Exhibit No.:	
Issue:	
Witness:	Weather Normalization; Customer Annualization
Type of Exhibit:	Direct Testimony
Sponsoring Party:	Aquila, Inc. dba KCP&L Greater Missouri Operations Company
Case No.:	ER-2009-____
Date Testimony Prepared:	September 5, 2008

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2009-____

DIRECT TESTIMONY

OF

GEORGE M. MCCOLLISTER, PH.D

ON BEHALF OF

AQUILA, INC. dba
KCP&L GREATER MISSOURI OPERATIONS COMPANY

Kansas City, Missouri
September 2008

DIRECT TESTIMONY

OF

GEORGE M. MCCOLLISTER, Ph.D

Case No. ER-2009-____

Q: Please state your name and business address.

A: My name is George M. McCollister, Ph.D. My business address is 1201 Walnut, Kansas City, Missouri 64106.

Q: By whom and in what capacity are you employed?

A: I am employed by Kansas City Power & Light Company ("KCP&L") as Manager of Market Assessment.

Q. What are your responsibilities?

A. I am responsible for weather normalizing and forecasting kWh sales, revenues and system hourly loads for KCP&L and Aquila, Inc. dba KCP&L Greater Missouri Operations Company ("GMO" or the "Company"). I am also responsible for the variance analysis of the budget forecast.

Q. Please describe your education, experience and employment history.

A. I earned three degrees from the University of California at San Diego. These include a Bachelor of Arts degree in mathematics and chemistry, a Master of Arts degree in mathematics, and a Ph.D. in economics. My specialties in the economics program were microeconomics and econometrics.

I was previously employed at three electric and natural gas utilities. I was employed as an Energy Economist at Pacific Gas and Electric Company where I was

responsible for developing end-use models of electric and natural gas sales and for analyzing responses to energy-use surveys of our customers. I was employed as a Senior Forecast Analyst at San Diego Gas and Electric Company where I developed models of customer choice, energy sales and system reliability. I was also employed by UtiliCorp United, Inc. as the Forecast Leader where I was responsible for end-use forecasting in integrated resource plans; budget forecasts; weather normalization; variance analysis; and for statistical analysis. I have also been employed by several consulting firms including Resource Management International and Spectrum Economics, Inc. that specialized in regulated industries. The majority of my consulting projects focused on energy forecasting issues and modeling for electric and natural gas utilities.

Q. Have you previously testified in a proceeding at the Missouri Public Service Commission ("MPSC" or "Commission") or before any other utility regulatory agency?

A. Yes, I have testified before the MPSC, the Oklahoma Corporation Commission, the Kansas Corporation Commission, and the Public Utilities Commission in Colorado.

Q. What is the purpose of your testimony?

A. The purpose of my direct testimony in this proceeding is to sponsor and recommend that the Commission adopt the weather normalization adjustment to class sales and revenue for the GMO territories formerly served by Aquila Networks – Missouri Public Service ("MPS") and Aquila Networks – L&P ("L&P"), as shown on Schedules GMM-1 and GMM-2, the customer annualization adjustment shown on Schedules GMM-3 and GMM-4, and the weather-normalized system hourly loads shown on Schedules GMM-5,

GMM-6 and GMM-7, for the test year ending December 31, 2007. I am also co-sponsoring revenue adjustment R-10 with GMO witness Tim Rush.

WEATHER NORMALIZATION OF SALES AND REVENUE

Q. Please provide a description of the methods and models used to calculate the weather-related adjustments to kWh sales for MPS and L&P.

A. These methods and models adjust actual test year kWh sales and revenue for the impacts caused by the variability of weather. Normal weather is based on average daily temperatures over a 30-year historical period (1971-2000), as currently used by the National Oceanic and Atmospheric Administration ("NOAA"). The Electric Power Research Institute's ("EPRI") Hourly Electric Load Model ("HELM") was used to calculate the adjustments to weather-sensitive rate class kWh sales for the test year ending December 31, 2007, as follows:

MPS:
Residential (860-General Service, 870-Space Heat)
Small General Service (710-No Demand Meter, 711-Secondary, 716-Primary)
Large General Service (720-Secondary, 725-Primary)

L&P:
Residential (910,911,915,920,921,922)
Small General Service (930,931,941)
Large General Service (940)

HELM estimates the impacts of daily weather for each rate class from daily load profile weather response functions, and billing cycle sales. Weather-normalized sales are calculated on a billing month and calendar month (billed and unbilled) basis for each rate class by billing cycle, based on actual and normal weather variables and the weather response functions. Rate class load research profiles for test year ending December 31, 2007, were analyzed in HELM's load shape representation tool to optimize the daily

weather response functions for MPS and L&P. Actual and normal weather variables were simulated in HELM's billing cycle analysis tool to estimate daily sales by rate class, which are used to allocate billing cycle sales over the period over which sales were recorded. The weather normalization adjustment to kWh sales is calculated as the difference between weather-normalized sales and actual sales. Actual and normal daily weather data for Kansas City International Airport ("KCI") was used in HELM to calculate weather variables. Normal average daily temperatures over the 1971-2000 period were used in HELM, based on Staff's method in prior electric rate cases for MPS and L&P.

Q. Please describe the results of the weather normalization adjustment to kWh sales for the test year ending December 31, 2007.

A. Schedules GMM-1 and GMM-2 provide the weather normalization adjustment (normal minus actual) to kWh sales for each weather-sensitive rate class for MPS and L&P. The total weather normalization adjustment for weather-sensitive retail rate classes is a reduction of (76,134,000) kWh for MPS (GMM-1, page 1, line 27, column O) and an increase of 9,089,000 kWh for L&P (GMM-2, page 1, line 27, column O) for the test year ending December 31, 2007. These weather adjustments include unbilled kWh sales adjustments (calendar month sales minus billing month sales) of 17,238,000 kWh for MPS (GMM-1, page 1, line 26, column O) and 23,687,000 kWh for L&P (GMM-2, page 1, line 26, column O) for the test year ending December 31, 2007. For the 2007 test year, weather adjustments (normal minus actual) to billed sales were reduction of (93,373,000) kWh for MPS (GMM-1, page 1, line 25, column O) and reduction of (14,598,000) kWh for L&P (GMM-2, page 1, line 25, column O).

Q. Please describe the method for calculating the weather normalization adjustment to revenue for weather-sensitive rate classes.

A. The method used for calculating the weather normalization adjustment for revenue for the test year ending December 31, 2007 for each weather-sensitive rate class assumes that weather normalization affects only the weather-sensitive rate class sales, with no effect from customer charges or other fixed charges. The monthly weather adjustment to revenues that corresponds to the monthly weather adjustment to kWh sales was calculated based on the appropriate monthly average rate per kWh, excluding interim energy charges, customer charges and other fixed charges, for the test year ending December 31, 2007.

Q. Please describe the results of the weather normalization adjustment to revenue for the test year ending December 31, 2007.

A. Schedules GMM-1 and GMM-2 provide the weather normalization adjustments (normal minus actual) to revenue for each weather sensitive rate class for MPS and L&P. The total weather normalization adjustment to revenue for weather sensitive retail rate classes is a reduction of ($7,939,381) for MPS (GMM-1, page 2, line 27, column O) and ($283,291) for L&P (GMM-2, page 2, line 27, column O) for the test year ending December 31, 2007. These weather adjustments include unbilled revenue adjustments (calendar month revenue minus billing month revenue) of $551,391 for MPS (GMM-1, page 2, line 26, column O) and 1,001,105 for L&P (GMM-2, page 2, line 26, column O) for the test year ending December 31, 2007. For the 2007 test year, weather adjustments (normal minus actual) to billed revenue were ($8,490,772) for MPS (GMM-1, page 2, line 25, column O) and ($1,284,397) for L&P (GMM-2, page 2, line 25, column O).

CUSTOMER ANNUALIZATION ADJUSTMENT

Q. Please describe the method for calculating the customer normalization adjustment.

A. The method used for calculating the customer annualization adjustment to revenue and sales for each rate class is based on the same method used by the Staff in the prior MPS and L&P rate cases. Customer annualization adjustment to the 2007 test year revenue is made to reflect additional sales and revenue that will occur in the future because of projected growth in the number of customers at March 2009, and annualizing large customers. This method is based on dividing the weather-normalized monthly rate class revenues by customers, and then multiplying the result by the customers estimated at March 2009 to obtain customer-annualized revenues. The customer annualization adjustment is the difference between the test year weather-normalized revenues and the customer-annualized revenues at estimated March 2009 customer levels. I did not weather normalize Large Power Service rate classes for MPS (730 and 735) and L&P (944). Large Power Service rate classes for MPS (MO730 and MO735), and L&P (MO944) were annualized for individual large customers that had partial sales during the 2007 test year.

Q. Please describe the results of the customer annualization to revenue.

A. Schedules GMM-3 and GMM-4 provide the customer annualization and large load adjustments to revenue by rate class. The total customer annualization adjustment to revenue for weather-sensitive retail rate classes at March 2009 is estimated at $12,996,497 for MPS (GMM-3, line 25, column K) and $1,960,115 for L&P (GMM-4, line 25, column K).

WEATHER NORMALIZATION OF SYSTEM HOURLY LOADS

Q. Please describe the method and data sources used for weather-normalizing system hourly loads for MPS and L&P.

A. System hourly loads in MW represent the hourly electric supply requirements for the energy demands of MPS and L&P electric customers and internal needs. Actual system hourly loads for 2007 were weather-normalized using HELM, based on system weather response, and adjusted for Customer Annualization and Large Load Adjustments.

Q. Please describe the results of the MPS and L&P weather-normalized system hourly loads.

A. Schedule GMM-5 and GMM-6 provide the MPS and L&P weather-normalized system hourly loads for 2007, respectively, as adjusted for Customer Annualization and Large Load Adjustments. The 2007 weather-normalized net energy for load is estimated at 6,553,591 MWH for MPS (GMM-5, line 35, column K) and 2,272,820 MWH for L&P (GMM-6, line 35, column K). The 2007 weather-normalized system peak load in July is 1,532 MW for MPS (GMM-5, line 29, column L) and 436 MW for L&P (GMM-6, line 29, column L). Schedule GMM-7 provides the monthly net energy for load and coincident peak loads for MPS and L&P combined, based on 2007 weather-normalized hourly loads, as adjusted for Customer Annualization and Large Load Adjustments. The 2007 weather-normalized net energy for load for MPS and L&P combined is 8,826,467 MWH (GMM-7, line 17, column D) and coincident system peak load in July is 1,968 MW (GMM-7, line 17, column E).

Q. Are these your final calculations?

A. After April 2009, I will recompute the adjustments for customer growth and rate switchers using data through April 2009 for the rate case true up.

RECOMMENDATION

Q. What is your recommendation to the Commission?

A. My recommendation to the Commission is that it should adopt the weather normalization adjustment, customer annualization adjustment and large load adjustment to rate class sales and revenue, and adopt the weather-normalized system hourly loads, for MPS and L&P, which I am sponsoring in my testimony.

Q. Does that conclude your Direct Testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Aquila, Inc. dba KCP&L Greater Missouri Operations Company to Modify Its Electric Tariffs to Effectuate a Rate Increase	)))	Case No. ER-2009-____

AFFIDAVIT OF GEORGE M. MCCOLLISTER

STATE OF MISSOURI)
) **ss**
COUNTY OF JACKSON)

George M. McCollister, being first duly sworn on his oath, states:

1. My name is George M. McCollister. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Senior Manager, Market Assessment.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Aquila, Inc. dba KCP&L Greater Missouri Operations Company consisting of eight (8) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

George M. McCollister

Subscribed and sworn before me this 5th day of ~~August~~ September 2008.

Notary Public

My commission expires: Feb. 4, 2011

"NOTARY SEAL"
Nicole A. Wehry, Notary Public
Jackson County, State of Missouri
My Commission Expires 2/4/2011
Commission Number 07391200

Aquila Networks, Missouri Public Service Division
Weather Normalization Adjustment
Test Year Ending 12/31/07

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
6	Billed WN Adj.	MWh Sales Adjustment (Normal - Actual)													Unbilled Adj.MWh
8	Rate Class	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Annual	Annual
9	MO860	6,512	356	176	2,074	(5,739)	(6,328)	9,765	(8,531)	(45,072)	(13,517)	(253)	(1,377)	(61,934)	15,208
10	MO870	15,640	(806)	(265)	4,097	(3,631)	(939)	3,391	(3,707)	(17,054)	(5,094)	2,201	(809)	(6,977)	18,584
11	MO711	1,644	(156)	(477)	(50)	(1,491)	(2,299)	2,454	(1,263)	(8,995)	(329)	8	(11)	(10,965)	(28,758)
12	MO716	2	(1)	1	(1)	(0)	(0)	2	(4)	(4)	(0)	0	(0)	(5)	(9)
13	MO720	1,090	(565)	(620)	(1,805)	(1,346)	(1,076)	1,298	(1,976)	(4,623)	(2,378)	(378)	29	(12,350)	10,068
14	MO725	(18)	1	(4)	(17)	(4)	5	162	(156)	(976)	(114)	(22)	0	(1,142)	659
15	MO730														1,151
16	MO735														335
25	Billed WN Adj.	24,871	(1,170)	(1,190)	4,298	(12,212)	(10,637)	17,070	(15,636)	(76,724)	(21,433)	1,557	(2,166)	(93,373)	
26	Unbilled Adj.	41,136	(35,228)	(34,340)	(14,715)	30,582	69,427	53,812	(38,200)	(114,435)	(22,730)	22,623	59,305	17,238	17,238
27	Total WN Adj.	66,006	(36,398)	(35,530)	(10,416)	18,370	58,790	70,883	(53,836)	(191,159)	(44,162)	24,179	57,139	(76,134)	

29	Unbilled Mwh:	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Annual
30	Residential	19,930	(21,537)	(35,710)	(12,911)	14,020	63,344	31,072	(29,139)	(54,932)	(20,544)	27,689	52,510	33,792
31	Commercial	17,061	(2,527)	(9,393)	565	10,589	11,348	7,918	(2,071)	(51,831)	(4,984)	284	5,002	(18,040)
32	Industrial	3,315	(8,931)	8,610	(1,895)	4,779	(4,211)	11,858	(5,591)	(6,138)	2,239	(4,280)	1,435	1,189
33	Other	829	(2,233)	2,152	(474)	1,195	(1,053)	2,964	(1,398)	(1,534)	560	(1,070)	359	297
34	Total Unb.Mwh	41,136	(35,228)	(34,340)	(14,715)	30,582	69,427	53,812	(38,200)	(114,435)	(22,730)	22,623	59,305	17,238

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
6		$ Revenue Adjustment (Normal - Actual)												Billed	Unbilled
7	Billed WN Adj.	*Note: Revenue excludes FAC, demand, and customer charges.*												WN Adj.	Adj.$Rev
8	Rate Class	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Annual	Annual
9	MO860	462,546	25,200	12,691	155,413	(424,832)	(562,737)	929,038	(816,888)	(4,307,739)	(1,073,256)	(20,996)	(110,458)	(5,732,018)	1,055,782
10	MO870	824,673	(40,570)	(14,169)	251,384	(228,071)	(83,779)	323,519	(355,519)	(1,633,273)	(350,794)	154,928	(49,247)	(1,200,917)	1,312,336
11	MO711	86,935	(8,096)	(25,083)	(2,739)	(80,451)	(167,935)	190,383	(97,125)	(693,580)	(19,345)	478	(631)	(817,188)	(2,353,459)
12	MO716	97	(23)	40	(29)	(22)	(4)	163	(280)	(294)	(21)	12	(6)	(367)	(507)
13	MO720	46,203	(23,828)	(26,274)	(77,075)	(56,815)	(65,286)	83,370	(126,191)	(296,964)	(111,232)	(18,035)	1,383	(670,743)	467,280
14	MO725	(747)	46	(158)	(678)	(162)	292	10,400	(9,756)	(62,916)	(4,994)	(880)	15	(69,539)	40,683
15	MO730	0	0	0	0	0	0	0	0	0	0	0	0	0	18,011
16	MO735	0	0	0	0	0	0	0	0	0	0	0	0	0	11,266
17															
18															
19															
20															
21															
22															
23															
24															
25	Billed WN Adj.	1,419,707	(47,271)	(52,954)	326,277	(790,353)	(879,450)	1,536,874	(1,405,759)	(6,994,765)	(1,559,642)	115,508	(158,944)	(8,490,772)	
26	Unbilled Adj.	2,346,891	(1,869,865)	(2,529,262)	(1,034,420)	1,940,727	6,196,224	4,227,664	(3,286,534)	(9,526,835)	(1,722,681)	1,853,081	3,956,401	551,391	551,391
27	Total WN Adj.	3,766,598	(1,917,137)	(2,582,215)	(708,143)	1,150,373	5,316,775	5,764,537	(4,692,293)	(16,521,600)	(3,282,323)	1,968,590	3,797,457	(7,939,381)	
28															

	Unbilled $Rev:	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Annual
30	Residential	1,289,722	(1,327,390)	(2,412,563)	(964,412)	1,151,640	5,637,354	2,958,791	(2,791,233)	(5,253,390)	(1,591,956)	2,030,840	3,640,715	2,368,118
31	Commercial	903,426	(131,907)	(516,940)	17,042	569,060	790,968	571,678	(171,481)	(3,911,336)	(235,157)	20,443	248,202	(1,846,004)
32	Industrial	122,995	(328,455)	320,193	(69,640)	176,021	(185,678)	557,756	(259,056)	(289,687)	83,546	(158,561)	53,988	23,421
33	Other	30,749	(82,114)	80,048	(17,410)	44,005	(46,420)	139,439	(64,764)	(72,422)	20,887	(39,640)	13,497	5,855
34	Total Unb.$Rev	2,346,891	(1,869,865)	(2,529,262)	(1,034,420)	1,940,727	6,196,224	4,227,664	(3,286,534)	(9,526,835)	(1,722,681)	1,853,081	3,956,401	551,391

Aquila Networks, St. Joseph Light & Power Division
Weather Normalization Adjustment
Test Year Ending 12/31/07

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
6		MWh Sales Adjustment (Normal - Actual)													Unbilled
7	Billed WN Adj.														Adj.MWh
8	Rate Class	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Annual	Annual
9	MO910	796	(154)	10	689	(1,240)	(818)	3,152	(2,306)	(10,202)	(2,652)	35	146	(12,544)	3,311
10	MO911	4	(3)	4	0	(9)	(0)	18	(22)	(54)	(16)	1	1	(75)	21
11	MO913	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	MO914	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	MO915	40	(2)	(0)	15	(9)	(9)	24	(6)	(87)	(83)	11	2	(105)	109
14	MO920	4,841	(468)	314	2,262	(883)	289	943	(980)	(3,703)	(711)	1,176	(124)	2,956	10,387
15	MO921	110	5	(10)	75	(30)	4	15	(9)	(72)	(14)	21	(1)	95	108
16	MO922	7	(1)	1	3	(1)	1	2	(2)	(6)	(1)	2	(0)	3	20
17	MO930	120	(29)	(13)	72	(28)	(15)	96	(15)	(265)	(102)	12	6	(162)	510
18	MO931	257	(57)	(31)	178	(73)	(40)	238	(27)	(656)	(260)	24	14	(433)	896
19	MO932	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	MO933	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	MO934	0	0	0	0	(0)	0	0	0	0	(0)	0	0	(0)	0
22	MO940	669	(355)	(371)	(34)	(292)	(192)	642	(775)	(2,736)	(954)	(99)	181	(4,315)	4,340
23	MO941	6	(3)	(5)	0	(1)	(1)	2	(2)	(12)	(3)	(0)	1	(18)	75
24	MO944	0	0	0	0	0	0	0	0	0	0	0	0	0	3,912
25	Billed WN Adj.	6,850	(1,068)	(100)	3,260	(2,567)	(781)	5,132	(4,144)	(17,793)	(4,796)	1,183	225	(14,598)	
26	Unbilled Adj.	27,528	(11,005)	(16,834)	(6,757)	7,771	15,717	11,335	(12,337)	(16,520)	(1,223)	7,946	18,065	23,687	23,687
27	Total WN Adj.	34,378	(12,073)	(16,934)	(3,496)	5,204	14,936	16,467	(16,481)	(34,313)	(6,019)	9,130	18,290	9,089	

29	Unbilled Mwh:	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Annual
30	Residential	12,504	(8,605)	(13,559)	(6,533)	1,921	13,946	7,708	(10,416)	(11,819)	(467)	10,638	18,638	13,956
31	Commercial	6,005	(1,662)	(3,234)	(8)	3,275	1,625	2,771	(2,046)	(3,071)	(2,402)	1,270	3,297	5,820
32	Industiral	9,019	(738)	(41)	(216)	2,576	147	855	125	(1,630)	1,647	(3,961)	(3,870)	3,912
33	Other	0	0	0	0	0	0	0	0	0	0	0	0	0
34	Total Unb.Mwh	27,528	(11,005)	(16,834)	(6,757)	7,771	15,717	11,335	(12,337)	(16,520)	(1,223)	7,946	18,065	23,687

Aquila Networks, St. Joseph Light & Power Division
Weather Normalization Adjustment
Test Year Ending 12/31/07

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
6		$ Revenue Adjustment (Normal - Actual)												Billed	Unbilled
7	Billed WN Adj.	Note: Revenue excludes FAC, demand and customer charges												WN Adj.	Adj.$Rev
8	Rate Class	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Annual	Annual
9	MO910	45,057	(8,663)	573	40,867	(73,547)	(62,026)	255,295	(186,628)	(825,649)	(174,047)	2,313	9,390	(977,065)	171,439
10	MO911	266	(213)	243	19	(578)	(5)	1,490	(1,763)	(4,330)	(1,127)	94	43	(5,861)	1,258
11	MO913	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	MO914	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	MO915	3,089	(119)	(28)	1,138	(720)	(1,017)	2,822	(669)	(10,322)	(7,182)	983	147	(11,878)	20,418
14	MO920	187,354	(17,661)	12,136	94,203	(37,740)	21,973	76,171	(79,245)	(299,561)	(34,961)	56,387	(5,565)	(26,508)	443,734
15	MO921	4,937	205	(414)	3,492	(1,407)	327	1,245	(742)	(5,856)	(739)	1,111	(41)	2,120	5,986
16	MO922	275	(47)	51	100	(42)	40	135	(162)	(487)	(46)	78	(12)	(118)	780
17	MO930	8,196	(1,991)	(855)	4,896	(1,942)	(1,470)	10,253	(1,609)	(28,401)	(7,905)	919	458	(19,450)	36,286
18	MO931	12,532	(2,742)	(1,519)	8,932	(3,633)	(3,018)	18,838	(2,128)	(51,813)	(14,559)	1,352	767	(36,992)	42,823
19	MO932	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	MO933	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	MO934	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	MO940	23,543	(12,479)	(13,062)	(1,193)	(10,357)	(9,432)	33,475	(40,166)	(142,700)	(38,020)	(3,935)	7,224	(207,102)	165,194
23	MO941	231	(112)	(183)	2	(45)	(89)	233	(208)	(1,249)	(147)	(22)	47	(1,542)	3,461
24	MO944	0	0	0	0	0	0	0	0	0	0	0	0	0	109,727
25	Billed WN Adj.	285,480	(43,824)	(3,058)	152,457	(130,012)	(54,717)	399,957	(313,319)	(1,370,366)	(278,733)	59,280	12,459	(1,284,397)	
26	Unbilled Adj.	1,127,087	(509,212)	(842,008)	(356,657)	356,823	1,177,603	835,323	(979,423)	(1,205,587)	(114,639)	520,778	991,017	1,001,105	1,001,105
27	Total WN Adj.	1,412,567	(553,036)	(845,065)	(204,200)	226,811	1,122,886	1,235,280	(1,292,742)	(2,575,953)	(393,372)	580,058	1,003,476	(283,291)	

29	Unbilled $Rev:	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Annual
30	Residential	598,820	(412,243)	(686,992)	(338,094)	137,444	1,063,554	631,129	(851,995)	(946,003)	(58,812)	573,696	933,111	643,615
31	Commercial	266,792	(75,421)	(153,829)	(12,249)	144,202	109,373	175,809	(131,599)	(205,260)	(103,222)	62,621	170,547	247,764
32	Industiral	261,475	(21,548)	(1,186)	(6,314)	75,178	4,676	28,384	4,170	(54,323)	47,395	(115,539)	(112,641)	109,727
33	Other	0	0	0	0	0	0	0	0	0	0	0	0	0
34	Total Unb.$Rev	1,127,087	(509,212)	(842,008)	(356,657)	356,823	1,177,603	835,323	(979,423)	(1,205,587)	(114,639)	520,778	991,017	1,001,105

George M. McCollister
Direct Testimony

Aquila Networks, Missouri Public Service Division
Customer Annualization Adjustment
Test Year Ending 12/31/07

GMM-3

	B	C	D	E	F	G	H	I	J	K	L
5											
6		Test Year	Year-End		Revenue	Year-End		Test Year		Year-End	Year-End
7		Dec-07	Mar-09	Change in	per	Mar-09		12/31/07		Mar-09	Mar-09
8	Rate Class	Customers	Customers	Customers	Customer	Revenue		WN Revenue		Cust Adj.Rev.	CustAdj.MWh
9	MO860	144,269	142,907	(1,362)	$ 1,033	$ 147,578,299		$ 149,855,846		(2,277,548)	(24,812)
10	MO870	67,360	72,678	5,318	$ 1,277	$ 92,789,843		$ 83,505,981		9,283,862	125,510
11	MO711	28,591	29,124	533	$ 2,277	$ 66,329,278	*	$ 65,684,405		644,873	8,813
12	MO716	3	2	(1)	$ 4,590	$ 9,322		$ 16,757		(7,435)	(123)
13	MO720	1,253	1,318	65	$ 36,630	$ 48,277,170		$ 45,675,223		2,601,947	49,068
14	MO725	22	22	(0)	$ 59,248	$ 1,299,961		$ 1,249,825		50,136	891
15	**MO730**	**130**	**130**	**-**	**$ 268,989**	***$ 36,730,208***	**	**$ 34,968,616**		***1,761,592***	***9,205***
16	**MO735**	**35**	**35**	**-**	**$ 975,472**	***$ 34,141,521***	**	**$ 33,202,451**		***939,070***	***5,713***
17											
18											
19											
20											
21											
22											
23											
24											
25	Total	241,663	246,216	4,553	$ 1,735	$ 427,155,601		$ 414,159,104		$ 12,996,497	174,264

26 ** MO711 line also includes MO710,MO728,MO815*

27 **** Customer annualization for MO730 and MO735: (full 12 months annualization vs. billed actual, not weather adjusted)**

28	Rate Class	Customer Name	Year			$RevKwh Avg		Cust Adj.Rev.	CustAdj.MWh
29	MO730	Annualized 12-months - Actual billed	2007			$ 0.0537		$ 1,761,592	9,205
30	MO735	Annualized 12-months - Actual billed	2007			$ 0.0474		$ 939,070	5,713
31	**Total**							**$ 2,700,662**	**14,918**

Schedule GMM-3

George M. McCollister
Direct Testimony

Aquila Networks, St. Joseph Light & Power Division
Customer Annualization Adjustment
Test Year Ending 12/31/07

GMM-4

	B	C	D	E	F	G	H	I	J	K	L
6		Test Year	Year-End		Revenue	Year-End		Test Year		Year-End	Year-End
7		Dec-07	Mar-09	Chan	Per	Mar-09		12/31/2007		Mar-09	Mar-09
8	Rate Class	Customers	Customers	Custo	Customer	Revenue		WN Revenue		Cust Adj.Rev.	CustAdj.MWh
9	MO910	36,787	36,180	###	$ 801	$ 28,980,037	*	$ 29,748,984		(768,947)	(10,143)
10	MO911	69	61	(9)	$ 2,797	$ 169,246		$ 207,353		(38,107)	(438)
11	MO913	-	-	0	$ -	$ -	*	$ -		0	0
12	MO914	-	-	-	$ -	$ -	*	$ -		0	0
13	MO915	1,882	1,927	45	$ 414	$ 797,763		$ 767,833		29,929	254
14	MO920	17,861	18,640	779	$ 1,103	$ 20,556,681		$ 19,466,889		1,089,792	20,472
15	MO921	58	59	1	$ 7,484	$ 438,994		$ 442,064		(3,070)	(51)
16	MO922	79	72	(7)	$ 398	$ 28,632		$ 31,924		(3,291)	(56)
17	MO930	3,705	3,750	45	$ 820	$ 3,073,263	*	$ 3,077,361		(4,098)	(28)
18	MO931	2,218	2,269	51	$ 2,495	$ 5,660,500	*	$ 5,559,051		101,449	1,357
19	MO932	-	-	-	$ -	$ -	*	$ -		0	0
20	MO933	-	-	-	$ -	$ -	*	$ -		0	0
21	MO934	-	-	-	$ -	$ -	*	$ -		0	0
22	MO940	1,156	1,163	7	$ 18,373	$ 21,366,927		$ 21,429,264		(62,337)	(1,231)
23	MO941	81	67	(14)	$ 1,477	$ 98,433		$ 129,310		(30,877)	(527)
24	**MO944**	**64**	**56**	**(8)**	**$ 628,118**	**$ 35,174,593**	**	**$ 33,524,920**		**1,649,673**	**5,514**
25	Total	63,960	64,243	283	$ 1,811	$ 116,345,069		$ 114,384,954		1,960,115	15,123
26											

27 **** Customer annualization for MO944: full 12-months sales, not weather adjusted.**

28	Rate Class	Customer Name	Year			$RevKwh Avg		Cust Adj.Rev.	CustAdj.MWh
29	MO944	Annualized Normal - Actual	2007			$ 0.0438		$ 1,649,673	5,514
30									
31	**Total**					**$ 0.0438**		**$ 1,649,673**	**5,514**

Schedule GMM-4

George M. McCollister
Direct Testimony

Aquila Networks-Missouri, Missouri Public ServiceDivision
2007 Actual and Weather Normalized System Hourly Loads

GMM-5

MPS-System Net Load (Actual)

Coincident with System Actual Peak					
DatePeak	Month	NEL_MWh	PeakMW	Day	Hour
01/15/07	1	562,372	1,031	15	19
02/15/07	2	515,537	1,042	15	20
03/01/07	3	453,940	862	1	20
04/30/07	4	441,636	837	30	16
05/14/07	5	489,300	1,079	14	18
06/25/07	6	564,943	1,279	25	17
07/17/07	7	660,886	1,375	17	18
08/15/07	**8**	**760,938**	**1,525**	**15**	**17**
09/04/07	9	539,770	1,322	4	17
10/05/07	10	464,749	1,133	5	17
11/21/07	11	462,616	859	21	19
12/09/07	12	567,760	979	9	18
Year	**2007**	**6,484,447**	**1,525**		
Load Factor			**48.41%**		

MPS-System Net Load (Weather Normal, MCI 1971-00)

Coincident with System Normal Peak					
DatePeak	Month	NEL_MWh	PeakMW	Day	Hour
01/16/07	1	576,264	1,085	16	19
02/15/07	2	496,255	1,006	15	19
03/03/07	3	470,403	859	3	19
04/30/07	4	421,981	857	30	17
05/23/07	5	459,743	1,128	23	18
06/26/07	6	575,702	1,329	26	17
07/28/07	**7**	**688,408**	**1,477**	**28**	**17**
08/06/07	8	647,474	1,469	6	17
09/04/07	9	504,448	1,278	4	17
10/06/07	10	450,049	924	6	17
11/23/07	11	464,219	850	23	19
12/16/07	12	562,178	1,029	16	19
Year	**2007**	**6,317,125**	**1,477**		
Load Factor			**48.70%**		

MPS-Weather Normal Adjustment (WNA)

(Normal-Actual)		WNA % Actual	
NEL_Mwh	PeakMW	NEL_Mwh	PeakMW
13,892	54	2.5%	5.3%
(19,282)	(37)	-3.7%	-3.5%
16,463	(3)	3.6%	-0.3%
(19,655)	20	-4.5%	2.4%
(29,557)	49	-6.0%	4.6%
10,759	50	1.9%	3.9%
27,522	102	4.2%	7.4%
(113,464)	(56)	-14.9%	-3.7%
(35,322)	(44)	-6.5%	-3.3%
(14,700)	(209)	-3.2%	-18.4%
1,603	(9)	0.3%	-1.0%
(5,582)	50	-1.0%	5.1%
(167,322)	**102**	**-2.6%**	**6.7%**

2007 Scaled WN System Hourly Loads with Customer Annualization and Large Load Adjustments (March-2009 Customer Forecast)

MPS-System Net Load (Actual)

Coincident with System Actual Peak					
DatePeak	Month	NEL_MWh	PeakMW	Day	Hour
01/15/07	1	562,372	1,031	15	19
02/15/07	2	515,537	1,042	15	20
03/01/07	3	453,940	862	1	20
04/30/07	4	441,636	837	30	16
05/14/07	5	489,300	1,079	14	18
06/25/07	6	564,943	1,279	25	17
07/17/07	7	660,886	1,375	17	18
08/15/07	**8**	**760,938**	**1,525**	**15**	**17**
09/04/07	9	539,770	1,322	4	17
10/05/07	10	464,749	1,133	5	17
11/21/07	11	462,616	859	21	19
12/09/07	12	567,760	979	9	18
Year	**2007**	**6,484,447**	**1,525**		
Load Factor			**48.41%**		

MPS-System Net Load (WN w/CustAnn/Large Load Adj.)

Coincident with System Normal Peak					
DatePeak	Month	NEL_MWh	PeakMW	Day	Hour
01/16/07	1	597,835	1,126	16	19
02/15/07	2	514,831	1,043	15	19
03/03/07	3	488,012	891	3	19
04/30/07	4	437,777	889	30	17
05/23/07	5	476,952	1,171	23	18
06/26/07	6	597,252	1,378	26	17
07/28/07	**7**	**714,177**	**1,532**	**28**	**17**
08/06/07	8	671,711	1,524	6	17
09/04/07	9	523,331	1,326	4	17
10/06/07	10	466,896	959	6	17
11/23/07	11	481,596	882	23	19
12/16/07	12	583,222	1,067	16	19
Year	**2007**	**6,553,591**	**1,532**		
Load Factor			**48.70%**		

MPS-WN Adj, Cust.Ann.Adj, Large Load Adj.

(Normal-Actual)		% Actual	
NEL_Mwh	PeakMW	NEL_Mwh	PeakMW
35,463	95	6.3%	9.2%
(706)	1	-0.1%	0.1%
34,072	29	7.5%	3.4%
(3,859)	52	-0.9%	6.2%
(12,348)	92	-2.5%	8.5%
32,309	99	5.7%	7.8%
53,291	157	8.1%	11.4%
(89,227)	(1)	-11.7%	-0.1%
(16,439)	4	-3.0%	0.3%
2,147	(174)	0.5%	-15.4%
18,980	23	4.1%	2.7%
15,462	88	2.7%	9.0%
69,144	**157**	**1.1%**	**10.3%**

Schedule GMM-5

George M. McCollister
Direct Testimony

Aquila Networks-Missouri, St. Joseph Light & Power Division
2007 Actual and Weather Normalized System Hourly Loads

GMM-6

SJD-System Net Load (Actual)

Coincident with System Actual Peak					
DatePeak	Month	NEL_MWh	PeakMW	Day	Hour
02/15/07	1	211,281	396	46	16
02/16/07	2	196,924	399	16	8
03/01/07	3	171,699	328	1	19
04/05/07	4	162,232	309	5	8
05/14/07	5	167,204	335	14	17
06/25/07	6	185,444	390	25	17
07/17/07	**7**	**212,939**	**418**	**17**	**16**
08/14/07	8	231,805	437	14	17
09/04/07	9	174,587	383	4	17
10/05/07	10	169,602	340	5	17
11/29/07	11	175,272	330	29	8
12/17/07	12	207,504	370	17	8
Year	**2007**	**2,266,493**	**437**		
Load Factor			**59.21%**		

SJD-System Net Load (Weather Normal, MCI 1971-00)

Coincident with System Normal Peak					
DatePeak	Month	NEL_MWh	PeakMW	Day	Hour
01/16/07	1	217,386	427	16	8
02/15/07	2	188,631	386	15	19
03/03/07	3	180,810	325	3	8
04/07/07	4	156,728	280	7	9
05/14/07	5	162,042	304	14	17
06/26/07	6	188,963	420	26	17
07/17/07	**7**	**219,494**	**429**	**17**	**17**
08/07/07	8	204,385	422	7	17
09/18/07	9	167,810	346	18	18
10/25/07	10	166,953	274	25	20
11/23/07	11	176,691	311	23	19
12/16/07	12	205,838	377	16	19
Year	**2007**	**2,235,730**	**429**		
Load Factor			**59.54%**		

SJD-Weather Normal Adjustment (WNA)

(Normal-Actual)		WNA % Actual	
NEL_Mwh	PeakMW	NEL_Mwh	PeakMW
6,105	31	2.9%	7.8%
(8,293)	(13)	-4.2%	-3.2%
9,111	(3)	5.3%	-0.8%
(5,504)	(29)	-3.4%	-9.3%
(5,162)	(31)	-3.1%	-9.3%
3,519	30	1.9%	7.6%
6,555	**11**	**3.1%**	**2.5%**
(27,420)	(15)	-11.8%	-3.4%
(6,777)	(37)	-3.9%	-9.5%
(2,649)	(66)	-1.6%	-19.4%
1,419	(19)	0.8%	-5.7%
(1,666)	7	-0.8%	2.0%
(30,763)	**(8)**	**-1.4%**	**-1.9%**

2007 Scaled WN System Hourly Loads with Customer Annualization and Large Load Adjustments (March-2009 Customer Forecast)

SJD-System Net Load (Actual)

Coincident with System Actual Peak					
DatePeak	Month	NEL_MWh	PeakMW	Day	Hour
02/15/07	1	211,281	396	46	16
02/16/07	2	196,924	399	16	8
03/01/07	3	171,699	328	1	19
04/05/07	4	162,232	309	5	8
05/14/07	5	167,204	335	14	17
06/25/07	6	185,444	390	25	17
07/17/07	**7**	**212,939**	**418**	**17**	**16**
08/14/07	8	231,805	437	14	17
09/04/07	9	174,587	383	4	17
10/05/07	10	169,602	340	5	17
11/29/07	11	175,272	330	29	8
12/17/07	12	207,504	370	17	8
Year	**2007**	**2,266,493**	**437**		
Load Factor			**59.21%**		

SJD-System Net Load (WN w/CustAnn/Large Load Adj.)

Coincident with System Normal Peak					
DatePeak	Month	NEL_MWh	PeakMW	Day	Hour
01/16/07	1	220,992	434	16	8
02/15/07	2	191,760	393	15	19
03/03/07	3	183,809	331	3	8
04/07/07	4	159,328	285	7	9
05/14/07	5	164,730	309	14	17
06/26/07	6	192,098	427	26	17
07/28/07	**7**	**223,137**	**436**	**28**	**17**
08/07/07	8	207,775	429	7	17
09/18/07	9	170,594	352	18	18
10/25/07	10	169,722	279	25	20
11/23/07	11	179,623	316	23	19
12/16/07	12	209,253	384	16	19
Year	**2007**	**2,272,820**	**436**		
Load Factor			**59.51%**		

SJD-WN Adj, Cust.Ann.Adj, Large Load Adj.

(Normal-Actual)		% Actual	
NEL_Mwh	PeakMW	NEL_Mwh	PeakMW
9,711	38	4.6%	9.6%
(5,164)	(6)	-2.6%	-1.6%
12,110	3	7.1%	0.9%
(2,904)	(24)	-1.8%	-7.8%
(2,474)	(26)	-1.5%	-7.8%
6,654	37	3.6%	9.4%
10,198	**18**	**4.8%**	**4.3%**
(24,030)	(8)	-10.4%	-1.8%
(3,993)	(31)	-2.3%	-8.0%
120	(61)	0.1%	-18.0%
4,351	(14)	2.5%	-4.1%
1,749	14	0.8%	3.7%
6,327	**(1)**	**0.3%**	**-0.2%**

Schedule GMM-6

2005 Scaled WN System Hourly Loads with Customer Annualization and Large Load Adjustments

MO Joint-System Net Load

Coincident System Normal Peak (MPS+SJD)					
DatePeak	Month	NEL_MWh	PeakMW	Day	Hour
01/16/07	1	818,830	1,538	16	19
02/15/07	2	706,598	1,436	15	19
03/03/07	3	671,845	1,203	3	19
04/30/07	4	597,123	1,162	30	17
05/23/07	5	641,683	1,473	23	18
06/26/07	6	789,351	1,805	26	17
07/28/07	**7**	**937,308**	**1,968**	**28**	**17**
08/06/07	8	879,487	1,952	6	17
09/04/07	9	693,915	1,678	4	17
10/06/07	10	636,621	1,237	6	17
11/23/07	11	661,216	1,198	23	19
12/16/07	12	792,490	1,451	16	19
2007	**Year**	**8,826,467**	**1,968**	**28**	**17**
Load Factor			**51.20%**		

MPS-System Net Load

Noncoincident System Normal Peak (MPS)					
DatePeak	Month	NEL_MWh	PeakMW	Day	Hour
01/16/07	1	597,832	1,126	16	19
02/15/07	2	514,833	1,043	15	19
03/03/07	3	488,030	891	3	19
04/30/07	4	437,785	889	30	17
05/23/07	5	476,947	1,171	23	18
06/26/07	6	597,247	1,378	26	17
07/28/07	**7**	**714,174**	**1,532**	**28**	**17**
08/06/07	8	671,713	1,524	6	17
09/04/07	9	523,319	1,326	4	17
10/06/07	10	466,897	959	6	17
11/23/07	11	481,599	882	23	19
12/16/07	12	583,229	1,067	16	19
2007	**Year**	**6,553,605**	**1,532**	**28**	**17**
Load Factor			**48.83%**		

SJD-System Net Load

Noncoincident System Normal Peak (SJD)					
DatePeak	Month	NEL_MWh	PeakMW	Day	Hour
01/16/07	1	220,998	434	16	8
02/15/07	2	191,765	393	15	19
03/03/07	3	183,815	331	3	8
04/07/07	4	159,338	285	7	9
05/14/07	5	164,736	309	14	17
06/26/07	6	192,104	427	26	17
07/28/07	**7**	**223,134**	**436**	**28**	**17**
08/07/07	8	207,774	429	7	17
09/04/07	9	170,596	352	4	17
10/25/07	10	169,724	279	25	20
11/23/07	11	179,617	316	23	19
12/16/07	12	209,261	384	16	19
2007	**Year**	**2,272,862**	**436**	**28**	**17**
Load Factor			**59.51%**		