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PUBLIC SERVICE
COMMISSION

KENTUCKY POWER COMPANY

**INTEGRATED RESOURCE PLANNING REPORT
TO THE
KENTUCKY PUBLIC SERVICE COMMISSION**

CHAPTER 2, APPENDIX

VOLUME B

BOOK 3 OF 3

Case No. 2009-00339

August 17, 2009

LONG-TERM COMMERCIAL

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
1996	1	113,206.02	195.34		0	11,979.16	1.00	0.00	0.00	0.00	0.00
1996	2	109,167.28	175.01		0	10,793.80	0.00	1.00	0.00	0.00	0.00
1996	3	95,628.28	118.44		0	10,595.89	0.00	0.00	1.00	0.00	0.00
1996	4	91,701.17	84.30		6.62552228	10,932.02	0.00	0.00	0.00	1.00	0.00
1996	5	98,296.37	18.27		65.58922244	10,802.31	0.00	0.00	0.00	0.00	1.00
1996	6	85,395.12	2.64		148.2573174	11,358.40	0.00	0.00	0.00	0.00	1.00
1996	7	98,462.36	0.00		280.3495321	11,226.99	0.00	0.00	0.00	0.00	0.00
1996	8	97,278.15	0.00		245.1543636	10,689.93	0.00	0.00	0.00	0.00	0.00
1996	9	98,444.86	0.00		221.979438	11,173.43	0.00	0.00	0.00	0.00	0.00
1996	10	82,694.94	5.67		40.09875214	11,010.23	0.00	0.00	0.00	0.00	0.00
1996	11	87,310.54	45.63		5.616978401	10,921.13	0.00	0.00	0.00	0.00	0.00
1996	12	105,129.33	125.03		1.460610124	11,940.38	0.00	0.00	0.00	0.00	0.00
1997	1	113,474.39	137.80		0.781362667	12,298.97	1.00	0.00	0.00	0.00	0.00
1997	2	102,454.94	150.00		0.581590559	11,081.73	0.00	1.00	0.00	0.00	0.00
1997	3	90,988.45	81.23		2.435567127	10,885.77	0.00	0.00	1.00	0.00	0.00
1997	4	84,898.02	53.72		5.763645427	11,278.97	0.00	0.00	0.00	1.00	0.00
1997	5	80,429.33	24.44		6.556196431	11,143.36	0.00	0.00	0.00	0.00	1.00
1997	6	83,911.03	3.88		50.81651279	11,717.88	0.00	0.00	0.00	0.00	1.00
1997	7	102,380.74	0.00		236.1940863	11,603.91	0.00	0.00	0.00	0.00	0.00
1997	8	100,758.81	0.00		276.8344254	11,048.64	0.00	0.00	0.00	0.00	0.00
1997	9	98,072.33	0.00		157.0487649	11,549.11	0.00	0.00	0.00	0.00	0.00
1997	10	86,935.31	3.99		48.59369809	11,364.57	0.00	0.00	0.00	0.00	0.00
1997	11	76,773.36	55.21		14.01078894	11,271.82	0.00	0.00	0.00	0.00	0.00
1997	12	117,639.99	115.81			0	12,328.68	0.00	0.00	0.00	0.00
1998	1	107,446.68	124.65			0	12,667.79	1.00	0.00	0.00	0.00
1998	2	99,409.46	118.93			0	11,412.00	0.00	1.00	0.00	0.00
1998	3	85,160.54	93.63		0.030732736	11,201.19	0.00	0.00	1.00	0.00	0.00
1998	4	95,019.60	56.45		40.26805818	11,565.44	0.00	0.00	0.00	1.00	0.00
1998	5	87,043.62	8.34		22.2562549	11,425.01	0.00	0.00	0.00	0.00	1.00
1998	6	93,873.46	0.19		134.4089852	12,012.80	0.00	0.00	0.00	0.00	1.00
1998	7	109,127.90	0.08		284.3513809	11,860.59	0.00	0.00	0.00	0.00	0.00
1998	8	103,820.23	0.00		279.2439502	11,293.42	0.00	0.00	0.00	0.00	0.00
1998	9	108,251.82	0.00		283.3215054	11,806.82	0.00	0.00	0.00	0.00	0.00
1998	10	95,623.33	1.57		170.8332409	11,596.90	0.00	0.00	0.00	0.00	0.00
1998	11	89,644.24	31.53		12.50162855	11,506.27	0.00	0.00	0.00	0.00	0.00
1998	12	105,092.93	66.01		2.898505322	12,576.44	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
1999	1	117,449.21	168.32	1.265350387	12,911.29	1.00	0.00	0.00	0.00	0.00	0.00
1999	2	99,527.09	105.71	0	11,628.67	0.00	1.00	0.00	0.00	0.00	0.00
1999	3	103,864.94	124.11	0	11,415.61	0.00	0.00	1.00	0.00	0.00	0.00
1999	4	94,106.93	66.29	9.257151034	11,766.32	0.00	0.00	0.00	1.00	0.00	0.00
1999	5	87,169.35	7.90	30.99494894	11,617.86	0.00	0.00	0.00	0.00	1.00	0.00
1999	6	97,019.42	0.00	151.6064792	12,215.45	0.00	0.00	0.00	0.00	0.00	1.00
1999	7	109,599.40	0.00	346.9565512	12,031.43	0.00	0.00	0.00	0.00	0.00	0.00
1999	8	111,619.74	0.00	409.7841001	11,454.81	0.00	0.00	0.00	0.00	0.00	0.00
1999	9	100,983.54	0.03	218.1842345	11,972.89	0.00	0.00	0.00	0.00	0.00	0.00
1999	10	95,125.92	3.60	44.48693719	11,722.79	0.00	0.00	0.00	0.00	0.00	0.00
1999	11	87,415.28	29.79	2.467189912	11,619.01	0.00	0.00	0.00	0.00	0.00	0.00
1999	12	106,592.84	79.62	0	12,704.70	0.00	0.00	0.00	0.00	0.00	0.00
2000	1	116,047.53	145.01	0	13,012.71	1.00	0.00	0.00	0.00	0.00	0.00
2000	2	114,186.45	173.10	0	11,721.06	0.00	1.00	0.00	0.00	0.00	0.00
2000	3	97,738.70	66.08	1.933202078	11,504.74	0.00	0.00	1.00	0.00	0.00	0.00
2000	4	89,933.02	37.59	4.625746617	11,852.51	0.00	0.00	0.00	1.00	0.00	0.00
2000	5	92,491.05	13.86	49.87251499	11,705.77	0.00	0.00	0.00	0.00	1.00	0.00
2000	6	104,856.51	0.03	146.4637033	12,304.35	0.00	0.00	0.00	0.00	0.00	1.00
2000	7	108,139.36	0.00	263.5460122	12,147.48	0.00	0.00	0.00	0.00	0.00	0.00
2000	8	108,808.60	0.00	220.122896	11,566.33	0.00	0.00	0.00	0.00	0.00	0.00
2000	9	111,962.57	0.16	199.9307566	12,093.19	0.00	0.00	0.00	0.00	0.00	0.00
2000	10	96,372.65	8.89	68.09063811	11,906.83	0.00	0.00	0.00	0.00	0.00	0.00
2000	11	91,910.57	30.26	9.379700658	11,811.70	0.00	0.00	0.00	0.00	0.00	0.00
2000	12	116,962.00	146.16	0	12,910.27	0.00	0.00	0.00	0.00	0.00	0.00
2001	1	133,855.10	220.22	0	13,311.89	1.00	0.00	0.00	0.00	0.00	0.00
2001	2	113,502.99	153.68	0	11,997.06	0.00	1.00	0.00	0.00	0.00	0.00
2001	3	102,783.44	105.64	0	11,781.17	0.00	0.00	1.00	0.00	0.00	0.00
2001	4	100,194.17	75.11	38.39393004	12,204.90	0.00	0.00	0.00	1.00	0.00	0.00
2001	5	97,747.04	11.37	84.57283532	12,056.68	0.00	0.00	0.00	0.00	1.00	0.00
2001	6	100,454.10	0.71	95.53144047	12,682.39	0.00	0.00	0.00	0.00	0.00	1.00
2001	7	109,764.20	0.00	235.6642687	12,568.37	0.00	0.00	0.00	0.00	0.00	0.00
2001	8	113,401.69	0.00	326.8106206	11,965.04	0.00	0.00	0.00	0.00	0.00	0.00
2001	9	113,736.60	0.03	265.7033961	12,509.13	0.00	0.00	0.00	0.00	0.00	0.00
2001	10	95,920.90	6.78	64.05714614	12,321.29	0.00	0.00	0.00	0.00	0.00	0.00
2001	11	95,928.18	32.46	18.78279651	12,213.93	0.00	0.00	0.00	0.00	0.00	0.00
2001	12	104,780.73	46.10	0.648440179	13,352.65	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2002	1	123,908.85	156.43	0	13,749.62	1.00	0.00	0.00	0.00	0.00	0.00
2002	2	108,018.63	116.20	0	12,384.99	0.00	1.00	0.00	0.00	0.00	0.00
2002	3	107,309.83	101.49	1.175411619	12,159.14	0.00	0.00	1.00	0.00	0.00	0.00
2002	4	102,537.20	56.20	18.5317701	12,570.72	0.00	0.00	0.00	1.00	0.00	0.00
2002	5	95,971.43	14.76	52.15469462	12,418.59	0.00	0.00	0.00	0.00	1.00	0.00
2002	6	105,281.48	8.94	144.0562166	13,062.39	0.00	0.00	0.00	0.00	0.00	1.00
2002	7	117,418.61	0.00	326.4475899	12,912.45	0.00	0.00	0.00	0.00	0.00	0.00
2002	8	119,368.15	0.00	394.6317436	12,296.09	0.00	0.00	0.00	0.00	0.00	0.00
2002	9	119,695.34	0.00	364.360398	12,853.05	0.00	0.00	0.00	0.00	0.00	0.00
2002	10	104,899.31	3.25	145.1332116	12,634.02	0.00	0.00	0.00	0.00	0.00	0.00
2002	11	96,109.99	39.63	14.30705369	12,536.51	0.00	0.00	0.00	0.00	0.00	0.00
2002	12	117,232.40	129.45	2.060595762	13,703.15	0.00	0.00	0.00	0.00	0.00	0.00
2003	1	126,690.48	155.44	0	14,096.26	1.00	0.00	0.00	0.00	0.00	0.00
2003	2	122,779.65	195.62	0	12,697.47	0.00	1.00	0.00	0.00	0.00	0.00
2003	3	110,450.62	129.59	0	12,465.16	0.00	0.00	1.00	0.00	0.00	0.00
2003	4	98,087.84	35.38	16.23407923	12,871.46	0.00	0.00	0.00	1.00	0.00	0.00
2003	5	98,693.05	7.56	39.95781512	12,715.59	0.00	0.00	0.00	0.00	1.00	0.00
2003	6	102,213.92	0.00	57.14415949	13,374.13	0.00	0.00	0.00	0.00	0.00	1.00
2003	7	112,755.64	0.00	239.5773283	13,320.12	0.00	0.00	0.00	0.00	0.00	0.00
2003	8	112,586.73	0.00	268.5414014	12,515.20	0.00	0.00	0.00	0.00	0.00	0.00
2003	9	120,287.93	0.00	268.19287	13,082.20	0.00	0.00	0.00	0.00	0.00	0.00
2003	10	101,482.94	8.99	38.78904916	12,972.42	0.00	0.00	0.00	0.00	0.00	0.00
2003	11	96,076.45	24.40	8.974521406	12,721.83	0.00	0.00	0.00	0.00	0.00	0.00
2003	12	116,012.15	93.72	1.116834768	13,931.88	0.00	0.00	0.00	0.00	0.00	0.00
2004	1	131,261.21	153.48	0.919969305	14,386.79	1.00	0.00	0.00	0.00	0.00	0.00
2004	2	125,201.65	176.35	0.273508412	12,831.65	0.00	1.00	0.00	0.00	0.00	0.00
2004	3	109,248.07	101.41	2.437512662	12,706.22	0.00	0.00	1.00	0.00	0.00	0.00
2004	4	106,039.03	58.84	14.17978432	13,338.24	0.00	0.00	0.00	1.00	0.00	0.00
2004	5	102,893.62	14.10	76.29028937	12,921.16	0.00	0.00	0.00	0.00	1.00	0.00
2004	6	117,520.06	1.03	220.3673115	13,603.34	0.00	0.00	0.00	0.00	0.00	1.00
2004	7	118,976.06	0.00	276.7186403	13,364.83	0.00	0.00	0.00	0.00	0.00	0.00
2004	8	114,443.78	0.00	262.1358793	12,827.24	0.00	0.00	0.00	0.00	0.00	0.00
2004	9	117,319.08	0.00	234.8028973	13,104.28	0.00	0.00	0.00	0.00	0.00	0.00
2004	10	105,855.61	2.43	70.10964815	13,163.37	0.00	0.00	0.00	0.00	0.00	0.00
2004	11	98,814.81	15.27	13.6153091	12,807.27	0.00	0.00	0.00	0.00	0.00	0.00
2004	12	117,815.55	78.41	2.203302213	14,257.65	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2005	1	129,923.75	132.02	0	14,407.45	1.00	0.00	0.00	0.00	0.00	0.00
2005	2	124,572.17	143.73	0	13,067.30	0.00	1.00	0.00	0.00	0.00	0.00
2005	3	117,738.85	121.86	0	12,982.00	0.00	0.00	1.00	0.00	0.00	0.00
2005	4	108,703.50	58.64	6.372079658	13,440.68	0.00	0.00	0.00	1.00	0.00	0.00
2005	5	100,091.47	16.22	22.45970797	12,868.02	0.00	0.00	0.00	0.00	1.00	0.00
2005	6	112,547.88	2.36	139.9072756	13,733.07	0.00	0.00	0.00	0.00	0.00	1.00
2005	7	123,433.60	0.00	389.0004643	13,409.42	0.00	0.00	0.00	0.00	0.00	0.00
2005	8	128,530.45	0.00	479.7967968	12,963.72	0.00	0.00	0.00	0.00	0.00	0.00
2005	9	129,452.72	0.00	376.326647	13,491.10	0.00	0.00	0.00	0.00	0.00	0.00
2005	10	112,861.11	1.39	166.6821988	12,974.65	0.00	0.00	0.00	0.00	0.00	0.00
2005	11	105,939.34	35.79	10.71103428	13,237.72	0.00	0.00	0.00	0.00	0.00	0.00
2005	12	127,394.44	130.01	1.688547242	14,167.52	0.00	0.00	0.00	0.00	0.00	0.00
2006	1	135,491.87	130.83	0	14,643.92	1.00	0.00	0.00	0.00	0.00	0.00
2006	2	120,935.03	100.47	0	13,216.28	0.00	1.00	0.00	0.00	0.00	0.00
2006	3	113,477.41	109.25	1.395074662	12,693.80	0.00	0.00	1.00	0.00	0.00	0.00
2006	4	104,629.62	57.14	16.91660196	12,776.33	0.00	0.00	0.00	1.00	0.00	0.00
2006	5	103,898.11	4.85	29.48139856	13,246.99	0.00	0.00	0.00	0.00	1.00	0.00
2006	6	112,025.55	0.97	115.1140658	13,670.54	0.00	0.00	0.00	0.00	0.00	1.00
2006	7	121,843.93	0.00	281.3442	13,523.43	0.00	0.00	0.00	0.00	0.00	0.00
2006	8	125,800.38	0.00	416.9543863	12,713.84	0.00	0.00	0.00	0.00	0.00	0.00
2006	9	127,451.38	0.23	283.8553419	13,613.31	0.00	0.00	0.00	0.00	0.00	0.00
2006	10	107,090.52	9.11	38.50846009	13,098.65	0.00	0.00	0.00	0.00	0.00	0.00
2006	11	105,875.30	50.04	2.64809192	13,057.94	0.00	0.00	0.00	0.00	0.00	0.00
2006	12	121,307.33	84.64	2.968887245	14,007.22	0.00	0.00	0.00	0.00	0.00	0.00
2007	1	127,171.78	92.92	0.341560719	14,676.07	1.00	0.00	0.00	0.00	0.00	0.00
2007	2	132,079.58	166.30	0	13,057.12	0.00	1.00	0.00	0.00	0.00	0.00
2007	3	122,153.43	139.04	2.307756253	12,933.78	0.00	0.00	1.00	0.00	0.00	0.00
2007	4	112,596.65	51.01	31.90923025	13,725.91	0.00	0.00	0.00	1.00	0.00	0.00
2007	5	109,476.17	18.75	53.95074297	13,378.16	0.00	0.00	0.00	0.00	1.00	0.00
2007	6	117,861.06	0.78	193.1625052	13,548.15	0.00	0.00	0.00	0.00	0.00	0.00
2007	7	122,280.24	0.00	311.7395063	13,443.27	0.00	0.00	0.00	0.00	0.00	0.00
2007	8	125,107.34	0.00	356.0089676	13,095.40	0.00	0.00	0.00	0.00	0.00	0.00
2007	9	135,178.77	0.00	406.4555496	13,555.85	0.00	0.00	0.00	0.00	0.00	0.00
2007	10	116,735.40	1.56	184.5601688	13,247.54	0.00	0.00	0.00	0.00	0.00	0.00
2007	11	108,929.70	30.94	31.7467275	13,439.25	0.00	0.00	0.00	0.00	0.00	0.00
2007	12	122,828.83	93.96	0	14,340.87	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2008	1	135,988.54	129.50	0	14,946.19	1.00	0.00	0.00	0.00	0.00	0.00
2008	2	128,780.73	140.25	0	13,262.25	0.00	1.00	0.00	0.00	0.00	0.00
2008	3	122,687.26	120.32	0	13,306.09	0.00	0.00	1.00	0.00	0.00	0.00
2008	4	112,736.81	55.82	1.535440288	13,696.37	0.00	0.00	0.00	1.00	0.00	0.00
2008	5	103,319.37	11.97	19.33389103	13,231.56	0.00	0.00	0.00	0.00	1.00	0.00
2008	6	114,938.69	0.86	120.4835194	13,869.54	0.00	0.00	0.00	0.00	0.00	1.00
2008	7	122,829.36	0.00	247.2486932	13,664.02	0.00	0.00	0.00	0.00	0.00	0.00
2008	8	124,863.56	0.00	293.9783687	13,419.71	0.00	0.00	0.00	0.00	0.00	0.00
2008	9	127,141.73	0.00	277.6592982	13,661.48	0.00	0.00	0.00	0.00	0.00	0.00
2008	10	111,421.47	1.98	104.4864306	13,205.46	0.00	0.00	0.00	0.00	0.00	0.00
2008	11		32.73	12.53332973	13,253.85	0.00	0.00	0.00	0.00	0.00	0.00
2008	12		92.40	1.963218548	14,474.72	0.00	0.00	0.00	0.00	0.00	0.00
2009	1		146.85	0.421875139	14,768.19	1.00	0.00	0.00	0.00	0.00	0.00
2009	2		144.51	0.047197745	13,296.34	0.00	1.00	0.00	0.00	0.00	0.00
2009	3		103.35	1.265221416	13,040.22	0.00	0.00	1.00	0.00	0.00	0.00
2009	4		53.46	13.14417491	13,409.43	0.00	0.00	0.00	1.00	0.00	0.00
2009	5		13.41	43.72435771	13,242.44	0.00	0.00	0.00	0.00	1.00	0.00
2009	6		1.51	141.5742581	13,919.33	0.00	0.00	0.00	0.00	0.00	1.00
2009	7		0.01	296.698327	13,702.44	0.00	0.00	0.00	0.00	0.00	0.00
2009	8		0.00	342.7538672	13,035.32	0.00	0.00	0.00	0.00	0.00	0.00
2009	9		0.06	280.3619455	13,619.80	0.00	0.00	0.00	0.00	0.00	0.00
2009	10		5.29	89.28169807	13,346.63	0.00	0.00	0.00	0.00	0.00	0.00
2009	11		32.11	12.45391134	13,234.12	0.00	0.00	0.00	0.00	0.00	0.00
2009	12		90.71	1.951797847	14,460.73	0.00	0.00	0.00	0.00	0.00	0.00
2010	1		146.54	0.416993052	14,860.49	1.00	0.00	0.00	0.00	0.00	0.00
2010	2		144.30	0.046681497	13,388.02	0.00	1.00	0.00	0.00	0.00	0.00
2010	3		103.31	1.25274945	13,144.48	0.00	0.00	1.00	0.00	0.00	0.00
2010	4		53.66	13.06833318	13,572.45	0.00	0.00	0.00	1.00	0.00	0.00
2010	5		13.46	43.47831266	13,405.35	0.00	0.00	0.00	0.00	1.00	0.00
2010	6		1.52	140.7890336	14,091.71	0.00	0.00	0.00	0.00	0.00	1.00
2010	7		0.01	295.807789	13,907.63	0.00	0.00	0.00	0.00	0.00	0.00
2010	8		0.00	341.8686592	13,236.08	0.00	0.00	0.00	0.00	0.00	0.00
2010	9		0.06	279.7293114	13,834.08	0.00	0.00	0.00	0.00	0.00	0.00
2010	10		5.34	89.19647188	13,574.31	0.00	0.00	0.00	0.00	0.00	0.00
2010	11		32.39	12.44240312	13,460.29	0.00	0.00	0.00	0.00	0.00	0.00
2010	12		91.53	1.950862447	14,714.41	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2011	1		147.61	0.419802049	15,156.16	1.00	0.00	0.00	0.00	0.00	0.00
2011	2		145.35	0.04699461	13,654.00	0.00	1.00	0.00	0.00	0.00	0.00
2011	3		104.05	1.261094263	13,405.00	0.00	0.00	1.00	0.00	0.00	0.00
2011	4		54.00	13.14418919	13,829.67	0.00	0.00	0.00	1.00	0.00	0.00
2011	5		13.54	43.73523932	13,660.83	0.00	0.00	0.00	0.00	1.00	0.00
2011	6		1.53	141.6735805	14,365.60	0.00	0.00	0.00	0.00	0.00	1.00
2011	7		0.01	297.553471	14,172.58	0.00	0.00	0.00	0.00	0.00	0.00
2011	8		0.00	344.0296698	13,493.86	0.00	0.00	0.00	0.00	0.00	0.00
2011	9		0.06	281.5092097	14,104.10	0.00	0.00	0.00	0.00	0.00	0.00
2011	10		5.37	89.75681058	13,838.14	0.00	0.00	0.00	0.00	0.00	0.00
2011	11		32.61	12.52232924	13,723.84	0.00	0.00	0.00	0.00	0.00	0.00
2011	12		92.19	1.963703466	15,004.87	0.00	0.00	0.00	0.00	0.00	0.00
2012	1		148.97	0.423621733	15,433.85	1.00	0.00	0.00	0.00	0.00	0.00
2012	2		146.68	0.047421012	13,903.83	0.00	1.00	0.00	0.00	0.00	0.00
2012	3		105.01	1.272503717	13,649.91	0.00	0.00	1.00	0.00	0.00	0.00
2012	4		54.45	13.25182847	14,070.37	0.00	0.00	0.00	1.00	0.00	0.00
2012	5		13.66	44.09376581	13,898.71	0.00	0.00	0.00	0.00	1.00	0.00
2012	6		1.54	142.8363329	14,615.89	0.00	0.00	0.00	0.00	0.00	1.00
2012	7		0.01	299.8678963	14,413.36	0.00	0.00	0.00	0.00	0.00	0.00
2012	8		0.00	346.7241101	13,723.85	0.00	0.00	0.00	0.00	0.00	0.00
2012	9		0.06	283.7276229	14,345.17	0.00	0.00	0.00	0.00	0.00	0.00
2012	10		5.42	90.46213904	14,074.36	0.00	0.00	0.00	0.00	0.00	0.00
2012	11		32.87	12.62139521	13,958.84	0.00	0.00	0.00	0.00	0.00	0.00
2012	12		92.93	1.979355112	15,262.71	0.00	0.00	0.00	0.00	0.00	0.00
2013	1		150.39	0.427730408	15,719.95	1.00	0.00	0.00	0.00	0.00	0.00
2013	2		148.02	0.047863256	14,156.33	0.00	1.00	0.00	0.00	0.00	0.00
2013	3		105.92	1.283883146	13,892.53	0.00	0.00	1.00	0.00	0.00	0.00
2013	4		54.92	13.36856557	14,318.56	0.00	0.00	0.00	1.00	0.00	0.00
2013	5		13.77	44.46584636	14,138.67	0.00	0.00	0.00	0.00	1.00	0.00
2013	6		1.55	143.9822591	14,862.11	0.00	0.00	0.00	0.00	0.00	1.00
2013	7		0.01	302.1988449	14,652.54	0.00	0.00	0.00	0.00	0.00	0.00
2013	8		0.00	349.2836627	13,946.17	0.00	0.00	0.00	0.00	0.00	0.00
2013	9		0.06	285.7225127	14,572.48	0.00	0.00	0.00	0.00	0.00	0.00
2013	10		5.45	91.0628781	14,291.84	0.00	0.00	0.00	0.00	0.00	0.00
2013	11		33.08	12.70070037	14,169.50	0.00	0.00	0.00	0.00	0.00	0.00
2013	12		93.46	1.99100128	15,486.89	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2014	1		151.42	0.43078427	15,989.00	1.00	0.00	0.00	0.00	0.00	0.00
2014	2		149.03	0.04820574	14,398.84	0.00	1.00	0.00	0.00	0.00	0.00
2014	3		106.65	1.29309073	14,130.75	0.00	0.00	1.00	0.00	0.00	0.00
2014	4		55.29	13.46304054	14,562.58	0.00	0.00	0.00	1.00	0.00	0.00
2014	5		13.86	44.78063257	14,379.80	0.00	0.00	0.00	0.00	1.00	0.00
2014	6		1.56	145.0035368	15,115.78	0.00	0.00	0.00	0.00	0.00	1.00
2014	7		0.01	304.2991196	14,900.52	0.00	0.00	0.00	0.00	0.00	0.00
2014	8		0.00	351.7141594	14,182.31	0.00	0.00	0.00	0.00	0.00	0.00
2014	9		0.06	287.7129044	14,819.34	0.00	0.00	0.00	0.00	0.00	0.00
2014	10		5.49	91.68329678	14,531.73	0.00	0.00	0.00	0.00	0.00	0.00
2014	11		33.29	12.78724951	14,407.37	0.00	0.00	0.00	0.00	0.00	0.00
2014	12		94.07	2.004572186	15,746.89	0.00	0.00	0.00	0.00	0.00	0.00
2015	1		152.08	0.431789198	16,265.12	1.00	0.00	0.00	0.00	0.00	0.00
2015	2		149.68	0.048315732	14,646.76	0.00	1.00	0.00	0.00	0.00	0.00
2015	3		107.11	1.295973497	14,373.30	0.00	0.00	1.00	0.00	0.00	0.00
2015	4		55.52	13.4915164	14,810.85	0.00	0.00	0.00	1.00	0.00	0.00
2015	5		13.92	44.87291092	14,624.16	0.00	0.00	0.00	0.00	1.00	0.00
2015	6		1.57	145.2935121	15,371.71	0.00	0.00	0.00	0.00	0.00	1.00
2015	7		0.01	304.8960818	15,152.23	0.00	0.00	0.00	0.00	0.00	0.00
2015	8		0.00	352.3822322	14,421.00	0.00	0.00	0.00	0.00	0.00	0.00
2015	9		0.06	288.2433621	15,067.91	0.00	0.00	0.00	0.00	0.00	0.00
2015	10		5.51	91.85667901	14,776.18	0.00	0.00	0.00	0.00	0.00	0.00
2015	11		33.42	12.81067248	14,648.85	0.00	0.00	0.00	0.00	0.00	0.00
2015	12		94.43	2.008111365	16,009.77	0.00	0.00	0.00	0.00	0.00	0.00
2016	1		152.50	0.431973134	16,537.86	1.00	0.00	0.00	0.00	0.00	0.00
2016	2		150.09	0.048335449	14,892.10	0.00	1.00	0.00	0.00	0.00	0.00
2016	3		107.40	1.2964786	14,613.79	0.00	0.00	1.00	0.00	0.00	0.00
2016	4		55.68	13.49918751	15,061.35	0.00	0.00	0.00	1.00	0.00	0.00
2016	5		13.96	44.89745834	14,871.18	0.00	0.00	0.00	0.00	1.00	0.00
2016	6		1.57	145.369494	15,630.99	0.00	0.00	0.00	0.00	0.00	1.00
2016	7		0.01	305.1010188	15,410.11	0.00	0.00	0.00	0.00	0.00	0.00
2016	8		0.00	352.6100549	14,666.05	0.00	0.00	0.00	0.00	0.00	0.00
2016	9		0.06	288.4231055	15,323.60	0.00	0.00	0.00	0.00	0.00	0.00
2016	10		5.52	91.92347365	15,028.47	0.00	0.00	0.00	0.00	0.00	0.00
2016	11		33.52	12.81967735	14,898.61	0.00	0.00	0.00	0.00	0.00	0.00
2016	12		94.71	2.00946865	16,282.30	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2017	1		152.71	0.431557676	16,796.84	1.00	0.00	0.00	0.00	0.00	0.00
2017	2		150.29	0.048287705	15,124.91	0.00	1.00	0.00	0.00	0.00	0.00
2017	3		107.54	1.295163438	14,841.86	0.00	0.00	1.00	0.00	0.00	0.00
2017	4		55.75	13.48485013	15,295.67	0.00	0.00	0.00	1.00	0.00	0.00
2017	5		13.98	44.84854319	15,102.13	0.00	0.00	0.00	0.00	1.00	0.00
2017	6		1.58	145.2066652	15,873.25	0.00	0.00	0.00	0.00	0.00	1.00
2017	7		0.01	304.7167076	15,646.76	0.00	0.00	0.00	0.00	0.00	0.00
2017	8		0.00	352.1554968	14,890.83	0.00	0.00	0.00	0.00	0.00	0.00
2017	9		0.06	288.0436791	15,558.05	0.00	0.00	0.00	0.00	0.00	0.00
2017	10		5.53	91.78249695	15,255.08	0.00	0.00	0.00	0.00	0.00	0.00
2017	11		33.55	12.79966664	15,122.84	0.00	0.00	0.00	0.00	0.00	0.00
2017	12		94.78	2.006270864	16,526.85	0.00	0.00	0.00	0.00	0.00	0.00
2018	1		152.63	0.42947007	17,033.30	1.00	0.00	0.00	0.00	0.00	0.00
2018	2		150.21	0.048052744	15,337.39	0.00	1.00	0.00	0.00	0.00	0.00
2018	3		107.48	1.28882361	15,049.92	0.00	0.00	1.00	0.00	0.00	0.00
2018	4		55.71	13.41615821	15,507.00	0.00	0.00	0.00	1.00	0.00	0.00
2018	5		13.97	44.61879898	15,310.34	0.00	0.00	0.00	0.00	1.00	0.00
2018	6		1.58	144.45817	16,091.57	0.00	0.00	0.00	0.00	0.00	1.00
2018	7		0.01	303.1087655	15,860.02	0.00	0.00	0.00	0.00	0.00	0.00
2018	8		0.00	350.2863817	15,093.33	0.00	0.00	0.00	0.00	0.00	0.00
2018	9		0.06	286.5069127	15,769.18	0.00	0.00	0.00	0.00	0.00	0.00
2018	10		5.52	91.28988245	15,461.60	0.00	0.00	0.00	0.00	0.00	0.00
2018	11		33.51	12.73061222	15,327.14	0.00	0.00	0.00	0.00	0.00	0.00
2018	12		94.67	1.995384833	16,749.60	0.00	0.00	0.00	0.00	0.00	0.00
2019	1		152.73	0.428011519	17,253.77	1.00	0.00	0.00	0.00	0.00	0.00
2019	2		150.30	0.047888138	15,535.45	0.00	1.00	0.00	0.00	0.00	0.00
2019	3		107.54	1.28436997	15,243.81	0.00	0.00	1.00	0.00	0.00	0.00
2019	4		55.74	13.37031136	15,707.38	0.00	0.00	0.00	1.00	0.00	0.00
2019	5		13.97	44.46504093	15,507.73	0.00	0.00	0.00	0.00	1.00	0.00
2019	6		1.58	143.9557234	16,298.51	0.00	0.00	0.00	0.00	0.00	1.00
2019	7		0.01	302.0568967	16,064.11	0.00	0.00	0.00	0.00	0.00	0.00
2019	8		0.00	349.0602248	15,287.08	0.00	0.00	0.00	0.00	0.00	0.00
2019	9		0.06	285.4962841	15,971.18	0.00	0.00	0.00	0.00	0.00	0.00
2019	10		5.53	90.96518302	15,659.20	0.00	0.00	0.00	0.00	0.00	0.00
2019	11		33.53	12.68498224	15,522.60	0.00	0.00	0.00	0.00	0.00	0.00
2019	12		94.71	1.988171795	16,962.67	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2020	1		153.04	0.426452441	17,462.72	1.00	0.00	0.00	0.00	0.00	0.00
2020	2		150.61	0.047714213	15,723.76	0.00	1.00	0.00	0.00	0.00	0.00
2020	3		107.76	1.27971931	15,428.75	0.00	0.00	1.00	0.00	0.00	0.00
2020	4		55.86	13.32203973	15,898.11	0.00	0.00	0.00	1.00	0.00	0.00
2020	5		14.00	44.3049703	15,696.21	0.00	0.00	0.00	0.00	1.00	0.00
2020	6		1.58	143.4391722	16,496.79	0.00	0.00	0.00	0.00	0.00	1.00
2020	7		0.01	300.9810487	16,259.97	0.00	0.00	0.00	0.00	0.00	0.00
2020	8		0.00	347.8207385	15,473.64	0.00	0.00	0.00	0.00	0.00	0.00
2020	9		0.06	284.4852687	16,166.24	0.00	0.00	0.00	0.00	0.00	0.00
2020	10		5.54	90.64775012	15,851.27	0.00	0.00	0.00	0.00	0.00	0.00
2020	11		33.60	12.64084145	15,713.15	0.00	0.00	0.00	0.00	0.00	0.00
2020	12		94.92	1.981275199	17,171.09	0.00	0.00	0.00	0.00	0.00	0.00
2021	1		153.54	0.425890783	17,683.31	1.00	0.00	0.00	0.00	0.00	0.00
2021	2		151.12	0.047654588	15,923.46	0.00	1.00	0.00	0.00	0.00	0.00
2021	3		108.14	1.278208526	15,625.79	0.00	0.00	1.00	0.00	0.00	0.00
2021	4		56.05	13.30744974	16,102.52	0.00	0.00	0.00	1.00	0.00	0.00
2021	5		14.05	44.25948216	15,899.11	0.00	0.00	0.00	0.00	1.00	0.00
2021	6		1.59	143.3028766	16,711.32	0.00	0.00	0.00	0.00	0.00	1.00
2021	7		0.01	300.7161784	16,472.57	0.00	0.00	0.00	0.00	0.00	0.00
2021	8		0.00	347.5402736	15,677.12	0.00	0.00	0.00	0.00	0.00	0.00
2021	9		0.06	284.2746206	16,379.91	0.00	0.00	0.00	0.00	0.00	0.00
2021	10		5.56	90.58357818	16,061.30	0.00	0.00	0.00	0.00	0.00	0.00
2021	11		33.73	12.63274846	15,922.43	0.00	0.00	0.00	0.00	0.00	0.00
2021	12		95.31	1.98015614	17,401.10	0.00	0.00	0.00	0.00	0.00	0.00
2022	1		154.16	0.425492228	17,908.63	1.00	0.00	0.00	0.00	0.00	0.00
2022	2		151.73	0.047612727	16,127.28	0.00	1.00	0.00	0.00	0.00	0.00
2022	3		108.58	1.277160935	15,826.73	0.00	0.00	1.00	0.00	0.00	0.00
2022	4		56.28	13.29614829	16,309.11	0.00	0.00	0.00	1.00	0.00	0.00
2022	5		14.11	44.2244697	16,104.02	0.00	0.00	0.00	0.00	1.00	0.00
2022	6		1.59	143.1988384	16,927.80	0.00	0.00	0.00	0.00	0.00	1.00
2022	7		0.01	300.4930102	16,685.70	0.00	0.00	0.00	0.00	0.00	0.00
2022	8		0.00	347.3041262	15,880.95	0.00	0.00	0.00	0.00	0.00	0.00
2022	9		0.06	284.0974013	16,593.81	0.00	0.00	0.00	0.00	0.00	0.00
2022	10		5.58	90.52674561	16,270.97	0.00	0.00	0.00	0.00	0.00	0.00
2022	11		33.88	12.62554963	16,131.21	0.00	0.00	0.00	0.00	0.00	0.00
2022	12		95.73	1.979154778	17,630.40	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2023	1		154.61	0.425545351	18,141.06	1.00	0.00	0.00	0.00	0.00	0.00
2023	2		152.18	0.047619748	16,336.96	0.00	1.00	0.00	0.00	0.00	0.00
2023	3		108.91	1.277378861	16,032.87	0.00	0.00	1.00	0.00	0.00	0.00
2023	4		56.45	13.29812234	16,521.16	0.00	0.00	0.00	1.00	0.00	0.00
2023	5		14.15	44.23205616	16,313.79	0.00	0.00	0.00	0.00	1.00	0.00
2023	6		1.60	143.227101	17,148.75	0.00	0.00	0.00	0.00	0.00	1.00
2023	7		0.01	300.5516852	16,903.44	0.00	0.00	0.00	0.00	0.00	0.00
2023	8		0.00	347.3806138	16,088.59	0.00	0.00	0.00	0.00	0.00	0.00
2023	9		0.06	284.1663224	16,811.15	0.00	0.00	0.00	0.00	0.00	0.00
2023	10		5.60	90.5497886	16,484.28	0.00	0.00	0.00	0.00	0.00	0.00
2023	11		33.99	12.62905371	16,343.07	0.00	0.00	0.00	0.00	0.00	0.00
2023	12		96.03	1.979754834	17,862.40	0.00	0.00	0.00	0.00	0.00	0.00
2024	1		155.05	0.427238848	18,374.72	1.00	0.00	0.00	0.00	0.00	0.00
2024	2		152.60	0.047807584	16,546.81	0.00	1.00	0.00	0.00	0.00	0.00
2024	3		109.20	1.282371488	16,238.23	0.00	0.00	1.00	0.00	0.00	0.00
2024	4		56.60	13.34953687	16,732.08	0.00	0.00	0.00	1.00	0.00	0.00
2024	5		14.19	44.40148358	16,521.47	0.00	0.00	0.00	0.00	1.00	0.00
2024	6		1.60	143.769972	17,366.36	0.00	0.00	0.00	0.00	0.00	1.00
2024	7		0.01	301.6698914	17,116.75	0.00	0.00	0.00	0.00	0.00	0.00
2024	8		0.00	348.6594733	16,290.98	0.00	0.00	0.00	0.00	0.00	0.00
2024	9		0.06	285.2025189	17,022.04	0.00	0.00	0.00	0.00	0.00	0.00
2024	10		5.61	90.87239193	16,689.67	0.00	0.00	0.00	0.00	0.00	0.00
2024	11		34.07	12.67358939	16,546.10	0.00	0.00	0.00	0.00	0.00	0.00
2024	12		96.25	1.986656252	18,083.59	0.00	0.00	0.00	0.00	0.00	0.00
2025	1		155.47	0.428569795	18,598.81	1.00	0.00	0.00	0.00	0.00	0.00
2025	2		153.01	0.047954776	16,748.00	0.00	1.00	0.00	0.00	0.00	0.00
2025	3		109.49	1.286271879	16,435.05	0.00	0.00	1.00	0.00	0.00	0.00
2025	4		56.75	13.38887557	16,933.29	0.00	0.00	0.00	1.00	0.00	0.00
2025	5		14.23	44.53068034	16,719.53	0.00	0.00	0.00	0.00	1.00	0.00
2025	6		1.60	144.1823438	17,573.82	0.00	0.00	0.00	0.00	0.00	1.00
2025	7		0.01	302.5074394	17,319.64	0.00	0.00	0.00	0.00	0.00	0.00
2025	8		0.00	349.6136045	16,483.43	0.00	0.00	0.00	0.00	0.00	0.00
2025	9		0.06	285.972835	17,222.51	0.00	0.00	0.00	0.00	0.00	0.00
2025	10		5.63	91.10973251	16,884.73	0.00	0.00	0.00	0.00	0.00	0.00
2025	11		34.14	12.7062272	16,738.87	0.00	0.00	0.00	0.00	0.00	0.00
2025	12		96.46	1.991691498	18,293.53	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2026	1		155.94	0.430153726	18,808.39	1.00	0.00	0.00	0.00	0.00	0.00
2026	2		153.48	0.048130702	16,936.26	0.00	1.00	0.00	0.00	0.00	0.00
2026	3		109.82	1.290954721	16,619.34	0.00	0.00	1.00	0.00	0.00	0.00
2026	4		56.91	13.43681182	17,122.13	0.00	0.00	0.00	1.00	0.00	0.00
2026	5		14.27	44.68888654	16,905.52	0.00	0.00	0.00	0.00	1.00	0.00
2026	6		1.61	144.690146	17,768.77	0.00	0.00	0.00	0.00	0.00	1.00
2026	7		0.01	303.5545861	17,510.72	0.00	0.00	0.00	0.00	0.00	0.00
2026	8		0.00	350.8134353	16,664.79	0.00	0.00	0.00	0.00	0.00	0.00
2026	9		0.06	286.9466649	17,411.54	0.00	0.00	0.00	0.00	0.00	0.00
2026	10		5.64	91.41495885	17,069.12	0.00	0.00	0.00	0.00	0.00	0.00
2026	11		34.23	12.74844908	16,921.21	0.00	0.00	0.00	0.00	0.00	0.00
2026	12		96.72	1.998249457	18,492.24	0.00	0.00	0.00	0.00	0.00	0.00
2027	1		156.46	0.43155669	19,009.09	1.00	0.00	0.00	0.00	0.00	0.00
2027	2		153.98	0.048287131	17,116.78	0.00	1.00	0.00	0.00	0.00	0.00
2027	3		110.18	1.295135322	16,796.29	0.00	0.00	1.00	0.00	0.00	0.00
2027	4		57.10	13.48006294	17,304.09	0.00	0.00	0.00	1.00	0.00	0.00
2027	5		14.32	44.83221147	17,084.99	0.00	0.00	0.00	0.00	1.00	0.00
2027	6		1.61	145.1523035	17,957.16	0.00	0.00	0.00	0.00	0.00	1.00
2027	7		0.01	304.5199659	17,696.13	0.00	0.00	0.00	0.00	0.00	0.00
2027	8		0.00	351.9247621	16,841.04	0.00	0.00	0.00	0.00	0.00	0.00
2027	9		0.06	287.8524897	17,595.49	0.00	0.00	0.00	0.00	0.00	0.00
2027	10		5.66	91.70261068	17,249.28	0.00	0.00	0.00	0.00	0.00	0.00
2027	11		34.34	12.78841881	17,099.61	0.00	0.00	0.00	0.00	0.00	0.00
2027	12		97.02	2.004489123	18,686.97	0.00	0.00	0.00	0.00	0.00	0.00
2028	1		156.89	0.43226268	19,204.12	1.00	0.00	0.00	0.00	0.00	0.00
2028	2		154.40	0.048367074	17,292.74	0.00	1.00	0.00	0.00	0.00	0.00
2028	3		110.49	1.297305585	16,969.29	0.00	0.00	1.00	0.00	0.00	0.00
2028	4		57.26	13.50289856	17,482.65	0.00	0.00	0.00	1.00	0.00	0.00
2028	5		14.36	44.90905096	17,261.62	0.00	0.00	0.00	0.00	1.00	0.00
2028	6		1.62	145.4043141	18,143.22	0.00	0.00	0.00	0.00	0.00	1.00
2028	7		0.01	305.0483001	17,879.47	0.00	0.00	0.00	0.00	0.00	0.00
2028	8		0.00	352.5428014	17,015.87	0.00	0.00	0.00	0.00	0.00	0.00
2028	9		0.06	288.3634649	17,778.49	0.00	0.00	0.00	0.00	0.00	0.00
2028	10		5.68	91.86393514	17,428.40	0.00	0.00	0.00	0.00	0.00	0.00
2028	11		34.44	12.81116368	17,277.51	0.00	0.00	0.00	0.00	0.00	0.00
2028	12		97.30	2.008097395	18,881.79	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2029	1		157.27	0.433051582	19,399.51	1.00	0.00	0.00	0.00	0.00	0.00
2029	2		154.79	0.048457201	17,469.36	0.00	1.00	0.00	0.00	0.00	0.00
2029	3		110.77	1.299773974	17,143.28	0.00	0.00	1.00	0.00	0.00	0.00
2029	4		57.40	13.528529	17,661.82	0.00	0.00	0.00	1.00	0.00	0.00
2029	5		14.39	44.99603904	17,439.20	0.00	0.00	0.00	0.00	1.00	0.00
2029	6		1.62	145.6922737	18,330.66	0.00	0.00	0.00	0.00	0.00	1.00
2029	7		0.01	305.6604604	18,064.66	0.00	0.00	0.00	0.00	0.00	0.00
2029	8		0.00	353.2649576	17,192.84	0.00	0.00	0.00	0.00	0.00	0.00
2029	9		0.06	288.9649045	17,964.05	0.00	0.00	0.00	0.00	0.00	0.00
2029	10		5.69	92.05995048	17,611.15	0.00	0.00	0.00	0.00	0.00	0.00
2029	11		34.54	12.83898817	17,459.35	0.00	0.00	0.00	0.00	0.00	0.00
2029	12		97.58	2.012544118	19,081.32	0.00	0.00	0.00	0.00	0.00	0.00
2030	1		157.64	0.433448532	19,596.20	1.00	0.00	0.00	0.00	0.00	0.00
2030	2		155.16	0.048503036	17,646.99	0.00	1.00	0.00	0.00	0.00	0.00
2030	3		111.03	1.301042388	17,318.12	0.00	0.00	1.00	0.00	0.00	0.00
2030	4		57.54	13.54253383	17,843.00	0.00	0.00	0.00	1.00	0.00	0.00
2030	5		14.43	45.04395443	17,618.62	0.00	0.00	0.00	0.00	1.00	0.00
2030	6		1.63	145.852254	18,519.87	0.00	0.00	0.00	0.00	0.00	1.00
2030	7		0.01	306.0183845	18,252.45	0.00	0.00	0.00	0.00	0.00	0.00
2030	8		0.00	353.6898144	17,372.12	0.00	0.00	0.00	0.00	0.00	0.00
2030	9		0.06	289.3206243	18,151.89	0.00	0.00	0.00	0.00	0.00	0.00
2030	10		5.71	92.18037776	17,796.67	0.00	0.00	0.00	0.00	0.00	0.00
2030	11		34.63	12.85615481	17,643.77	0.00	0.00	0.00	0.00	0.00	0.00
2030	12		97.85	2.01529995	19,283.50	0.00	0.00	0.00	0.00	0.00	0.00
2031	1		158.20	0.434774736	19,821.17	1.00	0.00	0.00	0.00	0.00	0.00
2031	2		155.71	0.048651416	17,849.57	0.00	1.00	0.00	0.00	0.00	0.00
2031	3		111.43	1.305021912	17,516.91	0.00	0.00	1.00	0.00	0.00	0.00
2031	4		57.75	13.58418915	18,048.13	0.00	0.00	0.00	1.00	0.00	0.00
2031	5		14.48	45.18247754	17,821.16	0.00	0.00	0.00	0.00	1.00	0.00
2031	6		1.63	146.3006935	18,732.76	0.00	0.00	0.00	0.00	0.00	1.00
2031	7		0.01	306.9569658	18,462.12	0.00	0.00	0.00	0.00	0.00	0.00
2031	8		0.00	354.7743406	17,571.66	0.00	0.00	0.00	0.00	0.00	0.00
2031	9		0.06	290.2075785	18,360.38	0.00	0.00	0.00	0.00	0.00	0.00
2031	10		5.73	92.46017761	18,000.53	0.00	0.00	0.00	0.00	0.00	0.00
2031	11		34.75	12.8951683	17,845.88	0.00	0.00	0.00	0.00	0.00	0.00
2031	12		98.20	2.021413958	19,504.37	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2032	1		158.75	0.436072406	20,048.38	1.00	0.00	0.00	0.00	0.00	0.00
2032	2		156.25	0.048795624	18,053.82	0.00	1.00	0.00	0.00	0.00	0.00
2032	3		111.81	1.308862575	17,716.97	0.00	0.00	1.00	0.00	0.00	0.00
2032	4		57.95	13.62352577	18,253.40	0.00	0.00	0.00	1.00	0.00	0.00
2032	5		14.53	45.31235841	18,023.47	0.00	0.00	0.00	0.00	1.00	0.00
2032	6		1.64	146.7177814	18,944.97	0.00	0.00	0.00	0.00	0.00	1.00
2032	7		0.01	307.8198695	18,670.53	0.00	0.00	0.00	0.00	0.00	0.00
2032	8		0.00	355.7635607	17,769.61	0.00	0.00	0.00	0.00	0.00	0.00
2032	9		0.06	291.0108301	18,566.84	0.00	0.00	0.00	0.00	0.00	0.00
2032	10		5.75	92.71416342	18,202.56	0.00	0.00	0.00	0.00	0.00	0.00
2032	11		34.87	12.93031903	18,045.79	0.00	0.00	0.00	0.00	0.00	0.00
2032	12		98.51	2.026876563	19,722.40	0.00	0.00	0.00	0.00	0.00	0.00
2033	1		159.27	0.437251773	20,273.72	1.00	0.00	0.00	0.00	0.00	0.00
2033	2		156.75	0.048927128	18,256.56	0.00	1.00	0.00	0.00	0.00	0.00
2033	3		112.17	1.31237715	17,915.76	0.00	0.00	1.00	0.00	0.00	0.00
2033	4		58.13	13.66021521	18,458.36	0.00	0.00	0.00	1.00	0.00	0.00
2033	5		14.58	45.43395334	18,225.67	0.00	0.00	0.00	0.00	1.00	0.00
2033	6		1.64	147.109919	19,157.30	0.00	0.00	0.00	0.00	0.00	1.00
2033	7		0.01	308.6461681	18,880.00	0.00	0.00	0.00	0.00	0.00	0.00
2033	8		0.00	356.7149038	17,968.79	0.00	0.00	0.00	0.00	0.00	0.00
2033	9		0.06	291.7863436	18,774.78	0.00	0.00	0.00	0.00	0.00	0.00
2033	10		5.76	92.96234951	18,406.65	0.00	0.00	0.00	0.00	0.00	0.00
2033	11		34.98	12.96481109	18,247.95	0.00	0.00	0.00	0.00	0.00	0.00
2033	12		98.83	2.032262173	19,943.13	0.00	0.00	0.00	0.00	0.00	0.00
2034	1		159.78	0.438429981	20,502.58	1.00	0.00	0.00	0.00	0.00	0.00
2034	2		157.25	0.0490593	18,462.78	0.00	1.00	0.00	0.00	0.00	0.00
2034	3		112.53	1.315931623	18,118.26	0.00	0.00	1.00	0.00	0.00	0.00
2034	4		58.32	13.69796603	18,668.01	0.00	0.00	0.00	1.00	0.00	0.00
2034	5		14.62	45.55983285	18,432.81	0.00	0.00	0.00	0.00	1.00	0.00
2034	6		1.65	147.5186614	19,375.18	0.00	0.00	0.00	0.00	0.00	1.00
2034	7		0.01	309.5291955	19,096.30	0.00	0.00	0.00	0.00	0.00	0.00
2034	8		0.00	357.7382209	18,174.79	0.00	0.00	0.00	0.00	0.00	0.00
2034	9		0.06	292.6254241	18,990.15	0.00	0.00	0.00	0.00	0.00	0.00
2034	10		5.78	93.23930978	18,619.72	0.00	0.00	0.00	0.00	0.00	0.00
2034	11		35.10	13.00352928	18,459.31	0.00	0.00	0.00	0.00	0.00	0.00
2034	12		99.17	2.03834749	20,174.29	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2035	1		160.35	0.439786913	20,743.52	1.00	0.00	0.00	0.00	0.00	0.00
2035	2		157.82	0.049211195	18,679.76	0.00	1.00	0.00	0.00	0.00	0.00
2035	3		112.94	1.32000751	18,331.22	0.00	0.00	1.00	0.00	0.00	0.00
2035	4		58.54	13.74160476	18,889.09	0.00	0.00	0.00	1.00	0.00	0.00
2035	5		14.68	45.70503749	18,651.13	0.00	0.00	0.00	0.00	1.00	0.00
2035	6		1.66	147.9890416	19,604.69	0.00	0.00	0.00	0.00	0.00	1.00
2035	7		0.01	310.535312	19,323.70	0.00	0.00	0.00	0.00	0.00	0.00
2035	8		0.00	358.9015705	18,391.25	0.00	0.00	0.00	0.00	0.00	0.00
2035	9		0.06	293.5774185	19,216.34	0.00	0.00	0.00	0.00	0.00	0.00
2035	10		5.81	93.54551556	18,842.08	0.00	0.00	0.00	0.00	0.00	0.00
2035	11		35.23	13.04625238	18,679.78	0.00	0.00	0.00	0.00	0.00	0.00
2035	12		99.55	2.045047698	20,415.28	0.00	0.00	0.00	0.00	0.00	0.00
2036	1		160.96	0.441235534	20,992.66	1.00	0.00	0.00	0.00	0.00	0.00
2036	2		158.42	0.049373094	18,904.05	0.00	1.00	0.00	0.00	0.00	0.00
2036	3		113.37	1.324344714	18,551.24	0.00	0.00	1.00	0.00	0.00	0.00
2036	4		58.76	13.78662417	19,115.63	0.00	0.00	0.00	1.00	0.00	0.00
2036	5		14.73	45.85458504	18,874.74	0.00	0.00	0.00	0.00	1.00	0.00
2036	6		1.66	148.4725813	19,839.64	0.00	0.00	0.00	0.00	0.00	1.00
2036	7		0.01	311.5408755	19,554.71	0.00	0.00	0.00	0.00	0.00	0.00
2036	8		0.00	360.0621825	18,611.03	0.00	0.00	0.00	0.00	0.00	0.00
2036	9		0.06	294.5256368	19,445.91	0.00	0.00	0.00	0.00	0.00	0.00
2036	10		5.83	93.84433922	19,066.50	0.00	0.00	0.00	0.00	0.00	0.00
2036	11		35.36	13.08787607	18,902.19	0.00	0.00	0.00	0.00	0.00	0.00
2036	12		99.92	2.051563362	20,658.26	0.00	0.00	0.00	0.00	0.00	0.00
2037	1		161.55	0.44262048	21,242.75	1.00	0.00	0.00	0.00	0.00	0.00
2037	2		159.00	0.049527835	19,129.17	0.00	1.00	0.00	0.00	0.00	0.00
2037	3		113.78	1.328489043	18,772.07	0.00	0.00	1.00	0.00	0.00	0.00
2037	4		58.97	13.82902105	19,342.13	0.00	0.00	0.00	1.00	0.00	0.00
2037	5		14.79	45.99537987	19,098.29	0.00	0.00	0.00	0.00	1.00	0.00
2037	6		1.67	148.9276716	20,074.52	0.00	0.00	0.00	0.00	0.00	1.00
2037	7		0.01	312.4794877	19,785.18	0.00	0.00	0.00	0.00	0.00	0.00
2037	8		0.00	361.1451016	18,830.28	0.00	0.00	0.00	0.00	0.00	0.00
2037	9		0.06	295.4100736	19,674.90	0.00	0.00	0.00	0.00	0.00	0.00
2037	10		5.85	94.12067383	19,289.90	0.00	0.00	0.00	0.00	0.00	0.00
2037	11		35.49	13.12635182	19,123.58	0.00	0.00	0.00	0.00	0.00	0.00
2037	12		100.26	2.057583562	20,900.11	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Sales	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2038	1		162.14	0.444016088	21,497.37	1.00	0.00	0.00	0.00	0.00	0.00
2038	2		159.58	0.049683913	19,358.42	0.00	1.00	0.00	0.00	0.00	0.00
2038	3		114.19	1.332673173	18,997.00	0.00	0.00	1.00	0.00	0.00	0.00
2038	4		59.18	13.87187819	19,572.92	0.00	0.00	0.00	1.00	0.00	0.00
2038	5		14.84	46.13784314	19,326.14	0.00	0.00	0.00	0.00	1.00	0.00
2038	6		1.67	149.3886623	20,313.97	0.00	0.00	0.00	0.00	0.00	1.00
2038	7		0.01	313.4318767	20,020.23	0.00	0.00	0.00	0.00	0.00	0.00
2038	8		0.00	362.2451626	19,053.95	0.00	0.00	0.00	0.00	0.00	0.00
2038	9		0.06	296.3094252	19,908.58	0.00	0.00	0.00	0.00	0.00	0.00
2038	10		5.87	94.40222169	19,517.97	0.00	0.00	0.00	0.00	0.00	0.00
2038	11		35.61	13.16559665	19,349.65	0.00	0.00	0.00	0.00	0.00	0.00
2038	12		100.61	2.063731658	21,147.14	0.00	0.00	0.00	0.00	0.00	0.00

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
1996	1	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1996	2	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1996	3	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1996	4	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1996	5	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1996	6	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1996	7	1.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1996	8	0.00	1.00	0.00	0.00	0	0.00	0.00	0.00	0
1996	9	0.00	0.00	1.00	0.00	0	0.00	0.00	0.00	0
1996	10	0.00	0.00	0.00	1.00	0	0.00	0.00	0.00	0
1996	11	0.00	0.00	0.00	0.00	1	0.00	0.00	0.00	0
1996	12	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1997	1	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1997	2	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1997	3	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1997	4	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1997	5	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1997	6	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1997	7	1.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1997	8	0.00	1.00	0.00	0.00	0	0.00	0.00	0.00	0
1997	9	0.00	0.00	1.00	0.00	0	0.00	0.00	0.00	0
1997	10	0.00	0.00	0.00	1.00	0	0.00	0.00	0.00	0
1997	11	0.00	0.00	0.00	0.00	1	1.00	0.00	0.00	0
1997	12	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1998	1	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1998	2	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1998	3	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1998	4	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1998	5	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1998	6	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1998	7	1.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1998	8	0.00	1.00	0.00	0.00	0	0.00	0.00	0.00	0
1998	9	0.00	0.00	1.00	0.00	0	0.00	0.00	0.00	0
1998	10	0.00	0.00	0.00	1.00	0	0.00	0.00	0.00	0
1998	11	0.00	0.00	0.00	0.00	1	0.00	0.00	0.00	0
1998	12	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
1999	1	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1999	2	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1999	3	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1999	4	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1999	5	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1999	6	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1999	7	1.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
1999	8	0.00	1.00	0.00	0.00	0	0.00	0.00	0.00	0
1999	9	0.00	0.00	1.00	0.00	0	0.00	0.00	0.00	0
1999	10	0.00	0.00	0.00	1.00	0	0.00	0.00	0.00	0
1999	11	0.00	0.00	0.00	0.00	1	0.00	0.00	0.00	0
1999	12	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0
2000	1	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2000	2	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2000	3	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2000	4	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2000	5	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2000	6	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2000	7	1.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2000	8	0.00	1.00	0.00	0.00	0	0.00	0.00	0.00	1
2000	9	0.00	0.00	1.00	0.00	0	0.00	0.00	0.00	1
2000	10	0.00	0.00	0.00	1.00	0	0.00	0.00	0.00	1
2000	11	0.00	0.00	0.00	0.00	1	0.00	0.00	0.00	1
2000	12	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2001	1	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2001	2	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2001	3	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2001	4	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2001	5	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2001	6	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2001	7	1.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2001	8	0.00	1.00	0.00	0.00	0	0.00	0.00	0.00	1
2001	9	0.00	0.00	1.00	0.00	0	0.00	0.00	0.00	1
2001	10	0.00	0.00	0.00	1.00	0	0.00	0.00	0.00	1
2001	11	0.00	0.00	0.00	0.00	1	0.00	0.00	0.00	1
2001	12	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2002	1	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2002	2	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2002	3	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2002	4	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2002	5	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2002	6	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2002	7	1.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2002	8	0.00	1.00	0.00	0.00	0	0.00	0.00	0.00	1
2002	9	0.00	0.00	1.00	0.00	0	0.00	0.00	0.00	1
2002	10	0.00	0.00	0.00	1.00	0	0.00	0.00	0.00	1
2002	11	0.00	0.00	0.00	0.00	1	0.00	0.00	0.00	1
2002	12	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2003	1	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2003	2	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2003	3	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2003	4	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2003	5	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2003	6	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2003	7	1.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2003	8	0.00	1.00	0.00	0.00	0	0.00	0.00	0.00	1
2003	9	0.00	0.00	1.00	0.00	0	0.00	0.00	0.00	1
2003	10	0.00	0.00	0.00	1.00	0	0.00	0.00	0.00	1
2003	11	0.00	0.00	0.00	0.00	1	0.00	0.00	0.00	1
2003	12	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2004	1	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2004	2	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2004	3	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2004	4	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2004	5	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2004	6	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2004	7	1.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1
2004	8	0.00	1.00	0.00	0.00	0	0.00	0.00	0.00	1
2004	9	0.00	0.00	1.00	0.00	0	0.00	0.00	0.00	1
2004	10	0.00	0.00	0.00	1.00	0	0.00	0.00	0.00	1
2004	11	0.00	0.00	0.00	0.00	1	0.00	0.00	0.00	1
2004	12	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2005	1	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2005	2	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2005	3	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2005	4	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2005	5	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2005	6	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2005	7	1.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2005	8	0.00	1.00	0.00	0.00	0	0.00	1.00	0.00	1
2005	9	0.00	0.00	1.00	0.00	0	0.00	1.00	0.00	1
2005	10	0.00	0.00	0.00	1.00	0	0.00	1.00	0.00	1
2005	11	0.00	0.00	0.00	0.00	1	0.00	1.00	0.00	1
2005	12	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2006	1	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2006	2	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2006	3	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2006	4	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2006	5	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2006	6	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2006	7	1.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2006	8	0.00	1.00	0.00	0.00	0	0.00	1.00	0.00	1
2006	9	0.00	0.00	1.00	0.00	0	0.00	1.00	0.00	1
2006	10	0.00	0.00	0.00	1.00	0	0.00	1.00	0.00	1
2006	11	0.00	0.00	0.00	0.00	1	0.00	1.00	0.00	1
2006	12	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2007	1	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2007	2	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2007	3	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2007	4	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2007	5	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2007	6	0.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2007	7	1.00	0.00	0.00	0.00	0	0.00	1.00	0.00	1
2007	8	0.00	1.00	0.00	0.00	0	0.00	1.00	0.00	1
2007	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2007	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2007	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2007	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2008	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2008	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2008	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2008	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2008	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2008	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2008	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2008	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2008	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2008	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2008	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2008	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2009	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2009	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2009	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2009	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2009	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2009	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2009	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2009	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2009	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2009	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2009	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2009	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2010	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2010	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2010	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2010	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2010	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2010	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2010	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2010	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2010	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2010	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2010	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2010	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2011	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2011	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2011	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2011	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2011	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2011	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2011	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2011	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2011	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2011	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2011	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2011	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2012	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2012	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2012	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2012	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2012	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2012	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2012	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2012	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2012	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2012	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2012	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2012	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2013	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2013	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2013	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2013	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2013	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2013	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2013	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2013	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2013	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2013	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2013	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2013	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2014	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2014	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2014	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2014	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2014	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2014	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2014	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2014	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2014	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2014	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2014	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2014	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2015	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2015	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2015	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2015	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2015	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2015	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2015	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2015	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2015	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2015	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2015	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2015	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2016	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2016	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2016	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2016	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2016	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2016	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2016	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2016	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2016	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2016	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2016	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2016	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2017	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2017	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2017	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2017	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2017	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2017	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2017	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2017	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2017	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2017	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2017	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2017	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2018	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2018	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2018	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2018	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2018	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2018	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2018	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2018	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2018	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2018	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2018	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2018	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2019	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2019	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2019	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2019	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2019	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2019	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2019	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2019	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2019	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2019	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2019	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2019	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2020	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2020	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2020	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2020	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2020	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2020	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2020	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2020	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2020	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2020	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2020	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2020	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2021	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2021	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2021	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2021	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2021	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2021	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2021	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2021	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2021	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2021	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2021	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2021	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2022	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2022	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2022	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2022	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2022	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2022	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2022	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2022	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2022	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2022	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2022	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2022	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2023	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2023	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2023	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2023	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2023	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2023	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2023	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2023	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2023	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2023	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2023	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2023	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2024	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2024	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2024	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2024	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2024	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2024	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2024	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2024	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2024	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2024	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2024	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2024	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2025	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2025	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2025	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2025	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2025	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2025	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2025	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2025	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2025	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2025	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2025	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2025	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2026	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2026	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2026	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2026	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2026	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2026	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2026	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2026	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2026	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2026	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2026	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2026	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2027	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2027	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2027	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2027	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2027	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2027	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2027	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2027	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2027	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2027	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2027	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2027	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2028	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2028	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2028	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2028	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2028	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2028	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2028	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2028	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2028	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2028	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2028	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2028	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2029	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2029	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2029	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2029	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2029	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2029	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2029	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2029	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2029	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2029	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2029	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2029	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2030	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2030	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2030	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2030	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2030	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2030	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2030	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2030	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2030	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2030	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2030	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2030	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2031	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2031	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2031	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2031	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2031	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2031	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2031	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2031	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2031	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2031	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2031	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2031	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2032	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2032	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2032	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2032	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2032	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2032	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2032	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2032	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2032	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2032	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2032	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2032	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2033	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2033	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2033	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2033	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2033	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2033	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2033	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2033	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2033	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2033	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2033	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2033	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2034	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2034	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2034	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2034	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2034	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2034	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2034	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2034	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2034	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2034	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2034	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2034	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2035	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2035	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2035	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2035	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2035	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2035	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2035	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2035	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2035	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2035	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2035	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2035	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2036	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2036	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2036	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2036	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2036	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2036	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2036	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2036	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2036	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2036	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2036	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2036	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2037	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2037	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2037	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2037	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2037	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2037	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2037	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2037	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2037	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2037	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2037	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2037	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1

Commercial Model Data

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on
2038	1	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2038	2	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2038	3	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2038	4	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2038	5	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2038	6	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2038	7	1.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1
2038	8	0.00	1.00	0.00	0.00	0	0.00	1.00	1.00	1
2038	9	0.00	0.00	1.00	0.00	0	0.00	1.00	1.00	1
2038	10	0.00	0.00	0.00	1.00	0	0.00	1.00	1.00	1
2038	11	0.00	0.00	0.00	0.00	1	0.00	1.00	1.00	1
2038	12	0.00	0.00	0.00	0.00	0	0.00	1.00	1.00	1

Commercial Model Coefficients

CommercialVars.XHeat	153.674	12.903	11.910	0.00%	Commercial Heating Component
CommercialVars.XCool	55.892	5.821	9.601	0.00%	Commercial Cooling Component
CommercialVars.XOther	7.281	0.122	59.776	0.00%	Commercial Other Component
BinaryVars.Jan	-754.685	1282.497	-0.588	55.72%	January
BinaryVars.Feb	1054.964	1294.121	0.815	41.64%	February
BinaryVars.Mar	-968.188	1072.994	-0.902	36.85%	March
BinaryVars.Apr	-2977.095	1131.737	-2.631	0.95%	April
BinaryVars.May	370.524	1436.410	0.258	79.68%	May
BinaryVars.Jun	-176.714	1746.614	-0.101	91.96%	June
BinaryVars.Jul	2574.838	2271.877	1.133	25.91%	July
BinaryVars.Aug	5148.395	2403.279	2.142	3.40%	August
BinaryVars.Sep	5891.727	2218.109	2.656	0.89%	September
BinaryVars.Oct	2222.995	1589.992	1.398	16.44%	October
BinaryVars.Nov	-1547.405	1308.365	-1.183	23.90%	November
BinaryVars.Nov97	-13018.647	2895.017	-4.497	0.00%	Binary-Novmeber 1997
BinaryVars.D05on	3507.871	623.667	5.625	0.00%	Binary-2005 On
BinaryVars.Sep07on	1251.635	884.535	1.415	15.94%	Binary-September 2007 On
BinaryVars.D00on	2047.706	573.899	3.568	0.05%	Binary-2000 On

Commercial Model Statistics

Regression Statistics		Forecast Statistics	
Iterations	1	Forecast Observations	0
Adjusted Observations	154	Mean Abs. Dev. (MAD)	0.00
Deg. of Freedom for Error	136	Mean Abs. % Err. (MAPE)	0.00%
R-Squared	0.961	Avg. Forecast Error	0.00
Adjusted R-Squared	0.956	Mean % Error	0.00%
Durbin-Watson Statistic	1.946	Root Mean-Square Error	0.000
Durbin-H Statistic	#NA	Theil's Inequality Coefficient	0.0000
AIC	15.938	-- Bias Proportion	0.00%
BIC	16.293	-- Variance Proportion	0.00%
F-Statistic	183.798	-- Covariance Proportion	0.00%
Prob (F-Statistic)	0.0000		
Log-Likelihood	-1427.77		
Model Sum of Squares	24774950540		
Sum of Squared Errors	1018445002		
Mean Squared Error	7488566.19		
Std. Error of Regression	2736.52		
Mean Abs. Dev. (MAD)	1776.57		
Mean Abs. % Err. (MAPE)	1.69%		
Ljung-Box Statistic	18.97		
Prob (Ljung-Box)	0.7535		
Skewness	0.815		
Kurtosis	8.288		
Jarque-Bera	196.5		
Prob (Jarque-Bera)	0.0000		

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
1996	1	116,485.148	30,018.052	0.000	87,221.781	-754.685	0.000	0.000	0.000	0.000	0.000
1996	2	106,541.137	26,895.130	0.000	78,591.043	0.000	1,054.964	0.000	0.000	0.000	0.000
1996	3	94,383.476	18,201.664	0.000	77,150.000	0.000	0.000	-968.188	0.000	0.000	0.000
1996	4	89,944.998	12,954.380	370.316	79,597.396	0.000	0.000	0.000	-2,977.095	0.000	0.000
1996	5	85,496.316	2,806.889	3,665.940	78,652.963	0.000	0.000	0.000	0.000	370.524	0.000
1996	6	91,216.943	405.242	8,286.460	82,701.955	0.000	0.000	0.000	0.000	0.000	-176.714
1996	7	99,989.406	0.000	15,669.413	81,745.155	0.000	0.000	0.000	0.000	0.000	0.000
1996	8	96,685.419	0.000	13,702.270	77,834.755	0.000	0.000	0.000	0.000	0.000	0.000
1996	9	99,653.829	0.000	12,406.967	81,355.135	0.000	0.000	0.000	0.000	0.000	0.000
1996	10	85,501.932	870.874	2,241.216	80,166.846	0.000	0.000	0.000	0.000	0.000	0.000
1996	11	85,297.009	7,012.318	313.946	79,518.149	0.000	0.000	0.000	0.000	0.000	0.000
1996	12	106,235.555	19,214.472	81.637	86,939.446	0.000	0.000	0.000	0.000	0.000	0.000
1997	1	110,016.055	21,176.718	43.672	89,550.350	-754.685	0.000	0.000	0.000	0.000	0.000
1997	2	104,825.948	23,050.987	32.507	80,687.491	0.000	1,054.964	0.000	0.000	0.000	0.000
1997	3	90,911.010	12,482.432	136.130	79,260.635	0.000	0.000	-968.188	0.000	0.000	0.000
1997	4	87,724.114	8,255.462	322.144	82,123.602	0.000	0.000	0.000	-2,977.095	0.000	0.000
1997	5	85,628.632	3,755.438	366.442	81,136.229	0.000	0.000	0.000	0.000	370.524	0.000
1997	6	88,578.955	596.035	2,840.258	85,319.376	0.000	0.000	0.000	0.000	0.000	-176.714
1997	7	100,265.833	0.000	13,201.458	84,489.536	0.000	0.000	0.000	0.000	0.000	0.000
1997	8	101,067.884	0.000	15,472.945	80,446.544	0.000	0.000	0.000	0.000	0.000	0.000
1997	9	98,760.104	0.000	8,777.835	84,090.542	0.000	0.000	0.000	0.000	0.000	0.000
1997	10	88,298.960	613.098	2,716.019	82,746.848	0.000	0.000	0.000	0.000	0.000	0.000
1997	11	76,773.356	8,484.779	783.097	82,071.532	0.000	0.000	0.000	0.000	0.000	0.000
1997	12	107,563.109	17,796.446	0.000	89,766.663	0.000	0.000	0.000	0.000	0.000	0.000
1998	1	110,635.988	19,154.893	0.000	92,235.780	-754.685	0.000	0.000	0.000	0.000	0.000
1998	2	102,423.841	18,276.663	0.000	83,092.215	0.000	1,054.964	0.000	0.000	0.000	0.000
1998	3	94,978.840	14,388.018	1.718	81,557.291	0.000	0.000	-968.188	0.000	0.000	0.000
1998	4	92,157.678	8,674.683	2,250.679	84,209.411	0.000	0.000	0.000	-2,977.095	0.000	0.000
1998	5	86,082.410	1,280.961	1,243.956	83,186.969	0.000	0.000	0.000	0.000	370.524	0.000
1998	6	94,832.252	29.844	7,512.443	87,466.680	0.000	0.000	0.000	0.000	0.000	-176.714
1998	7	104,839.190	12.811	15,893.086	86,358.455	0.000	0.000	0.000	0.000	0.000	0.000
1998	8	102,984.851	0.000	15,607.619	82,228.838	0.000	0.000	0.000	0.000	0.000	0.000
1998	9	107,694.222	0.000	15,835.523	85,966.972	0.000	0.000	0.000	0.000	0.000	0.000
1998	10	96,451.541	241.758	9,548.283	84,438.506	0.000	0.000	0.000	0.000	0.000	0.000
1998	11	87,775.761	4,845.845	698.746	83,778.575	0.000	0.000	0.000	0.000	0.000	0.000
1998	12	101,876.124	10,143.453	162.004	91,570.667	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
1999	1	119,191.067	25,866.311	70.723	94,008.718	-754.685	0.000	0.000	0.000	0.000	0.000
1999	2	101,969.405	16,244.649	0.000	84,669.792	0.000	1,054.964	0.000	0.000	0.000	0.000
1999	3	101,222.627	19,072.340	0.000	83,118.475	0.000	0.000	-968.188	0.000	0.000	0.000
1999	4	93,399.813	10,187.419	517.405	85,672.085	0.000	0.000	0.000	-2,977.095	0.000	0.000
1999	5	87,908.456	1,214.448	1,732.383	84,591.101	0.000	0.000	0.000	0.000	370.524	0.000
1999	6	97,239.165	0.000	8,473.652	88,942.227	0.000	0.000	0.000	0.000	0.000	-176.714
1999	7	109,569.467	0.000	19,392.240	87,602.389	0.000	0.000	0.000	0.000	0.000	0.000
1999	8	111,456.149	0.000	22,903.823	83,403.931	0.000	0.000	0.000	0.000	0.000	0.000
1999	9	105,267.753	5.072	12,194.844	87,176.111	0.000	0.000	0.000	0.000	0.000	0.000
1999	10	90,618.329	553.734	2,486.482	85,355.117	0.000	0.000	0.000	0.000	0.000	0.000
1999	11	87,767.700	4,577.705	137.897	84,599.502	0.000	0.000	0.000	0.000	0.000	0.000
1999	12	104,739.642	12,235.094	0.000	92,504.548	0.000	0.000	0.000	0.000	0.000	0.000
2000	1	118,324.837	22,284.608	0.000	94,747.209	-754.685	0.000	0.000	0.000	0.000	0.000
2000	2	115,046.413	26,601.213	0.000	85,342.531	0.000	1,054.964	0.000	0.000	0.000	0.000
2000	3	95,109.536	10,154.521	108.051	83,767.446	0.000	0.000	-968.188	0.000	0.000	0.000
2000	4	91,406.010	5,777.200	258.544	86,299.655	0.000	0.000	0.000	-2,977.095	0.000	0.000
2000	5	92,566.492	2,129.599	2,787.495	85,231.168	0.000	0.000	0.000	0.000	370.524	0.000
2000	6	99,651.870	5.111	8,186.210	89,589.557	0.000	0.000	0.000	0.000	0.000	-176.714
2000	7	107,800.117	0.000	14,730.223	88,447.350	0.000	0.000	0.000	0.000	0.000	0.000
2000	8	103,715.203	0.000	12,303.200	84,215.902	0.000	0.000	0.000	0.000	0.000	0.000
2000	9	107,191.213	25.115	11,174.613	88,052.053	0.000	0.000	0.000	0.000	0.000	0.000
2000	10	96,137.797	1,366.225	3,805.750	86,695.122	0.000	0.000	0.000	0.000	0.000	0.000
2000	11	91,676.809	4,649.755	524.254	86,002.499	0.000	0.000	0.000	0.000	0.000	0.000
2000	12	118,510.778	22,461.752	0.000	94,001.320	0.000	0.000	0.000	0.000	0.000	0.000
2001	1	132,060.378	33,841.795	0.000	96,925.563	-754.685	0.000	0.000	0.000	0.000	0.000
2001	2	114,070.757	23,616.016	0.000	87,352.071	0.000	1,054.964	0.000	0.000	0.000	0.000
2001	3	103,093.576	16,233.858	0.000	85,780.201	0.000	0.000	-968.188	0.000	0.000	0.000
2001	4	101,624.252	11,542.311	2,145.930	88,865.402	0.000	0.000	0.000	-2,977.095	0.000	0.000
2001	5	96,679.161	1,747.755	4,726.980	87,786.196	0.000	0.000	0.000	0.000	370.524	0.000
2001	6	99,660.992	108.448	5,339.483	92,342.069	0.000	0.000	0.000	0.000	0.000	-176.714
2001	7	109,306.300	0.000	13,171.845	91,511.911	0.000	0.000	0.000	0.000	0.000	0.000
2001	8	112,581.302	0.000	18,266.235	87,118.966	0.000	0.000	0.000	0.000	0.000	0.000
2001	9	113,875.859	5.094	14,850.805	91,080.529	0.000	0.000	0.000	0.000	0.000	0.000
2001	10	98,606.157	1,042.317	3,580.309	89,712.831	0.000	0.000	0.000	0.000	0.000	0.000
2001	11	95,469.681	4,988.378	1,049.816	88,931.187	0.000	0.000	0.000	0.000	0.000	0.000
2001	12	106,390.887	7,084.592	36.243	97,222.347	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2002	1	125,445.465	24,039.747	0.000	100,112.698	-754.685	0.000	0.000	0.000	0.000	0.000
2002	2	111,136.750	17,857.432	0.000	90,176.649	0.000	1,054.964	0.000	0.000	0.000	0.000
2002	3	105,274.095	15,596.626	65.697	88,532.254	0.000	0.000	-968.188	0.000	0.000	0.000
2002	4	100,271.511	8,636.139	1,035.785	91,528.976	0.000	0.000	0.000	-2,977.095	0.000	0.000
2002	5	98,023.476	2,268.904	2,915.052	90,421.291	0.000	0.000	0.000	0.000	370.524	0.000
2002	6	106,405.368	1,373.786	8,051.650	95,108.941	0.000	0.000	0.000	0.000	0.000	-176.714
2002	7	116,885.661	0.000	18,245.945	94,017.173	0.000	0.000	0.000	0.000	0.000	0.000
2002	8	118,782.381	0.000	22,056.922	89,529.359	0.000	0.000	0.000	0.000	0.000	0.000
2002	9	121,889.080	0.000	20,364.983	93,584.665	0.000	0.000	0.000	0.000	0.000	0.000
2002	10	104,871.650	499.220	8,111.846	91,989.884	0.000	0.000	0.000	0.000	0.000	0.000
2002	11	98,670.661	6,090.769	799.656	91,279.935	0.000	0.000	0.000	0.000	0.000	0.000
2002	12	121,830.607	19,893.400	115.172	99,774.330	0.000	0.000	0.000	0.000	0.000	0.000
2003	1	127,816.836	23,887.161	0.000	102,636.654	-754.685	0.000	0.000	0.000	0.000	0.000
2003	2	125,616.446	30,061.931	0.000	92,451.846	0.000	1,054.964	0.000	0.000	0.000	0.000
2003	3	111,755.046	19,915.156	0.000	90,760.372	0.000	0.000	-968.188	0.000	0.000	0.000
2003	4	99,132.911	5,436.233	907.362	93,718.706	0.000	0.000	0.000	-2,977.095	0.000	0.000
2003	5	98,396.744	1,161.370	2,233.339	92,583.806	0.000	0.000	0.000	0.000	370.524	0.000
2003	6	102,443.624	0.000	3,193.925	97,378.707	0.000	0.000	0.000	0.000	0.000	-176.714
2003	7	114,998.585	0.000	13,390.556	96,985.486	0.000	0.000	0.000	0.000	0.000	0.000
2003	8	113,330.273	0.000	15,009.428	91,124.745	0.000	0.000	0.000	0.000	0.000	0.000
2003	9	118,182.509	0.000	14,989.947	95,253.130	0.000	0.000	0.000	0.000	0.000	0.000
2003	10	102,274.018	1,381.453	2,168.014	94,453.851	0.000	0.000	0.000	0.000	0.000	0.000
2003	11	97,380.681	3,749.556	501.608	92,629.217	0.000	0.000	0.000	0.000	0.000	0.000
2003	12	117,952.941	14,403.034	62.423	101,439.778	0.000	0.000	0.000	0.000	0.000	0.000
2004	1	129,682.770	23,586.265	51.419	104,752.064	-754.685	0.000	0.000	0.000	0.000	0.000
2004	2	123,647.027	27,100.180	15.287	93,428.891	0.000	1,054.964	0.000	0.000	0.000	0.000
2004	3	109,315.897	15,584.560	136.238	92,515.581	0.000	0.000	-968.188	0.000	0.000	0.000
2004	4	106,023.096	9,042.503	792.542	97,117.440	0.000	0.000	0.000	-2,977.095	0.000	0.000
2004	5	102,929.223	2,166.362	4,264.049	94,080.583	0.000	0.000	0.000	0.000	370.524	0.000
2004	6	113,393.541	158.058	12,316.861	99,047.630	0.000	0.000	0.000	0.000	0.000	-176.714
2004	7	117,400.032	0.000	15,466.473	97,311.015	0.000	0.000	0.000	0.000	0.000	0.000
2004	8	115,244.222	0.000	14,651.408	93,396.715	0.000	0.000	0.000	0.000	0.000	0.000
2004	9	116,477.036	0.000	13,123.701	95,413.902	0.000	0.000	0.000	0.000	0.000	0.000
2004	10	104,407.570	374.148	3,918.598	95,844.123	0.000	0.000	0.000	0.000	0.000	0.000
2004	11	96,859.137	2,346.498	760.993	93,251.345	0.000	0.000	0.000	0.000	0.000	0.000
2004	12	118,032.016	12,049.398	123.148	103,811.764	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2005	1	129,991.611	20,288.248	0.000	104,902.471	-754.685	0.000	0.000	0.000	0.000	0.000
2005	2	123,842.205	22,086.977	0.000	95,144.687	0.000	1,054.964	0.000	0.000	0.000	0.000
2005	3	117,837.699	18,726.732	0.000	94,523.578	0.000	0.000	-968.188	0.000	0.000	0.000
2005	4	109,809.353	9,011.432	356.151	97,863.289	0.000	0.000	0.000	-2,977.095	0.000	0.000
2005	5	103,367.636	2,492.520	1,255.327	93,693.688	0.000	0.000	0.000	0.000	370.524	0.000
2005	6	113,553.428	362.591	7,819.756	99,992.219	0.000	0.000	0.000	0.000	0.000	-176.714
2005	7	127,508.297	0.000	21,742.176	97,635.707	0.000	0.000	0.000	0.000	0.000	0.000
2005	8	131,911.465	0.000	26,817.002	94,390.491	0.000	0.000	0.000	0.000	0.000	0.000
2005	9	130,711.475	0.000	21,033.806	98,230.366	0.000	0.000	0.000	0.000	0.000	0.000
2005	10	111,778.812	213.874	9,316.271	94,470.095	0.000	0.000	0.000	0.000	0.000	0.000
2005	11	106,492.650	5,500.283	598.666	96,385.529	0.000	0.000	0.000	0.000	0.000	0.000
2005	12	128,784.598	19,979.154	94.377	103,155.489	0.000	0.000	0.000	0.000	0.000	0.000
2006	1	131,530.270	20,105.135	0.000	106,624.243	-754.685	0.000	0.000	0.000	0.000	0.000
2006	2	118,279.394	15,439.447	0.000	96,229.406	0.000	1,054.964	0.000	0.000	0.000	0.000
2006	3	113,879.829	16,789.329	77.974	92,425.136	0.000	0.000	-968.188	0.000	0.000	0.000
2006	4	105,330.564	8,780.528	945.510	93,026.044	0.000	0.000	0.000	-2,977.095	0.000	0.000
2006	5	104,771.818	744.939	1,647.787	96,452.992	0.000	0.000	0.000	0.000	370.524	0.000
2006	6	111,498.396	148.589	6,434.003	99,536.942	0.000	0.000	0.000	0.000	0.000	-176.714
2006	7	122,321.234	0.000	15,725.007	98,465.812	0.000	0.000	0.000	0.000	0.000	0.000
2006	8	126,579.665	0.000	23,304.588	92,571.105	0.000	0.000	0.000	0.000	0.000	0.000
2006	9	126,468.036	35.111	15,865.361	99,120.260	0.000	0.000	0.000	0.000	0.000	0.000
2006	10	106,704.006	1,400.197	2,152.331	95,372.906	0.000	0.000	0.000	0.000	0.000	0.000
2006	11	106,922.186	7,689.481	148.008	95,076.524	0.000	0.000	0.000	0.000	0.000	0.000
2006	12	120,717.409	13,007.530	165.938	101,988.364	0.000	0.000	0.000	0.000	0.000	0.000
2007	1	125,957.043	14,278.719	19.091	106,858.341	-754.685	0.000	0.000	0.000	0.000	0.000
2007	2	127,237.402	25,556.321	0.000	95,070.540	0.000	1,054.964	0.000	0.000	0.000	0.000
2007	3	120,255.578	21,366.754	128.986	94,172.448	0.000	0.000	-968.188	0.000	0.000	0.000
2007	4	112,140.687	7,838.650	1,783.484	99,940.071	0.000	0.000	0.000	-2,977.095	0.000	0.000
2007	5	109,230.374	2,880.737	3,015.437	97,408.099	0.000	0.000	0.000	0.000	370.524	0.000
2007	6	114,940.959	120.008	10,796.319	98,645.770	0.000	0.000	0.000	0.000	0.000	-176.714
2007	7	123,436.433	0.000	17,423.874	97,882.144	0.000	0.000	0.000	0.000	0.000	0.000
2007	8	125,951.425	0.000	19,898.201	95,349.252	0.000	0.000	0.000	0.000	0.000	0.000
2007	9	134,118.578	0.000	22,717.783	98,701.856	0.000	0.000	0.000	0.000	0.000	0.000
2007	10	116,042.763	240.050	10,315.514	96,456.992	0.000	0.000	0.000	0.000	0.000	0.000
2007	11	109,642.115	4,755.068	1,774.401	97,852.839	0.000	0.000	0.000	0.000	0.000	0.000
2007	12	125,663.680	14,438.785	0.000	104,417.682	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2008	1	134,777.931	19,900.315	0.000	108,825.089	-754.685	0.000	0.000	0.000	0.000	0.000
2008	2	125,978.914	21,552.606	0.000	96,564.133	0.000	1,054.964	0.000	0.000	0.000	0.000
2008	3	121,212.615	18,490.240	0.000	96,883.350	0.000	0.000	-968.188	0.000	0.000	0.000
2008	4	112,218.555	8,577.629	85.819	99,724.989	0.000	0.000	0.000	-2,977.095	0.000	0.000
2008	5	106,439.237	1,840.230	1,080.618	96,340.653	0.000	0.000	0.000	0.000	370.524	0.000
2008	6	114,482.780	132.278	6,734.115	100,985.889	0.000	0.000	0.000	0.000	0.000	-176.714
2008	7	122,690.839	0.000	13,819.327	99,489.461	0.000	0.000	0.000	0.000	0.000	0.000
2008	8	126,097.368	0.000	16,431.161	97,710.600	0.000	0.000	0.000	0.000	0.000	0.000
2008	9	127,688.962	0.000	15,519.049	99,470.975	0.000	0.000	0.000	0.000	0.000	0.000
2008	10	111,325.870	305.041	5,839.999	96,150.623	0.000	0.000	0.000	0.000	0.000	0.000
2008	11	107,492.662	5,029.352	700.518	96,502.984	0.000	0.000	0.000	0.000	0.000	0.000
2008	12	126,509.042	14,199.837	109.729	105,392.263	0.000	0.000	0.000	0.000	0.000	0.000
2009	1	136,172.550	22,567.362	23.580	107,529.082	-754.685	0.000	0.000	0.000	0.000	0.000
2009	2	126,884.135	22,206.992	2.638	96,812.329	0.000	1,054.964	0.000	0.000	0.000	0.000
2009	3	116,738.695	15,881.494	70.716	94,947.460	0.000	0.000	-968.188	0.000	0.000	0.000
2009	4	110,415.472	8,214.931	734.660	97,635.764	0.000	0.000	0.000	-2,977.095	0.000	0.000
2009	5	108,101.464	2,060.002	2,443.860	96,419.866	0.000	0.000	0.000	0.000	370.524	0.000
2009	6	116,124.154	232.362	7,912.927	101,348.366	0.000	0.000	0.000	0.000	0.000	-176.714
2009	7	125,735.588	1.178	16,583.186	99,769.173	0.000	0.000	0.000	0.000	0.000	0.000
2009	8	126,024.729	0.000	19,157.342	94,911.780	0.000	0.000	0.000	0.000	0.000	0.000
2009	9	127,545.352	8.860	15,670.106	99,167.446	0.000	0.000	0.000	0.000	0.000	0.000
2009	10	112,011.970	813.085	4,990.170	97,178.508	0.000	0.000	0.000	0.000	0.000	0.000
2009	11	107,249.651	4,934.438	696.079	96,359.326	0.000	0.000	0.000	0.000	0.000	0.000
2009	12	126,145.805	13,939.139	109.091	105,290.363	0.000	0.000	0.000	0.000	0.000	0.000
2010	1	136,796.934	22,519.997	23.307	108,201.104	-754.685	0.000	0.000	0.000	0.000	0.000
2010	2	127,519.287	22,174.606	2.609	97,479.896	0.000	1,054.964	0.000	0.000	0.000	0.000
2010	3	117,491.304	15,875.656	70.019	95,706.604	0.000	0.000	-968.188	0.000	0.000	0.000
2010	4	111,629.039	8,245.812	730.421	98,822.689	0.000	0.000	0.000	-2,977.095	0.000	0.000
2010	5	109,281.914	2,068.043	2,430.108	97,606.026	0.000	0.000	0.000	0.000	370.524	0.000
2010	6	117,336.320	233.288	7,869.039	102,603.495	0.000	0.000	0.000	0.000	0.000	-176.714
2010	7	127,179.871	1.186	16,533.412	101,263.223	0.000	0.000	0.000	0.000	0.000	0.000
2010	8	127,437.034	0.000	19,107.865	96,373.562	0.000	0.000	0.000	0.000	0.000	0.000
2010	9	129,070.309	8.925	15,634.747	100,727.698	0.000	0.000	0.000	0.000	0.000	0.000
2010	10	113,671.973	820.094	4,985.406	98,836.266	0.000	0.000	0.000	0.000	0.000	0.000
2010	11	108,938.475	4,977.129	695.436	98,006.103	0.000	0.000	0.000	0.000	0.000	0.000
2010	12	128,119.694	14,065.993	109.038	107,137.450	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2011	1	139,114.471	22,684.587	23.464	110,353.894	-754.685	0.000	0.000	0.000	0.000	0.000
2011	2	129,617.356	22,336.030	2.627	99,416.523	0.000	1,054.964	0.000	0.000	0.000	0.000
2011	3	119,503.520	15,990.492	70.486	97,603.518	0.000	0.000	-968.188	0.000	0.000	0.000
2011	4	113,558.770	8,298.390	734.660	100,695.602	0.000	0.000	0.000	-2,977.095	0.000	0.000
2011	5	111,169.889	2,081.446	2,444.468	99,466.238	0.000	0.000	0.000	0.000	370.524	0.000
2011	6	119,381.635	234.888	7,918.479	104,597.771	0.000	0.000	0.000	0.000	0.000	-176.714
2011	7	129,206.551	1.193	16,630.982	103,192.325	0.000	0.000	0.000	0.000	0.000	0.000
2011	8	129,434.753	0.000	19,228.649	98,250.497	0.000	0.000	0.000	0.000	0.000	0.000
2011	9	131,135.849	8.987	15,734.230	102,693.694	0.000	0.000	0.000	0.000	0.000	0.000
2011	10	115,629.896	825.715	5,016.725	100,757.249	0.000	0.000	0.000	0.000	0.000	0.000
2011	11	110,896.670	5,011.948	699.903	99,925.011	0.000	0.000	0.000	0.000	0.000	0.000
2011	12	130,335.949	14,166.628	109.756	109,252.353	0.000	0.000	0.000	0.000	0.000	0.000
2012	1	141,344.985	22,892.967	23.677	112,375.814	-754.685	0.000	0.000	0.000	0.000	0.000
2012	2	131,640.972	22,540.643	2.650	101,235.503	0.000	1,054.964	0.000	0.000	0.000	0.000
2012	3	121,433.455	16,136.557	71.123	99,386.750	0.000	0.000	-968.188	0.000	0.000	0.000
2012	4	115,385.990	8,367.070	740.677	102,448.126	0.000	0.000	0.000	-2,977.095	0.000	0.000
2012	5	112,939.157	2,098.691	2,464.507	101,198.223	0.000	0.000	0.000	0.000	370.524	0.000
2012	6	121,270.926	236.836	7,983.468	106,420.125	0.000	0.000	0.000	0.000	0.000	-176.714
2012	7	131,089.104	1.203	16,760.341	104,945.510	0.000	0.000	0.000	0.000	0.000	0.000
2012	8	131,259.913	0.000	19,379.248	99,925.058	0.000	0.000	0.000	0.000	0.000	0.000
2012	9	133,015.222	9.059	15,858.222	104,449.003	0.000	0.000	0.000	0.000	0.000	0.000
2012	10	117,395.830	832.276	5,056.148	102,477.200	0.000	0.000	0.000	0.000	0.000	0.000
2012	11	112,653.376	5,052.034	705.440	101,636.094	0.000	0.000	0.000	0.000	0.000	0.000
2012	12	132,328.314	14,280.777	110.631	111,129.694	0.000	0.000	0.000	0.000	0.000	0.000
2013	1	143,645.985	23,110.649	23.907	114,458.902	-754.685	0.000	0.000	0.000	0.000	0.000
2013	2	133,685.411	22,746.568	2.675	103,073.991	0.000	1,054.964	0.000	0.000	0.000	0.000
2013	3	123,341.806	16,277.792	71.759	101,153.231	0.000	0.000	-968.188	0.000	0.000	0.000
2013	4	117,271.736	8,439.186	747.201	104,255.231	0.000	0.000	0.000	-2,977.095	0.000	0.000
2013	5	114,724.476	2,116.001	2,485.304	102,945.435	0.000	0.000	0.000	0.000	370.524	0.000
2013	6	123,129.568	238.691	8,047.516	108,212.863	0.000	0.000	0.000	0.000	0.000	-176.714
2013	7	132,960.890	1.212	16,890.624	106,687.004	0.000	0.000	0.000	0.000	0.000	0.000
2013	8	133,021.729	0.000	19,522.308	101,543.814	0.000	0.000	0.000	0.000	0.000	0.000
2013	9	134,781.833	9.121	15,969.722	106,104.052	0.000	0.000	0.000	0.000	0.000	0.000
2013	10	119,018.242	837.645	5,089.724	104,060.666	0.000	0.000	0.000	0.000	0.000	0.000
2013	11	114,222.422	5,082.821	709.873	103,169.922	0.000	0.000	0.000	0.000	0.000	0.000
2013	12	134,042.590	14,362.096	111.282	112,762.001	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2014	1	145,763.482	23,268.960	24.078	116,417.918	-754.685	0.000	0.000	0.000	0.000	0.000
2014	2	135,607.407	22,902.744	2.694	104,839.793	0.000	1,054.964	0.000	0.000	0.000	0.000
2014	3	125,188.896	16,389.817	72.274	102,887.781	0.000	0.000	-968.188	0.000	0.000	0.000
2014	4	119,110.929	8,496.382	752.482	106,031.948	0.000	0.000	0.000	-2,977.095	0.000	0.000
2014	5	116,512.114	2,130.369	2,502.898	104,701.112	0.000	0.000	0.000	0.000	370.524	0.000
2014	6	125,035.292	240.315	8,104.598	110,059.881	0.000	0.000	0.000	0.000	0.000	-176.714
2014	7	134,883.843	1.220	17,008.013	108,492.560	0.000	0.000	0.000	0.000	0.000	0.000
2014	8	134,876.964	0.000	19,658.154	103,263.203	0.000	0.000	0.000	0.000	0.000	0.000
2014	9	136,690.567	9.181	16,080.969	107,901.478	0.000	0.000	0.000	0.000	0.000	0.000
2014	10	120,805.105	843.109	5,124.401	105,807.388	0.000	0.000	0.000	0.000	0.000	0.000
2014	11	115,992.345	5,115.986	714.710	104,901.841	0.000	0.000	0.000	0.000	0.000	0.000
2014	12	136,030.210	14,455.832	112.040	114,655.126	0.000	0.000	0.000	0.000	0.000	0.000
2015	1	147,875.834	23,370.768	24.134	118,428.405	-754.685	0.000	0.000	0.000	0.000	0.000
2015	2	137,511.552	23,001.778	2.700	106,644.897	0.000	1,054.964	0.000	0.000	0.000	0.000
2015	3	127,025.097	16,459.828	72.435	104,653.809	0.000	0.000	-968.188	0.000	0.000	0.000
2015	4	120,955.543	8,531.703	754.073	107,839.650	0.000	0.000	0.000	-2,977.095	0.000	0.000
2015	5	118,305.240	2,139.109	2,508.055	106,480.340	0.000	0.000	0.000	0.000	370.524	0.000
2015	6	126,915.960	241.286	8,120.805	111,923.371	0.000	0.000	0.000	0.000	0.000	-176.714
2015	7	136,749.980	1.225	17,041.379	110,325.326	0.000	0.000	0.000	0.000	0.000	0.000
2015	8	136,652.204	0.000	19,695.494	105,001.103	0.000	0.000	0.000	0.000	0.000	0.000
2015	9	138,530.104	9.217	16,110.618	109,711.331	0.000	0.000	0.000	0.000	0.000	0.000
2015	10	122,597.929	846.425	5,134.092	107,587.206	0.000	0.000	0.000	0.000	0.000	0.000
2015	11	117,771.736	5,135.802	716.019	106,660.107	0.000	0.000	0.000	0.000	0.000	0.000
2015	12	137,999.479	14,510.864	112.238	116,569.165	0.000	0.000	0.000	0.000	0.000	0.000
2016	1	149,925.568	23,434.626	24.144	120,414.271	-754.685	0.000	0.000	0.000	0.000	0.000
2016	2	139,360.324	23,064.215	2.702	108,431.232	0.000	1,054.964	0.000	0.000	0.000	0.000
2016	3	128,820.534	16,504.205	72.463	106,404.841	0.000	0.000	-968.188	0.000	0.000	0.000
2016	4	122,804.441	8,556.234	754.502	109,663.587	0.000	0.000	0.000	-2,977.095	0.000	0.000
2016	5	120,111.332	2,145.213	2,509.427	108,278.956	0.000	0.000	0.000	0.000	370.524	0.000
2016	6	128,808.706	241.969	8,125.052	113,811.188	0.000	0.000	0.000	0.000	0.000	-176.714
2016	7	138,639.030	1.229	17,052.833	112,202.918	0.000	0.000	0.000	0.000	0.000	0.000
2016	8	138,449.182	0.000	19,708.228	106,785.347	0.000	0.000	0.000	0.000	0.000	0.000
2016	9	140,401.904	9.244	16,120.664	111,573.057	0.000	0.000	0.000	0.000	0.000	0.000
2016	10	124,441.238	848.993	5,137.825	109,424.213	0.000	0.000	0.000	0.000	0.000	0.000
2016	11	119,606.247	5,151.260	716.523	108,478.657	0.000	0.000	0.000	0.000	0.000	0.000
2016	12	140,027.136	14,554.148	112.314	118,553.462	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2017	1	151,844.315	23,467.734	24.121	122,299.933	-754.685	0.000	0.000	0.000	0.000	0.000
2017	2	141,087.449	23,096.198	2.699	110,126.376	0.000	1,054.964	0.000	0.000	0.000	0.000
2017	3	130,503.489	16,526.651	72.390	108,065.424	0.000	0.000	-968.188	0.000	0.000	0.000
2017	4	124,520.991	8,567.462	753.701	111,369.711	0.000	0.000	0.000	-2,977.095	0.000	0.000
2017	5	121,792.921	2,147.969	2,506.693	109,960.522	0.000	0.000	0.000	0.000	370.524	0.000
2017	6	130,563.848	242.272	8,115.951	115,575.127	0.000	0.000	0.000	0.000	0.000	-176.714
2017	7	140,340.649	1.230	17,031.353	113,926.016	0.000	0.000	0.000	0.000	0.000	0.000
2017	8	140,060.474	0.000	19,682.822	108,422.045	0.000	0.000	0.000	0.000	0.000	0.000
2017	9	142,087.791	9.254	16,099.457	113,280.142	0.000	0.000	0.000	0.000	0.000	0.000
2017	10	126,084.015	849.706	5,129.946	111,074.156	0.000	0.000	0.000	0.000	0.000	0.000
2017	11	121,241.987	5,155.444	715.404	110,111.331	0.000	0.000	0.000	0.000	0.000	0.000
2017	12	141,818.975	14,565.525	112.135	120,334.103	0.000	0.000	0.000	0.000	0.000	0.000
2018	1	153,553.046	23,454.903	24.004	124,021.612	-754.685	0.000	0.000	0.000	0.000	0.000
2018	2	142,621.258	23,082.910	2.686	111,673.486	0.000	1,054.964	0.000	0.000	0.000	0.000
2018	3	132,008.089	16,516.658	72.035	109,580.371	0.000	0.000	-968.188	0.000	0.000	0.000
2018	4	126,048.943	8,560.569	749.861	112,908.396	0.000	0.000	0.000	-2,977.095	0.000	0.000
2018	5	123,294.294	2,146.179	2,493.852	111,476.526	0.000	0.000	0.000	0.000	370.524	0.000
2018	6	132,111.443	242.063	8,074.116	117,164.767	0.000	0.000	0.000	0.000	0.000	-176.714
2018	7	141,803.553	1.229	16,941.481	115,478.793	0.000	0.000	0.000	0.000	0.000	0.000
2018	8	141,430.361	0.000	19,578.352	109,896.402	0.000	0.000	0.000	0.000	0.000	0.000
2018	9	143,539.127	9.244	16,013.564	114,817.380	0.000	0.000	0.000	0.000	0.000	0.000
2018	10	127,559.245	848.789	5,102.412	112,577.836	0.000	0.000	0.000	0.000	0.000	0.000
2018	11	122,719.945	5,149.738	711.545	111,598.855	0.000	0.000	0.000	0.000	0.000	0.000
2018	12	143,423.619	14,548.950	111.527	121,955.929	0.000	0.000	0.000	0.000	0.000	0.000
2019	1	155,173.394	23,470.073	23.923	125,626.871	-754.685	0.000	0.000	0.000	0.000	0.000
2019	2	144,077.598	23,097.159	2.677	113,115.586	0.000	1,054.964	0.000	0.000	0.000	0.000
2019	3	133,429.259	16,526.356	71.787	110,992.092	0.000	0.000	-968.188	0.000	0.000	0.000
2019	4	127,510.728	8,565.924	747.299	114,367.388	0.000	0.000	0.000	-2,977.095	0.000	0.000
2019	5	124,724.212	2,147.460	2,485.259	112,913.758	0.000	0.000	0.000	0.000	370.524	0.000
2019	6	133,590.242	242.199	8,046.033	118,671.511	0.000	0.000	0.000	0.000	0.000	-176.714
2019	7	143,230.750	1.229	16,882.690	116,964.781	0.000	0.000	0.000	0.000	0.000	0.000
2019	8	142,772.611	0.000	19,509.819	111,307.185	0.000	0.000	0.000	0.000	0.000	0.000
2019	9	144,953.453	9.249	15,957.077	116,288.188	0.000	0.000	0.000	0.000	0.000	0.000
2019	10	128,980.266	849.201	5,084.264	114,016.594	0.000	0.000	0.000	0.000	0.000	0.000
2019	11	124,142.882	5,152.096	708.994	113,021.984	0.000	0.000	0.000	0.000	0.000	0.000
2019	12	144,980.844	14,555.166	111.124	123,507.342	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2020	1	156,742.381	23,517.771	23.835	127,148.247	-754.685	0.000	0.000	0.000	0.000	0.000
2020	2	145,495.866	23,144.347	2.667	114,486.676	0.000	1,054.964	0.000	0.000	0.000	0.000
2020	3	134,809.530	16,560.301	71.527	112,338.678	0.000	0.000	-968.188	0.000	0.000	0.000
2020	4	128,914.484	8,583.611	744.601	115,756.155	0.000	0.000	0.000	-2,977.095	0.000	0.000
2020	5	126,092.035	2,151.916	2,476.312	114,286.071	0.000	0.000	0.000	0.000	370.524	0.000
2020	6	135,005.572	242.705	8,017.162	120,115.208	0.000	0.000	0.000	0.000	0.000	-176.714
2020	7	144,596.705	1.232	16,822.558	118,390.865	0.000	0.000	0.000	0.000	0.000	0.000
2020	8	144,061.660	0.000	19,440.541	112,665.512	0.000	0.000	0.000	0.000	0.000	0.000
2020	9	146,317.220	9.269	15,900.569	117,708.443	0.000	0.000	0.000	0.000	0.000	0.000
2020	10	130,362.874	851.058	5,066.522	115,415.087	0.000	0.000	0.000	0.000	0.000	0.000
2020	11	125,539.153	5,163.410	706.527	114,409.408	0.000	0.000	0.000	0.000	0.000	0.000
2020	12	146,530.095	14,587.290	110.738	125,024.855	0.000	0.000	0.000	0.000	0.000	0.000
2021	1	158,426.642	23,595.881	23.804	128,754.429	-754.685	0.000	0.000	0.000	0.000	0.000
2021	2	147,028.365	23,222.785	2.664	115,940.740	0.000	1,054.964	0.000	0.000	0.000	0.000
2021	3	136,301.368	16,617.575	71.442	113,773.327	0.000	0.000	-968.188	0.000	0.000	0.000
2021	4	130,432.405	8,614.033	743.786	117,244.470	0.000	0.000	0.000	-2,977.095	0.000	0.000
2021	5	127,574.616	2,159.691	2,473.769	115,763.419	0.000	0.000	0.000	0.000	370.524	0.000
2021	6	136,560.868	243.600	8,009.544	121,677.225	0.000	0.000	0.000	0.000	0.000	-176.714
2021	7	146,129.924	1.237	16,807.754	119,938.883	0.000	0.000	0.000	0.000	0.000	0.000
2021	8	145,527.557	0.000	19,424.866	114,147.085	0.000	0.000	0.000	0.000	0.000	0.000
2021	9	147,861.235	9.305	15,888.795	119,264.196	0.000	0.000	0.000	0.000	0.000	0.000
2021	10	131,891.882	854.405	5,062.935	116,944.335	0.000	0.000	0.000	0.000	0.000	0.000
2021	11	127,083.138	5,184.070	706.075	115,933.185	0.000	0.000	0.000	0.000	0.000	0.000
2021	12	148,264.226	14,646.763	110.676	126,699.575	0.000	0.000	0.000	0.000	0.000	0.000
2022	1	160,161.620	23,690.330	23.782	130,394.981	-754.685	0.000	0.000	0.000	0.000	0.000
2022	2	148,606.686	23,317.080	2.661	117,424.769	0.000	1,054.964	0.000	0.000	0.000	0.000
2022	3	137,832.840	16,686.032	71.384	115,236.400	0.000	0.000	-968.188	0.000	0.000	0.000
2022	4	131,971.186	8,649.262	743.154	118,748.653	0.000	0.000	0.000	-2,977.095	0.000	0.000
2022	5	129,073.627	2,168.650	2,471.812	117,255.428	0.000	0.000	0.000	0.000	370.524	0.000
2022	6	138,132.334	244.627	8,003.729	123,253.481	0.000	0.000	0.000	0.000	0.000	-176.714
2022	7	147,669.232	1.242	16,795.280	121,490.659	0.000	0.000	0.000	0.000	0.000	0.000
2022	8	146,998.448	0.000	19,411.667	115,631.175	0.000	0.000	0.000	0.000	0.000	0.000
2022	9	149,408.769	9.345	15,878.890	120,821.595	0.000	0.000	0.000	0.000	0.000	0.000
2022	10	133,419.022	858.090	5,059.759	118,470.967	0.000	0.000	0.000	0.000	0.000	0.000
2022	11	128,625.587	5,206.728	705.672	117,453.380	0.000	0.000	0.000	0.000	0.000	0.000
2022	12	149,998.739	14,711.721	110.620	128,369.186	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2023	1	161,923.910	23,760.282	23.785	132,087.316	-754.685	0.000	0.000	0.000	0.000	0.000
2023	2	150,202.754	23,386.458	2.662	118,951.458	0.000	1,054.964	0.000	0.000	0.000	0.000
2023	3	139,383.831	16,736.068	71.396	116,737.343	0.000	0.000	-968.188	0.000	0.000	0.000
2023	4	133,541.063	8,675.006	743.264	120,292.676	0.000	0.000	0.000	-2,977.095	0.000	0.000
2023	5	130,607.905	2,175.155	2,472.236	118,782.777	0.000	0.000	0.000	0.000	370.524	0.000
2023	6	139,743.356	245.367	8,005.309	124,862.182	0.000	0.000	0.000	0.000	0.000	-176.714
2023	7	149,257.949	1.246	16,798.560	123,076.094	0.000	0.000	0.000	0.000	0.000	0.000
2023	8	148,514.617	0.000	19,415.942	117,143.068	0.000	0.000	0.000	0.000	0.000	0.000
2023	9	150,995.146	9.374	15,882.742	122,404.091	0.000	0.000	0.000	0.000	0.000	0.000
2023	10	134,976.097	860.735	5,061.046	120,024.108	0.000	0.000	0.000	0.000	0.000	0.000
2023	11	130,184.491	5,222.899	705.868	118,995.916	0.000	0.000	0.000	0.000	0.000	0.000
2023	12	151,734.075	14,757.793	110.653	130,058.417	0.000	0.000	0.000	0.000	0.000	0.000
2024	1	163,691.679	23,826.591	23.879	133,788.682	-754.685	0.000	0.000	0.000	0.000	0.000
2024	2	151,795.166	23,450.904	2.672	120,479.413	0.000	1,054.964	0.000	0.000	0.000	0.000
2024	3	140,924.903	16,781.586	71.675	118,232.618	0.000	0.000	-968.188	0.000	0.000	0.000
2024	4	135,102.860	8,698.234	746.138	121,828.370	0.000	0.000	0.000	-2,977.095	0.000	0.000
2024	5	132,135.240	2,180.901	2,481.706	120,294.896	0.000	0.000	0.000	0.000	370.524	0.000
2024	6	141,358.790	246.005	8,035.651	126,446.636	0.000	0.000	0.000	0.000	0.000	-176.714
2024	7	150,873.578	1.249	16,861.059	124,629.220	0.000	0.000	0.000	0.000	0.000	0.000
2024	8	150,059.733	0.000	19,487.420	118,616.706	0.000	0.000	0.000	0.000	0.000	0.000
2024	9	152,588.584	9.397	15,940.658	123,939.590	0.000	0.000	0.000	0.000	0.000	0.000
2024	10	136,491.677	862.779	5,079.078	121,519.614	0.000	0.000	0.000	0.000	0.000	0.000
2024	11	131,677.532	5,235.111	708.358	120,474.256	0.000	0.000	0.000	0.000	0.000	0.000
2024	12	153,378.837	14,791.702	111.039	131,668.883	0.000	0.000	0.000	0.000	0.000	0.000
2025	1	165,388.438	23,891.689	23.954	135,420.269	-754.685	0.000	0.000	0.000	0.000	0.000
2025	2	153,323.246	23,514.123	2.680	121,944.267	0.000	1,054.964	0.000	0.000	0.000	0.000
2025	3	142,402.820	16,826.199	71.893	119,665.704	0.000	0.000	-968.188	0.000	0.000	0.000
2025	4	136,592.384	8,720.535	748.337	123,293.395	0.000	0.000	0.000	-2,977.095	0.000	0.000
2025	5	133,590.055	2,186.412	2,488.927	121,736.979	0.000	0.000	0.000	0.000	370.524	0.000
2025	6	142,892.990	246.617	8,058.700	127,957.176	0.000	0.000	0.000	0.000	0.000	-176.714
2025	7	152,397.665	1.252	16,907.872	126,106.491	0.000	0.000	0.000	0.000	0.000	0.000
2025	8	151,514.300	0.000	19,540.749	120,017.945	0.000	0.000	0.000	0.000	0.000	0.000
2025	9	154,091.324	9.419	15,983.713	125,399.254	0.000	0.000	0.000	0.000	0.000	0.000
2025	10	137,927.098	864.702	5,092.343	122,939.846	0.000	0.000	0.000	0.000	0.000	0.000
2025	11	133,094.406	5,246.588	710.182	121,877.829	0.000	0.000	0.000	0.000	0.000	0.000
2025	12	154,939.529	14,823.529	111.320	133,197.467	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2026	1	166,987.478	23,964.643	24.042	136,946.266	-754.685	0.000	0.000	0.000	0.000	0.000
2026	2	154,765.206	23,585.283	2.690	123,315.057	0.000	1,054.964	0.000	0.000	0.000	0.000
2026	3	143,795.340	16,876.650	72.155	121,007.511	0.000	0.000	-968.188	0.000	0.000	0.000
2026	4	137,995.675	8,746.157	751.016	124,668.386	0.000	0.000	0.000	-2,977.095	0.000	0.000
2026	5	134,959.513	2,192.776	2,497.770	123,091.232	0.000	0.000	0.000	0.000	370.524	0.000
2026	6	144,341.560	247.327	8,087.082	129,376.653	0.000	0.000	0.000	0.000	0.000	-176.714
2026	7	153,847.470	1.255	16,966.399	127,497.765	0.000	0.000	0.000	0.000	0.000	0.000
2026	8	152,901.875	0.000	19,607.810	121,338.458	0.000	0.000	0.000	0.000	0.000	0.000
2026	9	155,522.147	9.445	16,038.142	126,775.621	0.000	0.000	0.000	0.000	0.000	0.000
2026	10	139,289.031	867.044	5,109.403	124,282.378	0.000	0.000	0.000	0.000	0.000	0.000
2026	11	134,438.430	5,260.654	712.542	123,205.427	0.000	0.000	0.000	0.000	0.000	0.000
2026	12	156,426.026	14,862.821	111.687	134,644.306	0.000	0.000	0.000	0.000	0.000	0.000
2027	1	168,527.577	24,043.383	24.121	138,407.546	-754.685	0.000	0.000	0.000	0.000	0.000
2027	2	156,156.846	23,662.507	2.699	124,629.464	0.000	1,054.964	0.000	0.000	0.000	0.000
2027	3	145,139.017	16,931.711	72.388	122,295.894	0.000	0.000	-968.188	0.000	0.000	0.000
2027	4	139,351.365	8,774.520	753.433	125,993.294	0.000	0.000	0.000	-2,977.095	0.000	0.000
2027	5	136,281.309	2,199.861	2,505.781	124,397.931	0.000	0.000	0.000	0.000	370.524	0.000
2027	6	145,739.908	248.123	8,112.913	130,748.375	0.000	0.000	0.000	0.000	0.000	-176.714
2027	7	155,251.451	1.259	17,020.357	128,847.785	0.000	0.000	0.000	0.000	0.000	0.000
2027	8	154,247.276	0.000	19,669.925	122,621.744	0.000	0.000	0.000	0.000	0.000	0.000
2027	9	156,912.180	9.475	16,088.771	128,114.995	0.000	0.000	0.000	0.000	0.000	0.000
2027	10	140,619.626	869.793	5,125.480	125,594.145	0.000	0.000	0.000	0.000	0.000	0.000
2027	11	135,756.271	5,277.274	714.776	124,504.413	0.000	0.000	0.000	0.000	0.000	0.000
2027	12	157,891.010	14,909.589	112.036	136,062.173	0.000	0.000	0.000	0.000	0.000	0.000
2028	1	170,013.773	24,109.476	24.160	139,827.610	-754.685	0.000	0.000	0.000	0.000	0.000
2028	2	157,503.533	23,728.018	2.703	125,910.636	0.000	1,054.964	0.000	0.000	0.000	0.000
2028	3	146,446.022	16,978.928	72.510	123,555.560	0.000	0.000	-968.188	0.000	0.000	0.000
2028	4	140,677.350	8,799.151	754.710	127,293.373	0.000	0.000	0.000	-2,977.095	0.000	0.000
2028	5	137,577.937	2,206.080	2,510.075	125,684.045	0.000	0.000	0.000	0.000	370.524	0.000
2028	6	147,109.404	248.830	8,126.998	132,103.079	0.000	0.000	0.000	0.000	0.000	-176.714
2028	7	156,615.839	1.263	17,049.887	130,182.639	0.000	0.000	0.000	0.000	0.000	0.000
2028	8	155,554.794	0.000	19,704.469	123,894.719	0.000	0.000	0.000	0.000	0.000	0.000
2028	9	158,273.218	9.502	16,117.331	129,447.447	0.000	0.000	0.000	0.000	0.000	0.000
2028	10	141,935.358	872.291	5,134.497	126,898.363	0.000	0.000	0.000	0.000	0.000	0.000
2028	11	137,068.132	5,292.534	716.047	125,799.743	0.000	0.000	0.000	0.000	0.000	0.000
2028	12	159,353.179	14,953.025	112.237	137,480.705	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2029	1	171,495.459	24,168.430	24.204	141,250.298	-754.685	0.000	0.000	0.000	0.000	0.000
2029	2	158,848.428	23,786.950	2.708	127,196.593	0.000	1,054.964	0.000	0.000	0.000	0.000
2029	3	147,755.799	17,021.766	72.648	124,822.361	0.000	0.000	-968.188	0.000	0.000	0.000
2029	4	142,005.482	8,821.311	756.142	128,597.912	0.000	0.000	0.000	-2,977.095	0.000	0.000
2029	5	138,881.408	2,211.722	2,514.937	126,977.013	0.000	0.000	0.000	0.000	370.524	0.000
2029	6	148,490.934	249.477	8,143.093	133,467.866	0.000	0.000	0.000	0.000	0.000	-176.714
2029	7	157,998.465	1.266	17,084.102	131,531.047	0.000	0.000	0.000	0.000	0.000	0.000
2029	8	156,883.640	0.000	19,744.832	125,183.201	0.000	0.000	0.000	0.000	0.000	0.000
2029	9	159,657.955	9.528	16,150.947	130,798.542	0.000	0.000	0.000	0.000	0.000	0.000
2029	10	143,279.355	874.694	5,145.453	128,229.002	0.000	0.000	0.000	0.000	0.000	0.000
2029	11	138,408.422	5,307.313	717.602	127,123.699	0.000	0.000	0.000	0.000	0.000	0.000
2029	12	160,848.600	14,995.415	112.486	138,933.487	0.000	0.000	0.000	0.000	0.000	0.000
2030	1	172,984.278	24,225.094	24.226	142,682.430	-754.685	0.000	0.000	0.000	0.000	0.000
2030	2	160,198.293	23,843.416	2.711	128,489.990	0.000	1,054.964	0.000	0.000	0.000	0.000
2030	3	149,069.820	17,062.684	72.718	126,095.393	0.000	0.000	-968.188	0.000	0.000	0.000
2030	4	143,347.233	8,843.040	756.925	129,917.151	0.000	0.000	0.000	-2,977.095	0.000	0.000
2030	5	140,196.014	2,217.235	2,517.615	128,283.426	0.000	0.000	0.000	0.000	370.524	0.000
2030	6	149,878.171	250.107	8,152.035	134,845.532	0.000	0.000	0.000	0.000	0.000	-176.714
2030	7	159,385.826	1.270	17,104.107	132,898.399	0.000	0.000	0.000	0.000	0.000	0.000
2030	8	158,212.750	0.000	19,768.578	126,488.565	0.000	0.000	0.000	0.000	0.000	0.000
2030	9	161,045.524	9.553	16,170.829	132,166.204	0.000	0.000	0.000	0.000	0.000	0.000
2030	10	144,639.255	877.087	5,152.184	129,579.776	0.000	0.000	0.000	0.000	0.000	0.000
2030	11	139,766.902	5,321.991	718.562	128,466.542	0.000	0.000	0.000	0.000	0.000	0.000
2030	12	162,362.825	15,037.370	112.640	140,405.603	0.000	0.000	0.000	0.000	0.000	0.000
2031	1	174,708.785	24,311.556	24.301	144,320.401	-754.685	0.000	0.000	0.000	0.000	0.000
2031	2	161,758.374	23,928.505	2.719	129,964.974	0.000	1,054.964	0.000	0.000	0.000	0.000
2031	3	150,578.360	17,123.567	72.941	127,542.828	0.000	0.000	-968.188	0.000	0.000	0.000
2031	4	144,874.820	8,874.746	759.253	131,410.704	0.000	0.000	0.000	-2,977.095	0.000	0.000
2031	5	141,686.398	2,225.184	2,525.358	129,758.121	0.000	0.000	0.000	0.000	370.524	0.000
2031	6	151,454.170	251.003	8,177.099	136,395.570	0.000	0.000	0.000	0.000	0.000	-176.714
2031	7	160,964.935	1.274	17,156.566	134,425.045	0.000	0.000	0.000	0.000	0.000	0.000
2031	8	159,726.284	0.000	19,829.195	127,941.482	0.000	0.000	0.000	0.000	0.000	0.000
2031	9	162,613.176	9.587	16,220.403	133,684.247	0.000	0.000	0.000	0.000	0.000	0.000
2031	10	146,142.381	880.196	5,167.823	131,064.155	0.000	0.000	0.000	0.000	0.000	0.000
2031	11	141,259.475	5,340.852	720.742	129,938.073	0.000	0.000	0.000	0.000	0.000	0.000
2031	12	164,024.619	15,090.651	112.982	142,013.774	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2032	1	176,448.194	24,396.504	24.373	145,974.790	-754.685	0.000	0.000	0.000	0.000	0.000
2032	2	163,328.628	24,011.622	2.727	131,452.103	0.000	1,054.964	0.000	0.000	0.000	0.000
2032	3	152,094.390	17,182.684	73.155	128,999.526	0.000	0.000	-968.188	0.000	0.000	0.000
2032	4	146,401.855	8,904.965	761.452	132,905.320	0.000	0.000	0.000	-2,977.095	0.000	0.000
2032	5	143,174.237	2,232.714	2,532.617	131,231.170	0.000	0.000	0.000	0.000	370.524	0.000
2032	6	153,023.466	251.847	8,200.411	137,940.710	0.000	0.000	0.000	0.000	0.000	-176.714
2032	7	162,530.600	1.278	17,204.796	135,942.475	0.000	0.000	0.000	0.000	0.000	0.000
2032	8	161,222.868	0.000	19,884.485	129,382.776	0.000	0.000	0.000	0.000	0.000	0.000
2032	9	164,161.333	9.619	16,265.298	135,187.478	0.000	0.000	0.000	0.000	0.000	0.000
2032	10	147,630.452	883.063	5,182.019	132,535.163	0.000	0.000	0.000	0.000	0.000	0.000
2032	11	142,734.324	5,358.131	722.707	131,393.679	0.000	0.000	0.000	0.000	0.000	0.000
2032	12	165,660.905	15,139.117	113.287	143,601.289	0.000	0.000	0.000	0.000	0.000	0.000
2033	1	178,167.386	24,474.910	24.439	147,615.510	-754.685	0.000	0.000	0.000	0.000	0.000
2033	2	164,881.800	24,088.561	2.735	132,928.328	0.000	1,054.964	0.000	0.000	0.000	0.000
2033	3	153,596.887	17,237.574	73.352	130,446.937	0.000	0.000	-968.188	0.000	0.000	0.000
2033	4	147,924.714	8,933.483	763.502	134,397.612	0.000	0.000	0.000	-2,977.095	0.000	0.000
2033	5	144,660.383	2,239.842	2,539.413	132,703.391	0.000	0.000	0.000	0.000	370.524	0.000
2033	6	154,592.182	252.648	8,222.329	139,486.707	0.000	0.000	0.000	0.000	0.000	-176.714
2033	7	164,101.983	1.282	17,250.980	137,467.670	0.000	0.000	0.000	0.000	0.000	0.000
2033	8	162,726.300	0.000	19,937.658	130,833.036	0.000	0.000	0.000	0.000	0.000	0.000
2033	9	165,718.780	9.649	16,308.644	136,701.549	0.000	0.000	0.000	0.000	0.000	0.000
2033	10	149,133.107	885.876	5,195.890	134,021.133	0.000	0.000	0.000	0.000	0.000	0.000
2033	11	144,225.205	5,375.153	724.635	132,865.610	0.000	0.000	0.000	0.000	0.000	0.000
2033	12	167,316.317	15,187.053	113.588	145,208.464	0.000	0.000	0.000	0.000	0.000	0.000
2034	1	179,912.245	24,553.324	24.505	149,281.889	-754.685	0.000	0.000	0.000	0.000	0.000
2034	2	166,460.646	24,165.902	2.742	134,429.825	0.000	1,054.964	0.000	0.000	0.000	0.000
2034	3	155,126.942	17,293.040	73.551	131,921.328	0.000	0.000	-968.188	0.000	0.000	0.000
2034	4	149,482.579	8,962.721	765.612	135,924.129	0.000	0.000	0.000	-2,977.095	0.000	0.000
2034	5	146,182.982	2,247.189	2,546.449	134,211.608	0.000	0.000	0.000	0.000	370.524	0.000
2034	6	156,202.278	253.479	8,245.174	141,073.127	0.000	0.000	0.000	0.000	0.000	-176.714
2034	7	165,726.235	1.287	17,300.335	139,042.564	0.000	0.000	0.000	0.000	0.000	0.000
2034	8	164,283.403	0.000	19,994.853	132,332.943	0.000	0.000	0.000	0.000	0.000	0.000
2034	9	167,333.854	9.682	16,355.542	138,269.692	0.000	0.000	0.000	0.000	0.000	0.000
2034	10	150,703.076	888.967	5,211.370	135,572.532	0.000	0.000	0.000	0.000	0.000	0.000
2034	11	145,785.139	5,393.943	726.799	134,404.589	0.000	0.000	0.000	0.000	0.000	0.000
2034	12	169,052.980	15,240.265	113.928	146,891.574	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2035	1	181,755.088	24,641.825	24.581	151,036.154	-754.685	0.000	0.000	0.000	0.000	0.000
2035	2	168,127.679	24,253.036	2.751	136,009.717	0.000	1,054.964	0.000	0.000	0.000	0.000
2035	3	156,740.112	17,355.413	73.778	133,471.897	0.000	0.000	-968.188	0.000	0.000	0.000
2035	4	151,127.881	8,995.841	768.051	137,533.871	0.000	0.000	0.000	-2,977.095	0.000	0.000
2035	5	147,789.047	2,255.496	2,554.565	135,801.250	0.000	0.000	0.000	0.000	370.524	0.000
2035	6	157,900.631	254.416	8,271.465	142,744.252	0.000	0.000	0.000	0.000	0.000	-176.714
2035	7	167,438.220	1.292	17,356.569	140,698.310	0.000	0.000	0.000	0.000	0.000	0.000
2035	8	165,924.470	0.000	20,059.876	133,908.988	0.000	0.000	0.000	0.000	0.000	0.000
2035	9	169,034.035	9.718	16,408.751	139,916.627	0.000	0.000	0.000	0.000	0.000	0.000
2035	10	152,342.584	892.339	5,228.485	137,191.553	0.000	0.000	0.000	0.000	0.000	0.000
2035	11	147,413.262	5,414.414	729.187	136,009.854	0.000	0.000	0.000	0.000	0.000	0.000
2035	12	170,865.853	15,298.127	114.303	148,646.211	0.000	0.000	0.000	0.000	0.000	0.000
2036	1	183,662.965	24,735.551	24.662	152,850.226	-754.685	0.000	0.000	0.000	0.000	0.000
2036	2	169,852.874	24,345.184	2.760	137,642.754	0.000	1,054.964	0.000	0.000	0.000	0.000
2036	3	158,408.234	17,421.282	74.021	135,073.906	0.000	0.000	-968.188	0.000	0.000	0.000
2036	4	152,813.884	9,029.896	770.568	139,183.303	0.000	0.000	0.000	-2,977.095	0.000	0.000
2036	5	149,434.022	2,264.025	2,562.924	137,429.337	0.000	0.000	0.000	0.000	370.524	0.000
2036	6	159,639.280	255.377	8,298.491	144,454.913	0.000	0.000	0.000	0.000	0.000	-176.714
2036	7	169,176.421	1.296	17,412.772	142,380.303	0.000	0.000	0.000	0.000	0.000	0.000
2036	8	167,589.578	0.000	20,124.745	135,509.226	0.000	0.000	0.000	0.000	0.000	0.000
2036	9	170,758.548	9.755	16,461.749	141,588.105	0.000	0.000	0.000	0.000	0.000	0.000
2036	10	153,996.609	895.644	5,245.187	138,825.571	0.000	0.000	0.000	0.000	0.000	0.000
2036	11	149,055.023	5,434.447	731.513	137,629.255	0.000	0.000	0.000	0.000	0.000	0.000
2036	12	172,691.949	15,354.663	114.667	150,415.407	0.000	0.000	0.000	0.000	0.000	0.000
2037	1	185,574.210	24,825.793	24.739	154,671.150	-754.685	0.000	0.000	0.000	0.000	0.000
2037	2	171,580.696	24,433.889	2.768	139,281.862	0.000	1,054.964	0.000	0.000	0.000	0.000
2037	3	160,079.724	17,484.675	74.252	136,681.772	0.000	0.000	-968.188	0.000	0.000	0.000
2037	4	154,497.806	9,062.266	772.937	140,832.486	0.000	0.000	0.000	-2,977.095	0.000	0.000
2037	5	151,077.738	2,272.130	2,570.793	139,057.078	0.000	0.000	0.000	0.000	370.524	0.000
2037	6	161,375.807	256.290	8,323.927	146,165.092	0.000	0.000	0.000	0.000	0.000	-176.714
2037	7	170,906.987	1.301	17,465.234	144,058.403	0.000	0.000	0.000	0.000	0.000	0.000
2037	8	169,246.509	0.000	20,185.272	137,105.630	0.000	0.000	0.000	0.000	0.000	0.000
2037	9	172,475.367	9.789	16,511.183	143,255.456	0.000	0.000	0.000	0.000	0.000	0.000
2037	10	155,641.801	898.738	5,260.632	140,452.224	0.000	0.000	0.000	0.000	0.000	0.000
2037	11	150,687.887	5,453.192	733.664	139,241.224	0.000	0.000	0.000	0.000	0.000	0.000
2037	12	174,506.078	15,407.542	115.003	152,176.320	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Pred	XHeat	XCool	XOther	Jan	Feb	Mar	Apr	May	Jun
2038	1	187,519.136	24,916.720	24.817	156,525.072	-754.685	0.000	0.000	0.000	0.000	0.000
2038	2	173,339.372	24,523.338	2.777	140,951.081	0.000	1,054.964	0.000	0.000	0.000	0.000
2038	3	161,781.748	17,548.653	74.486	138,319.584	0.000	0.000	-968.188	0.000	0.000	0.000
2038	4	156,213.282	9,094.968	775.333	142,512.865	0.000	0.000	0.000	-2,977.095	0.000	0.000
2038	5	152,752.848	2,280.325	2,578.756	140,716.030	0.000	0.000	0.000	0.000	370.524	0.000
2038	6	163,145.962	257.214	8,349.693	147,908.557	0.000	0.000	0.000	0.000	0.000	-176.714
2038	7	172,671.648	1.306	17,518.465	145,769.828	0.000	0.000	0.000	0.000	0.000	0.000
2038	8	170,936.570	0.000	20,246.757	138,734.206	0.000	0.000	0.000	0.000	0.000	0.000
2038	9	174,227.059	9.824	16,561.450	144,956.847	0.000	0.000	0.000	0.000	0.000	0.000
2038	10	157,321.262	901.884	5,276.368	142,112.802	0.000	0.000	0.000	0.000	0.000	0.000
2038	11	152,355.202	5,472.273	735.857	140,887.264	0.000	0.000	0.000	0.000	0.000	0.000
2038	12	176,358.990	15,461.429	115.347	153,975.002	0.000	0.000	0.000	0.000	0.000	0.000

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on	Heat
1996	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	30,018.052
1996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	26,895.130
1996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18,201.664
1996	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12,954.380
1996	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,806.889
1996	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	405.242
1996	7	2,574.838	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1996	8	0.000	5,148.395	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1996	9	0.000	0.000	5,891.727	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1996	10	0.000	0.000	0.000	2,222.995	0.000	0.000	0.000	0.000	0.000	870.874
1996	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	0.000	0.000	0.000	7,012.318
1996	12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19,214.472
1997	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	21,176.718
1997	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	23,050.987
1997	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12,482.432
1997	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8,255.462
1997	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3,755.438
1997	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	596.035
1997	7	2,574.838	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1997	8	0.000	5,148.395	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1997	9	0.000	0.000	5,891.727	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1997	10	0.000	0.000	0.000	2,222.995	0.000	0.000	0.000	0.000	0.000	613.098
1997	11	0.000	0.000	0.000	0.000	-1,547.405	-13,018.647	0.000	0.000	0.000	8,484.779
1997	12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	17,796.446
1998	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19,154.893
1998	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18,276.663
1998	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	14,388.018
1998	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8,674.683
1998	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,280.961
1998	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	29.844
1998	7	2,574.838	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12.811
1998	8	0.000	5,148.395	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1998	9	0.000	0.000	5,891.727	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1998	10	0.000	0.000	0.000	2,222.995	0.000	0.000	0.000	0.000	0.000	241.758
1998	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	0.000	0.000	0.000	4,845.845
1998	12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	10,143.453

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on		Heat
1999	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		25,866.311
1999	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		16,244.649
1999	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		19,072.340
1999	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		10,187.419
1999	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		1,214.448
1999	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
1999	7	2,574.838	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
1999	8	0.000	5,148.395	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
1999	9	0.000	0.000	5,891.727	0.000	0.000	0.000	0.000	0.000	0.000		5.072
1999	10	0.000	0.000	0.000	2,222.995	0.000	0.000	0.000	0.000	0.000		553.734
1999	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	0.000	0.000	0.000		4,577.705
1999	12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		12,235.094
2000	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		22,284.608
2000	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		26,601.213
2000	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		10,154.521
2000	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		5,777.200
2000	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		2,129.599
2000	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		5.111
2000	7	2,574.838	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		0.000
2000	8	0.000	5,148.395	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		0.000
2000	9	0.000	0.000	5,891.727	0.000	0.000	0.000	0.000	0.000	2,047.706		25.115
2000	10	0.000	0.000	0.000	2,222.995	0.000	0.000	0.000	0.000	2,047.706		1,366.225
2000	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	0.000	0.000	2,047.706		4,649.755
2000	12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		22,461.752
2001	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		33,841.795
2001	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		23,616.016
2001	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		16,233.858
2001	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		11,542.311
2001	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		1,747.755
2001	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		108.448
2001	7	2,574.838	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		0.000
2001	8	0.000	5,148.395	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		0.000
2001	9	0.000	0.000	5,891.727	0.000	0.000	0.000	0.000	0.000	2,047.706		5.094
2001	10	0.000	0.000	0.000	2,222.995	0.000	0.000	0.000	0.000	2,047.706		1,042.317
2001	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	0.000	0.000	2,047.706		4,988.378
2001	12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706		7,084.592

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on	Heat
2002	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	24,039.747
2002	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	17,857.432
2002	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	15,596.626
2002	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	8,636.139
2002	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	2,268.904
2002	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	1,373.786
2002	7	2,574.838	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	0.000
2002	8	0.000	5,148.395	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	0.000
2002	9	0.000	0.000	5,891.727	0.000	0.000	0.000	0.000	0.000	2,047.706	0.000
2002	10	0.000	0.000	0.000	2,222.995	0.000	0.000	0.000	0.000	2,047.706	499.220
2002	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	0.000	0.000	2,047.706	6,090.769
2002	12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	19,893.400
2003	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	23,887.161
2003	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	30,061.931
2003	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	19,915.156
2003	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	5,436.233
2003	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	1,161.370
2003	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	0.000
2003	7	2,574.838	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	0.000
2003	8	0.000	5,148.395	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	0.000
2003	9	0.000	0.000	5,891.727	0.000	0.000	0.000	0.000	0.000	2,047.706	0.000
2003	10	0.000	0.000	0.000	2,222.995	0.000	0.000	0.000	0.000	2,047.706	1,381.453
2003	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	0.000	0.000	2,047.706	3,749.556
2003	12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	14,403.034
2004	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	23,586.265
2004	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	27,100.180
2004	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	15,584.560
2004	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	9,042.503
2004	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	2,166.362
2004	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	158.058
2004	7	2,574.838	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	0.000
2004	8	0.000	5,148.395	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	0.000
2004	9	0.000	0.000	5,891.727	0.000	0.000	0.000	0.000	0.000	2,047.706	0.000
2004	10	0.000	0.000	0.000	2,222.995	0.000	0.000	0.000	0.000	2,047.706	374.148
2004	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	0.000	0.000	2,047.706	2,346.498
2004	12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2,047.706	12,049.398

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on	Heat
2005	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	20,288.248
2005	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	22,086.977
2005	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	18,726.732
2005	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	9,011.432
2005	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	2,492.520
2005	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	362.591
2005	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	0.000
2005	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	0.000
2005	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	0.000	2,047.706	0.000
2005	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	0.000	2,047.706	213.874
2005	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	0.000	2,047.706	5,500.283
2005	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	19,979.154
2006	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	20,105.135
2006	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	15,439.447
2006	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	16,789.329
2006	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	8,780.528
2006	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	744.939
2006	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	148.589
2006	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	0.000
2006	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	0.000
2006	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	0.000	2,047.706	35.111
2006	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	0.000	2,047.706	1,400.197
2006	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	0.000	2,047.706	7,689.481
2006	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	13,007.530
2007	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	14,278.719
2007	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	25,556.321
2007	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	21,366.754
2007	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	7,838.650
2007	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	2,880.737
2007	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	120.008
2007	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	0.000
2007	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	0.000	2,047.706	0.000
2007	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2007	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	240.050
2007	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	4,755.068
2007	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,438.785

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on	Heat
2008	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	19,900.315
2008	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	21,552.606
2008	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	18,490.240
2008	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,577.629
2008	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1,840.230
2008	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	132.278
2008	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2008	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2008	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2008	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	305.041
2008	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,029.352
2008	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,199.837
2009	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	22,567.362
2009	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	22,206.992
2009	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	15,881.494
2009	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,214.931
2009	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,060.002
2009	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	232.362
2009	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.178
2009	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2009	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8.860
2009	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	813.085
2009	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	4,934.438
2009	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	13,939.139
2010	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	22,519.997
2010	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	22,174.606
2010	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	15,875.656
2010	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,245.812
2010	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,068.043
2010	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	233.288
2010	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.186
2010	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2010	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8.925
2010	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	820.094
2010	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	4,977.129
2010	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,065.993

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on	Heat
2011	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	22,684.587
2011	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	22,336.030
2011	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	15,990.492
2011	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,298.390
2011	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,081.446
2011	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	234.888
2011	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.193
2011	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2011	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8.987
2011	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	825.715
2011	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,011.948
2011	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,166.628
2012	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	22,892.967
2012	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	22,540.643
2012	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,136.557
2012	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,367.070
2012	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,098.691
2012	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	236.836
2012	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.203
2012	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2012	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.059
2012	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	832.276
2012	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,052.034
2012	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,280.777
2013	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,110.649
2013	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	22,746.568
2013	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,277.792
2013	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,439.186
2013	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,116.001
2013	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	238.691
2013	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.212
2013	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2013	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.121
2013	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	837.645
2013	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,082.821
2013	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,362.096

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on	Heat
2014	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,268.960
2014	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	22,902.744
2014	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,389.817
2014	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,496.382
2014	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,130.369
2014	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	240.315
2014	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.220
2014	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2014	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.181
2014	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	843.109
2014	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,115.986
2014	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,455.832
2015	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,370.768
2015	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,001.778
2015	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,459.828
2015	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,531.703
2015	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,139.109
2015	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	241.286
2015	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.225
2015	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2015	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.217
2015	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	846.425
2015	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,135.802
2015	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,510.864
2016	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,434.626
2016	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,064.215
2016	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,504.205
2016	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,556.234
2016	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,145.213
2016	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	241.969
2016	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.229
2016	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2016	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.244
2016	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	848.993
2016	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,151.260
2016	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,554.148

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on		Heat
2017	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		23,467.734
2017	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		23,096.198
2017	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		16,526.651
2017	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		8,567.462
2017	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		2,147.969
2017	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		242.272
2017	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		1.230
2017	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		0.000
2017	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		9.254
2017	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706		849.706
2017	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706		5,155.444
2017	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		14,565.525
2018	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		23,454.903
2018	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		23,082.910
2018	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		16,516.658
2018	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		8,560.569
2018	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		2,146.179
2018	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		242.063
2018	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		1.229
2018	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		0.000
2018	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		9.244
2018	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706		848.789
2018	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706		5,149.738
2018	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		14,548.950
2019	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		23,470.073
2019	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		23,097.159
2019	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		16,526.356
2019	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		8,565.924
2019	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		2,147.460
2019	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		242.199
2019	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		1.229
2019	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		0.000
2019	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		9.249
2019	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706		849.201
2019	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706		5,152.096
2019	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		14,555.166

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on	Heat
2020	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,517.771
2020	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,144.347
2020	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,560.301
2020	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,583.611
2020	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,151.916
2020	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	242.705
2020	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.232
2020	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2020	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.269
2020	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	851.058
2020	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,163.410
2020	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,587.290
2021	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,595.881
2021	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,222.785
2021	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,617.575
2021	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,614.033
2021	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,159.691
2021	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	243.600
2021	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.237
2021	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2021	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.305
2021	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	854.405
2021	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,184.070
2021	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,646.763
2022	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,690.330
2022	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,317.080
2022	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,686.032
2022	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,649.262
2022	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,168.650
2022	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	244.627
2022	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.242
2022	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2022	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.345
2022	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	858.090
2022	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,206.728
2022	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,711.721

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on	Heat
2023	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,760.282
2023	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,386.458
2023	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,736.068
2023	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,675.006
2023	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,175.155
2023	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	245.367
2023	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.246
2023	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2023	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.374
2023	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	860.735
2023	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,222.899
2023	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,757.793
2024	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,826.591
2024	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,450.904
2024	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,781.586
2024	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,698.234
2024	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,180.901
2024	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	246.005
2024	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.249
2024	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2024	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.397
2024	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	862.779
2024	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,235.111
2024	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,791.702
2025	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,891.689
2025	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,514.123
2025	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,826.199
2025	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,720.535
2025	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,186.412
2025	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	246.617
2025	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.252
2025	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2025	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.419
2025	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	864.702
2025	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,246.588
2025	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,823.529

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on	Heat
2026	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,964.643
2026	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,585.283
2026	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,876.650
2026	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,746.157
2026	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,192.776
2026	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	247.327
2026	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.255
2026	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2026	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.445
2026	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	867.044
2026	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,260.654
2026	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,862.821
2027	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,043.383
2027	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,662.507
2027	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,931.711
2027	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,774.520
2027	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,199.861
2027	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	248.123
2027	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.259
2027	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2027	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.475
2027	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	869.793
2027	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,277.274
2027	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,909.589
2028	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,109.476
2028	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,728.018
2028	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	16,978.928
2028	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,799.151
2028	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,206.080
2028	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	248.830
2028	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.263
2028	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2028	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.502
2028	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	872.291
2028	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,292.534
2028	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,953.025

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on	Heat
2029	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,168.430
2029	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,786.950
2029	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	17,021.766
2029	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,821.311
2029	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,211.722
2029	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	249.477
2029	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.266
2029	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2029	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.528
2029	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	874.694
2029	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,307.313
2029	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	14,995.415
2030	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,225.094
2030	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,843.416
2030	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	17,062.684
2030	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,843.040
2030	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,217.235
2030	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	250.107
2030	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.270
2030	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2030	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.553
2030	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	877.087
2030	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,321.991
2030	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	15,037.370
2031	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,311.556
2031	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	23,928.505
2031	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	17,123.567
2031	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,874.746
2031	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,225.184
2031	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	251.003
2031	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.274
2031	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2031	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.587
2031	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	880.196
2031	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,340.852
2031	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	15,090.651

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on	Heat
2032	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,396.504
2032	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,011.622
2032	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	17,182.684
2032	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,904.965
2032	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,232.714
2032	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	251.847
2032	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.278
2032	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2032	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.619
2032	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	883.063
2032	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,358.131
2032	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	15,139.117
2033	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,474.910
2033	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,088.561
2033	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	17,237.574
2033	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,933.483
2033	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,239.842
2033	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	252.648
2033	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.282
2033	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2033	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.649
2033	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	885.876
2033	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,375.153
2033	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	15,187.053
2034	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,553.324
2034	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,165.902
2034	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	17,293.040
2034	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	8,962.721
2034	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,247.189
2034	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	253.479
2034	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.287
2034	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2034	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.682
2034	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	888.967
2034	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,393.943
2034	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	15,240.265

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on		Heat
2035	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		24,641.825
2035	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		24,253.036
2035	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		17,355.413
2035	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		8,995.841
2035	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		2,255.496
2035	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		254.416
2035	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		1.292
2035	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		0.000
2035	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		9.718
2035	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706		892.339
2035	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706		5,414.414
2035	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		15,298.127
2036	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		24,735.551
2036	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		24,345.184
2036	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		17,421.282
2036	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		9,029.896
2036	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		2,264.025
2036	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		255.377
2036	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		1.296
2036	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		0.000
2036	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		9.755
2036	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706		895.644
2036	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706		5,434.447
2036	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		15,354.663
2037	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		24,825.793
2037	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		24,433.889
2037	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		17,484.675
2037	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		9,062.266
2037	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		2,272.130
2037	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		256.290
2037	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		1.301
2037	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		0.000
2037	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		9.789
2037	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706		898.738
2037	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706		5,453.192
2037	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706		15,407.542

Commercial Model Output

Year	Month	Jul	Aug	Sep	Oct	Nov	Nov97	D05on	Sep07on	D00on	Heat
2038	1	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,916.720
2038	2	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	24,523.338
2038	3	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	17,548.653
2038	4	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9,094.968
2038	5	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	2,280.325
2038	6	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	257.214
2038	7	2,574.838	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	1.306
2038	8	0.000	5,148.395	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	0.000
2038	9	0.000	0.000	5,891.727	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	9.824
2038	10	0.000	0.000	0.000	2,222.995	0.000	0.000	3,507.871	1,251.635	2,047.706	901.884
2038	11	0.000	0.000	0.000	0.000	-1,547.405	0.000	3,507.871	1,251.635	2,047.706	5,472.273
2038	12	0.000	0.000	0.000	0.000	0.000	0.000	3,507.871	1,251.635	2,047.706	15,461.429

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
1996	1	0.000	86467.0959437579	116,485.148	113206	30,018.052	0.000
1996	2	0.000	79646.0064986602	106,541.137	109167.3	26,895.130	0.000
1996	3	0.000	76181.8119799855	94,383.476	95628.28	18,201.664	0.000
1996	4	370.316	76620.3013545527	89,944.998	91701.17	12,954.380	370.316
1996	5	3,665.940	79023.4864942842	85,496.316	98296.37	2,806.889	3,665.940
1996	6	8,286.460	82525.2409943409	91,216.943	85395.12	405.242	8,286.460
1996	7	15,669.413	84319.9930742495	99,989.406	98462.36	0.000	15,669.413
1996	8	13,702.270	82983.1492798109	96,685.419	97278.15	0.000	13,702.270
1996	9	12,406.967	87246.8620661369	99,653.829	98444.86	0.000	12,406.967
1996	10	2,241.216	82389.8410157774	85,501.932	82694.94	870.874	2,241.216
1996	11	313.946	77970.7443846832	85,297.009	87310.54	7,012.318	313.946
1996	12	81.637	86939.4457080421	106,235.555	105129.3	19,214.472	81.637
1997	1	43.672	88795.6643680968	110,016.055	113474.4	21,176.718	43.672
1997	2	32.507	81742.4547854524	104,825.948	102454.9	23,050.987	32.507
1997	3	136.130	78292.4475826630	90,911.010	90988.45	12,482.432	136.130
1997	4	322.144	79146.5073414022	87,724.114	84898.02	8,255.462	322.144
1997	5	366.442	81506.7527422982	85,628.632	80429.33	3,755.438	366.442
1997	6	2,840.258	85142.6616062718	88,578.955	83911.03	596.035	2,840.258
1997	7	13,201.458	87064.3745032812	100,265.833	102380.7	0.000	13,201.458
1997	8	15,472.945	85594.9387357449	101,067.884	100758.8	0.000	15,472.945
1997	9	8,777.835	89982.2689353121	98,760.104	98072.33	0.000	8,777.835
1997	10	2,716.019	84969.8426003317	88,298.960	86935.31	613.098	2,716.019
1997	11	783.097	67505.4805665358	76,773.356	76773.36	8,484.779	783.097
1997	12	0.000	89766.6630187422	107,563.109	117640	17,796.446	0.000
1998	1	0.000	91481.0950030637	110,635.988	107446.7	19,154.893	0.000
1998	2	0.000	84147.1784826588	102,423.841	99409.46	18,276.663	0.000
1998	3	1.718	80589.1037047772	94,978.840	85160.54	14,388.018	1.718
1998	4	2,250.679	81232.3156007826	92,157.678	95019.6	8,674.683	2,250.679
1998	5	1,243.956	83557.4928844253	86,082.410	87043.62	1,280.961	1,243.956
1998	6	7,512.443	87289.9657531055	94,832.252	93873.46	29.844	7,512.443
1998	7	15,893.086	88933.2929692949	104,839.190	109127.9	12.811	15,893.086
1998	8	15,607.619	87377.2323654905	102,984.851	103820.2	0.000	15,607.619
1998	9	15,835.523	91858.6985971288	107,694.222	108251.8	0.000	15,835.523
1998	10	9,548.283	86661.5003318521	96,451.541	95623.33	241.758	9,548.283
1998	11	698.746	82231.1700268369	87,775.761	89644.24	4,845.845	698.746
1998	12	162.004	91570.6671632109	101,876.124	105092.9	10,143.453	162.004

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
1999	1	70.723	93254.0331483086	119,191.067	117449.2	25,866.311	70.723
1999	2	0.000	85724.7560142334	101,969.405	99527.09	16,244.649	0.000
1999	3	0.000	82150.2872859670	101,222.627	103864.9	19,072.340	0.000
1999	4	517.405	82694.9901099229	93,399.813	94106.93	10,187.419	517.405
1999	5	1,732.383	84961.6254261372	87,908.456	87169.35	1,214.448	1,732.383
1999	6	8,473.652	88765.5127364650	97,239.165	97019.42	0.000	8,473.652
1999	7	19,392.240	90177.2271044834	109,569.467	109599.4	0.000	19,392.240
1999	8	22,903.823	88552.3252011199	111,456.149	111619.7	0.000	22,903.823
1999	9	12,194.844	93067.8371199237	105,267.753	100983.5	5.072	12,194.844
1999	10	2,486.482	87578.1119870427	90,618.329	95125.92	553.734	2,486.482
1999	11	137.897	83052.0976556643	87,767.700	87415.28	4,577.705	137.897
1999	12	0.000	92504.5479193819	104,739.642	106592.8	12,235.094	0.000
2000	1	0.000	96040.2292200264	118,324.837	116047.5	22,284.608	0.000
2000	2	0.000	88445.2001114420	115,046.413	114186.4	26,601.213	0.000
2000	3	108.051	84846.9641131213	95,109.536	97738.7	10,154.521	108.051
2000	4	258.544	85370.2655848716	91,406.010	89933.02	5,777.200	258.544
2000	5	2,787.495	87649.3974732094	92,566.492	92491.05	2,129.599	2,787.495
2000	6	8,186.210	91460.5486530522	99,651.870	104856.5	5.111	8,186.210
2000	7	14,730.223	93069.8934599828	107,800.117	108139.4	0.000	14,730.223
2000	8	12,303.200	91412.0021232210	103,715.203	108808.6	0.000	12,303.200
2000	9	11,174.613	95991.4851657236	107,191.213	111962.6	25.115	11,174.613
2000	10	3,805.750	90965.8220388389	96,137.797	96372.65	1,366.225	3,805.750
2000	11	524.254	86502.7997562095	91,676.809	91910.57	4,649.755	524.254
2000	12	0.000	96049.0256270486	118,510.778	116962	22,461.752	0.000
2001	1	0.000	98218.5835439609	132,060.378	133855.1	33,841.795	0.000
2001	2	0.000	90454.7405534560	114,070.757	113503	23,616.016	0.000
2001	3	0.000	86859.7184985218	103,093.576	102783.4	16,233.858	0.000
2001	4	2,145.930	87936.0122228559	101,624.252	100194.2	11,542.311	2,145.930
2001	5	4,726.980	90204.4258765032	96,679.161	97747.04	1,747.755	4,726.980
2001	6	5,339.483	94213.0602960323	99,660.992	100454.1	108.448	5,339.483
2001	7	13,171.845	96134.4546471582	109,306.300	109764.2	0.000	13,171.845
2001	8	18,266.235	94315.0665876313	112,581.302	113401.7	0.000	18,266.235
2001	9	14,850.805	99019.9609283211	113,875.859	113736.6	5.094	14,850.805
2001	10	3,580.309	93983.5311471155	98,606.157	95920.9	1,042.317	3,580.309
2001	11	1,049.816	89431.4874790748	95,469.681	95928.18	4,988.378	1,049.816
2001	12	36.243	99270.0525500963	106,390.887	104780.7	7,084.592	36.243

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
2002	1	0.000	101405.7180360040	125,445.465	123908.8	24,039.747	0.000
2002	2	0.000	93279.3181716291	111,136.750	108018.6	17,857.432	0.000
2002	3	65.697	89611.7721851712	105,274.095	107309.8	15,596.626	65.697
2002	4	1,035.785	90599.5865384626	100,271.511	102537.2	8,636.139	1,035.785
2002	5	2,915.052	92839.5202951248	98,023.476	95971.43	2,268.904	2,915.052
2002	6	8,051.650	96979.9321313671	106,405.368	105281.5	1,373.786	8,051.650
2002	7	18,245.945	98639.7162129655	116,885.661	117418.6	0.000	18,245.945
2002	8	22,056.922	96725.4593132725	118,782.381	119368.2	0.000	22,056.922
2002	9	20,364.983	101524.0972277490	121,889.080	119695.3	0.000	20,364.983
2002	10	8,111.846	96260.5839813792	104,871.650	104899.3	499.220	8,111.846
2002	11	799.656	91780.2356679120	98,670.661	96109.99	6,090.769	799.656
2002	12	115.172	101822.0354156040	121,830.607	117232.4	19,893.400	115.172
2003	1	0.000	103929.6747392120	127,816.836	126690.5	23,887.161	0.000
2003	2	0.000	95554.5150230854	125,616.446	122779.6	30,061.931	0.000
2003	3	0.000	91839.8897075251	111,755.046	110450.6	19,915.156	0.000
2003	4	907.362	92789.3163511697	99,132.911	98087.84	5,436.233	907.362
2003	5	2,233.339	95002.0358162761	98,396.744	98693.05	1,161.370	2,233.339
2003	6	3,193.925	99249.6985711571	102,443.624	102213.9	0.000	3,193.925
2003	7	13,390.556	101608.0297235300	114,998.585	112755.6	0.000	13,390.556
2003	8	15,009.428	98320.8450427951	113,330.273	112586.7	0.000	15,009.428
2003	9	14,989.947	103192.5617453240	118,182.509	120287.9	0.000	14,989.947
2003	10	2,168.014	98724.5508715560	102,274.018	101482.9	1,381.453	2,168.014
2003	11	501.608	93129.5174610953	97,380.681	96076.45	3,749.556	501.608
2003	12	62.423	103487.4837437130	117,952.941	116012.2	14,403.034	62.423
2004	1	51.419	106045.0848094870	129,682.770	131261.2	23,586.265	51.419
2004	2	15.287	96531.5608831257	123,647.027	125201.7	27,100.180	15.287
2004	3	136.238	93595.0985483140	109,315.897	109248.1	15,584.560	136.238
2004	4	792.542	96188.0502793012	106,023.096	106039	9,042.503	792.542
2004	5	4,264.049	96498.8128321791	102,929.223	102893.6	2,166.362	4,264.049
2004	6	12,316.861	100918.6213528290	113,393.541	117520.1	158.058	12,316.861
2004	7	15,466.473	101933.5583202720	117,400.032	118976.1	0.000	15,466.473
2004	8	14,651.408	100592.8147314610	115,244.222	114443.8	0.000	14,651.408
2004	9	13,123.701	103353.3344003450	116,477.036	117319.1	0.000	13,123.701
2004	10	3,918.598	100114.8234875280	104,407.570	105855.6	374.148	3,918.598
2004	11	760.993	93751.6459950691	96,859.137	98814.81	2,346.498	760.993
2004	12	123.148	105859.4699349160	118,032.016	117815.6	12,049.398	123.148

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
2005	1	0.000	109703.3626322360	129,991.611	129923.7	20,288.248	0.000
2005	2	0.000	101755.2277334260	123,842.205	124572.2	22,086.977	0.000
2005	3	0.000	99110.9674702049	117,837.699	117738.9	18,726.732	0.000
2005	4	356.151	100441.7708968130	109,809.353	108703.5	9,011.432	356.151
2005	5	1,255.327	99619.7885805980	103,367.636	100091.5	2,492.520	1,255.327
2005	6	7,819.756	105371.0812189000	113,553.428	112547.9	362.591	7,819.756
2005	7	21,742.176	105766.1216561400	127,508.297	123433.6	0.000	21,742.176
2005	8	26,817.002	105094.4629363330	131,911.465	128530.4	0.000	26,817.002
2005	9	21,033.806	109677.6696053630	130,711.475	129452.7	0.000	21,033.806
2005	10	9,316.271	102248.6670944180	111,778.812	112861.1	213.874	9,316.271
2005	11	598.666	100393.7015980310	106,492.650	105939.3	5,500.283	598.666
2005	12	94.377	108711.0663560870	128,784.598	127394.4	19,979.154	94.377
2006	1	0.000	111425.1349350490	131,530.270	135491.9	20,105.135	0.000
2006	2	0.000	102839.9473558910	118,279.394	120935	15,439.447	0.000
2006	3	77.974	97012.5258280413	113,879.829	113477.4	16,789.329	77.974
2006	4	945.510	95604.5263164629	105,330.564	104629.6	8,780.528	945.510
2006	5	1,647.787	102379.0930105000	104,771.818	103898.1	744.939	1,647.787
2006	6	6,434.003	104915.8045290020	111,498.396	112025.5	148.589	6,434.003
2006	7	15,725.007	106596.2266139690	122,321.234	121843.9	0.000	15,725.007
2006	8	23,304.588	103275.0764732320	126,579.665	125800.4	0.000	23,304.588
2006	9	15,865.361	110567.5641071710	126,468.036	127451.4	35.111	15,865.361
2006	10	2,152.331	103151.4776761690	106,704.006	107090.5	1,400.197	2,152.331
2006	11	148.008	99084.6959658027	106,922.186	105875.3	7,689.481	148.008
2006	12	165.938	107543.9409506190	120,717.409	121307.3	13,007.530	165.938
2007	1	19.091	111659.2326602510	125,957.043	127171.8	14,278.719	19.091
2007	2	0.000	101681.0805031350	127,237.402	132079.6	25,556.321	0.000
2007	3	128.986	98759.8378077464	120,255.578	122153.4	21,366.754	128.986
2007	4	1,783.484	102518.5528286650	112,140.687	112596.6	7,838.650	1,783.484
2007	5	3,015.437	103334.1999201240	109,230.374	109476.2	2,880.737	3,015.437
2007	6	10,796.319	104024.6326271620	114,940.959	117861.1	120.008	10,796.319
2007	7	17,423.874	106012.5593114360	123,436.433	122280.2	0.000	17,423.874
2007	8	19,898.201	106053.2234937870	125,951.425	125107.3	0.000	19,898.201
2007	9	22,717.783	111400.7952390630	134,118.578	135178.8	0.000	22,717.783
2007	10	10,315.514	105487.1984615050	116,042.763	116735.4	240.050	10,315.514
2007	11	1,774.401	103112.6462781880	109,642.115	108929.7	4,755.068	1,774.401
2007	12	0.000	111224.8945632690	125,663.680	122828.8	14,438.785	0.000

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
2008	1	0.000	114877.6157175180	134,777.931	135988.5	19,900.315	0.000
2008	2	0.000	104426.3086040020	125,978.914	128780.7	21,552.606	0.000
2008	3	0.000	102722.3749419200	121,212.615	122687.3	18,490.240	0.000
2008	4	85.819	103555.1065285710	112,218.555	112736.8	8,577.629	85.819
2008	5	1,080.618	103518.3895798230	106,439.237	103319.4	1,840.230	1,080.618
2008	6	6,734.115	107616.3868651590	114,482.780	114938.7	132.278	6,734.115
2008	7	13,819.327	108871.5116927850	122,690.839	122829.4	0.000	13,819.327
2008	8	16,431.161	109666.2062955080	126,097.368	124863.6	0.000	16,431.161
2008	9	15,519.049	112169.9132833660	127,688.962	127141.7	0.000	15,519.049
2008	10	5,839.999	105180.8300194750	111,325.870	111421.5	305.041	5,839.999
2008	11	700.518	101762.7917475270	107,492.662	0	5,029.352	700.518
2008	12	109.729	112199.4752893460	126,509.042		14,199.837	109.729
2009	1	23.580	113581.6091193630	136,172.550		22,567.362	23.580
2009	2	2.638	104674.5048082490	126,884.135		22,206.992	2.638
2009	3	70.716	100786.4846314820	116,738.695		15,881.494	70.716
2009	4	734.660	101465.8816159810	110,415.472		8,214.931	734.660
2009	5	2,443.860	103597.6020983290	108,101.464		2,060.002	2,443.860
2009	6	7,912.927	107978.8642474300	116,124.154		232.362	7,912.927
2009	7	16,583.186	109151.2233242360	125,735.588		1.178	16,583.186
2009	8	19,157.342	106867.3867668700	126,024.729		0.000	19,157.342
2009	9	15,670.106	111866.3852351440	127,545.352		8.860	15,670.106
2009	10	4,990.170	106208.7151348340	112,011.970		813.085	4,990.170
2009	11	696.079	101619.1339102410	107,249.651		4,934.438	696.079
2009	12	109.091	112097.5754235570	126,145.805		13,939.139	109.091
2010	1	23.307	114253.6308122850	136,796.934		22,519.997	23.307
2010	2	2.609	105342.0723138380	127,519.287		22,174.606	2.609
2010	3	70.019	101545.6282596790	117,491.304		15,875.656	70.019
2010	4	730.421	102652.8061005090	111,629.039		8,245.812	730.421
2010	5	2,430.108	104783.7626603250	109,281.914		2,068.043	2,430.108
2010	6	7,869.039	109233.9925733100	117,336.320		233.288	7,869.039
2010	7	16,533.412	110645.2736446570	127,179.871		1.186	16,533.412
2010	8	19,107.865	108329.1687284200	127,437.034		0.000	19,107.865
2010	9	15,634.747	113426.6367903660	129,070.309		8.925	15,634.747
2010	10	4,985.406	107866.4730129100	113,671.973		820.094	4,985.406
2010	11	695.436	103265.9105371520	108,938.475		4,977.129	695.436
2010	12	109.038	113944.6622005970	128,119.694		14,065.993	109.038

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
2011	1	23.464	116406.4206932130	139,114.471		22,684.587	23.464
2011	2	2.627	107278.6992507590	129,617.356		22,336.030	2.627
2011	3	70.486	103442.5419896780	119,503.520		15,990.492	70.486
2011	4	734.660	104525.7196759520	113,558.770		8,298.390	734.660
2011	5	2,444.468	106643.9745611700	111,169.889		2,081.446	2,444.468
2011	6	7,918.479	111228.2689715890	119,381.635		234.888	7,918.479
2011	7	16,630.982	112574.3753715330	129,206.551		1.193	16,630.982
2011	8	19,228.649	110206.1036980610	129,434.753		0.000	19,228.649
2011	9	15,734.230	115392.6325432270	131,135.849		8.987	15,734.230
2011	10	5,016.725	109787.4557050590	115,629.896		825.715	5,016.725
2011	11	699.903	105184.8188962310	110,896.670		5,011.948	699.903
2011	12	109.756	116059.5648916570	130,335.949		14,166.628	109.756
2012	1	23.677	118428.3409324230	141,344.985		22,892.967	23.677
2012	2	2.650	109097.6787460530	131,640.972		22,540.643	2.650
2012	3	71.123	105225.7745602140	121,433.455		16,136.557	71.123
2012	4	740.677	106278.2434066120	115,385.990		8,367.070	740.677
2012	5	2,464.507	108375.9596291100	112,939.157		2,098.691	2,464.507
2012	6	7,983.468	113050.6224226520	121,270.926		236.836	7,983.468
2012	7	16,760.341	114327.5598484680	131,089.104		1.203	16,760.341
2012	8	19,379.248	111880.6649091670	131,259.913		0.000	19,379.248
2012	9	15,858.222	117147.9414932550	133,015.222		9.059	15,858.222
2012	10	5,056.148	111507.4071826370	117,395.830		832.276	5,056.148
2012	11	705.440	106895.9011160880	112,653.376		5,052.034	705.440
2012	12	110.631	117936.9063497430	132,328.314		14,280.777	110.631
2013	1	23.907	120511.4290198510	143,645.985		23,110.649	23.907
2013	2	2.675	110936.1675350620	133,685.411		22,746.568	2.675
2013	3	71.759	106992.2554825740	123,341.806		16,277.792	71.759
2013	4	747.201	108085.3483799690	117,271.736		8,439.186	747.201
2013	5	2,485.304	110123.1708847880	114,724.476		2,116.001	2,485.304
2013	6	8,047.516	114843.3604947170	123,129.568		238.691	8,047.516
2013	7	16,890.624	116069.0542349370	132,960.890		1.212	16,890.624
2013	8	19,522.308	113499.4207773430	133,021.729		0.000	19,522.308
2013	9	15,969.722	118802.9910023160	134,781.833		9.121	15,969.722
2013	10	5,089.724	113090.8733380450	119,018.242		837.645	5,089.724
2013	11	709.873	108429.7291112490	114,222.422		5,082.821	709.873
2013	12	111.282	119569.2128530380	134,042.590		14,362.096	111.282

Commercial Model Output

Year	Month	Cool	Other		Total		Actual		Heat	Cool
2014	1	24.078	122470.4449386920		145,763.482				23,268.960	24.078
2014	2	2.694	112701.9689073270		135,607.407				22,902.744	2.694
2014	3	72.274	108726.8056203720		125,188.896				16,389.817	72.274
2014	4	752.482	109862.0651859910		119,110.929				8,496.382	752.482
2014	5	2,502.898	111878.8482230180		116,512.114				2,130.369	2,502.898
2014	6	8,104.598	116690.3789793080		125,035.292				240.315	8,104.598
2014	7	17,008.013	117874.6101973970		134,883.843				1.220	17,008.013
2014	8	19,658.154	115218.8101086400		134,876.964				0.000	19,658.154
2014	9	16,080.969	120600.4164594880		136,690.567				9.181	16,080.969
2014	10	5,124.401	114837.5949379570		120,805.105				843.109	5,124.401
2014	11	714.710	110161.6487935990		115,992.345				5,115.986	714.710
2014	12	112.040	121462.3379803620		136,030.210				14,455.832	112.040
2015	1	24.134	124480.9321825320		147,875.834				23,370.768	24.134
2015	2	2.700	114507.0734174820		137,511.552				23,001.778	2.700
2015	3	72.435	110492.8335161820		127,025.097				16,459.828	72.435
2015	4	754.073	111669.7669547400		120,955.543				8,531.703	754.073
2015	5	2,508.055	113658.0763826410		118,305.240				2,139.109	2,508.055
2015	6	8,120.805	118553.8688810140		126,915.960				241.286	8,120.805
2015	7	17,041.379	119707.3765570650		136,749.980				1.225	17,041.379
2015	8	19,695.494	116956.7093091440		136,652.204				0.000	19,695.494
2015	9	16,110.618	122410.2694045320		138,530.104				9.217	16,110.618
2015	10	5,134.092	116617.4127151680		122,597.929				846.425	5,134.092
2015	11	716.019	111919.9147562450		117,771.736				5,135.802	716.019
2015	12	112.238	123376.3771860370		137,999.479				14,510.864	112.238
2016	1	24.144	126466.7979671330		149,925.568				23,434.626	24.144
2016	2	2.702	116293.4077911960		139,360.324				23,064.215	2.702
2016	3	72.463	112243.8656542490		128,820.534				16,504.205	72.463
2016	4	754.502	113493.7046298430		122,804.441				8,556.234	754.502
2016	5	2,509.427	115456.6919002940		120,111.332				2,145.213	2,509.427
2016	6	8,125.052	120441.6854128080		128,808.706				241.969	8,125.052
2016	7	17,052.833	121584.9680827140		138,639.030				1.229	17,052.833
2016	8	19,708.228	118740.9542218000		138,449.182				0.000	19,708.228
2016	9	16,120.664	124271.9956358830		140,401.904				9.244	16,120.664
2016	10	5,137.825	118454.4198732740		124,441.238				848.993	5,137.825
2016	11	716.523	113738.4641896450		119,606.247				5,151.260	716.523
2016	12	112.314	125360.6745960370		140,027.136				14,554.148	112.314

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
2017	1	24.121	128352.4600950050	151,844.315		23,467.734	24.121
2017	2	2.699	117988.5517737230	141,087.449		23,096.198	2.699
2017	3	72.390	113904.4485340570	130,503.489		16,526.651	72.390
2017	4	753.701	115199.8285351920	124,520.991		8,567.462	753.701
2017	5	2,506.693	117138.2584242880	121,792.921		2,147.969	2,506.693
2017	6	8,115.951	122205.6246328860	130,563.848		242.272	8,115.951
2017	7	17,031.353	123308.0664600750	140,340.649		1.230	17,031.353
2017	8	19,682.822	120377.6519786050	140,060.474		0.000	19,682.822
2017	9	16,099.457	125979.0804546040	142,087.791		9.254	16,099.457
2017	10	5,129.946	120104.3633429820	126,084.015		849.706	5,129.946
2017	11	715.404	115371.1387914660	121,241.987		5,155.444	715.404
2017	12	112.135	127141.3149835200	141,818.975		14,565.525	112.135
2018	1	24.004	130074.1391638430	153,553.046		23,454.903	24.004
2018	2	2.686	119535.6625188150	142,621.258		23,082.910	2.686
2018	3	72.035	115419.3950498530	132,008.089		16,516.658	72.035
2018	4	749.861	116738.5127563820	126,048.943		8,560.569	749.861
2018	5	2,493.852	118654.2618164960	123,294.294		2,146.179	2,493.852
2018	6	8,074.116	123795.2643353240	132,111.443		242.063	8,074.116
2018	7	16,941.481	124860.8430020260	141,803.553		1.229	16,941.481
2018	8	19,578.352	121852.0083396030	141,430.361		0.000	19,578.352
2018	9	16,013.564	127516.3192650990	143,539.127		9.244	16,013.564
2018	10	5,102.412	121608.0434193650	127,559.245		848.789	5,102.412
2018	11	711.545	116858.6626824400	122,719.945		5,149.738	711.545
2018	12	111.527	128763.1415820600	143,423.619		14,548.950	111.527
2019	1	23.923	131679.3975692420	155,173.394		23,470.073	23.923
2019	2	2.677	120977.7618769160	144,077.598		23,097.159	2.677
2019	3	71.787	116831.1169486050	133,429.259		16,526.356	71.787
2019	4	747.299	118197.5048325270	127,510.728		8,565.924	747.299
2019	5	2,485.259	120091.4937101830	124,724.212		2,147.460	2,485.259
2019	6	8,046.033	125302.0092373440	133,590.242		242.199	8,046.033
2019	7	16,882.690	126346.8308040140	143,230.750		1.229	16,882.690
2019	8	19,509.819	123262.7913764980	142,772.611		0.000	19,509.819
2019	9	15,957.077	128987.1270751210	144,953.453		9.249	15,957.077
2019	10	5,084.264	123046.8008423740	128,980.266		849.201	5,084.264
2019	11	708.994	118281.7919412330	124,142.882		5,152.096	708.994
2019	12	111.124	130314.5545452800	144,980.844		14,555.166	111.124

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
2020	1	23.835	133200.7743417070	156,742.381		23,517.771	23.835
2020	2	2.667	122348.8522359480	145,495.866		23,144.347	2.667
2020	3	71.527	118177.7024130620	134,809.530		16,560.301	71.527
2020	4	744.601	119586.2724419330	128,914.484		8,583.611	744.601
2020	5	2,476.312	121463.8071736970	126,092.035		2,151.916	2,476.312
2020	6	8,017.162	126745.7055887740	135,005.572		242.705	8,017.162
2020	7	16,822.558	127772.9154371340	144,596.705		1.232	16,822.558
2020	8	19,440.541	124621.1190634570	144,061.660		0.000	19,440.541
2020	9	15,900.569	130407.3820451640	146,317.220		9.269	15,900.569
2020	10	5,066.522	124445.2940678900	130,362.874		851.058	5,066.522
2020	11	706.527	119669.2154422280	125,539.153		5,163.410	706.527
2020	12	110.738	131832.0674912830	146,530.095		14,587.290	110.738
2021	1	23.804	134806.9563669710	158,426.642		23,595.881	23.804
2021	2	2.664	123802.9158305850	147,028.365		23,222.785	2.664
2021	3	71.442	119612.3517064080	136,301.368		16,617.575	71.442
2021	4	743.786	121074.5869830210	130,432.405		8,614.033	743.786
2021	5	2,473.769	122941.1550285200	127,574.616		2,159.691	2,473.769
2021	6	8,009.544	128307.7232922860	136,560.868		243.600	8,009.544
2021	7	16,807.754	129320.9333010920	146,129.924		1.237	16,807.754
2021	8	19,424.866	126102.6916774160	145,527.557		0.000	19,424.866
2021	9	15,888.795	131963.1349382170	147,861.235		9.305	15,888.795
2021	10	5,062.935	125974.5421921950	131,891.882		854.405	5,062.935
2021	11	706.075	121192.9921902490	127,083.138		5,184.070	706.075
2021	12	110.676	133506.7869816000	148,264.226		14,646.763	110.676
2022	1	23.782	136447.5083194840	160,161.620		23,690.330	23.782
2022	2	2.661	125286.9451850760	148,606.686		23,317.080	2.661
2022	3	71.384	121075.4245622720	137,832.840		16,686.032	71.384
2022	4	743.154	122578.7697544630	131,971.186		8,649.262	743.154
2022	5	2,471.812	124433.1646067940	129,073.627		2,168.650	2,471.812
2022	6	8,003.729	129883.9785964180	138,132.334		244.627	8,003.729
2022	7	16,795.280	130872.7095228700	147,669.232		1.242	16,795.280
2022	8	19,411.667	127586.7813207580	146,998.448		0.000	19,411.667
2022	9	15,878.890	133520.5341190770	149,408.769		9.345	15,878.890
2022	10	5,059.759	127501.1739965380	133,419.022		858.090	5,059.759
2022	11	705.672	122713.1873689470	128,625.587		5,206.728	705.672
2022	12	110.620	135176.3983281920	149,998.739		14,711.721	110.620

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
2023	1	23.785	138139.8432431100	161,923.910		23,760.282	23.785
2023	2	2.662	126813.6339791180	150,202.754		23,386.458	2.662
2023	3	71.396	122576.3672085800	139,383.831		16,736.068	71.396
2023	4	743.264	124122.7931433770	133,541.063		8,675.006	743.264
2023	5	2,472.236	125960.5130620130	130,607.905		2,175.155	2,472.236
2023	6	8,005.309	131492.6801080420	139,743.356		245.367	8,005.309
2023	7	16,798.560	132458.1439010760	149,257.949		1.246	16,798.560
2023	8	19,415.942	129098.6747615840	148,514.617		0.000	19,415.942
2023	9	15,882.742	135103.0298328850	150,995.146		9.374	15,882.742
2023	10	5,061.046	129054.3151871430	134,976.097		860.735	5,061.046
2023	11	705.868	124255.7237088160	130,184.491		5,222.899	705.868
2023	12	110.653	136865.6287633570	151,734.075		14,757.793	110.653
2024	1	23.879	139841.2089219980	163,691.679		23,826.591	23.879
2024	2	2.672	128341.5892535850	151,795.166		23,450.904	2.672
2024	3	71.675	124071.6421229010	140,924.903		16,781.586	71.675
2024	4	746.138	125658.4873851760	135,102.860		8,698.234	746.138
2024	5	2,481.706	127472.6319091490	132,135.240		2,180.901	2,481.706
2024	6	8,035.651	133077.1340963830	141,358.790		246.005	8,035.651
2024	7	16,861.059	134011.2699990480	150,873.578		1.249	16,861.059
2024	8	19,487.420	130572.3125703830	150,059.733		0.000	19,487.420
2024	9	15,940.658	136638.5291060980	152,588.584		9.397	15,940.658
2024	10	5,079.078	130549.8205472650	136,491.677		862.779	5,079.078
2024	11	708.358	125734.0633835190	131,677.532		5,235.111	708.358
2024	12	111.039	138476.0953216640	153,378.837		14,791.702	111.039
2025	1	23.954	141472.7957622800	165,388.438		23,891.689	23.954
2025	2	2.680	129806.4426760490	153,323.246		23,514.123	2.680
2025	3	71.893	125504.7281106530	142,402.820		16,826.199	71.893
2025	4	748.337	127123.5126219280	136,592.384		8,720.535	748.337
2025	5	2,488.927	128914.7154960050	133,590.055		2,186.412	2,488.927
2025	6	8,058.700	134587.6736137610	142,892.990		246.617	8,058.700
2025	7	16,907.872	135488.5411726750	152,397.665		1.252	16,907.872
2025	8	19,540.749	131973.5514488720	151,514.300		0.000	19,540.749
2025	9	15,983.713	138098.1926982930	154,091.324		9.419	15,983.713
2025	10	5,092.343	131970.0527715380	137,927.098		864.702	5,092.343
2025	11	710.182	127137.6363358270	133,094.406		5,246.588	710.182
2025	12	111.320	140004.6789099960	154,939.529		14,823.529	111.320

Commercial Model Output

Year	Month	Cool	Other		Total		Actual		Heat	Cool
2026	1	24.042	142998.7925406430		166,987.478				23,964.643	24.042
2026	2	2.690	131177.2327070610		154,765.206				23,585.283	2.690
2026	3	72.155	126846.5351795000		143,795.340				16,876.650	72.155
2026	4	751.016	128498.5027819500		137,995.675				8,746.157	751.016
2026	5	2,497.770	130268.9680335960		134,959.513				2,192.776	2,497.770
2026	6	8,087.082	136007.1511109450		144,341.560				247.327	8,087.082
2026	7	16,966.399	136879.8156512340		153,847.470				1.255	16,966.399
2026	8	19,607.810	133294.0648221870		152,901.875				0.000	19,607.810
2026	9	16,038.142	139474.5596730220		155,522.147				9.445	16,038.142
2026	10	5,109.403	133312.5847560030		139,289.031				867.044	5,109.403
2026	11	712.542	128465.2346814030		134,438.430				5,260.654	712.542
2026	12	111.687	141451.5182599410		156,426.026				14,862.821	111.687
2027	1	24.121	144460.0727983560		168,527.577				24,043.383	24.121
2027	2	2.699	132491.6402622860		156,156.846				23,662.507	2.699
2027	3	72.388	128134.9180043430		145,139.017				16,931.711	72.388
2027	4	753.433	129823.4111932810		139,351.365				8,774.520	753.433
2027	5	2,505.781	131575.6668417800		136,281.309				2,199.861	2,505.781
2027	6	8,112.913	137378.8728519290		145,739.908				248.123	8,112.913
2027	7	17,020.357	138229.8352123380		155,251.451				1.259	17,020.357
2027	8	19,669.925	134577.3510881170		154,247.276				0.000	19,669.925
2027	9	16,088.771	140813.9340210640		156,912.180				9.475	16,088.771
2027	10	5,125.480	134624.3523751300		140,619.626				869.793	5,125.480
2027	11	714.776	129764.2206747410		135,756.271				5,277.274	714.776
2027	12	112.036	142869.3851468090		157,891.010				14,909.589	112.036
2028	1	24.160	145880.1369413390		170,013.773				24,109.476	24.160
2028	2	2.703	133772.8116762000		157,503.533				23,728.018	2.703
2028	3	72.510	129394.5843288310		146,446.022				16,978.928	72.510
2028	4	754.710	131123.4899893230		140,677.350				8,799.151	754.710
2028	5	2,510.075	132861.7812794600		137,577.937				2,206.080	2,510.075
2028	6	8,126.998	138733.5763085040		147,109.404				248.830	8,126.998
2028	7	17,049.887	139564.6895740690		156,615.839				1.263	17,049.887
2028	8	19,704.469	135850.3254363030		155,554.794				0.000	19,704.469
2028	9	16,117.331	142146.3854403450		158,273.218				9.502	16,117.331
2028	10	5,134.497	135928.5698031260		141,935.358				872.291	5,134.497
2028	11	716.047	131059.5504230040		137,068.132				5,292.534	716.047
2028	12	112.237	144287.9169542190		159,353.179				14,953.025	112.237

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
2029	1	24.204	147302.8247947240	171,495.459		24,168.430	24.204
2029	2	2.708	135058.7689609600	158,848.428		23,786.950	2.708
2029	3	72.648	130661.3852014700	147,755.799		17,021.766	72.648
2029	4	756.142	132428.0287878590	142,005.482		8,821.311	756.142
2029	5	2,514.937	134154.7494275060	138,881.408		2,211.722	2,514.937
2029	6	8,143.093	140098.3639952300	148,490.934		249.477	8,143.093
2029	7	17,084.102	140913.0968718940	157,998.465		1.266	17,084.102
2029	8	19,744.832	137138.8076435100	156,883.640		0.000	19,744.832
2029	9	16,150.947	143497.4808114110	159,657.955		9.528	16,150.947
2029	10	5,145.453	137259.2085988600	143,279.355		874.694	5,145.453
2029	11	717.602	132383.5068559030	138,408.422		5,307.313	717.602
2029	12	112.486	145740.6994090160	160,848.600		14,995.415	112.486
2030	1	24.226	148734.9574498450	172,984.278		24,225.094	24.226
2030	2	2.711	136352.1660025140	160,198.293		23,843.416	2.711
2030	3	72.718	131934.4175843040	149,069.820		17,062.684	72.718
2030	4	756.925	133747.2677298920	143,347.233		8,843.040	756.925
2030	5	2,517.615	135461.1626620570	140,196.014		2,217.235	2,517.615
2030	6	8,152.035	141476.0295054060	149,878.171		250.107	8,152.035
2030	7	17,104.107	142280.4494346540	159,385.826		1.270	17,104.107
2030	8	19,768.578	138444.1714464290	158,212.750		0.000	19,768.578
2030	9	16,170.829	144865.1424146810	161,045.524		9.553	16,170.829
2030	10	5,152.184	138609.9833626270	144,639.255		877.087	5,152.184
2030	11	718.562	133726.3499774360	139,766.902		5,321.991	718.562
2030	12	112.640	147212.8154879980	162,362.825		15,037.370	112.640
2031	1	24.301	150372.9277427780	174,708.785		24,311.556	24.301
2031	2	2.719	137827.1495671420	161,758.374		23,928.505	2.719
2031	3	72.941	133381.8524146920	150,578.360		17,123.567	72.941
2031	4	759.253	135240.8212716760	144,874.820		8,874.746	759.253
2031	5	2,525.358	136935.8568270790	141,686.398		2,225.184	2,525.358
2031	6	8,177.099	143026.0675268160	151,454.170		251.003	8,177.099
2031	7	17,156.566	143807.0948569970	160,964.935		1.274	17,156.566
2031	8	19,829.195	139897.0888413290	159,726.284		0.000	19,829.195
2031	9	16,220.403	146383.1862383700	162,613.176		9.587	16,220.403
2031	10	5,167.823	140094.3615163460	146,142.381		880.196	5,167.823
2031	11	720.742	135197.8803796840	141,259.475		5,340.852	720.742
2031	12	112.982	148820.9866819340	164,024.619		15,090.651	112.982

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
2032	1	24.373	152027.3171037900	176,448.194		24,396.504	24.373
2032	2	2.727	139314.2791208080	163,328.628		24,011.622	2.727
2032	3	73.155	134838.5505937770	152,094.390		17,182.684	73.155
2032	4	761.452	136735.4375213770	146,401.855		8,904.965	761.452
2032	5	2,532.617	138408.9056909470	143,174.237		2,232.714	2,532.617
2032	6	8,200.411	144571.2078989540	153,023.466		251.847	8,200.411
2032	7	17,204.796	145324.5252724250	162,530.600		1.278	17,204.796
2032	8	19,884.485	141338.3829739360	161,222.868		0.000	19,884.485
2032	9	16,265.298	147886.4164032820	164,161.333		9.619	16,265.298
2032	10	5,182.019	141565.3703604450	147,630.452		883.063	5,182.019
2032	11	722.707	136653.4868334510	142,734.324		5,358.131	722.707
2032	12	113.287	150408.5010810600	165,660.905		15,139.117	113.287
2033	1	24.439	153668.0373595270	178,167.386		24,474.910	24.439
2033	2	2.735	140790.5041440980	164,881.800		24,088.561	2.735
2033	3	73.352	136285.9614132980	153,596.887		17,237.574	73.352
2033	4	763.502	138227.7287130850	147,924.714		8,933.483	763.502
2033	5	2,539.413	139881.1270785690	144,660.383		2,239.842	2,539.413
2033	6	8,222.329	146117.2052299260	154,592.182		252.648	8,222.329
2033	7	17,250.980	146849.7205506570	164,101.983		1.282	17,250.980
2033	8	19,937.658	142788.6422578560	162,726.300		0.000	19,937.658
2033	9	16,308.644	149400.4876447550	165,718.780		9.649	16,308.644
2033	10	5,195.890	143051.3401186050	149,133.107		885.876	5,195.890
2033	11	724.635	138125.4179020510	144,225.205		5,375.153	724.635
2033	12	113.588	152015.6759889480	167,316.317		15,187.053	113.588
2034	1	24.505	155334.4162396790	179,912.245		24,553.324	24.505
2034	2	2.742	142292.0013640120	166,460.646		24,165.902	2.742
2034	3	73.551	137760.3521731460	155,126.942		17,293.040	73.551
2034	4	765.612	139754.2460782650	149,482.579		8,962.721	765.612
2034	5	2,546.449	141389.3440384320	146,182.982		2,247.189	2,546.449
2034	6	8,245.174	147703.6251418740	156,202.278		253.479	8,245.174
2034	7	17,300.335	148424.6139047500	165,726.235		1.287	17,300.335
2034	8	19,994.853	144288.5495300350	164,283.403		0.000	19,994.853
2034	9	16,355.542	150968.6303692540	167,333.854		9.682	16,355.542
2034	10	5,211.370	144602.7394365690	150,703.076		888.967	5,211.370
2034	11	726.799	139664.3968716040	145,785.139		5,393.943	726.799
2034	12	113.928	153698.7862692400	169,052.980		15,240.265	113.928

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
2035	1	24.581	157088.6813903910	181,755.088		24,641.825	24.581
2035	2	2.751	143871.8926522360	168,127.679		24,253.036	2.751
2035	3	73.778	139310.9212892730	156,740.112		17,355.413	73.778
2035	4	768.051	141363.9883036360	151,127.881		8,995.841	768.051
2035	5	2,554.565	142978.9860017060	147,789.047		2,255.496	2,554.565
2035	6	8,271.465	149374.7497804880	157,900.631		254.416	8,271.465
2035	7	17,356.569	150080.3600846300	167,438.220		1.292	17,356.569
2035	8	20,059.876	145864.5943221250	165,924.470		0.000	20,059.876
2035	9	16,408.751	152615.5653075020	169,034.035		9.718	16,408.751
2035	10	5,228.485	146221.7598238680	152,342.584		892.339	5,228.485
2035	11	729.187	141269.6614869930	147,413.262		5,414.414	729.187
2035	12	114.303	155453.4233301200	170,865.853		15,298.127	114.303
2036	1	24.662	158902.7530098520	183,662.965		24,735.551	24.662
2036	2	2.760	145504.9303183500	169,852.874		24,345.184	2.760
2036	3	74.021	140912.9308385690	158,408.234		17,421.282	74.021
2036	4	770.568	143013.4199587750	152,813.884		9,029.896	770.568
2036	5	2,562.924	144607.0734958110	149,434.022		2,264.025	2,562.924
2036	6	8,298.491	151085.4110625940	159,639.280		255.377	8,298.491
2036	7	17,412.772	151762.3527654820	169,176.421		1.296	17,412.772
2036	8	20,124.745	147464.8327221980	167,589.578		0.000	20,124.745
2036	9	16,461.749	154287.0437460140	170,758.548		9.755	16,461.749
2036	10	5,245.187	147855.7774910520	153,996.609		895.644	5,245.187
2036	11	731.513	142889.0628172870	149,055.023		5,434.447	731.513
2036	12	114.667	157222.6194362760	172,691.949		15,354.663	114.667
2037	1	24.739	160723.6774716320	185,574.210		24,825.793	24.739
2037	2	2.768	147144.0384234420	171,580.696		24,433.889	2.768
2037	3	74.252	142520.7963753750	160,079.724		17,484.675	74.252
2037	4	772.937	144662.6029192820	154,497.806		9,062.266	772.937
2037	5	2,570.793	146234.8145938710	151,077.738		2,272.130	2,570.793
2037	6	8,323.927	152795.5897633320	161,375.807		256.290	8,323.927
2037	7	17,465.234	153440.4529745200	170,906.987		1.301	17,465.234
2037	8	20,185.272	149061.2370412020	169,246.509		0.000	20,185.272
2037	9	16,511.183	155954.3950731960	172,475.367		9.789	16,511.183
2037	10	5,260.632	149482.4307973840	155,641.801		898.738	5,260.632
2037	11	733.664	144501.0315342320	150,687.887		5,453.192	733.664
2037	12	115.003	158983.5320027900	174,506.078		15,407.542	115.003

Commercial Model Output

Year	Month	Cool	Other	Total	Actual	Heat	Cool
2038	1	24.817	162577.5994437500	187,519.136		24,916.720	24.817
2038	2	2.777	148813.2569999850	173,339.372		24,523.338	2.777
2038	3	74.486	144158.6087675850	161,781.748		17,548.653	74.486
2038	4	775.333	146342.9818580820	156,213.282		9,094.968	775.333
2038	5	2,578.756	147893.7665755890	152,752.848		2,280.325	2,578.756
2038	6	8,349.693	154539.0545159960	163,145.962		257.214	8,349.693
2038	7	17,518.465	155151.8780100090	172,671.648		1.306	17,518.465
2038	8	20,246.757	150689.8124455750	170,936.570		0.000	20,246.757
2038	9	16,561.450	157655.7857218670	174,227.059		9.824	16,561.450
2038	10	5,276.368	151143.0094232490	157,321.262		901.884	5,276.368
2038	11	735.857	146147.0710767990	152,355.202		5,472.273	735.857
2038	12	115.347	160782.2141039500	176,358.990		15,461.429	115.347

Commercial Model Output

Year	Month	Other	Total
1996	1	83187.9649749229	113,206.017
1996	2	82272.1466955832	109,167.277
1996	3	77426.6134102239	95,628.277
1996	4	78376.4698206297	91,701.166
1996	5	91823.5398929679	98,296.369
1996	6	76703.4192905902	85,395.121
1996	7	82792.9493170685	98,462.362
1996	8	83575.8823171502	97,278.152
1996	9	86037.8878994575	98,444.855
1996	10	79582.8464835970	82,694.937
1996	11	79984.2794442190	87,310.544
1996	12	85833.2185847171	105,129.328
1997	1	92253.9985335338	113,474.389
1997	2	79371.4473710934	102,454.941
1997	3	78369.8880606118	90,988.450
1997	4	76320.4156989429	84,898.022
1997	5	76307.4528286177	80,429.332
1997	6	80474.7359472363	83,911.029
1997	7	89179.2768616442	102,380.735
1997	8	85285.8651241769	100,758.810
1997	9	89294.4920963309	98,072.327
1997	10	83606.1927643782	86,935.310
1997	11	67505.4805665358	76,773.356
1997	12	99843.5395836922	117,639.986
1998	1	88291.7913861097	107,446.684
1998	2	81132.8009921488	99,409.464
1998	3	70770.8081219781	85,160.544
1998	4	84094.2327614314	95,019.595
1998	5	84518.7010577050	87,043.618
1998	6	86331.1733063985	93,873.460
1998	7	93222.0031689519	109,127.900
1998	8	88212.6089630405	103,820.228
1998	9	92416.2965508838	108,251.820
1998	10	85833.2892721767	95,623.330
1998	11	84099.6451494673	89,644.236
1998	12	94787.4677460339	105,092.925

Commercial Model Output

Year	Month	Other	Total
1999	1	91512.1799893996	117,449.214
1999	2	83282.4357331494	99,527.085
1999	3	84792.6008263650	103,864.941
1999	4	83402.1079463915	94,106.931
1999	5	84222.5215352479	87,169.352
1999	6	88545.7715928080	97,019.424
1999	7	90207.1620924624	109,599.402
1999	8	88715.9115931619	111,619.735
1999	9	88783.6248137827	100,983.541
1999	10	92085.7062401892	95,125.923
1999	11	82699.6748397639	87,415.277
1999	12	94357.7485583929	106,592.843
2000	1	93762.9183283944	116,047.526
2000	2	87585.2320058510	114,186.445
2000	3	87476.1256440580	97,738.698
2000	4	83897.2770607340	89,933.021
2000	5	87573.9588947214	92,491.053
2000	6	96665.1910332686	104,856.512
2000	7	93409.1326449458	108,139.356
2000	8	96505.3985200200	108,808.599
2000	9	100762.8428840060	111,962.571
2000	10	91200.6708770410	96,372.646
2000	11	86736.5605904816	91,910.570
2000	12	94500.2500870686	116,962.002
2001	1	100013.3042147400	133,855.099
2001	2	89886.9686237920	113,502.985
2001	3	86549.5810731418	102,783.439
2001	4	86505.9298178349	100,194.170
2001	5	91272.2998812823	97,747.035
2001	6	95006.1645659845	100,454.096
2001	7	96592.3556478552	109,764.201
2001	8	95135.4538286463	113,401.689
2001	9	98880.7005847142	113,736.599
2001	10	91298.2750960558	95,920.901
2001	11	89889.9811978073	95,928.175
2001	12	97659.8930952913	104,780.728

Commercial Model Output

Year	Month	Other	Total
2002	1	99869.1018204581	123,908.849
2002	2	90161.2004319371	108,018.632
2002	3	91647.5113416372	107,309.834
2002	4	92865.2739897456	102,537.198
2002	5	90787.4772062730	95,971.433
2002	6	95856.0442426611	105,281.480
2002	7	99172.6684931465	117,418.613
2002	8	97311.2294070755	119,368.151
2002	9	99330.3590484488	119,695.342
2002	10	96288.2387709482	104,899.305
2002	11	89219.5608829596	96,109.986
2002	12	97223.8241353062	117,232.396
2003	1	102803.3177088510	126,690.479
2003	2	92717.7144970394	122,779.645
2003	3	90535.4670459801	110,450.623
2003	4	91744.2443728736	98,087.839
2003	5	95298.3445542465	98,693.053
2003	6	99019.9898639851	102,213.915
2003	7	99365.0842941219	112,755.640
2003	8	97577.3032731811	112,586.731
2003	9	105297.9845354530	120,287.932
2003	10	97933.4773692570	101,482.944
2003	11	91825.2887645707	96,076.452
2003	12	101546.6959799630	116,012.153
2004	1	107623.5232121640	131,261.208
2004	2	98086.1854060647	125,201.652
2004	3	93527.2696174200	109,248.068
2004	4	96203.9812684882	106,039.027
2004	5	96463.2085914391	102,893.619
2004	6	105045.1366469250	117,520.056
2004	7	103509.5846347830	118,976.058
2004	8	99792.3733757840	114,443.781
2004	9	104195.3787774130	117,319.080
2004	10	101562.8649270730	105,855.611
2004	11	95707.3162712596	98,814.807
2004	12	105643.0062487110	117,815.552

Commercial Model Output

Year	Month	Other	Total
2005	1	109635.4986822060	129,923.747
2005	2	102485.1966402550	124,572.174
2005	3	99012.1220712859	117,738.854
2005	4	99335.9204633503	108,703.503
2005	5	96343.6184457340	100,091.466
2005	6	104365.5356974760	112,547.882
2005	7	101691.4242122630	123,433.600
2005	8	101713.4468249470	128,530.449
2005	9	108418.9104801440	129,452.716
2005	10	103330.9660125050	112,861.111
2005	11	99840.3946655412	105,939.343
2005	12	107320.9068047810	127,394.438
2006	1	115386.7298381620	135,491.865
2006	2	105495.5792595040	120,935.026
2006	3	96610.1034341583	113,477.407
2006	4	94903.5768941659	104,629.615
2006	5	101505.3798929470	103,898.105
2006	6	105442.9561882400	112,025.548
2006	7	106118.9199225610	121,843.927
2006	8	102495.7919730370	125,800.380
2006	9	111550.9044351340	127,451.376
2006	10	103537.9888931240	107,090.517
2006	11	98037.8102930006	105,875.300
2006	12	108133.8657541850	121,307.334
2007	1	112873.9700002680	127,171.780
2007	2	106523.2606429930	132,079.582
2007	3	100657.6849631290	122,153.425
2007	4	102974.5128517800	112,596.647
2007	5	103579.9995748990	109,476.174
2007	6	106944.7353906420	117,861.062
2007	7	104856.3698214220	122,280.244
2007	8	105209.1396689280	125,107.341
2007	9	112460.9823234800	135,178.765
2007	10	106179.8378398020	116,735.402
2007	11	102400.2301694960	108,929.699
2007	12	108390.0440062600	122,828.829

Commercial Model Output

Year	Month	Other	Total
2008	1	116088.2260677600	135,988.541
2008	2	107228.1264207850	128,780.732
2008	3	104197.0240439690	122,687.264
2008	4	104073.3590074660	112,736.807
2008	5	100398.5185754030	103,319.366
2008	6	108072.2935686300	114,938.687
2008	7	109010.0281783210	122,829.355
2008	8	108432.3977102580	124,863.559
2008	9	111622.6839916800	127,141.733
2008	10	105276.4261668410	111,421.466
2008	11	101762.7917475270	107,492.662
2008	12	112199.4752893460	126,509.042
2009	1	113581.6091193630	136,172.550
2009	2	104674.5048082490	126,884.135
2009	3	100786.4846314820	116,738.695
2009	4	101465.8816159810	110,415.472
2009	5	103597.6020983290	108,101.464
2009	6	107978.8642474300	116,124.154
2009	7	109151.2233242360	125,735.588
2009	8	106867.3867668700	126,024.729
2009	9	111866.3852351440	127,545.352
2009	10	106208.7151348340	112,011.970
2009	11	101619.1339102410	107,249.651
2009	12	112097.5754235570	126,145.805
2010	1	114253.6308122850	136,796.934
2010	2	105342.0723138380	127,519.287
2010	3	101545.6282596790	117,491.304
2010	4	102652.8061005090	111,629.039
2010	5	104783.7626603250	109,281.914
2010	6	109233.9925733100	117,336.320
2010	7	110645.2736446570	127,179.871
2010	8	108329.1687284200	127,437.034
2010	9	113426.6367903660	129,070.309
2010	10	107866.4730129100	113,671.973
2010	11	103265.9105371520	108,938.475
2010	12	113944.6622005970	128,119.694

Commercial Model Output

Year	Month	Other	Total
2011	1	116406.4206932130	139,114.471
2011	2	107278.6992507590	129,617.356
2011	3	103442.5419896780	119,503.520
2011	4	104525.7196759520	113,558.770
2011	5	106643.9745611700	111,169.889
2011	6	111228.2689715890	119,381.635
2011	7	112574.3753715330	129,206.551
2011	8	110206.1036980610	129,434.753
2011	9	115392.6325432270	131,135.849
2011	10	109787.4557050590	115,629.896
2011	11	105184.8188962310	110,896.670
2011	12	116059.5648916570	130,335.949
2012	1	118428.3409324230	141,344.985
2012	2	109097.6787460530	131,640.972
2012	3	105225.7745602140	121,433.455
2012	4	106278.2434066120	115,385.990
2012	5	108375.9596291100	112,939.157
2012	6	113050.6224226520	121,270.926
2012	7	114327.5598484680	131,089.104
2012	8	111880.6649091670	131,259.913
2012	9	117147.9414932550	133,015.222
2012	10	111507.4071826370	117,395.830
2012	11	106895.9011160880	112,653.376
2012	12	117936.9063497430	132,328.314
2013	1	120511.4290198510	143,645.985
2013	2	110936.1675350620	133,685.411
2013	3	106992.2554825740	123,341.806
2013	4	108085.3483799690	117,271.736
2013	5	110123.1708847880	114,724.476
2013	6	114843.3604947170	123,129.568
2013	7	116069.0542349370	132,960.890
2013	8	113499.4207773430	133,021.729
2013	9	118802.9910023160	134,781.833
2013	10	113090.8733380450	119,018.242
2013	11	108429.7291112490	114,222.422
2013	12	119569.2128530380	134,042.590

Commercial Model Output

Year	Month	Other	Total
2014	1	122470.4449386920	145,763.482
2014	2	112701.9689073270	135,607.407
2014	3	108726.8056203720	125,188.896
2014	4	109862.0651859910	119,110.929
2014	5	111878.8482230180	116,512.114
2014	6	116690.3789793080	125,035.292
2014	7	117874.6101973970	134,883.843
2014	8	115218.8101086400	134,876.964
2014	9	120600.4164594880	136,690.567
2014	10	114837.5949379570	120,805.105
2014	11	110161.6487935990	115,992.345
2014	12	121462.3379803620	136,030.210
2015	1	124480.9321825320	147,875.834
2015	2	114507.0734174820	137,511.552
2015	3	110492.8335161820	127,025.097
2015	4	111669.7669547400	120,955.543
2015	5	113658.0763826410	118,305.240
2015	6	118553.8688810140	126,915.960
2015	7	119707.3765570650	136,749.980
2015	8	116956.7093091440	136,652.204
2015	9	122410.2694045320	138,530.104
2015	10	116617.4127151680	122,597.929
2015	11	111919.9147562450	117,771.736
2015	12	123376.3771860370	137,999.479
2016	1	126466.7979671330	149,925.568
2016	2	116293.4077911960	139,360.324
2016	3	112243.8656542490	128,820.534
2016	4	113493.7046298430	122,804.441
2016	5	115456.6919002940	120,111.332
2016	6	120441.6854128080	128,808.706
2016	7	121584.9680827140	138,639.030
2016	8	118740.9542218000	138,449.182
2016	9	124271.9956358830	140,401.904
2016	10	118454.4198732740	124,441.238
2016	11	113738.4641896450	119,606.247
2016	12	125360.6745960370	140,027.136

Commercial Model Output

Year	Month	Other	Total
2017	1	128352.4600950050	151,844.315
2017	2	117988.5517737230	141,087.449
2017	3	113904.4485340570	130,503.489
2017	4	115199.8285351920	124,520.991
2017	5	117138.2584242880	121,792.921
2017	6	122205.6246328860	130,563.848
2017	7	123308.0664600750	140,340.649
2017	8	120377.6519786050	140,060.474
2017	9	125979.0804546040	142,087.791
2017	10	120104.3633429820	126,084.015
2017	11	115371.1387914660	121,241.987
2017	12	127141.3149835200	141,818.975
2018	1	130074.1391638430	153,553.046
2018	2	119535.6625188150	142,621.258
2018	3	115419.3950498530	132,008.089
2018	4	116738.5127563820	126,048.943
2018	5	118654.2618164960	123,294.294
2018	6	123795.2643353240	132,111.443
2018	7	124860.8430020260	141,803.553
2018	8	121852.0083396030	141,430.361
2018	9	127516.3192650990	143,539.127
2018	10	121608.0434193650	127,559.245
2018	11	116858.6626824400	122,719.945
2018	12	128763.1415820600	143,423.619
2019	1	131679.3975692420	155,173.394
2019	2	120977.7618769160	144,077.598
2019	3	116831.1169486050	133,429.259
2019	4	118197.5048325270	127,510.728
2019	5	120091.4937101830	124,724.212
2019	6	125302.0092373440	133,590.242
2019	7	126346.8308040140	143,230.750
2019	8	123262.7913764980	142,772.611
2019	9	128987.1270751210	144,953.453
2019	10	123046.8008423740	128,980.266
2019	11	118281.7919412330	124,142.882
2019	12	130314.5545452800	144,980.844

Commercial Model Output

Year	Month	Other	Total
2020	1	133200.7743417070	156,742.381
2020	2	122348.8522359480	145,495.866
2020	3	118177.7024130620	134,809.530
2020	4	119586.2724419330	128,914.484
2020	5	121463.8071736970	126,092.035
2020	6	126745.7055887740	135,005.572
2020	7	127772.9154371340	144,596.705
2020	8	124621.1190634570	144,061.660
2020	9	130407.3820451640	146,317.220
2020	10	124445.2940678900	130,362.874
2020	11	119669.2154422280	125,539.153
2020	12	131832.0674912830	146,530.095
2021	1	134806.9563669710	158,426.642
2021	2	123802.9158305850	147,028.365
2021	3	119612.3517064080	136,301.368
2021	4	121074.5869830210	130,432.405
2021	5	122941.1550285200	127,574.616
2021	6	128307.7232922860	136,560.868
2021	7	129320.9333010920	146,129.924
2021	8	126102.6916774160	145,527.557
2021	9	131963.1349382170	147,861.235
2021	10	125974.5421921950	131,891.882
2021	11	121192.9921902490	127,083.138
2021	12	133506.7869816000	148,264.226
2022	1	136447.5083194840	160,161.620
2022	2	125286.9451850760	148,606.686
2022	3	121075.4245622720	137,832.840
2022	4	122578.7697544630	131,971.186
2022	5	124433.1646067940	129,073.627
2022	6	129883.9785964180	138,132.334
2022	7	130872.7095228700	147,669.232
2022	8	127586.7813207580	146,998.448
2022	9	133520.5341190770	149,408.769
2022	10	127501.1739965380	133,419.022
2022	11	122713.1873689470	128,625.587
2022	12	135176.3983281920	149,998.739

Commercial Model Output

Year	Month	Other	Total
2023	1	138139.8432431100	161,923.910
2023	2	126813.6339791180	150,202.754
2023	3	122576.3672085800	139,383.831
2023	4	124122.7931433770	133,541.063
2023	5	125960.5130620130	130,607.905
2023	6	131492.6801080420	139,743.356
2023	7	132458.1439010760	149,257.949
2023	8	129098.6747615840	148,514.617
2023	9	135103.0298328850	150,995.146
2023	10	129054.3151871430	134,976.097
2023	11	124255.7237088160	130,184.491
2023	12	136865.6287633570	151,734.075
2024	1	139841.2089219980	163,691.679
2024	2	128341.5892535850	151,795.166
2024	3	124071.6421229010	140,924.903
2024	4	125658.4873851760	135,102.860
2024	5	127472.6319091490	132,135.240
2024	6	133077.1340963830	141,358.790
2024	7	134011.2699990480	150,873.578
2024	8	130572.3125703830	150,059.733
2024	9	136638.5291060980	152,588.584
2024	10	130549.8205472650	136,491.677
2024	11	125734.0633835190	131,677.532
2024	12	138476.0953216640	153,378.837
2025	1	141472.7957622800	165,388.438
2025	2	129806.4426760490	153,323.246
2025	3	125504.7281106530	142,402.820
2025	4	127123.5126219280	136,592.384
2025	5	128914.7154960050	133,590.055
2025	6	134587.6736137610	142,892.990
2025	7	135488.5411726750	152,397.665
2025	8	131973.5514488720	151,514.300
2025	9	138098.1926982930	154,091.324
2025	10	131970.0527715380	137,927.098
2025	11	127137.6363358270	133,094.406
2025	12	140004.6789099960	154,939.529

Commercial Model Output

Year	Month	Other	Total
2026	1	142998.7925406430	166,987.478
2026	2	131177.2327070610	154,765.206
2026	3	126846.5351795000	143,795.340
2026	4	128498.5027819500	137,995.675
2026	5	130268.9680335960	134,959.513
2026	6	136007.1511109450	144,341.560
2026	7	136879.8156512340	153,847.470
2026	8	133294.0648221870	152,901.875
2026	9	139474.5596730220	155,522.147
2026	10	133312.5847560030	139,289.031
2026	11	128465.2346814030	134,438.430
2026	12	141451.5182599410	156,426.026
2027	1	144460.0727983560	168,527.577
2027	2	132491.6402622860	156,156.846
2027	3	128134.9180043430	145,139.017
2027	4	129823.4111932810	139,351.365
2027	5	131575.6668417800	136,281.309
2027	6	137378.8728519290	145,739.908
2027	7	138229.8352123380	155,251.451
2027	8	134577.3510881170	154,247.276
2027	9	140813.9340210640	156,912.180
2027	10	134624.3523751300	140,619.626
2027	11	129764.2206747410	135,756.271
2027	12	142869.3851468090	157,891.010
2028	1	145880.1369413390	170,013.773
2028	2	133772.8116762000	157,503.533
2028	3	129394.5843288310	146,446.022
2028	4	131123.4899893230	140,677.350
2028	5	132861.7812794600	137,577.937
2028	6	138733.5763085040	147,109.404
2028	7	139564.6895740690	156,615.839
2028	8	135850.3254363030	155,554.794
2028	9	142146.3854403450	158,273.218
2028	10	135928.5698031260	141,935.358
2028	11	131059.5504230040	137,068.132
2028	12	144287.9169542190	159,353.179

Commercial Model Output

Year	Month	Other	Total
2029	1	147302.8247947240	171,495.459
2029	2	135058.7689609600	158,848.428
2029	3	130661.3852014700	147,755.799
2029	4	132428.0287878590	142,005.482
2029	5	134154.7494275060	138,881.408
2029	6	140098.3639952300	148,490.934
2029	7	140913.0968718940	157,998.465
2029	8	137138.8076435100	156,883.640
2029	9	143497.4808114110	159,657.955
2029	10	137259.2085988600	143,279.355
2029	11	132383.5068559030	138,408.422
2029	12	145740.6994090160	160,848.600
2030	1	148734.9574498450	172,984.278
2030	2	136352.1660025140	160,198.293
2030	3	131934.4175843040	149,069.820
2030	4	133747.2677298920	143,347.233
2030	5	135461.1626620570	140,196.014
2030	6	141476.0295054060	149,878.171
2030	7	142280.4494346540	159,385.826
2030	8	138444.1714464290	158,212.750
2030	9	144865.1424146810	161,045.524
2030	10	138609.9833626270	144,639.255
2030	11	133726.3499774360	139,766.902
2030	12	147212.8154879980	162,362.825
2031	1	150372.9277427780	174,708.785
2031	2	137827.1495671420	161,758.374
2031	3	133381.8524146920	150,578.360
2031	4	135240.8212716760	144,874.820
2031	5	136935.8568270790	141,686.398
2031	6	143026.0675268160	151,454.170
2031	7	143807.0948569970	160,964.935
2031	8	139897.0888413290	159,726.284
2031	9	146383.1862383700	162,613.176
2031	10	140094.3615163460	146,142.381
2031	11	135197.8803796840	141,259.475
2031	12	148820.9866819340	164,024.619

Commercial Model Output

Year	Month	Other	Total
2032	1	152027.3171037900	176,448.194
2032	2	139314.2791208080	163,328.628
2032	3	134838.5505937770	152,094.390
2032	4	136735.4375213770	146,401.855
2032	5	138408.9056909470	143,174.237
2032	6	144571.2078989540	153,023.466
2032	7	145324.5252724250	162,530.600
2032	8	141338.3829739360	161,222.868
2032	9	147886.4164032820	164,161.333
2032	10	141565.3703604450	147,630.452
2032	11	136653.4868334510	142,734.324
2032	12	150408.5010810600	165,660.905
2033	1	153668.0373595270	178,167.386
2033	2	140790.5041440980	164,881.800
2033	3	136285.9614132980	153,596.887
2033	4	138227.7287130850	147,924.714
2033	5	139881.1270785690	144,660.383
2033	6	146117.2052299260	154,592.182
2033	7	146849.7205506570	164,101.983
2033	8	142788.6422578560	162,726.300
2033	9	149400.4876447550	165,718.780
2033	10	143051.3401186050	149,133.107
2033	11	138125.4179020510	144,225.205
2033	12	152015.6759889480	167,316.317
2034	1	155334.4162396790	179,912.245
2034	2	142292.0013640120	166,460.646
2034	3	137760.3521731460	155,126.942
2034	4	139754.2460782650	149,482.579
2034	5	141389.3440384320	146,182.982
2034	6	147703.6251418740	156,202.278
2034	7	148424.6139047500	165,726.235
2034	8	144288.5495300350	164,283.403
2034	9	150968.6303692540	167,333.854
2034	10	144602.7394365690	150,703.076
2034	11	139664.3968716040	145,785.139
2034	12	153698.7862692400	169,052.980

Commercial Model Output

Year	Month	Other	Total
2035	1	157088.6813903910	181,755.088
2035	2	143871.8926522360	168,127.679
2035	3	139310.9212892730	156,740.112
2035	4	141363.9883036360	151,127.881
2035	5	142978.9860017060	147,789.047
2035	6	149374.7497804880	157,900.631
2035	7	150080.3600846300	167,438.220
2035	8	145864.5943221250	165,924.470
2035	9	152615.5653075020	169,034.035
2035	10	146221.7598238680	152,342.584
2035	11	141269.6614869930	147,413.262
2035	12	155453.4233301200	170,865.853
2036	1	158902.7530098520	183,662.965
2036	2	145504.9303183500	169,852.874
2036	3	140912.9308385690	158,408.234
2036	4	143013.4199587750	152,813.884
2036	5	144607.0734958110	149,434.022
2036	6	151085.4110625940	159,639.280
2036	7	151762.3527654820	169,176.421
2036	8	147464.8327221980	167,589.578
2036	9	154287.0437460140	170,758.548
2036	10	147855.7774910520	153,996.609
2036	11	142889.0628172870	149,055.023
2036	12	157222.6194362760	172,691.949
2037	1	160723.6774716320	185,574.210
2037	2	147144.0384234420	171,580.696
2037	3	142520.7963753750	160,079.724
2037	4	144662.6029192820	154,497.806
2037	5	146234.8145938710	151,077.738
2037	6	152795.5897633320	161,375.807
2037	7	153440.4529745200	170,906.987
2037	8	149061.2370412020	169,246.509
2037	9	155954.3950731960	172,475.367
2037	10	149482.4307973840	155,641.801
2037	11	144501.0315342320	150,687.887
2037	12	158983.5320027900	174,506.078

Commercial Model Output

Year	Month	Other	Total
2038	1	162577.5994437500	187,519.136
2038	2	148813.2569999850	173,339.372
2038	3	144158.6087675850	161,781.748
2038	4	146342.9818580820	156,213.282
2038	5	147893.7665755890	152,752.848
2038	6	154539.0545159960	163,145.962
2038	7	155151.8780100090	172,671.648
2038	8	150689.8124455750	170,936.570
2038	9	157655.7857218670	174,227.059
2038	10	151143.0094232490	157,321.262
2038	11	146147.0710767990	152,355.202
2038	12	160782.2141039500	176,358.990

LONG-TERM INDUSTRIAL

KENTUCKY POWER COMPANY
MANUFACTURING ENERGY SALES
ENDOGENOUS VARIABLES

The MEANS Procedure

Variable	Label	Mean
Year	Year	2011.00
qtr	Qtr	2.5000000
eix_KPC	BILLED KWH	477.7607459

KENTUCKY POWER COMPANY
MANUFACTURING ENERGY SALES
ENDOGENOUS VARIABLES

Obs	Year	qtr	eix_KPC
1	1984	1	394.166
2	1984	2	425.418
3	1984	3	416.813
4	1984	4	401.053
5	1985	1	404.892
6	1985	2	376.362
7	1985	3	380.363
8	1985	4	389.069
9	1986	1	369.196
10	1986	2	384.909
11	1986	3	371.79
12	1986	4	423.909
13	1987	1	416.029
14	1987	2	426.821
15	1987	3	439.361
16	1987	4	459.084
17	1988	1	465.237
18	1988	2	459.917
19	1988	3	461.157
20	1988	4	469.499
21	1989	1	432.185
22	1989	2	462.327
23	1989	3	466.852
24	1989	4	434.278
25	1990	1	451.081
26	1990	2	462.465
27	1990	3	474.41
28	1990	4	453.296
29	1991	1	419.746
30	1991	2	436.868
31	1991	3	457.964
32	1991	4	467.044
33	1992	1	453.359
34	1992	2	463.697
35	1992	3	418.721

KENTUCKY POWER COMPANY
MANUFACTURING ENERGY SALES
ENDOGENOUS VARIABLES

Obs	Year	qtr	eix_KPC
36	1992	4	425.945
37	1993	1	410.493
38	1993	2	428.008
39	1993	3	422.856
40	1993	4	440.35
41	1994	1	406.928
42	1994	2	447.181
43	1994	3	452.597
44	1994	4	456.828
45	1995	1	461.172
46	1995	2	465.619
47	1995	3	480.358
48	1995	4	499.167
49	1996	1	466.5376
50	1996	2	505.1213
51	1996	3	496.91
52	1996	4	512.88
53	1997	1	485.0344
54	1997	2	518.5505
55	1997	3	502.702
56	1997	4	515.3001
57	1998	1	512.6638
58	1998	2	511.972
59	1998	3	498.6361
60	1998	4	512.4991
61	1999	1	493.3401
62	1999	2	514.1082
63	1999	3	509.3708
64	1999	4	486.1343
65	2000	1	514.6993
66	2000	2	525.2301
67	2000	3	520.6051
68	2000	4	423.2581
69	2001	1	574.7948
70	2001	2	506.3418

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 ENDOGENOUS VARIABLES

Obs	Year	qtr	eix_KPC
71	2001	3	511.0436
72	2001	4	503.2418
73	2002	1	484.0097
74	2002	2	514.0115
75	2002	3	521.1192
76	2002	4	517.8729
77	2003	1	462.9655
78	2003	2	451.5476
79	2003	3	464.6368
80	2003	4	472.0778
81	2004	1	479.6856
82	2004	2	525.6148
83	2004	3	534.2463
84	2004	4	562.3145
85	2005	1	539.9523
86	2005	2	556.0351
87	2005	3	554.2378
88	2005	4	592.5148
89	2006	1	558.8453
90	2006	2	557.4881
91	2006	3	558.1671
92	2006	4	538.6313
93	2007	1	538.0318
94	2007	2	571.7799
95	2007	3	541.3841
96	2007	4	495.2472
97	2008	1	558.1297
98	2008	2	564.079
99	2008	3	575.8731
100	2008	4	.
101	2009	1	.
102	2009	2	.
103	2009	3	.
104	2009	4	.
105	2010	1	.

KENTUCKY POWeR COMPANY
MANUFACTURING ENERGY SALES
ENDOGENOUS VARIABLES

Obs	Year	qtr	eix_KPC
106	2010	2	.
107	2010	3	.
108	2010	4	.
109	2011	1	.
110	2011	2	.
111	2011	3	.
112	2011	4	.
113	2012	1	.
114	2012	2	.
115	2012	3	.
116	2012	4	.
117	2013	1	.
118	2013	2	.
119	2013	3	.
120	2013	4	.
121	2014	1	.
122	2014	2	.
123	2014	3	.
124	2014	4	.
125	2015	1	.
126	2015	2	.
127	2015	3	.
128	2015	4	.
129	2016	1	.
130	2016	2	.
131	2016	3	.
132	2016	4	.
133	2017	1	.
134	2017	2	.
135	2017	3	.
136	2017	4	.
137	2018	1	.
138	2018	2	.
139	2018	3	.
140	2018	4	.

KENTUCKY POWER COMPANY
MANUFACTURING ENERGY SALES
ENDOGENOUS VARIABLES

Obs	Year	qtr	eix_KPC
141	2019	1	.
142	2019	2	.
143	2019	3	.
144	2019	4	.
145	2020	1	.
146	2020	2	.
147	2020	3	.
148	2020	4	.
149	2021	1	.
150	2021	2	.
151	2021	3	.
152	2021	4	.
153	2022	1	.
154	2022	2	.
155	2022	3	.
156	2022	4	.
157	2023	1	.
158	2023	2	.
159	2023	3	.
160	2023	4	.
161	2024	1	.
162	2024	2	.
163	2024	3	.
164	2024	4	.
165	2025	1	.
166	2025	2	.
167	2025	3	.
168	2025	4	.
169	2026	1	.
170	2026	2	.
171	2026	3	.
172	2026	4	.
173	2027	1	.
174	2027	2	.
175	2027	3	.

KENTUCKY POWER COMPANY
MANUFACTURING ENERGY SALES
ENDOGENOUS VARIABLES

Obs	Year	qtr	eix_KPC
176	2027	4	.
177	2028	1	.
178	2028	2	.
179	2028	3	.
180	2028	4	.
181	2029	1	.
182	2029	2	.
183	2029	3	.
184	2029	4	.
185	2030	1	.
186	2030	2	.
187	2030	3	.
188	2030	4	.
189	2031	1	.
190	2031	2	.
191	2031	3	.
192	2031	4	.
193	2032	1	.
194	2032	2	.
195	2032	3	.
196	2032	4	.
197	2033	1	.
198	2033	2	.
199	2033	3	.
200	2033	4	.
201	2034	1	.
202	2034	2	.
203	2034	3	.
204	2034	4	.
205	2035	1	.
206	2035	2	.
207	2035	3	.
208	2035	4	.
209	2036	1	.
210	2036	2	.

KENTUCKY POWER COMPANY
MANUFACTURING ENERGY SALES
ENDOGENOUS VARIABLES

Obs	Year	qtr	eix_KPC
211	2036	3	.
212	2036	4	.
213	2037	1	.
214	2037	2	.
215	2037	3	.
216	2037	4	.
217	2038	1	.
218	2038	2	.
219	2038	3	.
220	2038	4	.

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 EXOGENOUS VARIABLES

The MEANS Procedure

Variable	Label	Mean
		2011.00
Year	Year	4.7634545
GPI_KY	KY IND. GAS PRICE, 1982 \$/MCF	2.5000000
qtr	Qtr	124.6113462
frb324	Petroleum and Coal Products (1997=100)	128.4683954
frb331	FRB IND. PROD.-PRIMARY METALS	2.3360965
PIX	AVE. MANUF. ELEC. PRICE, 1982 ¢/KWH	0.6545455
D030N	BINARY VARIABLE-2003 ON	0.6318182
d04q2on	BINARY VARIABLE-2004 2ND QTR ON	0.0045455
d054	BINARY VARIABLE-2004 4TH QTR	0.0045455
d004	BINARY VARIABLE-2000 4TH QTR	0.0045455
d011	BINARY VARIABLE-2001 1ST QTR	0.0045455

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 EXOGENOUS VARIABLES

Obs	Year	GPI_KY	qtr	frb324	frb331	PIX	D030N	d04q2on	d054	d004	d011
1	1984	4.23	1	84.2253	93.493	2.87770	0	0	0	0	0
2	1984	4.23	2	83.4318	96.496	2.91994	0	0	0	0	0
3	1984	4.23	3	82.0437	91.344	2.84804	0	0	0	0	0
4	1984	4.23	4	81.8625	87.761	3.13456	0	0	0	0	0
5	1985	4.25	1	80.7550	87.099	3.30031	0	0	0	0	0
6	1985	4.25	2	82.7271	85.157	3.36236	0	0	0	0	0
7	1985	4.25	3	81.5678	83.644	3.39482	0	0	0	0	0
8	1985	4.25	4	81.6296	84.954	3.32855	0	0	0	0	0
9	1986	3.92	1	81.0705	86.235	3.51845	0	0	0	0	0
10	1986	3.92	2	81.8698	83.651	3.40717	0	0	0	0	0
11	1986	3.92	3	80.9560	81.111	3.56977	0	0	0	0	0
12	1986	3.92	4	80.9876	81.750	3.41088	0	0	0	0	0
13	1987	3.30	1	82.6348	81.428	3.22470	0	0	0	0	0
14	1987	3.30	2	84.6848	87.546	3.15654	0	0	0	0	0
15	1987	3.30	3	85.6659	90.238	2.99131	0	0	0	0	0
16	1987	3.30	4	87.4304	99.427	2.85620	0	0	0	0	0
17	1988	3.22	1	88.6171	99.072	2.74171	0	0	0	0	0
18	1988	3.22	2	87.6291	99.418	2.80633	0	0	0	0	0
19	1988	3.22	3	86.8951	100.987	2.75214	0	0	0	0	0
20	1988	3.22	4	87.7231	101.209	2.80887	0	0	0	0	0
21	1989	3.29	1	87.6112	101.494	2.66097	0	0	0	0	0
22	1989	3.29	2	86.3572	99.006	2.62164	0	0	0	0	0
23	1989	3.29	3	86.9632	96.964	2.48684	0	0	0	0	0
24	1989	3.29	4	86.3099	94.213	2.82235	0	0	0	0	0
25	1990	3.10	1	88.3312	94.746	2.62396	0	0	0	0	0
26	1990	3.10	2	85.5846	97.651	2.63963	0	0	0	0	0
27	1990	3.10	3	88.3237	98.834	2.55552	0	0	0	0	0
28	1990	3.10	4	85.3838	95.516	2.55603	0	0	0	0	0
29	1991	2.77	1	85.2712	88.479	2.79624	0	0	0	0	0
30	1991	2.77	2	86.0310	88.217	2.70861	0	0	0	0	0
31	1991	2.77	3	86.2141	93.214	2.58220	0	0	0	0	0
32	1991	2.77	4	85.1291	93.146	2.42293	0	0	0	0	0
33	1992	2.76	1	84.9442	93.693	2.63219	0	0	0	0	0
34	1992	2.76	2	86.0572	93.352	2.60228	0	0	0	0	0
35	1992	2.76	3	84.3821	92.326	2.59599	0	0	0	0	0

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 EXOGENOUS VARIABLES

Obs	Year	GPI_KY	qtr	frb324	frb331	PIX	D030N	d04q2on	d054	d004	d011
36	1992	2.76	4	85.7026	92.609	2.50802	0	0	0	0	0
37	1993	3.08	1	85.1824	95.886	2.33207	0	0	0	0	0
38	1993	3.08	2	85.3543	96.721	2.27445	0	0	0	0	0
39	1993	3.08	3	85.1750	97.666	2.35946	0	0	0	0	0
40	1993	3.08	4	87.6652	99.622	2.36819	0	0	0	0	0
41	1994	3.02	1	85.8520	101.332	2.34858	0	0	0	0	0
42	1994	3.02	2	88.9181	105.043	2.31289	0	0	0	0	0
43	1994	3.02	3	88.4299	104.635	2.27947	0	0	0	0	0
44	1994	3.02	4	89.7957	108.497	2.32415	0	0	0	0	0
45	1995	2.61	1	90.3952	108.488	2.18430	0	0	0	0	0
46	1995	2.61	2	89.2151	105.335	2.16831	0	0	0	0	0
47	1995	2.61	3	90.3388	104.409	2.13669	0	0	0	0	0
48	1995	2.61	4	89.3493	105.883	2.19503	0	0	0	0	0
49	1996	3.03	1	90.8324	106.376	2.16042	0	0	0	0	0
50	1996	3.03	2	91.2961	108.080	2.09041	0	0	0	0	0
51	1996	3.03	3	92.1729	109.660	2.15384	0	0	0	0	0
52	1996	3.03	4	93.4979	110.382	2.05030	0	0	0	0	0
53	1997	3.28	1	93.6254	109.647	2.06727	0	0	0	0	0
54	1997	3.28	2	96.2501	111.789	2.03065	0	0	0	0	0
55	1997	3.28	3	95.4257	113.699	2.08223	0	0	0	0	0
56	1997	3.28	4	94.7172	117.876	2.02143	0	0	0	0	0
57	1998	3.21	1	93.1519	118.644	2.12369	0	0	0	0	0
58	1998	3.21	2	92.3186	115.629	2.09798	0	0	0	0	0
59	1998	3.21	3	93.0475	113.778	2.08952	0	0	0	0	0
60	1998	3.21	4	94.2204	112.939	2.17022	0	0	0	0	0
61	1999	2.65	1	97.0462	113.436	2.22920	0	0	0	0	0
62	1999	2.65	2	96.7001	113.942	2.17264	0	0	0	0	0
63	1999	2.65	3	97.2691	115.556	2.16665	0	0	0	0	0
64	1999	2.65	4	97.2635	117.405	2.21024	0	0	0	0	0
65	2000	3.63	1	96.5687	116.936	2.09480	0	0	0	0	0
66	2000	3.63	2	97.7338	113.571	2.13292	0	0	0	0	0
67	2000	3.63	3	97.3183	110.007	1.92185	0	0	0	0	0
68	2000	3.63	4	96.1949	105.164	1.77478	0	0	0	1	0
69	2001	4.85	1	95.6630	101.329	1.81395	0	0	0	0	1
70	2001	4.85	2	96.4712	102.103	1.84653	0	0	0	0	0

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 EXOGENOUS VARIABLES

Obs	Year	GPI_KY	qtr	frb324	frb331	PIX	D030N	d04q2on	d054	d004	d011
71	2001	4.85	3	96.183	100.286	1.78319	0	0	0	0	0
72	2001	4.85	4	97.173	94.069	2.14929	0	0	0	0	0
73	2002	3.53	1	100.516	97.584	2.18784	0	0	0	0	0
74	2002	3.53	2	100.555	100.895	1.98027	0	0	0	0	0
75	2002	3.53	3	99.541	101.653	2.03848	0	0	0	0	0
76	2002	3.53	4	99.388	99.869	2.02020	0	0	0	0	0
77	2003	4.73	1	98.508	98.144	1.99256	1	0	0	0	0
78	2003	4.73	2	96.038	96.977	1.99016	1	0	0	0	0
79	2003	4.73	3	96.688	96.706	2.08670	1	0	0	0	0
80	2003	4.73	4	100.245	104.383	2.09213	1	0	0	0	0
81	2004	5.03	1	101.988	105.016	1.96660	1	0	0	0	0
82	2004	5.03	2	104.410	109.014	2.02316	1	1	0	0	0
83	2004	5.03	3	106.945	113.234	2.10423	1	1	0	0	0
84	2004	5.03	4	110.715	112.853	2.19409	1	1	0	0	0
85	2005	6.29	1	111.780	110.046	2.14039	1	1	0	0	0
86	2005	6.29	2	113.320	104.676	2.14919	1	1	0	0	0
87	2005	6.29	3	108.534	105.495	2.25713	1	1	0	0	0
88	2005	6.29	4	106.609	111.652	2.19678	1	1	1	0	0
89	2006	5.85	1	109.766	113.607	2.20734	1	1	0	0	0
90	2006	5.85	2	108.486	115.676	2.41772	1	1	0	0	0
91	2006	5.85	3	111.632	113.453	2.31692	1	1	0	0	0
92	2006	5.85	4	108.973	106.918	2.34983	1	1	0	0	0
93	2007	4.76	1	109.877	108.751	2.39939	1	1	0	0	0
94	2007	4.76	2	108.128	110.057	2.22914	1	1	0	0	0
95	2007	4.76	3	108.408	111.262	2.29959	1	1	0	0	0
96	2007	4.76	4	108.456	111.267	2.31376	1	1	0	0	0
97	2008	6.00	1	110.559	113.853	2.19464	1	1	0	0	0
98	2008	6.00	2	110.505	110.030	2.23578	1	1	0	0	0
99	2008	6.00	3	110.766	110.480	2.45239	1	1	0	0	0
100	2008	6.00	4	111.170	111.210	2.59770	1	1	0	0	0
101	2009	4.46	1	111.705	111.910	2.04007	1	1	0	0	0
102	2009	4.46	2	112.315	112.410	2.20723	1	1	0	0	0
103	2009	4.46	3	112.986	112.810	2.43943	1	1	0	0	0
104	2009	4.46	4	113.574	113.520	2.57297	1	1	0	0	0
105	2010	4.58	1	114.158	114.220	1.81856	1	1	0	0	0

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 EXOGENOUS VARIABLES

Obs	Year	GPI_KY	qtr	frb324	frb331	PIX	D030N	d04q2on	d054	d004	d011
106	2010	4.58	2	114.760	114.710	1.98327	1	1	0	0	0
107	2010	4.58	3	115.352	115.120	2.21436	1	1	0	0	0
108	2010	4.58	4	115.967	115.830	2.36520	1	1	0	0	0
109	2011	4.55	1	116.586	116.540	1.85331	1	1	0	0	0
110	2011	4.55	2	117.216	117.040	2.01077	1	1	0	0	0
111	2011	4.55	3	117.834	117.440	2.23346	1	1	0	0	0
112	2011	4.55	4	118.433	118.150	2.37212	1	1	0	0	0
113	2012	4.62	1	119.024	118.870	1.84879	1	1	0	0	0
114	2012	4.62	2	119.608	119.350	2.00291	1	1	0	0	0
115	2012	4.62	3	120.207	119.750	2.22003	1	1	0	0	0
116	2012	4.62	4	120.804	120.460	2.35538	1	1	0	0	0
117	2013	4.60	1	121.407	121.190	1.85677	1	1	0	0	0
118	2013	4.60	2	122.002	121.670	2.00881	1	1	0	0	0
119	2013	4.60	3	122.670	122.060	2.22380	1	1	0	0	0
120	2013	4.60	4	123.326	122.900	2.35801	1	1	0	0	0
121	2014	4.66	1	123.982	123.630	1.85873	1	1	0	0	0
122	2014	4.66	2	124.570	124.100	2.00884	1	1	0	0	0
123	2014	4.66	3	125.138	124.490	2.22309	1	1	0	0	0
124	2014	4.66	4	125.706	125.220	2.35700	1	1	0	0	0
125	2015	4.71	1	126.293	125.950	1.86799	1	1	0	0	0
126	2015	4.71	2	126.941	126.420	2.01850	1	1	0	0	0
127	2015	4.71	3	127.589	126.800	2.23346	1	1	0	0	0
128	2015	4.71	4	128.250	127.530	2.36755	1	1	0	0	0
129	2016	4.77	1	128.901	128.270	1.88146	1	1	0	0	0
130	2016	4.77	2	129.516	128.740	2.03344	1	1	0	0	0
131	2016	4.77	3	130.141	129.110	2.25036	1	1	0	0	0
132	2016	4.77	4	130.792	129.840	2.38574	1	1	0	0	0
133	2017	4.85	1	131.451	130.600	1.89861	1	1	0	0	0
134	2017	4.85	2	132.117	131.060	2.05176	1	1	0	0	0
135	2017	4.85	3	132.750	131.430	2.27055	1	1	0	0	0
136	2017	4.85	4	133.384	132.280	2.40726	1	1	0	0	0
137	2018	4.97	1	134.028	133.150	1.92315	1	1	0	0	0
138	2018	4.97	2	134.673	133.720	2.07842	1	1	0	0	0
139	2018	4.97	3	135.301	134.200	2.30006	1	1	0	0	0
140	2018	4.97	4	135.950	134.940	2.43853	1	1	0	0	0

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 EXOGENOUS VARIABLES

Obs	Year	GPI_KY	qtr	frb324	frb331	PIX	D030N	d04q2on	d054	d004	d011
141	2019	5.06	1	136.605	135.700	1.95126	1	1	0	0	0
142	2019	5.06	2	137.217	136.150	2.10869	1	1	0	0	0
143	2019	5.06	3	137.830	136.520	2.33366	1	1	0	0	0
144	2019	5.06	4	138.458	137.260	2.47419	1	1	0	0	0
145	2020	5.01	1	139.106	138.020	1.96040	1	1	0	0	0
146	2020	5.01	2	139.722	138.590	2.11876	1	1	0	0	0
147	2020	5.01	3	140.317	139.060	2.34487	1	1	0	0	0
148	2020	5.01	4	140.927	139.930	2.48627	1	1	0	0	0
149	2021	4.89	1	141.572	140.800	1.95120	1	1	0	0	0
150	2021	4.89	2	142.198	141.370	2.10874	1	1	0	0	0
151	2021	4.89	3	142.880	141.830	2.33352	1	1	0	0	0
152	2021	4.89	4	143.544	142.710	2.47384	1	1	0	0	0
153	2022	4.98	1	144.238	143.580	1.95559	1	1	0	0	0
154	2022	4.98	2	144.926	144.140	2.11335	1	1	0	0	0
155	2022	4.98	3	145.606	144.600	2.33866	1	1	0	0	0
156	2022	4.98	4	146.290	145.490	2.47937	1	1	0	0	0
157	2023	4.98	1	147.001	146.360	1.96205	1	1	0	0	0
158	2023	4.98	2	147.692	146.920	2.12039	1	1	0	0	0
159	2023	4.98	3	148.373	147.380	2.34649	1	1	0	0	0
160	2023	4.98	4	149.049	148.270	2.48758	1	1	0	0	0
161	2024	5.17	1	149.744	149.140	1.97533	1	1	0	0	0
162	2024	5.17	2	150.414	149.700	2.13481	1	1	0	0	0
163	2024	5.17	3	151.078	150.150	2.36301	1	1	0	0	0
164	2024	5.17	4	151.752	151.050	2.50579	1	1	0	0	0
165	2025	5.33	1	152.454	151.930	1.99883	1	1	0	0	0
166	2025	5.33	2	153.135	152.480	2.16068	1	1	0	0	0
167	2025	5.33	3	153.790	152.920	2.39171	1	1	0	0	0
168	2025	5.33	4	154.449	153.830	2.53630	1	1	0	0	0
169	2026	5.56	1	155.189	154.700	2.02144	1	1	0	0	0
170	2026	5.56	2	155.899	155.260	2.18521	1	1	0	0	0
171	2026	5.56	3	156.622	155.820	2.41887	1	1	0	0	0
172	2026	5.56	4	157.344	156.590	2.56512	1	1	0	0	0
173	2027	5.79	1	158.073	157.430	2.04615	1	1	0	0	0
174	2027	5.79	2	158.750	158.280	2.21195	1	1	0	0	0
175	2027	5.79	3	159.434	159.060	2.44854	1	1	0	0	0

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 EXOGENOUS VARIABLES

Obs	Year	GPI_KY	qtr	frb324	frb331	PIX	D030N	d04q2on	d054	d004	d011
176	2027	5.79	4	160.155	159.830	2.59659	1	1	0	0	0
177	2028	5.86	1	160.890	160.670	2.05721	1	1	0	0	0
178	2028	5.86	2	161.575	161.530	2.22390	1	1	0	0	0
179	2028	5.86	3	162.260	162.300	2.46178	1	1	0	0	0
180	2028	5.86	4	162.958	163.070	2.61069	1	1	0	0	0
181	2029	5.98	1	163.664	163.910	2.05632	1	1	0	0	0
182	2029	5.98	2	164.336	164.770	2.22298	1	1	0	0	0
183	2029	5.98	3	165.009	165.540	2.46079	1	1	0	0	0
184	2029	5.98	4	165.698	166.310	2.60971	1	1	0	0	0
185	2030	6.04	1	166.413	167.150	2.06079	1	1	0	0	0
186	2030	6.04	2	167.146	168.010	2.22786	1	1	0	0	0
187	2030	6.04	3	167.885	168.780	2.46624	1	1	0	0	0
188	2030	6.04	4	168.655	169.540	2.61552	1	1	0	0	0
189	2031	6.19	1	169.455	170.380	2.07376	1	1	0	0	0
190	2031	6.19	2	170.182	171.240	2.24193	1	1	0	0	0
191	2031	6.19	3	170.919	172.010	2.48187	1	1	0	0	0
192	2031	6.19	4	171.682	172.750	2.63214	1	1	0	0	0
193	2032	6.35	1	172.470	173.570	2.08481	1	1	0	0	0
194	2032	6.35	2	173.192	174.430	2.25392	1	1	0	0	0
195	2032	6.35	3	173.935	175.180	2.49516	1	1	0	0	0
196	2032	6.35	4	174.686	175.890	2.64630	1	1	0	0	0
197	2033	6.51	1	175.475	176.710	2.09309	1	1	0	0	0
198	2033	6.51	2	176.205	177.550	2.26288	1	1	0	0	0
199	2033	6.51	3	176.935	178.310	2.50504	1	1	0	0	0
200	2033	6.51	4	177.659	179.040	2.65667	1	1	0	0	0
201	2034	6.68	1	178.399	179.870	2.10059	1	1	0	0	0
202	2034	6.68	2	179.141	180.720	2.27097	1	1	0	0	0
203	2034	6.68	3	179.889	181.500	2.51406	1	1	0	0	0
204	2034	6.68	4	180.639	182.240	2.66638	1	1	0	0	0
205	2035	6.85	1	181.407	183.050	2.11002	1	1	0	0	0
206	2035	6.85	2	182.168	183.840	2.28170	1	1	0	0	0
207	2035	6.85	3	182.926	184.630	2.52625	1	1	0	0	0
208	2035	6.85	4	183.689	185.420	2.67948	1	1	0	0	0
209	2036	7.02	1	184.448	186.210	2.12117	1	1	0	0	0
210	2036	7.02	2	185.214	187.000	2.29315	1	1	0	0	0

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 EXOGENOUS VARIABLES

Obs	Year	GPI_KY	qtr	frb324	frb331	PIX	D030N	d04q2on	d054	d004	d011
211	2036	7.02	3	185.986	187.790	2.53872	1	1	0	0	0
212	2036	7.02	4	186.759	188.570	2.69276	1	1	0	0	0
213	2037	7.20	1	187.528	189.370	2.13090	1	1	0	0	0
214	2037	7.20	2	188.282	190.160	2.30354	1	1	0	0	0
215	2037	7.20	3	189.061	190.960	2.54968	1	1	0	0	0
216	2037	7.20	4	189.843	191.760	2.70419	1	1	0	0	0
217	2038	7.38	1	190.630	192.560	2.13955	1	1	0	0	0
218	2038	7.38	2	191.421	193.360	2.31319	1	1	0	0	0
219	2038	7.38	3	192.214	194.160	2.56093	1	1	0	0	0
220	2038	7.38	4	193.011	194.960	2.71624	1	1	0	0	0

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 MODEL ESTIMATION

The SYSLIN Procedure
 Ordinary Least Squares Estimation

Model eix_KPC
 Dependent Variable eix_KPC
 Label BILLED KWH

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	164149.4	20518.68	81.84	<.0001
Error	79	19806.34	250.7132		
Corrected Total	87	183955.8			

Root MSE	15.83392	R-Square	0.89233
Dependent Mean	488.45776	Adj R-Sq	0.88143
Coeff Var	3.24162		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Variable Label
Intercept	1	-1417.97	339.1109	-4.18	<.0001	Intercept
LPIXGPI12	1	-45.3589	27.87936	-1.63	0.1077	MANUF. ELEC./IND. GAS PRICE RATIO, LOG
Lfrb324	1	296.5616	100.7858	2.94	0.0043	FRB IND. PROD.-PETROLEUM, LOG
lfrb331	1	117.3501	35.86784	3.27	0.0016	FRB IND. PROD.-PRIMARY METALS, LOG

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 MODEL ESTIMATION

The SYSLIN Procedure
 Ordinary Least Squares Estimation

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Variable Label
d004	1	-77.9181	16.17848	-4.82	<.0001	BINARY VARIABLE-2000 4TH QTR
d011	1	77.14338	16.21659	4.76	<.0001	BINARY VARIABLE-2001 1ST QTR
D030N	1	-52.9386	10.40029	-5.09	<.0001	BINARY VARIABLE-2003 ON
d04q2on	1	34.79711	9.675113	3.60	0.0006	BINARY VARIABLE-2004 2ND QTR ON
d054	1	48.15176	16.82387	2.86	0.0054	BINARY VARIABLE-2004 4TH QTR

Durbin-Watson	1.48696
Number of Observations	88
First-Order Autocorrelation	0.23909

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 MODEL RESIDUALS

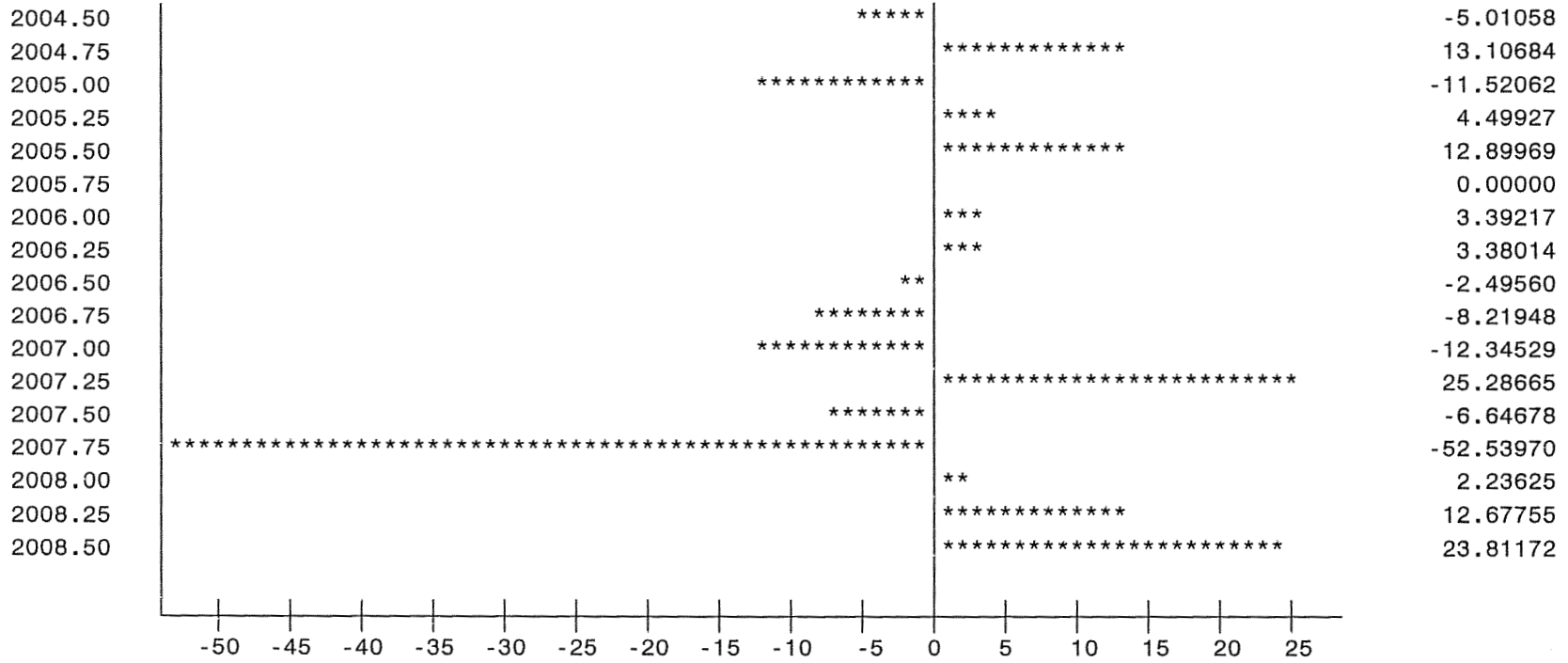
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time		Residual Values Sum
1986.75	*****	11.11093
1987.00	*	-1.01733
1987.25	*****	-4.84854
1987.50	**	1.77763
1987.75	*****	4.66658
1988.00	*****	7.62491
1988.25	*****	5.62298
1988.50	*****	7.83393
1988.75	*****	13.58170
1989.00	*****	-24.05074
1989.25	*****	12.98971
1989.50	*****	17.19625
1989.75	*****	-9.82137
1990.00	*	-1.12402
1990.25	*****	15.60743
1990.50	*****	16.42522
1990.75	*****	9.17054
1991.00	*****	-14.39631
1991.25	*	0.84397
1991.50	*****	15.15046
1991.75	*****	28.07293
1992.00	*****	14.96546
1992.25	*****	22.51349
1992.50	*****	-14.49913
1992.75	*****	-12.00198
1993.00	*****	-30.12904
1993.25	*****	-14.74169
1993.50	*****	-20.67700
1993.75	*****	-14.31078
1994.00	*****	-44.53702
1994.25	*****	-19.84483
1994.50	*****	-13.13348
1994.75	*****	-18.17750
1995.00	*****	-16.31132

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 MODEL RESIDUALS

1995.25	*****	-5.01042
1995.50	*****	6.49933
1995.75	*****	26.60615
1996.00	*****	-11.67126
1996.25	*****	23.29380
1996.50	*****	10.26259
1996.75	*****	20.75210
1997.00	*****	-7.53861
1997.25	*****	14.67792
1997.50	*	-1.28910
1997.75	*****	8.41466
1998.00	*****	9.09353
1998.25	*****	13.21628
1998.50	*	-1.37531
1998.75	*****	8.87642
1999.00	*****	-18.98270
1999.25	***	2.93052
1999.50	*****	-4.71013
1999.75	*****	-29.03770
2000.00	**	1.73994
2000.25	*****	11.89431
2000.50	*****	11.56537
2000.75		0.00000
2001.00		0.00000
2001.25	***	3.00107
2001.50	*****	8.35910
2001.75	***	3.28926
2002.00	*****	-31.24220
2002.25	*****	-6.50490
2002.50	**	1.63490
2002.75		-0.27698
2003.00	*	1.21413
2003.25	***	-2.54859
2003.50	*****	8.20177
2003.75	****	-4.39199
2004.00	**	-2.47532
2004.25	***	-2.51223

KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 MODEL RESIDUALS



KENTUCKY POWER COMPANY
 MANUFACTURING ENERGY SALES
 ACTUAL AND FORECAST

Year	ENERGY SALES	GROWTH RATE
1984	1637.45	.
1985	1550.686	-5.3
1986	1549.804	-0.1
1987	1741.295	12.4
1988	1855.81	6.6
1989	1795.642	-3.2
1990	1841.252	2.5
1991	1781.622	-3.2
1992	1761.722	-1.1
1993	1701.707	-3.4
1994	1763.534	3.6
1995	1906.316	8.1
1996	1981.449	3.9
1997	2021.587	2.0
1998	2035.771	0.7
1999	2002.953	-1.6
2000	1983.793	-1.0
2001	2095.422	5.6
2002	2037.013	-2.8
2003	1851.228	-9.1
2004	2101.861	13.5
2005	2242.74	6.7
2006	2213.132	-1.3
2007	2146.443	-3.0
2008	2271.543	5.8
2009	2271.096	0.0
2010	2408.955	6.1
2011	2461.778	2.2
2012	2495.039	1.4
2013	2530.892	1.4
2014	2565.032	1.3
2015	2597.562	1.3
2016	2630.992	1.3

KENTUCKY POWER COMPANY
MANUFACTURING ENERGY SALES
ACTUAL AND FORECAST

Year	ENERGY SALES	GROWTH RATE
2017	2664.165	1.3
2018	2697.687	1.3
2019	2729.569	1.2
2020	2759.864	1.1
2021	2789.226	1.1
2022	2819.328	1.1
2023	2849.963	1.1
2024	2881.84	1.1
2025	2914.347	1.1
2026	2948.476	1.2
2027	2983.743	1.2
2028	3018.281	1.2
2029	3051.144	1.1
2030	3083.154	1.0
2031	3115.923	1.1
2032	3148.112	1.0
2033	3180.073	1.0
2034	3211.771	1.0
2035	3243.568	1.0
2036	3275.012	1.0
2037	3306.093	0.9
2038	3337.164	0.9

LONG-TERM OTHER RETAIL

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
ENDOGENOUS VARIABLES

The MEANS Procedure

Variable	Label	Mean
YEAR	YEAR	2011.00
QTR	Qtr	2.5000000
eu1_KPC	BILLED KWH	2.4331714

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
ENDOGENOUS VARIABLES

Obs	YEAR	QTR	eu1_KPC
1	1984	1	2.288
2	1984	2	1.718
3	1984	3	1.822
4	1984	4	2.398
5	1985	1	2.305
6	1985	2	1.728
7	1985	3	1.839
8	1985	4	2.479
9	1986	1	2.307
10	1986	2	1.736
11	1986	3	1.833
12	1986	4	2.466
13	1987	1	2.318
14	1987	2	1.774
15	1987	3	1.855
16	1987	4	2.465
17	1988	1	2.385
18	1988	2	1.82
19	1988	3	1.893
20	1988	4	2.521
21	1989	1	2.366
22	1989	2	1.789
23	1989	3	1.854
24	1989	4	2.504
25	1990	1	2.309
26	1990	2	1.791
27	1990	3	1.934
28	1990	4	2.648
29	1991	1	2.503
30	1991	2	1.929
31	1991	3	2.017
32	1991	4	2.646
33	1992	1	2.533
34	1992	2	1.913
35	1992	3	2.023

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
ENDOGENOUS VARIABLES

Obs	YEAR	QTR	eu1_KPC
36	1992	4	2.717
37	1993	1	2.562
38	1993	2	2.022
39	1993	3	2.052
40	1993	4	2.784
41	1994	1	2.601
42	1994	2	2.045
43	1994	3	2.125
44	1994	4	2.865
45	1995	1	2.585
46	1995	2	2.096
47	1995	3	2.456
48	1995	4	2.945
49	1996	1	2.745984
50	1996	2	2.109212
51	1996	3	2.219779
52	1996	4	2.886061
53	1997	1	2.811751
54	1997	2	2.171542
55	1997	3	2.278072
56	1997	4	2.985105
57	1998	1	2.871083
58	1998	2	2.219178
59	1998	3	2.330511
60	1998	4	3.063178
61	1999	1	2.960014
62	1999	2	2.254886
63	1999	3	2.378881
64	1999	4	3.098066
65	2000	1	2.981758
66	2000	2	2.279278
67	2000	3	2.438097
68	2000	4	3.133012
69	2001	1	3.053597
70	2001	2	2.372166

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
ENDOGENOUS VARIABLES

Obs	YEAR	QTR	eu1_KPC
71	2001	3	2.485264
72	2001	4	3.281755
73	2002	1	3.134862
74	2002	2	2.415729
75	2002	3	2.531629
76	2002	4	3.267793
77	2003	1	3.14104
78	2003	2	2.408228
79	2003	3	2.493206
80	2003	4	3.182333
81	2004	1	3.133164
82	2004	2	2.348162
83	2004	3	2.44212
84	2004	4	3.206238
85	2005	1	3.067787
86	2005	2	2.09621
87	2005	3	2.047055
88	2005	4	2.935817
89	2006	1	2.771568
90	2006	2	2.011399
91	2006	3	2.131735
92	2006	4	2.902505
93	2007	1	2.791451
94	2007	2	1.990764
95	2007	3	2.256037
96	2007	4	2.977101
97	2008	1	2.936176
98	2008	2	2.036082
99	2008	3	2.255547
100	2008	4	.
101	2009	1	.
102	2009	2	.
103	2009	3	.
104	2009	4	.
105	2010	1	.

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
ENDOGENOUS VARIABLES

Obs	YEAR	QTR	eul_KPC
106	2010	2	.
107	2010	3	.
108	2010	4	.
109	2011	1	.
110	2011	2	.
111	2011	3	.
112	2011	4	.
113	2012	1	.
114	2012	2	.
115	2012	3	.
116	2012	4	.
117	2013	1	.
118	2013	2	.
119	2013	3	.
120	2013	4	.
121	2014	1	.
122	2014	2	.
123	2014	3	.
124	2014	4	.
125	2015	1	.
126	2015	2	.
127	2015	3	.
128	2015	4	.
129	2016	1	.
130	2016	2	.
131	2016	3	.
132	2016	4	.
133	2017	1	.
134	2017	2	.
135	2017	3	.
136	2017	4	.
137	2018	1	.
138	2018	2	.
139	2018	3	.
140	2018	4	.

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
ENDOGENOUS VARIABLES

Obs	YEAR	QTR	eu1_KPC
141	2019	1	.
142	2019	2	.
143	2019	3	.
144	2019	4	.
145	2020	1	.
146	2020	2	.
147	2020	3	.
148	2020	4	.
149	2021	1	.
150	2021	2	.
151	2021	3	.
152	2021	4	.
153	2022	1	.
154	2022	2	.
155	2022	3	.
156	2022	4	.
157	2023	1	.
158	2023	2	.
159	2023	3	.
160	2023	4	.
161	2024	1	.
162	2024	2	.
163	2024	3	.
164	2024	4	.
165	2025	1	.
166	2025	2	.
167	2025	3	.
168	2025	4	.
169	2026	1	.
170	2026	2	.
171	2026	3	.
172	2026	4	.
173	2027	1	.
174	2027	2	.
175	2027	3	.

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
ENDOGENOUS VARIABLES

Obs	YEAR	QTR	euL_KPC
176	2027	4	.
177	2028	1	.
178	2028	2	.
179	2028	3	.
180	2028	4	.
181	2029	1	.
182	2029	2	.
183	2029	3	.
184	2029	4	.
185	2030	1	.
186	2030	2	.
187	2030	3	.
188	2030	4	.
189	2031	1	.
190	2031	2	.
191	2031	3	.
192	2031	4	.
193	2032	1	.
194	2032	2	.
195	2032	3	.
196	2032	4	.
197	2033	1	.
198	2033	2	.
199	2033	3	.
200	2033	4	.
201	2034	1	.
202	2034	2	.
203	2034	3	.
204	2034	4	.
205	2035	1	.
206	2035	2	.
207	2035	3	.
208	2035	4	.
209	2036	1	.
210	2036	2	.

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
ENDOGENOUS VARIABLES

Obs	YEAR	QTR	eu1_KPC
211	2036	3	.
212	2036	4	.
213	2037	1	.
214	2037	2	.
215	2037	3	.
216	2037	4	.
217	2038	1	.
218	2038	2	.
219	2038	3	.
220	2038	4	.

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
EXOGENOUS VARIABLES

The MEANS Procedure

Variable	Label	Mean
YEAR	YEAR	2011.00
QTR	Qtr	2.500000
LCOM	SERVICE AREA COMMERCIAL EMPLOYMENT	93.6871758
D010N	BINARY VARIABLE-1999 ON	0.6909091
D070N	BINARY VARIABLE-2007 ON	0.5818182
d032on	BINARY VARIABLE-2003 2ND QTR ON	0.6500000
d052on	BINARY VARIABLE-2005 2ND QTR ON	0.6136364
d1	BINARY VARIABLE-1ST QTR	0.2500000
d2	BINARY VARIABLE-2ND QTR	0.2500000
d3	BINARY VARIABLE-3RD QTR	0.2500000

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
EXOGENOUS VARIABLES

Obs	YEAR	QTR	LCOM	D010N	D070N	d032on	d052on	d1	d2	d3
1	1984	1	61.071	0	0	0	0	1	0	0
2	1984	2	61.421	0	0	0	0	0	1	0
3	1984	3	61.691	0	0	0	0	0	0	1
4	1984	4	61.813	0	0	0	0	0	0	0
5	1985	1	61.832	0	0	0	0	1	0	0
6	1985	2	61.805	0	0	0	0	0	1	0
7	1985	3	61.805	0	0	0	0	0	0	1
8	1985	4	61.870	0	0	0	0	0	0	0
9	1986	1	61.992	0	0	0	0	1	0	0
10	1986	2	62.167	0	0	0	0	0	1	0
11	1986	3	62.411	0	0	0	0	0	0	1
12	1986	4	62.714	0	0	0	0	0	0	0
13	1987	1	63.081	0	0	0	0	1	0	0
14	1987	2	63.529	0	0	0	0	0	1	0
15	1987	3	64.083	0	0	0	0	0	0	1
16	1987	4	64.721	0	0	0	0	0	0	0
17	1988	1	65.401	0	0	0	0	1	0	0
18	1988	2	66.077	0	0	0	0	0	1	0
19	1988	3	66.730	0	0	0	0	0	0	1
20	1988	4	67.381	0	0	0	0	0	0	0
21	1989	1	68.071	0	0	0	0	1	0	0
22	1989	2	68.866	0	0	0	0	0	1	0
23	1989	3	69.844	0	0	0	0	0	0	1
24	1989	4	70.933	0	0	0	0	0	0	0
25	1990	1	71.958	0	0	0	0	1	0	0
26	1990	2	72.760	0	0	0	0	0	1	0
27	1990	3	73.186	0	0	0	0	0	0	1
28	1990	4	73.257	0	0	0	0	0	0	0
29	1991	1	73.230	0	0	0	0	1	0	0
30	1991	2	73.348	0	0	0	0	0	1	0
31	1991	3	73.895	0	0	0	0	0	0	1
32	1991	4	74.831	0	0	0	0	0	0	0
33	1992	1	75.923	0	0	0	0	1	0	0
34	1992	2	76.895	0	0	0	0	0	1	0
35	1992	3	77.520	0	0	0	0	0	0	1

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
EXOGENOUS VARIABLES

Obs	YEAR	QTR	LCOM	D010N	D070N	d032on	d052on	d1	d2	d3
36	1992	4	77.758	0	0	0	0	0	0	0
37	1993	1	77.835	0	0	0	0	1	0	0
38	1993	2	77.965	0	0	0	0	0	1	0
39	1993	3	78.365	0	0	0	0	0	0	1
40	1993	4	79.091	0	0	0	0	0	0	0
41	1994	1	79.967	0	0	0	0	1	0	0
42	1994	2	80.829	0	0	0	0	0	1	0
43	1994	3	81.546	0	0	0	0	0	0	1
44	1994	4	82.073	0	0	0	0	0	0	0
45	1995	1	82.436	0	0	0	0	1	0	0
46	1995	2	82.754	0	0	0	0	0	1	0
47	1995	3	83.062	0	0	0	0	0	0	1
48	1995	4	83.404	0	0	0	0	0	0	0
49	1996	1	83.734	0	0	0	0	1	0	0
50	1996	2	84.043	0	0	0	0	0	1	0
51	1996	3	84.301	0	0	0	0	0	0	1
52	1996	4	84.531	0	0	0	0	0	0	0
53	1997	1	84.791	0	0	0	0	1	0	0
54	1997	2	85.187	0	0	0	0	0	1	0
55	1997	3	85.776	0	0	0	0	0	0	1
56	1997	4	86.531	0	0	0	0	0	0	0
57	1998	1	87.317	0	0	0	0	1	0	0
58	1998	2	87.985	0	0	0	0	0	1	0
59	1998	3	88.431	0	0	0	0	0	0	1
60	1998	4	88.638	0	0	0	0	0	0	0
61	1999	1	88.740	0	0	0	0	1	0	0
62	1999	2	88.903	0	0	0	0	0	1	0
63	1999	3	89.261	0	0	0	0	0	0	1
64	1999	4	89.843	0	0	0	0	0	0	0
65	2000	1	90.558	0	0	0	0	1	0	0
66	2000	2	91.304	0	0	0	0	0	1	0
67	2000	3	91.972	0	0	0	0	0	0	1
68	2000	4	92.549	0	0	0	0	0	0	0
69	2001	1	93.042	1	0	0	0	1	0	0
70	2001	2	93.482	1	0	0	0	0	1	0

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
EXOGENOUS VARIABLES

Obs	YEAR	QTR	LCOM	D010N	D070N	d032on	d052on	d1	d2	d3
71	2001	3	93.906	1	0	0	0	0	0	1
72	2001	4	94.319	1	0	0	0	0	0	0
73	2002	1	94.728	1	0	0	0	1	0	0
74	2002	2	95.120	1	0	0	0	0	1	0
75	2002	3	95.514	1	0	0	0	0	0	1
76	2002	4	95.875	1	0	0	0	0	0	0
77	2003	1	96.161	1	0	0	0	1	0	0
78	2003	2	96.328	1	0	1	0	0	1	0
79	2003	3	96.360	1	0	1	0	0	0	1
80	2003	4	96.246	1	0	1	0	0	0	0
81	2004	1	96.058	1	0	1	0	1	0	0
82	2004	2	95.998	1	0	1	0	0	1	0
83	2004	3	96.110	1	0	1	0	0	0	1
84	2004	4	96.417	1	0	1	0	0	0	0
85	2005	1	96.810	1	0	1	0	1	0	0
86	2005	2	97.176	1	0	1	1	0	1	0
87	2005	3	97.418	1	0	1	1	0	0	1
88	2005	4	97.516	1	0	1	1	0	0	0
89	2006	1	97.534	1	0	1	1	1	0	0
90	2006	2	97.536	1	0	1	1	0	1	0
91	2006	3	97.594	1	0	1	1	0	0	1
92	2006	4	97.743	1	0	1	1	0	0	0
93	2007	1	97.924	1	1	1	1	1	0	0
94	2007	2	98.127	1	1	1	1	0	1	0
95	2007	3	98.317	1	1	1	1	0	0	1
96	2007	4	98.466	1	1	1	1	0	0	0
97	2008	1	98.506	1	1	1	1	1	0	0
98	2008	2	98.397	1	1	1	1	0	1	0
99	2008	3	98.105	1	1	1	1	0	0	1
100	2008	4	97.648	1	1	1	1	0	0	0
101	2009	1	97.152	1	1	1	1	1	0	0
102	2009	2	96.760	1	1	1	1	0	1	0
103	2009	3	96.560	1	1	1	1	0	0	1
104	2009	4	96.620	1	1	1	1	0	0	0
105	2010	1	96.874	1	1	1	1	1	0	0

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
EXOGENOUS VARIABLES

Obs	YEAR	QTR	LCOM	D010N	D070N	d032on	d052on	d1	d2	d3
106	2010	2	97.272	1	1	1	1	0	1	0
107	2010	3	97.782	1	1	1	1	0	0	1
108	2010	4	98.349	1	1	1	1	0	0	0
109	2011	1	98.940	1	1	1	1	1	0	0
110	2011	2	99.551	1	1	1	1	0	1	0
111	2011	3	100.144	1	1	1	1	0	0	1
112	2011	4	100.713	1	1	1	1	0	0	0
113	2012	1	101.221	1	1	1	1	1	0	0
114	2012	2	101.657	1	1	1	1	0	1	0
115	2012	3	101.999	1	1	1	1	0	0	1
116	2012	4	102.255	1	1	1	1	0	0	0
117	2013	1	102.429	1	1	1	1	1	0	0
118	2013	2	102.531	1	1	1	1	0	1	0
119	2013	3	102.605	1	1	1	1	0	0	1
120	2013	4	102.650	1	1	1	1	0	0	0
121	2014	1	102.686	1	1	1	1	1	0	0
122	2014	2	102.695	1	1	1	1	0	1	0
123	2014	3	102.699	1	1	1	1	0	0	1
124	2014	4	102.707	1	1	1	1	0	0	0
125	2015	1	102.712	1	1	1	1	1	0	0
126	2015	2	102.719	1	1	1	1	0	1	0
127	2015	3	102.737	1	1	1	1	0	0	1
128	2015	4	102.752	1	1	1	1	0	0	0
129	2016	1	102.760	1	1	1	1	1	0	0
130	2016	2	102.780	1	1	1	1	0	1	0
131	2016	3	102.806	1	1	1	1	0	0	1
132	2016	4	102.840	1	1	1	1	0	0	0
133	2017	1	102.873	1	1	1	1	1	0	0
134	2017	2	102.905	1	1	1	1	0	1	0
135	2017	3	102.937	1	1	1	1	0	0	1
136	2017	4	102.961	1	1	1	1	0	0	0
137	2018	1	102.984	1	1	1	1	1	0	0
138	2018	2	103.004	1	1	1	1	0	1	0
139	2018	3	103.022	1	1	1	1	0	0	1
140	2018	4	103.037	1	1	1	1	0	0	0

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
EXOGENOUS VARIABLES

Obs	YEAR	QTR	LCOM	D010N	D070N	d032on	d052on	d1	d2	d3
141	2019	1	103.062	1	1	1	1	1	0	0
142	2019	2	103.081	1	1	1	1	0	1	0
143	2019	3	103.093	1	1	1	1	0	0	1
144	2019	4	103.133	1	1	1	1	0	0	0
145	2020	1	103.168	1	1	1	1	1	0	0
146	2020	2	103.194	1	1	1	1	0	1	0
147	2020	3	103.228	1	1	1	1	0	0	1
148	2020	4	103.243	1	1	1	1	0	0	0
149	2021	1	103.264	1	1	1	1	1	0	0
150	2021	2	103.281	1	1	1	1	0	1	0
151	2021	3	103.295	1	1	1	1	0	0	1
152	2021	4	103.328	1	1	1	1	0	0	0
153	2022	1	103.344	1	1	1	1	1	0	0
154	2022	2	103.377	1	1	1	1	0	1	0
155	2022	3	103.400	1	1	1	1	0	0	1
156	2022	4	103.438	1	1	1	1	0	0	0
157	2023	1	103.449	1	1	1	1	1	0	0
158	2023	2	103.468	1	1	1	1	0	1	0
159	2023	3	103.485	1	1	1	1	0	0	1
160	2023	4	103.501	1	1	1	1	0	0	0
161	2024	1	103.497	1	1	1	1	1	0	0
162	2024	2	103.509	1	1	1	1	0	1	0
163	2024	3	103.517	1	1	1	1	0	0	1
164	2024	4	103.528	1	1	1	1	0	0	0
165	2025	1	103.557	1	1	1	1	1	0	0
166	2025	2	103.573	1	1	1	1	0	1	0
167	2025	3	103.586	1	1	1	1	0	0	1
168	2025	4	103.601	1	1	1	1	0	0	0
169	2026	1	103.614	1	1	1	1	1	0	0
170	2026	2	103.624	1	1	1	1	0	1	0
171	2026	3	103.622	1	1	1	1	0	0	1
172	2026	4	103.619	1	1	1	1	0	0	0
173	2027	1	103.623	1	1	1	1	1	0	0
174	2027	2	103.624	1	1	1	1	0	1	0
175	2027	3	103.620	1	1	1	1	0	0	1

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
EXOGENOUS VARIABLES

Obs	YEAR	QTR	LCOM	D010N	D070N	d032on	d052on	d1	d2	d3
176	2027	4	103.611	1	1	1	1	0	0	0
177	2028	1	103.616	1	1	1	1	1	0	0
178	2028	2	103.616	1	1	1	1	0	1	0
179	2028	3	103.612	1	1	1	1	0	0	1
180	2028	4	103.617	1	1	1	1	0	0	0
181	2029	1	103.633	1	1	1	1	1	0	0
182	2029	2	103.637	1	1	1	1	0	1	0
183	2029	3	103.648	1	1	1	1	0	0	1
184	2029	4	103.678	1	1	1	1	0	0	0
185	2030	1	103.686	1	1	1	1	1	0	0
186	2030	2	103.698	1	1	1	1	0	1	0
187	2030	3	103.706	1	1	1	1	0	0	1
188	2030	4	103.702	1	1	1	1	0	0	0
189	2031	1	103.700	1	1	1	1	1	0	0
190	2031	2	103.685	1	1	1	1	0	1	0
191	2031	3	103.688	1	1	1	1	0	0	1
192	2031	4	103.686	1	1	1	1	0	0	0
193	2032	1	103.689	1	1	1	1	1	0	0
194	2032	2	103.687	1	1	1	1	0	1	0
195	2032	3	103.696	1	1	1	1	0	0	1
196	2032	4	103.697	1	1	1	1	0	0	0
197	2033	1	103.703	1	1	1	1	1	0	0
198	2033	2	103.726	1	1	1	1	0	1	0
199	2033	3	103.741	1	1	1	1	0	0	1
200	2033	4	103.767	1	1	1	1	0	0	0
201	2034	1	103.807	1	1	1	1	1	0	0
202	2034	2	103.859	1	1	1	1	0	1	0
203	2034	3	103.934	1	1	1	1	0	0	1
204	2034	4	104.029	1	1	1	1	0	0	0
205	2035	1	104.144	1	1	1	1	1	0	0
206	2035	2	104.259	1	1	1	1	0	1	0
207	2035	3	104.390	1	1	1	1	0	0	1
208	2035	4	104.530	1	1	1	1	0	0	0
209	2036	1	104.667	1	1	1	1	1	0	0
210	2036	2	104.815	1	1	1	1	0	1	0

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
EXOGENOUS VARIABLES

Obs	YEAR	QTR	LCOM	D010N	D070N	d032on	d052on	d1	d2	d3
211	2036	3	104.957	1	1	1	1	0	0	1
212	2036	4	105.115	1	1	1	1	0	0	0
213	2037	1	105.268	1	1	1	1	1	0	0
214	2037	2	105.427	1	1	1	1	0	1	0
215	2037	3	105.570	1	1	1	1	0	0	1
216	2037	4	105.710	1	1	1	1	0	0	0
217	2038	1	105.888	1	1	1	1	1	0	0
218	2038	2	106.058	1	1	1	1	0	1	0
219	2038	3	106.203	1	1	1	1	0	0	1
220	2038	4	106.325	1	1	1	1	0	0	0

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
EXOGENOUS VARIABLES
MODEL ESTIMATION

The SYSLIN Procedure
Ordinary Least Squares Estimation

Model eu1_KPC
Dependent Variable eu1_KPC
Label BILLED KWH

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	17.78410	2.223012	482.78	<.0001
Error	90	0.414414	0.004605		
Corrected Total	98	18.19851			
Root MSE		0.06786	R-Square	0.97723	
Dependent Mean		2.43317	Adj R-Sq	0.97520	
Coeff Var		2.78884			

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Variable Label
Intercept	1	1.114909	0.064508	17.28	<.0001	Intercept
LCOM	1	0.021424	0.000822	26.05	<.0001	SERVICE AREA COMMERCIAL EMPLOYMENT
d1	1	-0.14617	0.019487	-7.50	<.0001	BINARY VARIABLE-1ST QTR
d2	1	-0.79230	0.019429	-40.78	<.0001	BINARY VARIABLE-2ND QTR

KENTUCKY POWER COMPANY
 PUBLIC STREET AND HIGHWAY LIGHTING
 EXOGENOUS VARIABLES
 MODEL ESTIMATION

The SYSLIN Procedure
 Ordinary Least Squares Estimation

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Variable Label
d3	1	-0.68350	0.019422	-35.19	<.0001	BINARY VARIABLE-3RD QTR
D010N	1	0.087040	0.028664	3.04	0.0031	BINARY VARIABLE-1999 ON
d032on	1	-0.07424	0.033024	-2.25	0.0270	BINARY VARIABLE-2003 2ND QTR ON
d052on	1	-0.36031	0.035173	-10.24	<.0001	BINARY VARIABLE-2005 2ND QTR ON
D070N	1	0.054137	0.036385	1.49	0.1403	BINARY VARIABLE-2007 ON

Durbin-Watson 1.434849
 Number of Observations 99
 First-Order Autocorrelation 0.282135

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
MODEL RESIDUALS

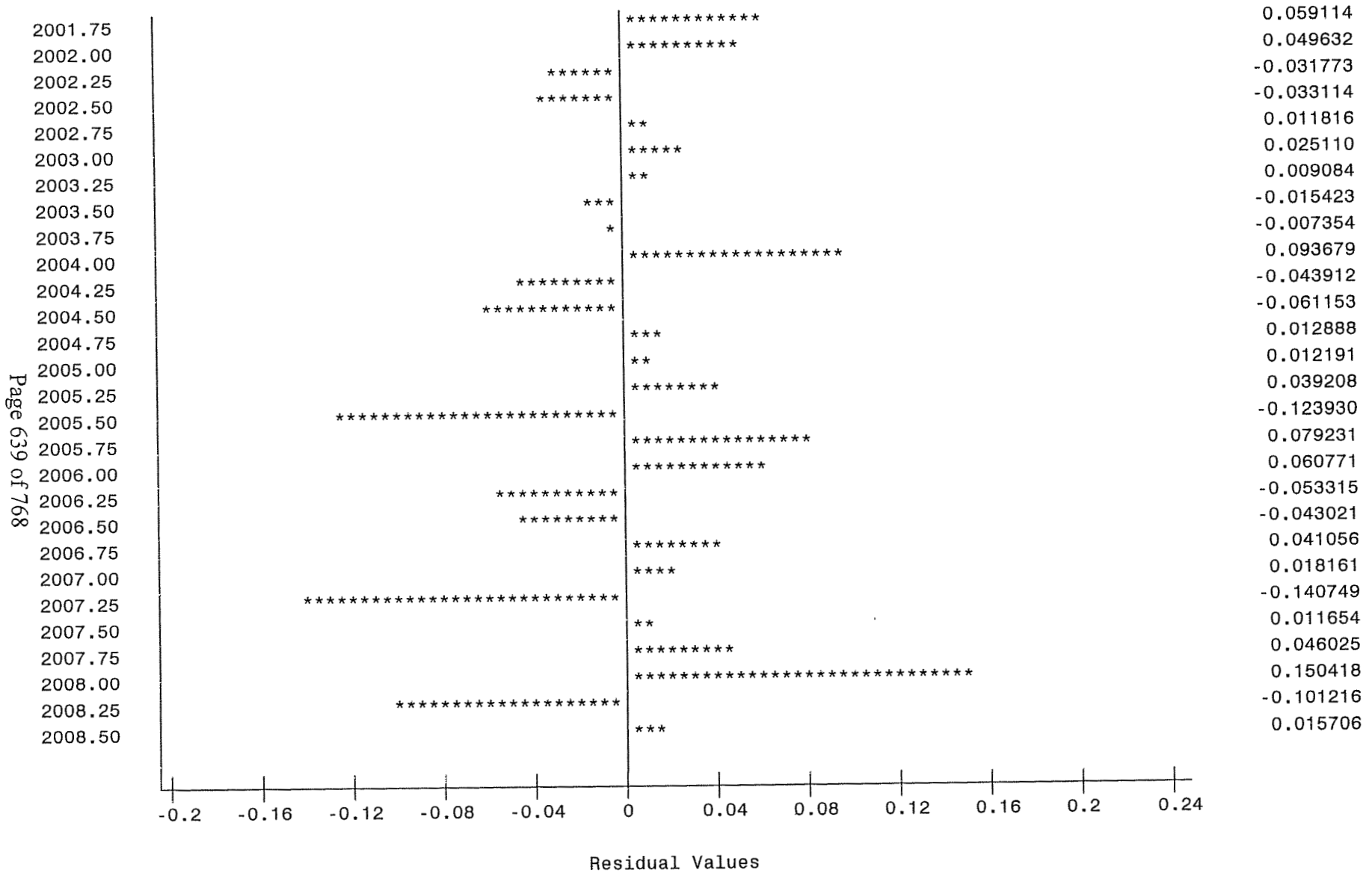
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time		Residual Values Sum
1984.00	**	0.010879
1984.25	*****	0.079506
1984.50	*****	0.068923
1984.75	*****	-0.041192
1985.00	**	0.011575
1985.25	*****	0.081279
1985.50	*****	0.083480
1985.75	*****	0.038587
1986.00	**	0.010147
1986.25	*****	0.081524
1986.50	*****	0.064497
1986.75	**	0.007505
1987.00		-0.002183
1987.25	*****	0.090344
1987.50	*****	0.050676
1987.75	*****	-0.036493
1988.00	***	0.015113
1988.25	*****	0.081756
1988.50	*****	0.031967
1988.75	*****	-0.037481
1989.00	*****	-0.061089
1989.25	**	-0.008996
1989.50	*****	-0.073748
1989.75	*****	-0.130579
1990.00	*****	-0.201364
1990.25	*****	-0.090421
1990.50	*****	-0.065347
1990.75	*****	-0.036368
1991.00	*****	-0.034616
1991.25	*****	0.034982
1991.50		0.002464
1991.75	*****	-0.072090
1992.00	*****	-0.062311
1992.25	*****	-0.057009

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
MODEL RESIDUALS

1992.50	*****	-0.069198
1992.75	*****	-0.063798
1993.00	*****	-0.074273
1993.25	*****	0.029067
1993.50	*****	-0.058302
1993.75	*****	-0.025356
1994.00	*****	-0.080949
1994.25	**	-0.009292
1994.50	*****	-0.053452
1994.75	**	-0.008243
1995.00	*****	-0.149845
1995.25		0.000467
1995.50	*****	0.245070
1995.75	*****	0.043242
1996.00	***	-0.016670
1996.25	***	-0.013936
1996.50	****	-0.017696
1996.75	*****	-0.039842
1997.00	*****	0.026452
1997.25	*****	0.023885
1997.50	**	0.008997
1997.75	***	0.016354
1998.00	*****	0.031667
1998.25	**	0.011576
1998.50	*	0.004555
1998.75	*****	0.049287
1999.00	*****	0.090112
1999.25	*****	0.027617
1999.50	*****	0.035143
1999.75	*****	0.058359
2000.00	*****	0.072907
2000.25		0.000570
2000.50	*****	0.036279
2000.75	*****	0.035331
2001.00	*	0.004488
2001.25	*****	-0.040244
2001.50	*****	-0.045029

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
MODEL RESIDUALS



KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
ACTUAL AND FORECAST

YEAR	ENERGY SALES	GROWTH RATE
1984	8.226	.
1985	8.351	1.5
1986	8.342	-0.1
1987	8.412	0.8
1988	8.619	2.5
1989	8.513	-1.2
1990	8.682	2.0
1991	9.095	4.8
1992	9.186	1.0
1993	9.42	2.5
1994	9.636	2.3
1995	10.082	4.6
1996	9.961036	-1.2
1997	10.24647	2.9
1998	10.48395	2.3
1999	10.69185	2.0
2000	10.83215	1.3
2001	11.19278	3.3
2002	11.35001	1.4
2003	11.22481	-1.1
2004	11.12968	-0.8
2005	10.14687	-8.8
2006	9.817207	-3.2
2007	10.01535	2.0
2008	10.14136	1.3
2009	9.957244	-1.8
2010	10.02548	0.7
2011	10.21982	1.9
2012	10.38658	1.6
2013	10.45263	0.6
2014	10.46489	0.1
2015	10.46774	0.0
2016	10.47343	0.1

KENTUCKY POWER COMPANY
PUBLIC STREET AND HIGHWAY LIGHTING
ACTUAL AND FORECAST

YEAR	ENERGY SALES	GROWTH RATE
2017	10.48393	0.1
2018	10.49188	0.1
2019	10.49878	0.1
2020	10.50872	0.1
2021	10.5159	0.1
2022	10.52427	0.1
2023	10.53164	0.1
2024	10.53481	0.0
2025	10.54051	0.1
2026	10.54398	0.0
2027	10.54396	0.0
2028	10.5436	0.0
2029	10.54649	0.0
2030	10.55069	0.0
2031	10.54998	0.0
2032	10.5502	0.0
2033	10.5538	0.0
2034	10.56862	0.1
2035	10.60491	0.3
2036	10.65271	0.5
2037	10.70458	0.5
2038	10.75811	0.5

LONG-TERM MUNICIPALS

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

The MEANS Procedure

Variable	Label	Mean
YEAR	YEAR	2016.00
MONTH	MONTH	6.5000000
KWH	Energy (kWh)	7250631.78

Kentucky Power company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
1	1994	1	8318000
2	1994	2	6602000
3	1994	3	6490000
4	1994	4	5052000
5	1994	5	4988000
6	1994	6	6346000
7	1994	7	6877000
8	1994	8	6201000
9	1994	9	5050000
10	1994	10	5018000
11	1994	11	5556000
12	1994	12	6896000
13	1995	1	7826000
14	1995	2	7425000
15	1995	3	6174000
16	1995	4	5342000
17	1995	5	5327000
18	1995	6	6052000
19	1995	7	7138000
20	1995	8	8169000
21	1995	9	5435000
22	1995	10	5544000
23	1995	11	6609000
24	1995	12	7244000
25	1996	1	-5360218
26	1996	2	22686123
27	1996	3	7255821
28	1996	4	4035719
29	1996	5	7661217
30	1996	6	6196037
31	1996	7	4475746
32	1996	8	9341771
33	1996	9	4474171
34	1996	10	6711304
35	1996	11	6987874

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
36	1996	12	8314221
37	1997	1	8483085
38	1997	2	7017371
39	1997	3	6594203
40	1997	4	5057414
41	1997	5	5468845
42	1997	6	5843017
43	1997	7	-7154573
44	1997	8	21246519
45	1997	9	5594610
46	1997	10	5686998
47	1997	11	6396912
48	1997	12	8458938
49	1998	1	7310956
50	1998	2	6241327
51	1998	3	9620215
52	1998	4	3646607
53	1998	5	5762428
54	1998	6	6832579
55	1998	7	7349890
56	1998	8	7151396
57	1998	9	6872418
58	1998	10	5174027
59	1998	11	6360849
60	1998	12	8167601
61	1999	1	8200469
62	1999	2	7312958
63	1999	3	7244392
64	1999	4	5426583
65	1999	5	5051934
66	1999	6	6926892
67	1999	7	8061550
68	1999	8	7051167
69	1999	9	6108505
70	1999	10	5190148

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
71	1999	11	5729768
72	1999	12	8383775
73	2000	1	8185700
74	2000	2	7546900
75	2000	3	6119000
76	2000	4	5413800
77	2000	5	5392900
78	2000	6	6552800
79	2000	7	6739700
80	2000	8	6774700
81	2000	9	5954700
82	2000	10	5468700
83	2000	11	7041500
84	2000	12	9607301
85	2001	1	9197700
86	2001	2	7119700
87	2001	3	7494200
88	2001	4	5823600
89	2001	5	5723400
90	2001	6	6241700
91	2001	7	7179900
92	2001	8	7400000
93	2001	9	5633400
94	2001	10	5707100
95	2001	11	6966400
96	2001	12	4772400
97	2002	1	11766100
98	2002	2	7496400
99	2002	3	6729500
100	2002	4	7866300
101	2002	5	5973800
102	2002	6	7247800
103	2002	7	8580100
104	2002	8	8238600
105	2002	9	6920500

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
106	2002	10	6313000
107	2002	11	7380400
108	2002	12	9441600
109	2003	1	10126000
110	2003	2	7479000
111	2003	3	7288400
112	2003	4	6241500
113	2003	5	5868700
114	2003	6	6345400
115	2003	7	8118900
116	2003	8	8042900
117	2003	9	6576900
118	2003	10	6560200
119	2003	11	6951400
120	2003	12	9551500
121	2004	1	10160200
122	2004	2	9128900
123	2004	3	7885500
124	2004	4	6664200
125	2004	5	7110500
126	2004	6	7472800
127	2004	7	8144300
128	2004	8	7580200
129	2004	9	7156000
130	2004	10	6302300
131	2004	11	6989800
132	2004	12	9864000
133	2005	1	9377800
134	2005	2	8663100
135	2005	3	9295359
136	2005	4	6486400
137	2005	5	6464500
138	2005	6	7789200
139	2005	7	8910500
140	2005	8	8807000

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
141	2005	9	7429800
142	2005	10	6764400
143	2005	11	8136300
144	2005	12	10477900
145	2006	1	9173169
146	2006	2	8853897
147	2006	3	8547555
148	2006	4	6458789
149	2006	5	6902659
150	2006	6	7466910
151	2006	7	8961167
152	2006	8	9176378
153	2006	9	6835064
154	2006	10	7621034
155	2006	11	8201920
156	2006	12	9469774
157	2007	1	9334069
158	2007	2	10197762
159	2007	3	8308494
160	2007	4	7495343
161	2007	5	7464549
162	2007	6	8001294
163	2007	7	8382844
164	2007	8	9540317
165	2007	9	7328756
166	2007	10	6752275
167	2007	11	7775781
168	2007	12	9667338
169	2008	1	11023783
170	2008	2	9801525
171	2008	3	9044890
172	2008	4	6926459
173	2008	5	6760591
174	2008	6	7840180
175	2008	7	8582710

Kentucky Power company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
176	2008	8	8125313
177	2008	9	6998056
178	2008	10	7038193
179	2008	11	.
180	2008	12	.
181	2009	1	.
182	2009	2	.
183	2009	3	.
184	2009	4	.
185	2009	5	.
186	2009	6	.
187	2009	7	.
188	2009	8	.
189	2009	9	.
190	2009	10	.
191	2009	11	.
192	2009	12	.
193	2010	1	.
194	2010	2	.
195	2010	3	.
196	2010	4	.
197	2010	5	.
198	2010	6	.
199	2010	7	.
200	2010	8	.
201	2010	9	.
202	2010	10	.
203	2010	11	.
204	2010	12	.
205	2011	1	.
206	2011	2	.
207	2011	3	.
208	2011	4	.
209	2011	5	.
210	2011	6	.

Kentucky Power company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
211	2011	7	.
212	2011	8	.
213	2011	9	.
214	2011	10	.
215	2011	11	.
216	2011	12	.
217	2012	1	.
218	2012	2	.
219	2012	3	.
220	2012	4	.
221	2012	5	.
222	2012	6	.
223	2012	7	.
224	2012	8	.
225	2012	9	.
226	2012	10	.
227	2012	11	.
228	2012	12	.
229	2013	1	.
230	2013	2	.
231	2013	3	.
232	2013	4	.
233	2013	5	.
234	2013	6	.
235	2013	7	.
236	2013	8	.
237	2013	9	.
238	2013	10	.
239	2013	11	.
240	2013	12	.
241	2014	1	.
242	2014	2	.
243	2014	3	.
244	2014	4	.
245	2014	5	.

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
246	2014	6	.
247	2014	7	.
248	2014	8	.
249	2014	9	.
250	2014	10	.
251	2014	11	.
252	2014	12	.
253	2015	1	.
254	2015	2	.
255	2015	3	.
256	2015	4	.
257	2015	5	.
258	2015	6	.
259	2015	7	.
260	2015	8	.
261	2015	9	.
262	2015	10	.
263	2015	11	.
264	2015	12	.
265	2016	1	.
266	2016	2	.
267	2016	3	.
268	2016	4	.
269	2016	5	.
270	2016	6	.
271	2016	7	.
272	2016	8	.
273	2016	9	.
274	2016	10	.
275	2016	11	.
276	2016	12	.
277	2017	1	.
278	2017	2	.
279	2017	3	.
280	2017	4	.

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
281	2017	5	.
282	2017	6	.
283	2017	7	.
284	2017	8	.
285	2017	9	.
286	2017	10	.
287	2017	11	.
288	2017	12	.
289	2018	1	.
290	2018	2	.
291	2018	3	.
292	2018	4	.
293	2018	5	.
294	2018	6	.
295	2018	7	.
296	2018	8	.
297	2018	9	.
298	2018	10	.
299	2018	11	.
300	2018	12	.
301	2019	1	.
302	2019	2	.
303	2019	3	.
304	2019	4	.
305	2019	5	.
306	2019	6	.
307	2019	7	.
308	2019	8	.
309	2019	9	.
310	2019	10	.
311	2019	11	.
312	2019	12	.
313	2020	1	.
314	2020	2	.
315	2020	3	.

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
316	2020	4	.
317	2020	5	.
318	2020	6	.
319	2020	7	.
320	2020	8	.
321	2020	9	.
322	2020	10	.
323	2020	11	.
324	2020	12	.
325	2021	1	.
326	2021	2	.
327	2021	3	.
328	2021	4	.
329	2021	5	.
330	2021	6	.
331	2021	7	.
332	2021	8	.
333	2021	9	.
334	2021	10	.
335	2021	11	.
336	2021	12	.
337	2022	1	.
338	2022	2	.
339	2022	3	.
340	2022	4	.
341	2022	5	.
342	2022	6	.
343	2022	7	.
344	2022	8	.
345	2022	9	.
346	2022	10	.
347	2022	11	.
348	2022	12	.
349	2023	1	.
350	2023	2	.

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
351	2023	3	.
352	2023	4	.
353	2023	5	.
354	2023	6	.
355	2023	7	.
356	2023	8	.
357	2023	9	.
358	2023	10	.
359	2023	11	.
360	2023	12	.
361	2024	1	.
362	2024	2	.
363	2024	3	.
364	2024	4	.
365	2024	5	.
366	2024	6	.
367	2024	7	.
368	2024	8	.
369	2024	9	.
370	2024	10	.
371	2024	11	.
372	2024	12	.
373	2025	1	.
374	2025	2	.
375	2025	3	.
376	2025	4	.
377	2025	5	.
378	2025	6	.
379	2025	7	.
380	2025	8	.
381	2025	9	.
382	2025	10	.
383	2025	11	.
384	2025	12	.
385	2026	1	.

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
386	2026	2	.
387	2026	3	.
388	2026	4	.
389	2026	5	.
390	2026	6	.
391	2026	7	.
392	2026	8	.
393	2026	9	.
394	2026	10	.
395	2026	11	.
396	2026	12	.
397	2027	1	.
398	2027	2	.
399	2027	3	.
400	2027	4	.
401	2027	5	.
402	2027	6	.
403	2027	7	.
404	2027	8	.
405	2027	9	.
406	2027	10	.
407	2027	11	.
408	2027	12	.
409	2028	1	.
410	2028	2	.
411	2028	3	.
412	2028	4	.
413	2028	5	.
414	2028	6	.
415	2028	7	.
416	2028	8	.
417	2028	9	.
418	2028	10	.
419	2028	11	.
420	2028	12	.

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
421	2029	1	.
422	2029	2	.
423	2029	3	.
424	2029	4	.
425	2029	5	.
426	2029	6	.
427	2029	7	.
428	2029	8	.
429	2029	9	.
430	2029	10	.
431	2029	11	.
432	2029	12	.
433	2030	1	.
434	2030	2	.
435	2030	3	.
436	2030	4	.
437	2030	5	.
438	2030	6	.
439	2030	7	.
440	2030	8	.
441	2030	9	.
442	2030	10	.
443	2030	11	.
444	2030	12	.
445	2031	1	.
446	2031	2	.
447	2031	3	.
448	2031	4	.
449	2031	5	.
450	2031	6	.
451	2031	7	.
452	2031	8	.
453	2031	9	.
454	2031	10	.
455	2031	11	.

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
456	2031	12	.
457	2032	1	.
458	2032	2	.
459	2032	3	.
460	2032	4	.
461	2032	5	.
462	2032	6	.
463	2032	7	.
464	2032	8	.
465	2032	9	.
466	2032	10	.
467	2032	11	.
468	2032	12	.
469	2033	1	.
470	2033	2	.
471	2033	3	.
472	2033	4	.
473	2033	5	.
474	2033	6	.
475	2033	7	.
476	2033	8	.
477	2033	9	.
478	2033	10	.
479	2033	11	.
480	2033	12	.
481	2034	1	.
482	2034	2	.
483	2034	3	.
484	2034	4	.
485	2034	5	.
486	2034	6	.
487	2034	7	.
488	2034	8	.
489	2034	9	.
490	2034	10	.

Kentucky Power Company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
491	2034	11	.
492	2034	12	.
493	2035	1	.
494	2035	2	.
495	2035	3	.
496	2035	4	.
497	2035	5	.
498	2035	6	.
499	2035	7	.
500	2035	8	.
501	2035	9	.
502	2035	10	.
503	2035	11	.
504	2035	12	.
505	2036	1	.
506	2036	2	.
507	2036	3	.
508	2036	4	.
509	2036	5	.
510	2036	6	.
511	2036	7	.
512	2036	8	.
513	2036	9	.
514	2036	10	.
515	2036	11	.
516	2036	12	.
517	2037	1	.
518	2037	2	.
519	2037	3	.
520	2037	4	.
521	2037	5	.
522	2037	6	.
523	2037	7	.
524	2037	8	.
525	2037	9	.

Kentucky Power company
Municipal Energy Sales
Endogenous Variable

Obs	YEAR	MONTH	KWH
526	2037	10	.
527	2037	11	.
528	2037	12	.
529	2038	1	.
530	2038	2	.
531	2038	3	.
532	2038	4	.
533	2038	5	.
534	2038	6	.
535	2038	7	.
536	2038	8	.
537	2038	9	.
538	2038	10	.
539	2038	11	.
540	2038	12	.

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

The MEANS Procedure

Variable	Label	Mean
		2016.00
YEAR	YEAR	6.5000000
MONTH	MONTH	98.0592721
bcdd65	Cooling Degree Days (Base 65)	208.1704224
bhdd55	Heating Degree Days (Base 55)	10154.67
gdp_kpc	Service Area Gross Regional Product	0.0018519
jul97	Binary Variable-July 1997	0.0018519
aug97	Binary Variable-August 1997	0.0018519
jan96	Binary Variable-January 1996	0.0018519
feb96	Binary Variable-February 1996	0.7555556
d05on		

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	ju197	aug97	jan96	feb96	d05on
1	1994	1	0.000	739.800	7389.70	0	0	0	0	0
2	1994	2	0.000	790.099	7389.70	0	0	0	0	0
3	1994	3	0.098	447.231	7389.70	0	0	0	0	0
4	1994	4	6.349	234.448	7492.12	0	0	0	0	0
5	1994	5	46.798	30.893	7492.12	0	0	0	0	0
6	1994	6	132.343	3.894	7492.12	0	0	0	0	0
7	1994	7	371.176	0.000	7580.32	0	0	0	0	0
8	1994	8	305.921	0.000	7580.32	0	0	0	0	0
9	1994	9	176.948	0.000	7580.32	0	0	0	0	0
10	1994	10	43.525	9.916	7640.08	0	0	0	0	0
11	1994	11	4.483	74.288	7640.08	0	0	0	0	0
12	1994	12	1.800	254.149	7640.08	0	0	0	0	0
13	1995	1	0.000	508.821	7673.52	0	0	0	0	0
14	1995	2	0.000	683.904	7673.52	0	0	0	0	0
15	1995	3	0.000	467.717	7673.52	0	0	0	0	0
16	1995	4	6.349	172.760	7685.68	0	0	0	0	0
17	1995	5	25.788	61.917	7685.68	0	0	0	0	0
18	1995	6	116.046	3.960	7685.68	0	0	0	0	0
19	1995	7	274.504	0.000	7681.40	0	0	0	0	0
20	1995	8	428.054	0.000	7681.40	0	0	0	0	0
21	1995	9	337.469	0.491	7681.40	0	0	0	0	0
22	1995	10	62.735	13.123	7669.45	0	0	0	0	0
23	1995	11	5.792	196.813	7669.45	0	0	0	0	0
24	1995	12	0.393	481.135	7669.45	0	0	0	0	0
25	1996	1	0.000	730.931	7663.45	0	0	1	0	0
26	1996	2	0.000	726.807	7663.45	0	0	0	1	0
27	1996	3	0.000	501.065	7663.45	0	0	0	0	0
28	1996	4	7.134	345.650	7677.08	0	0	0	0	0
29	1996	5	71.473	75.793	7677.08	0	0	0	0	0
30	1996	6	153.648	10.407	7677.08	0	0	0	0	0
31	1996	7	293.943	0.000	7723.22	0	0	0	0	0
32	1996	8	269.955	0.000	7723.22	0	0	0	0	0
33	1996	9	233.859	0.000	7723.22	0	0	0	0	0
34	1996	10	42.871	23.072	7802.37	0	0	0	0	0
35	1996	11	6.054	187.290	7802.37	0	0	0	0	0

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	jul97	aug97	jan96	feb96	d05on
36	1996	12	1.440	469.386	7802.37	0	0	0	0	0
37	1997	1	0.753	511.799	7900.20	0	0	0	0	0
38	1997	2	0.622	618.289	7900.20	0	0	0	0	0
39	1997	3	2.651	340.839	7900.20	0	0	0	0	0
40	1997	4	6.054	217.561	8003.10	0	0	0	0	0
41	1997	5	6.971	100.174	8003.10	0	0	0	0	0
42	1997	6	51.380	15.119	8003.10	0	0	0	0	0
43	1997	7	241.156	0.000	8099.46	1	0	0	0	0
44	1997	8	296.856	0.000	8099.46	0	1	0	0	0
45	1997	9	161.109	0.000	8099.46	0	0	0	0	0
46	1997	10	50.660	16.036	8181.95	0	0	0	0	0
47	1997	11	14.727	223.746	8181.95	0	0	0	0	0
48	1997	12	0.000	429.068	8181.95	0	0	0	0	0
49	1998	1	0.000	458.129	8249.71	0	0	0	0	0
50	1998	2	0.000	485.226	8249.71	0	0	0	0	0
51	1998	3	0.033	389.175	8249.71	0	0	0	0	0
52	1998	4	41.529	227.248	8304.39	0	0	0	0	0
53	1998	5	23.235	33.969	8304.39	0	0	0	0	0
54	1998	6	133.456	0.753	8304.39	0	0	0	0	0
55	1998	7	285.958	0.327	8347.49	0	0	0	0	0
56	1998	8	294.925	0.000	8347.49	0	0	0	0	0
57	1998	9	286.220	0.000	8347.49	0	0	0	0	0
58	1998	10	175.705	6.316	8374.99	0	0	0	0	0
59	1998	11	12.959	127.598	8374.99	0	0	0	0	0
60	1998	12	2.749	244.364	8374.99	0	0	0	0	0
61	1999	1	1.178	619.041	8378.97	0	0	0	0	0
62	1999	2	0.000	431.653	8378.97	0	0	0	0	0
63	1999	3	0.000	516.250	8378.97	0	0	0	0	0
64	1999	4	9.458	267.533	8352.00	0	0	0	0	0
65	1999	5	32.071	32.300	8352.00	0	0	0	0	0
66	1999	6	149.197	0.000	8352.00	0	0	0	0	0
67	1999	7	346.664	0.000	8286.95	0	0	0	0	0
68	1999	8	430.050	0.000	8286.95	0	0	0	0	0
69	1999	9	219.067	0.131	8286.95	0	0	0	0	0
70	1999	10	45.620	14.596	8194.02	0	0	0	0	0

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	jul97	aug97	jan96	feb96	d05on
71	1999	11	2.553	121.740	8194.02	0	0	0	0	0
72	1999	12	0.000	297.576	8194.02	0	0	0	0	0
73	2000	1	0.000	539.714	8102.52	0	0	0	0	0
74	2000	2	0.000	715.255	8102.52	0	0	0	0	0
75	2000	3	2.029	278.169	8102.52	0	0	0	0	0
76	2000	4	4.713	153.615	8042.12	0	0	0	0	0
77	2000	5	51.445	57.336	8042.12	0	0	0	0	0
78	2000	6	143.732	0.131	8042.12	0	0	0	0	0
79	2000	7	261.970	0.000	8039.86	0	0	0	0	0
80	2000	8	229.801	0.000	8039.86	0	0	0	0	0
81	2000	9	199.627	0.655	8039.86	0	0	0	0	0
82	2000	10	69.051	36.162	8100.28	0	0	0	0	0
83	2000	11	9.589	124.064	8100.28	0	0	0	0	0
84	2000	12	0.000	548.321	8100.28	0	0	0	0	0
85	2001	1	0.000	817.262	8201.40	0	0	0	0	0
86	2001	2	0.000	632.819	8201.40	0	0	0	0	0
87	2001	3	0.000	442.977	8201.40	0	0	0	0	0
88	2001	4	38.158	304.023	8320.45	0	0	0	0	0
89	2001	5	85.087	46.602	8320.45	0	0	0	0	0
90	2001	6	91.370	2.749	8320.45	0	0	0	0	0
91	2001	7	227.444	0.000	8437.62	0	0	0	0	0
92	2001	8	331.316	0.000	8437.62	0	0	0	0	0
93	2001	9	257.650	0.131	8437.62	0	0	0	0	0
94	2001	10	63.063	27.195	8539.63	0	0	0	0	0
95	2001	11	18.654	131.296	8539.63	0	0	0	0	0
96	2001	12	0.589	170.567	8539.63	0	0	0	0	0
97	2002	1	0.000	573.422	8622.24	0	0	0	0	0
98	2002	2	0.000	472.888	8622.24	0	0	0	0	0
99	2002	3	1.178	420.690	8622.24	0	0	0	0	0
100	2002	4	17.966	225.317	8684.48	0	0	0	0	0
101	2002	5	51.183	59.921	8684.48	0	0	0	0	0
102	2002	6	134.405	34.493	8684.48	0	0	0	0	0
103	2002	7	308.113	0.000	8725.92	0	0	0	0	0
104	2002	8	391.139	0.000	8725.92	0	0	0	0	0
105	2002	9	345.486	0.000	8725.92	0	0	0	0	0

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	jul97	aug97	jan96	feb96	d05on
106	2002	10	140.001	12.959	8749.68	0	0	0	0	0
107	2002	11	13.908	159.342	8749.68	0	0	0	0	0
108	2002	12	1.833	476.128	8749.68	0	0	0	0	0
109	2003	1	0.000	567.106	8764.65	0	0	0	0	0
110	2003	2	0.000	792.325	8764.65	0	0	0	0	0
111	2003	3	0.000	534.674	8764.65	0	0	0	0	0
112	2003	4	15.447	141.343	8780.56	0	0	0	0	0
113	2003	5	38.486	30.566	8780.56	0	0	0	0	0
114	2003	6	52.329	0.000	8780.56	0	0	0	0	0
115	2003	7	220.277	0.000	8806.71	0	0	0	0	0
116	2003	8	262.788	0.000	8806.71	0	0	0	0	0
117	2003	9	251.072	0.000	8806.71	0	0	0	0	0
118	2003	10	36.620	35.638	8845.41	0	0	0	0	0
119	2003	11	8.640	98.636	8845.41	0	0	0	0	0
120	2003	12	0.982	345.977	8845.41	0	0	0	0	0
121	2004	1	0.785	558.728	8891.52	0	0	0	0	0
122	2004	2	0.262	719.771	8891.52	0	0	0	0	0
123	2004	3	2.356	418.007	8891.52	0	0	0	0	0
124	2004	4	13.058	231.044	8939.55	0	0	0	0	0
125	2004	5	72.520	57.139	8939.55	0	0	0	0	0
126	2004	6	198.973	3.960	8939.55	0	0	0	0	0
127	2004	7	254.312	0.000	8984.75	0	0	0	0	0
128	2004	8	251.007	0.000	8984.75	0	0	0	0	0
129	2004	9	220.081	0.000	8984.75	0	0	0	0	0
130	2004	10	65.419	9.687	9022.78	0	0	0	0	0
131	2004	11	13.058	62.441	9022.78	0	0	0	0	0
132	2004	12	1.898	288.020	9022.78	0	0	0	0	0
133	2005	1	0.000	487.844	9049.95	0	0	0	0	1
134	2005	2	0.000	585.563	9049.95	0	0	0	0	1
135	2005	3	0.000	499.739	9049.95	0	0	0	0	1
136	2005	4	5.858	232.271	9063.56	0	0	0	0	1
137	2005	5	21.566	67.104	9063.56	0	0	0	0	1
138	2005	6	125.880	9.147	9063.56	0	0	0	0	1
139	2005	7	358.446	0.000	9061.42	0	0	0	0	1
140	2005	8	457.310	0.000	9061.42	0	0	0	0	1

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	ju197	aug97	jan96	feb96	d05on
141	2005	9	344.668	0.000	9061.42	0	0	0	0	1
142	2005	10	158.737	5.711	9048.87	0	0	0	0	1
143	2005	11	9.998	143.944	9048.87	0	0	0	0	1
144	2005	12	1.473	488.547	9048.87	0	0	0	0	1
145	2006	1	0.000	487.778	9039.96	0	0	0	0	1
146	2006	2	0.000	415.045	9039.96	0	0	0	0	1
147	2006	3	1.374	469.910	9039.96	0	0	0	0	1
148	2006	4	16.559	244.167	9048.96	0	0	0	0	1
149	2006	5	27.833	19.979	9048.96	0	0	0	0	1
150	2006	6	105.312	3.862	9048.96	0	0	0	0	1
151	2006	7	260.187	0.000	9089.46	0	0	0	0	1
152	2006	8	410.153	0.000	9089.46	0	0	0	0	1
153	2006	9	260.776	0.916	9089.46	0	0	0	0	1
154	2006	10	36.767	37.978	9161.40	0	0	0	0	1
155	2006	11	2.536	209.216	9161.40	0	0	0	0	1
156	2006	12	2.651	329.925	9161.40	0	0	0	0	1
157	2007	1	0.295	354.061	9248.67	0	0	0	0	1
158	2007	2	0.000	712.277	9248.67	0	0	0	0	1
159	2007	3	2.258	601.189	9248.67	0	0	0	0	1
160	2007	4	29.421	207.825	9335.55	0	0	0	0	1
161	2007	5	51.036	78.362	9335.55	0	0	0	0	1
162	2007	6	180.434	3.223	9335.55	0	0	0	0	1
163	2007	7	293.469	0.000	9408.16	0	0	0	0	1
164	2007	8	344.046	0.000	9408.16	0	0	0	0	1
165	2007	9	379.456	0.000	9408.16	0	0	0	0	1
166	2007	10	176.310	6.594	9458.06	0	0	0	0	1
167	2007	11	29.895	128.760	9458.06	0	0	0	0	1
168	2007	12	0.000	366.398	9458.06	0	0	0	0	1
169	2008	1	0.000	497.989	9485.02	0	0	0	0	1
170	2008	2	0.000	607.816	9485.02	0	0	0	0	1
171	2008	3	0.000	519.735	9485.02	0	0	0	0	1
172	2008	4	1.440	234.235	9490.44	0	0	0	0	1
173	2008	5	42.330	59.704	9490.44	0	0	0	0	1
174	2008	6	132.438	6.696	9490.44	0	0	0	0	1
175	2008	7	282.048	0.033	9475.96	0	0	0	0	1

Kentucky Power Company
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Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	jul97	aug97	jan96	feb96	d05on
176	2008	8	341.880	0.000	9475.96	0	0	0	0	1
177	2008	9	267.806	0.248	9475.96	0	0	0	0	1
178	2008	10	87.446	23.785	9448.57	0	0	0	0	1
179	2008	11	12.146	141.925	9448.57	0	0	0	0	1
180	2008	12	1.742	366.913	9448.57	0	0	0	0	1
181	2009	1	0.369	581.662	9421.62	0	0	0	0	1
182	2009	2	0.046	635.733	9421.62	0	0	0	0	1
183	2009	3	1.252	463.579	9421.62	0	0	0	0	1
184	2009	4	12.652	233.190	9408.14	0	0	0	0	1
185	2009	5	42.330	59.704	9408.14	0	0	0	0	1
186	2009	6	132.438	6.696	9408.14	0	0	0	0	1
187	2009	7	282.048	0.033	9420.40	0	0	0	0	1
188	2009	8	341.880	0.000	9420.40	0	0	0	0	1
189	2009	9	267.806	0.248	9420.40	0	0	0	0	1
190	2009	10	87.446	23.785	9460.76	0	0	0	0	1
191	2009	11	12.146	141.925	9460.76	0	0	0	0	1
192	2009	12	1.742	366.913	9460.76	0	0	0	0	1
193	2010	1	0.369	581.662	9519.32	0	0	0	0	1
194	2010	2	0.046	635.733	9519.32	0	0	0	0	1
195	2010	3	1.252	463.579	9519.32	0	0	0	0	1
196	2010	4	12.652	233.190	9586.13	0	0	0	0	1
197	2010	5	42.330	59.704	9586.13	0	0	0	0	1
198	2010	6	132.438	6.696	9586.13	0	0	0	0	1
199	2010	7	282.048	0.033	9652.67	0	0	0	0	1
200	2010	8	341.880	0.000	9652.67	0	0	0	0	1
201	2010	9	267.806	0.248	9652.67	0	0	0	0	1
202	2010	10	87.446	23.785	9713.04	0	0	0	0	1
203	2010	11	12.146	141.925	9713.04	0	0	0	0	1
204	2010	12	1.742	366.913	9713.04	0	0	0	0	1
205	2011	1	0.369	581.662	9765.10	0	0	0	0	1
206	2011	2	0.046	635.733	9765.10	0	0	0	0	1
207	2011	3	1.252	463.579	9765.10	0	0	0	0	1
208	2011	4	12.652	233.190	9808.54	0	0	0	0	1
209	2011	5	42.330	59.704	9808.54	0	0	0	0	1
210	2011	6	132.438	6.696	9808.54	0	0	0	0	1

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	ju197	aug97	jan96	feb96	d05on
211	2011	7	282.048	0.033	9843.38	0	0	0	0	1
212	2011	8	341.880	0.000	9843.38	0	0	0	0	1
213	2011	9	267.806	0.248	9843.38	0	0	0	0	1
214	2011	10	87.446	23.785	9870.34	0	0	0	0	1
215	2011	11	12.146	141.925	9870.34	0	0	0	0	1
216	2011	12	1.742	366.913	9870.34	0	0	0	0	1
217	2012	1	0.369	581.662	9892.03	0	0	0	0	1
218	2012	2	0.046	635.733	9892.03	0	0	0	0	1
219	2012	3	1.252	463.579	9892.03	0	0	0	0	1
220	2012	4	12.652	233.190	9911.58	0	0	0	0	1
221	2012	5	42.330	59.704	9911.58	0	0	0	0	1
222	2012	6	132.438	6.696	9911.58	0	0	0	0	1
223	2012	7	282.048	0.033	9932.10	0	0	0	0	1
224	2012	8	341.880	0.000	9932.10	0	0	0	0	1
225	2012	9	267.806	0.248	9932.10	0	0	0	0	1
226	2012	10	87.446	23.785	9954.71	0	0	0	0	1
227	2012	11	12.146	141.925	9954.71	0	0	0	0	1
228	2012	12	1.742	366.913	9954.71	0	0	0	0	1
229	2013	1	0.369	581.662	9978.28	0	0	0	0	1
230	2013	2	0.046	635.733	9978.28	0	0	0	0	1
231	2013	3	1.252	463.579	9978.28	0	0	0	0	1
232	2013	4	12.652	233.190	10002.00	0	0	0	0	1
233	2013	5	42.330	59.704	10002.00	0	0	0	0	1
234	2013	6	132.438	6.696	10002.00	0	0	0	0	1
235	2013	7	282.048	0.033	10025.39	0	0	0	0	1
236	2013	8	341.880	0.000	10025.39	0	0	0	0	1
237	2013	9	267.806	0.248	10025.39	0	0	0	0	1
238	2013	10	87.446	23.785	10047.92	0	0	0	0	1
239	2013	11	12.146	141.925	10047.92	0	0	0	0	1
240	2013	12	1.742	366.913	10047.92	0	0	0	0	1
241	2014	1	0.369	581.662	10069.37	0	0	0	0	1
242	2014	2	0.046	635.733	10069.37	0	0	0	0	1
243	2014	3	1.252	463.579	10069.37	0	0	0	0	1
244	2014	4	12.652	233.190	10090.02	0	0	0	0	1
245	2014	5	42.330	59.704	10090.02	0	0	0	0	1

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	jul97	aug97	jan96	feb96	d05on
246	2014	6	132.438	6.696	10090.02	0	0	0	0	1
247	2014	7	282.048	0.033	10110.41	0	0	0	0	1
248	2014	8	341.880	0.000	10110.41	0	0	0	0	1
249	2014	9	267.806	0.248	10110.41	0	0	0	0	1
250	2014	10	87.446	23.785	10130.72	0	0	0	0	1
251	2014	11	12.146	141.925	10130.72	0	0	0	0	1
252	2014	12	1.742	366.913	10130.72	0	0	0	0	1
253	2015	1	0.369	581.662	10151.07	0	0	0	0	1
254	2015	2	0.046	635.733	10151.07	0	0	0	0	1
255	2015	3	1.252	463.579	10151.07	0	0	0	0	1
256	2015	4	12.652	233.190	10172.02	0	0	0	0	1
257	2015	5	42.330	59.704	10172.02	0	0	0	0	1
258	2015	6	132.438	6.696	10172.02	0	0	0	0	1
259	2015	7	282.048	0.033	10194.37	0	0	0	0	1
260	2015	8	341.880	0.000	10194.37	0	0	0	0	1
261	2015	9	267.806	0.248	10194.37	0	0	0	0	1
262	2015	10	87.446	23.785	10218.19	0	0	0	0	1
263	2015	11	12.146	141.925	10218.19	0	0	0	0	1
264	2015	12	1.742	366.913	10218.19	0	0	0	0	1
265	2016	1	0.369	581.662	10243.11	0	0	0	0	1
266	2016	2	0.046	635.733	10243.11	0	0	0	0	1
267	2016	3	1.252	463.579	10243.11	0	0	0	0	1
268	2016	4	12.652	233.190	10269.01	0	0	0	0	1
269	2016	5	42.330	59.704	10269.01	0	0	0	0	1
270	2016	6	132.438	6.696	10269.01	0	0	0	0	1
271	2016	7	282.048	0.033	10296.01	0	0	0	0	1
272	2016	8	341.880	0.000	10296.01	0	0	0	0	1
273	2016	9	267.806	0.248	10296.01	0	0	0	0	1
274	2016	10	87.446	23.785	10323.74	0	0	0	0	1
275	2016	11	12.146	141.925	10323.74	0	0	0	0	1
276	2016	12	1.742	366.913	10323.74	0	0	0	0	1
277	2017	1	0.369	581.662	10351.10	0	0	0	0	1
278	2017	2	0.046	635.733	10351.10	0	0	0	0	1
279	2017	3	1.252	463.579	10351.10	0	0	0	0	1
280	2017	4	12.652	233.190	10377.59	0	0	0	0	1

Kentucky Power company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	jul97	aug97	jan96	feb96	d05on
281	2017	5	42.330	59.704	10377.59	0	0	0	0	1
282	2017	6	132.438	6.696	10377.59	0	0	0	0	1
283	2017	7	282.048	0.033	10403.04	0	0	0	0	1
284	2017	8	341.880	0.000	10403.04	0	0	0	0	1
285	2017	9	267.806	0.248	10403.04	0	0	0	0	1
286	2017	10	87.446	23.785	10427.18	0	0	0	0	1
287	2017	11	12.146	141.925	10427.18	0	0	0	0	1
288	2017	12	1.742	366.913	10427.18	0	0	0	0	1
289	2018	1	0.369	581.662	10450.07	0	0	0	0	1
290	2018	2	0.046	635.733	10450.07	0	0	0	0	1
291	2018	3	1.252	463.579	10450.07	0	0	0	0	1
292	2018	4	12.652	233.190	10472.34	0	0	0	0	1
293	2018	5	42.330	59.704	10472.34	0	0	0	0	1
294	2018	6	132.438	6.696	10472.34	0	0	0	0	1
295	2018	7	282.048	0.033	10494.82	0	0	0	0	1
296	2018	8	341.880	0.000	10494.82	0	0	0	0	1
297	2018	9	267.806	0.248	10494.82	0	0	0	0	1
298	2018	10	87.446	23.785	10517.63	0	0	0	0	1
299	2018	11	12.146	141.925	10517.63	0	0	0	0	1
300	2018	12	1.742	366.913	10517.63	0	0	0	0	1
301	2019	1	0.369	581.662	10540.39	0	0	0	0	1
302	2019	2	0.046	635.733	10540.39	0	0	0	0	1
303	2019	3	1.252	463.579	10540.39	0	0	0	0	1
304	2019	4	12.652	233.190	10563.18	0	0	0	0	1
305	2019	5	42.330	59.704	10563.18	0	0	0	0	1
306	2019	6	132.438	6.696	10563.18	0	0	0	0	1
307	2019	7	282.048	0.033	10586.36	0	0	0	0	1
308	2019	8	341.880	0.000	10586.36	0	0	0	0	1
309	2019	9	267.806	0.248	10586.36	0	0	0	0	1
310	2019	10	87.446	23.785	10609.85	0	0	0	0	1
311	2019	11	12.146	141.925	10609.85	0	0	0	0	1
312	2019	12	1.742	366.913	10609.85	0	0	0	0	1
313	2020	1	0.369	581.662	10633.50	0	0	0	0	1
314	2020	2	0.046	635.733	10633.50	0	0	0	0	1
315	2020	3	1.252	463.579	10633.50	0	0	0	0	1

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	jul97	aug97	jan96	feb96	d05on
316	2020	4	12.652	233.190	10657.39	0	0	0	0	1
317	2020	5	42.330	59.704	10657.39	0	0	0	0	1
318	2020	6	132.438	6.696	10657.39	0	0	0	0	1
319	2020	7	282.048	0.033	10681.89	0	0	0	0	1
320	2020	8	341.880	0.000	10681.89	0	0	0	0	1
321	2020	9	267.806	0.248	10681.89	0	0	0	0	1
322	2020	10	87.446	23.785	10706.94	0	0	0	0	1
323	2020	11	12.146	141.925	10706.94	0	0	0	0	1
324	2020	12	1.742	366.913	10706.94	0	0	0	0	1
325	2021	1	0.369	581.662	10731.92	0	0	0	0	1
326	2021	2	0.046	635.733	10731.92	0	0	0	0	1
327	2021	3	1.252	463.579	10731.92	0	0	0	0	1
328	2021	4	12.652	233.190	10756.75	0	0	0	0	1
329	2021	5	42.330	59.704	10756.75	0	0	0	0	1
330	2021	6	132.438	6.696	10756.75	0	0	0	0	1
331	2021	7	282.048	0.033	10781.64	0	0	0	0	1
332	2021	8	341.880	0.000	10781.64	0	0	0	0	1
333	2021	9	267.806	0.248	10781.64	0	0	0	0	1
334	2021	10	87.446	23.785	10806.36	0	0	0	0	1
335	2021	11	12.146	141.925	10806.36	0	0	0	0	1
336	2021	12	1.742	366.913	10806.36	0	0	0	0	1
337	2022	1	0.369	581.662	10830.60	0	0	0	0	1
338	2022	2	0.046	635.733	10830.60	0	0	0	0	1
339	2022	3	1.252	463.579	10830.60	0	0	0	0	1
340	2022	4	12.652	233.190	10854.56	0	0	0	0	1
341	2022	5	42.330	59.704	10854.56	0	0	0	0	1
342	2022	6	132.438	6.696	10854.56	0	0	0	0	1
343	2022	7	282.048	0.033	10878.72	0	0	0	0	1
344	2022	8	341.880	0.000	10878.72	0	0	0	0	1
345	2022	9	267.806	0.248	10878.72	0	0	0	0	1
346	2022	10	87.446	23.785	10902.97	0	0	0	0	1
347	2022	11	12.146	141.925	10902.97	0	0	0	0	1
348	2022	12	1.742	366.913	10902.97	0	0	0	0	1
349	2023	1	0.369	581.662	10926.89	0	0	0	0	1
350	2023	2	0.046	635.733	10926.89	0	0	0	0	1

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	jul97	aug97	jan96	feb96	d05on
351	2023	3	1.252	463.579	10926.89	0	0	0	0	1
352	2023	4	12.652	233.190	10950.58	0	0	0	0	1
353	2023	5	42.330	59.704	10950.58	0	0	0	0	1
354	2023	6	132.438	6.696	10950.58	0	0	0	0	1
355	2023	7	282.048	0.033	10974.39	0	0	0	0	1
356	2023	8	341.880	0.000	10974.39	0	0	0	0	1
357	2023	9	267.806	0.248	10974.39	0	0	0	0	1
358	2023	10	87.446	23.785	10998.18	0	0	0	0	1
359	2023	11	12.146	141.925	10998.18	0	0	0	0	1
360	2023	12	1.742	366.913	10998.18	0	0	0	0	1
361	2024	1	0.369	581.662	11021.72	0	0	0	0	1
362	2024	2	0.046	635.733	11021.72	0	0	0	0	1
363	2024	3	1.252	463.579	11021.72	0	0	0	0	1
364	2024	4	12.652	233.190	11045.03	0	0	0	0	1
365	2024	5	42.330	59.704	11045.03	0	0	0	0	1
366	2024	6	132.438	6.696	11045.03	0	0	0	0	1
367	2024	7	282.048	0.033	11068.39	0	0	0	0	1
368	2024	8	341.880	0.000	11068.39	0	0	0	0	1
369	2024	9	267.806	0.248	11068.39	0	0	0	0	1
370	2024	10	87.446	23.785	11091.75	0	0	0	0	1
371	2024	11	12.146	141.925	11091.75	0	0	0	0	1
372	2024	12	1.742	366.913	11091.75	0	0	0	0	1
373	2025	1	0.369	581.662	11114.67	0	0	0	0	1
374	2025	2	0.046	635.733	11114.67	0	0	0	0	1
375	2025	3	1.252	463.579	11114.67	0	0	0	0	1
376	2025	4	12.652	233.190	11137.21	0	0	0	0	1
377	2025	5	42.330	59.704	11137.21	0	0	0	0	1
378	2025	6	132.438	6.696	11137.21	0	0	0	0	1
379	2025	7	282.048	0.033	11159.65	0	0	0	0	1
380	2025	8	341.880	0.000	11159.65	0	0	0	0	1
381	2025	9	267.806	0.248	11159.65	0	0	0	0	1
382	2025	10	87.446	23.785	11181.90	0	0	0	0	1
383	2025	11	12.146	141.925	11181.90	0	0	0	0	1
384	2025	12	1.742	366.913	11181.90	0	0	0	0	1
385	2026	1	0.369	581.662	11203.70	0	0	0	0	1

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Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	ju197	aug97	jan96	feb96	d05on
386	2026	2	0.046	635.733	11203.70	0	0	0	0	1
387	2026	3	1.252	463.579	11203.70	0	0	0	0	1
388	2026	4	12.652	233.190	11225.30	0	0	0	0	1
389	2026	5	42.330	59.704	11225.30	0	0	0	0	1
390	2026	6	132.438	6.696	11225.30	0	0	0	0	1
391	2026	7	282.048	0.033	11247.17	0	0	0	0	1
392	2026	8	341.880	0.000	11247.17	0	0	0	0	1
393	2026	9	267.806	0.248	11247.17	0	0	0	0	1
394	2026	10	87.446	23.785	11269.26	0	0	0	0	1
395	2026	11	12.146	141.925	11269.26	0	0	0	0	1
396	2026	12	1.742	366.913	11269.26	0	0	0	0	1
397	2027	1	0.369	581.662	11291.19	0	0	0	0	1
398	2027	2	0.046	635.733	11291.19	0	0	0	0	1
399	2027	3	1.252	463.579	11291.19	0	0	0	0	1
400	2027	4	12.652	233.190	11313.05	0	0	0	0	1
401	2027	5	42.330	59.704	11313.05	0	0	0	0	1
402	2027	6	132.438	6.696	11313.05	0	0	0	0	1
403	2027	7	282.048	0.033	11335.20	0	0	0	0	1
404	2027	8	341.880	0.000	11335.20	0	0	0	0	1
405	2027	9	267.806	0.248	11335.20	0	0	0	0	1
406	2027	10	87.446	23.785	11357.47	0	0	0	0	1
407	2027	11	12.146	141.925	11357.47	0	0	0	0	1
408	2027	12	1.742	366.913	11357.47	0	0	0	0	1
409	2028	1	0.369	581.662	11379.57	0	0	0	0	1
410	2028	2	0.046	635.733	11379.57	0	0	0	0	1
411	2028	3	1.252	463.579	11379.57	0	0	0	0	1
412	2028	4	12.652	233.190	11401.43	0	0	0	0	1
413	2028	5	42.330	59.704	11401.43	0	0	0	0	1
414	2028	6	132.438	6.696	11401.43	0	0	0	0	1
415	2028	7	282.048	0.033	11423.24	0	0	0	0	1
416	2028	8	341.880	0.000	11423.24	0	0	0	0	1
417	2028	9	267.806	0.248	11423.24	0	0	0	0	1
418	2028	10	87.446	23.785	11445.00	0	0	0	0	1
419	2028	11	12.146	141.925	11445.00	0	0	0	0	1
420	2028	12	1.742	366.913	11445.00	0	0	0	0	1

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	ju197	aug97	jan96	feb96	d05on
421	2029	1	0.369	581.662	11466.42	0	0	0	0	1
422	2029	2	0.046	635.733	11466.42	0	0	0	0	1
423	2029	3	1.252	463.579	11466.42	0	0	0	0	1
424	2029	4	12.652	233.190	11487.68	0	0	0	0	1
425	2029	5	42.330	59.704	11487.68	0	0	0	0	1
426	2029	6	132.438	6.696	11487.68	0	0	0	0	1
427	2029	7	282.048	0.033	11509.20	0	0	0	0	1
428	2029	8	341.880	0.000	11509.20	0	0	0	0	1
429	2029	9	267.806	0.248	11509.20	0	0	0	0	1
430	2029	10	87.446	23.785	11530.94	0	0	0	0	1
431	2029	11	12.146	141.925	11530.94	0	0	0	0	1
432	2029	12	1.742	366.913	11530.94	0	0	0	0	1
433	2030	1	0.369	581.662	11552.61	0	0	0	0	1
434	2030	2	0.046	635.733	11552.61	0	0	0	0	1
435	2030	3	1.252	463.579	11552.61	0	0	0	0	1
436	2030	4	12.652	233.190	11574.39	0	0	0	0	1
437	2030	5	42.330	59.704	11574.39	0	0	0	0	1
438	2030	6	132.438	6.696	11574.39	0	0	0	0	1
439	2030	7	282.048	0.033	11596.71	0	0	0	0	1
440	2030	8	341.880	0.000	11596.71	0	0	0	0	1
441	2030	9	267.806	0.248	11596.71	0	0	0	0	1
442	2030	10	87.446	23.785	11619.42	0	0	0	0	1
443	2030	11	12.146	141.925	11619.42	0	0	0	0	1
444	2030	12	1.742	366.913	11619.42	0	0	0	0	1
445	2031	1	0.369	581.662	11642.05	0	0	0	0	1
446	2031	2	0.046	635.733	11642.05	0	0	0	0	1
447	2031	3	1.252	463.579	11642.05	0	0	0	0	1
448	2031	4	12.652	233.190	11664.61	0	0	0	0	1
449	2031	5	42.330	59.704	11664.61	0	0	0	0	1
450	2031	6	132.438	6.696	11664.61	0	0	0	0	1
451	2031	7	282.048	0.033	11687.37	0	0	0	0	1
452	2031	8	341.880	0.000	11687.37	0	0	0	0	1
453	2031	9	267.806	0.248	11687.37	0	0	0	0	1
454	2031	10	87.446	23.785	11710.16	0	0	0	0	1
455	2031	11	12.146	141.925	11710.16	0	0	0	0	1

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	jul97	aug97	jan96	feb96	d05on
456	2031	12	1.742	366.913	11710.16	0	0	0	0	1
457	2032	1	0.369	581.662	11732.74	0	0	0	0	1
458	2032	2	0.046	635.733	11732.74	0	0	0	0	1
459	2032	3	1.252	463.579	11732.74	0	0	0	0	1
460	2032	4	12.652	233.190	11755.17	0	0	0	0	1
461	2032	5	42.330	59.704	11755.17	0	0	0	0	1
462	2032	6	132.438	6.696	11755.17	0	0	0	0	1
463	2032	7	282.048	0.033	11777.70	0	0	0	0	1
464	2032	8	341.880	0.000	11777.70	0	0	0	0	1
465	2032	9	267.806	0.248	11777.70	0	0	0	0	1
466	2032	10	87.446	23.785	11800.42	0	0	0	0	1
467	2032	11	12.146	141.925	11800.42	0	0	0	0	1
468	2032	12	1.742	366.913	11800.42	0	0	0	0	1
469	2033	1	0.369	581.662	11823.03	0	0	0	0	1
470	2033	2	0.046	635.733	11823.03	0	0	0	0	1
471	2033	3	1.252	463.579	11823.03	0	0	0	0	1
472	2033	4	12.652	233.190	11845.79	0	0	0	0	1
473	2033	5	42.330	59.704	11845.79	0	0	0	0	1
474	2033	6	132.438	6.696	11845.79	0	0	0	0	1
475	2033	7	282.048	0.033	11869.15	0	0	0	0	1
476	2033	8	341.880	0.000	11869.15	0	0	0	0	1
477	2033	9	267.806	0.248	11869.15	0	0	0	0	1
478	2033	10	87.446	23.785	11893.10	0	0	0	0	1
479	2033	11	12.146	141.925	11893.10	0	0	0	0	1
480	2033	12	1.742	366.913	11893.10	0	0	0	0	1
481	2034	1	0.369	581.662	11917.30	0	0	0	0	1
482	2034	2	0.046	635.733	11917.30	0	0	0	0	1
483	2034	3	1.252	463.579	11917.30	0	0	0	0	1
484	2034	4	12.652	233.190	11941.94	0	0	0	0	1
485	2034	5	42.330	59.704	11941.94	0	0	0	0	1
486	2034	6	132.438	6.696	11941.94	0	0	0	0	1
487	2034	7	282.048	0.033	11967.48	0	0	0	0	1
488	2034	8	341.880	0.000	11967.48	0	0	0	0	1
489	2034	9	267.806	0.248	11967.48	0	0	0	0	1
490	2034	10	87.446	23.785	11993.77	0	0	0	0	1

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	jul97	aug97	jan96	feb96	d05on
491	2034	11	12.146	141.925	11993.77	0	0	0	0	1
492	2034	12	1.742	366.913	11993.77	0	0	0	0	1
493	2035	1	0.369	581.662	12020.23	0	0	0	0	1
494	2035	2	0.046	635.733	12020.23	0	0	0	0	1
495	2035	3	1.252	463.579	12020.23	0	0	0	0	1
496	2035	4	12.652	233.190	12046.89	0	0	0	0	1
497	2035	5	42.330	59.704	12046.89	0	0	0	0	1
498	2035	6	132.438	6.696	12046.89	0	0	0	0	1
499	2035	7	282.048	0.033	12074.05	0	0	0	0	1
500	2035	8	341.880	0.000	12074.05	0	0	0	0	1
501	2035	9	267.806	0.248	12074.05	0	0	0	0	1
502	2035	10	87.446	23.785	12101.45	0	0	0	0	1
503	2035	11	12.146	141.925	12101.45	0	0	0	0	1
504	2035	12	1.742	366.913	12101.45	0	0	0	0	1
505	2036	1	0.369	581.662	12128.72	0	0	0	0	1
506	2036	2	0.046	635.733	12128.72	0	0	0	0	1
507	2036	3	1.252	463.579	12128.72	0	0	0	0	1
508	2036	4	12.652	233.190	12155.80	0	0	0	0	1
509	2036	5	42.330	59.704	12155.80	0	0	0	0	1
510	2036	6	132.438	6.696	12155.80	0	0	0	0	1
511	2036	7	282.048	0.033	12182.91	0	0	0	0	1
512	2036	8	341.880	0.000	12182.91	0	0	0	0	1
513	2036	9	267.806	0.248	12182.91	0	0	0	0	1
514	2036	10	87.446	23.785	12209.98	0	0	0	0	1
515	2036	11	12.146	141.925	12209.98	0	0	0	0	1
516	2036	12	1.742	366.913	12209.98	0	0	0	0	1
517	2037	1	0.369	581.662	12236.49	0	0	0	0	1
518	2037	2	0.046	635.733	12236.49	0	0	0	0	1
519	2037	3	1.252	463.579	12236.49	0	0	0	0	1
520	2037	4	12.652	233.190	12262.54	0	0	0	0	1
521	2037	5	42.330	59.704	12262.54	0	0	0	0	1
522	2037	6	132.438	6.696	12262.54	0	0	0	0	1
523	2037	7	282.048	0.033	12288.48	0	0	0	0	1
524	2037	8	341.880	0.000	12288.48	0	0	0	0	1
525	2037	9	267.806	0.248	12288.48	0	0	0	0	1

Kentucky Power Company
Municipal Energy Sales
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc	jul97	aug97	jan96	feb96	d05on
526	2037	10	87.446	23.785	12314.08	0	0	0	0	1
527	2037	11	12.146	141.925	12314.08	0	0	0	0	1
528	2037	12	1.742	366.913	12314.08	0	0	0	0	1
529	2038	1	0.369	581.662	12345.64	0	0	0	0	1
530	2038	2	0.046	635.733	12345.64	0	0	0	0	1
531	2038	3	1.252	463.579	12345.64	0	0	0	0	1
532	2038	4	12.652	233.190	12370.65	0	0	0	0	1
533	2038	5	42.330	59.704	12370.65	0	0	0	0	1
534	2038	6	132.438	6.696	12370.65	0	0	0	0	1
535	2038	7	282.048	0.033	12395.39	0	0	0	0	1
536	2038	8	341.880	0.000	12395.39	0	0	0	0	1
537	2038	9	267.806	0.248	12395.39	0	0	0	0	1
538	2038	10	87.446	23.785	12419.51	0	0	0	0	1
539	2038	11	12.146	141.925	12419.51	0	0	0	0	1
540	2038	12	1.742	366.913	12419.51	0	0	0	0	1

Kentucky Power Company
Municipal Energy Sales
Model Estimation

The SYSLIN Procedure
Ordinary Least Squares Estimation

Model KWH
Dependent Variable KWH
Label Energy (kWh)

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	1E15	1.25E14	129.19	<.0001
Error	169	1.636E14	9.678E11		
Corrected Total	177	1.164E15			

Root MSE	983759.014	R-Square	0.85946
Dependent Mean	7250631.78	Adj R-Sq	0.85281
Coeff Var	13.56791		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Variable Label
Intercept	1	-3350705	1541728	-2.17	0.0311	Intercept
gdp_kpc	1	1081.452	185.3820	5.83	<.0001	Service Area Gross Regional Product
bhdd55	1	4451.171	416.5554	10.69	<.0001	Heating Degree Days (Base 55)
bcdd65	1	4617.077	770.7165	5.99	<.0001	Cooling Degree Days (Base 65)
jul97	1	-1.368E7	992063.7	-13.79	<.0001	Binary Variable-July 1997

Kentucky Power Company
Municipal Energy Sales
Model Estimation

The SYSLIN Procedure
Ordinary Least Squares Estimation

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Variable Label
aug97	1	14467434	995642.8	14.53	<.0001	Binary Variable-August 1997
jan96	1	-1.355E7	1008827	-13.43	<.0001	Binary Variable-January 1996
feb96	1	14514031	1008541	14.39	<.0001	Binary Variable-February 1996
d05on	1	182316.1	251423.9	0.73	0.4694	

Durbin-Watson	2.112339
Number of Observations	178
First-Order Autocorrelation	-0.05745

Kentucky Power Company
Municipal Energy Sales
Model Residuals

time		Residual Values Sum
1994.000000		384123
1994.083333	*****	-1555769
1994.166667	**	-142057
1994.250000	*****	-772546
1994.333333	**	-117247
1994.416667	*****	965960
1994.500000	****	316196
1994.583333	*	-58515
1994.666667	*****	-614040
1994.750000	**	-138770
1994.833333	****	292960
1994.916667	*****	844758
1995.000000	*****	613309
1995.083333	*****	-567016
1995.166667	*****	-855732
1995.250000	*****	-417288
1995.333333		-28662
1995.416667	*****	537590
1995.500000	*****	914227
1995.583333	*****	1236278
1995.666667	*****	-1081669
1995.750000	***	252491
1995.833333	*****	762766
1995.916667	**	157132
1996.000000		0
1996.083333		0
1996.166667	*	88548
1996.250000	*****	-2487457
1996.333333	*****	2042162
1996.416667	*****	488621
1996.500000	*****	-1883007
1996.583333	*****	3093772
1996.666667	*****	-1607167
1996.750000	*****	1323485

Kentucky Power Company
Municipal Energy Sales
Model Residuals

1996.8333333		*****	1039077
1996.9166667		*****	1131069
1997.0000000		*****	1008515
1997.0833333	*****		-930599
1997.1666667	**		-128160
1997.2500000	*****		-1243208
1997.3333333	****		-313496
1997.4166667		***	234228
1997.5000000			-0
1997.5833333			0
1997.6666667	*****		-557723
1997.7500000	**		-115963
1997.8333333	**		-164700
1997.9166667		*****	1051398
1998.0000000	****		-299217
1998.0833333	*****		-1489459
1998.1666667		*****	2316814
1998.2500000	*****		-3186757
1998.3333333	**		-126156
1998.4166667		*****	582951
1998.5000000		*****	351431
1998.5833333		**	112993
1998.6666667	**		-125793
1998.7500000	*****		-1371775
1998.8333333			26609
1998.9166667		*****	1360759
1999.0000000	****		-271178
1999.0833333	****		-319154
1999.1666667	*****		-764272
1999.2500000	*****		-1489503
1999.3333333	*****		-921498
1999.4166667		*****	556456
1999.5000000		*****	849737
1999.5833333	*****		-545643
1999.6666667	*****		-514761
1999.7500000	*****		-596190
1999.8333333	****		-334644

Kentucky Power Company
Municipal Energy Sales
Model Residuals

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1999.9166667		*****	1548474
2000.0000000		*****	371554
2000.0833333	*****		-1048610
2000.1666667	*****		-540334
2000.2500000	*****		-638191
2000.3333333	*****		-446303
2000.4166667		*****	542130
2000.5000000		**	186146
2000.5833333		*****	369675
2000.6666667	****		-313927
2000.7500000	*****		-420446
2000.8333333		*****	1035633
2000.9166667		*****	1757264
2001.0000000		*	41208
2001.0833333	*****		-1215806
2001.1666667			3715
2001.2500000	*****		-1353304
2001.3333333	*****		-524352
2001.4166667		**	160132
2001.5000000		*****	355596
2001.5833333		*	96112
2001.6666667	*****		-1330950
2001.7500000	*****		-589612
2001.8333333		*****	411357
2001.9166667	*****		-1874039
2002.0000000		*****	3239866
2002.0833333	*****		-582342
2002.1666667	*****		-1122341
2002.2500000		*****	739275
2002.3333333	*****		-570382
2002.4166667		*****	432561
2002.5000000		*****	1071559
2002.5833333		*****	346724
2002.6666667	*****		-760594
2002.7500000	*****		-502740
2002.8333333		*****	495265
2002.9166667		*****	1202152

Kentucky Power company
Municipal Energy Sales
Model Residuals

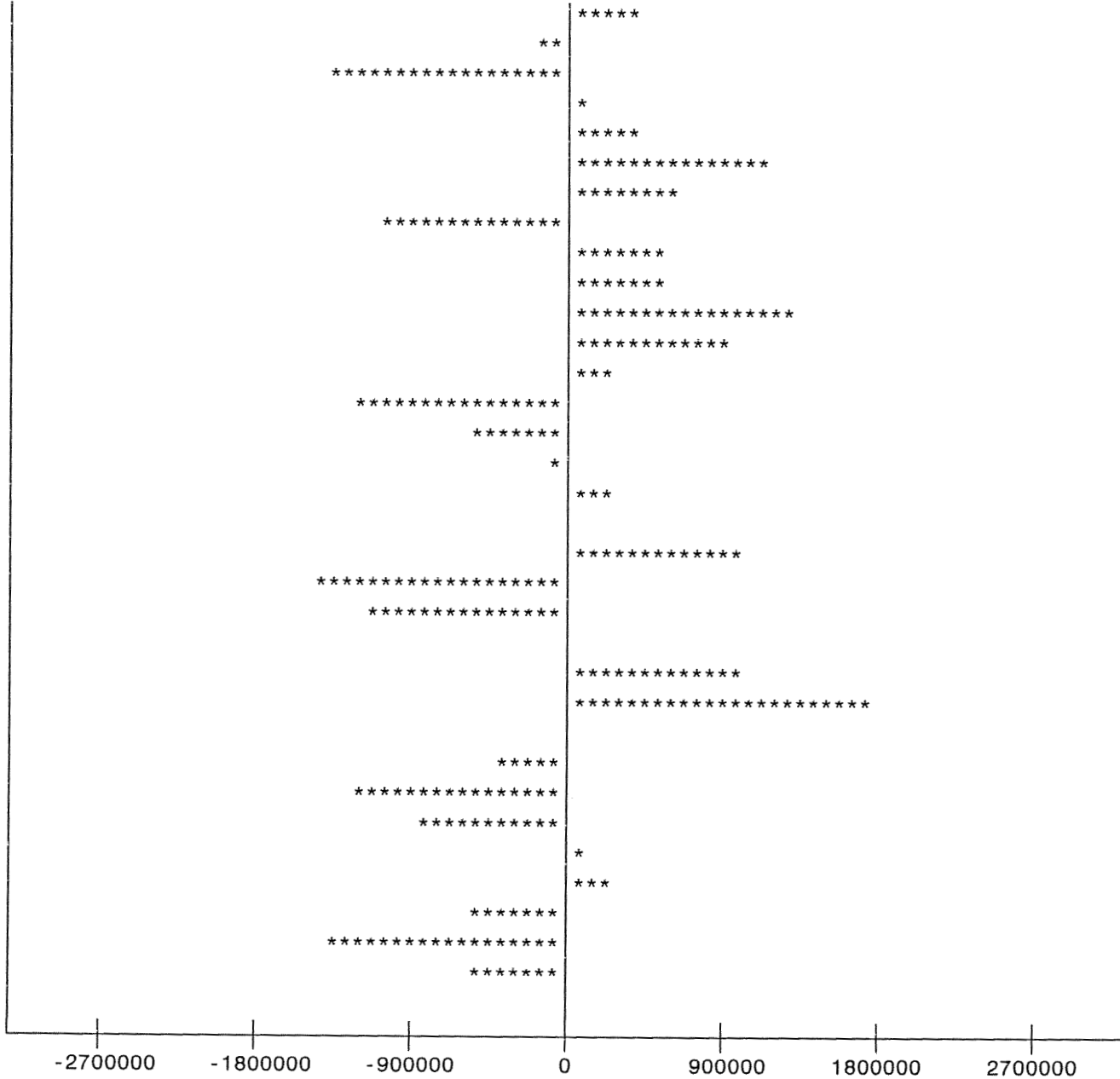
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2003.000000		*****	1473874
2003.0833333	*****		-2175614
2003.1666667	*****		-1219369
2003.2500000	*****		-604015
2003.3333333	*****		-590101
2003.4166667	*		-41262
2003.5000000		*****	928533
2003.5833333		*****	656258
2003.6666667	*****		-755650
2003.7500000			17303
2003.8333333		***	257280
2003.9166667		*****	1791777
2004.0000000		*****	1404535
2004.0833333	*****		-341180
2004.1666667	***		-251044
2004.2500000	*****		-741494
2004.3333333		***	204342
2004.4166667		***	219512
2004.5000000		*****	604251
2004.5833333		*	55412
2004.6666667	***		-226001
2004.7500000	*****		-449869
2004.8333333		***	244570
2004.9166667		*****	2166204
2005.0000000		*****	587627
2005.0833333	*****		-562038
2005.1666667		*****	452236
2005.2500000	*****		-1207946
2005.3333333	*****		-567185
2005.4166667		*****	533870
2005.5000000		*****	624426
2005.5833333		*	64461
2005.6666667	*****		-792661
2005.7500000	*****		-611446
2005.8333333		*****	831890
2005.9166667		*****	1678965
2006.0000000		*****	394089

Kentucky Power Company
Municipal Energy Sales
Model Residuals

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2006.0833333	*****	398564
2006.1666667	**	-158336
2006.2500000	*****	-1322131
2006.3333333	*	67586
2006.4166667	*****	345855
2006.5000000	*****	1098440
2006.5833333	*****	621246
2006.6666667	*****	-1034461
2006.7500000	*****	542997
2006.8333333	*****	519723
2006.9166667	*****	1249751
2007.0000000	*****	923122
2007.0833333	***	193692
2007.1666667	*****	-1211532
2007.2500000	*****	-493127
2007.3333333	*	-47458
2007.4166667	***	226301
2007.5000000		21784
2007.5833333	*****	945736
2007.6666667	*****	-1429313
2007.7500000	*****	-1151168
2007.8333333		4570
2007.9166667	*****	976385
2008.0000000	*****	1717945
2008.0833333		6825
2008.1666667	*****	-357744
2008.2500000	*****	-1217876
2008.3333333	*****	-795670
2008.4166667	*	103833
2008.5000000	***	200912
2008.5833333	*****	-532586
2008.6666667	*****	-1318938
2008.7500000	*****	-521213



Kentucky Power Company
Municipal Energy Sales
Actual and Forecast

Year	Energy Sales	Growth Rate
1994	73394000	.
1995	78285000	6.7
1996	82779786	5.7
1997	78693339	-4.9
1998	80490293	2.3
1999	80688141	0.2
2000	80797701	0.1
2001	79259500	-1.9
2002	93954100	18.5
2003	89150800	-5.1
2004	94458700	6.0
2005	98602259	4.4
2006	97668316	-0.9
2007	1.0025E8	2.6
2008	98570333	-1.7
2009	1.0097E8	2.4
2010	1.0344E8	2.4
2011	1.0609E8	2.6
2012	1.074E8	1.2
2013	1.0857E8	1.1
2014	1.097E8	1.0
2015	1.1079E8	1.0
2016	1.1207E8	1.2
2017	1.1346E8	1.2
2018	1.1468E8	1.1
2019	1.1586E8	1.0
2020	1.1709E8	1.1
2021	1.1838E8	1.1
2022	1.1965E8	1.1
2023	1.2089E8	1.0
2024	1.2211E8	1.0
2025	1.233E8	1.0
2026	1.2444E8	0.9
2027	1.2558E8	0.9

Kentucky Power Company
Municipal Energy Sales
Actual and Forecast

Year	Energy Sales	Growth Rate
2028	1.2673E8	0.9
2029	1.2785E8	0.9
2030	1.2898E8	0.9
2031	1.3015E8	0.9
2032	1.3132E8	0.9
2033	1.3251E8	0.9
2034	1.3377E8	1.0
2035	1.3514E8	1.0
2036	1.3655E8	1.0
2037	1.3793E8	1.0
2038	1.3932E8	1.0

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

The MEANS Procedure

Variable	Label	Mean
YEAR	YEAR	2018.00
MONTH	MONTH	6.5000000
KWH	Energy (kWh)	5747750.81

Kentucky Power company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
1	1998	1	.
2	1998	2	.
3	1998	3	.
4	1998	4	.
5	1998	5	.
6	1998	6	.
7	1998	7	.
8	1998	8	.
9	1998	9	.
10	1998	10	.
11	1998	11	.
12	1998	12	.
13	1999	1	.
14	1999	2	.
15	1999	3	.
16	1999	4	.
17	1999	5	.
18	1999	6	.
19	1999	7	.
20	1999	8	.
21	1999	9	.
22	1999	10	12234300
23	1999	11	4042900
24	1999	12	.
25	2000	1	11198700
26	2000	2	4776100
27	2000	3	.
28	2000	4	7805000
29	2000	5	3630100
30	2000	6	.
31	2000	7	8795500
32	2000	8	.
33	2000	9	8408200
34	2000	10	3749100
35	2000	11	4730900

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
36	2000	12	6660700
37	2001	1	6180900
38	2001	2	4843900
39	2001	3	5280800
40	2001	4	3948600
41	2001	5	3796800
42	2001	6	4291100
43	2001	7	5052300
44	2001	8	5356400
45	2001	9	4096800
46	2001	10	4088300
47	2001	11	4300600
48	2001	12	2299200
49	2002	1	8943700
50	2002	2	5190600
51	2002	3	5282300
52	2002	4	4297500
53	2002	5	4214600
54	2002	6	5048200
55	2002	7	5847100
56	2002	8	5728200
57	2002	9	4737700
58	2002	10	4543600
59	2002	11	5228200
60	2002	12	6307200
61	2003	1	7196800
62	2003	2	4933800
63	2003	3	5240000
64	2003	4	4292700
65	2003	5	4109500
66	2003	6	4543000
67	2003	7	5596500
68	2003	8	5731100
69	2003	9	4620900
70	2003	10	4660600

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
71	2003	11	5006200
72	2003	12	6571300
73	2004	1	14046200
74	2004	2	6448700
75	2004	3	5622300
76	2004	4	4774800
77	2004	5	5165900
78	2004	6	5227000
79	2004	7	5771900
80	2004	8	5463400
81	2004	9	4894000
82	2004	10	4625900
83	2004	11	5099800
84	2004	12	6754800
85	2005	1	6745600
86	2005	2	5941500
87	2005	3	6355800
88	2005	4	4677400
89	2005	5	4702300
90	2005	6	5447400
91	2005	7	6301700
92	2005	8	6255200
93	2005	9	5113200
94	2005	10	5019600
95	2005	11	5577300
96	2005	12	7594900
97	2006	1	6398257
98	2006	2	6314298
99	2006	3	6145647
100	2006	4	4667655
101	2006	5	5015456
102	2006	6	5415456
103	2006	7	6364417
104	2006	8	6583382
105	2006	9	5034548

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
106	2006	10	5601748
107	2006	11	5947180
108	2006	12	6807119
109	2007	1	6588896
110	2007	2	7202739
111	2007	3	6068974
112	2007	4	5517935
113	2007	5	5427061
114	2007	6	5802358
115	2007	7	6033322
116	2007	8	6768081
117	2007	9	5222239
118	2007	10	4820080
119	2007	11	5498788
120	2007	12	6876039
121	2008	1	7869550
122	2008	2	7046240
123	2008	3	6590161
124	2008	4	5051722
125	2008	5	4953384
126	2008	6	5619318
127	2008	7	6184453
128	2008	8	5845131
129	2008	9	4987397
130	2008	10	5121746
131	2008	11	5868990
132	2008	12	6684470
133	2009	1	.
134	2009	2	.
135	2009	3	.
136	2009	4	.
137	2009	5	.
138	2009	6	.
139	2009	7	.
140	2009	8	.

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
141	2009	9	.
142	2009	10	.
143	2009	11	.
144	2009	12	.
145	2010	1	.
146	2010	2	.
147	2010	3	.
148	2010	4	.
149	2010	5	.
150	2010	6	.
151	2010	7	.
152	2010	8	.
153	2010	9	.
154	2010	10	.
155	2010	11	.
156	2010	12	.
157	2011	1	.
158	2011	2	.
159	2011	3	.
160	2011	4	.
161	2011	5	.
162	2011	6	.
163	2011	7	.
164	2011	8	.
165	2011	9	.
166	2011	10	.
167	2011	11	.
168	2011	12	.
169	2012	1	.
170	2012	2	.
171	2012	3	.
172	2012	4	.
173	2012	5	.
174	2012	6	.
175	2012	7	.

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
176	2012	8	.
177	2012	9	.
178	2012	10	.
179	2012	11	.
180	2012	12	.
181	2013	1	.
182	2013	2	.
183	2013	3	.
184	2013	4	.
185	2013	5	.
186	2013	6	.
187	2013	7	.
188	2013	8	.
189	2013	9	.
190	2013	10	.
191	2013	11	.
192	2013	12	.
193	2014	1	.
194	2014	2	.
195	2014	3	.
196	2014	4	.
197	2014	5	.
198	2014	6	.
199	2014	7	.
200	2014	8	.
201	2014	9	.
202	2014	10	.
203	2014	11	.
204	2014	12	.
205	2015	1	.
206	2015	2	.
207	2015	3	.
208	2015	4	.
209	2015	5	.
210	2015	6	.

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
211	2015	7	.
212	2015	8	.
213	2015	9	.
214	2015	10	.
215	2015	11	.
216	2015	12	.
217	2016	1	.
218	2016	2	.
219	2016	3	.
220	2016	4	.
221	2016	5	.
222	2016	6	.
223	2016	7	.
224	2016	8	.
225	2016	9	.
226	2016	10	.
227	2016	11	.
228	2016	12	.
229	2017	1	.
230	2017	2	.
231	2017	3	.
232	2017	4	.
233	2017	5	.
234	2017	6	.
235	2017	7	.
236	2017	8	.
237	2017	9	.
238	2017	10	.
239	2017	11	.
240	2017	12	.
241	2018	1	.
242	2018	2	.
243	2018	3	.
244	2018	4	.
245	2018	5	.

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
246	2018	6	.
247	2018	7	.
248	2018	8	.
249	2018	9	.
250	2018	10	.
251	2018	11	.
252	2018	12	.
253	2019	1	.
254	2019	2	.
255	2019	3	.
256	2019	4	.
257	2019	5	.
258	2019	6	.
259	2019	7	.
260	2019	8	.
261	2019	9	.
262	2019	10	.
263	2019	11	.
264	2019	12	.
265	2020	1	.
266	2020	2	.
267	2020	3	.
268	2020	4	.
269	2020	5	.
270	2020	6	.
271	2020	7	.
272	2020	8	.
273	2020	9	.
274	2020	10	.
275	2020	11	.
276	2020	12	.
277	2021	1	.
278	2021	2	.
279	2021	3	.
280	2021	4	.

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
281	2021	5	.
282	2021	6	.
283	2021	7	.
284	2021	8	.
285	2021	9	.
286	2021	10	.
287	2021	11	.
288	2021	12	.
289	2022	1	.
290	2022	2	.
291	2022	3	.
292	2022	4	.
293	2022	5	.
294	2022	6	.
295	2022	7	.
296	2022	8	.
297	2022	9	.
298	2022	10	.
299	2022	11	.
300	2022	12	.
301	2023	1	.
302	2023	2	.
303	2023	3	.
304	2023	4	.
305	2023	5	.
306	2023	6	.
307	2023	7	.
308	2023	8	.
309	2023	9	.
310	2023	10	.
311	2023	11	.
312	2023	12	.
313	2024	1	.
314	2024	2	.
315	2024	3	.

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
316	2024	4	.
317	2024	5	.
318	2024	6	.
319	2024	7	.
320	2024	8	.
321	2024	9	.
322	2024	10	.
323	2024	11	.
324	2024	12	.
325	2025	1	.
326	2025	2	.
327	2025	3	.
328	2025	4	.
329	2025	5	.
330	2025	6	.
331	2025	7	.
332	2025	8	.
333	2025	9	.
334	2025	10	.
335	2025	11	.
336	2025	12	.
337	2026	1	.
338	2026	2	.
339	2026	3	.
340	2026	4	.
341	2026	5	.
342	2026	6	.
343	2026	7	.
344	2026	8	.
345	2026	9	.
346	2026	10	.
347	2026	11	.
348	2026	12	.
349	2027	1	.
350	2027	2	.

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
351	2027	3	.
352	2027	4	.
353	2027	5	.
354	2027	6	.
355	2027	7	.
356	2027	8	.
357	2027	9	.
358	2027	10	.
359	2027	11	.
360	2027	12	.
361	2028	1	.
362	2028	2	.
363	2028	3	.
364	2028	4	.
365	2028	5	.
366	2028	6	.
367	2028	7	.
368	2028	8	.
369	2028	9	.
370	2028	10	.
371	2028	11	.
372	2028	12	.
373	2029	1	.
374	2029	2	.
375	2029	3	.
376	2029	4	.
377	2029	5	.
378	2029	6	.
379	2029	7	.
380	2029	8	.
381	2029	9	.
382	2029	10	.
383	2029	11	.
384	2029	12	.
385	2030	1	.

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
386	2030	2	.
387	2030	3	.
388	2030	4	.
389	2030	5	.
390	2030	6	.
391	2030	7	.
392	2030	8	.
393	2030	9	.
394	2030	10	.
395	2030	11	.
396	2030	12	.
397	2031	1	.
398	2031	2	.
399	2031	3	.
400	2031	4	.
401	2031	5	.
402	2031	6	.
403	2031	7	.
404	2031	8	.
405	2031	9	.
406	2031	10	.
407	2031	11	.
408	2031	12	.
409	2032	1	.
410	2032	2	.
411	2032	3	.
412	2032	4	.
413	2032	5	.
414	2032	6	.
415	2032	7	.
416	2032	8	.
417	2032	9	.
418	2032	10	.
419	2032	11	.
420	2032	12	.

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
421	2033	1	.
422	2033	2	.
423	2033	3	.
424	2033	4	.
425	2033	5	.
426	2033	6	.
427	2033	7	.
428	2033	8	.
429	2033	9	.
430	2033	10	.
431	2033	11	.
432	2033	12	.
433	2034	1	.
434	2034	2	.
435	2034	3	.
436	2034	4	.
437	2034	5	.
438	2034	6	.
439	2034	7	.
440	2034	8	.
441	2034	9	.
442	2034	10	.
443	2034	11	.
444	2034	12	.
445	2035	1	.
446	2035	2	.
447	2035	3	.
448	2035	4	.
449	2035	5	.
450	2035	6	.
451	2035	7	.
452	2035	8	.
453	2035	9	.
454	2035	10	.
455	2035	11	.

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
456	2035	12	.
457	2036	1	.
458	2036	2	.
459	2036	3	.
460	2036	4	.
461	2036	5	.
462	2036	6	.
463	2036	7	.
464	2036	8	.
465	2036	9	.
466	2036	10	.
467	2036	11	.
468	2036	12	.
469	2037	1	.
470	2037	2	.
471	2037	3	.
472	2037	4	.
473	2037	5	.
474	2037	6	.
475	2037	7	.
476	2037	8	.
477	2037	9	.
478	2037	10	.
479	2037	11	.
480	2037	12	.
481	2038	1	.
482	2038	2	.
483	2038	3	.
484	2038	4	.
485	2038	5	.
486	2038	6	.
487	2038	7	.
488	2038	8	.
489	2038	9	.
490	2038	10	.

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Endogenous Variable

Obs	YEAR	MONTH	KWH
491	2038	11	.
492	2038	12	.

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

The MEANS Procedure

Variable	Label	Mean
YEAR	YEAR	2018.00
MONTH	MONTH	6.5000000
bcdd65	Cooling Degree Days (Base 65)	98.9677265
bhdd55	Heating Degree Days (Base 55)	206.6943888
gdp_kpc	Service Area Gross Regional Product	10390.10

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
1	1998	1	0.000	458.129	8249.71
2	1998	2	0.000	485.226	8249.71
3	1998	3	0.033	389.175	8249.71
4	1998	4	41.529	227.248	8304.39
5	1998	5	23.235	33.969	8304.39
6	1998	6	133.456	0.753	8304.39
7	1998	7	285.958	0.327	8347.49
8	1998	8	294.925	0.000	8347.49
9	1998	9	286.220	0.000	8347.49
10	1998	10	175.705	6.316	8374.99
11	1998	11	12.959	127.598	8374.99
12	1998	12	2.749	244.364	8374.99
13	1999	1	1.178	619.041	8378.97
14	1999	2	0.000	431.653	8378.97
15	1999	3	0.000	516.250	8378.97
16	1999	4	9.458	267.533	8352.00
17	1999	5	32.071	32.300	8352.00
18	1999	6	149.197	0.000	8352.00
19	1999	7	346.664	0.000	8286.95
20	1999	8	430.050	0.000	8286.95
21	1999	9	219.067	0.131	8286.95
22	1999	10	45.620	14.596	8194.02
23	1999	11	2.553	121.740	8194.02
24	1999	12	0.000	297.576	8194.02
25	2000	1	0.000	539.714	8102.52
26	2000	2	0.000	715.255	8102.52
27	2000	3	2.029	278.169	8102.52
28	2000	4	4.713	153.615	8042.12
29	2000	5	51.445	57.336	8042.12
30	2000	6	143.732	0.131	8042.12
31	2000	7	261.970	0.000	8039.86
32	2000	8	229.801	0.000	8039.86
33	2000	9	199.627	0.655	8039.86
34	2000	10	69.051	36.162	8100.28
35	2000	11	9.589	124.064	8100.28

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
36	2000	12	0.000	548.321	8100.28
37	2001	1	0.000	817.262	8201.40
38	2001	2	0.000	632.819	8201.40
39	2001	3	0.000	442.977	8201.40
40	2001	4	38.158	304.023	8320.45
41	2001	5	85.087	46.602	8320.45
42	2001	6	91.370	2.749	8320.45
43	2001	7	227.444	0.000	8437.62
44	2001	8	331.316	0.000	8437.62
45	2001	9	257.650	0.131	8437.62
46	2001	10	63.063	27.195	8539.63
47	2001	11	18.654	131.296	8539.63
48	2001	12	0.589	170.567	8539.63
49	2002	1	0.000	573.422	8622.24
50	2002	2	0.000	472.888	8622.24
51	2002	3	1.178	420.690	8622.24
52	2002	4	17.966	225.317	8684.48
53	2002	5	51.183	59.921	8684.48
54	2002	6	134.405	34.493	8684.48
55	2002	7	308.113	0.000	8725.92
56	2002	8	391.139	0.000	8725.92
57	2002	9	345.486	0.000	8725.92
58	2002	10	140.001	12.959	8749.68
59	2002	11	13.908	159.342	8749.68
60	2002	12	1.833	476.128	8749.68
61	2003	1	0.000	567.106	8764.65
62	2003	2	0.000	792.325	8764.65
63	2003	3	0.000	534.674	8764.65
64	2003	4	15.447	141.343	8780.56
65	2003	5	38.486	30.566	8780.56
66	2003	6	52.329	0.000	8780.56
67	2003	7	220.277	0.000	8806.71
68	2003	8	262.788	0.000	8806.71
69	2003	9	251.072	0.000	8806.71
70	2003	10	36.620	35.638	8845.41

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
71	2003	11	8.640	98.636	8845.41
72	2003	12	0.982	345.977	8845.41
73	2004	1	0.785	558.728	8891.52
74	2004	2	0.262	719.771	8891.52
75	2004	3	2.356	418.007	8891.52
76	2004	4	13.058	231.044	8939.55
77	2004	5	72.520	57.139	8939.55
78	2004	6	198.973	3.960	8939.55
79	2004	7	254.312	0.000	8984.75
80	2004	8	251.007	0.000	8984.75
81	2004	9	220.081	0.000	8984.75
82	2004	10	65.419	9.687	9022.78
83	2004	11	13.058	62.441	9022.78
84	2004	12	1.898	288.020	9022.78
85	2005	1	0.000	487.844	9049.95
86	2005	2	0.000	585.563	9049.95
87	2005	3	0.000	499.739	9049.95
88	2005	4	5.858	232.271	9063.56
89	2005	5	21.566	67.104	9063.56
90	2005	6	125.880	9.147	9063.56
91	2005	7	358.446	0.000	9061.42
92	2005	8	457.310	0.000	9061.42
93	2005	9	344.668	0.000	9061.42
94	2005	10	158.737	5.711	9048.87
95	2005	11	9.998	143.944	9048.87
96	2005	12	1.473	488.547	9048.87
97	2006	1	0.000	487.778	9039.96
98	2006	2	0.000	415.045	9039.96
99	2006	3	1.374	469.910	9039.96
100	2006	4	16.559	244.167	9048.96
101	2006	5	27.833	19.979	9048.96
102	2006	6	105.312	3.862	9048.96
103	2006	7	260.187	0.000	9089.46
104	2006	8	410.153	0.000	9089.46
105	2006	9	260.776	0.916	9089.46

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
106	2006	10	36.767	37.978	9161.40
107	2006	11	2.536	209.216	9161.40
108	2006	12	2.651	329.925	9161.40
109	2007	1	0.295	354.061	9248.67
110	2007	2	0.000	712.277	9248.67
111	2007	3	2.258	601.189	9248.67
112	2007	4	29.421	207.825	9335.55
113	2007	5	51.036	78.362	9335.55
114	2007	6	180.434	3.223	9335.55
115	2007	7	293.469	0.000	9408.16
116	2007	8	344.046	0.000	9408.16
117	2007	9	379.456	0.000	9408.16
118	2007	10	176.310	6.594	9458.06
119	2007	11	29.895	128.760	9458.06
120	2007	12	0.000	366.398	9458.06
121	2008	1	0.000	497.989	9485.02
122	2008	2	0.000	607.816	9485.02
123	2008	3	0.000	519.735	9485.02
124	2008	4	1.440	234.235	9490.44
125	2008	5	42.330	59.704	9490.44
126	2008	6	132.438	6.696	9490.44
127	2008	7	282.048	0.033	9475.96
128	2008	8	341.880	0.000	9475.96
129	2008	9	267.806	0.248	9475.96
130	2008	10	87.446	23.785	9448.57
131	2008	11	12.146	141.925	9448.57
132	2008	12	1.742	366.913	9448.57
133	2009	1	0.369	581.662	9421.62
134	2009	2	0.046	635.733	9421.62
135	2009	3	1.252	463.579	9421.62
136	2009	4	12.652	233.190	9408.14
137	2009	5	42.330	59.704	9408.14
138	2009	6	132.438	6.696	9408.14
139	2009	7	282.048	0.033	9420.40
140	2009	8	341.880	0.000	9420.40

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
141	2009	9	267.806	0.248	9420.40
142	2009	10	87.446	23.785	9460.76
143	2009	11	12.146	141.925	9460.76
144	2009	12	1.742	366.913	9460.76
145	2010	1	0.369	581.662	9519.32
146	2010	2	0.046	635.733	9519.32
147	2010	3	1.252	463.579	9519.32
148	2010	4	12.652	233.190	9586.13
149	2010	5	42.330	59.704	9586.13
150	2010	6	132.438	6.696	9586.13
151	2010	7	282.048	0.033	9652.67
152	2010	8	341.880	0.000	9652.67
153	2010	9	267.806	0.248	9652.67
154	2010	10	87.446	23.785	9713.04
155	2010	11	12.146	141.925	9713.04
156	2010	12	1.742	366.913	9713.04
157	2011	1	0.369	581.662	9765.10
158	2011	2	0.046	635.733	9765.10
159	2011	3	1.252	463.579	9765.10
160	2011	4	12.652	233.190	9808.54
161	2011	5	42.330	59.704	9808.54
162	2011	6	132.438	6.696	9808.54
163	2011	7	282.048	0.033	9843.38
164	2011	8	341.880	0.000	9843.38
165	2011	9	267.806	0.248	9843.38
166	2011	10	87.446	23.785	9870.34
167	2011	11	12.146	141.925	9870.34
168	2011	12	1.742	366.913	9870.34
169	2012	1	0.369	581.662	9892.03
170	2012	2	0.046	635.733	9892.03
171	2012	3	1.252	463.579	9892.03
172	2012	4	12.652	233.190	9911.58
173	2012	5	42.330	59.704	9911.58
174	2012	6	132.438	6.696	9911.58
175	2012	7	282.048	0.033	9932.10

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
176	2012	8	341.880	0.000	9932.10
177	2012	9	267.806	0.248	9932.10
178	2012	10	87.446	23.785	9954.71
179	2012	11	12.146	141.925	9954.71
180	2012	12	1.742	366.913	9954.71
181	2013	1	0.369	581.662	9978.28
182	2013	2	0.046	635.733	9978.28
183	2013	3	1.252	463.579	9978.28
184	2013	4	12.652	233.190	10002.00
185	2013	5	42.330	59.704	10002.00
186	2013	6	132.438	6.696	10002.00
187	2013	7	282.048	0.033	10025.39
188	2013	8	341.880	0.000	10025.39
189	2013	9	267.806	0.248	10025.39
190	2013	10	87.446	23.785	10047.92
191	2013	11	12.146	141.925	10047.92
192	2013	12	1.742	366.913	10047.92
193	2014	1	0.369	581.662	10069.37
194	2014	2	0.046	635.733	10069.37
195	2014	3	1.252	463.579	10069.37
196	2014	4	12.652	233.190	10090.02
197	2014	5	42.330	59.704	10090.02
198	2014	6	132.438	6.696	10090.02
199	2014	7	282.048	0.033	10110.41
200	2014	8	341.880	0.000	10110.41
201	2014	9	267.806	0.248	10110.41
202	2014	10	87.446	23.785	10130.72
203	2014	11	12.146	141.925	10130.72
204	2014	12	1.742	366.913	10130.72
205	2015	1	0.369	581.662	10151.07
206	2015	2	0.046	635.733	10151.07
207	2015	3	1.252	463.579	10151.07
208	2015	4	12.652	233.190	10172.02
209	2015	5	42.330	59.704	10172.02
210	2015	6	132.438	6.696	10172.02

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
211	2015	7	282.048	0.033	10194.37
212	2015	8	341.880	0.000	10194.37
213	2015	9	267.806	0.248	10194.37
214	2015	10	87.446	23.785	10218.19
215	2015	11	12.146	141.925	10218.19
216	2015	12	1.742	366.913	10218.19
217	2016	1	0.369	581.662	10243.11
218	2016	2	0.046	635.733	10243.11
219	2016	3	1.252	463.579	10243.11
220	2016	4	12.652	233.190	10269.01
221	2016	5	42.330	59.704	10269.01
222	2016	6	132.438	6.696	10269.01
223	2016	7	282.048	0.033	10296.01
224	2016	8	341.880	0.000	10296.01
225	2016	9	267.806	0.248	10296.01
226	2016	10	87.446	23.785	10323.74
227	2016	11	12.146	141.925	10323.74
228	2016	12	1.742	366.913	10323.74
229	2017	1	0.369	581.662	10351.10
230	2017	2	0.046	635.733	10351.10
231	2017	3	1.252	463.579	10351.10
232	2017	4	12.652	233.190	10377.59
233	2017	5	42.330	59.704	10377.59
234	2017	6	132.438	6.696	10377.59
235	2017	7	282.048	0.033	10403.04
236	2017	8	341.880	0.000	10403.04
237	2017	9	267.806	0.248	10403.04
238	2017	10	87.446	23.785	10427.18
239	2017	11	12.146	141.925	10427.18
240	2017	12	1.742	366.913	10427.18
241	2018	1	0.369	581.662	10450.07
242	2018	2	0.046	635.733	10450.07
243	2018	3	1.252	463.579	10450.07
244	2018	4	12.652	233.190	10472.34
245	2018	5	42.330	59.704	10472.34

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
246	2018	6	132.438	6.696	10472.34
247	2018	7	282.048	0.033	10494.82
248	2018	8	341.880	0.000	10494.82
249	2018	9	267.806	0.248	10494.82
250	2018	10	87.446	23.785	10517.63
251	2018	11	12.146	141.925	10517.63
252	2018	12	1.742	366.913	10517.63
253	2019	1	0.369	581.662	10540.39
254	2019	2	0.046	635.733	10540.39
255	2019	3	1.252	463.579	10540.39
256	2019	4	12.652	233.190	10563.18
257	2019	5	42.330	59.704	10563.18
258	2019	6	132.438	6.696	10563.18
259	2019	7	282.048	0.033	10586.36
260	2019	8	341.880	0.000	10586.36
261	2019	9	267.806	0.248	10586.36
262	2019	10	87.446	23.785	10609.85
263	2019	11	12.146	141.925	10609.85
264	2019	12	1.742	366.913	10609.85
265	2020	1	0.369	581.662	10633.50
266	2020	2	0.046	635.733	10633.50
267	2020	3	1.252	463.579	10633.50
268	2020	4	12.652	233.190	10657.39
269	2020	5	42.330	59.704	10657.39
270	2020	6	132.438	6.696	10657.39
271	2020	7	282.048	0.033	10681.89
272	2020	8	341.880	0.000	10681.89
273	2020	9	267.806	0.248	10681.89
274	2020	10	87.446	23.785	10706.94
275	2020	11	12.146	141.925	10706.94
276	2020	12	1.742	366.913	10706.94
277	2021	1	0.369	581.662	10731.92
278	2021	2	0.046	635.733	10731.92
279	2021	3	1.252	463.579	10731.92
280	2021	4	12.652	233.190	10756.75

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
281	2021	5	42.330	59.704	10756.75
282	2021	6	132.438	6.696	10756.75
283	2021	7	282.048	0.033	10781.64
284	2021	8	341.880	0.000	10781.64
285	2021	9	267.806	0.248	10781.64
286	2021	10	87.446	23.785	10806.36
287	2021	11	12.146	141.925	10806.36
288	2021	12	1.742	366.913	10806.36
289	2022	1	0.369	581.662	10830.60
290	2022	2	0.046	635.733	10830.60
291	2022	3	1.252	463.579	10830.60
292	2022	4	12.652	233.190	10854.56
293	2022	5	42.330	59.704	10854.56
294	2022	6	132.438	6.696	10854.56
295	2022	7	282.048	0.033	10878.72
296	2022	8	341.880	0.000	10878.72
297	2022	9	267.806	0.248	10878.72
298	2022	10	87.446	23.785	10902.97
299	2022	11	12.146	141.925	10902.97
300	2022	12	1.742	366.913	10902.97
301	2023	1	0.369	581.662	10926.89
302	2023	2	0.046	635.733	10926.89
303	2023	3	1.252	463.579	10926.89
304	2023	4	12.652	233.190	10950.58
305	2023	5	42.330	59.704	10950.58
306	2023	6	132.438	6.696	10950.58
307	2023	7	282.048	0.033	10974.39
308	2023	8	341.880	0.000	10974.39
309	2023	9	267.806	0.248	10974.39
310	2023	10	87.446	23.785	10998.18
311	2023	11	12.146	141.925	10998.18
312	2023	12	1.742	366.913	10998.18
313	2024	1	0.369	581.662	11021.72
314	2024	2	0.046	635.733	11021.72
315	2024	3	1.252	463.579	11021.72

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
316	2024	4	12.652	233.190	11045.03
317	2024	5	42.330	59.704	11045.03
318	2024	6	132.438	6.696	11045.03
319	2024	7	282.048	0.033	11068.39
320	2024	8	341.880	0.000	11068.39
321	2024	9	267.806	0.248	11068.39
322	2024	10	87.446	23.785	11091.75
323	2024	11	12.146	141.925	11091.75
324	2024	12	1.742	366.913	11091.75
325	2025	1	0.369	581.662	11114.67
326	2025	2	0.046	635.733	11114.67
327	2025	3	1.252	463.579	11114.67
328	2025	4	12.652	233.190	11137.21
329	2025	5	42.330	59.704	11137.21
330	2025	6	132.438	6.696	11137.21
331	2025	7	282.048	0.033	11159.65
332	2025	8	341.880	0.000	11159.65
333	2025	9	267.806	0.248	11159.65
334	2025	10	87.446	23.785	11181.90
335	2025	11	12.146	141.925	11181.90
336	2025	12	1.742	366.913	11181.90
337	2026	1	0.369	581.662	11203.70
338	2026	2	0.046	635.733	11203.70
339	2026	3	1.252	463.579	11203.70
340	2026	4	12.652	233.190	11225.30
341	2026	5	42.330	59.704	11225.30
342	2026	6	132.438	6.696	11225.30
343	2026	7	282.048	0.033	11247.17
344	2026	8	341.880	0.000	11247.17
345	2026	9	267.806	0.248	11247.17
346	2026	10	87.446	23.785	11269.26
347	2026	11	12.146	141.925	11269.26
348	2026	12	1.742	366.913	11269.26
349	2027	1	0.369	581.662	11291.19
350	2027	2	0.046	635.733	11291.19

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
351	2027	3	1.252	463.579	11291.19
352	2027	4	12.652	233.190	11313.05
353	2027	5	42.330	59.704	11313.05
354	2027	6	132.438	6.696	11313.05
355	2027	7	282.048	0.033	11335.20
356	2027	8	341.880	0.000	11335.20
357	2027	9	267.806	0.248	11335.20
358	2027	10	87.446	23.785	11357.47
359	2027	11	12.146	141.925	11357.47
360	2027	12	1.742	366.913	11357.47
361	2028	1	0.369	581.662	11379.57
362	2028	2	0.046	635.733	11379.57
363	2028	3	1.252	463.579	11379.57
364	2028	4	12.652	233.190	11401.43
365	2028	5	42.330	59.704	11401.43
366	2028	6	132.438	6.696	11401.43
367	2028	7	282.048	0.033	11423.24
368	2028	8	341.880	0.000	11423.24
369	2028	9	267.806	0.248	11423.24
370	2028	10	87.446	23.785	11445.00
371	2028	11	12.146	141.925	11445.00
372	2028	12	1.742	366.913	11445.00
373	2029	1	0.369	581.662	11466.42
374	2029	2	0.046	635.733	11466.42
375	2029	3	1.252	463.579	11466.42
376	2029	4	12.652	233.190	11487.68
377	2029	5	42.330	59.704	11487.68
378	2029	6	132.438	6.696	11487.68
379	2029	7	282.048	0.033	11509.20
380	2029	8	341.880	0.000	11509.20
381	2029	9	267.806	0.248	11509.20
382	2029	10	87.446	23.785	11530.94
383	2029	11	12.146	141.925	11530.94
384	2029	12	1.742	366.913	11530.94
385	2030	1	0.369	581.662	11552.61

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
386	2030	2	0.046	635.733	11552.61
387	2030	3	1.252	463.579	11552.61
388	2030	4	12.652	233.190	11574.39
389	2030	5	42.330	59.704	11574.39
390	2030	6	132.438	6.696	11574.39
391	2030	7	282.048	0.033	11596.71
392	2030	8	341.880	0.000	11596.71
393	2030	9	267.806	0.248	11596.71
394	2030	10	87.446	23.785	11619.42
395	2030	11	12.146	141.925	11619.42
396	2030	12	1.742	366.913	11619.42
397	2031	1	0.369	581.662	11642.05
398	2031	2	0.046	635.733	11642.05
399	2031	3	1.252	463.579	11642.05
400	2031	4	12.652	233.190	11664.61
401	2031	5	42.330	59.704	11664.61
402	2031	6	132.438	6.696	11664.61
403	2031	7	282.048	0.033	11687.37
404	2031	8	341.880	0.000	11687.37
405	2031	9	267.806	0.248	11687.37
406	2031	10	87.446	23.785	11710.16
407	2031	11	12.146	141.925	11710.16
408	2031	12	1.742	366.913	11710.16
409	2032	1	0.369	581.662	11732.74
410	2032	2	0.046	635.733	11732.74
411	2032	3	1.252	463.579	11732.74
412	2032	4	12.652	233.190	11755.17
413	2032	5	42.330	59.704	11755.17
414	2032	6	132.438	6.696	11755.17
415	2032	7	282.048	0.033	11777.70
416	2032	8	341.880	0.000	11777.70
417	2032	9	267.806	0.248	11777.70
418	2032	10	87.446	23.785	11800.42
419	2032	11	12.146	141.925	11800.42
420	2032	12	1.742	366.913	11800.42

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
421	2033	1	0.369	581.662	11823.03
422	2033	2	0.046	635.733	11823.03
423	2033	3	1.252	463.579	11823.03
424	2033	4	12.652	233.190	11845.79
425	2033	5	42.330	59.704	11845.79
426	2033	6	132.438	6.696	11845.79
427	2033	7	282.048	0.033	11869.15
428	2033	8	341.880	0.000	11869.15
429	2033	9	267.806	0.248	11869.15
430	2033	10	87.446	23.785	11893.10
431	2033	11	12.146	141.925	11893.10
432	2033	12	1.742	366.913	11893.10
433	2034	1	0.369	581.662	11917.30
434	2034	2	0.046	635.733	11917.30
435	2034	3	1.252	463.579	11917.30
436	2034	4	12.652	233.190	11941.94
437	2034	5	42.330	59.704	11941.94
438	2034	6	132.438	6.696	11941.94
439	2034	7	282.048	0.033	11967.48
440	2034	8	341.880	0.000	11967.48
441	2034	9	267.806	0.248	11967.48
442	2034	10	87.446	23.785	11993.77
443	2034	11	12.146	141.925	11993.77
444	2034	12	1.742	366.913	11993.77
445	2035	1	0.369	581.662	12020.23
446	2035	2	0.046	635.733	12020.23
447	2035	3	1.252	463.579	12020.23
448	2035	4	12.652	233.190	12046.89
449	2035	5	42.330	59.704	12046.89
450	2035	6	132.438	6.696	12046.89
451	2035	7	282.048	0.033	12074.05
452	2035	8	341.880	0.000	12074.05
453	2035	9	267.806	0.248	12074.05
454	2035	10	87.446	23.785	12101.45
455	2035	11	12.146	141.925	12101.45

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
456	2035	12	1.742	366.913	12101.45
457	2036	1	0.369	581.662	12128.72
458	2036	2	0.046	635.733	12128.72
459	2036	3	1.252	463.579	12128.72
460	2036	4	12.652	233.190	12155.80
461	2036	5	42.330	59.704	12155.80
462	2036	6	132.438	6.696	12155.80
463	2036	7	282.048	0.033	12182.91
464	2036	8	341.880	0.000	12182.91
465	2036	9	267.806	0.248	12182.91
466	2036	10	87.446	23.785	12209.98
467	2036	11	12.146	141.925	12209.98
468	2036	12	1.742	366.913	12209.98
469	2037	1	0.369	581.662	12236.49
470	2037	2	0.046	635.733	12236.49
471	2037	3	1.252	463.579	12236.49
472	2037	4	12.652	233.190	12262.54
473	2037	5	42.330	59.704	12262.54
474	2037	6	132.438	6.696	12262.54
475	2037	7	282.048	0.033	12288.48
476	2037	8	341.880	0.000	12288.48
477	2037	9	267.806	0.248	12288.48
478	2037	10	87.446	23.785	12314.08
479	2037	11	12.146	141.925	12314.08
480	2037	12	1.742	366.913	12314.08
481	2038	1	0.369	581.662	12345.64
482	2038	2	0.046	635.733	12345.64
483	2038	3	1.252	463.579	12345.64
484	2038	4	12.652	233.190	12370.65
485	2038	5	42.330	59.704	12370.65
486	2038	6	132.438	6.696	12370.65
487	2038	7	282.048	0.033	12395.39
488	2038	8	341.880	0.000	12395.39
489	2038	9	267.806	0.248	12395.39
490	2038	10	87.446	23.785	12419.51

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Exogenous Variables

Obs	YEAR	MONTH	bcdd65	bhdd55	gdp_kpc
491	2038	11	12.1462	141.925	12419.51
492	2038	12	1.7421	366.913	12419.51

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Model Estimation

The SYSLIN Procedure
Ordinary Least Squares Estimation

Model lkw
Dependent Variable lkw
Label

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	1.891002	0.472751	10.74	<.0001
Error	102	4.489907	0.044019		
Corrected Total	106	6.380909			
Root MSE		0.20981	R-Square	0.29635	
Dependent Mean		15.53261	Adj R-Sq	0.26876	
Coeff Var		1.35075			

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Variable Label
Intercept	1	10.07679	3.899751	2.58	0.0112	Intercept
lgdp	1	0.581232	0.429143	1.35	0.1786	Service Area Gross Regional Product, Log
bhdd55	1	0.000521	0.000112	4.64	<.0001	Heating Degree Days (Base 55)
bcdd65	1	0.000595	0.000209	2.84	0.0054	Cooling Degree Days (Base 65)

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Model Estimation

The SYSLIN Procedure
Ordinary Least Squares Estimation

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Variable Label
jan04	1	0.804624	0.213152	3.77	0.0003	Binary Variable-July 2004

Durbin-Watson	1.938774
Number of Observations	107
First-Order Autocorrelation	-0.07608

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Model Estimation

time		Residual Values Sum
	*****	0.970661
1999.750000		-0.166795
1999.833333	*****	0.642447
2000.000000		-0.301131
2000.083333	*****	0.484002
2000.250000		-0.259166
2000.333333	*****	0.530613
2000.500000		0.522321
2000.666667	*****	-0.230546
2000.750000		-0.008349
2000.833333	*****	0.118552
2000.916667		-0.103457
2001.000000	*****	-0.251161
2001.083333		-0.065952
2001.166667	***	-0.315388
2001.250000	*****	-0.248464
2001.333333		-0.106983
2001.416667	*****	-0.031315
2001.500000		-0.034649
2001.583333	**	-0.258987
2001.666667	*****	-0.166401
2001.750000		-0.143567
2001.833333	*****	-0.779464
2001.916667	*****	0.363912
2002.000000		-0.127840
2002.083333	*****	-0.083849
2002.166667		-0.202613
2002.250000	*****	-0.155727
2002.333333		-0.011509
2002.416667	*	0.047278
2002.500000		-0.022650
2002.583333	**	-0.185345
2002.666667		-0.113285
2002.750000	*****	0.025840
2002.833333		

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Kentucky Power Company
Municipal Energy Sales-Vanceburg
Model Estimation

2002.9166667
2003.0000000
2003.0833333
2003.1666667
2003.2500000
2003.3333333
2003.4166667
2003.5000000
2003.5833333
2003.6666667
2003.7500000
2003.8333333
2003.9166667
2004.0000000
2004.0833333
2004.1666667
2004.2500000
2004.3333333
2004.4166667
2004.5000000
2004.5833333
2004.6666667
2004.7500000
2004.8333333
2004.9166667
2005.0000000
2005.0833333
2005.1666667
2005.2500000
2005.3333333
2005.4166667
2005.5000000
2005.5833333
2005.6666667
2005.7500000
2005.8333333
2005.9166667

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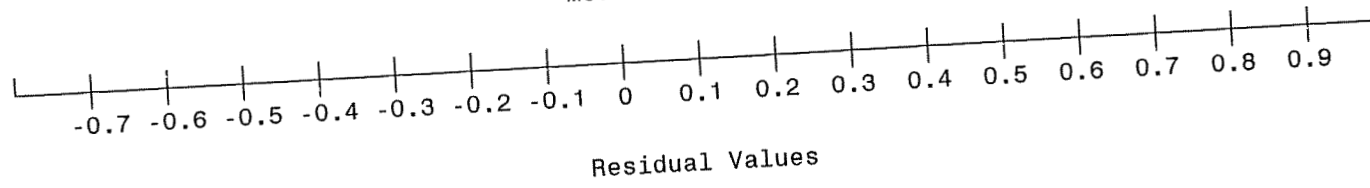
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-0.354433
-0.160062
-0.164901
-0.164538
-0.056569
0.050361
0.048842
-0.159507
-0.044503
0.010870
0.158668
0.000000
-0.057394
-0.038648
-0.114182
0.019730
-0.016034
0.049344
-0.003620
-0.095286
-0.067133
0.034073
0.204303
0.098274
-0.079538
0.032557
-0.139156
-0.057187
0.058033
0.070285
0.004075
-0.130514
-0.040566
0.081280
0.215687

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Model Estimation

2006.000000	**	0.046085
2006.0833333	****	0.070748
2006.1666667	*	0.014290
2006.2500000	*****	-0.152864
2006.3333333	*	0.029033
2006.4166667	***	0.068075
2006.5000000	*****	0.136837
2006.5833333	****	0.081464
2006.6666667	*****	-0.098389
2006.7500000	*****	0.117724
2006.8333333	*****	0.108759
2006.9166667	*****	0.180889
2007.0000000	*****	0.131630
2007.0833333	**	0.034357
2007.1666667	****	-0.080414
2007.2500000		0.007634
2007.3333333	**	0.045583
2007.4166667	****	0.074609
2007.5000000	**	0.043585
2007.5833333	*****	0.128422
2007.6666667	*****	-0.151931
2007.7500000	*****	-0.117745
2007.8333333	**	0.037468
2007.9166667	*****	0.155026
2008.0000000	*****	0.219810
2008.0833333	***	0.052116
2008.1666667	**	0.031064
2008.2500000	****	-0.087313
2008.3333333	**	-0.040414
2008.4166667	***	0.059731
2008.5000000	****	0.070928
2008.5833333	*	-0.021072
2008.6666667	*****	-0.135837
2008.7500000	*	-0.012552
2008.8333333	*****	0.106908
2008.9166667	*****	0.126049

Prepared by
 12/20/08
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Kentucky Power Company
Municipal Energy Sales-Vanceburg
Model Estimation



Kentucky Power Company
Municipal Energy Sales-Vanceburg
Actual and Forecast

Year	Energy Sales	Growth Rate
1998	.	.
1999	16277200	.
2000	59754300	267.1
2001	53535700	-10.4
2002	65368900	22.1
2003	62502400	-4.4
2004	73894700	18.2
2005	69731900	-5.6
2006	70295163	0.8
2007	71826512	2.2
2008	70435868.333	-1.9
2009	69185296.984	-1.8
2010	69977136.341	1.1
2011	70843747.441	1.2
2012	71269692.977	0.6
2013	71647327.976	0.5
2014	72008130.76	0.5
2015	72354408.099	0.5
2016	72761553.458	0.6
2017	73199949.543	0.6
2018	73584947.586	0.5
2019	73956370.276	0.5
2020	74341490.513	0.5
2021	74742526.116	0.5
2022	75135499.257	0.5
2023	75519923.922	0.5
2024	75896626.421	0.5
2025	76261858.903	0.5
2026	76611375.072	0.5
2027	76959000.953	0.5
2028	77306449.684	0.5
2029	77645634.621	0.4
2030	77987307.928	0.4
2031	78339801.571	0.5

Kentucky Power Company
Municipal Energy Sales-Vanceburg
Actual and Forecast

Year	Energy Sales	Growth Rate
2032	78692076.753	0.4
2033	79046146.518	0.4
2034	79422260.441	0.5
2035	79828675.168	0.5
2036	80246086.049	0.5
2037	80652100.154	0.5
2038	81061822.742	0.5

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

The MEANS Procedure

Variable	Label	Mean
YEAR	YEAR	2018.00
MONTH	MONTH	6.5000000
kwh	Energy (kWh)	2297744.15

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
1	1998	1	.
2	1998	2	.
3	1998	3	.
4	1998	4	.
5	1998	5	.
6	1998	6	.
7	1998	7	.
8	1998	8	.
9	1998	9	.
10	1998	10	.
11	1998	11	.
12	1998	12	.
13	1999	1	.
14	1999	2	.
15	1999	3	.
16	1999	4	.
17	1999	5	.
18	1999	6	.
19	1999	7	.
20	1999	8	.
21	1999	9	.
22	1999	10	2034000
23	1999	11	1624800
24	1999	12	1805400
25	2000	1	2770800
26	2000	2	2322600
27	2000	3	2514000
28	2000	4	1922400
29	2000	5	1805400
30	2000	6	1762800
31	2000	7	2264400
32	2000	8	2232600
33	2000	9	2171400
34	2000	10	2149800
35	2000	11	1719600

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
36	2000	12	2310600
37	2001	1	2946600
38	2001	2	3016800
39	2001	3	2213400
40	2001	4	1875000
41	2001	5	1926600
42	2001	6	1950600
43	2001	7	2127600
44	2001	8	2043600
45	2001	9	1536600
46	2001	10	1618800
47	2001	11	2665800
48	2001	12	2473200
49	2002	1	2822400
50	2002	2	2305800
51	2002	3	1447200
52	2002	4	3568800
53	2002	5	1759200
54	2002	6	2199600
55	2002	7	2733000
56	2002	8	2510400
57	2002	9	2182800
58	2002	10	1769400
59	2002	11	2152200
60	2002	12	3134400
61	2003	1	2929200
62	2003	2	2545200
63	2003	3	2048400
64	2003	4	1948800
65	2003	5	1759200
66	2003	6	1802400
67	2003	7	2522400
68	2003	8	2311800
69	2003	9	1956000
70	2003	10	1899600

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
71	2003	11	1945200
72	2003	12	2980200
73	2004	1	5491800
74	2004	2	2680200
75	2004	3	2263200
76	2004	4	1889400
77	2004	5	1944600
78	2004	6	2245800
79	2004	7	2372400
80	2004	8	2116800
81	2004	9	2262000
82	2004	10	1676400
83	2004	11	1890000
84	2004	12	3109200
85	2005	1	2632200
86	2005	2	2297241
87	2005	3	2515200
88	2005	4	1809000
89	2005	5	1762200
90	2005	6	2341800
91	2005	7	2608800
92	2005	8	2551800
93	2005	9	2316600
94	2005	10	1744800
95	2005	11	2559000
96	2005	12	2883000
97	2006	1	2774912
98	2006	2	2529599
99	2006	3	2388699
100	2006	4	1791134
101	2006	5	1887203
102	2006	6	2051454
103	2006	7	2596750
104	2006	8	2592996
105	2006	9	1800516

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
106	2006	10	2019286
107	2006	11	2254740
108	2006	12	2662655
109	2007	1	2745173
110	2007	2	2995023
111	2007	3	2239520
112	2007	4	1977408
113	2007	5	2037488
114	2007	6	2198936
115	2007	7	2349522
116	2007	8	2772236
117	2007	9	2106517
118	2007	10	1932195
119	2007	11	2276993
120	2007	12	2791299
121	2008	1	3154233
122	2008	2	2755285
123	2008	3	2454729
124	2008	4	1874737
125	2008	5	1807207
126	2008	6	2220862
127	2008	7	2398257
128	2008	8	2280182
129	2008	9	2010659
130	2008	10	1916447
131	2008	11	2417100
132	2008	12	2985408
133	2009	1	.
134	2009	2	.
135	2009	3	.
136	2009	4	.
137	2009	5	.
138	2009	6	.
139	2009	7	.
140	2009	8	.

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
141	2009	9	.
142	2009	10	.
143	2009	11	.
144	2009	12	.
145	2010	1	.
146	2010	2	.
147	2010	3	.
148	2010	4	.
149	2010	5	.
150	2010	6	.
151	2010	7	.
152	2010	8	.
153	2010	9	.
154	2010	10	.
155	2010	11	.
156	2010	12	.
157	2011	1	.
158	2011	2	.
159	2011	3	.
160	2011	4	.
161	2011	5	.
162	2011	6	.
163	2011	7	.
164	2011	8	.
165	2011	9	.
166	2011	10	.
167	2011	11	.
168	2011	12	.
169	2012	1	.
170	2012	2	.
171	2012	3	.
172	2012	4	.
173	2012	5	.
174	2012	6	.
175	2012	7	.

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
176	2012	8	.
177	2012	9	.
178	2012	10	.
179	2012	11	.
180	2012	12	.
181	2013	1	.
182	2013	2	.
183	2013	3	.
184	2013	4	.
185	2013	5	.
186	2013	6	.
187	2013	7	.
188	2013	8	.
189	2013	9	.
190	2013	10	.
191	2013	11	.
192	2013	12	.
193	2014	1	.
194	2014	2	.
195	2014	3	.
196	2014	4	.
197	2014	5	.
198	2014	6	.
199	2014	7	.
200	2014	8	.
201	2014	9	.
202	2014	10	.
203	2014	11	.
204	2014	12	.
205	2015	1	.
206	2015	2	.
207	2015	3	.
208	2015	4	.
209	2015	5	.
210	2015	6	.

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
211	2015	7	.
212	2015	8	.
213	2015	9	.
214	2015	10	.
215	2015	11	.
216	2015	12	.
217	2016	1	.
218	2016	2	.
219	2016	3	.
220	2016	4	.
221	2016	5	.
222	2016	6	.
223	2016	7	.
224	2016	8	.
225	2016	9	.
226	2016	10	.
227	2016	11	.
228	2016	12	.
229	2017	1	.
230	2017	2	.
231	2017	3	.
232	2017	4	.
233	2017	5	.
234	2017	6	.
235	2017	7	.
236	2017	8	.
237	2017	9	.
238	2017	10	.
239	2017	11	.
240	2017	12	.
241	2018	1	.
242	2018	2	.
243	2018	3	.
244	2018	4	.
245	2018	5	.

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
246	2018	6	.
247	2018	7	.
248	2018	8	.
249	2018	9	.
250	2018	10	.
251	2018	11	.
252	2018	12	.
253	2019	1	.
254	2019	2	.
255	2019	3	.
256	2019	4	.
257	2019	5	.
258	2019	6	.
259	2019	7	.
260	2019	8	.
261	2019	9	.
262	2019	10	.
263	2019	11	.
264	2019	12	.
265	2020	1	.
266	2020	2	.
267	2020	3	.
268	2020	4	.
269	2020	5	.
270	2020	6	.
271	2020	7	.
272	2020	8	.
273	2020	9	.
274	2020	10	.
275	2020	11	.
276	2020	12	.
277	2021	1	.
278	2021	2	.
279	2021	3	.
280	2021	4	.

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
281	2021	5	.
282	2021	6	.
283	2021	7	.
284	2021	8	.
285	2021	9	.
286	2021	10	.
287	2021	11	.
288	2021	12	.
289	2022	1	.
290	2022	2	.
291	2022	3	.
292	2022	4	.
293	2022	5	.
294	2022	6	.
295	2022	7	.
296	2022	8	.
297	2022	9	.
298	2022	10	.
299	2022	11	.
300	2022	12	.
301	2023	1	.
302	2023	2	.
303	2023	3	.
304	2023	4	.
305	2023	5	.
306	2023	6	.
307	2023	7	.
308	2023	8	.
309	2023	9	.
310	2023	10	.
311	2023	11	.
312	2023	12	.
313	2024	1	.
314	2024	2	.
315	2024	3	.

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
316	2024	4	.
317	2024	5	.
318	2024	6	.
319	2024	7	.
320	2024	8	.
321	2024	9	.
322	2024	10	.
323	2024	11	.
324	2024	12	.
325	2025	1	.
326	2025	2	.
327	2025	3	.
328	2025	4	.
329	2025	5	.
330	2025	6	.
331	2025	7	.
332	2025	8	.
333	2025	9	.
334	2025	10	.
335	2025	11	.
336	2025	12	.
337	2026	1	.
338	2026	2	.
339	2026	3	.
340	2026	4	.
341	2026	5	.
342	2026	6	.
343	2026	7	.
344	2026	8	.
345	2026	9	.
346	2026	10	.
347	2026	11	.
348	2026	12	.
349	2027	1	.
350	2027	2	.

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
351	2027	3	.
352	2027	4	.
353	2027	5	.
354	2027	6	.
355	2027	7	.
356	2027	8	.
357	2027	9	.
358	2027	10	.
359	2027	11	.
360	2027	12	.
361	2028	1	.
362	2028	2	.
363	2028	3	.
364	2028	4	.
365	2028	5	.
366	2028	6	.
367	2028	7	.
368	2028	8	.
369	2028	9	.
370	2028	10	.
371	2028	11	.
372	2028	12	.
373	2029	1	.
374	2029	2	.
375	2029	3	.
376	2029	4	.
377	2029	5	.
378	2029	6	.
379	2029	7	.
380	2029	8	.
381	2029	9	.
382	2029	10	.
383	2029	11	.
384	2029	12	.
385	2030	1	.

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
386	2030	2	.
387	2030	3	.
388	2030	4	.
389	2030	5	.
390	2030	6	.
391	2030	7	.
392	2030	8	.
393	2030	9	.
394	2030	10	.
395	2030	11	.
396	2030	12	.
397	2031	1	.
398	2031	2	.
399	2031	3	.
400	2031	4	.
401	2031	5	.
402	2031	6	.
403	2031	7	.
404	2031	8	.
405	2031	9	.
406	2031	10	.
407	2031	11	.
408	2031	12	.
409	2032	1	.
410	2032	2	.
411	2032	3	.
412	2032	4	.
413	2032	5	.
414	2032	6	.
415	2032	7	.
416	2032	8	.
417	2032	9	.
418	2032	10	.
419	2032	11	.
420	2032	12	.

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
421	2033	1	.
422	2033	2	.
423	2033	3	.
424	2033	4	.
425	2033	5	.
426	2033	6	.
427	2033	7	.
428	2033	8	.
429	2033	9	.
430	2033	10	.
431	2033	11	.
432	2033	12	.
433	2034	1	.
434	2034	2	.
435	2034	3	.
436	2034	4	.
437	2034	5	.
438	2034	6	.
439	2034	7	.
440	2034	8	.
441	2034	9	.
442	2034	10	.
443	2034	11	.
444	2034	12	.
445	2035	1	.
446	2035	2	.
447	2035	3	.
448	2035	4	.
449	2035	5	.
450	2035	6	.
451	2035	7	.
452	2035	8	.
453	2035	9	.
454	2035	10	.
455	2035	11	.

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
456	2035	12	.
457	2036	1	.
458	2036	2	.
459	2036	3	.
460	2036	4	.
461	2036	5	.
462	2036	6	.
463	2036	7	.
464	2036	8	.
465	2036	9	.
466	2036	10	.
467	2036	11	.
468	2036	12	.
469	2037	1	.
470	2037	2	.
471	2037	3	.
472	2037	4	.
473	2037	5	.
474	2037	6	.
475	2037	7	.
476	2037	8	.
477	2037	9	.
478	2037	10	.
479	2037	11	.
480	2037	12	.
481	2038	1	.
482	2038	2	.
483	2038	3	.
484	2038	4	.
485	2038	5	.
486	2038	6	.
487	2038	7	.
488	2038	8	.
489	2038	9	.
490	2038	10	.

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Endogenous Variable

Obs	YEAR	MONTH	kwh
491	2038	11	.
492	2038	12	.

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

The MEANS Procedure

Variable	Label	Mean
		2018.00
YEAR	YEAR	98.9677265
bcdd65	Cooling Degree Days (Base 65)	206.6943888
bhdd55	Heating Degree Days (Base 55)	7944.77
gdpcom_kpc	Service Area Gross Regional Product-Commercial	0.0020325
jan04	Binary Variable-July 2004	0.0020325
mar02	Binary Variable-March 2002	0.0020325
apr02	Binary Variable-April 2002	0.0020325

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
1	1998	0.000	458.129	5623.15	0	0	0
2	1998	0.000	485.226	5623.15	0	0	0
3	1998	0.033	389.175	5623.15	0	0	0
4	1998	41.529	227.248	5656.55	0	0	0
5	1998	23.235	33.969	5656.55	0	0	0
6	1998	133.456	0.753	5656.55	0	0	0
7	1998	285.958	0.327	5688.81	0	0	0
8	1998	294.925	0.000	5688.81	0	0	0
9	1998	286.220	0.000	5688.81	0	0	0
10	1998	175.705	6.316	5719.90	0	0	0
11	1998	12.959	127.598	5719.90	0	0	0
12	1998	2.749	244.364	5719.90	0	0	0
13	1999	1.178	619.041	5745.74	0	0	0
14	1999	0.000	431.653	5745.74	0	0	0
15	1999	0.000	516.250	5745.74	0	0	0
16	1999	9.458	267.533	5762.69	0	0	0
17	1999	32.071	32.300	5762.69	0	0	0
18	1999	149.197	0.000	5762.69	0	0	0
19	1999	346.664	0.000	5767.61	0	0	0
20	1999	430.050	0.000	5767.61	0	0	0
21	1999	219.067	0.131	5767.61	0	0	0
22	1999	45.620	14.596	5763.68	0	0	0
23	1999	2.553	121.740	5763.68	0	0	0
24	1999	0.000	297.576	5763.68	0	0	0
25	2000	0.000	539.714	5761.39	0	0	0
26	2000	0.000	715.255	5761.39	0	0	0
27	2000	2.029	278.169	5761.39	0	0	0
28	2000	4.713	153.615	5771.72	0	0	0
29	2000	51.445	57.336	5771.72	0	0	0
30	2000	143.732	0.131	5771.72	0	0	0
31	2000	261.970	0.000	5805.03	0	0	0
32	2000	229.801	0.000	5805.03	0	0	0
33	2000	199.627	0.655	5805.03	0	0	0
34	2000	69.051	36.162	5862.55	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
35	2000	9.589	124.064	5862.55	0	0	0
36	2000	0.000	548.321	5862.55	0	0	0
37	2001	0.000	817.262	5934.59	0	0	0
38	2001	0.000	632.819	5934.59	0	0	0
39	2001	0.000	442.977	5934.59	0	0	0
40	2001	38.158	304.023	6011.99	0	0	0
41	2001	85.087	46.602	6011.99	0	0	0
42	2001	91.370	2.749	6011.99	0	0	0
43	2001	227.444	0.000	6087.04	0	0	0
44	2001	331.316	0.000	6087.04	0	0	0
45	2001	257.650	0.131	6087.04	0	0	0
46	2001	63.063	27.195	6155.00	0	0	0
47	2001	18.654	131.296	6155.00	0	0	0
48	2001	0.589	170.567	6155.00	0	0	0
49	2002	0.000	573.422	6215.39	0	0	0
50	2002	0.000	472.888	6215.39	0	1	0
51	2002	1.178	420.690	6215.39	0	0	1
52	2002	17.966	225.317	6269.70	0	0	0
53	2002	51.183	59.921	6269.70	0	0	0
54	2002	134.405	34.493	6269.70	0	0	0
55	2002	308.113	0.000	6319.83	0	0	0
56	2002	391.139	0.000	6319.83	0	0	0
57	2002	345.486	0.000	6319.83	0	0	0
58	2002	140.001	12.959	6366.50	0	0	0
59	2002	13.908	159.342	6366.50	0	0	0
60	2002	1.833	476.128	6366.50	0	0	0
61	2003	0.000	567.106	6410.11	0	0	0
62	2003	0.000	792.325	6410.11	0	0	0
63	2003	0.000	534.674	6410.11	0	0	0
64	2003	15.447	141.343	6452.10	0	0	0
65	2003	38.486	30.566	6452.10	0	0	0
66	2003	52.329	0.000	6452.10	0	0	0
67	2003	220.277	0.000	6494.28	0	0	0
68	2003	262.788	0.000	6494.28	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
69	2003	251.072	0.000	6494.28	0	0	0
70	2003	36.620	35.638	6537.43	0	0	0
71	2003	8.640	98.636	6537.43	0	0	0
72	2003	0.982	345.977	6537.43	0	0	0
73	2004	0.785	558.728	6581.96	1	0	0
74	2004	0.262	719.771	6581.96	0	0	0
75	2004	2.356	418.007	6581.96	0	0	0
76	2004	13.058	231.044	6628.72	0	0	0
77	2004	72.520	57.139	6628.72	0	0	0
78	2004	198.973	3.960	6628.72	0	0	0
79	2004	254.312	0.000	6678.78	0	0	0
80	2004	251.007	0.000	6678.78	0	0	0
81	2004	220.081	0.000	6678.78	0	0	0
82	2004	65.419	9.687	6729.38	0	0	0
83	2004	13.058	62.441	6729.38	0	0	0
84	2004	1.898	288.020	6729.38	0	0	0
85	2005	0.000	487.844	6773.56	0	0	0
86	2005	0.000	585.563	6773.56	0	0	0
87	2005	0.000	499.739	6773.56	0	0	0
88	2005	5.858	232.271	6805.29	0	0	0
89	2005	21.566	67.104	6805.29	0	0	0
90	2005	125.880	9.147	6805.29	0	0	0
91	2005	358.446	0.000	6819.29	0	0	0
92	2005	457.310	0.000	6819.29	0	0	0
93	2005	344.668	0.000	6819.29	0	0	0
94	2005	158.737	5.711	6817.32	0	0	0
95	2005	9.998	143.944	6817.32	0	0	0
96	2005	1.473	488.547	6817.32	0	0	0
97	2006	0.000	487.778	6809.89	0	0	0
98	2006	0.000	415.045	6809.89	0	0	0
99	2006	1.374	469.910	6809.89	0	0	0
100	2006	16.559	244.167	6808.10	0	0	0
101	2006	27.833	19.979	6808.10	0	0	0
102	2006	105.312	3.862	6808.10	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
103	2006	260.187	0.000	6822.34	0	0	0
104	2006	410.153	0.000	6822.34	0	0	0
105	2006	260.776	0.916	6822.34	0	0	0
106	2006	36.767	37.978	6854.80	0	0	0
107	2006	2.536	209.216	6854.80	0	0	0
108	2006	2.651	329.925	6854.80	0	0	0
109	2007	0.295	354.061	6897.97	0	0	0
110	2007	0.000	712.277	6897.97	0	0	0
111	2007	2.258	601.189	6897.97	0	0	0
112	2007	29.421	207.825	6944.34	0	0	0
113	2007	51.036	78.362	6944.34	0	0	0
114	2007	180.434	3.223	6944.34	0	0	0
115	2007	293.469	0.000	6987.31	0	0	0
116	2007	344.046	0.000	6987.31	0	0	0
117	2007	379.456	0.000	6987.31	0	0	0
118	2007	176.310	6.594	7021.68	0	0	0
119	2007	29.895	128.760	7021.68	0	0	0
120	2007	0.000	366.398	7021.68	0	0	0
121	2008	0.000	497.989	7044.95	0	0	0
122	2008	0.000	607.816	7044.95	0	0	0
123	2008	0.000	519.735	7044.95	0	0	0
124	2008	1.440	234.235	7055.37	0	0	0
125	2008	42.330	59.704	7055.37	0	0	0
126	2008	132.438	6.696	7055.37	0	0	0
127	2008	282.048	0.033	7051.64	0	0	0
128	2008	341.880	0.000	7051.64	0	0	0
129	2008	267.806	0.248	7051.64	0	0	0
130	2008	87.446	23.785	7037.17	0	0	0
131	2008	12.146	141.925	7037.17	0	0	0
132	2008	1.742	366.913	7037.17	0	0	0
133	2009	0.369	581.662	7020.97	0	0	0
134	2009	0.046	635.733	7020.97	0	0	0
135	2009	1.252	463.579	7020.97	0	0	0
136	2009	12.652	233.190	7011.96	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
137	2009	42.330	59.704	7011.96	0	0	0
138	2009	132.438	6.696	7011.96	0	0	0
139	2009	282.048	0.033	7018.58	0	0	0
140	2009	341.880	0.000	7018.58	0	0	0
141	2009	267.806	0.248	7018.58	0	0	0
142	2009	87.446	23.785	7042.90	0	0	0
143	2009	12.146	141.925	7042.90	0	0	0
144	2009	1.742	366.913	7042.90	0	0	0
145	2010	0.369	581.662	7079.19	0	0	0
146	2010	0.046	635.733	7079.19	0	0	0
147	2010	1.252	463.579	7079.19	0	0	0
148	2010	12.652	233.190	7121.61	0	0	0
149	2010	42.330	59.704	7121.61	0	0	0
150	2010	132.438	6.696	7121.61	0	0	0
151	2010	282.048	0.033	7165.25	0	0	0
152	2010	341.880	0.000	7165.25	0	0	0
153	2010	267.806	0.248	7165.25	0	0	0
154	2010	87.446	23.785	7206.53	0	0	0
155	2010	12.146	141.925	7206.53	0	0	0
156	2010	1.742	366.913	7206.53	0	0	0
157	2011	0.369	581.662	7243.90	0	0	0
158	2011	0.046	635.733	7243.90	0	0	0
159	2011	1.252	463.579	7243.90	0	0	0
160	2011	12.652	233.190	7276.94	0	0	0
161	2011	42.330	59.704	7276.94	0	0	0
162	2011	132.438	6.696	7276.94	0	0	0
163	2011	282.048	0.033	7305.58	0	0	0
164	2011	341.880	0.000	7305.58	0	0	0
165	2011	267.806	0.248	7305.58	0	0	0
166	2011	87.446	23.785	7330.07	0	0	0
167	2011	12.146	141.925	7330.07	0	0	0
168	2011	1.742	366.913	7330.07	0	0	0
169	2012	0.369	581.662	7351.83	0	0	0
170	2012	0.046	635.733	7351.83	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
171	2012	1.252	463.579	7351.83	0	0	0
172	2012	12.652	233.190	7372.68	0	0	0
173	2012	42.330	59.704	7372.68	0	0	0
174	2012	132.438	6.696	7372.68	0	0	0
175	2012	282.048	0.033	7394.53	0	0	0
176	2012	341.880	0.000	7394.53	0	0	0
177	2012	267.806	0.248	7394.53	0	0	0
178	2012	87.446	23.785	7418.02	0	0	0
179	2012	12.146	141.925	7418.02	0	0	0
180	2012	1.742	366.913	7418.02	0	0	0
181	2013	0.369	581.662	7442.30	0	0	0
182	2013	0.046	635.733	7442.30	0	0	0
183	2013	1.252	463.579	7442.30	0	0	0
184	2013	12.652	233.190	7466.93	0	0	0
185	2013	42.330	59.704	7466.93	0	0	0
186	2013	132.438	6.696	7466.93	0	0	0
187	2013	282.048	0.033	7491.76	0	0	0
188	2013	341.880	0.000	7491.76	0	0	0
189	2013	267.806	0.248	7491.76	0	0	0
190	2013	87.446	23.785	7516.35	0	0	0
191	2013	12.146	141.925	7516.35	0	0	0
192	2013	1.742	366.913	7516.35	0	0	0
193	2014	0.369	581.662	7540.19	0	0	0
194	2014	0.046	635.733	7540.19	0	0	0
195	2014	1.252	463.579	7540.19	0	0	0
196	2014	12.652	233.190	7563.38	0	0	0
197	2014	42.330	59.704	7563.38	0	0	0
198	2014	132.438	6.696	7563.38	0	0	0
199	2014	282.048	0.033	7586.23	0	0	0
200	2014	341.880	0.000	7586.23	0	0	0
201	2014	267.806	0.248	7586.23	0	0	0
202	2014	87.446	23.785	7608.79	0	0	0
203	2014	12.146	141.925	7608.79	0	0	0
204	2014	1.742	366.913	7608.79	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
205	2015	0.369	581.662	7631.09	0	0	0
206	2015	0.046	635.733	7631.09	0	0	0
207	2015	1.252	463.579	7631.09	0	0	0
208	2015	12.652	233.190	7653.65	0	0	0
209	2015	42.330	59.704	7653.65	0	0	0
210	2015	132.438	6.696	7653.65	0	0	0
211	2015	282.048	0.033	7677.25	0	0	0
212	2015	341.880	0.000	7677.25	0	0	0
213	2015	267.806	0.248	7677.25	0	0	0
214	2015	87.446	23.785	7701.94	0	0	0
215	2015	12.146	141.925	7701.94	0	0	0
216	2015	1.742	366.913	7701.94	0	0	0
217	2016	0.369	581.662	7727.32	0	0	0
218	2016	0.046	635.733	7727.32	0	0	0
219	2016	1.252	463.579	7727.32	0	0	0
220	2016	12.652	233.190	7753.27	0	0	0
221	2016	42.330	59.704	7753.27	0	0	0
222	2016	132.438	6.696	7753.27	0	0	0
223	2016	282.048	0.033	7779.94	0	0	0
224	2016	341.880	0.000	7779.94	0	0	0
225	2016	267.806	0.248	7779.94	0	0	0
226	2016	87.446	23.785	7807.04	0	0	0
227	2016	12.146	141.925	7807.04	0	0	0
228	2016	1.742	366.913	7807.04	0	0	0
229	2017	0.369	581.662	7833.72	0	0	0
230	2017	0.046	635.733	7833.72	0	0	0
231	2017	1.252	463.579	7833.72	0	0	0
232	2017	12.652	233.190	7859.71	0	0	0
233	2017	42.330	59.704	7859.71	0	0	0
234	2017	132.438	6.696	7859.71	0	0	0
235	2017	282.048	0.033	7885.06	0	0	0
236	2017	341.880	0.000	7885.06	0	0	0
237	2017	267.806	0.248	7885.06	0	0	0
238	2017	87.446	23.785	7909.61	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
239	2017	12.146	141.925	7909.61	0	0	0
240	2017	1.742	366.913	7909.61	0	0	0
241	2018	0.369	581.662	7933.39	0	0	0
242	2018	0.046	635.733	7933.39	0	0	0
243	2018	1.252	463.579	7933.39	0	0	0
244	2018	12.652	233.190	7956.99	0	0	0
245	2018	42.330	59.704	7956.99	0	0	0
246	2018	132.438	6.696	7956.99	0	0	0
247	2018	282.048	0.033	7981.24	0	0	0
248	2018	341.880	0.000	7981.24	0	0	0
249	2018	267.806	0.248	7981.24	0	0	0
250	2018	87.446	23.785	8006.13	0	0	0
251	2018	12.146	141.925	8006.13	0	0	0
252	2018	1.742	366.913	8006.13	0	0	0
253	2019	0.369	581.662	8031.08	0	0	0
254	2019	0.046	635.733	8031.08	0	0	0
255	2019	1.252	463.579	8031.08	0	0	0
256	2019	12.652	233.190	8056.06	0	0	0
257	2019	42.330	59.704	8056.06	0	0	0
258	2019	132.438	6.696	8056.06	0	0	0
259	2019	282.048	0.033	8081.28	0	0	0
260	2019	341.880	0.000	8081.28	0	0	0
261	2019	267.806	0.248	8081.28	0	0	0
262	2019	87.446	23.785	8106.56	0	0	0
263	2019	12.146	141.925	8106.56	0	0	0
264	2019	1.742	366.913	8106.56	0	0	0
265	2020	0.369	581.662	8131.78	0	0	0
266	2020	0.046	635.733	8131.78	0	0	0
267	2020	1.252	463.579	8131.78	0	0	0
268	2020	12.652	233.190	8157.07	0	0	0
269	2020	42.330	59.704	8157.07	0	0	0
270	2020	132.438	6.696	8157.07	0	0	0
271	2020	282.048	0.033	8182.85	0	0	0
272	2020	341.880	0.000	8182.85	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
273	2020	267.806	0.248	8182.85	0	0	0
274	2020	87.446	23.785	8209.10	0	0	0
275	2020	12.146	141.925	8209.10	0	0	0
276	2020	1.742	366.913	8209.10	0	0	0
277	2021	0.369	581.662	8235.18	0	0	0
278	2021	0.046	635.733	8235.18	0	0	0
279	2021	1.252	463.579	8235.18	0	0	0
280	2021	12.652	233.190	8261.07	0	0	0
281	2021	42.330	59.704	8261.07	0	0	0
282	2021	132.438	6.696	8261.07	0	0	0
283	2021	282.048	0.033	8286.99	0	0	0
284	2021	341.880	0.000	8286.99	0	0	0
285	2021	267.806	0.248	8286.99	0	0	0
286	2021	87.446	23.785	8312.71	0	0	0
287	2021	12.146	141.925	8312.71	0	0	0
288	2021	1.742	366.913	8312.71	0	0	0
289	2022	0.369	581.662	8337.84	0	0	0
290	2022	0.046	635.733	8337.84	0	0	0
291	2022	1.252	463.579	8337.84	0	0	0
292	2022	12.652	233.190	8362.57	0	0	0
293	2022	42.330	59.704	8362.57	0	0	0
294	2022	132.438	6.696	8362.57	0	0	0
295	2022	282.048	0.033	8387.37	0	0	0
296	2022	341.880	0.000	8387.37	0	0	0
297	2022	267.806	0.248	8387.37	0	0	0
298	2022	87.446	23.785	8412.14	0	0	0
299	2022	12.146	141.925	8412.14	0	0	0
300	2022	1.742	366.913	8412.14	0	0	0
301	2023	0.369	581.662	8436.54	0	0	0
302	2023	0.046	635.733	8436.54	0	0	0
303	2023	1.252	463.579	8436.54	0	0	0
304	2023	12.652	233.190	8460.80	0	0	0
305	2023	42.330	59.704	8460.80	0	0	0
306	2023	132.438	6.696	8460.80	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
307	2023	282.048	0.033	8485.38	0	0	0
308	2023	341.880	0.000	8485.38	0	0	0
309	2023	267.806	0.248	8485.38	0	0	0
310	2023	87.446	23.785	8510.16	0	0	0
311	2023	12.146	141.925	8510.16	0	0	0
312	2023	1.742	366.913	8510.16	0	0	0
313	2024	0.369	581.662	8534.79	0	0	0
314	2024	0.046	635.733	8534.79	0	0	0
315	2024	1.252	463.579	8534.79	0	0	0
316	2024	12.652	233.190	8559.23	0	0	0
317	2024	42.330	59.704	8559.23	0	0	0
318	2024	132.438	6.696	8559.23	0	0	0
319	2024	282.048	0.033	8583.64	0	0	0
320	2024	341.880	0.000	8583.64	0	0	0
321	2024	267.806	0.248	8583.64	0	0	0
322	2024	87.446	23.785	8608.04	0	0	0
323	2024	12.146	141.925	8608.04	0	0	0
324	2024	1.742	366.913	8608.04	0	0	0
325	2025	0.369	581.662	8632.01	0	0	0
326	2025	0.046	635.733	8632.01	0	0	0
327	2025	1.252	463.579	8632.01	0	0	0
328	2025	12.652	233.190	8655.74	0	0	0
329	2025	42.330	59.704	8655.74	0	0	0
330	2025	132.438	6.696	8655.74	0	0	0
331	2025	282.048	0.033	8679.60	0	0	0
332	2025	341.880	0.000	8679.60	0	0	0
333	2025	267.806	0.248	8679.60	0	0	0
334	2025	87.446	23.785	8703.51	0	0	0
335	2025	12.146	141.925	8703.51	0	0	0
336	2025	1.742	366.913	8703.51	0	0	0
337	2026	0.369	581.662	8727.10	0	0	0
338	2026	0.046	635.733	8727.10	0	0	0
339	2026	1.252	463.579	8727.10	0	0	0
340	2026	12.652	233.190	8750.51	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
341	2026	42.330	59.704	8750.51	0	0	0
342	2026	132.438	6.696	8750.51	0	0	0
343	2026	282.048	0.033	8774.16	0	0	0
344	2026	341.880	0.000	8774.16	0	0	0
345	2026	267.806	0.248	8774.16	0	0	0
346	2026	87.446	23.785	8797.95	0	0	0
347	2026	12.146	141.925	8797.95	0	0	0
348	2026	1.742	366.913	8797.95	0	0	0
349	2027	0.369	581.662	8821.53	0	0	0
350	2027	0.046	635.733	8821.53	0	0	0
351	2027	1.252	463.579	8821.53	0	0	0
352	2027	12.652	233.190	8845.06	0	0	0
353	2027	42.330	59.704	8845.06	0	0	0
354	2027	132.438	6.696	8845.06	0	0	0
355	2027	282.048	0.033	8868.96	0	0	0
356	2027	341.880	0.000	8868.96	0	0	0
357	2027	267.806	0.248	8868.96	0	0	0
358	2027	87.446	23.785	8893.08	0	0	0
359	2027	12.146	141.925	8893.08	0	0	0
360	2027	1.742	366.913	8893.08	0	0	0
361	2028	0.369	581.662	8917.06	0	0	0
362	2028	0.046	635.733	8917.06	0	0	0
363	2028	1.252	463.579	8917.06	0	0	0
364	2028	12.652	233.190	8940.82	0	0	0
365	2028	42.330	59.704	8940.82	0	0	0
366	2028	132.438	6.696	8940.82	0	0	0
367	2028	282.048	0.033	8964.54	0	0	0
368	2028	341.880	0.000	8964.54	0	0	0
369	2028	267.806	0.248	8964.54	0	0	0
370	2028	87.446	23.785	8988.20	0	0	0
371	2028	12.146	141.925	8988.20	0	0	0
372	2028	1.742	366.913	8988.20	0	0	0
373	2029	0.369	581.662	9011.54	0	0	0
374	2029	0.046	635.733	9011.54	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
375	2029	1.252	463.579	9011.54	0	0	0
376	2029	12.652	233.190	9034.76	0	0	0
377	2029	42.330	59.704	9034.76	0	0	0
378	2029	132.438	6.696	9034.76	0	0	0
379	2029	282.048	0.033	9058.37	0	0	0
380	2029	341.880	0.000	9058.37	0	0	0
381	2029	267.806	0.248	9058.37	0	0	0
382	2029	87.446	23.785	9082.29	0	0	0
383	2029	12.146	141.925	9082.29	0	0	0
384	2029	1.742	366.913	9082.29	0	0	0
385	2030	0.369	581.662	9106.18	0	0	0
386	2030	0.046	635.733	9106.18	0	0	0
387	2030	1.252	463.579	9106.18	0	0	0
388	2030	12.652	233.190	9130.19	0	0	0
389	2030	42.330	59.704	9130.19	0	0	0
390	2030	132.438	6.696	9130.19	0	0	0
391	2030	282.048	0.033	9154.74	0	0	0
392	2030	341.880	0.000	9154.74	0	0	0
393	2030	267.806	0.248	9154.74	0	0	0
394	2030	87.446	23.785	9179.67	0	0	0
395	2030	12.146	141.925	9179.67	0	0	0
396	2030	1.742	366.913	9179.67	0	0	0
397	2031	0.369	581.662	9204.42	0	0	0
398	2031	0.046	635.733	9204.42	0	0	0
399	2031	1.252	463.579	9204.42	0	0	0
400	2031	12.652	233.190	9229.01	0	0	0
401	2031	42.330	59.704	9229.01	0	0	0
402	2031	132.438	6.696	9229.01	0	0	0
403	2031	282.048	0.033	9253.71	0	0	0
404	2031	341.880	0.000	9253.71	0	0	0
405	2031	267.806	0.248	9253.71	0	0	0
406	2031	87.446	23.785	9278.37	0	0	0
407	2031	12.146	141.925	9278.37	0	0	0
408	2031	1.742	366.913	9278.37	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
409	2032	0.369	581.662	9302.83	0	0	0
410	2032	0.046	635.733	9302.83	0	0	0
411	2032	1.252	463.579	9302.83	0	0	0
412	2032	12.652	233.190	9327.21	0	0	0
413	2032	42.330	59.704	9327.21	0	0	0
414	2032	132.438	6.696	9327.21	0	0	0
415	2032	282.048	0.033	9351.89	0	0	0
416	2032	341.880	0.000	9351.89	0	0	0
417	2032	267.806	0.248	9351.89	0	0	0
418	2032	87.446	23.785	9376.91	0	0	0
419	2032	12.146	141.925	9376.91	0	0	0
420	2032	1.742	366.913	9376.91	0	0	0
421	2033	0.369	581.662	9401.85	0	0	0
422	2033	0.046	635.733	9401.85	0	0	0
423	2033	1.252	463.579	9401.85	0	0	0
424	2033	12.652	233.190	9426.81	0	0	0
425	2033	42.330	59.704	9426.81	0	0	0
426	2033	132.438	6.696	9426.81	0	0	0
427	2033	282.048	0.033	9452.19	0	0	0
428	2033	341.880	0.000	9452.19	0	0	0
429	2033	267.806	0.248	9452.19	0	0	0
430	2033	87.446	23.785	9477.93	0	0	0
431	2033	12.146	141.925	9477.93	0	0	0
432	2033	1.742	366.913	9477.93	0	0	0
433	2034	0.369	581.662	9503.72	0	0	0
434	2034	0.046	635.733	9503.72	0	0	0
435	2034	1.252	463.579	9503.72	0	0	0
436	2034	12.652	233.190	9529.87	0	0	0
437	2034	42.330	59.704	9529.87	0	0	0
438	2034	132.438	6.696	9529.87	0	0	0
439	2034	282.048	0.033	9556.93	0	0	0
440	2034	341.880	0.000	9556.93	0	0	0
441	2034	267.806	0.248	9556.93	0	0	0
442	2034	87.446	23.785	9584.76	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
443	2034	12.146	141.925	9584.76	0	0	0
444	2034	1.742	366.913	9584.76	0	0	0
445	2035	0.369	581.662	9612.76	0	0	0
446	2035	0.046	635.733	9612.76	0	0	0
447	2035	1.252	463.579	9612.76	0	0	0
448	2035	12.652	233.190	9640.88	0	0	0
449	2035	42.330	59.704	9640.88	0	0	0
450	2035	132.438	6.696	9640.88	0	0	0
451	2035	282.048	0.033	9669.42	0	0	0
452	2035	341.880	0.000	9669.42	0	0	0
453	2035	267.806	0.248	9669.42	0	0	0
454	2035	87.446	23.785	9698.14	0	0	0
455	2035	12.146	141.925	9698.14	0	0	0
456	2035	1.742	366.913	9698.14	0	0	0
457	2036	0.369	581.662	9726.67	0	0	0
458	2036	0.046	635.733	9726.67	0	0	0
459	2036	1.252	463.579	9726.67	0	0	0
460	2036	12.652	233.190	9755.02	0	0	0
461	2036	42.330	59.704	9755.02	0	0	0
462	2036	132.438	6.696	9755.02	0	0	0
463	2036	282.048	0.033	9783.42	0	0	0
464	2036	341.880	0.000	9783.42	0	0	0
465	2036	267.806	0.248	9783.42	0	0	0
466	2036	87.446	23.785	9811.88	0	0	0
467	2036	12.146	141.925	9811.88	0	0	0
468	2036	1.742	366.913	9811.88	0	0	0
469	2037	0.369	581.662	9839.91	0	0	0
470	2037	0.046	635.733	9839.91	0	0	0
471	2037	1.252	463.579	9839.91	0	0	0
472	2037	12.652	233.190	9867.61	0	0	0
473	2037	42.330	59.704	9867.61	0	0	0
474	2037	132.438	6.696	9867.61	0	0	0
475	2037	282.048	0.033	9895.43	0	0	0
476	2037	341.880	0.000	9895.43	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Exogenous Variables

Obs	YEAR	bcdd65	bhdd55	gdpcom_ kpc	jan04	mar02	apr02
477	2037	267.806	0.248	9895.43	0	0	0
478	2037	87.446	23.785	9923.18	0	0	0
479	2037	12.146	141.925	9923.18	0	0	0
480	2037	1.742	366.913	9923.18	0	0	0
481	2038	0.369	581.662	9955.89	0	0	0
482	2038	0.046	635.733	9955.89	0	0	0
483	2038	1.252	463.579	9955.89	0	0	0
484	2038	12.652	233.190	9982.95	0	0	0
485	2038	42.330	59.704	9982.95	0	0	0
486	2038	132.438	6.696	9982.95	0	0	0
487	2038	282.048	0.033	10010.18	0	0	0
488	2038	341.880	0.000	10010.18	0	0	0
489	2038	267.806	0.248	10010.18	0	0	0
490	2038	87.446	23.785	10037.23	0	0	0
491	2038	12.146	141.925	10037.23	0	0	0
492	2038	1.742	366.913	10037.23	0	0	0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Model Results

The SYSLIN Procedure
Ordinary Least Squares Estimation

Model kwh
Dependent Variable kwh
Label Energy (kWh)

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	2.038E13	3.397E12	38.63	<.0001
Error	104	9.145E12	8.793E10		
Corrected Total	110	2.952E13			

Root MSE	296529.350	R-Square	0.69026
Dependent Mean	2297744.15	Adj R-Sq	0.67239
Coeff Var	12.90524		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Variable Label
Intercept	1	-7009020	3812495	-1.84	0.0689	Intercept
lgdpcom	1	1008349	434504.0	2.32	0.0223	Service Area Gross Regional Product-Commercial, Log
bhdd55	1	1420.388	158.4386	8.96	<.0001	Heating Degree Days (Base 55)
bcdd65	1	1392.407	294.7018	4.72	<.0001	Cooling Degree Days (Base 65)

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Model Results

The SYSLIN Procedure
Ordinary Least Squares Estimation

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Variable Label
jan04	1	2840623	301323.7	9.43	<.0001	Binary Variable-July 2004
mar02	1	-950674	299786.2	-3.17	0.0020	Binary Variable-March 2002
apr02	1	1416282	299007.4	4.74	<.0001	Binary Variable-April 2002

Durbin-Watson	1.571925
Number of Observations	111
First-Order Autocorrelation	0.195395

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Model Residuals

time		Residual Values Sum
1999.750000	*****	227139.9
1999.833333	*****	-274279.5
1999.916667	*****	-339880.2
2000.000000	*****	281990.2
2000.083333	*****	-415546.4
2000.166667	*****	393859.9
2000.250000	*	-26368.1
2000.333333	****	-71684.7
2000.416667	*****	-161532.6
2000.500000	*****	169814.7
2000.583333	*****	182807.7
2000.666667	*****	162691.4
2000.750000	*****	262530.6
2000.833333	*****	-209727.2
2000.916667	*****	-207985.9
2001.000000	**	33698.0
2001.083333	*****	365878.1
2001.166667	*****	-167872.0
2001.250000	*****	-375101.0
2001.333333	*	-23207.1
2001.416667	***	54331.6
2001.500000	**	33255.4
2001.583333	*****	-195376.4
2001.666667	*****	-599989.5
2001.750000	*****	-296481.5
2001.833333	*****	664490.3
2001.916667	*****	441263.6
2002.000000	*****	209228.2
2002.083333	*****	-164574.9
2002.166667		0.0
2002.250000		0.0
2002.333333	*****	-204642.3
2002.416667	*****	155996.7
2002.500000	*****	488487.7

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Model Residuals

2002.5833333		*****	150282.5
2002.6666667		*****	-113750.6
2002.7500000	*****		-266857.2
2002.8333333		****	83595.0
2002.9166667		*****	632650.8
2003.0000000		*****	293894.5
2003.0833333	*****		-410003.8
2003.1666667	*****		-540840.5
2003.2500000		*****	-109848.5
2003.3333333	*****		-174182.0
2003.4166667		*****	-106841.7
2003.5000000		*****	372734.1
2003.5833333		*****	102941.8
2003.6666667	*****		-236545.0
2003.7500000		***	-51637.9
2003.8333333		***	-56557.9
2003.9166667		*****	637783.8
2004.0000000			0.0
2004.0833333	*****		-198992.3
2004.1666667	*****		-190285.8
2004.2500000	*****		-320564.4
2004.3333333	*****		-101148.4
2004.4166667		*****	99513.6
2004.5000000		*****	147096.0
2004.5833333		*****	-103901.6
2004.6666667		****	84359.8
2004.7500000	*****		-307256.2
2004.8333333	*****		-95679.1
2004.9166667		*****	818649.8
2005.0000000		***	53867.1
2005.0833333	*****		-419891.2
2005.1666667		****	-80029.6
2005.2500000	*****		-419191.1
2005.3333333	*****		-253262.2
2005.4166667		*****	263412.9
2005.5000000		*****	217505.9
2005.5833333		*	22846.0

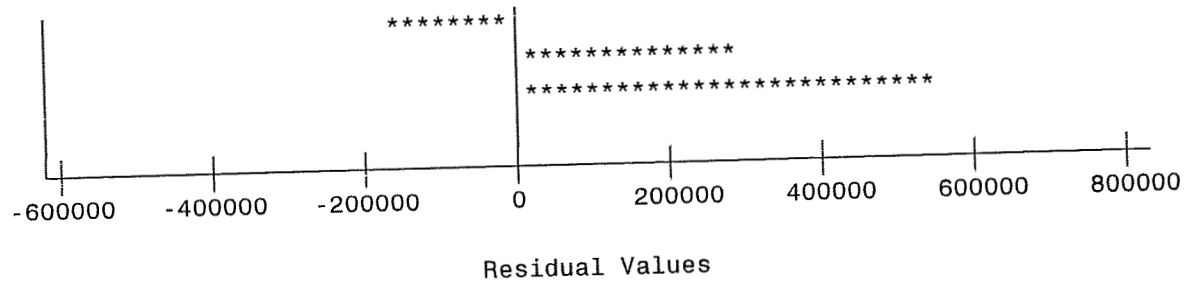
Kentucky Power Company
Municipal Energy Sales-Olive Hill
Model Residuals

2005.666667	***	-55510.1
2005.7500000	*****	-376237.3
2005.8333333	*****	448722.0
2005.9166667	*****	295122.9
2006.0000000	*****	191277.2
2006.0833333	**	49273.4
2006.1666667	*****	-171469.8
2006.2500000	*****	-469271.3
2006.3333333	****	-70466.2
2006.4166667		8796.4
2006.5000000	*****	341822.1
2006.5833333	*****	129254.3
2006.6666667	*****	-456533.7
2006.7500000	*	16718.7
2006.8333333	***	56612.4
2006.9166667	*****	292914.1
2007.0000000	*****	338100.8
2007.0833333	****	79554.3
2007.1666667	*****	-521305.2
2007.2500000	*****	-269264.9
2007.3333333	***	-55394.3
2007.4166667	**	32605.0
2007.5000000	*	24159.6
2007.5833333	*****	376448.8
2007.6666667	*****	-338574.4
2007.7500000	*****	-244350.3
2007.8333333	*****	130795.1
2007.9166667	*****	349188.4
2008.0000000	*****	521878.0
2008.0833333	**	-33068.1
2008.1666667	*****	-208514.2
2008.2500000	*****	-386481.0
2008.3333333	*****	-263045.2
2008.4166667	*****	100435.3
2008.5000000	****	79508.5
2008.5833333	*****	-121829.9
2008.6666667	*****	-288563.0

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Model Residuals

2008.750000
2008.833333
2008.916667

-163001.9
274693.6
537918.5



Kentucky Power company
Municipal Energy Sales-Olive Hill
Actual and Forecast

Year	Energy Sales	Growth Rate
1998	.	.
1999	5464200	.
2000	25946400	374.8
2001	26394600	1.7
2002	28585200	8.3
2003	26648400	-6.8
2004	29941800	12.4
2005	28021641	-6.4
2006	27349944	-2.4
2007	28422310	3.9
2008	27462493.939	-3.4
2009	28279624.653	3.0
2010	28483592.157	0.7
2011	28728530.969	0.9
2012	28885491.9	0.5
2013	29040267.754	0.5
2014	29193509.187	0.5
2015	29338532.458	0.5
2016	29496762.111	0.5
2017	29659457.221	0.6
2018	29808277.839	0.5
2019	29958127.724	0.5
2020	30109322.397	0.5
2021	30262067.678	0.5
2022	30408876.077	0.5
2023	30549988.333	0.5
2024	30689427.819	0.5
2025	30824607.463	0.4
2026	30956113.882	0.4
2027	31086221.75	0.4
2028	31215991.008	0.4
2029	31342487.394	0.4
2030	31470155.288	0.4
2031	31600058.471	0.4

Kentucky Power Company
Municipal Energy Sales-Olive Hill
Actual and Forecast

Year	Energy Sales	Growth Rate
2032	31728131.156	0.4
2033	31856976.615	0.4
2034	31989714.07	0.4
2035	32130226.323	0.4
2036	32272195.563	0.4
2037	32410480.671	0.4
2038	32550533.852	0.4

PEAK DEMAND

**Kentucky Power Company
Summer Peak Demand Forecast (MW) By Sector**

Summer	Residential	Commercial	Industrial	Other Retail	Olive Hill	Vanceburg	Total
2009	540	305	442	2	6	14	1,308
2010	540	308	468	2	6	14	1,338
2011	540	313	481	2	6	15	1,357
2012	538	317	485	2	6	15	1,364
2013	541	322	492	2	6	15	1,379
2014	542	327	497	2	7	15	1,389
2015	544	331	501	2	7	15	1,400
2016	545	335	504	2	7	15	1,408
2017	546	340	510	2	7	16	1,420
2018	548	344	514	2	7	16	1,431
2019	551	347	518	2	7	16	1,441
2020	553	349	520	2	7	16	1,448
2021	557	354	526	2	7	16	1,462
2022	561	357	530	2	7	17	1,474
2023	562	362	534	2	7	17	1,483

**Kentucky Power Company
Winter Following Peak Demand Forecast (MW) By Sector**

Winter* Following	Residential	Commercial	Industrial	Other Retail	Olive Hill	Vanceburg	Total
2009	812	243	557	2	7	17	1,639
2010	813	246	580	2	8	18	1,668
2011	810	248	586	2	8	18	1,672
2012	815	252	594	3	8	18	1,689
2013	817	256	600	3	8	18	1,700
2014	818	259	605	3	8	18	1,711
2015	819	261	609	3	8	19	1,717
2016	820	263	616	3	8	19	1,728
2017	823	266	621	3	8	19	1,739
2018	826	268	626	3	8	19	1,750
2019	827	269	628	3	8	19	1,754
2020	834	273	634	3	8	20	1,771
2021	838	275	639	3	9	20	1,784
2022	838	277	645	3	9	20	1,791
2023	841	279	648	3	9	20	1,799

***Winter may occur in December of the year or January, February, March of following year.**