

Exhibit No.:

Issues: Revenue Normalization

Witness: Eric L. Watkins

Sponsoring Party: Aquila Networks-MPS  
& L&P

Case No.: ER-

Before the Public Service Commission  
of the State of Missouri

Direct Testimony

of

Eric L. Watkins

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**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI  
DIRECT TESTIMONY OF ERIC L. WATKINS  
ON BEHALF OF AQUILA, INC.  
D/B/A AQUILA NETWORKS-MPS AND AQUILA NETWORKS-L&P  
CASE NO. ER-\_\_\_\_\_**

1 Q. Please state your name and business address.

2 A. My name is Eric L. Watkins and my business address is 10700 East 350 Highway,  
3 Kansas City, MO, 64138 USA.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by Aquila, Inc. ("Aquila" or "Company") as the Vice President-  
6 Commodity Risk Management reporting to the Chief Financial Officer of Aquila.

7 Q. Please describe your responsibilities in that position.

8 A. I am responsible for directing Aquila's risk pricing and structuring activities, middle  
9 office controls, fundamental analysis, commodity market research, energy forecasting,  
10 and weather normalization of sales, revenues, and system loads for regulatory cases.

11 Q. Please describe your educational background.

12 A. I hold a Bachelor of Science degree in Mathematics from the University of Arkansas,  
13 and a Master of Business Administration degree in Finance from the University of  
14 Missouri-Kansas City.

15 Q. Please describe your professional work experience.

16 A. I have been employed by Aquila since June 1991. My experiences since that time  
17 have included duties for energy forecasting, weather normalization of sales and  
18 revenue for regulatory cases, competitive and industry analysis for merger and  
19 acquisition candidates and new business ventures, structure desk analysis, and

1 accounting and financial management. Before coming to Aquila Inc., I was employed  
2 by Burns and McDonnell Engineers-Architects-Consultants from February 1988 to  
3 May 1991.

4 Q. What is the purpose of your direct testimony in this proceeding before the Missouri  
5 Public Service Commission ("Commission")?

6 A. The purpose of my direct testimony in this proceeding is to sponsor and recommend  
7 that the Commission adopt the weather normalization adjustment to class sales and  
8 revenue for Aquila Networks-MPS ("MPS") and Aquila Networks-L&P ("L&P")  
9 shown on Schedules ELW-1 and ELW-2, the customer annualization adjustment  
10 shown on Schedules ELW-3 and ELW-4, and the weather normalized system hourly  
11 loads shown on Schedules ELW-5 and ELW-6. Aquila witness Jerry Boehm uses  
12 these weather normalized system hourly loads in estimating normalized fuel and  
13 purchase power costs.

14 Q. Were these schedules prepared by you or under your direct supervision?

15 A. Yes.

16 Q. Do you have a recommendation for the Commission regarding weather normalization  
17 of MPS and L&P sales and revenue, customer annualization adjustment, and system  
18 hourly loads?

19 A. I recommend that the Commission adopt the MPS and L&P weather normalized  
20 revenue adjustment, unbilled revenue adjustment, leap year adjustment, customer  
21 annualization adjustment, large customer load adjustment; as well as the weather  
22 normalized system hourly loads, for the 2004 test year, which I am sponsoring in this  
23 case.

**WEATHER NORMALIZATION OF CLASS SALES AND REVENUE**

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

A. Weather normalization adjusts the test year sales and revenue for the impact of weather. Normal weather is based on daily temperatures over a 30-year historical period (1971-2000). A set of statistical models were developed to calculate the weather adjustments to weather sensitive rate class kWh sales for the test year ending December 31, 2004.

The weather sensitive rate classes that were weather normalized are listed below.

For MPS:

Residential (MO860-General Service, MO870-Space Heat)  
Small General Service (Combined MO710-No Demand Meter and MO 711-Secondary, MO716-Primary)  
Large General Service (MO720-Secondary, MO725-Primary)  
Large Power (MO730-Secondary, MO735-Primary)  
Schools & Churches (MO740-Secondary)

For L&P:

Residential (MO910,MO911,MO913,MO914,MO915,MO920,MO921,MO922)  
Small General Service (MO930,MO931,MO932,MO933,MO941)  
Large General Service (MO940)  
Large Power (MO944)  
Schools & Churches (934)

The Hourly Electric Load Model ("HELM") from Electric Power Research Institute was used to weather normalize rate class sales, based on load research data for the test year ending December 31, 2004. HELM optimizes weather response functions based on daily load profiles by rate classes. The weather response functions are used in HELM's Billing Cycle Analysis tool to estimate kWh sales under predicted actual and

1 normal weather conditions for the test year by billing cycles for each rate class. Actual  
2 and normal daily weather variables, based on 1971-2000 average daily temperature  
3 (2-day rolling average) data for Kansas City, Missouri (MCI Airport), were used in  
4 each rate class model to estimate kWh sales under predicted actual and normal  
5 weather conditions. In order to compute the 2-day rolling average daily  
6 temperatures, average daily normal temperatures for 1971-2000 were computed from  
7 daily maximum and minimum temperatures, based on temperature data for MCI  
8 Airport and a model developed by the Missouri Public Service Commission Staff.  
9 The weather adjustment to kWh sales is calculated as the difference between  
10 predicted normal minus predicted actual daily kWh sales.

11 Q. Please describe the results of the weather normalization adjustment to kWh sales for  
12 the test year ending December 31, 2004.

13 A. Schedules ELW-1 and ELW-2 provide the weather normalization adjustment to kWh  
14 sales for MPS and L&P, respectively. The total weather normalization adjustment  
15 (normal - actual) for weather sensitive retail rate classes is 183,615 MWh for MPS,  
16 and 50,920 MWh for L&P for the test year ending December 31, 2004.

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

19 A. The method used for calculating the weather normalization adjustment for revenue for  
20 the test year ending December 31, 2004 for each weather sensitive rate class, is based  
21 on actual observed average rates by billing cycle for the test year. Actual average  
22 rates, based on revenue associated with kWh usage excluding Interim Energy Charges  
23 and Customer Charges, were multiplied by weather normalization adjustments

1 (normal – actual) kWh sales by billing cycle for each rate class that was weather  
2 normalized to compute weather adjustments to revenue. This method assumes that  
3 weather normalization affects only the weather sensitive rate class sales, with no  
4 effect from customer charges or other fixed charges. Interim Energy Charges were  
5 excluded from the weather adjustment to revenue as described in direct testimony of  
6 Aquila witness Susan Braun. Actual average rates were normalized for the full test  
7 year 2004, considering the base rate increases for MPS and L&P which became  
8 effective in April 2004.

9 Q. Please describe the results of the weather normalization adjustment to revenue for the  
10 test year ending December 31, 2004.

11 A. Schedules ELW-1 and ELW-2 provide the weather normalization adjustment to  
12 revenue for MPS and L&P, respectively. The total weather normalization adjustment  
13 to revenue for weather sensitive retail rate classes is \$12,447,463 for MPS, and  
14 \$2,796,398 for L&P, as summarized in Schedule SKB-4 included with the direct  
15 testimony of Aquila witness Susan Braun.

16 **UNBILLED SALES AND REVENUE ADJUSTMENT**

17 Q. Please describe the unbilled sales and revenue adjustment for the test year ending  
18 December 31, 2004.

19 A. Schedules ELW-1 and ELW-2 provide the unbilled sales and revenue adjustment at  
20 the bottom of the sales and revenue schedule for MPS and L&P, respectively.  
21 Unbilled sales for the test year is the difference between calendar month weather  
22 normalized sales and billing month weather normalized sales for the rate codes that  
23 were weather normalized, as calculated in HELM's Billing Cycle Analysis. Unbilled

1 revenue for the test year is based on average rates for the rate codes that were weather  
2 normalized, excluding IEC, customer charges and other fixed charges, multiplied by  
3 the monthly unbilled sales. The total 2004 test year unbilled revenue and kWh sales  
4 adjustment is \$304,086 and (752) MWh for MPS, and \$ (81,112) and (4,414) MWh  
5 for L&P, as summarized in Schedule SKB-4 included with the direct testimony of  
6 Aquila witness Susan Braun.

7 **LEAP YEAR ADJUSTMENT**

8 Q. Please describe the leap year adjustment to sales and revenue for the test year ending  
9 December 31, 2004.

10 A. Schedules ELW-1 and ELW-2 provide the unbilled sales and revenue adjustment at  
11 the bottom of the sales and revenue schedules for MPS and L&P, respectively. The  
12 leap year adjustment eliminates leap day (February 29) sales from the test year by  
13 dividing the calendar month weather normalized sales by  $-1/366$  in order to normalize  
14 leap day sales proportionately over the test year. The total 2004 test year leap day  
15 adjustment is \$(764,577) to revenue and (14,591) MWh to sales for MPS, and  
16 \$(204,778) to revenue and (5,053) MWh to sales for L&P, as summarized in  
17 Schedule SKB-4 included with the direct testimony of Aquila witness Susan Braun.

18 **CUSTOMER ANNUALIZATION ADJUSTMENT**

19 Q. Please describe the method for calculating the customer normalization adjustment to  
20 revenue for weather sensitive rate classes for the test year ending December 31, 2004.

21 A. A customer annualization adjustment to the test year revenue is made to reflect  
22 additional sales and revenue that are expected to occur because of projected growth in  
23 the number of customers at some future point in time. This method is simple and is



1 based on dividing the weather normalized test year rate class revenues by average  
2 customers, and then multiplying the result by the projected customers as of June 30,  
3 2005 to obtain customer annualized revenues. Customers were projected to June  
4 2005 based on growth from January to June 2004 in historical monthly customers by  
5 rate class, except those rate classes which had no significant observable growth which  
6 were assumed to remain at December 2004 customer levels or the average level for  
7 the test year. Actual customer levels by rate class at June 30, 2005 will be used when  
8 available to true up the customer annualization adjustment. The customer  
9 annualization adjustment is the difference between the test year weather normalized  
10 revenues and the customer annualized revenues projected at June 30, 2005 customer  
11 levels.

12 Q. Please describe the results of the customer annualization adjustment to revenue at  
13 June 30, 2005.

14 A. Schedules ELW-3 and ELW-4 provide the customer annualization adjustment to  
15 revenue for MPS and L&P, respectively. The total customer annualization adjustment  
16 to revenue for weather sensitive retail rate classes is \$5,636,449 for MPS, and  
17 \$1,237,646 for L&P, based on projected customer levels at June 30, 2005, as  
18 summarized in Schedule SKB-4 included with the direct testimony of Aquila witness  
19 Susan Braun.

20 **LARGE CUSTOMER LOAD ADJUSTMENT**

21 Q. Please describe the large customer load adjustment to sales and revenue for the test  
22 year ending December 31, 2004.

1 A. Large customer load adjustments are shown at the bottom of schedules ELW-3 and  
2 ELW-4 for MPS and L&P, respectively. A large customer adjustment for MPS of  
3 17,520 MWh annualized sales and \$772,632 annualized revenue was made for a new  
4 St. Luke's Hospital facility in Lee's Summit, MO expected to be constructed by June  
5 2005. A large customer load adjustment for MPS was also made for miscellaneous  
6 rate MO730 customers of 5,349 MWh annualized sales and \$253,203 annualized  
7 revenue. A large customer adjustment for L&P of 8,760 MWh annualized sales and  
8 \$317,236 annualized revenue was made for an Albaugh Chemical expansion in St.  
9 Joseph, MO expected to be constructed by June 2005. A large customer adjustment  
10 for L&P of 56,940 MWh annualized sales and \$2,062,037 annualized revenue was  
11 also made for a Triumph Foods (pork processing) facility in St. Joseph, MO expected  
12 to be constructed by June 2005.

13 Total large customer load adjustment to revenue for MPS is \$1,025,835, and  
14 L&P is \$2,379,273, as summarized in Schedule SKB-4 included with the direct  
15 testimony of Aquila witness Susan Braun.

16 **WEATHER NORMALIZATION OF**  
17 **SYSTEM HOURLY LOADS**

18 Q. Please describe the method and data sources used for weather normalizing system  
19 hourly loads for MPS and L&P for the test year ending December 31, 2004.

20 A. System hourly loads in kW represent the hourly electric demand requirements for  
21 MPS and L&P electric customers, including transmission and distribution losses.  
22 Actual system hourly loads for 2004 were weather normalized using HELM from  
23 Electric Power Research Institute with methods and data sources consistent with the

1 weather normalization of class sales, as previously described in my testimony.

2 Weather response functions for MPS and L&P were optimized in HELM using actual  
3 daily weather variables (2-day average daily temperature) for MCI Airport (Kansas  
4 City, MO). Based on these weather response functions, hourly loads were weather  
5 normalized using 1971-2000 normal (2-day weighted) average daily temperatures,  
6 consistent with the weather normalization of rate class sales, as previously described  
7 in my testimony. MPS and L&P weather normalized hourly loads for 2004 were then  
8 adjusted to reflect the change in level of test year sales due to the unbilled sales  
9 adjustment, leap day adjustment, customer annualization adjustment, and large  
10 customer load adjustment.

11 Q. Please describe the results of the MPS and L&P weather normalized system hourly  
12 loads for the test year ending December 31, 2004.

13 A. Schedules ELW-5 and ELW-6 provide a summary of the 2004 weather normalized  
14 system hourly loads for MPS and L&P, respectively.

15 The MPS weather normalized 2004 net energy for load is 5,984,353 MWh, as  
16 adjusted, and the weather normalized peak demand is 1400 MW, as shown on line 38  
17 of schedule ELW-5. The L&P weather normalized 2004 net energy for load is  
18 2,086,643 MWh, as adjusted, and the weather normalized peak demand is 410 MW,  
19 as shown on line 38 of schedule ELW-6. Weather normalized system hourly loads,  
20 as adjusted for MPS and L&P, are used by Aquila witness Jerry Boehm for  
21 normalizing fuel and purchased energy costs for the 2004 test year.

22 **RECOMMENDATION**

23 Q. What is your recommendation to the Commission?

1     A.     My recommendation to the Commission is that it should adopt the MPS and L&P  
2             weather normalized revenue adjustment, unbilled revenue adjustment, leap year  
3             adjustment, customer annualization adjustment, and large customer load adjustment;  
4             as well as the weather normalized system hourly loads, for the 2004 test year, which I  
5             am sponsoring in my direct testimony.

6     Q.     Does this conclude your direct testimony?

7     A.     Yes, it does.

1 **Schedule ELW-1**

B	C	D	E	F	G	H	I	J	K	L	M	N	O
ELECTRIC	Aquila Networks, Missouri Public Service Division Weather Normalization Adjustment Test Year Ending 12/31/04												ELW - 1 Page 1 of 2
MWh Sales Adjustment (Normal - Actual)													
Billed WN Adj.													
Rate Class	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Annual
MO860	4,073	(324)	1,359	1,643	(6,355)	1,210	34,199	36,066	23,041	(368)	1,664	3,384	99,592
MO870	7,176	(694)	2,028	5,182	(527)	1,012	8,666	9,603	6,673	(849)	7,905	6,489	52,665
MO711	828	(254)	(63)	42	(2,063)	(507)	5,768	6,315	3,450	(516)	1,450	1,015	15,465
MO716	1	(0)	1	(1)	(3)	1	5	5	2	(0)	1	2	12
MO720	792	(68)	295	(44)	(1,449)	45	3,320	3,430	1,863	(111)	56	670	8,799
MO725	(8)	(2)	(14)	(27)	(53)	(4)	188	106	91	(2)	(45)	(4)	228
MO730	12	(40)	(46)	(356)	(936)	414	1,769	1,941	591	78	(777)	199	2,849
MO735	15	(24)	(9)	(416)	(1,129)	643	1,826	2,007	492	120	(723)	14	2,814
MO740	104	(12)	26	38	(72)	0	376	359	273	15	2	83	1,192
Billed WN Adj.	12,992	(1,419)	3,577	6,061	(12,586)	2,815	56,116	59,832	36,475	(1,633)	9,534	11,851	183,615
Unbilled Adj.	(20,946)	(42,412)	7,446	(17,150)	19,210	43,107	42,506	9,175	(77,866)	(17,158)	20,557	32,777	(752)
Leap Year Adj.	(1,229)	(1,119)	(1,111)	(944)	(1,045)	(1,317)	(1,648)	(1,557)	(1,205)	(1,035)	(1,065)	(1,313)	(14,591)

ELECTRIC

Aquila Networks, Missouri Public Service Division  
Weather Normalization Adjustment  
Test Year Ending 12/31/04

ELW - 1  
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Note: Revenue excludes IEC, demand, and customer charges. Base rate increase of 4.671% (effective, Apr-04) reflected for full 2004 test year WNA to revenue.

\$ Revenue Adjustment (Normal - Actual)														
Billed WN Adj.	Rate Class	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Annual
	MO860	254,351	(20,455)	88,240	108,567	(409,864)	90,098	2,561,096	2,700,248	1,719,810	(23,429)	110,170	206,293	7,385,124
	MO870	321,221	(30,514)	96,363	272,145	(28,865)	75,760	650,734	720,847	499,568	(47,151)	447,218	287,358	3,264,685
	MO711	38,654	(11,817)	(3,006)	2,086	(98,740)	(31,872)	359,899	398,506	217,341	(23,902)	70,870	45,863	963,883
	MO716	33	(14)	31	(25)	(137)	51	307	278	90	(5)	31	73	712
	MO720	31,074	(2,646)	11,737	(1,773)	(56,115)	2,406	177,191	186,085	101,098	(4,309)	2,216	24,564	471,528
	MO725	(320)	(69)	(571)	(1,008)	(1,924)	(180)	9,790	5,608	5,002	(46)	(1,692)	(145)	14,445
	MO730	376	(1,253)	(1,447)	(11,172)	(29,025)	16,392	71,915	77,805	23,831	2,430	(24,171)	6,250	131,932
	MO735	457	(746)	(271)	(12,765)	(34,376)	24,978	71,522	77,911	19,135	3,712	(21,984)	424	127,998
	MO740	5,510	(649)	1,433	2,215	(4,111)	12	28,850	27,567	20,998	819	100	4,413	87,156
Billed WN Adj.		651,356	(68,164)	192,508	358,270	(663,156)	177,645	3,931,305	4,194,855	2,606,873	(91,882)	582,758	575,095	12,447,463
Unbilled Adj.		(941,808)	(1,871,068)	337,765	(792,140)	898,457	2,637,423	2,671,911	578,695	(4,859,907)	(816,055)	981,979	1,478,835	304,086
Leap Year Adj.		(55,263)	(49,373)	(50,386)	(43,607)	(48,895)	(80,607)	(103,616)	(98,230)	(75,237)	(49,237)	(50,880)	(59,247)	(764,577)
Avg.Rev/Kwh (\$)		\$ 0.04496	\$ 0.04412	\$ 0.04536	\$ 0.04619	\$ 0.04677	\$ 0.06118	\$ 0.06286	\$ 0.06307	\$ 0.06241	\$ 0.04756	\$ 0.04777	\$ 0.04512	\$ 0.05234

Aquila Networks, Missouri Public Service Division Weather Data at MCI Airport, Kansas City, MO Test Year Ending 12/31/04													
HDD65 (MCI):	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Annual
Actual-Cal.Mo.	1,158	980	540	267	85	5	0	4	10	237	539	938	4,763
Actual-2MoAvg.	1,064	1,069	760	404	176	45	3	2	7	124	388	739	4,779
Normal71-00	1,182	897	658	331	124	8	0	7	58	269	668	1,047	5,249
Deviation(N-A)	24	(83)	118	64	39	3	0	3	48	32	129	109	486
% Deviation	2%	-9%	18%	19%	31%		0%	43%	83%	12%	19%	10%	9%
CDD65 (MCI):	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Annual
Actual-Cal.Mo.	0	0	0	32	164	178	316	244	166	18	0	0	1,118
Actual-2MoAvg.	0	0	0	16	98	171	247	280	205	92	9	0	1,118
Normal71-00	0	0	0	12	101	264	418	367	151	12	0	0	1,325
Deviation (N-A)	0	0	0	(20)	(63)	86	102	123	(15)	(6)	0	0	207
% Deviation	0%	0%	0%	-167%	-62%	33%	24%	34%	-10%		0%	0%	16%

## Schedule ELW-2

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	ELECTRIC													
2														
3														
4														
5														
6	MWh Sales Adjustment (Normal - Actual)													
7	Billed WN Adj.													
8	Rate Class	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Annual
9	MO910	850	(73)	174	172	(1,666)	(877)	5,669	6,774	4,326	(361)	1,016	924	16,927
10	MO911	5	(2)	4	(0)	(20)	7	51	50	27	(3)	9	7	136
11	MO913	308	(22)	92	181	(259)	(102)	1,046	1,173	785	(20)	400	328	3,909
12	MO914	0	0	0	0	(0)	(0)	1	1	1	(0)	0	0	3
13	MO915	23	(0)	3	8	(9)	(8)	38	48	63	(2)	38	30	232
14	MO920	3,216	(442)	1,052	2,129	(375)	(33)	2,356	2,529	1,681	150	3,577	3,199	19,037
15	MO921	64	1	14	58	2	(10)	48	55	41	6	71	73	423
16	MO922	6	(1)	2	3	(1)	0	4	4	3	0	5	5	31
17	MO930	78	(7)	29	35	(56)	(21)	153	156	86	(12)	97	76	613
18	MO931	135	(14)	52	67	(127)	(61)	356	382	223	(36)	195	138	1,309
19	MO932	17	(2)	7	5	(9)	(3)	21	23	12	(2)	14	14	97
20	MO933	80	(10)	32	36	(55)	(14)	133	137	77	(13)	83	80	565
21	MO934	15	(1)	4	8	(9)	(7)	32	39	23	(5)	16	14	130
22	MO940	511	(70)	215	52	(633)	78	2,061	2,271	1,005	(131)	311	359	6,029
23	MO941	6	(1)	2	1	(3)	0	9	9	6	(1)	2	4	34
24	MO944	61	(66)	(43)	(251)	(520)	340	1,128	1,126	280	35	(584)	(60)	1,445
25	Billed WN Adj.	5,375	(711)	1,639	2,503	(3,741)	(712)	13,106	14,778	8,637	(396)	5,251	5,190	50,920
26	Unbilled Adj.	(8,564)	(10,339)	(3,576)	(4,491)	2,511	10,619	5,583	3,719	(16,193)	(2,663)	8,829	10,152	(4,414)
27	Leap Year Adj.	(455)	(434)	(408)	(349)	(361)	(422)	(501)	(494)	(404)	(368)	(386)	(471)	(5,053)

ELECTRIC  
Aquila Networks, St. Joseph Light & Power Division  
Weather Normalization Adjustment  
Test Year Ending 12/31/04  
ELW - 2  
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Note: Revenue excludes IEC, demand, and customer charges. Base rate increase of 3.685% (eff. Apr-04) reflected for full 2004 test year.

	\$ Revenue Adjustment (Normal - Actual)													
	Billed WN Adj.													
	Rate Class	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Annual
37	MO910	45,319	(3,913)	9,510	9,620	(91,412)	(58,281)	376,468	449,792	287,261	(19,573)	56,764	49,969	1,111,525
38	MO911	311	(102)	223	(6)	(1,193)	437	3,390	3,331	1,824	(167)	544	424	9,014
39	MO913	13,823	(977)	4,282	8,700	(12,334)	(6,776)	69,523	77,973	52,113	(961)	19,424	15,089	239,878
40	MO914	11	1	1	7	(7)	(9)	66	74	52	(2)	14	11	220
41	MO915	1,611	(32)	210	574	(600)	(757)	3,707	4,640	6,029	(139)	2,695	2,103	20,039
42	MO920	113,636	(15,496)	38,034	81,852	(14,732)	(2,207)	156,363	167,947	111,617	6,016	142,648	116,948	902,627
43	MO921	2,567	49	580	2,512	72	(695)	3,218	3,662	2,750	245	3,099	3,095	21,154
44	MO922	214	(43)	78	110	(23)	18	288	286	184	5	186	192	1,495
45	MO930	4,998	(477)	1,893	2,222	(3,526)	(1,879)	13,586	13,879	7,658	(794)	6,266	4,876	48,704
46	MO931	6,219	(652)	2,423	3,123	(5,964)	(4,110)	23,650	25,637	14,874	(1,709)	9,272	6,436	79,198
47	MO932	1,115	(156)	441	303	(544)	(224)	1,843	2,041	1,046	(102)	912	879	7,556
48	MO933	3,356	(416)	1,367	1,636	(2,414)	(925)	8,852	9,238	5,132	(590)	3,700	3,407	32,344
49	MO934	971	(39)	252	491	(575)	(668)	2,862	3,499	2,091	(294)	1,011	931	10,532
50	MO940	16,784	(2,332)	7,122	1,732	(20,763)	3,409	89,020	105,502	43,886	(4,369)	10,404	11,858	262,253
51	MO941	232	(41)	83	18	(114)	5	811	839	500	(34)	73	131	2,502
52	MO944	1,544	(1,665)	(1,100)	(6,390)	(13,080)	9,997	32,730	32,670	8,105	877	(14,809)	(1,521)	47,357
53	Billed WN Adj.	212,710	(26,291)	65,399	106,507	(167,209)	(62,665)	786,378	901,008	545,122	(21,591)	242,201	214,829	2,796,398
54	Unbilled Adj.	(300,147)	(360,111)	(125,024)	(157,144)	88,674	513,065	275,041	187,343	(799,070)	(96,429)	322,724	369,966	(81,112)
55	Leap Year Adj.	(15,957)	(15,109)	(14,253)	(12,221)	(12,732)	(20,389)	(24,667)	(24,888)	(19,950)	(13,307)	(14,125)	(17,181)	(204,778)
56	Avg.RevKwh (\$)	\$ 0.03505	\$ 0.03483	\$ 0.03496	\$ 0.03499	\$ 0.03531	\$ 0.04832	\$ 0.04926	\$ 0.05037	\$ 0.04935	\$ 0.03620	\$ 0.03655	\$ 0.03644	\$ 0.04047

Aquila Networks, St. Joseph Light & Power Division  
Weather Data at MCI Airport, Kansas City, MO  
Test Year Ending 12/31/04

	HDD65 (MCI):	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Annual
64	Actual-Calendar	1,158	980	540	267	85	5	0	4	10	237	539	938	4,763
65	Actual-2Mo.Avg.	1,064	1,069	760	404	176	45	3	2	7	124	388	739	4,779
66	Normal71-00	1,182	897	658	331	124	8	0	7	58	269	668	1,047	5,249
67	Deviation(N-A)	24	(83)	118	64	39	3	0	3	48	32	129	109	486
68	% Deviation	2%	-9%	18%	19%	31%	0%	43%	83%	12%	19%	10%	9%	9%
	CDD65 (MCI):	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Annual
71	Actual-Calendar	0	0	0	32	164	178	316	244	166	18	0	0	1,118
72	Actual-2Mo.Avg.	0	0	0	16	98	171	247	280	205	92	9	0	1,118
73	Normal71-00	0	0	0	12	101	264	418	367	151	12	0	0	1,325
74	Deviation (N-A)	0	0	0	(20)	(63)	86	102	123	(15)	(6)	0	0	207
75	% Deviation	0%	0%	0%	-167%	-62%	33%	24%	34%	-10%		0%	0%	16%

### Schedule ELW-3

1	B	C	D	E	F	G	H	I	J	K	L
2	ELECTRIC										ELW - 3
3											
4											
5	Note: Revenue excludes IEC. Base rate increase of 4.671% (effective Apr-04) reflected for full 2004 test year WNA to revenue.										
6											
7											
8	Rate Class	Test Year 2004 Avg. Customers	Forecast Jun-05 Customers		Revenue Per Customer	Forecast Jun-05 Revenue		Test Year 12/31/04 WN Revenue		Forecast Jun-05 Cust Adj.Rev.	Forecast Jun-05 CustAdj.MWh
9	MO860	146,981	146,981		\$ 846	\$ 124,372,587		\$ 124,372,587		\$ -	-
10	MO870	49,462	53,500		\$ 1,061	\$ 56,743,436		\$ 52,397,219		\$ 4,346,218	73,914
11	MO711	26,735	26,866		\$ 1,840	\$ 49,434,686		\$ 49,317,855		\$ 116,831	3,082
12	MO716	7	7		\$ 10,077	\$ 70,536		\$ 70,536		\$ -	-
13	MO720	1,108	1,108		\$ 36,749	\$ 40,699,790		\$ 40,699,790		\$ -	-
14	MO725	24	24		\$ 74,425	\$ 1,755,188		\$ 1,755,188		\$ -	-
15	MO730	109	109		\$ 246,136	\$ 26,767,271		\$ 26,767,271		\$ -	-
16	MO735	34	36		\$ 720,256	\$ 25,929,219		\$ 24,755,818		\$ 1,173,401	30,144
17	MO740	804	804		\$ 2,448	\$ 1,968,844		\$ 1,968,844		\$ -	-
18											
19											
20											
21											
22											
23											
24											
25	Total	225,264	229,435		\$ 1,428	\$ 327,741,557		\$ 322,105,108		\$ 5,636,449	107,141
26											
27	Large Load Adjustments (Normalized 2005):										
28	Rate Class	Customer Name		Opr. Date	Revenue		Avg RevKwh\$	LF%	Peak MW	Annual MWh	
29	MO730	St.Lukes Hosp. (Lees Summit)		Jun-05	\$ 772,632		\$ 0.0441	50%	4	17,520	
30	MO730	Annualize specific customers		Dec04	\$ 253,203		\$ 0.0473	50%	1	5,349	
31	Total				\$ 1,025,835				5	22,869	

### Schedule ELW- 4

1	B	C	D	E	F	G	H	I	J	K	L
2	ELECTRIC										ELW - 4
3											
4											
5	Note: Revenue excludes IEC, demand, and customer charges. Base rate increase of 3.685% (eff. Apr-04) reflected for full 2004 test year.										
6											
7											
8	Rate Class	Test Year 2004 Avg. Customers	Forecast Jun-05 Customers		Revenue Per Customer	Forecast Jun-05 Revenue		Test Year 12/31/2004 WN Revenue		Forecast Jun-05 Cust Adj.Rev.	Actual Jun-05 CustAdj.MWh
9	MO910	32,647	32,647		\$ 638	\$ 20,836,123		\$ 20,832,033		\$ 4,090	37
10	MO911	79	79		\$ 2,458	\$ 193,378		\$ 192,645		\$ 733	9
11	MO913	6,936	6,936		\$ 747	\$ 5,180,105		\$ 5,179,123		\$ 982	(8)
12	MO914	5	5		\$ 1,043	\$ 4,782		\$ 4,695		\$ 86	1
13	MO915	1,642	1,715		\$ 327	\$ 561,418		\$ 538,124		\$ 23,294	238
14	MO920	15,268	16,076		\$ 968	\$ 15,569,605		\$ 14,769,274		\$ 800,331	17,698
15	MO921	58	58		\$ 6,797	\$ 390,815		\$ 389,560		\$ 1,256	52
16	MO922	91	92		\$ 285	\$ 26,177		\$ 26,007		\$ 170	2
17	MO930	3,194	3,206		\$ 654	\$ 2,096,849		\$ 2,091,005		\$ 5,843	80
18	MO931	1,491	1,527		\$ 2,247	\$ 3,431,802		\$ 3,353,892		\$ 77,910	1,155
19	MO932	281	282		\$ 1,130	\$ 318,698		\$ 317,474		\$ 1,225	16
20	MO933	623	637		\$ 2,277	\$ 1,450,226		\$ 1,419,013		\$ 31,213	509
21	MO934	315	316		\$ 1,197	\$ 378,380		\$ 377,099		\$ 1,281	15
22	MO940	1,095	1,108		\$ 17,038	\$ 18,877,986		\$ 18,643,781		\$ 234,205	4,803
23	MO941	105	105		\$ 1,338	\$ 139,928		\$ 140,135		\$ (206)	(15)
24	MO944	60	60		\$ 406,361	\$ 24,246,200		\$ 24,190,969		\$ 55,232	1,028
25	Total	63,888	64,847		\$ 1,445	\$ 93,702,472		\$ 92,464,826		\$ 1,237,646	25,621
26											
27	Large Load Adjustments (Normalized 2005):										
28	Rate Class	Customer Name		Opr. Date	Revenue		Avg RevKwh\$	LF%	Peak MW	Annual MWh	
29	MO944	Albaugh Chemical		Jun-05	\$ 317,236		\$ 0.0362	50%	2	8,760	
30	MO944	Triumph Foods (Pork)		Jun-05	\$ 2,062,037		\$ 0.0362	50%	13	56,940	
31	Total				\$ 2,379,273		\$ 0.0362	50%	15	65,700	





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**TERRY D. LUTES**  
Jackson County  
My Commission Expires  
August 20, 2008