

Variable	Description	Definition
Res_Coincident	Historical residential class contribution to system peak (MW)	
Res_Native_Adj	Average monthly residential energy for each season with Oct-Apr as Winter and May-Sep as Summer	Seasonal moving average of actual and forecast Residential kWh sales / Public Service (calculated internally in the energy sales model)
CDD_Index_Cust	Weighted cooling degree days index interacted with monthly binaries and customer counts	Max Cooling Degree Days (base 65) * Residential Cooling Index * Customer counts for the months of May, June, July, August and September
HDD_Index_Cust	Weighted heating degree days index interacted with monthly binaries and customer counts	Max Heating Degree Days (base 65) * Residential Heating Index * Customer counts * Binaries for the months of January, February, and December.
Sep08_LaborDay	Binary variable for September 2008	= 1 for Sep 2008, = 0 for all other months
Peak_Hr_Bin	Binary variables for peak hour	Binary variable = 0 for all months except for hours_15, hour_16, hour_17, hour_18 and hour_19; = 1 if the peak occurred in the designated hour.
GMI_WP_CDD_Cust_NoInd	Google Mobility Index - Workplace multiplied by peak day CDDs and residential customers	Google Mobility Index - WP * Residential Customer Counts * Max Cooling Degree Days (base 65)
AR(1)	AR(1)	First order autoregressive term

Variable	Coefficient	StdErr	T-Stat	P-Value
Res_Cust	0.001	0.000	2.133	3.44%
Res_Native_Adj_Seasonal	0.001	0.000	2.261	2.51%
Jan_HDD_Index_Cust	2.268	0.408	5.557	0.00%
Feb_HDD_Index_Cust	1.417	0.389	3.646	0.04%
May_CDD_Index_Cust	13.196	5.191	2.542	1.19%
Jun_CDD_Index_Cust	44.195	2.517	17.557	0.00%
Jul_CDD_Index_Cust	46.001	2.425	18.966	0.00%
Aug_CDD_Index_Cust	47.863	2.732	17.521	0.00%
Sep_CDD_Index_Cust	46.541	3.442	13.520	0.00%
Dec_HDD_Index_Cust	2.983	0.409	7.294	0.00%
Hour_15	-394.874	160.589	-2.459	1.50%
Hour_16	-275.029	63.815	-4.310	0.00%
Hour_17	-113.692	51.148	-2.223	2.76%
Hour_18	163.291	45.887	3.559	0.05%
Hour_19	272.580	44.260	6.159	0.00%
GMI_WP_CDD_Cust_NoInd	-0.238	0.116	-2.058	4.12%
Outlier_2008Sep	687.495	157.712	4.359	0.00%

### Model Statistics

Iterations	1
Adjusted Observations	180
Deg. of Freedom for Error	163
R-Squared	0.907
Adjusted R-Squared	0.898
AIC	10.163
BIC	10.464
F-Statistic	
Prob (F-Statistic)	
Log-Likelihood	-1,153.05
Model Sum of Squares	37,683,682.03
Sum of Squared Errors	3,862,016.47
Mean Squared Error	23,693.35
Std. Error of Regression	153.93
Mean Abs. Dev. (MAD)	111.16
Mean Abs. % Err. (MAPE)	6.29%
Durbin-Watson Statistic	1.908
Durbin-H Statistic	
Ljung-Box Statistic	32.78
Prob (Ljung-Box)	0.1089
Skewness	0.371
Kurtosis	5.535
Jarque-Bera	52.339
Prob (Jarque-Bera)	0.0000

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2007	4	935.311	1,050.012	-114.700	-0.123	-0.745
2007	5	1,037.951	1,037.951	-0.000	-0.000	-0.000
2007	6	1,981.764	1,972.308	9.455	0.005	0.061
2007	7	2,165.667	2,169.141	-3.474	-0.002	-0.023
2007	8	2,109.711	2,169.509	-59.797	-0.028	-0.388
2007	9	1,741.867	1,704.825	37.042	0.021	0.241
2007	10	1,045.526	1,246.769	-201.243	-0.192	-1.307
2007	11	1,624.474	1,633.399	-8.924	-0.005	-0.058
2007	12	2,006.210	1,769.494	236.716	0.118	1.538
2008	1	1,977.821	1,865.805	112.016	0.057	0.728
2008	2	1,772.208	1,734.848	37.360	0.021	0.243
2008	3	1,638.628	1,635.718	2.910	0.002	0.019
2008	4	1,506.589	1,363.226	143.363	0.095	0.931
2008	5	1,501.269	1,596.544	-95.275	-0.063	-0.619
2008	6	2,126.170	2,058.719	67.452	0.032	0.438
2008	7	2,088.443	2,159.948	-71.506	-0.034	-0.465
2008	8	2,257.830	2,228.557	29.273	0.013	0.190
2008	9	2,141.948	2,141.948	-0.000	-0.000	-0.000
2008	10	1,415.373	1,362.467	52.907	0.037	0.344
2008	11	1,493.933	1,635.539	-141.606	-0.095	-0.920
2008	12	2,079.313	1,993.865	85.448	0.041	0.555
2009	1	1,950.193	1,871.890	78.303	0.040	0.509
2009	2	1,634.912	1,698.680	-63.767	-0.039	-0.414
2009	3	1,510.940	1,365.641	145.299	0.096	0.944
2009	4	1,472.130	1,365.875	106.255	0.072	0.690
2009	5	1,336.784	1,267.907	68.878	0.052	0.447
2009	6	1,913.930	1,719.705	194.225	0.101	1.262
2009	7	1,890.035	1,738.332	151.703	0.080	0.986
2009	8	2,027.439	1,946.194	81.245	0.040	0.528
2009	9	1,479.343	1,279.164	200.179	0.135	1.300
2009	10	1,737.121	1,661.718	75.403	0.043	0.490
2009	11	1,674.002	1,662.197	11.805	0.007	0.077
2009	12	2,082.845	1,898.861	183.984	0.088	1.195
2010	1	1,809.026	1,887.442	-78.417	-0.043	-0.509
2010	2	1,881.120	1,785.656	95.464	0.051	0.620
2010	3	1,606.591	1,665.418	-58.827	-0.037	-0.382
2010	4	1,480.143	1,392.702	87.441	0.059	0.568
2010	5	1,644.157	1,839.065	-194.908	-0.119	-1.266
2010	6	2,095.781	2,292.965	-197.184	-0.094	-1.281
2010	7	2,260.521	2,003.074	257.446	0.114	1.673
2010	8	2,035.714	2,262.245	-226.531	-0.111	-1.472
2010	9	1,619.955	1,565.611	54.344	0.034	0.353
2010	10	948.786	1,108.002	-159.216	-0.168	-1.034
2010	11	1,696.471	1,547.176	149.295	0.088	0.970
2010	12	1,901.157	1,853.359	47.798	0.025	0.311
2011	1	1,943.217	1,906.596	36.620	0.019	0.238
2011	2	2,121.501	1,855.897	265.603	0.125	1.726
2011	3	1,667.205	1,658.423	8.781	0.005	0.057
2011	4	1,322.937	1,385.965	-63.028	-0.048	-0.409
2011	5	1,089.406	1,331.304	-241.897	-0.222	-1.572

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2011	6	1,962.597	2,079.106	-116.509	-0.059	-0.757
2011	7	2,358.186	2,239.068	119.117	0.051	0.774
2011	8	2,462.718	2,621.729	-159.011	-0.065	-1.033
2011	9	1,955.103	2,023.663	-68.560	-0.035	-0.445
2011	10	1,290.826	1,269.933	20.893	0.016	0.136
2011	11	1,467.966	1,547.346	-79.380	-0.054	-0.516
2011	12	1,988.262	2,008.738	-20.476	-0.010	-0.133
2012	1	1,786.225	1,908.079	-121.854	-0.068	-0.792
2012	2	1,672.317	1,800.117	-127.800	-0.076	-0.830
2012	3	1,469.202	1,659.356	-190.155	-0.129	-1.235
2012	4	1,029.713	1,386.925	-357.211	-0.347	-2.321
2012	5	1,657.955	1,546.019	111.936	0.068	0.727
2012	6	2,612.338	2,708.508	-96.170	-0.037	-0.625
2012	7	2,440.848	2,484.355	-43.507	-0.018	-0.283
2012	8	2,230.691	2,166.982	63.709	0.029	0.414
2012	9	1,990.467	2,138.902	-148.435	-0.075	-0.964
2012	10	1,628.274	1,672.073	-43.799	-0.027	-0.285
2012	11	1,646.541	1,563.414	83.127	0.050	0.540
2012	12	2,051.783	1,992.347	59.436	0.029	0.386
2013	1	1,974.511	1,956.676	17.834	0.009	0.116
2013	2	1,710.541	1,799.527	-88.986	-0.052	-0.578
2013	3	1,763.872	1,675.708	88.164	0.050	0.573
2013	4	1,722.124	1,403.500	318.623	0.185	2.070
2013	5	1,495.985	1,460.697	35.288	0.024	0.229
2013	6	2,656.573	2,670.342	-13.769	-0.005	-0.089
2013	7	2,474.587	2,652.436	-177.850	-0.072	-1.155
2013	8	2,410.134	2,555.963	-145.828	-0.061	-0.947
2013	9	2,330.283	2,304.934	25.349	0.011	0.165
2013	10	1,659.262	1,419.795	239.467	0.144	1.556
2013	11	1,636.157	1,583.780	52.376	0.032	0.340
2013	12	1,795.776	1,995.378	-199.601	-0.111	-1.297
2014	1	2,174.364	1,975.693	198.671	0.091	1.291
2014	2	2,019.915	1,899.594	120.320	0.060	0.782
2014	3	1,730.486	1,696.687	33.800	0.020	0.220
2014	4	1,679.906	1,424.508	255.397	0.152	1.659
2014	5	1,782.734	1,728.948	53.785	0.030	0.349
2014	6	2,005.824	2,032.041	-26.217	-0.013	-0.170
2014	7	2,333.689	2,356.393	-22.704	-0.010	-0.148
2014	8	2,156.130	2,170.007	-13.878	-0.006	-0.090
2014	9	2,036.146	1,327.867	708.279	0.348	4.601
2014	10	1,420.122	1,409.283	10.839	0.008	0.070
2014	11	1,881.222	1,682.666	198.556	0.106	1.290
2014	12	2,116.994	2,117.028	-0.034	-0.000	-0.000
2015	1	1,855.850	1,834.579	21.270	0.011	0.138
2015	2	1,711.577	1,855.178	-143.602	-0.084	-0.933
2015	3	1,847.543	1,687.258	160.285	0.087	1.041
2015	4	1,468.733	1,415.182	53.551	0.036	0.348
2015	5	1,415.767	1,587.459	-171.692	-0.121	-1.115
2015	6	2,307.194	2,220.825	86.369	0.037	0.561
2015	7	2,358.675	2,329.974	28.700	0.012	0.186

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2015	8	2,634.158	2,493.615	140.543	0.053	0.913
2015	9	1,977.973	2,194.555	-216.581	-0.109	-1.407
2015	10	1,438.342	1,598.477	-160.135	-0.111	-1.040
2015	11	1,616.884	1,599.423	17.461	0.011	0.113
2015	12	1,951.842	1,920.961	30.881	0.016	0.201
2016	1	1,695.986	1,821.484	-125.498	-0.074	-0.815
2016	2	1,822.982	1,730.546	92.436	0.051	0.601
2016	3	1,514.122	1,712.904	-198.782	-0.131	-1.291
2016	4	973.139	1,441.081	-467.942	-0.481	-3.040
2016	5	1,058.708	1,425.604	-366.896	-0.347	-2.384
2016	6	2,700.654	2,567.722	132.933	0.049	0.864
2016	7	2,291.117	2,454.019	-162.902	-0.071	-1.058
2016	8	2,615.841	2,589.783	26.058	0.010	0.169
2016	9	2,048.693	2,157.665	-108.971	-0.053	-0.708
2016	10	1,402.976	1,424.492	-21.515	-0.015	-0.140
2016	11	1,560.544	1,588.319	-27.775	-0.018	-0.180
2016	12	1,812.054	1,997.118	-185.065	-0.102	-1.202
2017	1	2,030.737	1,888.141	142.597	0.070	0.926
2017	2	1,708.421	1,848.203	-139.782	-0.082	-0.908
2017	3	1,740.690	1,701.525	39.165	0.022	0.254
2017	4	1,437.265	1,429.407	7.858	0.005	0.051
2017	5	1,606.909	1,721.515	-114.606	-0.071	-0.745
2017	6	2,606.116	2,771.432	-165.315	-0.063	-1.074
2017	7	2,666.375	2,666.431	-0.055	-0.000	-0.000
2017	8	2,303.679	2,348.958	-45.279	-0.020	-0.294
2017	9	2,180.564	2,249.355	-68.790	-0.032	-0.447
2017	10	1,591.753	1,712.394	-120.641	-0.076	-0.784
2017	11	1,593.535	1,604.126	-10.591	-0.007	-0.069
2017	12	1,919.437	1,933.343	-13.906	-0.007	-0.090
2018	1	1,901.969	1,989.686	-87.717	-0.046	-0.570
2018	2	1,838.066	1,907.828	-69.762	-0.038	-0.453
2018	3	1,649.287	1,718.125	-68.838	-0.042	-0.447
2018	4	1,472.227	1,446.056	26.171	0.018	0.170
2018	5	2,086.786	1,918.146	168.640	0.081	1.096
2018	6	2,789.203	2,887.218	-98.016	-0.035	-0.637
2018	7	2,995.602	2,855.097	140.505	0.047	0.913
2018	8	2,624.347	2,365.042	259.305	0.099	1.685
2018	9	2,574.685	2,573.178	1.507	0.001	0.010
2018	10	1,337.925	1,365.838	-27.913	-0.021	-0.181
2018	11	1,832.809	1,752.858	79.950	0.044	0.519
2018	12	2,086.631	2,016.354	70.276	0.034	0.457
2019	1	1,944.945	1,960.605	-15.661	-0.008	-0.102
2019	2	1,946.625	1,956.616	-9.992	-0.005	-0.065
2019	3	1,982.074	1,757.466	224.608	0.113	1.459
2019	4	1,540.181	1,485.723	54.459	0.035	0.354
2019	5	1,467.640	1,786.015	-318.376	-0.217	-2.068
2019	6	2,603.249	2,469.529	133.720	0.051	0.869
2019	7	3,040.257	2,811.109	229.148	0.075	1.489
2019	8	2,777.848	2,711.893	65.954	0.024	0.428
2019	9	3,234.056	2,880.766	353.290	0.109	2.295

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2019	10	1,754.105	1,770.666	-16.561	-0.009	-0.108
2019	11	1,782.401	1,662.472	119.928	0.067	0.779
2019	12	1,821.709	1,961.582	-139.873	-0.077	-0.909
2020	1	1,727.970	1,831.856	-103.886	-0.060	-0.675
2020	2	1,785.225	1,982.155	-196.930	-0.110	-1.279
2020	3	1,362.664	1,502.960	-140.295	-0.103	-0.911
2020	4	1,285.131	1,503.596	-218.465	-0.170	-1.419
2020	5	2,257.407	2,158.505	98.902	0.044	0.643
2020	6	2,845.617	2,764.121	81.496	0.029	0.529
2020	7	3,059.325	3,326.668	-267.343	-0.087	-1.737
2020	8	3,248.937	3,181.998	66.939	0.021	0.435
2020	9	2,970.919	3,153.072	-182.153	-0.061	-1.183
2020	10	1,826.247	1,811.748	14.499	0.008	0.094
2020	11	1,753.502	1,703.010	50.492	0.029	0.328
2020	12	1,957.083	2,037.629	-80.546	-0.041	-0.523
2021	1	1,942.952	2,120.993	-178.041	-0.092	-1.157
2021	2	2,259.762	2,076.087	183.674	0.081	1.193
2021	3	1,756.342	1,816.545	-60.203	-0.034	-0.391
2021	4	1,447.215	1,430.901	16.314	0.011	0.106
2021	5	1,704.410	1,889.746	-185.336	-0.109	-1.204
2021	6	3,422.130	3,268.855	153.275	0.045	0.996
2021	7	3,422.532	3,409.845	12.687	0.004	0.082
2021	8	2,787.037	2,733.258	53.779	0.019	0.349
2021	9	2,964.974	2,806.583	158.391	0.053	1.029
2021	10	1,701.674	1,796.427	-94.753	-0.056	-0.616
2021	11	1,629.890	1,687.874	-57.984	-0.036	-0.377
2021	12	1,956.082	1,863.113	92.968	0.048	0.604
2022	1	2,035.462	1,977.249	58.213	0.029	0.378
2022	2	1,956.769	2,033.377	-76.609	-0.039	-0.498
2022	3	1,957.287	1,800.376	156.911	0.080	1.019
2022	4		1,420.794			
2022	5		2,009.476			
2022	6		2,970.837			
2022	7		3,273.153			
2022	8		2,842.010			
2022	9		2,712.302			
2022	10		1,827.109			
2022	11		1,708.358			
2022	12		2,155.252			
2023	1		2,060.127			
2023	2		2,036.098			
2023	3		1,821.339			
2023	4		1,440.942			
2023	5		2,013.821			
2023	6		2,968.491			
2023	7		3,266.620			
2023	8		2,839.256			
2023	9		2,714.848			
2023	10		1,849.349			
2023	11		1,732.204			

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2023	12		2,190.439			



Variable	Description	Definition
nonRes_Native_Peak CONST	Historical nonresidential class contribution to system peak (MW) Constant term	
NonRes_Native_Adj	Nonresidential energy	12 month moving average of actual and forecast Non-Residential kWh sales / Public Service (calculated internally in the energy sales model)
CDD_Index_Cust	Weighted cooling degree days index interacted with monthly binaries and customer counts	Max Cooling Degree Days (base 65) * Nonresidential Cooling Index * Customer counts for the month of June, July, August and September
Jan	Monthly seasonal variable for month of January	= 1 if month is January, = 0 for all other months
Feb	Monthly seasonal variable for month of February	= 1 if month is February, = 0 for all other months
Mar	Monthly seasonal variable for month of March	= 1 if month is March, = 0 for all other months
Apr	Monthly seasonal variable for month of April	= 1 if month is April, = 0 for all other months
Oct	Monthly seasonal variable for month of October	= 1 if month is October, = 0 for all other months
Nov	Monthly seasonal variable for month of November	= 1 if month is November, = 0 for all other months
Dec	Monthly seasonal variable for month of December	= 1 if month is December, = 0 for all other months
Apr2006	Binary variable for April 2006	= 1 for Apr 2006, = 0 for all other months
Apr2007	Binary variable for April 2007	= 1 for Apr 2007, = 0 for all other months
Sep2008	Binary variable for September 2008	= 1 for Sep 2008, = 0 for all other months
Apr2012	Binary variable for April 2012	= 1 for Apr 2012, = 0 for all other months
Jan2014	Binary variable for January 2014	= 1 for Jan 2014, = 0 for all other months
May2015	Binary variable for May 2015	= 1 for May 2015, = 0 for all other months
May2017	Binary variable for May 2017	= 1 for May 2017, = 0 for all other months
Sep2020	Binary variable for September 2020	= 1 for Sep 2020, = 0 for all other months
Hour_18	Binary variable for peak hour	Binary variable = 0 for all months except for hour_18; = 1 if the peak occurred in the designated hour.
GMI_Avg_WP_Ret MA(1)	Average of Workplace and Retail Google Mobility Index MA(1)	$(GMI\_CO\_E\_WP + GMI\_CO\_E\_RET) / 2$ First order seasonal moving average correction term

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	1985.317	319.925	6.206	0.000
NonRes_Native_Adj	0.000660	0.000203	3.248	0.001
Jun_CDD_Index_Cust	0.000137	0.000023	5.837	0.000
Jul_CDD_Index_Cust	0.000184	0.000022	8.226	0.000
Aug_CDD_Index_Cust	0.000176	0.000026	6.836	0.000
Sep_CDD_Index_Cust	0.000089	0.000039	2.280	0.024
Jan	-421.758	51.387	-8.208	0.000
Feb	-457.226	51.462	-8.885	0.000
Mar	-596.657	51.824	-11.513	0.000
Apr	-672.580	50.484	-13.323	0.000
Oct	-429.076	50.526	-8.492	0.000
Nov	-296.258	52.616	-5.631	0.000
Dec	-278.859	52.554	-5.306	0.000
Apr2006	609.325	166.803	3.653	0.000
Apr2007	767.318	166.416	4.611	0.000
Sep2008	-753.103	164.791	-4.570	0.000
Apr2012	670.579	166.693	4.023	0.000
Jan2014	-454.277	167.352	-2.714	0.007
May2015	-620.369	165.479	-3.749	0.000
May2017	-416.066	167.090	-2.490	0.014
Sep2020	-547.819	178.075	-3.076	0.002
Hour_18	-148.915	30.369	-4.904	0.000
GMI_Avg_WP_Ret	4.965	1.799	2.760	0.006
MA(1)	0.228	0.067	3.384	0.001

### Model Statistics

Iterations	10
Adjusted Observations	243
Deg. of Freedom for Error	219
R-Squared	0.847
Adjusted R-Squared	0.831
AIC	10.316
BIC	10.661
F-Statistic	52.8446457
Prob (F-Statistic)	0.000
Log-Likelihood	-1,574.19
Model Sum of Squares	33,439,846.58
Sum of Squared Errors	6,025,312.34
Mean Squared Error	27,512.84
Std. Error of Regression	165.87
Mean Abs. Dev. (MAD)	117.39
Mean Abs. % Err. (MAPE)	4.26%
Durbin-Watson Statistic	1.977
Durbin-H Statistic	
Ljung-Box Statistic	34.97
Prob (Ljung-Box)	0.0688
Skewness	0.098
Kurtosis	3.606
Jarque-Bera	4.103
Prob (Jarque-Bera)	0.1285

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2002	1	2,308.357	2,526.130	-217.772	-9.43%	-1.313
2002	2	2,397.283	2,440.876	-43.594	-1.82%	-0.263
2002	3	2,322.186	2,341.462	-19.277	-0.83%	-0.116
2002	4	2,221.674	2,272.409	-50.735	-2.28%	-0.306
2002	5	3,303.234	2,938.684	364.551	11.04%	2.198
2002	6	3,144.693	3,308.932	-164.239	-5.22%	-0.990
2002	7	3,310.799	3,287.182	23.617	0.71%	0.142
2002	8	3,084.225	3,269.890	-185.665	-6.02%	-1.119
2002	9	3,298.025	3,034.877	263.148	7.98%	1.586
2002	10	2,541.138	2,437.371	103.767	4.08%	0.626
2002	11	2,473.082	2,533.215	-60.133	-2.43%	-0.363
2002	12	2,359.726	2,661.664	-301.938	-12.80%	-1.820
2003	1	2,422.282	2,466.917	-44.636	-1.84%	-0.269
2003	2	2,346.683	2,489.827	-143.144	-6.10%	-0.863
2003	3	2,370.911	2,329.152	41.759	1.76%	0.252
2003	4	2,155.591	2,294.715	-139.124	-6.45%	-0.839
2003	5	3,105.276	2,927.084	178.192	5.74%	1.074
2003	6	3,058.682	3,204.966	-146.284	-4.78%	-0.882
2003	7	3,367.044	3,480.743	-113.699	-3.38%	-0.685
2003	8	3,497.600	3,315.624	181.976	5.20%	1.097
2003	9	3,110.172	3,083.724	26.448	0.85%	0.159
2003	10	2,350.018	2,382.922	-32.904	-1.40%	-0.198
2003	11	2,491.423	2,503.383	-11.960	-0.48%	-0.072
2003	12	2,567.718	2,524.161	43.557	1.70%	0.263
2004	1	2,482.447	2,542.971	-60.524	-2.44%	-0.365
2004	2	2,445.838	2,481.270	-35.433	-1.45%	-0.214
2004	3	2,311.422	2,347.299	-35.877	-1.55%	-0.216
2004	4	2,250.263	2,272.106	-21.842	-0.97%	-0.132
2004	5	2,922.037	2,951.552	-29.515	-1.01%	-0.178
2004	6	3,105.919	3,216.065	-110.146	-3.55%	-0.664
2004	7	3,308.605	3,347.358	-38.754	-1.17%	-0.234
2004	8	3,176.486	3,211.347	-34.862	-1.10%	-0.210
2004	9	3,153.822	3,010.190	143.632	4.55%	0.866
2004	10	2,224.618	2,556.682	-332.064	-14.93%	-2.002
2004	11	2,495.630	2,586.976	-91.346	-3.66%	-0.551
2004	12	2,412.460	2,505.880	-93.420	-3.87%	-0.563
2005	1	2,401.700	2,513.518	-111.818	-4.66%	-0.674
2005	2	2,421.379	2,474.053	-52.674	-2.18%	-0.318
2005	3	2,370.622	2,353.823	16.799	0.71%	0.101
2005	4	2,121.563	2,291.186	-169.623	-8.00%	-1.023
2005	5	3,225.799	2,919.726	306.073	9.49%	1.845
2005	6	3,372.842	3,232.548	140.293	4.16%	0.846
2005	7	3,588.805	3,478.526	110.279	3.07%	0.665
2005	8	3,494.804	3,359.526	135.278	3.87%	0.816
2005	9	3,109.076	3,085.715	23.361	0.75%	0.141
2005	10	2,885.292	2,549.192	336.100	11.65%	2.026
2005	11	2,596.971	2,594.989	1.982	0.08%	0.012
2005	12	2,650.027	2,690.220	-40.194	-1.52%	-0.242
2006	1	2,296.133	2,539.962	-243.830	-10.62%	-1.470
2006	2	2,498.906	2,456.986	41.919	1.68%	0.253

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2006	3	2,411.859	2,384.499	27.360	1.13%	0.165
2006	4	2,946.745	2,914.921	31.825	1.08%	0.192
2006	5	3,148.373	2,983.864	164.509	5.23%	0.992
2006	6	3,382.970	3,245.573	137.397	4.06%	0.828
2006	7	3,591.421	3,450.901	140.520	3.91%	0.847
2006	8	3,413.073	3,335.902	77.172	2.26%	0.465
2006	9	3,025.977	3,017.037	8.940	0.30%	0.054
2006	10	2,475.497	2,566.687	-91.191	-3.68%	-0.550
2006	11	2,710.803	2,531.890	178.912	6.60%	1.079
2006	12	2,282.148	2,608.892	-326.744	-14.32%	-1.970
2007	1	2,513.874	2,509.021	4.853	0.19%	0.029
2007	2	2,574.943	2,556.148	18.795	0.73%	0.113
2007	3	2,453.912	2,417.912	36.000	1.47%	0.217
2007	4	3,095.500	3,120.390	-24.890	-0.80%	-0.150
2007	5	2,981.998	3,012.662	-30.664	-1.03%	-0.185
2007	6	3,656.299	3,291.113	365.186	9.99%	2.202
2007	7	3,624.073	3,484.448	139.626	3.85%	0.842
2007	8	3,672.779	3,471.334	201.445	5.48%	1.214
2007	9	3,151.933	3,160.613	-8.679	-0.28%	-0.052
2007	10	2,978.607	2,602.659	375.948	12.62%	2.267
2007	11	2,681.051	2,826.706	-145.655	-5.43%	-0.878
2007	12	2,594.707	2,581.914	12.793	0.49%	0.077
2008	1	2,582.159	2,622.688	-40.529	-1.57%	-0.244
2008	2	2,616.261	2,577.048	39.213	1.50%	0.236
2008	3	2,512.460	2,454.058	58.402	2.32%	0.352
2008	4	2,359.189	2,389.219	-30.030	-1.27%	-0.181
2008	5	2,911.119	2,892.463	18.657	0.64%	0.112
2008	6	3,075.284	3,071.058	4.227	0.14%	0.025
2008	7	3,618.697	3,430.134	188.563	5.21%	1.137
2008	8	3,601.392	3,521.290	80.102	2.22%	0.483
2008	9	2,332.376	2,350.360	-17.984	-0.77%	-0.108
2008	10	2,494.583	2,614.866	-120.282	-4.82%	-0.725
2008	11	2,522.881	2,719.874	-196.993	-7.81%	-1.188
2008	12	2,666.376	2,723.300	-56.924	-2.13%	-0.343
2009	1	2,620.965	2,608.543	12.421	0.47%	0.075
2009	2	2,373.105	2,584.931	-211.825	-8.93%	-1.277
2009	3	2,167.920	2,397.179	-229.259	-10.58%	-1.382
2009	4	2,304.436	2,312.287	-7.851	-0.34%	-0.047
2009	5	3,196.274	3,029.547	166.727	5.22%	1.005
2009	6	3,105.904	3,218.828	-112.924	-3.64%	-0.681
2009	7	3,409.623	3,200.377	209.246	6.14%	1.262
2009	8	3,351.709	3,336.275	15.433	0.46%	0.093
2009	9	3,201.443	3,055.313	146.130	4.56%	0.881
2009	10	2,284.278	2,614.540	-330.262	-14.46%	-1.991
2009	11	2,513.848	2,637.818	-123.970	-4.93%	-0.747
2009	12	2,910.255	2,555.675	354.581	12.18%	2.138
2010	1	2,700.540	2,667.661	32.879	1.22%	0.198
2010	2	2,364.962	2,560.688	-195.726	-8.28%	-1.180
2010	3	2,279.963	2,373.882	-93.919	-4.12%	-0.566
2010	4	2,171.250	2,321.726	-150.476	-6.93%	-0.907

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2010	5	2,880.299	2,831.668	48.630	1.69%	0.293
2010	6	3,280.437	3,106.981	173.457	5.29%	1.046
2010	7	3,456.761	3,414.200	42.562	1.23%	0.257
2010	8	3,371.054	3,400.428	-29.373	-0.87%	-0.177
2010	9	3,189.354	3,074.460	114.894	3.60%	0.693
2010	10	3,033.721	2,630.662	403.059	13.29%	2.430
2010	11	2,693.886	2,685.565	8.321	0.31%	0.050
2010	12	2,514.510	2,609.285	-94.774	-3.77%	-0.571
2011	1	2,593.820	2,597.488	-3.669	-0.14%	-0.022
2011	2	2,715.371	2,585.462	129.909	4.78%	0.783
2011	3	2,473.358	2,474.850	-1.492	-0.06%	-0.009
2011	4	2,225.352	2,367.730	-142.378	-6.40%	-0.858
2011	5	2,754.162	3,011.848	-257.687	-9.36%	-1.554
2011	6	3,323.953	3,212.066	111.886	3.37%	0.675
2011	7	3,520.999	3,423.850	97.149	2.76%	0.586
2011	8	3,249.504	3,287.277	-37.773	-1.16%	-0.228
2011	9	3,549.233	3,202.455	346.778	9.77%	2.091
2011	10	2,789.266	2,699.654	89.612	3.21%	0.540
2011	11	2,629.307	2,624.847	4.460	0.17%	0.027
2011	12	2,733.516	2,773.470	-39.953	-1.46%	-0.241
2012	1	2,718.016	2,619.678	98.338	3.62%	0.593
2012	2	2,601.571	2,615.659	-14.088	-0.54%	-0.085
2012	3	2,571.944	2,447.657	124.287	4.83%	0.749
2012	4	3,044.279	3,073.882	-29.603	-0.97%	-0.178
2012	5	2,952.413	3,048.576	-96.163	-3.26%	-0.580
2012	6	3,556.259	3,413.530	142.729	4.01%	0.860
2012	7	3,495.945	3,503.634	-7.689	-0.22%	-0.046
2012	8	3,443.116	3,331.757	111.359	3.23%	0.671
2012	9	3,111.822	3,020.793	91.029	2.93%	0.549
2012	10	2,375.894	2,655.760	-279.865	-11.78%	-1.687
2012	11	2,670.532	2,556.505	114.027	4.27%	0.687
2012	12	2,625.670	2,810.452	-184.782	-7.04%	-1.114
2013	1	2,744.508	2,602.877	141.631	5.16%	0.854
2013	2	2,586.978	2,640.936	-53.958	-2.09%	-0.325
2013	3	2,453.784	2,455.947	-2.162	-0.09%	-0.013
2013	4	2,380.937	2,400.183	-19.246	-0.81%	-0.116
2013	5	2,864.599	3,066.540	-201.941	-7.05%	-1.217
2013	6	3,302.979	3,156.679	146.300	4.43%	0.882
2013	7	3,482.389	3,564.301	-81.911	-2.35%	-0.494
2013	8	3,454.587	3,438.943	15.644	0.45%	0.094
2013	9	3,357.232	3,232.889	124.342	3.70%	0.750
2013	10	2,492.369	2,665.938	-173.569	-6.96%	-1.046
2013	11	2,851.270	2,578.441	272.828	9.57%	1.645
2013	12	3,078.124	2,702.288	375.837	12.21%	2.266
2014	1	2,330.160	2,278.721	51.439	2.21%	0.310
2014	2	2,836.877	2,626.655	210.223	7.41%	1.267
2014	3	2,383.208	2,527.695	-144.487	-6.06%	-0.871
2014	4	2,037.560	2,367.857	-330.296	-16.21%	-1.991
2014	5	2,850.666	2,846.658	4.008	0.14%	0.024
2014	6	3,215.864	3,267.142	-51.277	-1.59%	-0.309

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2014	7	3,413.780	3,421.190	-7.411	-0.22%	-0.045
2014	8	3,347.726	3,341.476	6.249	0.19%	0.038
2014	9	3,246.399	3,071.562	174.837	5.39%	1.054
2014	10	2,509.691	2,680.319	-170.628	-6.80%	-1.029
2014	11	2,846.686	2,733.410	113.275	3.98%	0.683
2014	12	2,841.302	2,819.147	22.156	0.78%	0.134
2015	1	2,652.450	2,653.885	-1.435	-0.05%	-0.009
2015	2	2,736.159	2,610.029	126.129	4.61%	0.760
2015	3	2,573.634	2,504.406	69.228	2.69%	0.417
2015	4	2,365.837	2,413.956	-48.119	-2.03%	-0.290
2015	5	2,461.187	2,437.129	24.058	0.98%	0.145
2015	6	3,393.592	3,305.411	88.181	2.60%	0.532
2015	7	3,325.999	3,424.025	-98.026	-2.95%	-0.591
2015	8	3,077.110	3,170.341	-93.230	-3.03%	-0.562
2015	9	3,246.749	3,188.196	58.552	1.80%	0.353
2015	10	2,760.451	2,504.843	255.608	9.26%	1.541
2015	11	2,759.611	2,684.886	74.725	2.71%	0.451
2015	12	2,576.607	2,659.614	-83.007	-3.22%	-0.500
2016	1	2,597.615	2,477.119	120.495	4.64%	0.726
2016	2	2,632.397	2,487.602	144.795	5.50%	0.873
2016	3	2,366.908	2,500.755	-133.847	-5.65%	-0.807
2016	4	2,760.886	2,357.574	403.312	14.61%	2.431
2016	5	2,832.582	3,152.200	-319.618	-11.28%	-1.927
2016	6	3,271.828	3,301.464	-29.636	-0.91%	-0.179
2016	7	3,563.901	3,472.341	91.561	2.57%	0.552
2016	8	3,431.894	3,464.869	-32.974	-0.96%	-0.199
2016	9	2,916.256	2,981.877	-65.621	-2.25%	-0.396
2016	10	2,452.633	2,614.050	-161.418	-6.58%	-0.973
2016	11	2,712.104	2,579.188	132.916	4.90%	0.801
2016	12	3,019.115	2,658.746	360.369	11.94%	2.173
2017	1	2,767.476	2,572.406	195.070	7.05%	1.176
2017	2	2,601.616	2,648.876	-47.260	-1.82%	-0.285
2017	3	2,415.786	2,455.481	-39.694	-1.64%	-0.239
2017	4	2,381.756	2,380.870	0.885	0.04%	0.005
2017	5	2,492.408	2,504.197	-11.789	-0.47%	-0.071
2017	6	3,394.983	3,437.952	-42.968	-1.27%	-0.259
2017	7	3,570.789	3,558.311	12.478	0.35%	0.075
2017	8	3,267.757	3,373.025	-105.268	-3.22%	-0.635
2017	9	3,182.508	3,185.648	-3.141	-0.10%	-0.019
2017	10	2,471.601	2,640.041	-168.439	-6.81%	-1.015
2017	11	2,687.681	2,585.269	102.412	3.81%	0.617
2017	12	2,656.495	2,662.152	-5.658	-0.21%	-0.034
2018	1	2,586.724	2,643.655	-56.931	-2.20%	-0.343
2018	2	2,678.253	2,598.238	80.015	2.99%	0.482
2018	3	2,489.857	2,488.671	1.187	0.05%	0.007
2018	4	2,371.998	2,397.225	-25.228	-1.06%	-0.152
2018	5	2,833.452	2,914.924	-81.473	-2.88%	-0.491
2018	6	3,398.185	3,444.411	-46.225	-1.36%	-0.279
2018	7	3,262.766	3,313.782	-51.016	-1.56%	-0.308
2018	8	3,037.524	3,119.356	-81.832	-2.69%	-0.493

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2018	9	3,070.693	3,047.429	23.264	0.76%	0.140
2018	10	3,008.266	2,656.050	352.216	11.71%	2.123
2018	11	2,533.997	2,865.673	-331.676	-13.09%	-2.000
2018	12	2,548.915	2,580.703	-31.787	-1.25%	-0.192
2019	1	2,462.073	2,505.371	-43.298	-1.76%	-0.261
2019	2	2,546.324	2,615.861	-69.537	-2.73%	-0.419
2019	3	2,289.932	2,468.196	-178.263	-7.78%	-1.075
2019	4	2,301.928	2,371.959	-70.031	-3.04%	-0.422
2019	5	2,710.955	2,918.621	-207.666	-7.66%	-1.252
2019	6	3,004.666	3,306.990	-302.323	-10.06%	-1.823
2019	7	3,392.822	3,485.555	-92.733	-2.73%	-0.559
2019	8	3,359.780	3,463.152	-103.373	-3.08%	-0.623
2019	9	2,594.078	3,102.488	-508.410	-19.60%	-3.065
2019	10	2,644.719	2,530.535	114.184	4.32%	0.688
2019	11	2,645.977	2,652.098	-6.121	-0.23%	-0.037
2019	12	2,564.577	2,648.616	-84.039	-3.28%	-0.507
2020	1	2,457.920	2,485.669	-27.750	-1.13%	-0.167
2020	2	2,582.035	2,614.353	-32.318	-1.25%	-0.195
2020	3	2,640.594	2,367.150	273.444	10.36%	1.649
2020	4	2,572.619	2,221.195	351.424	13.66%	2.119
2020	5	2,429.222	2,816.507	-387.286	-15.94%	-2.335
2020	6	2,703.611	2,912.190	-208.579	-7.71%	-1.257
2020	7	2,957.646	3,189.240	-231.594	-7.83%	-1.396
2020	8	2,933.594	3,113.558	-179.964	-6.13%	-1.085
2020	9	2,364.322	2,376.587	-12.265	-0.52%	-0.074
2020	10	2,425.316	2,479.002	-53.686	-2.21%	-0.324
2020	11	2438.365449	2,421.429	16.93679181	0.00695	0.102109
2020	12	2516.209116	2,440.804	75.40556889	0.02997	0.454607
2021	1	2470.767881	2,463.798	6.970083475	0.00282	0.042021
2021	2	2376.395203	2,424.056	-47.6608027	-0.0201	-0.28734
2021	3	2367.961911	2,278.715	89.2469938	0.03769	0.538054
2021	4	2560.664442	2,260.958	299.7066965	0.11704	1.806878
2021	5	2425.984056	2,849.040	-423.056384	-0.1744	-2.55053
2021	6	2939.758202	3,043.559	-103.800929	-0.0353	-0.6258
2021	7	3141.295373	3,259.337	-118.042102	-0.0376	-0.71165
2021	8	3337.602329	3,268.890	68.71277811	0.02059	0.414257
2021	9	2775.239705	2,975.754	-200.514679	-0.0723	-1.20887
2021	10	2382.09704	2,498.284	-116.186586	-0.0488	-0.70047
2021	11	2442.887598	2,495.829	-52.9418118	-0.0217	-0.31918
2021	12	2666.056943	2,520.346	145.7106493	0.05465	0.878463
2022	1	2625.025428	2,436.931	188.0941992	0.07165	1.133986
2022	2	2731.816502	2,575.599	156.2170771	0.05718	0.941805
2022	3	2571.198867	2,430.634	140.5651103	0.05467	0.847442
2022	4		2,356.279			
2022	5		2,843.398			
2022	6		3,140.561			
2022	7		3,319.598			
2022	8		3,393.582			
2022	9		2,993.810			
2022	10		2,578.888			



Year	Month	Actual	Pred	Resid	%Resid	StdResid
2022	11		2,553.228			
2022	12		2,569.045			
2023	1		2433.571479			
2023	2		2553.6275			
2023	3		2413.232674			
2023	4		2341.128331			
2023	5		2860.049357			
2023	6		3158.491829			
2023	7		3340.876607			
2023	8		3412.786892			
2023	9		3010.154194			
2023	10		2593.570094			
2023	11		2569.428882			
2023	12		2583.908705			