Exhibit No.:

Issues:

Capacity Expense; Off-System Sales Margins

Witness: Kevin C. Higgins

Sponsoring Party: The Commercial Group
Type of Exhibit: Direct Testimony
Case No.: ER-2007-0004

February 27, 2007

Date Testimony

Prepared:

### **BEFORE** THE MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2007-0004

### Supplemental Direct Testimony of Kevin C. Higgins

on behalf of

The Commercial Group

February 27, 2007

### TABLE OF CONTENTS

Introduction	1
Overview and Conclusions	2
Purchased Capacity Expense	3
Off-System Sales Margins	7

### 1 SUPPLEMENTAL DIRECT TESTIMONY OF KEVIN C. HIGGINS

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- 4 Q. Please state your name and business address.
- 5 A. Kevin C. Higgins, 215 South State Street, Suite 200, Salt Lake City, Utah,
- 6 84111.
- 7 Q. By whom are you employed and in what capacity?
- 8 A. I am a Principal in the firm of Energy Strategies, LLC. Energy Strategies
- 9 is a private consulting firm specializing in economic and policy analysis
- applicable to energy production, transportation, and consumption.
- 11 Q. On whose behalf are you testifying in this proceeding?
- 12 A. My testimony is being sponsored by The Commercial Group. The
- 13 Commercial Group is comprised of the Missouri locations of Lowe's Home
- 14 Centers, Inc.; Wal-Mart Stores East LP; and J.C. Penney Corporation, Inc.
- 15 Collectively, the members of The Commercial Group purchase more than 98
- million kWh annually from the Aquila Networks ("Aquila") service territories in
- Missouri, primarily on the Large General Service and Large Power Service rate
- schedules. Approximately 80 percent of The Commercial Group's load is in the
- Missouri Public Service ("MPS") division and the balance is in the St. Joseph
- 20 Light & Power ("L&P) division.
- 21 Q. Are you the same Kevin C. Higgins who previously filed direct testimony in
- 22 this proceeding?
- 23 A. Yes, I am.

### **Overview and Conclusions**

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2	Q.	What is the purpose of your supplemental testimony in this phase of the
3		proceeding?

My supplemental testimony provides an updated quantification to the revenue requirement adjustments that I recommended in my direct testimony filed on January 18, 2007. The topics addressed in this testimony are: (1) The appropriate treatment of purchased capacity expense in the Aquila Networks – MPS territory, and (2) the appropriate treatment of off-system sales margins.

As part of my testimony, I offer recommendations to the Commission on these issues in support of a just and reasonable outcome.

### Q. What conclusions and recommendations do you offer to the Commission?

I offer the following conclusions and recommendations:

(1) In its direct filing made on July 3, 2006, Aquila made a "placeholder" adjustment of \$31,325,003 to the Purchased Power (Capacity) expense for MPS. This adjustment is based on an estimate of for the cost of acquiring additional capacity, which Aquila terms the "Additional Capacity Solution Project." In my opinion, the amount of additional capacity for which the Company is seeking rate recovery is excessive to its needs. Instead, the amount of capacity expense included in rates should reflect adjusted test period capacity requirements, i.e., capacity requirements for 2006. My recommended adjustment reduces the Company's initial revenue requirement proposal by \$44,658,812.

(2) In its direct filing, Aquila is proposing that off-system sales margins be based on the three-year average of these margins from 2003 through 2005. I recommend

- that, instead, off-system sales margins be based on the actual levels for 2006.
- This modification results in a reduction of \$2,050,350 in the MPS revenue
- requirement and a reduction of \$1,004,627 in the L&P revenue requirement
- 4 relative to Aquila's initial proposals filed on July 3, 2006.

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### 6 Purchased Capacity Expense

- 7 Q. Please describe the "placeholder" adjustment that MPS has made to its
- 8 Purchased Power (Capacity) expense.
- 9 A. In his direct testimony, Aquila witness Kevin T. Noblet states that MPS is 10 seeking to acquire additional capacity in an effort that the Company terms the Additional Capacity Solution Project. This effort was underway and was still 11 unresolved at the time Aquila made its filing. Consequently, as an "initial 12 placeholder," the Company is requesting approval to recover in 13 14 purchased capacity expense associated with the Additional Capacity Solution. 15 This amount was calculated based on an assumed demand charge (including transmission and fuel transport) of per kW-month for 16 megawatts of capacity. When this expense is added to MPS' actual purchased 17 18 capacity costs for 2005, and is netted against other purchased capacity 19 adjustments, it results in a net adjustment of \$31,325,003, which appears in 20 Schedule SKB-4 (MPS) as Adjustment FPP-20.
  - Q. What is the basis for the values used by the Company in determining the placeholder amount?

According to Mr. Noblet, at the time of its initial filing, Aquila was in the process of seeking to acquire a distressed generating asset. Because it was not assured that the Company would be successful in making this acquisition, Mr. Noblet proposed that the placeholder capacity expense be derived using the estimated capacity cost for a long-term power purchase agreement, based on certain indicative prices for the demand charge. It is my understanding that the amount of capacity included in this hypothetical long-term power purchase agreement is nearly identical to the amount of capacity the Company would have acquired if it successfully purchased the distressed generating asset.

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It is now known that Aquila was not successful in acquiring the distressed generating asset.

- Q. Has Aquila updated the placeholder values in its filing to reflect the fact that the Company was not successful in purchasing the distressed generating asset?
  - Not at this time. Aguila has, however, provided updated information to the parties regarding its plans to meet capacity requirements in 2007. In addition, Aquila witness H. Davis Rooney identifies in his HC rebuttal testimony two capacity contracts that were executed prior to year-end 2006 for the purpose of meeting system capacity requirements in 2007. However, because Aquila has not yet updated its revenue requirement proposal in its filing, my adjustments here are all made with respect to the Company's original filing of July 3, 2006.
- Q. What is your assessment of the Company's approach to estimating the 22 revenue requirement for purchased capacity?

In my initial direct testimony, I recognized that the expense derived in Mr. Noblet's approach was intended to be a placeholder, yet I nonetheless registered disagreement regarding the *amount* of capacity assumed in Mr. Noblet's calculation. The of additional capacity assumed in the long-term purchase agreement was clearly excessive to MPS' needs, which should be based on the Company's capacity requirements in 2006. Based on my review of the Company's 2006 resource requirements, I concluded that only 200 MW of the of additional capacity was necessary to meet MPS' capacity needs for 2006. In this supplemental testimony, my calculations recognize that this 200 MW of capacity was only in place for months of that year. This analysis is supported in HC Schedule KCH-1-Supplemental and HC Schedule KCH-2-Supplemental.

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In any event, had the intended acquisition occurred, the plant's excess capacity would have at least been available to make off-system sales, creating a potential benefit to customers. This benefit should have been recognized by the

1		Company in its revenue requirement calculation – even under its placeholder
2		approach - but it was not. The Company's failure to recognize the increased off-
3		system sales margins that would accompany the acquisition of excess capacity is
4		an additional problem with the Company's treatment of capacity expense.
5	Q.	Why should the revenue requirement for MPS' capacity expense be based on
6		2006 resource needs?
7	A	According to the test period consensus reached by parties in this case, the

Q.

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Q.

According to the test period consensus reached by parties in this case, the Company's revenue requirement is to be determined based on an historic 2005 test period, with updates for known and measurable events through the end of 2006. This means that the level of retail sales used in setting rates will not extend beyond 2006. Consequently, the Company's capacity expense should not be based on needs beyond 2006. To go beyond 2006 would violate the well-established "matching principle" in ratemaking, which holds that rates should be based on costs and revenues that are synchronized with respect to time periods.

# What alternative approach do you recommend for determining MPS' purchased capacity expense in this proceeding?

I recommend that MPS' purchased capacity expense be based on the prudent purchased capacity expense necessary to meet MPS' 2006 capacity requirements. These purchases are summarized in HC Schedule KCH-1-Supplemental and HC Schedule KCH-2-Supplemental.

What adjustment to Aquila's recommended revenue requirement for MPS are you recommending based on your proposed treatment of MPS capacity expense?

1 A. I recommend an adjustment to reduce the Company's initial revenue
2 requirement proposal for MPS by \$44,658,812. This adjustment is shown in HC
3 Schedule KCH-2-Supplemental, and is calculated by removing the
4 purchase that the Company included in its Additional Capacity Solution and
5 replacing it with the Company's actual capacity expense for 2006.

A.

### **Off-System Sales Margins**

- 8 Q. What approach has Aquila proposed for the treatment of off-system sales
  9 margins?
- 10 A. As noted in the direct testimony of Susan K. Braun, Aquila has proposed
  11 that off-system sales margins be based on a three-year average from 2003 through
  12 2005. Based on this approach, the Company proposes adjustments to both the
  13 MPS and L&P off-system sales revenue and expense, as shown in Schedules
  14 SKB-4 (MPS) and SKB-4 (L&P), Adjustments R-35 and FPP-35.

### Q. What is your assessment of this approach?

I recommend against using a three-year average to determine off-system sales margins, as it is inconsistent with the manner in which all other aspects of revenue requirements are being determined in this proceeding. As discussed above, the revenues and expenses in this proceeding are based on a 2005 historic test period with updates for known and measurable events through the end of 2006. The treatment of off-system sales margins should be consistent with this overall approach.

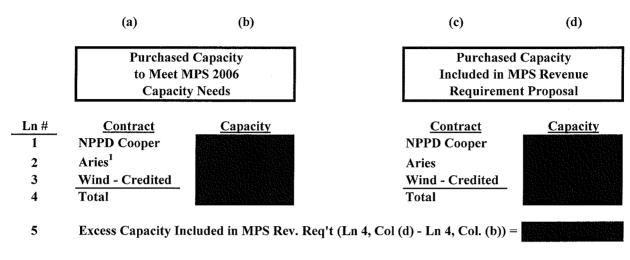
- Q. What alternative approach do you recommend for the treatment of offsystem sales margins?
- A. I recommend that the off-system sales margins be based on actual 2006 results.
- What adjustment to Aquila's proposed revenue requirement are you recommending based on your proposed treatment of off-system sales margins?
- 8 A. Aquila's off-system sales margins for 2006 are shown in Schedule KCH-9 3-Supplemental, page 3. These margins were greater than the three-year average 10 for the period 2003-2005. Consequently, I am recommending a reduction of \$2,050,350 in the MPS revenue requirement and a reduction of \$1,004,627 in the 11 12 L&P revenue requirement relative to Aquila's initial proposals. These calculations 13 are shown in Schedule KCH-3-Supplemental, with the adjustments to the 14 Company's accounts and net revenue requirement impact appearing in line 30 of 15 page 1 (MPS) and page 2 (L&P).
- 16 Q. Does this conclude your direct testimony?
- 17 A. Yes, it does.

# BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

Aquila Net Increasing to Custom	ter of the Tariffs of Aquila, Inc., d/b/a ) works-MPS and Aquila Networks-L&P ) Electric Rates for the Services Provided ) Case No. ER-2007-0004 ers in the Aquila Networks-MPS and ) works-L&P Missouri Service Areas. )												
	AFFIDAVIT OF KEVIN C. HIGGINS												
STATE OF	UTAH )												
COUNTY O	F SALT LAKE )												
Kevir	C. Higgins, being first duly sworn, deposes and states that:												
1. He is a Principal with Energy Strategies, L.L.C., in Salt Lake City, U													
2.													
"Supplemen	tal Direct Testimony of Kevin C. Higgins;"												
3.	3. Said testimony was prepared by him and under his direction and												
supervision;													
4.	If inquiries were made as to the facts and schedules in said testimony he												
would respo	nd as therein set forth; and												
5.	The aforesaid testimony and schedules are true and correct to the best of												
his knowledg	ge, information and belief.												
	Kevin C. Higgins												
Subso by Kevin C. I	cribed and sworn to or affirmed before me this day of February, 2007, Higgins.												
	Margaret A. Poterse. Notary Public												
My Commiss													
My Commiss (SEAL)	ion Expires:												

My Commission Expires 2/28/2008
STATE OF UTAH

### Calculation of Excess Purchased Power Capacity in Aquila's MPS Revenue Requirement Proposal \*\* Highly Confidential \*\*



Data Source: Aquila Response to MPSC Data Request 214 (HC).

**Notes:** 

## CG Adjustment to Aquila's Proposed Capacity Expense for MPS \*\* Highly Confidential \*\*

Ln				
No.	Description	Amount	Source	
1	Aquila Annualized MPS Purchased Power Capacity Amount (\$)	\$54,326,565	Aquila FPP-20-1 Workpaper	
2	CG Recommended 2006 Purchased Power Capacity Amount (\$)	\$9,426,640	See Detail Below	
3	CG Adjustment Required to MPS Direct Filing (\$)	(\$44,899,925)	= Ln 2 - Ln 1	
4	Jurisdictional Factor #3 (Demand)	99.463%	Aquila FPP-20-1 Workpaper	
5	CG Adjustment (Elec-Juris)	(\$44,658,812)	= Ln 3 x Ln 4	

### Detail Supporting CG Recommended 20006 Purchased Power Capacity Amount

Ln			
No.	Description	Amount	Source
6	2006 Aries Contract Capacity (MW)		Aquila Response to MPSC-0212 (HC)
7	Aries Delivery Period 1 (Non-Summer) Capacity Price (\$/kW-month)		Aquila Response to MPSC-0212 (HC)
8	Aries Deliver Period 2 (Summer) Capacity Price (\$/kW-month)		Aquila Response to MPSC-0212 (HC)
9	2006 Aries Purchase Duration (months)	29 6 7 7 7 7 7 7 7 7 7	Aquila Response to MPSC-0084 (HC)
10	2006 Aries Purchased Power Capacity Amount (\$)	\$2,028,640	Aquila Response to MPSC-0081 Updated
11	Add 2006 NPPD Cooper (75MW) Purchased Power Capacity Amount	\$7,398,000	Aquila FPP-20-2 Workpaper
12	CG Recommended 2006 Purchased Power Capacity Amount	\$9,426,640	Ln 10 + Ln 11

CG Adjustment to Aquila Off-System Sales Margin to Reflect 2006 Actual Off-System Revenue and Costs (Analysis assumes 80.274% allocation to MPS/19.726% to SJL&P as shown on Aquila FPP-35-2)

	Source	Aquila MPS Workpapers R-35-2 & FPP-35-2 Aquila Response to Data Request MPSC-0141.1. = Ln 2 + Ln 3	Aquila MPS Workpapers R-35-2 & FPP-35-2 Aquila Response to Data Request MPSC-0141.1. = Ln 6 + Ln 7	Aquila MPS Workpapers R-35-2 & FPP-35-2 Aquila Response to Data Request MPSC-0141.1. = Ln 10 + Ln 11	Aquila MPS Workpapers R-35-2 & FPP-35-2	Aquila MPS Workpapers R-35-2 & FPP-35-2 = Ln 13 x Ln 11 = Ln 15 + Ln 16	See Schedule KCH-3 (Supplemental), p. 2 See Schedule KCH-3 (Supplemental), p. 2 = Ln 19 + Ln 20	= Ln 19 - Ln 6 = Ln 20 - Ln 7 = Ln 23 + Ln 24	Aquila MPS Workpapers R-35-2 & FPP-35-2	= Ln 26 x Ln 23 = Ln 26 x Ln 24 = Ln 28 + Ln 29
(f) $= (b) - (c) - (d) - (e)$	Off-System Sales <u>Margin</u>	8,968,354 2,534,592 11,502,945	5,317,951 2,534,592 7,852,542	(3,650,403)	99.485%	(3,631,603)	6,397,070 3,516,436 9,913,506	1,079,119 981,845 2,060,964	99.485%	1,073,561 976,788 2,050,350
= (p)	J	so so so	જ જ જ	s s		so so so	80 80 80	so so so		s s
(e)	Transmission Costs <u>Acct 565</u>	435,617	324,516	(111,101)	99.485%	(110,529)	3,566,474	3,241,959	99.485%	3,225,262
	Tr	တ တ	so so	တ တ တ		တ တ တ	જ જ	တ တ တ		တ လ လ
(p)	Purchased Power Costs Acct 555	9,290,011 20,112,936 29,402,948	3,971,325 20,112,936 24,084,261	(5,318,687)	99.485%	(5,291,296)	44,074,129 17,728,602 61,802,731	40,102,805 (2,384,334) 37,718,470	99.485%	39,896,275 (2,372,055) 37,524,220
	.,	တ တ	es es es	es es		es es	es es es	બ બ		s s s
(2)	Generation Costs Accts 501 & 547	1,322,230 201,991 1,524,221	1,649,817 201,991 1,851,808	327,587	99.485%	325,900	2,560,378 138,609 2,698,987	910,561 (63,382) 847,179	99.485%	905,871 (63,055) 842,816
	0 4,1	တ တ တ	so so so	જ જ		es es es	s so so	es es		જ જ જ
( <b>p</b> )	Sales for Resale Acct 447	20,016,212 22,849,519 42,865,731	11,263,608 22,849,519 34,113,127	(8,752,604)	99.485%	(8,707,528)	56,598,051 21,383,647 77,981,698	45,334,443 (1,465,871) 43,868,571	99.485%	45,100,970 (1,458,322) 43,642,648
		s s	જ જ જ	es es es		80 80 B	တ တ	s s s		တ တ
(a)	MPS 2005 Per Book	Revenue Sales for Resale Revenue Interunit / Interstate Total	2005 with Aquila Adjustments Revenue Sales for Resale Revenue Interunit / Interstate Total	Aquila Proposed Adjustments Revenue Sales for Resale Revenue Interunit / Interstate Total	Juris Factor #4 Energy	Aquila Proposed Jurisdictional Adjustment Revenue Sales for Resale Revenue Interunit / Interstate Total	CG 2006 Amounts Revenue Sales for Resale Revenue Interunit / Interstate Total	CG Adjustments to Aquila Adjusted Amount - (Lns 6-8) Revenue Sales for Resale Revenue Interunit / Interstate S Total	Juris Factor #4 Energy	CG Proposed Jurisdictional Adjustments Revenue Sales for Resale Revenue Interunit / Interstate Total
	Line -	10 m 4	8 4 6 3	9 10 11 12	13	14 15 16 17	18 19 20 21	22 24 23	56	27 29 30

CG Adjustment to Aquila Off-System Sales Margin to Reflect 2006 Actual Off-System Revenue and Costs (Analysis assumes 80.274% allocation to MPS/19.726% to SJL&P as shown on Aquila FPP-35-2)

	Source	Aquila L&P Workpapers R-35-2 & FPP-35-2 Aquila Response to Data Request MPSC-0141.1. = Ln 2 + Ln 3	Aquila L&P Workpapers R-35-2 & FPP-35-2 Aquila Response to Data Request MPSC-0141.1. = Ln 6 + Ln 7	Aquila L&P Workpapers R-35-2 & FPP-35-2 Aquila Response to Data Request MPSC-0141.1. = Ln 10 + Ln 11	Aquila L&P Workpapers R-35-2 & FPP-35-2	Aquila L&P Workpapers R-35-2 & FPP-35-2 = Ln 13 x Ln 11 = Ln 15 + Ln 16	See Schedule KCH-3 (Supplemental), p. 2 See Schedule KCH-3 (Supplemental), p. 2 = Ln 19 + Ln 20	= Ln 19 - Ln 6 = Ln 20 - Ln 7 = Ln 23 + Ln 24	Aquila L&P Workpapers R-35-2 & FPP-35-2	= Ln 26 x Ln 23 = Ln 26 x Ln 24 = Ln 28 + Ln 29
(f) $= (b) - (c) - (d) - (e)$	Off-System Sales <u>Margin</u>	446,185 124,655 570,839	1,306,798 124,655 1,431,452	860,613	100.000%	860,613	1,571,973 864,106 2,436,079	265,176 739,451 1,004,627	100.000%	265,176 739,451 1,004,627
<b>q</b> ) 11	-	es es es	80 80 80	e e		s s s	s s	s s s		s s s
(e)	Transmission Costs <u>Acct 565</u>	6,490	79,744	73,254	100.000%	73,254	876,402	796,658	100.000%	796,658 - - 796,658
	Ę	se se	89 89	s s s		es es es	s s	s s		× × ×
(p)	Purchased Power Costs Acct 555	496,531 68,865 565,396	975,887 68,865 1,044,752	479,356	100.000%	479,356	10,830,484 4,356,509 15,186,993	9,854,597 4,287,644 14,142,241	100.000%	9,854,597 4,287,644 14,142,241
		s s	8 8 8	s s s		so so so	es es es	so so so		s s s
(c)	Generation Costs Accts 501 & 547	124,655 42,733 167,388	405,415 42,733 448,148	280,760	100.000%	280,760	629,170 34,061 663,231	223,755 (8,672) 215,083	100.000%	223,755 (8,672) 215,083
		so so so	es es es	es es es		so so	s so so	s s s		s so so
(p)	Sales for Resale Acct 447	1,073,861 236,253 1,310,113	2,767,844 236,253 3,004,096	1,693,983	100.000%	1,693,983	13,908,029 5,254,676 19,162,705	11,140,186 5,018,423 16,158,609	100.000%	11,140,186 5,018,423 16,158,609
		တ တ တ	es es es	& & &		s s s	ဆ ဆ တ	t - (Lns 6-8) \$ \$ \$		တ တ တ
(a)	L&P 2005 Per Book	Revenue Sales for Resale Revenue Interunit / Interstate Total	2005 with Aquila Adjustments Revenue Sales for Resale Revenue Interunit / Interstate Total	Aquila Proposed Adjustments Revenue Sales for Resale Revenue Interunit / Interstate Total	106% Electric	Aquila Proposed Jurisdictional Adjustment Revenue Sales for Resale Revenue Interunit / Interstate Total	CG 2006 Amounts Revenue Sales for Resale Revenue Interunit / Interstate Total	CG Adjustments to Aquila Adjusted Amount - (Lns 6-8) Revenue Sales for Resale Revenue Interunit / Interstate S Total	100% Electric	CG Proposed Jurisdictional Adjustments Revenue Sales for Resale Revenue Interunit / Interstate Total
	Line	2 × 4	8 4 6 5	9 10 11 12	13	14 15 16 17	18 19 20 21	22 23 24 25	26	27 28 29 30

# Derivation of 2006 Aquila Off System Sales Margins (Analysis assumes 80.274% allocation to MPS/19.726% to SJL&P as shown on Aquila FPP-35-2)

(p)																				19.726%	Allocation	to L&P	\$ 13,908,029	\$ 5,254,676	\$ 629,170		\$ 10,830,484	\$ 4,356,509	\$ 876,402	\$ 2,436,079
(2)																				80.274%	Allocation	to MPS	56,598,051	21,383,647	2,560,378	138,609	44,074,129	17,728,602	3,566,474	9,913,506
(p)	Total 2006	68,940,284		2,777,233		54		4,440,632	11,381,486		Total 2006	1,565,796	1	412,315		183,138		2,244	668,099			Total 2006	70,506,080 \$	26,638,323 \$	3,189,548 \$		54,904,613 \$	22,085,111	4,442,876 \$	12,349,585
(a)	MPS	Off-System Sales	Off-System Sales - Interco	Off-System Generation Costs \$	Off-System Generation Costs - Interco \$	Off-System Purchased Power Costs \$	Off-System Purchased Power Costs - Interco \$	Off-Sales Transmission Costs	Off-System Sales Margin		<u>L&amp;P</u>	Off-System Sales	Off-System Sales - Interco	Off-System Generation Costs S	Off-System Generation Costs - Interco \$	Off-System Purchased Power Costs \$	Off-System Purchased Power Costs - Interco \$	Off-Sales Transmission Costs \$	Off-System Sales Margin			<u>Total</u>				rco		Costs - Interco	Off-Sales Transmission Costs	Off-System Sales Margin S
Line	No.	_	7	e	4	S	9	7	<b>∞</b>	Line	No.	6	10	11	12	13	14	15	16		Line	Š	17	18	19	70	21	22	23	24

Data Source: Aquila Response to Data Request MPSC-0141.1.