

**Aquila, Inc. d/b/a Aquila Networks – MPS and Aquila Networks – L&P**

**Case No. GR-2004-0072**

**Testimonies Submitted by James A. Gray**

<b><u>COMPANY</u></b>	<b><u>CASE NO.</u></b>
Missouri Public Service Company	GR-81-312
Missouri Public Service Company	ER-82-39
Missouri Public Service Company	GR-82-194
Laclede Gas Company	GR-82-200
St. Louis County Water Company	WR-82-249
Missouri Public Service Company	ER-83-40
Kansas City Power & Light Company	ER-83-49
Osage Natural Gas Company	GR-83-156
Missouri Public Service Company	GR-83-186
The Gas Service Company	GR-83-225
Laclede Gas Company	GR-83-233
Missouri Water Company	WR-83-352
Missouri Cities Water Company	WR-84-51
Le-Ru Telephone Company	TR-84-132
Union Electric Company	ER-84-168
Union Electric Company	EO-85-17
Kansas City Power & Light Company	ER-85-128
Great River Gas Company	GR-85-136

Missouri Cities Water Company	WR-85-157
Missouri Cities Water Company	SR-85-158
United Telephone Company of Missouri	TR-85-179
Osage Natural Gas Company	GR-85-183
Kansas City Power & Light Company	EO-85-185
ALLTEL Missouri, Inc.	TR-86-14
Sho-Me Power Corporation	ER-86-27
Missouri- American Water Company, Inc.	WR-89-265
The Empire District Electric Company	ER-90-138
Associated Natural Gas Company	GR-90-152
Missouri- American Water Company, Inc.	WR-91-211
United Cities Gas Company	GR-91-249
Laclede Gas Company	GR-92-165
St. Joseph Light & Power Company	GR-93-42
United Cities Gas Company	GR-93-47
Missouri Public Service Company	GR-93-172
Western Resources, Inc.	GR-93-240
Laclede Gas Company	GR-94-220
United Cities Gas Company	GR-95-160
The Empire District Electric Company	ER-95-279
Laclede Gas Company	GR-96-193
Missouri Gas Energy	GR-96-285
Associated Natural Gas Company	GR-97-272

Union Electric Company	GR-97-393
Missouri Gas Energy	GR-98-140
Laclede Gas Company	GR-98-374
St. Joseph Light & Power Company	GR-99-42
AmerenUE	GA-99-107
Laclede Gas Company	GA-99-236
Laclede Gas Company	GR-99-315
AmerenUE	GR-2000-512
Missouri Gas Energy	GR-2001-292
Gateway Pipeline Company, Inc., et al.	GM-2001-585
Missouri Gas Energy, et al	GC-2001-593
Laclede Gas Company	GR-2002-356
Laclede Gas Company	GA-2002-429
Southern Missouri Gas Company, L.P.	GT-2003-0031
Laclede Gas Company	GT-2003-0032
Missouri Gas Energy	GT-2003-0033
Fidelity Natural Gas, Inc.	GT-2003-0036
Atmos Energy Corporation	GT-2003-0037
Aquila Networks- L&P	GT-2003-0038
Aquila Networks- MPS	GT-2003-0039
AmerenUE	GT-2003-0034
AmerenUE	GR-2003-0517

**Scheduled Meter Read Dates by Billing Cycle**

Applicable to All Firm Customer Classes

<b>January 2002</b>						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 <b>Holiday</b>	2 Cycle 2 Read January Billing Month	3 Cycle 3 Read	4 Cycle 4 Read	5
6	7 Cycle 5 Read	8 Cycle 6 Read	9 Cycle 7 Read	10 Cycle 8 Read	11 Cycle 9 Read	12
13	14 Cycle 10 Read	15 Cycle 11 Read	16 Cycle 12 Read	17 Cycle 13 Read	18 Cycle 14 Read	19
20	21 Cycle 15 Read	22 Cycle 16 Read	23 Cycle 17 Read	24 Cycle 18 Read	25 Cycle 19 Read	26
27	28 Cycle 20 Read January Billing Month Ends	29	30 <b>Cycle 1 Read February Billing Month Starts</b>	31 <b>Cycle 2 Read</b>		

<b>February 2002</b>						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1 <b>Cycle 3 Read February Billing Month</b>	2
3	4 <b>Cycle 4 Read</b>	5 <b>Cycle 5 Read</b>	6 <b>Cycle 6 Read</b>	7 <b>Cycle 7 Read</b>	8 <b>Cycle 8 Read</b>	9
10	11 <b>Cycle 9 Read</b>	12 <b>Cycle 10 Read</b>	13 <b>Cycle 11 Read</b>	14 <b>Cycle 12 Read</b>	15 <b>Cycle 13 Read</b>	16
17	18 <b>Cycle 14 Read</b>	19 <b>Cycle 15 Read</b>	20 <b>Cycle 16 Read</b>	21 <b>Cycle 17 Read</b>	22 <b>Cycle 18 Read</b>	23
24	25 <b>Cycle 19 Read</b>	26 <b>Cycle 20 Read February Billing Month Ends</b>	27	28 Cycle 1 Read March Billing Month Starts		

**Total Customers, Usage in Ccf, and Heating Degree Days (HDD) by Billing Cycle**

MPS' Northern System's General Service - Commercial Customers

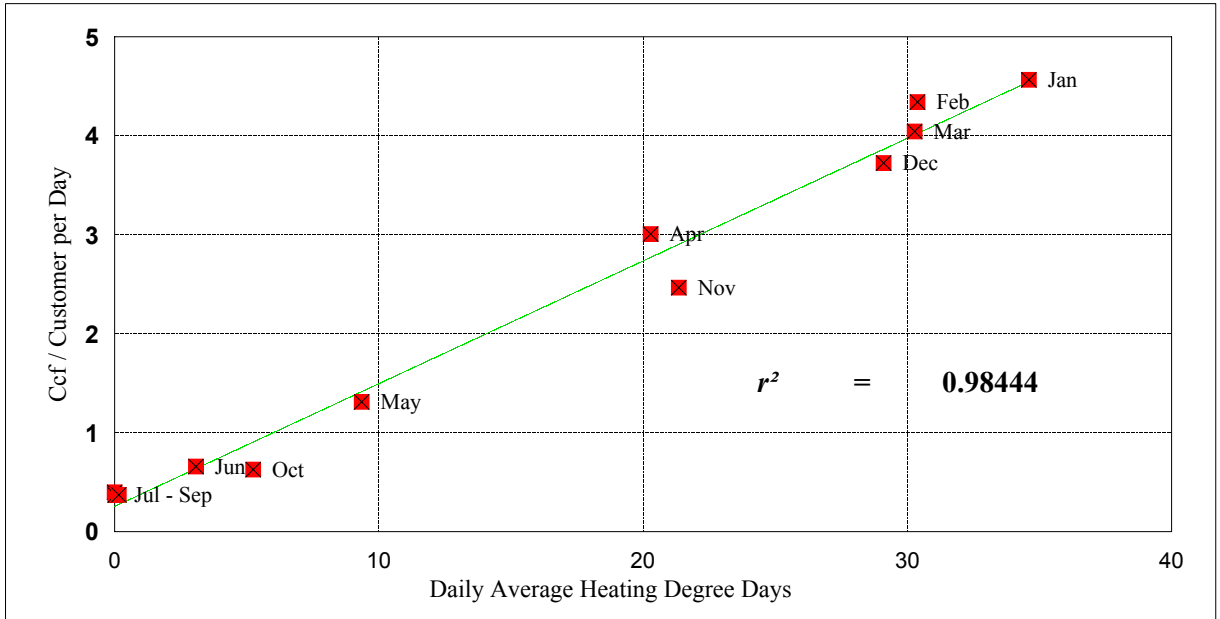
<i>January 2002</i>						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 <b>Holiday</b>	2 Cycle 2 Cust = 4 Ccf = 3353 HDD= 1017.4	3 Cycle 3 Cust = 57 Ccf = 20170 HDD= 1039.5	4 Cycle 4 Cust = 29 Ccf = 13505 HDD= 1014.3	5
6	7 Cycle 5 Cust = 99 Ccf = 40479 HDD= 1118.9	8 Cycle 6 Cust = 46 Ccf = 28067 HDD= 1161	9 Cycle 7 Cust = 72 Ccf = 24416 HDD= 1176.1	10 Cycle 8 Cust = 63 Ccf = 46303 HDD= 1180.3	11 Cycle 9 Cust = 107 Ccf = 42206 HDD= 1125.4	12
13	14 Cycle 10 Cust = 58 Ccf = 25131 HDD= 1175	15 Cycle 11 Cust = 8 Ccf = 7699 HDD= 1185	16 Cycle 12 Cust = 107 Ccf = 32136 HDD= 1194.1	17 Cycle 13 Cust = 24 Ccf = 12587 HDD= 1195.6	18 Cycle 14 Cust = 20 Ccf = 17086 HDD= 1156.5	19
20	21 Cycle 15 Cust = 93 Ccf = 42550 HDD= 1242	22 Cycle 16 Cust = 106 Ccf = 75625 HDD= 1246.8	23 Cycle 17 Cust = 119 Ccf = 50842 HDD= 1234.3	24 Cycle 18 Cust = 185 Ccf = 108784 HDD= 1237	25 Cycle 19 Cust = 93 Ccf = 68273 HDD= 1090.4	26
27	28 Cycle 20 Cust = 77 Ccf = 27062 HDD= 1102.6	29	30 Cycle 1 Cust = 67 Ccf = 29482 HDD= 986.4	31 Cycle 2 Cust = 5 Ccf = 2969 HDD= 923		

<i>February 2002</i>						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1 Cycle 3 Cust = 58 Ccf = 21437 HDD= 907.8	2
3	4 Cycle 4 Cust = 30 Ccf = 11829 HDD= 971.6	5 Cycle 5 Cust = 99 Ccf = 36443 HDD= 903.6	6 Cycle 6 Cust = 46 Ccf = 26841 HDD= 895	7 Cycle 7 Cust = 71 Ccf = 21004 HDD= 899.9	8 Cycle 8 Cust = 64 Ccf = 39556 HDD= 908.4	9
10	11 Cycle 9 Cust = 108 Ccf = 34634 HDD= 960.3	12 Cycle 10 Cust = 58 Ccf = 21934 HDD= 914.9	13 Cycle 11 Cust = 10 Ccf = 7860 HDD= 912	14 Cycle 12 Cust = 113 Ccf = 32265 HDD= 909.8	15 Cycle 13 Cust = 23 Ccf = 10428 HDD= 898	16
17	18 Cycle 14 Cust = 73 Ccf = 41357 HDD= 937.9	19 Cycle 15 Cust = 73 Ccf = 28176 HDD= 842.9	20 Cycle 16 Cust = 68 Ccf = 60078 HDD= 834.5	21 Cycle 17 Cust = 118 Ccf = 35963 HDD= 843.8	22 Cycle 18 Cust = 183 Ccf = 78486 HDD= 847.7	23
24	25 Cycle 19 Cust = 92 Ccf = 58267 HDD= 870.7	26 Cycle 20 Cust = 74 Ccf = 23012 HDD= 853.9	27	28 Cycle 1 Cust = 65 Ccf = 23048 HDD= 888.5		

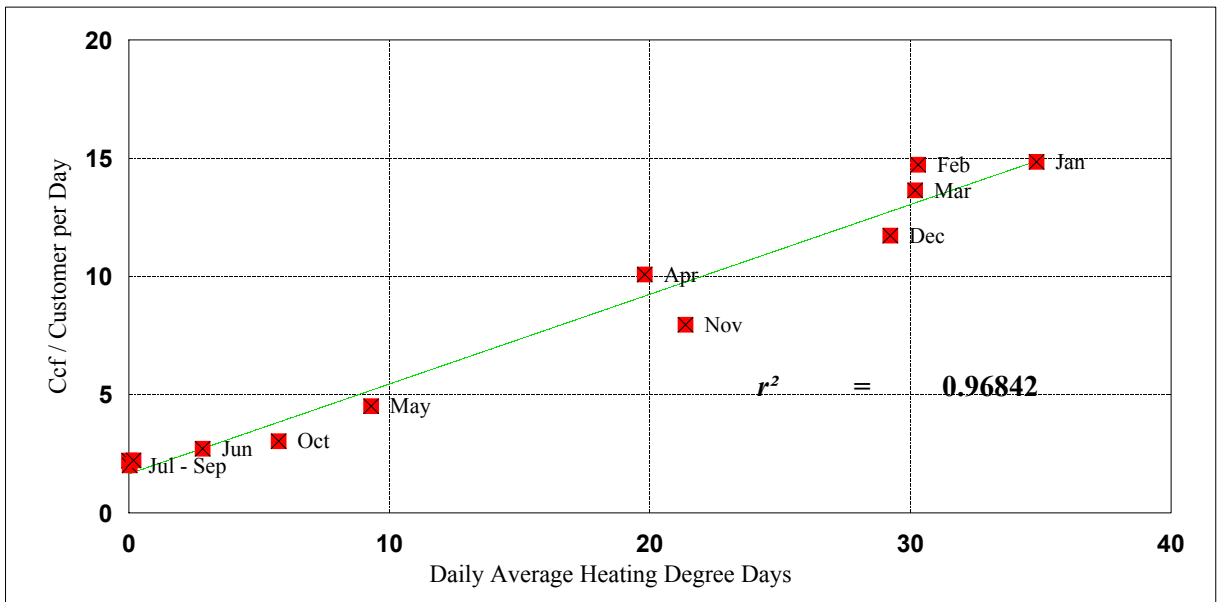
**Plots of Billing Month Actual & Estimated Usage vs. Heating Degree Days**

**MPS - Northern System**

**Residential Service**



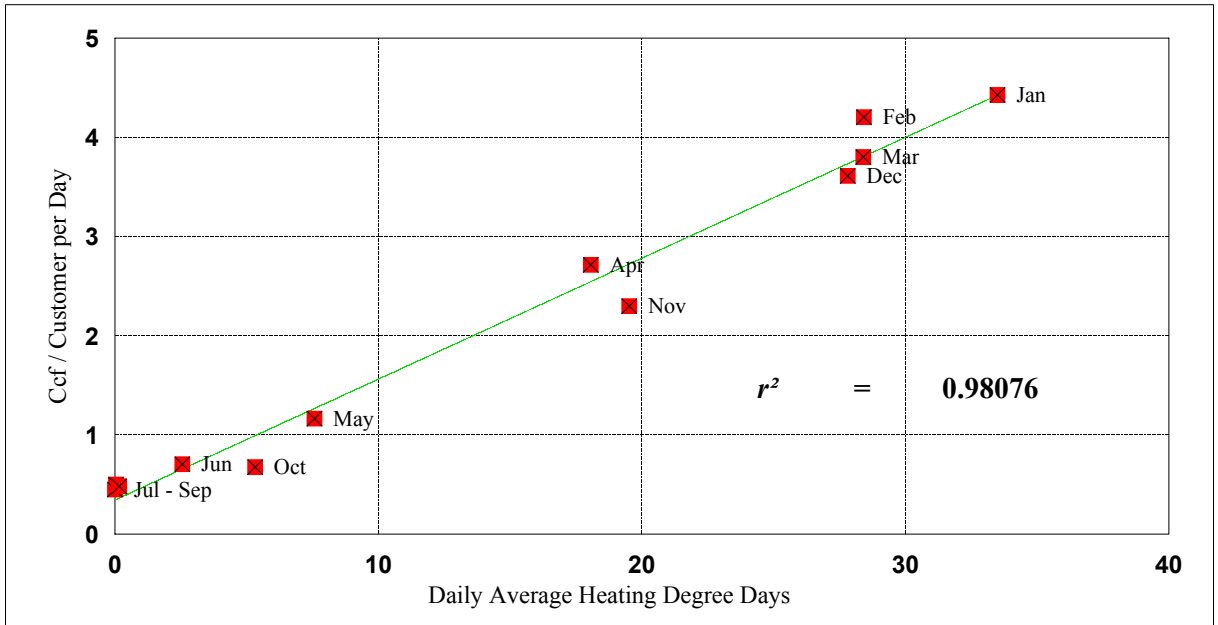
**General Service - Commercial**



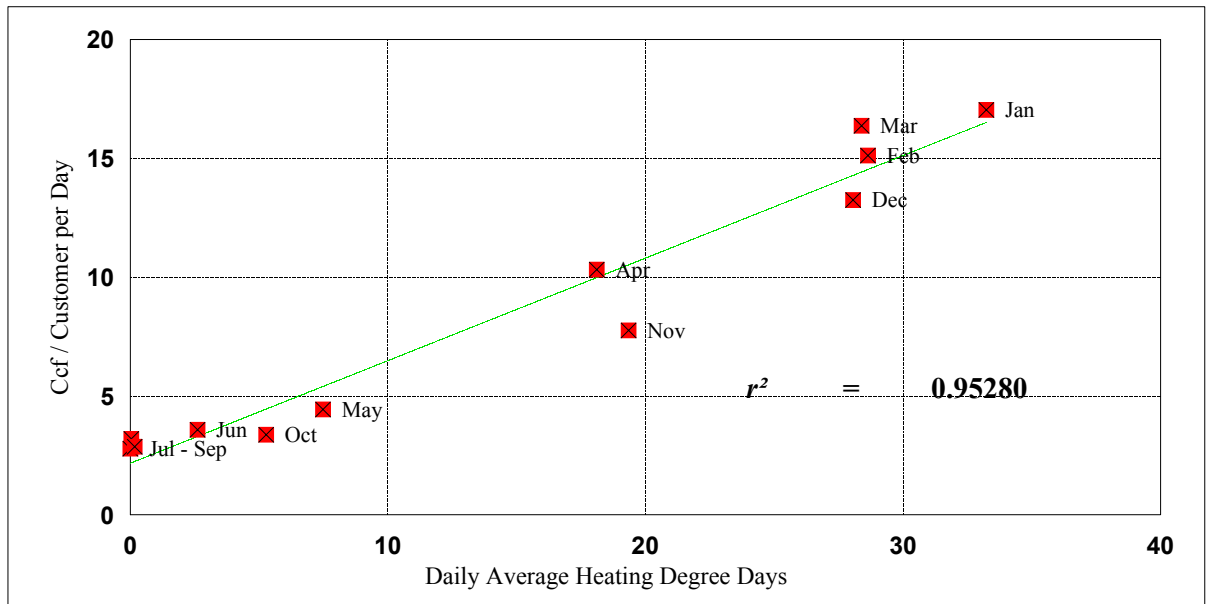
**Plots of Billing Month Actual & Estimated Usage vs. Heating Degree Days**

**MPS - Southern System**

**Residential Service**



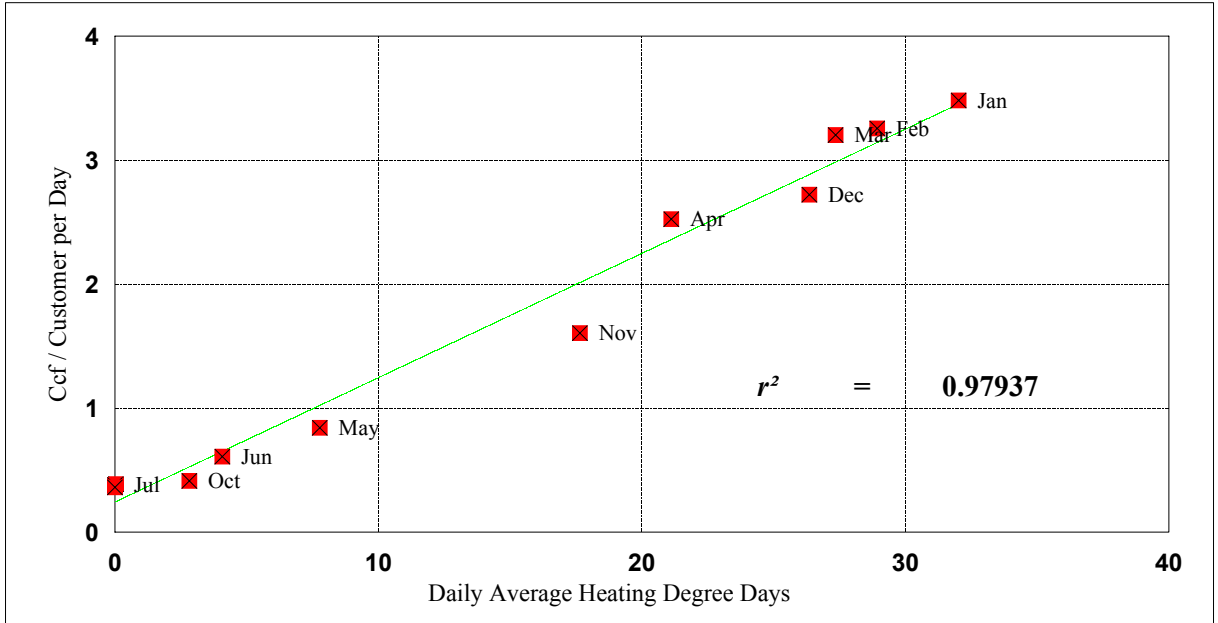
**General Service - Commercial**



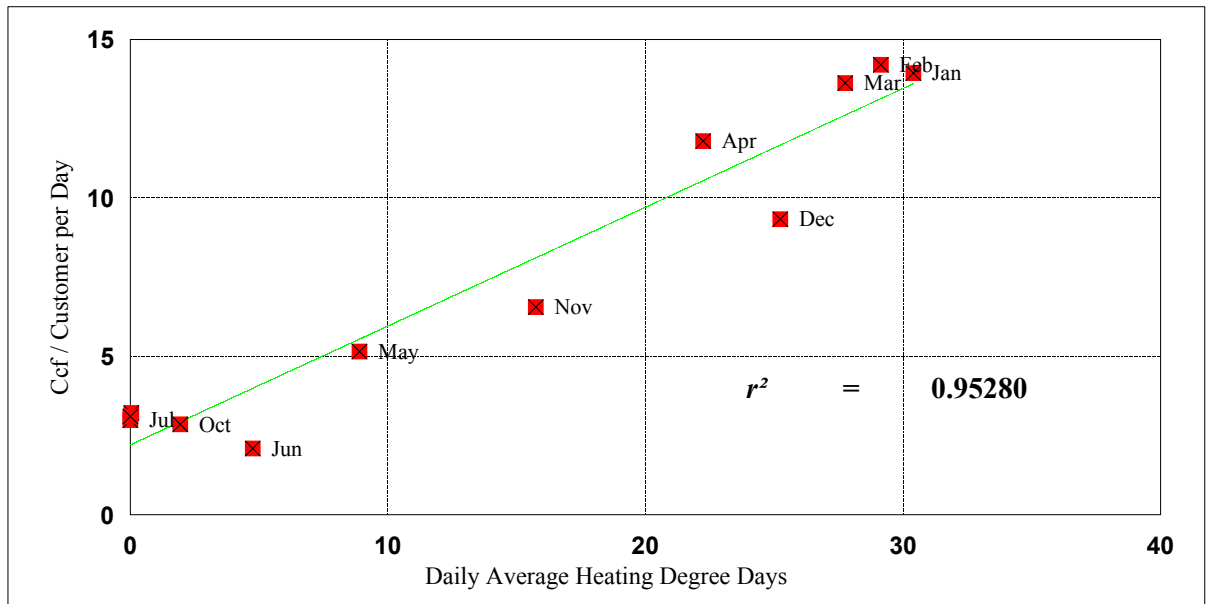
**Plots of Billing Month Actual & Estimated Usage vs. Heating Degree Days**

**MPS - Eastern System**

**Residential Service**



**General Service - Commercial**

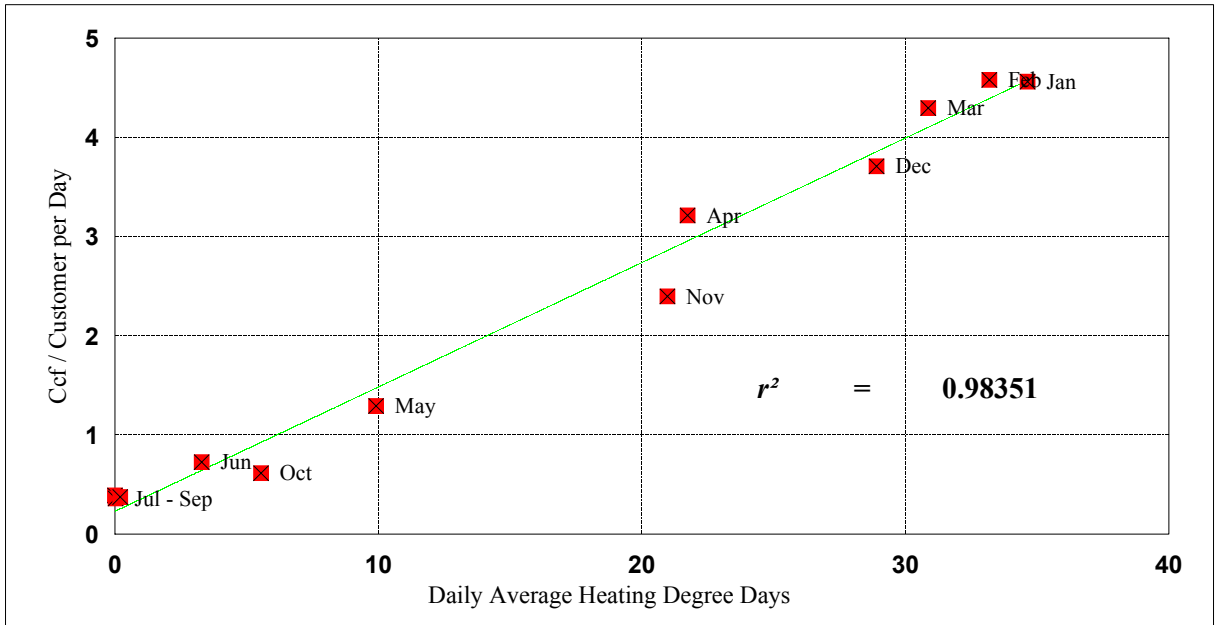




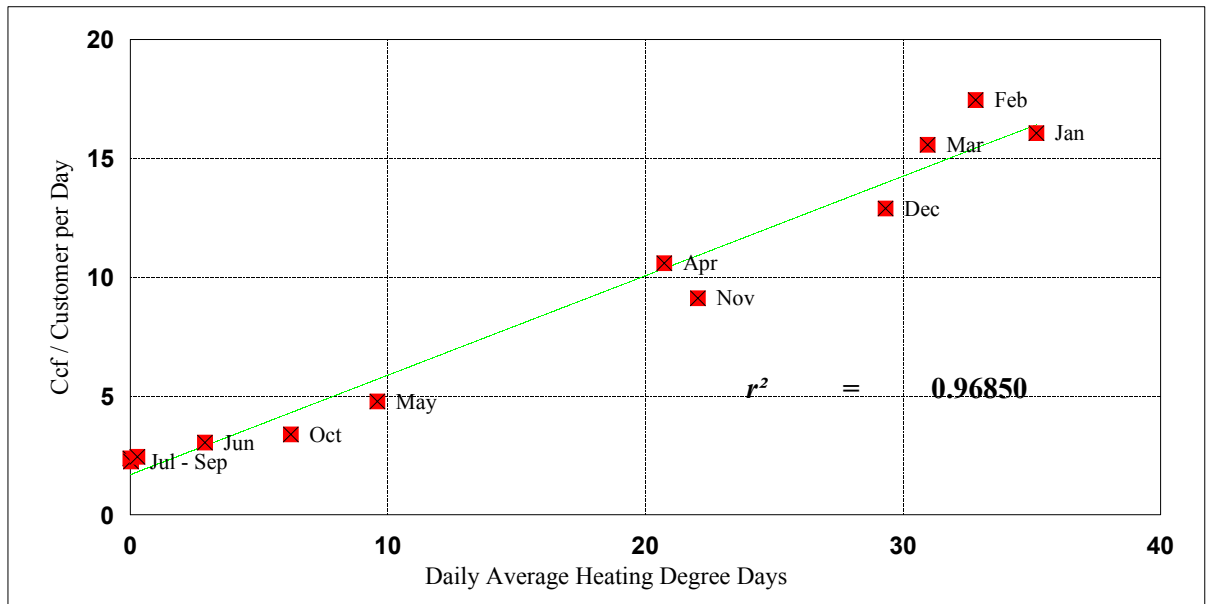
**Plots of Billing Month Actual & Estimated Usage vs. Heating Degree Days**

**L&P - Other Service Areas**

**Residential Service**



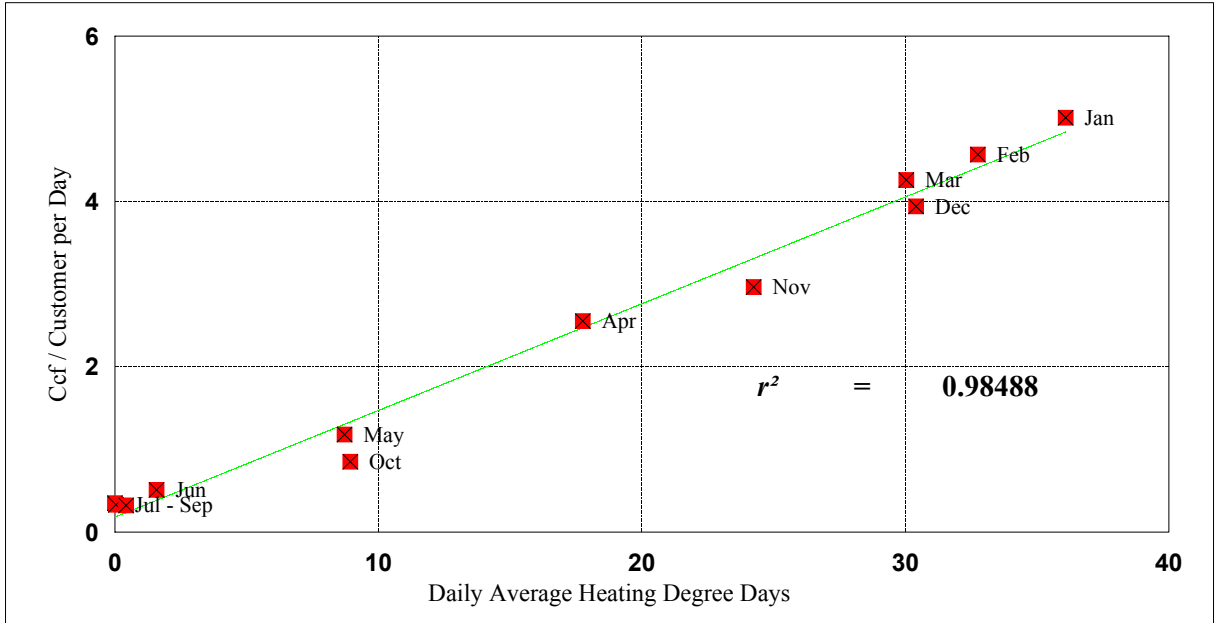
**General Service - Commercial**



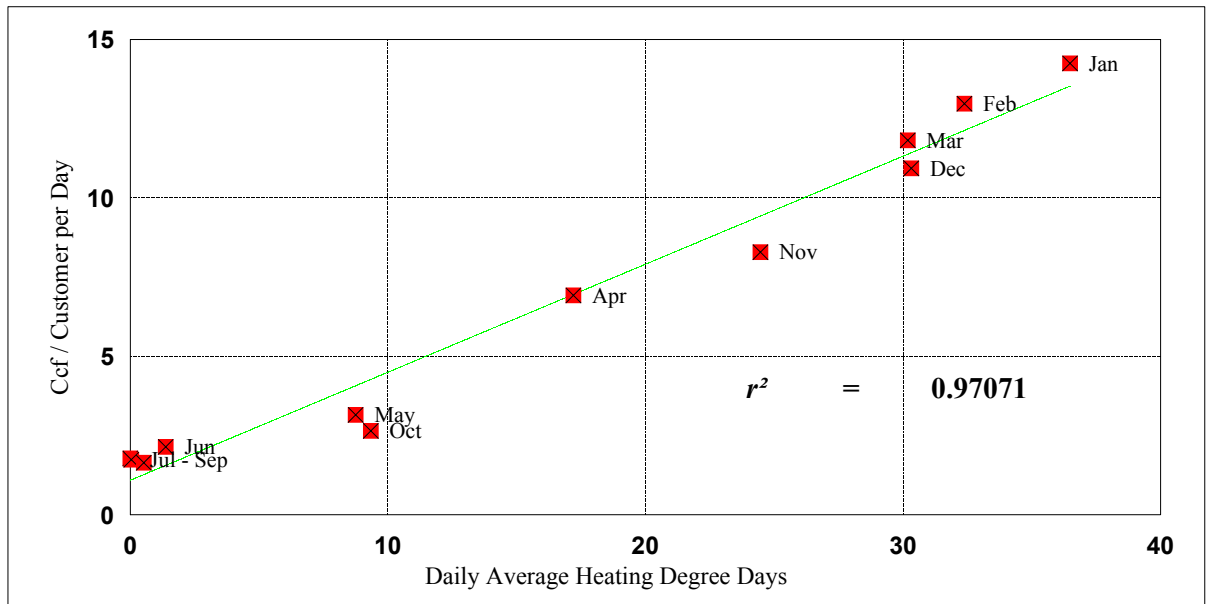
**Plots of Billing Month Actual & Estimated Usage vs. Heating Degree Days**

**L&P - Franklin, Rock Port, & Tarkio Service Areas**

**Residential Service**



**General Service - Commercial**



**Weather Normalized Billing Month Usage in Ccf per Customer**  
For the Test Year of January 1, 2002 - December 31, 2002

**Residential Service**

	Aquila Networks - MPS			Aquila Networks - L&P	
	Northern System	Southern System	Eastern System	Franklin, Rock Port, & Tarkio Service Areas	Other Service Areas
Jan '02	171.9798	157.4482	126.1999	187.4028	174.1309
Feb	160.8752	150.6151	117.8054	156.2048	161.6346
Mar	115.8841	104.3103	95.7964	120.4181	126.2107
Apr	84.7845	75.3963	66.0224	73.6701	87.8470
May	40.0924	36.3344	29.2628	30.4828	39.4507
Jun	17.3562	18.5787	13.4051	15.2004	19.2107
Jul	12.9241	15.6602	12.2713	11.0099	12.6377
Aug	11.6664	14.1408	11.9388	10.3957	11.5656
Sep	14.3419	17.2211	11.9325	14.6792	14.0329
Oct	22.8909	21.6983	17.1517	23.1650	22.1275
Nov	53.3086	49.5796	31.2680	69.3384	53.7716
Dec	118.8245	108.9919	77.7829	136.9040	120.8663
Annual	843.2623	774.9762	636.2319	859.5312	849.0437

**General Service - Commercial**

	Aquila Networks - MPS			Aquila Networks - L&P	
	Northern System	Southern System	Eastern System	Franklin, Rock Port, & Tarkio Service Areas	Other Service Areas
Jan '02	551.7295	600.1536	511.5673	526.1497	593.9359
Feb	535.6022	537.4340	499.7791	441.3152	611.3579
Mar	389.5328	454.5199	417.1388	330.4393	445.1671
Apr	286.0696	286.7405	320.5385	203.6395	293.8487
May	135.5052	140.2833	166.2968	78.3698	142.4699
Jun	76.7597	97.4744	38.9998	66.1105	86.1563
Jul	69.0955	98.3882	99.8344	55.1372	74.6454
Aug	63.1450	87.5185	93.4938	53.7392	70.6411
Sep	78.3720	96.0554	94.8170	63.7696	83.6793
Oct	100.8725	107.0898	112.7629	70.5749	110.4212
Nov	179.1476	166.3110	162.5958	196.8028	203.2958
Dec	379.1203	400.7899	264.4534	379.6968	433.9495
Annual	2,911.6930	3,087.7015	2,833.6028	2,495.4673	3,180.2056

**Weather Normalized Billing Month Usage in Ccf**  
For the Test Year of January 1, 2002 - December 31, 2002

**Residential Service**

	Aquila Networks - MPS			Aquila Networks - L&P	
	Northern System	Southern System	Eastern System	Franklin, Rock Port, & Tarkio Service Areas	Other Service Areas
Jan '02	1,622,630	4,453,896	479,812	240,438	712,543
Feb	1,524,615	4,242,826	448,014	199,630	657,045
Mar	1,099,277	2,959,701	366,325	153,413	511,027
Apr	799,688	2,130,699	248,178	93,561	357,010
May	370,293	1,017,472	104,849	38,408	162,300
Jun	157,838	518,384	46,342	18,970	77,035
Jul	114,391	434,413	40,974	13,542	50,311
Aug	101,999	391,615	39,386	12,714	45,904
Sep	124,860	474,527	39,437	17,865	55,767
Oct	201,463	598,700	57,458	28,701	87,868
Nov	488,254	1,388,576	112,534	87,713	216,646
Dec	1,104,711	3,076,188	285,230	173,184	487,696
Annual	7,710,017	21,686,998	2,268,538	1,078,139	3,421,151

**General Service - Commercial**

	Aquila Networks - MPS			Aquila Networks - L&P	
	Northern System	Southern System	Eastern System	Franklin, Rock Port, & Tarkio Service Areas	Other Service Areas
Jan '02	791,732	2,170,155	240,437	117,331	367,052
Feb	767,518	1,838,024	236,895	98,413	378,431
Mar	560,538	1,639,908	195,638	74,349	276,004
Apr	410,796	1,034,846	151,294	45,208	181,305
May	188,217	496,463	76,330	17,398	87,334
Jun	103,626	342,525	17,628	14,346	51,694
Jul	90,999	344,654	43,827	11,634	44,937
Aug	82,973	305,702	40,576	11,339	42,243
Sep	102,511	333,408	41,340	13,583	50,040
Oct	134,060	372,565	49,390	15,032	65,921
Nov	253,673	585,082	75,607	42,116	123,604
Dec	536,834	1,431,621	126,938	82,015	268,181
Annual	4,023,474	10,894,955	1,295,901	542,764	1,936,745

**Weather Normalized Coincident Peak Day Demand in Ccf per Customer**  
For the Test Year of January 1, 2002 - December 31, 2002

**Residential Service**

	Aquila Networks - MPS			Aquila Networks - L&P	
	Northern System	Southern System	Eastern System	Franklin, Rock Port, & Tarkio Service Areas	Other Service Areas
Jan '02	8.8916	7.9480	6.8186	9.1926	8.9832
Feb	8.3209	7.6557	6.3476	8.9474	8.7449
Mar	6.3110	5.5725	4.8845	6.9726	6.8267
Apr	4.4252	4.0985	3.2409	4.6752	4.5950
May	2.5394	2.3442	1.9682	2.7650	2.7394
Jun	1.1499	0.9555	0.8859	1.2290	1.2474
Jul	0.5047	0.5291	0.3648	0.4159	0.4576
Aug	0.6660	0.5534	0.4950	0.7256	0.7585
Sep	2.4153	2.3930	1.9081	2.7779	2.7520
Oct	3.9662	3.5746	3.0505	4.3267	4.2565
Nov	6.2490	5.4385	4.6440	6.6500	6.5132
Dec	8.6186	7.8628	6.6182	9.2959	9.0835
<b>Annual</b>	<b>8.8916</b>	<b>7.9480</b>	<b>6.8186</b>	<b>9.2959</b>	<b>9.0835</b>

**General Service - Commercial**

	Aquila Networks - MPS			Aquila Networks - L&P	
	Northern System	Southern System	Eastern System	Franklin, Rock Port, & Tarkio Service Areas	Other Service Areas
Jan '02	28.0784	29.1061	26.8128	24.8907	30.9181
Feb	26.3324	28.0702	25.0501	24.2429	30.1225
Mar	20.1832	20.6899	19.5745	19.0268	23.7164
Apr	14.4135	15.4676	13.4239	12.9584	16.2635
May	8.6439	9.2526	8.6609	7.9128	10.0666
Jun	4.3926	4.3324	4.6105	3.8558	5.0841
Jul	2.4188	2.8218	2.6603	1.7080	2.4462
Aug	2.9122	2.9082	3.1479	2.5262	3.4511
Sep	8.2643	9.4253	8.4359	7.9469	10.1085
Oct	13.0091	13.6118	12.7113	12.0379	15.1330
Nov	19.9934	20.2152	18.6744	18.1745	22.6696
Dec	27.2434	28.8039	26.0627	25.1634	31.2530
<b>Annual</b>	<b>28.0784</b>	<b>29.1061</b>	<b>26.8128</b>	<b>25.1634</b>	<b>31.2530</b>