

Variable	Description	Definition
Res_UPC_Native	historical residential average use per customer (kWh) with solar generation added back	$((\text{Residential} [\text{sales}] + \text{Residential} [\text{solar}]) / \text{Billed ResCust}) * 1000$
Cooling	residential cooling SAE variable	$\text{Res_Cool} * \text{Cool_Use}$
Heating	residential heating SAE variable	$\text{Res_Heat} * \text{Heat_Use}$
Base	residential base SAE variable	$\text{Res_Base} * \text{Base_Use}$
Jan	Monthly seasonal variable for month of January	= 1 if month is January, = 0 for all other months
Jun	Monthly seasonal variable for month of June	= 1 if month is June, = 0 for all other months
Jul	Monthly seasonal variable for month of July	= 1 if month is July, = 0 for all other months
Aug	Monthly seasonal variable for month of August	= 1 if month is August, = 0 for all other months
Dec	Monthly seasonal variable for month of December	= 1 if month is December, = 0 for all other months
Jan-21	Binary variable for January 2006	= 1 for Jan 2006, = 0 for all other months
Jan07	Binary variable for January 2007	= 1 for Jan 2007, = 0 for all other months
Aug12	Binary variable for August 2012	= 1 for Aug 2012, = 0 for all other months
COVID_19_Impact_May2020	Binary variable starting May 2020	= 1 for May 2020 - Sep 2020, = 0.85 for Oct 2020 - Jun 2021, = 0.75 for Jul 2021 - June 2022, = 0.50 for Jul 2022 - Dec 2022
AR(1)	AR(1)	First order autoregressive term
AR(2)	AR(2)	Second order autoregressive term
Residential	historical residential billed sales (MWh)	from company records
ActualResCust	historical residential actual customers	from company records and forecast model
Real_Personal_Income	PSCo service territory personal income (\$million)	from IHS Markit
Households	PSCo service territory households (000)	from IHS Markit
Household_Size	average population per household	population/households
HH_Income	Income per household (\$000)	$\text{Real_Personal_Income} / \text{Households}$
ResPrice	residential price variable (cents per kWh)	from company records and forecast model
Population	PSCo service territory population (000)	from IHS Markit
HDD	actual and forecasted heating degree days	Actual HDD Jan 2003 - Dec 2020, Normal HDD Jan 2021- Dec 2022
CDD	actual and forecasted cooling degree days	Actual CDD Jan 2003 - Dec 2020, Normal CDD Jan 2021 - Dec 2022
HDD_Index	indexed actual and forecasted heating degree days	$\text{HDD} / \text{Total 2015 HDDs}$
CDD_Index	indexed actual and forecasted cooling degree days	$\text{CDD} / \text{Total 2015 CDDs}$
Res_Heat	residential saturation/efficiency index for electric heating	from Itron, Inc. updated with PSCo customer saturations
Res_Cool	residential saturation/efficiency index for electric cooling	from Itron, Inc. updated with PSCo customer saturations
Res_Base	residential saturation/efficiency index for electric base uses	from Itron, Inc. updated with PSCo customer saturations
Heat_Use	residential heating utilization variable	$(\text{HH_Size_Index}^{0.25}) * (\text{HH_Income_Index}^{0.2}) * (\text{Electric_Price_Index}^{-0.15}) * \text{HDD_Index}$

Variable	Description	Definition
Cool_Use	residential cooling utilization variable	$(HH_Size_Index^{0.25}) * (HH_Income_Index^{0.2}) * (Electric_Price_Index^{-0.15}) * CDD_Index$
Base_Use	residential base utilization variable	$(HH_Size_Index^{0.46}) * (HH_Income_Index^{0.1}) * (Electric_Price_Index^{-0.15}) * Billing_Days/30.44$
HH_Size_Index	households indexed to July 2015	Households/Households(July, 2015)
HH_Income_Index	household income indexed to July 2015	HH_Income/HH_Income(July, 2015)
Electric_Price_Index	electric price indexed to July 2015	ResPrice/ResPrice(July, 2015)
Billing_Days	average number of consumption days billed for	from company records
SAE	statistically adjusted end-use	

Variable	Coefficient	StdErr	T-Stat	P-Value	Definition
XHeat	1.000	0.048	20.748	0.00%	Residential Heating Component (Actual History with Normal Weather Forecast)
XCool	0.993	0.032	30.768	0.00%	Residential Cooling Component (Actual History with Normal Weather Forecast)
XOther	0.875	0.025	34.576	0.00%	Residential NonHVAC Component (Actual History with Normal Weather Forecast)
Jan	62.102	6.940	8.948	0.00%	
Jun	64.006	6.173	10.368	0.00%	
Jul	89.900	6.632	13.556	0.00%	
Aug	50.225	7.850	6.398	0.00%	
Dec	33.738	5.916	5.703	0.00%	
;Jan06	-88.365	23.543	-3.753	0.02%	
Jan07	106.132	23.447	4.526	0.00%	
Aug12	-54.819	23.194	-2.363	1.91%	
COVID_19_Impact_May2020	49.621	23.412	2.119	3.53%	
AR(1)	0.535	0.069	7.742	0.00%	
AR(2)	0.315	0.069	4.595	0.00%	

Model Statistics	
Iterations	12
Adjusted Observations	214
Deg. of Freedom for Error	200
R-Squared	0.935
Adjusted R-Squared	0.930
AIC	6.619
BIC	6.839
F-Statistic	
Prob (F-Statistic)	
Log-Likelihood	-997.87
Model Sum of Squares	2,007,625.95
Sum of Squared Errors	140,641.04
Mean Squared Error	703.21
Std. Error of Regression	26.52
Mean Abs. Dev. (MAD)	19.98
Mean Abs. % Err. (MAPE)	3.04%
Durbin-Watson Statistic	2.061
Durbin-H Statistic	
Ljung-Box Statistic	45.03
Prob (Ljung-Box)	0.0058
Skewness	0.135
Kurtosis	3.566
Jarque-Bera	3.501
Prob (Jarque-Bera)	0.1737

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2003	1	752.666				
2003	2	645.117				
2003	3	666.602	653.179	13.423	0.020	0.506
2003	4	577.511	589.510	-12.000	-0.021	-0.453
2003	5	542.052	550.803	-8.751	-0.016	-0.330
2003	6	581.141	582.545	-1.404	-0.002	-0.053
2003	7	672.370	638.100	34.271	0.051	1.292
2003	8	814.700	761.026	53.675	0.066	2.024
2003	9	709.543	712.982	-3.439	-0.005	-0.130
2003	10	545.736	579.169	-33.433	-0.061	-1.261
2003	11	533.379	544.196	-10.818	-0.020	-0.408
2003	12	688.369	664.397	23.972	0.035	0.904
2004	1	740.005	773.206	-33.201	-0.045	-1.252
2004	2	650.092	651.372	-1.279	-0.002	-0.048
2004	3	635.142	628.331	6.811	0.011	0.257
2004	4	528.297	553.722	-25.424	-0.048	-0.959
2004	5	590.644	637.772	-47.129	-0.080	-1.777
2004	6	629.917	605.958	23.960	0.038	0.904
2004	7	620.544	646.517	-25.973	-0.042	-0.979
2004	8	696.682	663.936	32.745	0.047	1.235
2004	9	621.100	568.636	52.463	0.084	1.978
2004	10	543.656	563.651	-19.996	-0.037	-0.754
2004	11	535.341	550.515	-15.174	-0.028	-0.572
2004	12	661.876	705.257	-43.381	-0.066	-1.636
2005	1	768.226	729.967	38.259	0.050	1.443
2005	2	591.597	597.880	-6.283	-0.011	-0.237
2005	3	654.631	625.525	29.105	0.044	1.098
2005	4	584.829	600.362	-15.533	-0.027	-0.586
2005	5	538.328	544.982	-6.655	-0.012	-0.251
2005	6	618.848	627.093	-8.245	-0.013	-0.311
2005	7	699.604	722.000	-22.397	-0.032	-0.845
2005	8	860.512	829.171	31.341	0.036	1.182
2005	9	658.999	680.403	-21.404	-0.032	-0.807
2005	10	562.976	556.536	6.440	0.011	0.243
2005	11	543.922	513.099	30.823	0.057	1.162
2005	12	694.380	677.541	16.839	0.024	0.635

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2006	1	738.144	784.361	-46.218	-0.063	-1.743
2006	2	603.460	679.441	-75.981	-0.126	-2.865
2006	3	690.234	707.935	-17.701	-0.026	-0.667
2006	4	526.829	561.625	-34.796	-0.066	-1.312
2006	5	547.707	557.172	-9.465	-0.017	-0.357
2006	6	690.972	710.124	-19.153	-0.028	-0.722
2006	7	721.524	749.527	-28.003	-0.039	-1.056
2006	8	844.443	860.850	-16.407	-0.019	-0.619
2006	9	622.094	611.799	10.295	0.017	0.388
2006	10	566.136	573.531	-7.396	-0.013	-0.279
2006	11	558.694	553.161	5.533	0.010	0.209
2006	12	597.605	657.691	-60.086	-0.101	-2.266
2007	1	931.278	930.866	0.412	0.000	0.016
2007	2	645.303	645.053	0.250	0.000	0.009
2007	3	648.083	647.199	0.884	0.001	0.033
2007	4	550.825	559.783	-8.957	-0.016	-0.338
2007	5	573.115	565.360	7.754	0.014	0.292
2007	6	590.475	612.109	-21.634	-0.037	-0.816
2007	7	793.017	775.815	17.203	0.022	0.649
2007	8	890.225	894.463	-4.238	-0.005	-0.160
2007	9	666.300	674.588	-8.289	-0.012	-0.313
2007	10	618.874	626.829	-7.955	-0.013	-0.300
2007	11	544.207	543.253	0.954	0.002	0.036
2007	12	648.672	657.332	-8.660	-0.013	-0.327
2008	1	855.340	777.491	77.849	0.091	2.936
2008	2	692.397	655.970	36.427	0.053	1.374
2008	3	608.256	616.031	-7.775	-0.013	-0.293
2008	4	632.746	639.152	-6.406	-0.010	-0.242
2008	5	534.482	548.888	-14.406	-0.027	-0.543
2008	6	580.190	605.151	-24.960	-0.043	-0.941
2008	7	776.469	770.233	6.236	0.008	0.235
2008	8	770.437	793.534	-23.097	-0.030	-0.871
2008	9	673.038	604.626	68.412	0.102	2.580
2008	10	578.272	565.039	13.233	0.023	0.499
2008	11	479.379	497.868	-18.489	-0.039	-0.697
2008	12	712.655	654.711	57.943	0.081	2.185

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2009	1	786.321	767.090	19.231	0.024	0.725
2009	2	616.764	608.182	8.582	0.014	0.324
2009	3	621.798	615.246	6.552	0.011	0.247
2009	4	588.363	591.512	-3.149	-0.005	-0.119
2009	5	527.598	513.383	14.214	0.027	0.536
2009	6	575.847	587.416	-11.569	-0.020	-0.436
2009	7	710.895	669.034	41.861	0.059	1.579
2009	8	693.815	655.155	38.661	0.056	1.458
2009	9	658.927	624.882	34.045	0.052	1.284
2009	10	582.465	605.869	-23.404	-0.040	-0.883
2009	11	537.873	530.807	7.066	0.013	0.266
2009	12	749.501	710.749	38.751	0.052	1.461
2010	1	776.256	841.056	-64.801	-0.083	-2.444
2010	2	652.076	655.283	-3.206	-0.005	-0.121
2010	3	695.492	687.994	7.498	0.011	0.283
2010	4	588.291	612.476	-24.185	-0.041	-0.912
2010	5	502.606	507.603	-4.996	-0.010	-0.188
2010	6	651.189	625.275	25.914	0.040	0.977
2010	7	734.312	734.074	0.237	0.000	0.009
2010	8	806.245	779.244	27.001	0.033	1.018
2010	9	686.990	672.822	14.168	0.021	0.534
2010	10	566.130	563.738	2.392	0.004	0.090
2010	11	535.064	536.764	-1.700	-0.003	-0.064
2010	12	678.910	678.322	0.587	0.001	0.022
2011	1	784.702	812.335	-27.633	-0.035	-1.042
2011	2	659.281	646.182	13.098	0.020	0.494
2011	3	666.115	677.598	-11.483	-0.017	-0.433
2011	4	532.936	545.938	-13.003	-0.024	-0.490
2011	5	556.674	543.675	12.999	0.023	0.490
2011	6	609.058	622.712	-13.653	-0.022	-0.515
2011	7	692.915	699.416	-6.501	-0.009	-0.245
2011	8	912.935	857.260	55.675	0.061	2.100
2011	9	718.733	752.247	-33.514	-0.047	-1.264
2011	10	543.789	577.331	-33.542	-0.062	-1.265
2011	11	553.429	524.514	28.915	0.052	1.090
2011	12	681.293	680.283	1.010	0.001	0.038

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2012	1	781.962	815.389	-33.427	-0.043	-1.261
2012	2	657.425	661.455	-4.031	-0.006	-0.152
2012	3	624.667	641.986	-17.319	-0.028	-0.653
2012	4	519.796	520.173	-0.377	-0.001	-0.014
2012	5	558.590	522.563	36.027	0.064	1.359
2012	6	633.388	665.791	-32.403	-0.051	-1.222
2012	7	866.187	908.140	-41.954	-0.048	-1.582
2012	8	867.064	872.242	-5.177	-0.006	-0.195
2012	9	648.346	665.680	-17.334	-0.027	-0.654
2012	10	592.156	579.161	12.996	0.022	0.490
2012	11	538.635	516.435	22.199	0.041	0.837
2012	12	618.308	621.041	-2.734	-0.004	-0.103
2013	1	842.422	811.568	30.854	0.037	1.164
2013	2	626.677	631.131	-4.454	-0.007	-0.168
2013	3	611.619	613.984	-2.365	-0.004	-0.089
2013	4	630.242	650.316	-20.074	-0.032	-0.757
2013	5	580.813	573.027	7.786	0.013	0.294
2013	6	579.035	598.813	-19.777	-0.034	-0.746
2013	7	841.456	816.762	24.694	0.029	0.931
2013	8	751.578	789.674	-38.097	-0.051	-1.437
2013	9	713.814	694.380	19.434	0.027	0.733
2013	10	600.078	601.892	-1.814	-0.003	-0.068
2013	11	517.055	493.432	23.623	0.046	0.891
2013	12	682.361	688.416	-6.055	-0.009	-0.228
2014	1	821.657	745.787	75.870	0.092	2.861
2014	2	618.851	610.768	8.083	0.013	0.305
2014	3	636.501	623.920	12.581	0.020	0.474
2014	4	588.181	570.267	17.914	0.030	0.676
2014	5	509.927	506.906	3.021	0.006	0.114
2014	6	590.370	564.718	25.653	0.043	0.967
2014	7	754.263	747.330	6.933	0.009	0.261
2014	8	711.029	736.209	-25.180	-0.035	-0.950
2014	9	616.022	583.483	32.539	0.053	1.227
2014	10	582.184	547.823	34.361	0.059	1.296
2014	11	485.410	475.185	10.225	0.021	0.386
2014	12	714.798	691.320	23.478	0.033	0.885

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2015	1	790.559	816.260	-25.701	-0.033	-0.969
2015	2	551.101	587.997	-36.896	-0.067	-1.391
2015	3	679.704	626.727	52.978	0.078	1.998
2015	4	546.520	562.863	-16.343	-0.030	-0.616
2015	5	490.875	479.362	11.514	0.023	0.434
2015	6	609.338	590.504	18.834	0.031	0.710
2015	7	769.827	743.828	25.999	0.034	0.980
2015	8	754.392	778.995	-24.603	-0.033	-0.928
2015	9	697.702	690.026	7.675	0.011	0.289
2015	10	589.641	564.534	25.106	0.043	0.947
2015	11	480.555	483.533	-2.977	-0.006	-0.112
2015	12	714.561	686.075	28.486	0.040	1.074
2016	1	755.939	831.752	-75.814	-0.100	-2.859
2016	2	625.103	644.045	-18.942	-0.030	-0.714
2016	3	643.776	633.936	9.840	0.015	0.371
2016	4	544.670	555.569	-10.899	-0.020	-0.411
2016	5	531.195	518.728	12.467	0.023	0.470
2016	6	655.950	619.075	36.876	0.056	1.391
2016	7	782.785	765.191	17.594	0.022	0.663
2016	8	859.457	891.678	-32.221	-0.037	-1.215
2016	9	637.533	656.551	-19.018	-0.030	-0.717
2016	10	531.111	512.293	18.818	0.035	0.710
2016	11	497.292	484.330	12.962	0.026	0.489
2016	12	632.927	668.948	-36.022	-0.057	-1.358
2017	1	805.065	781.398	23.667	0.029	0.893
2017	2	586.099	579.770	6.329	0.011	0.239
2017	3	623.350	631.870	-8.520	-0.014	-0.321
2017	4	501.877	499.431	2.446	0.005	0.092
2017	5	537.525	516.615	20.910	0.039	0.789
2017	6	643.978	622.458	21.520	0.033	0.812
2017	7	745.837	764.010	-18.173	-0.024	-0.685
2017	8	801.467	807.055	-5.588	-0.007	-0.211
2017	9	633.900	657.897	-23.996	-0.038	-0.905
2017	10	551.931	561.621	-9.690	-0.018	-0.365
2017	11	517.950	499.492	18.458	0.036	0.696
2017	12	591.582	608.301	-16.719	-0.028	-0.630

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2018	1	759.778	760.700	-0.922	-0.001	-0.035
2018	2	589.118	588.596	0.523	0.001	0.020
2018	3	653.191	654.595	-1.403	-0.002	-0.053
2018	4	528.215	566.714	-38.499	-0.073	-1.452
2018	5	540.979	507.019	33.960	0.063	1.281
2018	6	653.674	637.961	15.713	0.024	0.593
2018	7	819.496	821.418	-1.922	-0.002	-0.072
2018	8	803.390	820.636	-17.246	-0.021	-0.650
2018	9	634.597	623.497	11.101	0.017	0.419
2018	10	600.873	627.779	-26.906	-0.045	-1.015
2018	11	524.221	536.388	-12.167	-0.023	-0.459
2018	12	620.573	643.526	-22.953	-0.037	-0.866
2019	1	751.992	690.804	61.188	0.081	2.307
2019	2	592.221	575.246	16.975	0.029	0.640
2019	3	649.439	652.860	-3.421	-0.005	-0.129
2019	4	562.171	575.659	-13.488	-0.024	-0.509
2019	5	517.809	502.901	14.908	0.029	0.562
2019	6	513.930	511.448	2.482	0.005	0.094
2019	7	746.036	705.279	40.757	0.055	1.537
2019	8	846.682	820.337	26.344	0.031	0.993
2019	9	691.345	718.106	-26.761	-0.039	-1.009
2019	10	588.860	585.375	3.485	0.006	0.131
2019	11	506.016	509.898	-3.883	-0.008	-0.146
2019	12	669.980	694.993	-25.014	-0.037	-0.943
2020	1	728.706	753.635	-24.929	-0.034	-0.940
2020	2	581.240	584.839	-3.600	-0.006	-0.136
2020	3	655.824	633.036	22.788	0.035	0.859
2020	4	577.359	585.203	-7.844	-0.014	-0.296
2020	5	520.229	527.603	-7.374	-0.014	-0.278
2020	6	699.546	676.218	23.328	0.033	0.880
2020	7	856.147	872.070	-15.923	-0.019	-0.600
2020	8	831.319	866.522	-35.202	-0.042	-1.327
2020	9	765.580	752.747	12.833	0.017	0.484
2020	10	588.268	604.531	-16.264	-0.028	-0.613
2020	11	514.475	497.979	16.495	0.032	0.622
2020	12	695.000	687.576	7.424	0.011	0.280

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2021	1		758.313			
2021	2		612.521			
2021	3		683.660			
2021	4		585.864			
2021	5		493.451			
2021	6		622.788			
2021	7		762.378			
2021	8		805.800			
2021	9		683.486			
2021	10		542.786			
2021	11		512.210			
2021	12		678.876			
2022	1		759.310			
2022	2		606.264			
2022	3		682.651			
2022	4		561.042			
2022	5		510.918			
2022	6		618.737			
2022	7		722.320			
2022	8		817.433			
2022	9		674.421			
2022	10		530.354			
2022	11		503.440			
2022	12		669.355			

Variable	Description	Definition
Sales	historical commercial sales with solar generation added back	Commercial [sales] + Commercial [solar]
Cooling	commercial cooling SAE variable	Com_Cool * Cool_Use
Heating	commercial heating SAE variable	Com_Heat * Heat_Use
Base	commercial base SAE variable	Com_Base * Base_Use
Feb	Monthly seasonal variable for month of February	= 1 if month is February, = 0 for all other months
Apr	Monthly seasonal variable for month of April	= 1 if month is April, = 0 for all other months
May	Monthly seasonal variable for month of May	= 1 if month is May, = 0 for all other months
Nov	Monthly seasonal variable for month of November	= 1 if month is November, = 0 for all other months
COVID_19_Impact_Apr2020 SMA(1)	Binary variable starting April 2020 SMA(1)	= 1 for Apr 2020 -Sep 2020, = 0.85 for Oct 2020 - Jun 2021, = 0.75 for Jul 2021 - June 2022, = 0.50 for Jul 2022 - Dec 2022 Seasonal moving average correction term
CI_Cust Output	historical commercial and industrial customers Real Economic Driver	from company records and forecast model from IHS Markit
ComPrice ma_Price	commercial price variable (cents per kWh) 12 month moving average of commercial price variable	from company records and forecast model ma(ComPrice,12)
HDD	actual and forecasted heating degree days	Actual HDD Jan 2006 - Dec 2020, Normal HDD Jan 2021- Dec 2022
CDD	actual and forecasted cooling degree days	Actual CDD Jan 2006 - Dec 2020, Normal CDD Jan 2021 - Dec 2022
HDD_Index	indexed actual and forecasted heating degree days	(0.75*HDD + 0.25*Lag (HDD, 1))/Total 2004 HDDs
CDD_Index	indexed actual and forecasted cooling degree days	(0.75*CDD + 0.25*Lag (CDD, 1))/Total 2004 CDDs
Com_Heat	commercial saturation/efficiency index for electric heating	from Itron, Inc. updated with PSCo customer saturations
Com_Cool	commercial saturation/efficiency index for electric cooling	from Itron, Inc. updated with PSCo customer saturations
Com_Base	commercial saturation/efficiency index for electric base uses	from Itron, Inc. updated with PSCo customer saturations
Heat_Use	commercial heating utilization variable	(ComPrice_Index^-0.15) * (ComOutput_Index^0.25) * HDD_Index
Cool_Use	commercial cooling utilization variable	(ComPrice_Index^-0.15) * (ComOutput_Index^0.25) * CDD_Index (ComPrice_Index^-0.15) * (ComOutput_Index^0.25) *
Base_Use	commercial base utilization variable	Billing_Days/30.44
ComPrice_Index	Price indexed to July 2004	ma(ComPrice)/ma(ComPrice)(July, 2004)
ComOutput_Index	output indexed to July 2004	Output/Output(July, 2004)
Billing_Days	average number of consumption days billed for	from company records
SAE	statistically adjusted end-use	

Variable	Coefficient	StdErr	T-Stat	P-Value
Cl_Custs	5.958	0.245	24.303	0.00%
XHeat	0.460	0.104	4.408	0.00%
XCool	0.874	0.075	11.632	0.00%
XOther	0.324	0.031	10.549	0.00%
Feb	-97336.731	16534.495	-5.887	0.00%
Apr	-90477.277	14685.213	-6.161	0.00%
May	-68666.444	14987.866	-4.581	0.00%
Nov	-94356.540	15202.169	-6.207	0.00%
COVID_19_Impact_Apr2020	-131877.132	14352.761	-9.188	0.00%
SMA(1)	0.354	0.075	4.727	0.00%

Model Statistics

Iterations	13
Adjusted Observations	180
Deg. of Freedom for Error	170
R-Squared	0.889
Adjusted R-Squared	0.883
AIC	21.164
BIC	21.342
F-Statistic	
Prob (F-Statistic)	
Log-Likelihood	-2,150.20
Model Sum of Squares	2,010,963,373,880.35
Sum of Squared Errors	250,366,792,360.46
Mean Squared Error	1,472,745,837.41
Std. Error of Regression	38,376.37
Mean Abs. Dev. (MAD)	28,841.92
Mean Abs. % Err. (MAPE)	2.07%
Durbin-Watson Statistic	2.121
Durbin-H Statistic	
Ljung-Box Statistic	71.36
Prob (Ljung-Box)	0.0000
Skewness	-0.290
Kurtosis	3.107
Jarque-Bera	2.604
Prob (Jarque-Bera)	0.2721

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2006	1	1,455,723.701	1,469,409.519	-13,685.818	-0.94%	-0.357
2006	2	1,191,787.243	1,289,209.387	-97,422.144	-8.17%	-2.539
2006	3	1,399,958.918	1,453,591.311	-53,632.393	-3.83%	-1.398
2006	4	1,183,110.603	1,271,682.826	-88,572.223	-7.49%	-2.308
2006	5	1,354,076.619	1,323,312.415	30,764.203	2.27%	0.802
2006	6	1,476,314.998	1,477,682.484	-1,367.486	-0.09%	-0.036
2006	7	1,452,800.674	1,487,682.236	-34,881.562	-2.40%	-0.909
2006	8	1,609,947.814	1,613,795.654	-3,847.840	-0.24%	-0.100
2006	9	1,383,957.509	1,456,845.967	-72,888.458	-5.27%	-1.899
2006	10	1,374,893.343	1,411,378.640	-36,485.297	-2.65%	-0.951
2006	11	1,251,926.959	1,273,743.877	-21,816.918	-1.74%	-0.568
2006	12	1,288,594.300	1,397,422.858	-108,828.558	-8.45%	-2.836
2007	1	1,572,798.691	1,510,133.757	62,664.934	3.98%	1.633
2007	2	1,280,823.918	1,284,463.770	-3,639.852	-0.28%	-0.095
2007	3	1,352,168.019	1,416,964.955	-64,796.935	-4.79%	-1.688
2007	4	1,288,404.592	1,262,416.997	25,987.595	2.02%	0.677
2007	5	1,355,172.281	1,353,590.642	1,581.639	0.12%	0.041
2007	6	1,405,392.010	1,407,734.672	-2,342.662	-0.17%	-0.061
2007	7	1,539,248.486	1,509,468.565	29,779.921	1.93%	0.776
2007	8	1,670,567.394	1,633,416.477	37,150.916	2.22%	0.968
2007	9	1,431,676.990	1,465,418.085	-33,741.095	-2.36%	-0.879
2007	10	1,454,927.714	1,450,760.341	4,167.374	0.29%	0.109
2007	11	1,304,951.871	1,274,139.869	30,812.002	2.36%	0.803
2007	12	1,356,580.751	1,371,133.261	-14,552.509	-1.07%	-0.379
2008	1	1,539,437.650	1,544,903.328	-5,465.678	-0.36%	-0.142
2008	2	1,368,527.416	1,333,573.180	34,954.236	2.55%	0.911
2008	3	1,308,980.697	1,370,468.665	-61,487.969	-4.70%	-1.602
2008	4	1,369,685.003	1,360,862.830	8,822.173	0.64%	0.230
2008	5	1,325,301.517	1,321,661.418	3,640.100	0.27%	0.095
2008	6	1,369,279.564	1,412,785.080	-43,505.516	-3.18%	-1.134
2008	7	1,579,848.775	1,553,090.853	26,757.922	1.69%	0.697
2008	8	1,490,589.081	1,590,029.343	-99,440.261	-6.67%	-2.591
2008	9	1,537,091.375	1,475,820.644	61,270.731	3.99%	1.597
2008	10	1,430,456.757	1,433,375.272	-2,918.515	-0.20%	-0.076
2008	11	1,181,729.567	1,249,988.437	-68,258.870	-5.78%	-1.779
2008	12	1,431,399.155	1,427,642.742	3,756.413	0.26%	0.098

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2009	1	1,472,314.703	1,470,491.764	1,822.939	0.12%	0.048
2009	2	1,246,866.779	1,295,442.705	-48,575.925	-3.90%	-1.266
2009	3	1,369,824.397	1,387,913.776	-18,089.379	-1.32%	-0.471
2009	4	1,301,335.985	1,309,441.260	-8,105.275	-0.62%	-0.211
2009	5	1,242,110.789	1,286,282.326	-44,171.537	-3.56%	-1.151
2009	6	1,392,388.348	1,379,092.614	13,295.734	0.95%	0.346
2009	7	1,450,959.748	1,458,600.643	-7,640.895	-0.53%	-0.199
2009	8	1,455,042.587	1,407,289.456	47,753.131	3.28%	1.244
2009	9	1,431,246.114	1,466,751.425	-35,505.312	-2.48%	-0.925
2009	10	1,347,762.642	1,408,977.650	-61,215.008	-4.54%	-1.595
2009	11	1,225,885.910	1,215,251.813	10,634.097	0.87%	0.277
2009	12	1,457,596.618	1,452,092.223	5,504.395	0.38%	0.143
2010	1	1,406,661.537	1,442,277.882	-35,616.345	-2.53%	-0.928
2010	2	1,249,023.006	1,268,012.624	-18,989.618	-1.52%	-0.495
2010	3	1,422,358.519	1,433,373.667	-11,015.148	-0.77%	-0.287
2010	4	1,283,796.737	1,305,401.506	-21,604.770	-1.68%	-0.563
2010	5	1,193,259.040	1,258,233.702	-64,974.662	-5.45%	-1.693
2010	6	1,428,509.964	1,427,793.352	716.613	0.05%	0.019
2010	7	1,483,429.403	1,475,327.466	8,101.937	0.55%	0.211
2010	8	1,546,126.921	1,558,698.659	-12,571.739	-0.81%	-0.328
2010	9	1,501,295.951	1,477,822.532	23,473.420	1.56%	0.612
2010	10	1,379,249.867	1,372,404.448	6,845.418	0.50%	0.178
2010	11	1,268,319.735	1,259,875.625	8,444.110	0.67%	0.220
2010	12	1,383,250.929	1,412,330.665	-29,079.736	-2.10%	-0.758
2011	1	1,495,915.021	1,432,375.763	63,539.259	4.25%	1.656
2011	2	1,291,138.694	1,267,375.204	23,763.490	1.84%	0.619
2011	3	1,402,176.478	1,415,520.358	-13,343.880	-0.95%	-0.348
2011	4	1,262,159.656	1,246,510.185	15,649.471	1.24%	0.408
2011	5	1,274,689.794	1,278,471.105	-3,781.311	-0.30%	-0.099
2011	6	1,403,805.535	1,399,050.129	4,755.405	0.34%	0.124
2011	7	1,451,091.166	1,440,007.984	11,083.182	0.76%	0.289
2011	8	1,611,286.271	1,581,106.100	30,180.171	1.87%	0.786
2011	9	1,534,965.687	1,527,763.132	7,202.555	0.47%	0.188
2011	10	1,342,763.429	1,403,086.630	-60,323.201	-4.49%	-1.572
2011	11	1,284,505.125	1,261,606.696	22,898.429	1.78%	0.597
2011	12	1,387,491.597	1,393,453.472	-5,961.875	-0.43%	-0.155

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2012	1	1,470,584.451	1,457,957.966	12,626.485	0.86%	0.329
2012	2	1,340,085.208	1,292,992.924	47,092.284	3.51%	1.227
2012	3	1,337,007.962	1,387,562.470	-50,554.508	-3.78%	-1.317
2012	4	1,250,239.950	1,260,117.068	-9,877.117	-0.79%	-0.257
2012	5	1,388,095.031	1,302,031.585	86,063.446	6.20%	2.243
2012	6	1,425,546.106	1,417,831.008	7,715.098	0.54%	0.201
2012	7	1,557,460.421	1,566,728.549	-9,268.129	-0.60%	-0.242
2012	8	1,626,617.844	1,631,791.470	-5,173.626	-0.32%	-0.135
2012	9	1,409,298.898	1,474,042.141	-64,743.243	-4.59%	-1.687
2012	10	1,453,729.302	1,405,474.957	48,254.345	3.32%	1.257
2012	11	1,274,050.565	1,260,230.670	13,819.894	1.08%	0.360
2012	12	1,346,669.185	1,364,035.672	-17,366.488	-1.29%	-0.453
2013	1	1,526,771.707	1,467,727.901	59,043.806	3.87%	1.539
2013	2	1,274,442.020	1,286,338.746	-11,896.726	-0.93%	-0.310
2013	3	1,314,892.304	1,346,088.923	-31,196.618	-2.37%	-0.813
2013	4	1,392,034.690	1,322,788.661	69,246.029	4.97%	1.804
2013	5	1,333,526.090	1,352,989.769	-19,463.679	-1.46%	-0.507
2013	6	1,323,226.468	1,388,785.465	-65,558.997	-4.95%	-1.708
2013	7	1,615,087.636	1,529,057.811	86,029.825	5.33%	2.242
2013	8	1,517,572.843	1,526,625.011	-9,052.168	-0.60%	-0.236
2013	9	1,478,497.560	1,478,748.439	-250.879	-0.02%	-0.007
2013	10	1,441,401.102	1,457,849.404	-16,448.302	-1.14%	-0.429
2013	11	1,218,132.688	1,235,623.491	-17,490.803	-1.44%	-0.456
2013	12	1,422,157.274	1,401,744.661	20,412.613	1.44%	0.532
2014	1	1,535,926.402	1,479,283.095	56,643.307	3.69%	1.476
2014	2	1,308,046.044	1,254,339.194	53,706.850	4.11%	1.399
2014	3	1,383,829.302	1,378,175.357	5,653.944	0.41%	0.147
2014	4	1,328,653.149	1,315,313.988	13,339.161	1.00%	0.348
2014	5	1,292,923.593	1,278,642.456	14,281.137	1.10%	0.372
2014	6	1,375,043.985	1,354,615.797	20,428.189	1.49%	0.532
2014	7	1,559,346.680	1,515,371.164	43,975.516	2.82%	1.146
2014	8	1,491,153.375	1,484,529.393	6,623.982	0.44%	0.173
2014	9	1,468,853.494	1,447,018.775	21,834.719	1.49%	0.569
2014	10	1,435,212.408	1,411,288.966	23,923.443	1.67%	0.623
2014	11	1,193,898.507	1,204,062.520	-10,164.014	-0.85%	-0.265
2014	12	1,494,685.599	1,433,033.109	61,652.491	4.12%	1.607

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2015	1	1,524,175.340	1,462,602.991	61,572.349	4.04%	1.604
2015	2	1,261,529.052	1,268,147.306	-6,618.255	-0.52%	-0.172
2015	3	1,475,634.890	1,414,453.347	61,181.544	4.15%	1.594
2015	4	1,317,963.974	1,297,345.969	20,618.005	1.56%	0.537
2015	5	1,262,261.689	1,274,203.018	-11,941.329	-0.95%	-0.311
2015	6	1,395,241.994	1,412,909.000	-17,667.007	-1.27%	-0.460
2015	7	1,541,312.258	1,505,456.733	35,855.525	2.33%	0.934
2015	8	1,518,357.889	1,518,157.510	200.379	0.01%	0.005
2015	9	1,536,498.412	1,516,113.121	20,385.291	1.33%	0.531
2015	10	1,442,438.872	1,440,699.232	1,739.640	0.12%	0.045
2015	11	1,237,066.101	1,233,637.816	3,428.285	0.28%	0.089
2015	12	1,484,762.994	1,450,582.868	34,180.126	2.30%	0.891
2016	1	1,472,658.878	1,450,508.939	22,149.939	1.50%	0.577
2016	2	1,334,270.426	1,281,734.031	52,536.394	3.94%	1.369
2016	3	1,436,126.124	1,448,795.786	-12,669.662	-0.88%	-0.330
2016	4	1,281,893.384	1,291,714.223	-9,820.839	-0.77%	-0.256
2016	5	1,276,660.083	1,298,131.516	-21,471.433	-1.68%	-0.559
2016	6	1,459,046.521	1,420,494.449	38,552.072	2.64%	1.005
2016	7	1,526,120.301	1,499,851.421	26,268.880	1.72%	0.685
2016	8	1,652,779.122	1,600,633.600	52,145.522	3.16%	1.359
2016	9	1,502,597.158	1,499,638.554	2,958.604	0.20%	0.077
2016	10	1,383,235.014	1,402,565.297	-19,330.283	-1.40%	-0.504
2016	11	1,299,883.278	1,264,547.204	35,336.074	2.72%	0.921
2016	12	1,419,310.487	1,422,391.383	-3,080.896	-0.22%	-0.080
2017	1	1,548,642.221	1,470,520.239	78,121.982	5.04%	2.036
2017	2	1,291,972.412	1,286,960.134	5,012.278	0.39%	0.131
2017	3	1,479,294.944	1,434,439.892	44,855.053	3.03%	1.169
2017	4	1,264,714.288	1,264,147.612	566.676	0.04%	0.015
2017	5	1,375,209.858	1,317,729.292	57,480.566	4.18%	1.498
2017	6	1,454,166.360	1,449,670.833	4,495.527	0.31%	0.117
2017	7	1,500,386.883	1,507,645.593	-7,258.711	-0.48%	-0.189
2017	8	1,602,793.680	1,593,688.640	9,105.040	0.57%	0.237
2017	9	1,499,791.058	1,503,602.849	-3,811.791	-0.25%	-0.099
2017	10	1,395,340.693	1,436,523.745	-41,183.052	-2.95%	-1.073
2017	11	1,289,072.955	1,293,453.406	-4,380.451	-0.34%	-0.114
2017	12	1,371,411.580	1,406,349.057	-34,937.478	-2.55%	-0.910

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2018	1	1,554,313.332	1,489,001.018	65,312.314	4.20%	1.702
2018	2	1,307,540.473	1,281,477.344	26,063.129	1.99%	0.679
2018	3	1,451,477.439	1,457,724.405	-6,246.966	-0.43%	-0.163
2018	4	1,293,161.385	1,310,315.019	-17,153.634	-1.33%	-0.447
2018	5	1,375,867.537	1,360,892.507	14,975.030	1.09%	0.390
2018	6	1,439,823.408	1,464,166.034	-24,342.626	-1.69%	-0.634
2018	7	1,594,876.140	1,558,842.498	36,033.642	2.26%	0.939
2018	8	1,614,714.216	1,598,733.247	15,980.969	0.99%	0.416
2018	9	1,435,098.392	1,488,283.870	-53,185.478	-3.71%	-1.386
2018	10	1,507,615.447	1,477,705.356	29,910.091	1.98%	0.779
2018	11	1,316,998.628	1,302,826.431	14,172.197	1.08%	0.369
2018	12	1,394,135.434	1,419,483.176	-25,347.742	-1.82%	-0.661
2019	1	1,524,661.410	1,495,948.064	28,713.346	1.88%	0.748
2019	2	1,307,549.856	1,303,675.510	3,874.346	0.30%	0.101
2019	3	1,406,386.785	1,439,725.377	-33,338.592	-2.37%	-0.869
2019	4	1,376,227.327	1,337,326.521	38,900.806	2.83%	1.014
2019	5	1,347,763.018	1,358,639.155	-10,876.137	-0.81%	-0.283
2019	6	1,312,813.137	1,385,899.099	-73,085.962	-5.57%	-1.904
2019	7	1,540,222.313	1,547,293.318	-7,071.005	-0.46%	-0.184
2019	8	1,612,374.027	1,623,390.060	-11,016.033	-0.68%	-0.287
2019	9	1,530,656.329	1,549,515.562	-18,859.233	-1.23%	-0.491
2019	10	1,463,467.930	1,507,728.034	-44,260.104	-3.02%	-1.153
2019	11	1,247,257.040	1,294,051.363	-46,794.323	-3.75%	-1.219
2019	12	1,512,050.790	1,472,247.342	39,803.448	2.63%	1.037
2020	1	1,517,943.039	1,493,668.177	24,274.862	1.60%	0.633
2020	2	1,279,898.152	1,307,913.012	-28,014.860	-2.19%	-0.730
2020	3	1,493,117.299	1,450,718.404	42,398.895	2.84%	1.105
2020	4	1,224,587.768	1,228,293.261	-3,705.493	-0.30%	-0.097
2020	5	1,137,775.010	1,181,148.570	-43,373.560	-3.81%	-1.130
2020	6	1,261,764.497	1,331,545.455	-69,780.958	-5.53%	-1.818
2020	7	1,517,555.878	1,465,627.038	51,928.840	3.42%	1.353
2020	8	1,452,279.906	1,480,344.154	-28,064.249	-1.93%	-0.731
2020	9	1,494,161.159	1,456,115.787	38,045.371	2.55%	0.991
2020	10	1,353,439.377	1,371,582.808	-18,143.431	-1.34%	-0.473
2020	11	1,209,479.181	1,165,338.749	44,140.432	3.65%	1.150
2020	12	1,416,736.450	1,378,086.336	38,650.115	2.73%	1.007

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2021	1		1,409,242.908			
2021	2		1,222,755.485			
2021	3		1,433,520.581			
2021	4		1,276,888.578			
2021	5		1,232,012.291			
2021	6		1,383,705.543			
2021	7		1,516,297.081			
2021	8		1,546,725.691			
2021	9		1,520,422.896			
2021	10		1,392,655.721			
2021	11		1,264,167.147			
2021	12		1,429,671.868			
2022	1		1,420,125.672			
2022	2		1,247,556.313			
2022	3		1,440,800.475			
2022	4		1,276,879.112			
2022	5		1,291,678.698			
2022	6		1,429,723.004			
2022	7		1,513,625.767			
2022	8		1,625,653.571			
2022	9		1,552,752.268			
2022	10		1,441,508.500			
2022	11		1,292,260.686			
2022	12		1,458,228.561			

Variable	Description	Definition
CONST	calendar month customer count - historical data	from company records
StreetLight	Street Light Sales	from company records
Mins_Lights	average daily minutes of light during month	
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
May	Monthly seasonal variable for month of May	= 1 if month is May, = 0 for all other months
Jun	Monthly seasonal variable for month of June	= 1 if month is June, = 0 for all other months
Jul	Monthly seasonal variable for month of July	= 1 if month is July, = 0 for all other months
Aug	Monthly seasonal variable for month of August	= 1 if month is August, = 0 for all other months
Sep	Monthly seasonal variable for month of September	= 1 if month is September, = 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
Jan2013	Binary variable for January 2013	= 1 for Jan 2013, = 0 for all other months
Feb2013	Binary variable for February 2013	= 1 for Feb 2013, = 0 for all other months
Feb2016	Binary variable for February 2016	= 1 for Feb 2016, = 0 for all other months
Nov2019	Binary variable for November 2019	= 1 for Nov 2019, = 0 for all other months
Dec2019	Binary variable for December 2019	= 1 for Dec 2019, = 0 for all other months
Jan2020	Binary variable for January 2020	= 1 for Jan 2020, = 0 for all other months
Feb2020	Binary variable for February 2020	= 1 for Feb 2020, = 0 for all other months
AR(1)	AR(1)	First order autoregressive term
AR(2)	AR(2)	Second order autoregressive term

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	-23080.388	8114.722	-2.844	0.51%
Mins_Lights	126.001	6.106	20.637	0.00%
Mar	-11715.183	462.436	-25.334	0.00%
Apr	-15260.733	631.172	-24.178	0.00%
May	-24791.740	1010.455	-24.535	0.00%
Jun	-24752.322	945.947	-26.167	0.00%
Jul	-26057.027	990.602	-26.304	0.00%
Aug	-21648.231	810.224	-26.719	0.00%
Sep	-14113.934	495.673	-28.474	0.00%
Oct	-9602.868	329.724	-29.124	0.00%
Nov	-1939.126	62.906	-30.826	0.00%
Jan2013	-2981.367	174.506	-17.085	0.00%
Feb2013	-9026.955	170.574	-52.921	0.00%
Feb2016	736.647	164.032	4.491	0.00%
Nov2019	5306.608	187.754	28.264	0.00%
Dec2019	4374.220	201.186	21.742	0.00%
Jan2020	-20369.460	201.944	-100.867	0.00%
Feb2020	10647.308	186.396	57.122	0.00%
AR(1)	0.660	0.081	8.194	0.00%
AR(2)	0.332	0.084	3.951	0.01%

Model Statistics

Iterations	18
Adjusted Observations	166
Deg. of Freedom for Error	146
R-Squared	0.995
Adjusted R-Squared	0.995
AIC	10.718
BIC	11.093
F-Statistic	1686.252
Prob (F-Statistic)	0.0000
Log-Likelihood	-1,105.15
Model Sum of Squares	1,293,060,117.27
Sum of Squared Errors	5,892,444.19
Mean Squared Error	40,359.21
Std. Error of Regression	200.90
Mean Abs. Dev. (MAD)	122.25
Mean Abs. % Err. (MAPE)	0.85%
Durbin-Watson Statistic	2.090
Durbin-H Statistic	
Ljung-Box Statistic	21.13
Prob (Ljung-Box)	0.6310
Skewness	-0.691
Kurtosis	11.083
Jarque-Bera	465.086
Prob (Jarque-Bera)	0.0000

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2007	1	17,789.328				
2007	2	17,417.773				
2007	3	15,151.911	15,180.050	-28.139	-0.002	-0.140
2007	4	15,072.868	15,038.582	34.286	0.002	0.171
2007	5	13,417.507	13,320.161	97.346	0.007	0.485
2007	6	12,175.505	12,036.950	138.555	0.011	0.690
2007	7	11,795.032	11,704.435	90.597	0.008	0.451
2007	8	12,439.762	12,395.797	43.965	0.004	0.219
2007	9	13,173.349	13,402.591	-229.242	-0.017	-1.141
2007	10	14,309.914	14,226.696	83.218	0.006	0.414
2007	11	15,973.183	15,987.261	-14.078	-0.001	-0.070
2007	12	16,755.912	16,791.543	-35.631	-0.002	-0.177
2008	1	17,923.960	18,010.743	-86.783	-0.005	-0.432
2008	2	17,560.406	17,312.566	247.840	0.014	1.234
2008	3	15,290.650	15,318.943	-28.293	-0.002	-0.141
2008	4	15,285.795	15,177.558	108.237	0.007	0.539
2008	5	13,532.983	13,506.845	26.138	0.002	0.130
2008	6	12,380.348	12,183.892	196.456	0.016	0.978
2008	7	11,962.316	11,878.059	84.257	0.007	0.419
2008	8	12,491.183	12,574.274	-83.091	-0.007	-0.414
2008	9	13,575.989	13,492.076	83.913	0.006	0.418
2008	10	14,568.509	14,509.703	58.806	0.004	0.293
2008	11	16,115.971	16,291.698	-175.727	-0.011	-0.875
2008	12	17,095.423	16,971.681	123.742	0.007	0.616
2009	1	18,219.539	18,282.379	-62.840	-0.003	-0.313
2009	2	17,799.615	17,620.478	179.137	0.010	0.892
2009	3	15,523.581	15,575.042	-51.461	-0.003	-0.256
2009	4	15,496.398	15,410.801	85.597	0.006	0.426
2009	5	13,800.946	13,723.257	77.689	0.006	0.387
2009	6	12,016.003	12,430.779	-414.776	-0.035	-2.065
2009	7	12,078.317	11,726.351	351.966	0.029	1.752
2009	8	12,675.796	12,529.964	145.832	0.012	0.726
2009	9	13,706.935	13,652.512	54.423	0.004	0.271
2009	10	14,063.828	14,657.465	-593.637	-0.042	-2.955
2009	11	16,266.924	16,001.823	265.101	0.016	1.320
2009	12	17,162.087	16,903.879	258.208	0.015	1.285

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2010	1	18,162.037	18,376.512	-214.475	-0.012	-1.068
2010	2	17,663.306	17,604.624	58.682	0.003	0.292
2010	3	15,489.616	15,465.926	23.690	0.002	0.118
2010	4	15,288.671	15,343.126	-54.455	-0.004	-0.271
2010	5	14,074.588	13,574.782	499.806	0.036	2.488
2010	6	12,317.187	12,542.571	-225.384	-0.018	-1.122
2010	7	11,893.175	12,016.103	-122.928	-0.010	-0.612
2010	8	12,516.149	12,507.644	8.505	0.001	0.042
2010	9	13,476.159	13,485.618	-9.459	-0.001	-0.047
2010	10	14,439.244	14,452.052	-12.808	-0.001	-0.064
2010	11	16,157.889	16,173.186	-15.297	-0.001	-0.076
2010	12	17,006.050	16,956.464	49.586	0.003	0.247
2011	1	18,233.391	18,237.262	-3.871	-0.000	-0.019
2011	2	17,236.232	17,599.963	-363.731	-0.021	-1.811
2011	3	15,546.739	15,207.531	339.208	0.022	1.688
2011	4	15,340.756	15,239.108	101.648	0.007	0.506
2011	5	13,449.811	13,628.143	-178.332	-0.013	-0.888
2011	6	12,370.915	12,147.199	223.716	0.018	1.114
2011	7	11,842.265	11,844.224	-1.959	-0.000	-0.010
2011	8	12,537.346	12,491.851	45.495	0.004	0.226
2011	9	13,518.531	13,482.721	35.810	0.003	0.178
2011	10	14,438.562	14,487.074	-48.512	-0.003	-0.241
2011	11	16,132.813	16,186.799	-53.986	-0.003	-0.269
2011	12	15,840.079	16,939.675	-1,099.596	-0.069	-5.473
2012	1	18,158.909	17,458.827	700.082	0.039	3.485
2012	2	17,717.077	17,163.779	553.298	0.031	2.754
2012	3	15,342.170	15,500.403	-158.233	-0.010	-0.788
2012	4	15,278.047	15,263.587	14.460	0.001	0.072
2012	5	13,553.472	13,518.827	34.645	0.003	0.172
2012	6	12,240.064	12,194.853	45.211	0.004	0.225
2012	7	11,802.922	11,792.203	10.719	0.001	0.053
2012	8	12,447.129	12,422.436	24.693	0.002	0.123
2012	9	13,318.000	13,410.076	-92.076	-0.007	-0.458
2012	10	14,406.441	14,324.682	81.759	0.006	0.407
2012	11	16,128.527	16,099.027	29.500	0.002	0.147
2012	12	16,783.720	16,926.183	-142.463	-0.008	-0.709

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2013	1	15,060.450	15,099.302	-38.852	-0.003	-0.193
2013	2	8,339.117	8,372.684	-33.567	-0.004	-0.167
2013	3	15,179.444	15,229.705	-50.261	-0.003	-0.250
2013	4	15,038.493	15,039.608	-1.115	-0.000	-0.006
2013	5	13,273.820	13,306.595	-32.775	-0.002	-0.163
2013	6	11,893.048	11,930.637	-37.589	-0.003	-0.187
2013	7	11,468.609	11,470.185	-1.576	-0.000	-0.008
2013	8	12,086.045	12,086.449	-0.404	-0.000	-0.002
2013	9	13,045.029	13,060.624	-15.595	-0.001	-0.078
2013	10	14,082.039	14,024.542	57.497	0.004	0.286
2013	11	15,866.455	15,794.162	72.293	0.005	0.360
2013	12	16,712.844	16,645.417	67.427	0.004	0.336
2014	1	17,919.958	17,946.874	-26.916	-0.002	-0.134
2014	2	17,441.069	17,295.628	145.441	0.008	0.724
2014	3	15,191.169	15,238.794	-47.625	-0.003	-0.237
2014	4	15,026.572	15,072.244	-45.672	-0.003	-0.227
2014	5	13,276.782	13,302.613	-25.831	-0.002	-0.129
2014	6	11,993.815	11,928.637	65.178	0.005	0.324
2014	7	11,595.093	11,537.724	57.369	0.005	0.286
2014	8	12,145.612	12,203.436	-57.824	-0.005	-0.288
2014	9	13,176.369	13,141.948	34.421	0.003	0.171
2014	10	14,239.932	14,131.062	108.870	0.008	0.542
2014	11	15,900.546	15,942.041	-41.495	-0.003	-0.207
2014	12	16,916.386	16,720.339	196.047	0.012	0.976
2015	1	18,068.082	18,092.626	-24.544	-0.001	-0.122
2015	2	17,560.166	17,461.019	99.147	0.006	0.494
2015	3	15,259.745	15,366.619	-106.874	-0.007	-0.532
2015	4	15,109.815	15,157.066	-47.251	-0.003	-0.235
2015	5	13,305.770	13,380.354	-74.584	-0.006	-0.371
2015	6	12,054.596	11,975.411	79.185	0.007	0.394
2015	7	11,559.490	11,587.490	-28.000	-0.002	-0.139
2015	8	12,175.060	12,200.094	-25.034	-0.002	-0.125
2015	9	13,241.346	13,149.581	91.765	0.007	0.457
2015	10	14,301.147	14,183.752	117.395	0.008	0.584
2015	11	16,010.553	16,004.039	6.514	0.000	0.032
2015	12	16,972.138	16,813.315	158.823	0.009	0.791

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2016	1	18,156.086	18,165.962	-9.876	-0.001	-0.049
2016	2	18,704.102	18,274.296	429.806	0.023	2.139
2016	3	16,246.724	15,664.838	581.886	0.036	2.896
2016	4	16,081.159	15,944.137	137.022	0.009	0.682
2016	5	14,135.392	14,349.499	-214.107	-0.015	-1.066
2016	6	12,761.519	12,845.761	-84.242	-0.007	-0.419
2016	7	12,250.975	12,329.760	-78.785	-0.006	-0.392
2016	8	12,952.187	12,891.443	60.744	0.005	0.302
2016	9	13,953.017	13,892.372	60.645	0.004	0.302
2016	10	14,959.419	14,911.735	47.684	0.003	0.237
2016	11	16,831.274	16,675.028	156.246	0.009	0.778
2016	12	17,629.438	17,573.876	55.562	0.003	0.277
2017	1	18,880.592	18,872.502	8.090	0.000	0.040
2017	2	18,393.335	18,234.338	158.997	0.009	0.791
2017	3	15,971.640	16,186.594	-214.954	-0.013	-1.070
2017	4	15,632.051	15,903.798	-271.747	-0.017	-1.353
2017	5	13,710.074	13,961.567	-251.493	-0.018	-1.252
2017	6	12,338.644	12,415.782	-77.138	-0.006	-0.384
2017	7	11,746.393	11,909.291	-162.898	-0.014	-0.811
2017	8	12,390.623	12,417.818	-27.195	-0.002	-0.135
2017	9	13,429.380	13,353.992	75.388	0.006	0.375
2017	10	14,434.456	14,379.493	54.963	0.004	0.274
2017	11	16,204.405	16,154.498	49.907	0.003	0.248
2017	12	16,995.689	16,985.598	10.091	0.001	0.050
2018	1	18,227.983	18,245.857	-17.874	-0.001	-0.089
2018	2	17,805.050	17,592.953	212.097	0.012	1.056
2018	3	15,420.366	15,581.434	-161.068	-0.010	-0.802
2018	4	15,205.427	15,344.433	-139.006	-0.009	-0.692
2018	5	13,401.807	13,496.816	-95.009	-0.007	-0.473
2018	6	12,076.335	12,070.577	5.758	0.000	0.029
2018	7	11,556.016	11,633.724	-77.708	-0.007	-0.387
2018	8	12,239.801	12,205.014	34.787	0.003	0.173
2018	9	13,131.540	13,191.189	-59.649	-0.005	-0.297
2018	10	14,270.420	14,132.714	137.706	0.010	0.685
2018	11	15,986.850	15,947.299	39.551	0.002	0.197
2018	12	16,896.164	16,787.461	108.703	0.006	0.541

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2019	1	18,149.464	18,107.915	41.549	0.002	0.207
2019	2	17,708.518	17,508.059	200.459	0.011	0.998
2019	3	15,358.048	15,491.615	-133.567	-0.009	-0.665
2019	4	15,255.158	15,271.233	-16.075	-0.001	-0.080
2019	5	13,440.361	13,508.979	-68.618	-0.005	-0.342
2019	6	11,715.512	12,112.547	-397.035	-0.034	-1.976
2019	7	11,196.440	11,408.200	-211.760	-0.019	-1.054
2019	8	11,616.476	11,847.760	-231.284	-0.020	-1.151
2019	9	12,526.192	12,660.144	-133.952	-0.011	-0.667
2019	10	13,402.515	13,526.004	-123.489	-0.009	-0.615
2019	11	20,355.213	20,479.747	-124.534	-0.006	-0.620
2019	12	20,129.393	20,253.919	-124.526	-0.006	-0.620
2020	1	-3,453.969	-3,326.565	-127.404	0.037	-0.634
2020	2	26,839.987	26,961.641	-121.654	-0.005	-0.606
2020	3	13,939.094	14,080.859	-141.765	-0.010	-0.706
2020	4	13,746.493	13,830.916	-84.423	-0.006	-0.420
2020	5	12,067.239	12,041.565	25.673	0.002	0.128
2020	6	11,006.307	10,704.883	301.424	0.027	1.500
2020	7	10,393.622	10,484.033	-90.411	-0.009	-0.450
2020	8	10,958.978	11,082.119	-123.141	-0.011	-0.613
2020	9	11,883.393	11,959.415	-76.022	-0.006	-0.378
2020	10	12,716.997	12,883.216	-166.219	-0.013	-0.827
2020	11	14,163.380	14,507.015	-343.635	-0.024	-1.711
2020	12	15,146.469	15,067.491	78.978	0.005	0.393
2021	1		16,347.042			
2021	2		15,736.847			
2021	3		13,591.116			
2021	4		13,449.788			
2021	5		11,730.099			
2021	6		10,383.728			
2021	7		9,960.928			
2021	8		10,589.692			
2021	9		11,571.893			
2021	10		12,554.906			
2021	11		14,296.567			
2021	12		15,101.661			

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2022	1		16,361.653			
2022	2		15,731.626			
2022	3		13,592.517			
2022	4		13,448.980			
2022	5		11,730.031			
2022	6		10,383.414			
2022	7		9,960.698			
2022	8		10,589.436			
2022	9		11,571.648			
2022	10		12,554.659			
2022	11		14,296.323			
2022	12		15,101.418			

Variable	Description	Definition
Interdept	Interdepartmental Sales (Mwh)	from company records
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
May	Monthly seasonal variable for month of May	= 1 if month is May, = 0 for all other months
Jun	Monthly seasonal variable for month of June	= 1 if month is June, = 0 for all other months
Jul	Monthly seasonal variable for month of July	= 1 if month is July, = 0 for all other months
Aug	Monthly seasonal variable for month of August	= 1 if month is August, = 0 for all other months
Sep	Monthly seasonal variable for month of September	= 1 if month is September, = 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
Jun2007	Binary variable for June 2007	= 1 for June 2007, = 0 for all other months
Feb2008	Binary variable for February 2008	= 1 for February 2008, = 0 for all other months
Mar2008	Binary variable for March 2008	= 1 for March 2008, = 0 for all other months
Apr2008	Binary variable for April 2008	= 1 for April 2008, = 0 for all other months
May2008	Binary variable for May 2008	= 1 for May 2008, = 0 for all other months
Jun2008	Binary variable for June 2008	= 1 for June 2008, = 0 for all other months
Dec2008	Binary variable for December 2008	= 1 for December 2008, = 0 for all other months
Jan2009	Binary variable for January 2009	= 1 for January 2009, = 0 for all other months
Sep2010	Binary variable for September 2010	= 1 for September 2010, = 0 for all other months
Sep2014	Binary variable for September 2014	= 1 for September 2014, = 0 for all other months
May2015	Binary variable for May 2015	= 1 for May 2015, = 0 for all other months
Nov2016	Binary variable for November 2016	= 1 for November 2016, = 0 for all other months
Feb2017	Binary variable for February 2017	= 1 for February 2017, = 0 for all other months
Dec2017	Binary variable for December 2017	= 1 for December 2017, = 0 for all other months
Jan2018	Binary variable for January 2018	= 1 for January 2018, = 0 for all other months
Jan2019	Binary variable for January 2019	= 1 for January 2019, = 0 for all other months
Mar2019	Binary variable for March 2019	= 1 for March 2019, = 0 for all other months

Variable	Coefficient	StdErr	T-Stat	P-Value
Jan	374.534	23.633	15.848	0.00%
Feb	379.884	22.706	16.731	0.00%
Mar	325.893	22.706	14.353	0.00%
Apr	290.101	21.880	13.259	0.00%
May	226.175	22.706	9.961	0.00%
Jun	158.139	22.706	6.965	0.00%
Jul	146.834	21.138	6.947	0.00%
Aug	154.357	21.138	7.302	0.00%
Sep	156.502	22.706	6.893	0.00%
Oct	210.122	21.138	9.941	0.00%
Nov	269.199	21.880	12.304	0.00%
Dec	352.645	22.706	15.531	0.00%
Jun2007	173.643	84.957	2.044	4.27%
Feb2008	-308.520	84.957	-3.632	0.04%
Mar2008	229.047	84.957	2.696	0.78%
Apr2008	-240.488	84.740	-2.838	0.52%
May2008	271.946	84.957	3.201	0.17%
Jun2008	-143.110	84.957	-1.685	9.42%
Dec2008	-296.977	84.957	-3.496	0.06%
Jan2009	291.179	85.209	3.417	0.08%
Sep2010	-141.685	84.957	-1.668	9.74%
Sep2014	587.181	84.957	6.912	0.00%
May2015	-195.982	84.957	-2.307	2.24%
Nov2016	-232.862	84.740	-2.748	0.67%
Feb2017	-343.511	84.957	-4.043	0.01%
Dec2017	-319.923	84.957	-3.766	0.02%
Jan2018	292.904	85.209	3.437	0.08%
Jan2019	-303.525	85.209	-3.562	0.05%
Mar2019	-291.116	84.957	-3.427	0.08%

Model Statistics

Iterations	1
Adjusted Observations	180
Deg. of Freedom for Error	151
R-Squared	0.706
Adjusted R-Squared	0.652
AIC	8.957
BIC	9.471
F-Statistic	
Prob (F-Statistic)	
Log-Likelihood	-1,032.51
Model Sum of Squares	2,433,413.25
Sum of Squared Errors	1,012,013.78
Mean Squared Error	6,702.08
Std. Error of Regression	81.87
Mean Abs. Dev. (MAD)	52.88
Mean Abs. % Err. (MAPE)	32.85%
Durbin-Watson Statistic	1.958
Durbin-H Statistic	
Ljung-Box Statistic	25.99
Prob (Ljung-Box)	0.3534
Skewness	1.178
Kurtosis	6.243
Jarque-Bera	120.495
Prob (Jarque-Bera)	0.0000

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2006	1	321.633	374.534	-52.901	-16.45%	-0.646
2006	2	309.585	379.884	-70.299	-22.71%	-0.859
2006	3	426.077	325.893	100.184	23.51%	1.224
2006	4	150.357	290.101	-139.744	-92.94%	-1.707
2006	5	291.887	226.175	65.712	22.51%	0.803
2006	6	227.283	158.139	69.144	30.42%	0.845
2006	7	98.215	146.834	-48.619	-49.50%	-0.594
2006	8	191.383	154.357	37.026	19.35%	0.452
2006	9	166.481	156.502	9.979	5.99%	0.122
2006	10	182.100	210.122	-28.022	-15.39%	-0.342
2006	11	222.649	269.199	-46.550	-20.91%	-0.569
2006	12	411.916	352.645	59.271	14.39%	0.724
2007	1	230.485	374.534	-144.049	-62.50%	-1.760
2007	2	434.565	379.884	54.681	12.58%	0.668
2007	3	327.568	325.893	1.675	0.51%	0.020
2007	4	311.259	290.101	21.158	6.80%	0.258
2007	5	278.648	226.175	52.473	18.83%	0.641
2007	6	331.782	331.782	0.000	0.00%	0.000
2007	7	51.104	146.834	-95.730	-187.32%	-1.169
2007	8	182.287	154.357	27.930	15.32%	0.341
2007	9	195.650	156.502	39.148	20.01%	0.478
2007	10	188.028	210.122	-22.094	-11.75%	-0.270
2007	11	221.844	269.199	-47.355	-21.35%	-0.578
2007	12	220.960	352.645	-131.685	-59.60%	-1.609
2008	1	547.307	374.534	172.773	31.57%	2.110
2008	2	71.364	71.364	-0.000	-0.00%	-0.000
2008	3	554.940	554.940	0.000	0.00%	0.000
2008	4	49.613	49.613	-0.000	-0.00%	-0.000
2008	5	498.121	498.121	0.000	0.00%	0.000
2008	6	15.029	15.029	0.000	0.00%	0.000
2008	7	263.625	146.834	116.791	44.30%	1.427
2008	8	30.038	154.357	-124.319	-413.87%	-1.519
2008	9	203.187	156.502	46.685	22.98%	0.570
2008	10	182.501	210.122	-27.621	-15.13%	-0.337
2008	11	235.950	269.199	-33.249	-14.09%	-0.406
2008	12	55.668	55.668	-0.000	-0.00%	-0.000

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2009	1	665.713	665.713	0.000	0.00%	0.000
2009	2	278.180	379.884	-101.704	-36.56%	-1.242
2009	3	235.254	325.893	-90.639	-38.53%	-1.107
2009	4	267.353	290.101	-22.748	-8.51%	-0.278
2009	5	226.139	226.175	-0.036	-0.02%	-0.000
2009	6	181.189	158.139	23.050	12.72%	0.282
2009	7	158.711	146.834	11.877	7.48%	0.145
2009	8	134.553	154.357	-19.804	-14.72%	-0.242
2009	9	110.354	156.502	-46.148	-41.82%	-0.564
2009	10	222.949	210.122	12.827	5.75%	0.157
2009	11	265.421	269.199	-3.778	-1.42%	-0.046
2009	12	287.222	352.645	-65.423	-22.78%	-0.799
2010	1	364.642	374.534	-9.892	-2.71%	-0.121
2010	2	268.801	379.884	-111.083	-41.33%	-1.357
2010	3	213.949	325.893	-111.944	-52.32%	-1.367
2010	4	230.357	290.101	-59.744	-25.94%	-0.730
2010	5	138.028	226.175	-88.147	-63.86%	-1.077
2010	6	45.144	158.139	-112.995	-250.30%	-1.380
2010	7	130.659	146.834	-16.175	-12.38%	-0.198
2010	8	162.465	154.357	8.108	4.99%	0.099
2010	9	14.817	14.817	-0.000	-0.00%	-0.000
2010	10	275.599	210.122	65.477	23.76%	0.800
2010	11	216.817	269.199	-52.382	-24.16%	-0.640
2010	12	301.390	352.645	-51.255	-17.01%	-0.626
2011	1	465.211	374.534	90.677	19.49%	1.108
2011	2	404.922	379.884	25.038	6.18%	0.306
2011	3	284.575	325.893	-41.318	-14.52%	-0.505
2011	4	282.311	290.101	-7.790	-2.76%	-0.095
2011	5	254.761	226.175	28.586	11.22%	0.349
2011	6	117.492	158.139	-40.647	-34.60%	-0.497
2011	7	81.971	146.834	-64.863	-79.13%	-0.792
2011	8	180.840	154.357	26.483	14.64%	0.323
2011	9	172.000	156.502	15.498	9.01%	0.189
2011	10	194.643	210.122	-15.479	-7.95%	-0.189
2011	11	298.458	269.199	29.259	9.80%	0.357
2011	12	308.638	352.645	-44.007	-14.26%	-0.538

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2012	1	331.487	374.534	-43.047	-12.99%	-0.526
2012	2	499.195	379.884	119.311	23.90%	1.457
2012	3	283.000	325.893	-42.893	-15.16%	-0.524
2012	4	241.492	290.101	-48.609	-20.13%	-0.594
2012	5	222.987	226.175	-3.188	-1.43%	-0.039
2012	6	39.000	158.139	-119.139	-305.49%	-1.455
2012	7	147.660	146.834	0.826	0.56%	0.010
2012	8	180.000	154.357	25.643	14.25%	0.313
2012	9	180.919	156.502	24.417	13.50%	0.298
2012	10	258.919	210.122	48.797	18.85%	0.596
2012	11	237.000	269.199	-32.199	-13.59%	-0.393
2012	12	266.610	352.645	-86.035	-32.27%	-1.051
2013	1	369.660	374.534	-4.874	-1.32%	-0.060
2013	2	273.874	379.884	-106.010	-38.71%	-1.295
2013	3	328.886	325.893	2.993	0.91%	0.037
2013	4	274.600	290.101	-15.501	-5.65%	-0.189
2013	5	235.845	226.175	9.670	4.10%	0.118
2013	6	113.528	158.139	-44.611	-39.30%	-0.545
2013	7	160.364	146.834	13.530	8.44%	0.165
2013	8	172.056	154.357	17.699	10.29%	0.216
2013	9	216.332	156.502	59.830	27.66%	0.731
2013	10	242.029	210.122	31.907	13.18%	0.390
2013	11	290.368	269.199	21.169	7.29%	0.259
2013	12	334.999	352.645	-17.646	-5.27%	-0.216
2014	1	319.294	374.534	-55.240	-17.30%	-0.675
2014	2	367.112	379.884	-12.772	-3.48%	-0.156
2014	3	300.504	325.893	-25.389	-8.45%	-0.310
2014	4	319.869	290.101	29.768	9.31%	0.364
2014	5	297.931	226.175	71.756	24.08%	0.876
2014	6	36.910	158.139	-121.229	-328.45%	-1.481
2014	7	39.365	146.834	-107.469	-273.01%	-1.313
2014	8	45.118	154.357	-109.239	-242.12%	-1.334
2014	9	743.683	743.683	0.000	0.00%	0.000
2014	10	208.185	210.122	-1.937	-0.93%	-0.024
2014	11	316.364	269.199	47.165	14.91%	0.576
2014	12	329.839	352.645	-22.806	-6.91%	-0.279

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2015	1	347.497	374.534	-27.037	-7.78%	-0.330
2015	2	298.103	379.884	-81.781	-27.43%	-0.999
2015	3	270.470	325.893	-55.423	-20.49%	-0.677
2015	4	243.225	290.101	-46.876	-19.27%	-0.573
2015	5	30.193	30.193	0.000	0.00%	0.000
2015	6	308.607	158.139	150.468	48.76%	1.838
2015	7	198.802	146.834	51.968	26.14%	0.635
2015	8	208.226	154.357	53.869	25.87%	0.658
2015	9	206.692	156.502	50.190	24.28%	0.613
2015	10	143.826	210.122	-66.296	-46.09%	-0.810
2015	11	250.311	269.199	-18.888	-7.55%	-0.231
2015	12	302.006	352.645	-50.639	-16.77%	-0.619
2016	1	322.975	374.534	-51.559	-15.96%	-0.630
2016	2	320.878	379.884	-59.006	-18.39%	-0.721
2016	3	270.609	325.893	-55.284	-20.43%	-0.675
2016	4	250.879	290.101	-39.222	-15.63%	-0.479
2016	5	161.730	226.175	-64.445	-39.85%	-0.787
2016	6	70.770	158.139	-87.369	-123.46%	-1.067
2016	7	157.104	146.834	10.270	6.54%	0.125
2016	8	170.511	154.357	16.154	9.47%	0.197
2016	9	169.101	156.502	12.599	7.45%	0.154
2016	10	240.221	210.122	30.099	12.53%	0.368
2016	11	36.337	36.337	-0.000	-0.00%	-0.000
2016	12	535.964	352.645	183.319	34.20%	2.239
2017	1	407.882	374.534	33.348	8.18%	0.407
2017	2	36.373	36.373	0.000	0.00%	0.000
2017	3	486.802	325.893	160.909	33.05%	1.966
2017	4	263.376	290.101	-26.725	-10.15%	-0.326
2017	5	212.048	226.175	-14.127	-6.66%	-0.173
2017	6	112.192	158.139	-45.947	-40.95%	-0.561
2017	7	142.512	146.834	-4.322	-3.03%	-0.053
2017	8	221.665	154.357	67.308	30.36%	0.822
2017	9	44.175	156.502	-112.327	-254.28%	-1.372
2017	10	372.329	210.122	162.207	43.57%	1.981
2017	11	286.639	269.199	17.440	6.08%	0.213
2017	12	32.722	32.722	-0.000	-0.00%	-0.000

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2018	1	667.438	667.438	0.000	0.00%	0.000
2018	2	348.059	379.884	-31.825	-9.14%	-0.389
2018	3	381.845	325.893	55.952	14.65%	0.683
2018	4	316.649	290.101	26.548	8.38%	0.324
2018	5	290.767	226.175	64.592	22.21%	0.789
2018	6	168.726	158.139	10.587	6.27%	0.129
2018	7	129.167	146.834	-17.667	-13.68%	-0.216
2018	8	102.699	154.357	-51.658	-50.30%	-0.631
2018	9	78.743	156.502	-77.759	-98.75%	-0.950
2018	10	201.768	210.122	-8.354	-4.14%	-0.102
2018	11	329.802	269.199	60.603	18.38%	0.740
2018	12	397.898	352.645	45.253	11.37%	0.553
2019	1	71.009	71.009	-0.000	-0.00%	-0.000
2019	2	696.041	379.884	316.157	45.42%	3.862
2019	3	34.777	34.777	0.000	0.00%	0.000
2019	4	602.712	290.101	312.611	51.87%	3.819
2019	5	102.602	226.175	-123.573	-120.44%	-1.509
2019	6	432.056	158.139	273.917	63.40%	3.346
2019	7	318.194	146.834	171.360	53.85%	2.093
2019	8	131.924	154.357	-22.433	-17.00%	-0.274
2019	9	67.615	156.502	-88.887	-131.46%	-1.086
2019	10	118.988	210.122	-91.134	-76.59%	-1.113
2019	11	344.522	269.199	75.323	21.86%	0.920
2019	12	504.852	352.645	152.207	30.15%	1.859
2020	1	466.336	374.534	91.802	19.69%	1.121
2020	2	439.181	379.884	59.297	13.50%	0.724
2020	3	427.075	325.893	101.182	23.69%	1.236
2020	4	306.979	290.101	16.878	5.50%	0.206
2020	5	226.908	226.175	0.733	0.32%	0.009
2020	6	202.913	158.139	44.774	22.07%	0.547
2020	7	125.052	146.834	-21.782	-17.42%	-0.266
2020	8	201.587	154.357	47.230	23.43%	0.577
2020	9	223.279	156.502	66.777	29.91%	0.816
2020	10	119.752	210.122	-90.370	-75.46%	-1.104
2020	11	252.642	269.199	-16.557	-6.55%	-0.202
2020	12	382.093	352.645	29.448	7.71%	0.360

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2021	1		374.534			
2021	2		379.884			
2021	3		325.893			
2021	4		290.101			
2021	5		226.175			
2021	6		158.139			
2021	7		146.834			
2021	8		154.357			
2021	9		156.502			
2021	10		210.122			
2021	11		269.199			
2021	12		352.645			
2022	1		374.534			
2022	2		379.884			
2022	3		325.893			
2022	4		290.101			
2022	5		226.175			
2022	6		158.139			
2022	7		146.834			
2022	8		154.357			
2022	9		156.502			
2022	10		210.122			
2022	11		269.199			
2022	12		352.645			