2,818,199
2004	644,683	494,668	368,905	183,857	56,056	4,644	301	601	32,628	155,613	359,314	575,275	2,876,545
2005	659,042	506,616	377,252	188,507	57,347	4,738	307	617	33,328	158,922	367,019	589,327	2,943,021
2006	675,007	516,526	385,976	192,611	58,635	4,846							

Table (3) (B)-3: Residential cooling use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	-	-	-	18,367	86,478	433,013	729,539	865,508	199,894	47,461	-	-	2,380,259
1996	-	4,568	-	11,291	284,028	491,971	545,124	638,849	208,526	39,344	-	-	2,223,701
1997	-	-	1,645	1,647	68,306	432,843	772,486	563,197	278,377	156,915	-	-	2,275,416
1998	-	-	32,390	11,639	362,336	565,723	716,384	727,785	501,036	51,747	2,508	5,027	2,966,572
1999	-	-	-	45,945	165,208	507,337	923,891	596,425	309,503	57,783	7,549	-	2,612,641
2000	-	7,554	8,409	12,620	272,464	410,072	657,045	801,181	333,313	110,759	8,463	-	2,621,880
2001	-	-	-	173,001	274,511	484,339	822,056	769,066	279,066	45,994	3,412	864	2,852,298
2002	-	-	850	123,333	133,863	664,388	940,386	791,557	450,894	71,967	-	-	3,177,239
2003	-	-	1,731	78,858	118,572	372,780	802,013	850,021	231,696	44,527	13,963	-	2,514,162
2004	-	-	6,079	99,606	408,954	488,907	699,620	472,611	356,642	49,875	-	-	2,582,293
2005	-	-	2,673	70,402	234,829	735,791	828,878	831,546	506,583	95,056	15,315	-	3,321,073
2006	-	-	8,096	96,235	245,879	601,390							

Table (3) (B)-4: Weather-normalized residential cooling use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995		393	7,793	38,641	158,523	458,360	687,703	592,122	281,100	47,790	3,481	286	2,276,193
1996	-	396	7,850	38,941	159,954	462,123	693,001	596,821	283,073	48,152	3,513	289	2,294,113
1997	-	400	7,930	39,354	161,507	466,874	700,410	603,180	285,945	48,516	3,538	291	2,317,945
1998	-	404	8,006	39,739	163,081	471,315	707,631	609,115	288,584	49,030	3,572	294	2,340,771
1999	-	407	8,066	39,930	163,749	473,422	709,802	610,865	289,562	49,195	3,584	295	2,348,868
2000	-	409	8,106	40,215	165,036	476,755	715,499	616,251	292,101	49,669	3,617	298	2,367,954
2001	-	413	8,168	40,537	166,275	480,406	720,766	620,930	294,517	50,036	3,645	300	2,385,992
2002	-	414	8,193	40,657	167,330	483,262	725,096	624,612	296,171	50,330	3,669	302	2,400,035
2003	-	421	8,345	41,422	169,854	490,716	737,402	634,470	301,520	51,290	3,729	307	2,439,476
2004	-	422	8,371	41,401	170,036	493,565	740,987	636,666	303,330	51,402	3,756	308	2,450,249
2005	-	434	8,591	42,598	174,566	505,393	757,191	656,166	310,921	52,680	3,850	317	2,512,707
2006	-	437	8,672	42,945	176,110	510,017							

Table (3) (B)-5: Residential other use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995		498,578	500,115	444,535	471,584	421,045	500,832	551,333	614,983	484,143	431,041	471,922	
1996	518,482	498,231	536,204	482,396	454,271	450,283	580,279	581,151	553,778	501,631	448,540	501,510	6,106,755
1997	568,730	492,914	521,173	492,205	448,042	481,120	510,931	589,248	540,231	488,113	450,151	522,729	6,105,586
1998	588,067	494,213	513,660	494,261	504,472	523,777	613,488	587,904	551,917	515,788	482,076	545,093	6,374,716
1999	560,837	536,940	533,879	504,900	506,696	514,250	597,614	629,132	574,768	514,461	491,263	539,615	6,504,356
2000	595,808	521,341	530,938	479,955	501,539	553,963	635,448	659,869	605,717	544,350	511,830	589,589	6,730,346
2001	631,521	521,356	555,445	489,444	464,941	553,332	640,299	626,329	580,898	550,805	537,614	611,009	6,762,993
2002	668,026	556,159	619,419	526,981	527,595	577,272	630,812	620,363	608,663	561,221	547,390	700,942	7,144,801
2003	617,114	607,808	626,889	532,659	560,061	572,962	661,310	657,627	587,684	538,846	571,039	683,103	7,217,101
2004	715,175	660,710	633,703	558,149	527,445	564,357	626,884	645,123	616,098	587,969	588,454	678,661	7,402,746
2005	747,925	636,407	628,864	574,348	551,934	599,719	689,712	689,695	623,050	607,092	592,453	689,993	7,630,183
2006	764,161	619,968	653,921	584,292	617,742	625,694							

Table (3) (B)-6: Commercial SGS heating use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995		55,763	36,116	20,320	7,781	112	-	-	5,646	14,072	48,440	68,696	
1996	78,457	57,845	54,238	25,218	6,924	961	-	-	4,271	16,984	55,079	65,703	364,682
1997	86,228	54,987	39,790	31,596	10,917	414	-	-	1,064	21,149	52,661	70,900	369,705
1998	67,533	47,862	53,034	22,851	1,531	1,918	-	-	155	13,905	36,244	67,390	312,421
1999	80,955	49,073	53,767	17,283	3,411	590	-	-	3,476	18,066	30,300	65,866	322,786
2000	78,283	50,962	39,521	24,048	3,182	638	-	-	4,782	14,566	57,658	108,453	382,093
2001	85,756	67,137	58,494	12,764	3,936	1,165	-	-	4,175	20,287	28,970	62,676	345,359
2002	66,533	57,384	55,033	19,100	9,891	-	-	-	1,117	27,463	50,112	68,362	355,017
2003	90,600	74,886	43,134	20,106	5,329	2,228	-	-	4,192	14,471	38,266	65,387	358,599
2004	83,941	67,007	37,543	18,133	4,471	-	119	358	718	14,297	37,765	70,121	334,474
2005	77,244	55,182	52,688	17,789	6,878	-	-	-	1,389	20,262	41,148	84,237	356,817
2006	57,405	68,058	47,243	11,364	8,098	-							

Table (3) (B)-7: Weather-normalized commercial SGS heating use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	73,846	56,702	42,338	21,223	6,488	537	35	70	3,775	18,071	41,639	66,770	331,494
1996	76,543	58,716	43,782	21,916	6,698	555	36	73	3,946	19,006	44,052	71,038	346,361
1997	81,886	63,149	47,369	23,853	7,321	608	40	79	4,281	20,473	47,114	75,503	371,676
1998	85,848	65,819	49,056	24,549	7,495	620	40	80	4,353	20,847	48,066	77,116	383,889
1999	87,525	67,164	50,131	25,120	7,678	635	41	82	4,451	21,278	48,943	78,503	391,552
2000	88,986	68,236	50,915	25,494	7,789	644	42	84	4,529	21,658	49,819	79,785	397,980
2001	90,335	69,231	51,583	25,787	7,863	649	42	84	4,524	21,623	49,715	79,537	400,973
2002	89,949	68,831	51,237	25,618	7,810	644	42	83	4,496	21,485	49,485	79,167	398,846
2003	89,309	68,583	51,068	25,528	7,787	643	42	83	4,499	21,516	49,474	79,171	397,702
2004	89,551	68,403	50,919	25,436	7,748	639	42	83	4,498	21,556	49,710	79,780	398,364
2005	90,214	69,268	51,712	25,914	7,922	655	43	85	4,603	22,033	50,760	81,387	404,596
2006	92,060	70,602	52,636	26,357	8,049	665							

Table (3) (B)-8: Commercial SGS cooling use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	-	-	-	2,252	10,643	53,435	90,213	107,199	24,739	5,876	-	-	294,357
1996	-	574	-	1,419	35,788	62,261	69,312	81,660	26,802	5,088	-	-	282,904
1997	-	-	221	223	9,322	59,423	106,461	77,780	38,456	21,710	-	-	313,595
1998	-	-	4,446	1,599	48,494	78,046	98,894	100,629	69,374	7,176	348	698	409,704
1999	-	-	-	6,439	23,245	71,579	130,611	84,236	43,751	8,167	1,066	-	369,102
2000	-	1,066	1,187	1,784	38,630	58,306	93,616	114,411	47,578	15,800	1,207	-	373,584
2001	-	-	-	24,553	39,017	68,918	116,838	108,890	39,482	6,505	482	120	404,806
2002	-	-	120	17,364	18,806	93,439	132,180	111,131	63,140	10,070	-	-	446,251
2003	-	-	239	10,876	16,388	51,581	110,680	117,484	31,938	6,132	1,924	-	347,243
2004	-	-	831	13,743	56,315	67,145	96,165	65,208	49,029	6,890	-	-	355,391
2005	-	-	366	9,563	32,387	101,586	114,785	114,567	69,858	13,157	2,115	-	458,483
2006	-	-	1,120	13,216	34,229	83,748							

Table (3) (B)-9: Weather-normalized commercial SGS cooling use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	-	48	962	4,737	19,509	56,563	85,040	73,339	34,789	5,917	431	35	281,361
1996	-	60	985	4,895	20,154	58,483	88,115	76,288	36,384	6,227	457	38	292,076
1997	-	54	1,067	5,331	22,041	64,094	96,528	83,302	39,501	6,712	489	40	319,160
1998	-	55	1,099	5,458	22,446	65,022	97,685	84,221	39,958	6,799	496	41	323,280
1999	-	57	1,125	5,596	23,040	66,794	100,345	86,421	40,936	6,953	506	42	331,818
2000	-	58	1,144	5,686	23,399	67,787	101,944	88,002	41,696	7,085	516	42	337,359
2001	-	59	1,160	5,753	23,633	68,358	102,442	87,916	41,668	7,077	515	42	338,622
2002	-	58	1,154	5,724	23,508	67,966	101,919	87,692	41,474	7,042	513	42	337,093
2003	-	58	1,152	5,713	23,475	67,900	101,764	87,692	41,563	7,063	514	42	336,936
2004	-	58	1,152	5,712	23,440	67,784	101,851	87,843	41,700	7,101	518	43	337,203
2005	-	59	1,176	5,845	24,076	69,776	104,858	90,404	42,876	7,292	532	44	346,938
2006	-	61	1,199	5,960	24,516	71,024							

Table (3) (B)-10: Commercial SGS other use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995		190,709	195,224	191,723	178,176	186,867	205,946	202,706	220,016	201,467	176,609	183,418	
1996	189,235	191,051	186,212	174,432	186,282	193,726	223,516	200,410	221,761	199,105	181,553	184,317	2,331,699
1997	192,413	182,904	194,268	186,014	181,440	197,403	197,885	209,662	203,277	206,171	179,093	183,513	2,314,045
1998	192,099	172,484	193,515	193,441	198,824	204,525	204,676	215,736	208,670	220,307	192,463	197,022	2,393,763
1999	188,255	186,567	199,900	194,692	202,460	208,477	215,199	220,174	228,459	221,720	208,591	207,769	2,482,263
2000	204,416	192,043	202,796	190,350	214,133	213,957	224,210	227,898	219,029	220,744	208,215	210,360	2,528,172
2001	211,362	193,027	205,697	199,071	213,103	218,086	240,591	227,615	220,046	221,327	200,375	205,441	2,556,743
2002	202,904	192,616	216,104	223,465	219,376	223,973	240,494	230,644	222,834	226,506	204,511	208,096	2,611,521
2003	204,854	187,604	204,086	192,827	207,381	219,435	229,616	229,217	220,201	227,504	207,787	211,853	2,542,365
2004	214,251	216,370	220,857	204,323	215,110	220,144	229,206	233,240	231,962	233,386	215,128	215,009	2,648,985
2005	224,092	200,554	205,746	213,037	219,565	229,965	236,473	235,472	230,150	235,695	215,963	216,700	2,663,404
2006	227,883	200,709	222,503	214,724	232,553	226,762							

Table (3) (B)-11: Commercial LGS heating use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	38,640	29,798	19,304	10,864	4,161	60	-	-	3,012	7,502	25,799	36,565	175,705
1996	41,736	30,747	28,803	13,360	3,140	509	-	-	2,262	8,997	29,170	34,779	193,524
1997	45,621	29,082	21,040	16,705	5,770	218	-	-	559	11,102	27,595	37,090	194,783
1998	35,266	24,956	27,611	11,876	794	993	-	-	80	7,160	18,634	34,595	161,966
1999	41,500	25,123	27,493	8,825	1,739	300	-	-	1,782	9,284	15,557	33,806	165,410
2000	40,161	26,131	20,258	12,321	1,630	327	-	-	2,453	7,476	29,600	55,692	196,050
2001	44,051	34,496	30,060	6,560	2,023	599	-	-	2,149	10,452	14,937	32,337	177,662
2002	34,353	29,644	28,448	9,882	5,122	-	-	-	580	14,263	26,055	35,571	183,918
2003	47,132	39,018	22,488	10,489	2,782	1,164	-	-	2,171	7,477	19,804	33,874	186,399
2004	43,599	34,803	19,509	9,427	2,326	-	62	186	373	7,423	19,569	36,301	173,578
2005	39,896	28,474	27,159	9,159	3,538	-	-	-	713	10,409	21,130	43,233	183,710
2006	29,447	34,903	24,228	5,828	4,151	-							

Table (3) (B)-12: Weather-normalized commercial LGS heating use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	39,455	30,299	22,630	11,347	3,470	287	19	31	2,014	9,634	22,177	36,540	176,907
1996	40,718	31,210	23,251	11,628	3,551	294	19	38	2,089	10,067	23,331	37,603	183,799
1997	43,325	33,398	25,048	12,611	3,869	321	21	42	2,262	10,747	24,688	39,498	196,820
1998	44,829	34,320	25,540	12,759	3,888	321	21	42	2,245	10,735	24,712	39,588	199,001
1999	44,868	34,386	25,634	12,827	3,915	323	21	42	2,281	10,935	25,129	40,292	200,653
2000	45,652	34,988	26,098	13,062	3,990	330	21	43	2,323	11,116	25,575	40,971	204,170
2001	46,403	35,572	26,508	13,252	4,042	334	22	43	2,328	11,140	25,633	41,037	206,313
2002	46,443	35,558	26,486	13,255	4,044	334	22	43	2,333	11,158	25,729	41,181	206,585
2003	46,460	35,734	26,623	13,317	4,066	336	22	43	2,330	11,117	25,605	41,015	206,668
2004	46,513	35,528	26,459	13,223	4,031	333	22	43	2,338	11,191	25,758	41,302	206,740
2005	46,594	35,743	26,656	13,342	4,075	337	22	44	2,364	11,318	26,066	41,770	208,331
2006	47,223	36,208	26,993	13,517	4,126	341							

Table (3) (B)-13: Commercial LGS cooling use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	-	-	-	3,427	16,201	81,341	137,293	162,903	37,568	8,918	-	-	447,652
1996	-	868	-	2,144	64,003	93,884	104,494	123,091	40,403	7,672	-	-	426,558
1997	-	-	333	336	14,025	89,343	159,929	116,689	57,583	32,442	-	-	470,680
1998	-	-	6,590	2,366	71,623	115,073	145,609	147,945	101,863	10,518	510	1,021	603,116
1999	-	-	-	9,360	33,742	103,769	189,770	122,625	63,846	11,948	1,558	-	536,618
2000	-	1,556	1,732	2,602	56,332	85,016	136,569	167,049	69,486	23,085	1,764	-	545,191
2001	-	-	-	35,921	57,088	100,868	171,036	159,358	57,847	9,540	707	177	592,543
2002	-	-	176	25,576	27,720	137,818	195,097	164,138	93,286	14,888	-	-	658,698
2003	-	-	355	16,151	24,356	76,708	164,005	173,669	47,096	9,019	2,835	-	514,192
2004	-	-	1,238	20,338	83,485	99,443	142,481	96,580	72,542	10,183	-	-	526,290
2005	-	-	531	14,162	47,420	148,625	167,817	167,470	102,132	19,240	3,091	-	670,494
2006	-	-	1,635	19,293	49,946	122,160							

Table (3) (B)-14: Weather-normalized commercial LGS cooling use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	-	73	1,449	7,210	29,699	86,103	129,420	111,447	52,830	8,980	654	54	427,918
1996	-	75	1,490	7,393	30,412	88,188	132,840	114,993	54,846	9,390	689	57	440,374
1997	-	81	1,606	8,024	33,163	96,367	145,007	124,973	59,149	10,031	729	60	479,188
1998	-	82	1,629	8,075	33,151	95,869	143,830	123,821	58,670	9,966	726	60	475,881
1999	-	83	1,638	8,135	33,444	96,832	145,796	125,804	59,733	10,172	740	61	482,437
2000	-	84	1,670	8,293	34,121	98,841	148,719	128,491	60,896	10,352	754	62	492,280
2001	-	86	1,697	8,417	34,579	100,049	149,962	128,663	61,050	10,378	756	62	495,698
2002	-	86	1,698	8,431	34,650	100,246	150,431	129,520	61,275	10,412	760	62	497,571
2003	-	86	1,709	8,484	34,889	100,977	150,792	129,629	61,288	10,389	757	62	499,062
2004	-	86	1,705	8,454	34,712	100,391	150,905	130,105	61,656	10,496	764	63	499,378
2005	-	87	1,725	8,569	35,251	102,086	153,303	132,149	62,685	10,663	777	64	507,359
2006	-	88	1,751	8,700	35,773	103,600							

Table (3) (B)-15: Commercial LGS other use (calendar month - MWh)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1995	403,332	369,192	374,384	344,171	349,348	359,507	357,599	349,486	392,226	377,733	348,529	369,692	4,395,200
1996	398,225	382,522	390,885	359,979	367,470	376,375	377,738	370,220	384,041	382,696	371,739	385,083	4,536,971
1997	409,942	381,668	380,523	378,302	349,890	386,344	370,639	359,893	383,841	388,939	371,991	392,807	4,554,778
1998	412,515	367,539	398,700	386,362	372,851	396,435	370,605	381,707	388,283	388,965	392,781	431,951	4,688,794
1999	396,115	398,265	411,536	453,583	426,036	425,784	377,880	387,009	413,734	456,203	447,796	464,830	5,058,870
2000	446,887	462,730	480,901	416,053	394,950	457,474	411,923	417,188	408,696	440,052	452,861	468,558	5,178,283
2001	533,105	401,992	427,850	412,670	423,286	428,386	455,841	432,315	432,617	456,729	411,925	476,051	5,292,777
2002	458,640	508,713	370,687	423,867	469,297	410,210	436,390	431,851	447,486	471,337	424,108	461,722	5,314,309
2003	475,180	465,459	475,333	433,736	450,127	461,149	454,007	449,130	464,930	468,600	465,352	536,984	5,599,988
2004	488,368	482,733	463,784	450,574	458,605	476,212	472,555	479,198	488,182	493,575	477,522	487,766	5,719,075
2005	522,379	470,281	482,020	475,460	472,547	488,201	489,542	489,222	499,756	521,869	479,179	514,409	5,904,864
2006	529,173	476,483	494,713	478,569	499,713	508,768							

Residential peak demand at the time of system peak is estimated for cooling, heating, and other uses. Profiles are constructed using end-use weather response functions developed as part of Itron's EShapes database, which is an end-use library of shapes constructed by US region. The shapes were developed from engineering simulation runs for typical households with air conditioning and electric space heating. Heating and cooling weather response functions are simulated using St. Louis actual daily weather data over the same period for which residential load research data is

available (July 2003 to June 2006). The estimates by end use were calibrated to match the monthly residential peak loads at the time of monthly system peaks. Results are shown below:

Table (3) (B)-16: Residential coincident peak by end-use (MW)

Year	Month	ResTotal	ResHeat	ResCool	ResOther
2003	Jul	3,476	-	2,637	839
2003	Aug	4,023	-	3,196	827
2003	Sep	2,484	-	1,702	781
2003	Oct	1,349	26	717	606
2003	Nov	1,971	-	1,050	921
2003	Dec	2,426	937	-	1,489
2004	Jan	2,582	1,573	-	1,009
2004	Feb	2,261	1,221	-	1,040
2004	Mar	2,102	993	-	1,109
2004	Apr	1,459	8	1,023	428
2004	May	2,831	3	2,189	639
2004	Jun	3,173	1	2,406	766
2004	Jul	3,830	-	2,951	879
2004	Aug	3,692	-	2,722	970
2004	Sep	2,514	-	1,736	779
2004	Oct	1,473	24	955	495
2004	Nov	2,074	680	13	1,381
2004	Dec	3,128	1,247	-	1,881
2005	Jan	2,477	1,472	-	1,005
2005	Feb	2,316	1,224	-	1,092
2005	Mar	2,149	1,118	-	1,030
2005	Apr	1,421	13	787	622
2005	May	2,276	2	1,629	645
2005	Jun	3,847	3	2,972	872
2005	Jul	3,904	-	3,062	842
2005	Aug	3,832	-	2,931	901
2005	Sep	2,889	-	2,169	720
2005	Oct	2,512	31	1,702	780
2005	Nov	2,249	-	1,331	918
2005	Dec	3,001	1,346	-	1,654
2006	Jan	2,511	789	-	1,722
2006	Feb	2,775	1,490	-	1,285
2006	Mar	2,404	1,262	-	1,142
2006	Apr	2,332	-	1,138	1,194
2006	May	2,872	-	2,097	775
2006	Jun	3,444	3	2,605	836

4 CSR 22.030 (4) (A)

(4) Analysis of Load Profiles. The utility shall develop a consistent set of daily load profiles for the most recent year for which data is available. For each month, load profiles shall be developed for a peak weekday, a representative of at least one (1) weekday and a representative of at least one (1) weekend day.

(A) Load profiles for each day type shall be developed for each major class and for the net system load. Where information is available for a major class, load profiles for heating, cooling and other uses will also be estimated.

AmerenUE has a load research program that collects hourly data on its sample of customers to estimate the usage patterns of its customers by rate/revenue class. Hourly load profiles for each subclass were estimated for the time period that span July 2003 to June 2006 through ratio analysis, domains ratio analysis and 100% sample analysis. Residential heating, cooling and other use profiles were constructed using end-use weather response functions developed as part of Itron's EShapes database, which is an end-use library of shapes constructed by US region. The shapes were developed from engineering simulation runs for typical households with air conditioning and electric space heating. Heating and cooling weather response functions are simulated using St. Louis actual daily weather data over the same period. The estimates by end use were calibrated to match the hourly residential load profile.

The profiles at generation are reported below for July 2005-June 2006.

Table (4) (A)-1: Residential "peak day" profile (MW)

Date	7/25/05	8/3/05	9/22/05	10/4/05	11/29/05	12/8/05	1/5/06	2/13/06	3/21/06	4/14/06	5/30/06	6/21/06
1	2,752	2,314	1,438	1,358	1,456	2,040	1,485	2,078	1,566	1,298	1,751	2,134
2	2,522	2,056	1,315	1,193	1,443	1,994	1,417	2,025	1,514	1,153	1,593	1,952
3	2,331	1,845	1,247	1,102	1,408	1,926	1,375	2,040	1,512	1,093	1,489	1,780
4	2,187	1,685	1,173	1,061	1,450	1,947	1,423	2,098	1,544	1,001	1,371	1,715
5	2,065	1,544	1,114	1,035	1,527	1,990	1,501	2,096	1,587	992	1,335	1,642
6	2,063	1,567	1,167	1,139	1,636	2,116	1,661	2,258	1,749	1,032	1,391	1,639
7	2,033	1,611	1,349	1,362	1,828	2,287	1,832	2,341	1,923	1,117	1,487	1,735
8	2,208	1,700	1,481	1,408	1,929	2,338	1,901	2,545	1,932	1,259	1,566	1,796
9	2,281	1,788	1,497	1,317	1,876	2,248	1,787	2,728	1,874	1,322	1,732	1,890
10	2,517	2,046	1,586	1,370	1,773	2,159	1,798	2,775	1,854	1,432	1,717	2,121
11	2,817	2,427	1,797	1,589	1,754	2,312	1,820	2,699	1,837	1,580	1,865	2,298
12	3,133	2,805	2,040	1,793	1,734	2,314	1,858	2,679	1,874	1,658	2,072	2,586
13	3,402	3,083	2,309	1,976	1,659	2,277	1,898	2,547	1,882	1,791	2,323	2,791
14	3,563	3,353	2,564	2,230	1,659	2,218	1,859	2,417	1,855	1,933	2,488	3,001
15	3,738	3,560	2,700	2,335	1,711	2,224	1,833	2,320	1,897	2,091	2,648	3,149
16	3,904	3,772	2,889	2,512	1,835	2,323	1,971	2,287	1,999	2,215	2,872	3,340
17	3,997	3,832	3,083	2,659	2,019	2,535	2,247	2,360	2,181	2,332	2,889	3,444
18	4,112	3,938	3,128	2,656	2,249	2,844	2,511	2,549	2,296	2,385	2,925	3,570
19	4,078	3,865	3,054	2,562	2,365	3,001	2,541	2,835	2,404	2,360	2,878	3,482
20	3,877	3,646	2,963	2,560	2,282	2,999	2,521	2,873	2,398	2,241	2,744	3,333
21	3,767	3,563	2,882	2,441	2,272	2,917	2,484	2,775	2,387	2,318	2,753	3,232
22	3,714	3,399	2,649	2,247	2,140	2,937	2,394	2,725	2,265	2,183	2,660	3,186
23	3,359	3,076	2,368	1,901	1,937	2,620	2,109	2,561	2,036	2,024	2,325	2,882
24	2,999	2,690	1,957	1,560	1,743	2,366	1,809	2,426	1,855	1,715	2,005	2,474

Table (4) (A)-2: Residential "Wednesday" profile (MW)

Date	7/20/05	8/10/05	9/14/05	10/12/05	11/23/05	12/14/05	1/11/06	2/22/06	3/29/06	4/19/06	5/24/06	6/28/06
1	1,998	2,314	1,574	849	1,281	1,434	1,490	1,496	1,303	1,045	1,133	1,244
2	1,832	2,105	1,375	787	1,252	1,381	1,426	1,455	1,321	933	1,007	1,097
3	1,630	1,928	1,285	776	1,228	1,375	1,429	1,503	1,252	858	925	1,021
4	1,568	1,776	1,206	801	1,210	1,459	1,429	1,569	1,323	811	879	928
5	1,493	1,678	1,134	793	1,262	1,524	1,480	1,601	1,393	818	862	927
6	1,499	1,679	1,203	889	1,387	1,661	1,649	1,848	1,627	913	937	980
7	1,619	1,769	1,377	1,079	1,554	1,880	1,929	2,088	1,744	1,050	1,071	1,034
8	1,734	1,816	1,431	1,213	1,593	1,912	1,864	1,986	1,635	1,115	1,170	1,131
9	1,868	1,961	1,380	1,080	1,565	1,836	1,749	1,816	1,500	1,058	1,150	1,144
10	2,193	2,156	1,365	1,015	1,463	1,747	1,588	1,549	1,344	1,038	1,141	1,184
11	2,465	2,522	1,356	1,015	1,398	1,683	1,477	1,455	1,276	1,014	1,294	1,290
12	2,774	2,824	1,400	944	1,293	1,719	1,384	1,426	1,208	1,029	1,484	1,575
13	3,075	3,156	1,393	933	1,183	1,646	1,306	1,370	1,120	1,056	1,721	1,765
14	3,232	3,363	1,497	895	1,204	1,616	1,260	1,248	1,062	1,123	1,995	1,991
15	3,446	3,547	1,574	945	1,208	1,531	1,216	1,170	1,036	1,193	2,121	2,267
16	3,625	3,542	1,765	1,022	1,309	1,679	1,253	1,259	1,115	1,228	2,323	2,492
17	3,746	3,311	1,958	1,104	1,388	1,916	1,426	1,420	1,169	1,409	2,406	2,684
18	3,899	3,362	2,036	1,218	1,645	2,167	1,799	1,610	1,274	1,467	2,610	2,879
19	3,790	3,254	2,028	1,352	1,676	2,209	1,985	1,919	1,446	1,484	2,585	2,890
20	3,670	3,165	2,008	1,465	1,662	2,184	1,974	1,859	1,548	1,488	2,512	2,728
21	3,601	3,110	2,092	1,569	1,671	2,139	1,933	1,891	1,653	1,627	2,412	2,641
22	3,467	2,975	2,018	1,471	1,636	2,055	1,857	1,882	1,594	1,586	2,410	2,644
23	3,135	2,635	1,703	1,250	1,482	1,903	1,659	1,738	1,317	1,332	2,213	2,303
24	2,792	2,308	1,396	1,005	1,338	1,658	1,385	1,612	1,193	1,089	1,943	1,876

Table (4) (A)-3: Residential "Sunday" profile (MW)

Date	7/17/05	8/7/05	9/11/05	10/9/05	11/20/05	12/18/05	1/15/06	2/26/06	3/26/06	4/23/06	5/28/06	6/25/06
1	2,040	1,779	1,827	1,061	1,187	1,731	1,624	1,664	1,630	971	1,997	1,644
2	1,832	1,607	1,602	998	1,122	1,669	1,529	1,572	1,574	890	1,762	1,438
3	1,691	1,440	1,470	935	1,093	1,563	1,484	1,567	1,565	852	1,598	1,304
4	1,562	1,298	1,347	952	1,118	1,653	1,518	1,610	1,594	753	1,432	1,208
5	1,450	1,218	1,240	939	1,121	1,653	1,506	1,582	1,624	732	1,355	1,094
6	1,409	1,156	1,269	978	1,171	1,735	1,574	1,722	1,696	759	1,313	1,072
7	1,412	1,174	1,275	1,061	1,278	1,863	1,642	1,883	1,856	813	1,385	1,117
8	1,583	1,302	1,352	1,194	1,518	2,046	1,786	1,985	1,821	913	1,506	1,331
9	1,874	1,565	1,601	1,348	1,585	2,110	1,904	2,002	1,791	1,037	1,864	1,564
10	2,161	1,901	1,941	1,359	1,575	2,232	2,012	1,956	1,681	1,119	2,117	1,694
11	2,536	2,254	2,289	1,288	1,590	2,145	1,882	1,905	1,639	1,149	2,436	1,883
12	2,881	2,501	2,628	1,312	1,600	2,133	1,794	1,778	1,606	1,249	2,731	2,035
13	3,072	2,775	2,897	1,296	1,587	2,284	1,714	1,762	1,537	1,315	2,989	2,212
14	3,249	3,020	3,082	1,253	1,553	2,194	1,638	1,692	1,496	1,393	3,156	2,412
15	3,450	3,148	3,264	1,213	1,611	2,193	1,561	1,595	1,424	1,426	3,282	2,543
16	3,595	3,335	3,334	1,276	1,639	2,280	1,639	1,611	1,422	1,438	3,331	2,723
17	3,761	3,482	3,426	1,271	1,781	2,509	1,782	1,697	1,417	1,549	3,382	2,847
18	3,726	3,448	3,387	1,333	1,987	2,708	1,986	1,800	1,625	1,634	3,443	2,959
19	3,639	3,410	3,282	1,406	2,023	2,709	2,073	2,143	1,820	1,645	3,352	2,887
20	3,485	3,283	3,096	1,593	2,023	2,745	2,042	2,184	1,933	1,629	3,151	2,712
21	3,458	3,166	3,010	1,600	1,922	2,769	1,992	2,272	1,976	1,693	3,042	2,634
22	3,251	2,987	2,712	1,380	1,761	2,660	1,866	2,141	1,849	1,596	2,887	2,490
23	2,910	2,622	2,266	1,247	1,494	2,369	1,696	1,913	1,612	1,362	2,578	2,273
24	2,526	2,223	1,848	1,041	1,273	2,093	1,435	1,705	1,437	1,079	2,262	1,845

Table (4) (A)-4: Residential heating "peak day" profile (MW)

Date	7/25/05	8/3/05	9/22/05	10/4/05	11/29/05	12/8/05	1/5/06	2/18/06	3/21/06	4/14/06	5/30/06	6/21/06
1	-	-	6	39	873	1,328	802	1,342	936	-	34	-
2	-	-	7	39	915	1,366	821	1,376	956	-	41	-
3	-	-	8	41	935	1,373	838	1,444	996	-	51	-
4	-	-	10	49	981	1,410	883	1,510	1,032	-	55	-
5	-	-	12	60	1,025	1,435	923	1,517	1,054	-	61	-
6	-	-	16	74	1,052	1,474	967	1,618	1,111	15	72	-
7	-	-	19	88	1,052	1,462	940	1,639	1,094	19	66	-
8	-	-	16	83	1,017	1,390	889	1,693	1,013	9	47	-
9	-	-	9	63	976	1,315	824	1,681	977	-	27	-
10	-	-	4	42	918	1,245	810	1,528	969	-	15	-
11	-	-	2	30	864	1,282	766	1,336	927	-	9	-
12	-	-	1	23	822	1,243	738	1,254	906	-	7	-
13	-	-	1	17	750	1,179	714	1,156	874	-	7	-
14	-	-	1	17	716	1,119	676	1,083	841	-	5	-
15	-	-	1	17	709	1,098	648	1,050	841	-	4	-
16	-	-	2	23	746	1,133	691	1,017	881	-	3	-
17	-	-	3	31	828	1,246	788	1,115	980	-	2	-
18	-	-	3	36	834	1,280	790	1,199	972	-	0	-
19	-	-	3	35	848	1,306	751	1,298	959	-	3	-
20	-	-	4	40	838	1,327	765	1,334	933	-	2	-
21	-	-	5	43	883	1,380	802	1,387	962	-	4	-
22	-	-	5	44	880	1,399	805	1,436	959	-	6	-
23	-	-	6	41	874	1,335	814	1,403	942	-	9	-
24	-	-	6	38	908	1,346	830	1,470	984	-	15	-

Table (4) (A)-5: Residential heating "Wednesday" profile (MW)

Date	7/20/05	8/10/05	9/14/05	10/12/05	11/23/05	12/14/05	1/11/06	2/22/06	3/29/06	4/19/06	5/24/06	6/28/06
1	-	-	13	49	529	772	679	789	575	58	24	-
2	-	-	13	49	570	801	709	821	639	64	28	-
3	-	-	15	53	600	840	756	892	646	71	34	-
4	-	-	17	64	610	909	773	947	697	74	38	-
5	-	-	20	74	634	942	795	956	729	77	42	-
6	-	-	24	83	660	976	839	1,039	804	92	52	-
7	-	-	27	95	629	975	848	1,019	733	93	50	-
8	-	-	20	99	566	900	736	876	607	71	37	-
9	-	-	12	76	527	846	671	793	539	41	19	-
10	-	-	5	50	464	782	579	664	461	28	11	-
11	-	-	2	34	387	704	483	583	392	21	7	-
12	-	-	1	25	312	677	410	538	328	21	6	-
13	-	-	1	19	253	614	359	488	279	22	5	-
14	-	-	2	18	237	580	327	429	247	22	4	-
15	-	-	2	20	221	531	302	389	227	23	4	-
16	-	-	2	27	237	575	309	414	244	19	3	-
17	-	-	4	36	258	653	356	467	262	21	2	-
18	-	-	4	44	277	656	405	483	272	13	0	-
19	-	-	5	46	281	644	421	533	296	20	3	-
20	-	-	5	51	295	660	441	521	316	15	2	-
21	-	-	7	58	327	690	467	562	360	24	4	-
22	-	-	7	59	355	691	489	608	384	28	6	-
23	-	-	8	55	376	713	501	637	387	32	10	-
24	-	-	9	50	427	735	510	713	422	36	16	-

Table (4) (A)-6: Residential heating "Sunday" profile (MW)

Date	7/17/05	8/7/05	9/11/05	10/9/05	11/20/05	12/18/05	1/15/06	2/26/06	3/26/06	4/23/06	5/28/06	6/25/06
1	-	-	2	361	610	1,027	745	909	804	61	29	-
2	-	-	2	392	633	1,072	783	935	855	71	35	-
3	-	-	1	403	668	1,063	821	990	917	82	43	-
4	-	-	3	432	704	1,155	873	1,045	962	80	46	-
5	-	-	3	446	711	1,169	883	1,037	991	80	48	-
6	-	-	0	465	744	1,235	929	1,122	1,033	88	48	-
7	-	-	3	496	780	1,297	925	1,171	1,076	95	46	-
8	-	-	6	500	844	1,324	913	1,143	968	82	40	-
9	-	-	7	464	773	1,223	848	1,037	843	58	27	-
10	-	-	2	326	648	1,126	739	876	672	38	16	-
11	-	-	0	225	556	959	575	745	561	28	9	-
12	-	-	0	180	500	875	474	627	489	29	8	-
13	-	-	0	152	465	894	421	588	440	30	7	-
14	-	-	-	132	428	823	376	539	405	28	5	-
15	-	-	0	117	432	814	351	502	379	28	4	-
16	-	-	-	131	448	868	383	524	390	23	1	-
17	-	-	-	148	493	978	431	568	400	23	-	-
18	-	-	-	172	518	993	454	578	460	16	-	-
19	-	-	-	194	529	992	465	663	492	24	-	-
20	-	-	0	239	555	1,046	491	691	523	22	-	-
21	-	-	1	270	561	1,112	515	759	559	31	0	-
22	-	-	1	262	567	1,128	537	787	578	35	2	-
23	-	-	0	287	563	1,123	576	811	591	40	5	-
24	-	-	1	299	571	1,123	584	847	631	46	11	-

Table (4) (A)-7: Residential cooling "peak day" profile (MW)

Date	7/25/05	8/3/05	9/22/05	10/4/05	11/29/05	12/8/05	1/5/06	2/18/06	3/21/06	4/14/06	5/30/06	6/21/06
1	1,872	1,455	856	739	-	-	-	-	-	458	860	1,393
2	1,684	1,264	752	622	-	-	-	-	-	304	734	1,258
3	1,514	1,101	686	556	-	-	-	-	-	208	641	1,119
4	1,363	956	601	489	-	-	-	-	-	142	544	1,031
5	1,206	810	520	425	-	-	-	-	-	105	472	921
6	1,066	710	460	381	-	-	-	-	-	63	411	802
7	973	662	477	401	-	-	-	-	-	83	403	772
8	1,036	694	548	442	-	-	-	-	-	257	475	779
9	1,145	790	625	463	-	-	-	-	-	321	614	887
10	1,430	1,044	796	568	-	-	-	-	-	389	722	1,140
11	1,796	1,407	1,036	776	14	-	-	-	-	528	929	1,388
12	2,173	1,793	1,303	1,004	14	-	-	-	12	703	1,183	1,706
13	2,491	2,103	1,592	1,218	14	-	-	-	13	918	1,463	1,956
14	2,695	2,381	1,847	1,485	28	-	-	-	13	1,157	1,700	2,186
15	2,893	2,601	2,017	1,619	27	-	-	-	13	1,358	1,902	2,356
16	3,051	2,788	2,174	1,754	27	-	-	-	13	1,481	2,107	2,522
17	3,111	2,821	2,301	1,832	14	-	-	-	13	1,566	2,124	2,586
18	3,123	2,817	2,246	1,757	14	-	-	-	13	1,533	2,081	2,612
19	3,038	2,702	2,108	1,611	15	-	-	-	-	1,429	1,975	2,491
20	2,825	2,468	1,936	1,492	-	-	-	-	-	1,197	1,779	2,317
21	2,643	2,278	1,763	1,345	-	-	-	-	-	1,030	1,623	2,143
22	2,490	2,082	1,566	1,200	-	-	-	-	-	872	1,452	2,000
23	2,256	1,899	1,399	1,017	-	-	-	-	-	779	1,229	1,808
24	2,049	1,704	1,179	860	-	-	-	-	-	623	1,047	1,591

Table (4) (A)-8: Residential cooling "Wednesday" profile (MW)

Date	7/20/05	8/10/05	9/14/05	10/12/05	11/23/05	12/14/05	1/11/06	2/22/06	3/29/06	4/19/06	5/24/06	6/28/06
1	1,239	1,520	406	13	-	-	-	-	-	-	505	596
2	1,110	1,358	299	13	-	-	-	-	-	-	415	508
3	955	1,209	252	13	-	-	-	-	-	-	351	446
4	873	1,064	195	14	-	-	-	-	-	-	306	379
5	773	934	155	13	-	-	-	-	-	-	263	339
6	683	816	114	12	-	-	-	-	-	-	230	298
7	674	781	130	13	-	-	-	-	-	-	245	287
8	709	794	182	13	-	-	-	-	-	-	316	319
9	823	925	211	12	-	-	-	-	-	-	360	349
10	1,109	1,168	280	12	-	-	-	-	-	26	433	432
11	1,419	1,536	341	25	15	-	-	-	-	51	588	554
12	1,762	1,883	438	34	14	-	-	-	11	52	786	771
13	2,089	2,232	525	46	27	-	-	-	10	80	1,018	956
14	2,288	2,480	649	46	28	-	-	-	10	87	1,295	1,161
15	2,516	2,669	758	47	27	-	-	-	10	94	1,461	1,392
16	2,680	2,690	890	47	26	-	-	-	10	92	1,640	1,562
17	2,762	2,504	998	46	12	-	-	-	9	67	1,704	1,675
18	2,801	2,465	959	23	12	-	-	-	9	61	1,784	1,731
19	2,661	2,343	853	24	-	-	-	-	-	30	1,697	1,673
20	2,505	2,214	705	12	-	-	-	-	-	28	1,544	1,502
21	2,343	2,069	628	13	-	-	-	-	-	28	1,330	1,335
22	2,138	1,900	548	13	-	-	-	-	-	-	1,217	1,231
23	1,925	1,698	433	12	-	-	-	-	-	-	1,067	1,060
24	1,734	1,528	350	12	-	-	-	-	-	-	922	873

Table (4) (A)-9: Residential cooling "Sunday" profile (MW)

Date	7/17/05	8/7/05	9/11/05	10/9/05	11/20/05	12/18/05	1/15/06	2/26/06	3/26/06	4/23/06	5/28/06	6/25/06
1	1,188	925	981	21	10	-	-	-	12	26	1,089	755
2	1,037	804	818	21	10	-	-	-	11	-	907	625
3	927	686	719	20	-	-	-	-	-	-	776	538
4	819	587	611	20	-	-	-	-	-	-	650	464
5	704	501	507	10	-	-	-	-	-	-	549	378
6	638	436	472	10	-	-	-	-	-	-	487	335
7	613	424	462	10	-	-	-	-	-	-	493	337
8	618	426	462	10	-	-	-	-	-	-	524	367
9	779	545	599	11	-	-	-	-	-	-	750	461
10	1,007	753	855	11	-	-	-	-	-	23	983	568
11	1,337	1,026	1,151	21	12	-	-	-	-	46	1,304	730
12	1,678	1,279	1,476	33	12	-	-	-	-	50	1,644	908
13	1,933	1,559	1,783	34	12	-	-	-	-	53	1,968	1,109
14	2,155	1,810	2,023	46	12	-	-	-	-	85	2,235	1,316
15	2,388	1,989	2,248	46	13	-	-	-	-	91	2,437	1,485
16	2,556	2,178	2,356	46	25	-	-	-	10	92	2,545	1,656
17	2,686	2,287	2,426	44	38	-	-	-	18	98	2,598	1,744
18	2,613	2,215	2,326	33	41	-	-	-	31	99	2,596	1,774
19	2,494	2,128	2,155	33	55	-	-	-	34	96	2,466	1,666
20	2,310	1,956	1,890	23	42	-	-	-	35	89	2,190	1,471
21	2,145	1,725	1,696	23	40	-	-	-	36	56	1,922	1,283
22	1,917	1,554	1,486	20	37	-	-	-	34	54	1,719	1,126
23	1,720	1,379	1,246	20	34	-	-	-	32	53	1,511	1,022
24	1,480	1,172	1,015	20	21	-	-	-	21	26	1,289	817

Table (4) (A)-10: Residential other use "peak day" profile (MW)

Date	7/25/05	8/3/05	9/22/05	10/4/05	11/29/05	12/8/05	1/5/06	2/18/06	3/21/06	4/14/06	5/30/06	6/21/06
1	880	859	575	581	583	712	682	736	631	839	857	742
2	838	792	557	532	528	628	597	649	558	848	817	694
3	818	744	553	505	473	553	537	596	516	826	797	661
4	824	728	562	524	470	537	540	588	512	859	771	683
5	859	734	581	550	502	556	577	579	533	887	802	721
6	997	857	690	684	586	643	694	640	638	954	908	837
7	1,060	948	853	873	775	825	891	702	830	1,014	1,018	963
8	1,172	1,006	917	883	912	949	1,012	852	919	993	1,044	1,017
9	1,136	998	862	791	900	933	962	1,047	896	1,001	1,091	1,004
10	1,087	1,002	786	760	855	914	988	1,247	885	1,044	980	982
11	1,021	1,020	759	784	877	1,030	1,054	1,363	909	1,052	927	910
12	960	1,012	735	767	898	1,072	1,120	1,425	956	955	882	881
13	911	980	716	740	895	1,098	1,184	1,392	995	873	854	835
14	868	972	707	728	916	1,099	1,183	1,334	1,002	776	783	816
15	845	959	682	699	975	1,127	1,185	1,270	1,043	733	742	793
16	853	984	714	735	1,062	1,189	1,280	1,270	1,104	734	762	818
17	886	1,011	779	796	1,177	1,289	1,460	1,245	1,188	766	762	858
18	989	1,122	879	862	1,401	1,564	1,722	1,350	1,311	851	844	958
19	1,040	1,163	942	916	1,492	1,695	1,790	1,537	1,445	931	900	992
20	1,052	1,178	1,043	1,029	1,444	1,672	1,756	1,539	1,465	1,044	963	1,016
21	1,123	1,285	1,115	1,053	1,389	1,598	1,682	1,387	1,425	1,288	1,127	1,090
22	1,224	1,317	1,078	1,004	1,260	1,537	1,530	1,289	1,306	1,311	1,202	1,187
23	1,103	1,176	964	842	1,063	1,285	1,294	1,159	1,094	1,246	1,087	1,073
24	950	985	772	661	836	1,010	980	956	871	1,092	942	883

Table (4) (A)-11: Residential other use "Wednesday" profile (MW)

Date	7/20/05	8/10/05	9/14/05	10/12/05	11/23/05	12/14/05	1/11/06	2/22/06	3/29/06	4/19/06	5/24/06	6/28/06
1	759	794	1,155	788	752	662	811	707	727	987	605	648
2	721	746	1,062	725	682	581	718	634	683	869	564	590
3	675	719	1,019	709	627	535	673	611	606	786	540	575
4	695	712	995	724	600	550	656	622	625	737	535	548
5	720	743	959	706	628	582	685	645	664	740	557	587
6	817	863	1,065	794	727	685	810	809	823	822	655	682
7	945	988	1,221	971	925	905	1,081	1,069	1,012	956	776	747
8	1,025	1,022	1,228	1,100	1,027	1,012	1,128	1,110	1,029	1,044	817	812
9	1,045	1,036	1,157	992	1,028	991	1,078	1,023	961	1,017	771	795
10	1,084	988	1,070	952	999	965	1,010	885	882	984	697	752
11	1,046	986	1,012	956	996	979	994	872	883	943	699	736
12	1,012	941	960	885	966	1,042	974	889	869	955	692	804
13	985	924	866	869	903	1,032	947	882	831	954	698	809
14	944	903	847	831	940	1,037	932	820	805	1,014	696	830
15	930	878	814	878	961	1,000	914	781	800	1,077	657	875
16	945	852	873	948	1,046	1,104	944	845	861	1,118	680	930
17	984	807	957	1,021	1,118	1,263	1,070	953	898	1,321	700	1,009
18	1,099	886	1,073	1,151	1,355	1,512	1,394	1,126	993	1,393	825	1,147
19	1,129	911	1,171	1,283	1,395	1,565	1,564	1,386	1,150	1,435	886	1,217
20	1,165	951	1,298	1,402	1,357	1,524	1,533	1,338	1,232	1,446	966	1,226
21	1,258	1,041	1,457	1,498	1,343	1,449	1,466	1,328	1,293	1,575	1,078	1,305
22	1,329	1,075	1,462	1,400	1,281	1,364	1,368	1,274	1,210	1,568	1,187	1,413
23	1,210	937	1,262	1,183	1,107	1,190	1,158	1,101	990	1,301	1,136	1,243
24	1,058	780	1,037	943	912	923	874	899	771	1,053	1,005	1,003

Table (4) (A)-12: Residential other use "Sunday" profile (MW)

Date	7/17/05	8/7/05	9/11/05	10/9/05	11/20/05	12/18/05	1/15/06	2/26/06	3/26/06	4/23/06	5/28/06	6/25/06
1	851	854	843	680	567	704	879	755	815	884	879	889
2	795	803	782	585	478	597	746	637	707	819	819	813
3	764	753	749	512	425	500	663	577	648	770	779	766
4	743	712	733	501	414	498	644	564	632	674	737	744
5	746	717	730	494	410	484	623	545	633	652	758	716
6	771	719	797	504	427	501	645	600	663	670	778	737
7	799	749	821	555	498	566	716	712	780	718	846	780
8	965	876	893	684	674	723	873	842	853	831	943	964
9	1,095	1,020	995	884	812	887	1,057	965	949	979	1,087	1,103
10	1,154	1,147	1,084	1,022	927	1,106	1,273	1,080	1,009	1,059	1,118	1,125
11	1,199	1,228	1,137	1,042	1,022	1,186	1,307	1,160	1,077	1,076	1,125	1,153
12	1,203	1,222	1,152	1,099	1,088	1,258	1,320	1,151	1,118	1,171	1,079	1,128
13	1,140	1,216	1,114	1,112	1,109	1,390	1,293	1,174	1,097	1,232	1,014	1,103
14	1,095	1,209	1,059	1,076	1,112	1,371	1,261	1,153	1,091	1,280	917	1,096
15	1,062	1,159	1,016	1,051	1,166	1,379	1,210	1,092	1,045	1,307	841	1,059
16	1,039	1,157	978	1,099	1,166	1,412	1,256	1,086	1,023	1,322	791	1,067
17	1,075	1,194	1,000	1,080	1,251	1,531	1,352	1,130	998	1,428	784	1,103
18	1,113	1,232	1,060	1,127	1,428	1,715	1,532	1,222	1,144	1,518	847	1,185
19	1,146	1,282	1,126	1,179	1,439	1,717	1,608	1,480	1,294	1,525	897	1,220
20	1,175	1,327	1,205	1,331	1,426	1,699	1,552	1,493	1,375	1,518	961	1,241
21	1,313	1,442	1,313	1,307	1,322	1,657	1,476	1,513	1,381	1,605	1,120	1,351
22	1,334	1,433	1,225	1,098	1,157	1,532	1,329	1,354	1,237	1,507	1,167	1,364
23	1,190	1,244	1,019	939	897	1,246	1,120	1,102	990	1,269	1,063	1,251
24	1,046	1,051	832	722	681	970	851	858	785	1,008	961	1,027

Table (4) (A)-13: Commercial "peak day" profile (MW)

Date	7/25/05	8/3/05	9/22/05	10/4/05	11/29/05	12/8/05	1/5/06	2/18/06	3/21/06	4/14/06	5/30/06	6/21/06
1	1,966	1,760	1,618	1,561	1,440	1,728	1,423	1,632	1,424	1,432	1,556	1,809
2	1,929	1,714	1,550	1,514	1,428	1,693	1,395	1,657	1,417	1,397	1,512	1,744
3	1,884	1,696	1,514	1,498	1,442	1,729	1,408	1,660	1,402	1,382	1,477	1,729
4	1,867	1,701	1,518	1,487	1,449	1,727	1,403	1,676	1,410	1,375	1,490	1,711
5	1,900	1,772	1,578	1,531	1,485	1,769	1,442	1,747	1,466	1,390	1,549	1,748
6	1,961	1,842	1,697	1,627	1,619	1,871	1,565	1,761	1,564	1,487	1,681	1,829
7	2,128	2,006	1,916	1,816	1,824	2,046	1,767	1,882	1,751	1,612	1,827	2,010
8	2,314	2,236	2,079	2,021	1,960	2,215	1,945	1,926	1,904	1,751	2,092	2,355
9	2,639	2,566	2,343	2,318	2,076	2,347	2,073	1,966	2,034	1,978	2,342	2,659
10	2,842	2,751	2,573	2,527	2,184	2,435	2,124	2,020	2,108	2,166	2,525	2,834
11	2,965	2,834	2,756	2,625	2,197	2,402	2,138	2,056	2,186	2,278	2,629	2,981
12	3,035	2,864	2,881	2,698	2,173	2,374	2,120	1,996	2,174	2,382	2,696	3,012
13	3,048	2,915	2,929	2,753	2,204	2,353	2,094	1,907	2,116	2,401	2,709	3,014
14	3,108	2,946	2,961	2,763	2,209	2,350	2,125	1,884	2,136	2,419	2,749	3,023
15	3,094	2,939	2,968	2,754	2,175	2,321	2,103	1,842	2,101	2,435	2,750	3,039
16	3,014	2,879	2,828	2,670	2,101	2,252	2,088	1,834	2,010	2,423	2,680	2,983
17	2,930	2,843	2,654	2,532	2,081	2,249	2,008	1,826	1,901	2,359	2,590	2,923
18	2,764	2,686	2,463	2,372	2,088	2,281	1,914	1,865	1,859	2,255	2,359	2,764
19	2,627	2,571	2,315	2,262	1,967	2,177	1,847	1,884	1,840	2,126	2,203	2,610
20	2,543	2,488	2,262	2,194	1,956	2,136	1,774	1,865	1,801	2,040	2,112	2,508
21	2,467	2,356	2,146	2,066	1,851	2,079	1,681	1,881	1,718	1,936	2,014	2,400
22	2,317	2,267	2,011	1,860	1,769	1,944	1,628	1,831	1,655	1,820	1,913	2,219
23	2,202	2,050	1,831	1,751	1,642	1,909	1,539	1,802	1,573	1,641	1,803	2,067
24	2,066	1,916	1,742	1,633	1,567	1,875	1,509	1,768	1,509	1,580	1,656	1,922

Table (4) (A)-14: Commercial "Wednesday" profile (MW)

Date	7/20/05	8/10/05	9/14/05	10/12/05	11/23/05	12/14/05	1/11/06	2/22/06	3/29/06	4/19/06	5/24/06	6/28/06
1	1,747	1,849	1,631	1,261	1,375	1,513	1,426	1,429	1,326	1,310	1,380	1,468
2	1,682	1,782	1,585	1,229	1,349	1,483	1,414	1,433	1,279	1,288	1,311	1,401
3	1,665	1,741	1,539	1,201	1,345	1,488	1,404	1,422	1,316	1,263	1,307	1,366
4	1,645	1,749	1,546	1,180	1,369	1,478	1,437	1,435	1,310	1,277	1,308	1,382
5	1,684	1,781	1,590	1,221	1,405	1,517	1,489	1,511	1,364	1,294	1,352	1,416
6	1,794	1,846	1,680	1,337	1,480	1,627	1,584	1,578	1,443	1,387	1,479	1,508
7	1,926	1,992	1,876	1,558	1,609	1,768	1,726	1,764	1,616	1,607	1,658	1,654
8	2,191	2,226	2,055	1,718	1,734	1,977	1,971	1,999	1,753	1,747	1,869	1,870
9	2,502	2,478	2,282	1,843	1,857	2,081	2,049	2,074	1,823	1,908	2,138	2,161
10	2,659	2,715	2,447	1,969	1,935	2,163	2,063	2,161	1,893	2,018	2,397	2,397
11	2,845	2,830	2,525	2,035	1,947	2,185	2,044	2,129	1,919	2,141	2,543	2,564
12	2,916	2,921	2,553	2,092	1,944	2,093	2,022	2,050	1,920	2,195	2,653	2,675
13	2,922	2,957	2,587	2,172	1,949	2,103	1,992	1,988	1,925	2,222	2,683	2,690
14	3,027	3,023	2,609	2,216	1,910	2,064	1,954	1,991	1,933	2,254	2,699	2,726
15	3,019	3,018	2,614	2,213	1,853	2,087	1,916	1,981	1,918	2,256	2,728	2,704
16	2,964	2,913	2,530	2,177	1,744	2,018	1,868	1,896	1,855	2,260	2,670	2,650
17	2,908	2,756	2,356	2,114	1,719	1,961	1,817	1,792	1,779	2,131	2,612	2,599
18	2,738	2,532	2,229	1,973	1,707	1,924	1,756	1,744	1,688	2,037	2,390	2,423
19	2,644	2,442	2,143	1,880	1,657	1,853	1,685	1,726	1,651	1,938	2,287	2,274
20	2,491	2,324	2,140	1,692	1,593	1,813	1,646	1,763	1,635	1,837	2,215	2,176
21	2,345	2,214	1,985	1,626	1,500	1,776	1,593	1,702	1,490	1,726	2,151	2,057
22	2,236	2,100	1,764	1,508	1,427	1,676	1,515	1,626	1,400	1,562	2,014	1,893
23	2,099	1,973	1,665	1,414	1,376	1,549	1,433	1,527	1,341	1,418	1,839	1,759
24	1,951	1,875	1,565	1,337	1,304	1,476	1,401	1,440	1,282	1,304	1,644	1,668

Table (4) (A)-15: Commercial "Sunday" profile (MW)

Date	7/17/05	8/7/05	9/11/05	10/9/05	11/20/05	12/18/05	1/15/06	2/26/06	3/26/06	4/23/06	5/28/06	6/25/06
1	1,724	1,623	1,615	1,186	1,317	1,568	1,449	1,469	1,347	1,298	1,595	1,508
2	1,657	1,548	1,568	1,157	1,293	1,518	1,448	1,487	1,344	1,226	1,542	1,444
3	1,603	1,512	1,518	1,147	1,284	1,553	1,454	1,490	1,352	1,179	1,497	1,419
4	1,567	1,495	1,503	1,135	1,276	1,513	1,431	1,490	1,357	1,199	1,485	1,400
5	1,575	1,514	1,522	1,151	1,300	1,547	1,464	1,555	1,381	1,192	1,465	1,425
6	1,592	1,552	1,512	1,186	1,332	1,565	1,470	1,571	1,404	1,209	1,497	1,446
7	1,600	1,581	1,543	1,226	1,355	1,615	1,511	1,581	1,362	1,218	1,481	1,434
8	1,663	1,621	1,589	1,237	1,323	1,628	1,511	1,583	1,369	1,238	1,621	1,491
9	1,786	1,751	1,692	1,259	1,375	1,721	1,529	1,562	1,375	1,362	1,727	1,632
10	1,941	1,884	1,797	1,307	1,438	1,707	1,518	1,562	1,404	1,446	1,919	1,827
11	2,019	1,978	1,934	1,381	1,464	1,763	1,557	1,521	1,391	1,546	2,011	1,924
12	2,079	2,103	1,984	1,382	1,474	1,780	1,511	1,522	1,369	1,557	2,055	1,922
13	2,138	2,106	2,015	1,364	1,472	1,694	1,477	1,468	1,374	1,558	2,051	1,960
14	2,167	2,082	2,055	1,390	1,470	1,695	1,455	1,422	1,332	1,532	2,046	1,938
15	2,150	2,116	2,065	1,411	1,453	1,680	1,427	1,398	1,333	1,571	2,053	1,948
16	2,142	2,037	2,058	1,374	1,444	1,674	1,368	1,365	1,311	1,567	2,053	1,964
17	2,110	2,012	2,028	1,389	1,465	1,690	1,389	1,357	1,337	1,526	2,014	1,961
18	2,128	2,042	2,010	1,380	1,508	1,797	1,452	1,412	1,317	1,505	1,960	1,905
19	2,103	1,969	1,903	1,416	1,481	1,818	1,448	1,442	1,370	1,489	1,916	1,852
20	2,031	1,885	1,891	1,404	1,443	1,804	1,440	1,463	1,364	1,528	1,848	1,796
21	1,907	1,850	1,821	1,346	1,424	1,773	1,410	1,427	1,302	1,460	1,762	1,701
22	1,941	1,802	1,734	1,363	1,392	1,724	1,405	1,423	1,311	1,405	1,734	1,663
23	1,858	1,769	1,695	1,275	1,394	1,718	1,405	1,430	1,307	1,362	1,686	1,560
24	1,807	1,702	1,636	1,222	1,350	1,678	1,417	1,414	1,278	1,306	1,583	1,493

Table (4) (A)-16: Industrial "peak day" profile (MW)

Date	7/25/05	8/3/05	9/22/05	10/4/05	11/29/05	12/8/05	1/5/06	2/18/06	3/21/06	4/14/06	5/30/06	6/21/06
1	705	740	804	806	742	727	684	643	625	647	529	782
2	718	725	793	798	732	721	674	645	603	638	524	771
3	713	720	776	784	738	731	673	645	590	621	510	748
4	704	708	746	758	711	712	649	627	588	607	516	715
5	740	730	766	767	709	728	654	653	609	590	523	718
6	790	781	822	801	775	757	697	643	629	589	557	778
7	902	871	909	832	851	810	754	661	696	620	657	821
8	933	893	920	882	882	837	785	661	714	627	738	895
9	972	937	932	927	859	858	797	645	713	634	682	919
10	984	931	973	956	875	873	762	640	720	635	769	913
11	1,001	909	985	973	872	811	751	639	734	615	772	929
12	1,001	900	972	969	864	797	758	621	717	629	796	906
13	998	909	997	986	885	800	727	608	697	643	794	911
14	1,007	903	1,006	972	888	815	768	627	715	617	787	898
15	970	884	997	956	862	797	747	621	698	604	757	908
16	934	869	951	920	829	772	733	627	659	612	701	881
17	900	857	904	900	794	760	676	605	648	599	699	869
18	874	836	873	895	780	762	654	596	649	593	677	871
19	884	820	870	870	764	753	659	570	648	574	660	851
20	889	820	872	860	776	753	675	558	661	574	670	848
21	884	798	865	870	764	745	673	583	658	563	596	842
22	852	813	863	855	780	709	678	564	660	567	603	836
23	850	794	831	853	775	728	687	572	670	541	643	830
24	822	774	830	835	759	738	691	567	652	547	610	800

Table (4) (A)-17: Industrial "Wednesday" profile (MW)

Date	7/20/05	8/10/05	9/14/05	10/12/05	11/23/05	12/14/05	1/11/06	2/22/06	3/29/06	4/19/06	5/24/06	6/28/06
1	769	763	757	741	722	731	678	712	619	750	660	718
2	746	747	749	731	705	723	672	731	596	732	654	702
3	753	727	725	722	707	717	651	706	611	721	646	683
4	723	712	700	698	700	681	654	679	593	708	625	672
5	733	740	723	705	711	677	665	709	606	712	642	654
6	798	787	771	746	726	723	698	724	639	740	658	717
7	856	858	840	825	774	762	725	768	697	817	716	798
8	927	884	875	838	822	809	797	837	711	844	722	800
9	961	894	863	858	795	789	761	836	683	860	738	838
10	913	914	894	864	777	784	759	870	684	850	793	887
11	937	898	918	867	772	787	745	836	674	837	810	889
12	953	920	909	877	775	767	745	792	688	846	812	907
13	955	920	934	914	773	781	755	792	698	855	798	884
14	986	918	937	934	749	781	755	818	704	858	769	871
15	951	887	933	908	724	797	745	832	703	844	785	847
16	912	842	882	879	667	753	716	776	663	834	752	836
17	902	839	834	859	668	714	700	734	670	793	758	819
18	872	808	829	843	652	718	664	721	670	799	721	808
19	856	793	813	807	650	730	648	713	662	790	734	790
20	838	786	811	778	653	742	660	764	663	771	726	782
21	817	777	793	775	634	742	669	769	638	760	740	768
22	837	785	781	770	624	732	674	758	631	753	753	746
23	818	794	779	765	618	721	681	746	640	766	731	768
24	779	795	773	763	589	711	686	714	641	754	696	769

Table (4) (A)-18: Industrial "Sunday" profile (MW)

Date	7/17/05	8/7/05	9/11/05	10/9/05	11/20/05	12/18/05	1/15/06	2/26/06	3/26/06	4/23/06	5/28/06	6/25/06
1	642	552	593	507	566	595	519	520	463	565	419	559
2	631	537	585	501	554	580	538	554	459	537	420	547
3	599	530	570	511	559	616	544	555	464	518	419	553
4	574	528	559	498	538	567	516	548	449	533	423	535
5	584	535	567	501	546	578	518	578	455	522	423	547
6	579	540	549	506	561	566	519	558	463	510	434	566
7	590	546	547	511	567	573	518	544	456	525	421	563
8	591	555	562	514	542	578	524	561	455	524	458	560
9	628	573	579	503	555	626	519	538	443	538	466	581
10	672	597	595	508	567	599	488	534	457	559	494	627
11	655	589	604	521	576	619	525	524	446	562	491	649
12	643	618	600	505	576	608	498	539	435	555	481	639
13	669	615	593	508	580	558	510	499	439	547	467	636
14	676	602	579	527	610	571	499	496	432	540	460	630
15	647	606	570	534	553	568	505	508	447	532	454	632
16	639	571	565	502	551	545	464	485	443	559	465	613
17	618	559	558	516	543	519	471	457	466	534	474	616
18	646	573	556	517	523	544	453	497	433	533	467	572
19	668	566	520	529	523	572	458	441	416	536	462	563
20	641	562	554	520	508	568	471	477	428	556	460	575
21	611	571	554	508	534	561	473	453	416	549	439	529
22	657	580	555	548	558	569	501	484	447	548	444	563
23	635	600	585	537	607	601	524	528	463	558	451	539
24	662	622	615	571	623	622	559	545	486	565	434	571

Table (4) (A)-19: Noranda "peak day" profile (MW)

Date	7/25/05	8/3/05	9/22/05	10/4/05	11/29/05	12/8/05	1/5/06	2/18/06	3/21/06	4/14/06	5/30/06	6/21/06
1	[redacted]											
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3												
4												
5												
6												
7												
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24												

Table (4) (A)-20: Noranda "Wednesday" profile (MW)

Date	7/20/05	8/10/05	9/14/05	10/12/05	11/23/05	12/14/05	1/11/06	2/22/06	3/29/06	4/19/06	5/24/06	6/28/06
1	[redacted]											
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3												
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5												
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23												
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Table (4) (A)-21: Noranda "Sunday" profile (MW)

Date	7/17/05	8/7/05	9/11/05	10/9/05	11/20/05	12/18/05	1/15/06	2/26/06	3/26/06	4/23/06	5/28/06	6/25/06
1	[redacted]											
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Table (4) (A)-22: Wholesale "peak day" profile (MW)

Date	7/25/05	8/3/05	9/22/05	10/4/05	11/29/05	12/8/05	1/5/06	2/18/06	3/21/06	4/14/06	5/30/06	6/21/06
1	105	95	73	70	62	76	62	68	63	59	69	89
2	100	89	69	66	61	75	60	67	61	55	65	84
3	95	84	67	63	61	74	59	67	60	53	63	81
4	92	81	66	62	61	73	59	67	60	52	61	79
5	90	80	67	62	63	75	61	68	62	52	61	77
6	91	82	71	66	68	80	65	70	67	55	65	80
7	96	86	80	75	77	89	74	74	73	59	71	85
8	104	94	87	81	83	94	81	76	78	64	81	95
9	115	103	93	87	85	95	82	81	81	71	87	102
10	125	112	101	93	86	96	83	83	83	76	92	110
11	134	121	109	100	86	97	85	83	84	80	97	117
12	142	129	114	104	86	95	85	82	84	84	101	123
13	146	135	120	108	85	95	85	79	83	86	107	126
14	139	129	125	112	85	94	84	76	82	88	111	125
15	141	134	127	114	85	92	84	74	81	91	114	129
16	143	136	128	115	85	92	84	74	81	93	116	130
17	142	137	129	115	89	96	87	75	81	94	117	132
18	142	136	125	113	94	104	92	78	82	94	114	131
19	150	143	121	109	93	106	91	83	86	91	109	131
20	145	138	119	109	91	104	89	82	87	88	105	127
21	143	134	115	106	88	102	86	81	84	88	103	124
22	138	129	107	99	83	97	82	79	80	84	100	120
23	129	119	95	87	76	89	75	74	73	77	90	109
24	117	108	85	77	69	82	68	70	67	68	79	98

Table (4) (A)-23: Wholesale "Wednesday" profile (MW)

Date	7/20/05	8/10/05	9/14/05	10/12/05	11/23/05	12/14/05	1/11/06	2/22/06	3/29/06	4/19/06	5/24/06	6/28/06
1	89	96	76	52	59	62	63	59	57	54	57	62
2	85	90	70	51	57	61	61	58	55	52	54	58
3	81	85	67	50	56	60	60	57	54	49	52	56
4	79	82	65	49	56	60	60	58	54	49	51	55
5	78	81	64	50	57	62	62	60	56	50	52	55
6	81	83	68	54	61	67	67	66	61	54	56	57
7	85	88	76	63	68	76	75	74	67	62	62	62
8	95	95	82	69	72	82	81	77	71	68	69	69
9	105	104	86	71	76	84	81	78	73	70	74	77
10	116	114	89	72	75	84	81	76	73	72	80	83
11	125	124	91	74	76	84	80	76	73	74	86	89
12	129	132	93	74	74	84	78	74	71	76	91	94
13	126	136	95	75	73	83	78	73	71	76	94	98
14	132	131	97	74	72	82	76	71	70	77	97	102
15	135	135	99	75	69	81	74	70	69	77	99	105
16	138	135	99	74	68	80	72	68	68	76	102	109
17	140	131	99	74	70	84	75	69	67	76	104	112
18	139	139	98	74	76	89	81	71	68	76	103	112
19	144	135	95	75	75	88	83	76	71	74	101	108
20	140	131	95	77	72	87	81	77	74	74	99	104
21	135	128	93	74	70	85	79	75	73	76	98	100
22	131	122	87	69	66	81	75	72	68	72	97	97
23	121	111	78	63	61	74	69	68	63	63	89	89
24	110	100	69	56	54	67	62	61	56	55	78	79

Table (4) (A)-24: Wholesale "Sunday" profile (MW)

Date	7/17/05	8/7/05	9/11/05	10/9/05	11/20/05	12/18/05	1/15/06	2/26/06	3/26/06	4/23/06	5/28/06	6/25/06
1	84	70	76	47	51	65	60	55	54	46	74	67
2	78	65	71	46	49	62	59	54	53	44	68	62
3	74	61	67	44	49	61	57	54	52	42	64	59
4	71	59	65	43	48	61	57	54	52	41	61	55
5	69	58	63	44	49	62	57	55	53	41	59	54
6	68	57	63	46	51	64	59	57	54	42	58	54
7	67	57	64	47	53	67	62	60	55	42	58	54
8	72	61	66	50	56	71	64	61	57	46	63	59
9	81	70	73	54	60	74	67	63	59	51	72	65
10	90	79	81	56	62	77	69	63	60	54	81	72
11	99	88	90	57	64	76	69	63	59	55	88	77
12	107	95	98	57	65	77	67	62	58	57	94	80
13	113	101	104	57	64	77	66	62	58	58	99	84
14	118	106	109	57	65	76	66	60	57	59	103	87
15	121	110	112	57	65	76	65	60	56	60	105	89
16	123	113	114	56	65	76	64	58	55	61	107	92
17	125	115	114	57	68	82	67	59	56	62	107	93
18	126	115	113	58	74	90	74	62	59	63	108	95
19	123	113	108	60	73	90	76	68	64	63	105	92
20	119	109	107	65	72	90	75	69	67	64	100	88
21	117	107	104	63	70	89	73	68	66	66	97	84
22	115	104	96	60	67	87	71	65	63	64	95	83
23	108	96	87	55	62	81	67	61	59	59	88	77
24	99	87	80	51	57	74	62	57	55	52	79	68

Table (4) (A)-25: Lighting "peak day" profile (MW)

Date	7/25/05	8/3/05	9/22/05	10/4/05	11/29/05	12/8/05	1/5/06	2/18/06	3/21/06	4/14/06	5/30/06	6/21/06
1	85	85	85	85	85	85	85	85	85	85	85	85
2	85	85	85	85	85	85	85	85	85	85	85	85
3	85	85	85	85	85	85	85	85	85	85	85	85
4	85	85	85	85	85	85	85	85	85	85	85	85
5	85	85	85	85	85	85	85	85	85	85	85	85
6	72	83	85	85	85	85	85	85	85	85	47	44
7	-	-	65	82	83	85	85	66	1	32	-	-
8	-	-	-	-	-	10	28	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	35	37	17	-	-	-	-	-
18	-	-	-	-	85	85	85	31	-	-	-	-
19	-	-	7	34	85	85	85	85	68	-	-	-
20	-	-	85	85	85	85	85	85	85	34	-	-
21	59	72	85	85	85	85	85	85	85	85	58	42
22	85	85	85	85	85	85	85	85	85	85	85	85
23	85	85	85	85	85	85	85	85	85	85	85	85
24	85	85	85	85	85	85	85	85	85	85	85	85

Table (4) (A)-26: Lighting "Wednesday" profile (MW)

Date	7/20/05	8/10/05	9/14/05	10/12/05	11/23/05	12/14/05	1/11/06	2/22/06	3/29/06	4/19/06	5/24/06	6/28/06
1	85	85	85	85	85	85	85	85	85	85	85	85
2	85	85	85	85	85	85	85	85	85	85	85	85
3	85	85	85	85	85	85	85	85	85	85	85	85
4	85	85	85	85	85	85	85	85	85	85	85	85
5	85	85	85	85	85	85	85	85	85	85	85	85
6	66	85	85	85	85	85	85	85	68	85	52	47
7	-	8	55	85	75	85	85	59	-	21	-	-
8	-	-	-	8	-	17	27	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	32	35	8	-	-	-	-	-
18	-	-	-	-	85	85	85	24	-	-	-	-
19	-	-	-	52	85	85	85	85	56	-	-	-
20	-	-	73	85	85	85	85	85	85	27	-	-
21	54	83	85	85	85	85	85	85	85	85	63	41
22	85	85	85	85	85	85	85	85	85	85	85	85
23	85	85	85	85	85	85	85	85	85	85	85	85
24	85	85	85	85	85	85	85	85	85	85	85	85

Table (4) (A)-27: Lighting "Sunday" profile (MW)

Date	7/17/05	8/7/05	9/11/05	10/9/05	11/20/05	12/18/05	1/15/06	2/26/06	3/26/06	4/23/06	5/28/06	6/25/06
1	85	85	85	85	85	85	85	85	85	85	85	85
2	85	85	85	85	85	85	85	85	85	85	85	85
3	85	85	85	85	85	85	85	85	85	85	85	85
4	85	85	85	85	85	85	85	85	85	85	85	85
5	85	85	85	85	85	85	85	85	85	85	85	85
6	63	85	85	85	85	85	85	85	73	85	48	46
7	-	4	51	85	69	85	85	51	-	14	-	-
8	-	-	-	4	-	21	25	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	30	34	3	-	-	-	-	-
18	-	-	-	-	85	85	85	18	-	-	-	-
19	-	-	-	46	85	85	85	85	61	-	-	-
20	-	-	66	85	85	85	85	85	85	21	-	-
21	51	78	85	85	85	85	85	85	85	85	59	41
22	85	85	85	85	85	85	85	85	85	85	85	85
23	85	85	85	85	85	85	85	85	85	85	85	85
24	85	85	85	85	85	85	85	85	85	85	85	85

Table (4) (A)-28: Total system "peak day" profile (MW)

Date	7/25/05	8/3/05	9/22/05	10/4/05	11/29/05	12/8/05	1/5/06	2/18/06	3/21/06	4/14/06	5/30/06	6/21/06
1	[redacted]											
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												

Table (4) (A)-29: Total system "Wednesday" profile (MW)

Date	7/20/05	8/10/05	9/14/05	10/12/05	11/23/05	12/14/05	1/11/06	2/22/06	3/29/06	4/19/06	5/24/06	6/28/06
1	[redacted]											
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												

Table (4) (A)-30: Total system "Sunday" profile (MW)

Date	7/17/05	8/7/05	9/11/05	10/9/05	11/20/05	12/18/05	1/15/06	2/26/06	3/26/06	4/23/06	5/28/06	6/25/06
1	[redacted]											
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
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17												
18												
19												
20												
21												
22												
23												
24												

4 CSR 22.030 (4) (B)

(B) For each day type, the estimated major class load profiles shall be calibrated to sum to the net system load profiles. Where information is available and heating, cooling and other uses are estimated for a major class, these profiles will be calibrated to sum to the estimated major class load profiles.

All hourly class load profiles have been calibrated to sum to the hourly net system loads. Residential heating, cooling and other uses have been calibrated to sum to the estimated residential load profile.