Exhibit No:	
Issues:	Return on Equity Capital Structure
Witness:	John J. Reed
Type of Exhibit:	Rebuttal Testimony
Sponsoring Party:	Aquila Networks
Case No:	GR-2004-0072
Date to Be Filed:	February 13, 2004

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. GR-2004-0072

REBUTTAL TESTIMONY

OF

JOHN J. REED

ON BEHALF OF

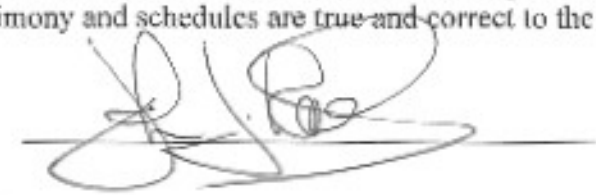
AQUILA, INC.
d/b/a
AQUILA NETWORKS – MPS
and
AQUILA NETWORKS – L&P

Marlborough, MA
February, 2004

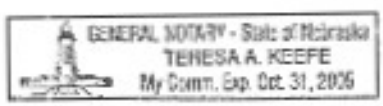
State of Massachusetts)
) ss
County of Middlesex)

AFFIDAVIT OF JOHN J. REED

John J. Reed, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony and schedules entitled "Rebuttal Testimony of John J. Reed"; that said testimony was prepared by him and/or under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge, information, and belief.



Subscribed and sworn to before me this 12 day of February, 2004.



Teresa A. Keefe
Notary Public

My Commission expires:

October 31, 2005

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI
REBUTTAL TESTIMONY OF JOHN J. REED
ON BEHALF OF AQUILA, INC.
D/B/A AQUILA NETWORKS-MPS AND AQUILA NETWORKS-L&P
CASE NO. GR-2004-0072

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is John J. Reed. My business address is 313 Boston Post Road West, Suite 210, Marlborough, MA 01752.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am the Chairman and Chief Executive Officer of Concentric Energy Advisors, Inc. and Concentric Capital Partners (together "Concentric").

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. I have been asked by Aquila Networks ("Aquila" or the "Company"), the applicant in this proceeding, to comment on and provide rebuttal to the direct testimony of Staff Witness David Murray, which was filed on behalf of the Missouri Public Service Commission Staff ("Staff") January 6, 2004. Specifically, I have been asked to address how capital markets would likely respond if Staff Witness Murray's recommendations were adopted by the Missouri Public Service Commission ("Commission"), and whether Mr. Murray's proposals meet the standards for a fair rate of return to be incorporated in the rates of a public utility. My testimony and the rebuttal testimony of Dr. Donald A. Murry address Staff Witness Murray's recommendations in their entirety.

Q. WHAT IS YOUR BACKGROUND AND EXPERIENCE IN THE ENERGY AND UTILITY INDUSTRIES?

A. I have more than 27 years of experience in these industries, having served as an executive in consulting firms and as Chief Economist for the nation's largest gas utility. In the course of my experience, I have served as:

- Co-CEO of the nation's largest publicly-traded management consulting firm
- President and CEO of an NASD-member securities firm
- CEO of two other private consulting firms.

I have advised more than 100 utility clients over the past 27 years on a wide range of financial and economic issues. My experience is described in more detail on Schedule JJR-1, which is attached to my testimony.

Q. HAVE YOU APPEARED AS AN EXPERT WITNESS IN OTHER ENERGY OR UTILITY PROCEEDINGS?

A. Yes. I have provided expert testimony on economic and financial issues related to the utility industry on dozens of occasions before administrative agencies, courts, arbitration panels and elected bodies across North America.

Q. PLEASE DESCRIBE CONCENTRIC'S ACTIVITIES IN ENERGY AND UTILITY ENGAGEMENTS.

A. Concentric provides financial and economic advisory services to a large number of energy and utility clients across North America. Our financial advisory activities include merger, acquisition and divestiture assignments, due diligence and valuation assignments,

project and corporate finance services and transaction support services. Our economic and market analysis services include energy market modeling and simulation, market entry and exit analysis, utility ratemaking and regulatory advisory services, and energy contract negotiations.

SUMMARY OF CONCLUSIONS

Q. WHAT CONCLUSIONS HAVE YOU REACHED REGARDING THE RECOMMENDATIONS OF STAFF WITNESS MURRAY?

A. Mr. Murray's recommendations fall significantly short of meeting long-established standards for a fair rate of return for a public utility. His recommended mid-point return on equity of 9.22%, based on a common equity ratio of 35.31%, if adopted by the Commission, would not:

1. be commensurate with returns earned by firms having corresponding risk,
2. maintain Aquila's credit,
3. allow Aquila to attract capital on reasonable terms, or
4. provide Aquila with a reasonable opportunity to earn a fair return on the capital it has committed to its Missouri-jurisdictional utility properties (the "Companies").

Moreover, Mr. Murray's recommendations are significantly out-of-line with the returns being granted to utilities of comparable risk in other jurisdictions, are a major departure from Staff recommendations and Commission findings in past Aquila rate cases, and run completely contrary to current trends in capital markets.

Q. WHAT WOULD THE CONSEQUENCES BE IF THE STAFF'S RECOMMENDATIONS ARE ADOPTED BY THE COMMISSION?

A. Participants in the market for utility securities closely monitor and analyze the regulatory climates in which utilities operate, and base their views on the prices and terms for the utility's securities on these analyses. In general, financial markets already view Missouri as having an unfavorable regulatory climate for gas and electric utilities. If Staff's recommendations in this case were adopted by the Commission for the Companies' rates, the capital markets' perspective on Missouri regulation would further deteriorate, and the Commission should expect that the Company will face significant deterioration in its financial position. This will inevitably lead to higher costs being demanded for debt and equity issued by Aquila, and ultimately to higher rates for Aquila's customers.

If the Staff's recommendations for the Companies are adopted by the Commission, it should also be expected that the adverse reaction in capital markets will carry over to Missouri's other gas and electric utilities, leading to higher capital costs and rates for customers across the state.

Utility rate regulation always involves balancing the interests of customers and investors and sound regulatory policy should avoid results which strongly favor one set of interests over another. If the Commission were to adopt Staff's recommendations for the Companies, it would signal to the financial community that the regulatory pendulum in Missouri has swung far toward the extreme of favoring low rates in the near-term, and away from preserving the long-term financial health and viability of the state's utilities.

This signal would be sent at a time when the demands emanating from capital markets for stronger balance sheets, lower operating risks and more balanced regulatory regimes have never been stronger.

OVERVIEW OF STAFF RECOMMENDATION

Q. WHAT ARE THE ELEMENTS OF STAFF WITNESS MURRAY'S TESTIMONY THAT YOU WILL BE REBUTTING?

A. Specifically, I will address his recommended equity ratio for Aquila (i.e., 35.31%) and his recommended authorized return on equity ("AROE") (a range of 8.72% to 9.72%, with a mid-point of 9.22%). These elements, and the resulting overall recommended return on rate base levels, are presented by Staff Witness Murray on Schedule 23 attached to his direct testimony. As shown on that schedule, Staff Witness Murray is recommending a mid-point return on rate base of 8.18%.

Q. HOW DOES STAFF WITNESS MURRAY'S PROPOSED RETURN COMPARE TO AQUILA'S PROPOSAL?

A. Aquila's mid-point proposal is for a 12.25% authorized return on equity, based on a common equity ratio of 50.0%, which results in a mid-point recommended return on rate base of 9.96%. In terms of the total return that is included in rates, Staff's proposal is approximately 18% below Aquila's proposal.

STANDARDS FOR A FAIR RATE OF RETURN

Q. YOU STATED IN THE SUMMARY OF YOUR CONCLUSIONS THAT THE STAFF'S POSITION DOES NOT MEET THE STANDARDS FOR A FAIR RATE

OF RETURN. WHAT ARE THOSE STANDARDS, AND IS THERE ANY DISAGREEMENT REGARDING THE NATURE OR THE APPLICABILITY OF THOSE STANDARDS?

A. It appears that Staff Witness Murray and I agree on the applicable standards. At pages 4 to 7 of his direct testimony, Staff Witness Murray presents excerpts from and commentary on the generally accepted standards for a fair rate of return. In summary, these cases indicate that a public utility is entitled to include a return in its rates that:

1. Is commensurate with returns on investments in other enterprises having corresponding risks,
2. Is sufficient to maintain the firm's credit,
3. Will be sufficient to assure confidence in the financial integrity of the business, and
4. Allows the utility to attract capital on reasonable terms.

The determination of a fair rate of return, especially the return on equity, is generally recognized as being a judgmental process that involves balancing the interests of customers and investors. Rates which include a return above that which is required to compensate for the risk of ownership of public utility stock are considered excessive and unfair to customers. Conversely, rates which include a return that is inadequate are often labeled as "confiscatory," i.e. they expropriate the capital of investors, and are also considered unjust and unreasonable.

The question of whether rates are just and reasonable goes beyond the determination of a fair authorized rate of return, and goes to the end result of the rates. Specifically, the rates must, after payment of all reasonable operating expenses, provide sufficient

remaining revenues to yield a reasonable rate of return on the property used to provide utility service. This principle is often restated as requiring that the ultimate rates provide the utility with a reasonable opportunity to actually earn its authorized rate of return.

Q. ARE THERE GENERALLY ACCEPTED REGULATORY STANDARDS THAT ADDRESS THE CAPITAL STRUCTURE THAT SHOULD BE USED IN DETERMINING THE UTILITY'S COST OF CAPITAL AND AUTHORIZED RATE OF RETURN?

A. Yes, there are. It is widely accepted that the utility's weighted average cost of all forms of capital ("WACC") should be used as the return on rate base. The WACC should reflect the regulated utility's actual capital structure and its actual cost of debt, unless either of these elements are judged to be unreasonable or are unavailable. In the situations where the regulated utility's capital structure is unreasonable or unavailable, a hypothetical or imputed capital structure is used instead. The authority of a ratemaking body to use judgmentally-derived capital structures has been discussed by the U.S. Supreme Court:

> Although the determination of whether bonds or stocks should be issued is for management, the matter of debt ratio is not exclusively within its province. Debt ratios substantially affect the manner and cost of obtaining new capital. It is therefore an important factor in the rate of return and must necessarily come within the authority of the body charged by law with the duty of fixing a just and reasonable rate of return.[1]
>
> Perhaps ultimate authority for imputing debt when necessary to protect rate-payers from excessive capital charges is the Supreme Court's statement in Hope Natural Gas, that "The rate-making process under the

[1] New England Telephone & Telegraph Co. v. State, 98 N.H. 211, 220, 97 A.2d 213, 1953, at 220-221 citing New England Tel. & Tel. Co. v. Department of Pub. Util., (Mass.) 327 Mass. 81, 97 N.E. 2d 509, 514; Petitions of New England Tel. & Tel. Co. 116 Vt. 480, A.2d 671 and Chesapeake & Potomac Tel. Co. v. Public Service Comm'n, (Md.) 201 Md. 170, 93 A..2d 249, 257.

> Act, i.e., the fixing of "just and reasonable rates," involves a balancing of the investor and the consumer interests." 320 U.S. at 603, 64 S. Ct. at 288. The equity investor's stake is made less secure as the Company's debt rises, but the consumer rate-payer's burden is alleviated.[2]

Q. WHAT ARE THE SITUATIONS WHICH GIVE RISE TO THE USE OF A HYPOTHETICAL OR IMPUTED CAPITAL STRUCTURE?

A. This need arises under many different circumstances. Any financing activity that can lead to either too much leverage, or too little, can prompt the need for a regulator to use a hypothetical capital structure. In recent years, these situations have often occurred when the utility or its parent diversifies into unregulated businesses with risks different than that of the utility. Even when merger or acquisition activity is limited to other utility properties, a firm's balance sheet can be temporarily skewed towards too much or too little debt as a result of the capital used for or assumed in the transaction. Hypothetical capital structures are also often used for ratemaking purposes when the regulated utility has no publicly held debt or equity of its own, and its capital is provided by its parent.

In addition, where a utility's capital structure has fluctuated dramatically, there is precedent for adjusting the capital structure to be more representative of industry standards. In *Riverton Consolidated Water Company v. PA PUC, 186 Pa. Super. 1; 140 A.2d 114 (1958) ("Riverton"),* the use of a hypothetical capital structure, as opposed to either the utility's own capital structure or the capital structure of its parent, for a utility whose capital structure had fluctuated dramatically (from 40/60 to 70/30 debt/equity) was upheld on appeal:

[2] Communications Satellite Corporation v. FCC, 198 U.S. App. D.C. 60; 611 F.2d 833, 1977, at 63-65.

> In view of the great fluctuation in the capital structure of this utility, it was the duty of the commission to scrutinize the evidence carefully and to make adjustments which would bring the capital structure to be used for rate purposes in accord with one which was fair, reasonable, and stable.[3]

Q. WHAT APPROACHES TO CAPITAL STRUCTURE HAVE BEEN ADOPTED IN THE CASE OF SUBSIDIARY-PARENT RELATIONSHIPS WHERE THE PARENT PROVIDES 100% OF THE UTILITY SUBSIDIARY'S CAPITALIZATION?

A. The overriding consideration in the establishment of a capital structure is ensuring that the adopted capital structure is representative of the risk profile of the subject utility. As noted by the Federal Energy Regulatory Commission ("FERC"), "A guide to evaluating a particular company's capital structure is that structure chosen by comparable risk companies acting independently in the financial markets."[4] Where the capital structures of either the parent of a wholly-financed utility subsidiary or an independent utility are not representative of the company's risk, and thus result in either excessive costs to the ratepayer or inadequate returns to the investor, there is a long history of the use of hypothetical (i.e., imputed or proxy) capital structures:

> Where a company does not have an appropriate capital structure, the Commission may impute a capital structure.[5] For example, where a company is "too heavily weighted debt or equity" the Commission "must make adjustments based upon substantial evidence in order to reach a fair

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[3] Riverton Consolidated Water Company v. PA PUC, 186 Pa. Super. 1; 140 A.2d 114, 1958, p. 15-19, citing Pittsburgh v. Pa PUC, 182 Pa. Superior Ct. 376, 383, 126 A. 2d. 777.

[4] Kentucky West Virginia Gas Company, 2 F.E.R.C. P61, 139, at 26-27 (1978) ("Kentucky WVA").

[5] United Water Delaware, Inc. v. De. PSC, C.A. No. 97A-07-099-FSS, at 11-12 (1998) citing Diamond State Telephone Co. v. Public Service Commission, Del. Supr., 367 A.2d 644, 647 (1976) ("Diamond Slate"); Matter of Slaughter Beach Water Co., 427 A.2d at 896 (approving the Commission's setting a fair rate of return based on capital structures as it should be rather than as it actually exists.

> result."[6] Where a hypothetical structure is used, however, it must be "demonstrably reasonable."[7]
>
> A just and reasonable rate of return must be related to the capital structure of the regulated firm. The first choice is to use the actual capital structure of the firm being regulated… "It is clear from Commission precedent related to this issue of subsidiary-parent capitalization… that the Commission must exercise its expertise and discretion in choosing the most appropriate capitalization." (56 FPC 3267 at 3273). When, as in the present case, the use of the actual capital structure would result in excessive costs to the consumer or inadequate returns to the investor, some other capital structure must be used."[8]
>
> When the risk profile of the parent and subsidiary are significantly different, we see no alternative to postulating a hypothetical capital structure for the subsidiary by referring to the average capital structure for comparable independent firms.[9]

See also *Farmers Union Exchange, Inc. v. FERC 236 U.S. App. D.C. 204; 734 F.2d 1486, 83-85 (1984) citing Communications Satellite Corp. v. FCC, 198 U.S. App. D.C. 60, 611 F.2d 883, 902-09 (1977) (citing numerous cases involving water, gas, electric and telephone utilities).*

Q. HAVE ALTERNATIVES TO THE USE OF HYPOTHETICAL OR PROXY CAPITAL STRUCTURES BEEN EMPLOYED WHERE A UTILITY'S CAPITAL STRUCTURE IS NOT REPRESENTATIVE OF ITS PEER GROUP?

A. Yes. Commissions have made upward adjustments to a utility's allowed return on equity to compensate investors for the incremental financial risk associated with a firm that is

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6 Id., at 12-13, citing Carnegie Natural Gas Co. v. Penn. Public Utility Comm'n, Pa. Cmwlth., 61 Pa. Commw. 436, 433 A.2d 938, 940 (1981); n7 Herbert B. Chermside, 64 Am. Jur.2d Public Utilities S 193 (1972).

7 Id., citing *Diamond State* at 647.

8 *Kentucky WVA*, at 22-24 citing Communication Satellite Corporation v. F.C.C., No. 75-2193, F.2d (D.C. Cir. 1977).

9 Id., at 26-27.

disproportionately leveraged vis-à-vis its peer group or relative to the industry standard. For example:

> While the Commission prefers to use the actual capital structure of the entity that does the financing to raise funds … it may use a different capital structure where the actual capital structure is not representative of the pipeline's risk profile. Alternatively, in such a situation, the Commission may follow its preferred course of using the actual capital structure but adjust the rate of return on equity to account for the skewed capital structure. However, the alternative of adjusting the rate of return on equity is not used where the actual capital structure is so skewed that it would be necessary to prescribe a rate of return on equity so high or low as to mislead investors.[10]

Q. IS THERE PRECEDENT IN MISSOURI FOR THE USE OF HYPOTHETICAL CAPITAL STRUCTURES FOR RATEMAKING PURPOSES?

A. Yes, there is. The Commission has held that "when … the actual capital structure is so entirely out of line with what the Commission considers to be a reasonable range, a hypothetical capital structure must be adopted to balance properly the interests of the shareholders and ratepayers."[11] The Commission also adjusted that utility's allowed return on equity upwards to reflect the risk associated with the company's leverage, among other things.[12]

In addition, as discussed in the rebuttal testimony of Dr. Donald Murry, the Staff has recently submitted a report to this Commission which recognizes that it may be appropriate to use a hypothetical capital structure in setting rates for Aquila (see p.5 of Murry rebuttal).

[10] Panhandle Eastern Pipe Line Company, Docket No. RP91-229-000, 71 F.E.R.C. P61, 228, Opinion No. 395 (May 25, 1995) ("Panhandle Eastern").
[11] St. Joseph Light and Power Company, Missouri PSC Case No. ER-93-41, EC-93-252, at 4 (1993).
[12] Id., at 5.

Q. HOW DO THESE PRECEDENTS APPLY TO THIS RATE CASE AND THE ISSUE OF THE APPROPRIATE RATE OF RETURN FOR THE COMPANIES?

A. As recognized by Staff Witness Murray, neither of the Companies that are the subject of these proceedings has publicly-held debt or equity. As divisions of Aquila, Inc., their capital structures are not separately discernible from that of the overall corporation. On this basis, Staff Witness Murray uses the year-end 2002 capital structure for Aquila, Inc. as the capital structure for setting the rates of the two utility divisions. The questions that must be addressed, however, are: 1. Whether Aquila, Inc.'s capital structure reflects the risks and appropriate mix of capital for a public utility, and 2. Whether the resulting WACC and rate of return meet the established standards for a fair rate of return.

As Mr. Murray knows, Aquila's year-end 2002 equity ratio was significantly affected by the financial distress that the Company's non-utility investments have experienced. The Company recorded several impairments against the book values of these other businesses at year-end 2002, and, these impairments, taken together with the operating losses that Aquila experienced, produced a $2.1 billion loss from Aquila in 2002. These losses continued, on a much smaller scale, into 2003. The 2002 loss alone reduced Aquila's consolidated equity ratio by 11 percentage points (from 44.2% to 33.2%). It is this depressed year-end 2002 equity ratio that Staff Witness Murray proposes to use to set the rates in this case.

The losses experienced by Aquila in 2002 did not result in any way from the Company's utility operations in the U.S. They resulted from impairments and restructuring charges

related to Aquila's telecommunications, technology, energy merchant, and international investments. Mr. Murray's position would use the distress of these companies as the basis for significantly *reducing* the rates of Aquila's utility businesses in Missouri, through the adoption of an equity ratio that reflects the 11 percentage point drop caused by these other businesses. At the same time, Staff Witness Murray would exclude from rates the effect that this financial distress had on Aquila's cost of debt, which was to increase it by several percentage points. Staff Witness Murray's positions are irreconcilable, inequitable and unsupportable.

Under these circumstances, i.e. when a company's actual capital structure is unreasonable or out of line with industry standards, Mr. Murray has recommended in other proceedings that a hypothetical capital structure be used. Staff Witness Murray has recommended that a hypothetical capital structure be based on the equity ratios of other utilities. As shown on Staff Witness Murray's Schedule 20, this would lead to the use of a 49.68% equity ratio, which is essentially the same as Aquila's recommendation of a 50.0% equity ratio, and is a long ways from the 35.31% that Staff Witness Murray recommends.

COMPARISON OF STAFF PROPOSALS TO FAIR RATE OF RETURN STANDARDS

Q. WHAT ARE THE COMPARISONS OR ANALYSES THAT SHOULD BE PERFORMED TO ASSESS WHETHER STAFF'S PROPOSALS MEET THE STANDARDS FOR A FAIR RATE OF RETURN?

A. The two most important elements of Staff's proposed rate of return are the proposed return on equity (9.22%) and the proposed equity ratio (35.31%). Although these two

elements are clearly interrelated, it is instructive to examine how each of them compares to industry standards, while keeping in mind that, all other things being equal, a lower equity ratio should be accompanied by a higher return on equity.

Q. HOW DOES STAFF'S PROPOSED RETURN ON EQUITY OF 9.22% COMPARE TO INDUSTRY STANDARDS?

A. To address this question I examined the allowed returns on equity being granted to other utilities in the U.S., and the returns on equity that these companies are actually able to earn. On both counts the Staff's proposal is significantly below industry standards.

According to research conducted by the firm Regulatory Research Associates ("RRA"), and published in their publication, Regulatory Focus, allowed returns on equity granted by regulators to gas and electric utilities have averaged from 10.66% to 11.66% over the past seven years, as shown in the following table:

	AUTHORIZED RETURNS ON EQUITY	
	ELECTRIC UTILITIES	**GAS UTILITIES**
1997	11.40%	11.29%
1998	11.66%	11.51%
1999	10.77%	10.66%
2000	11.43%	11.39%
2001	11.09%	10.95%
2002	11.16%	11.03%
2003	10.97%	10.99%
Average	**11.21%**	**11.12%**

These data show that across a wide range of financial market and energy market conditions, allowed returns on equity have been remarkably stable for both gas and electric utilities. While I do not have data on the range of allowed returns in each year, I

am not aware of any allowed return being granted by a regulator that even approaches the 9.22% recommended by Staff, and it is clearly far below the industry norms.

Q. WHAT INFORMATION DO YOU HAVE REGARDING THE RETURNS ON EQUITY THAT UTILITIES HAVE ACTUALLY BEEN ABLE TO EARN OVER THIS PERIOD?

A. RRA also publishes the earned returns on equity for a group of 54 electric utilities. These data indicate that the earned returns have, on average, been higher than the allowed returns:

EARNED RETURN ON EQUITY: 54 COMPANY COMPOSITE

Year	%
1997	11.6
1998	12.0
1999	14.3
2000	15.2
2001	13.5
2002	13.5
2003*	11.8
Average	**13.13%**

*Data for 2003 are for the 12 months ended 9/30/03

Q. WHAT FACTORS LEAD TO A UTILITY EARNING ABOVE OR BELOW ITS AUTHORIZED RETURN ON EQUITY?

A. There are several factors which can cause either situation, but most situations where utilities earn above their AROE stem from utilities operating under regulatory structures which provide incentives for cost reductions or performance improvement, whereby a utility is allowed to retain all or a portion of these savings without being required to reduce its rates.

Q. WHICH FIGURE, THE AROE OR THE EARNED RETURN, HAS MORE RELEVANCE TO THE STANDARDS FOR A FAIR RATE OF RETURN?

A. The court cases that have established the standards for a fair rate of return do so in terms of returns being earned by other companies of similar risk, not allowed returns. Therefore, the higher earned returns on equity are the benchmark for a fair rate of return. Not surprisingly, earned returns are also the more important of the two measures in capital markets.

Q. HOW DOES STAFF'S PROPOSAL COMPARE TO THESE EARNED RETURNS?

A. Staff's proposed authorized return is approximately four percentage points below the average earned return on equity for 1997-2003, and is more than 2.5 percentage points below the average earned return for the 12 months ended September 30, 2003.

Q. HOW DOES STAFF'S PROPOSED EQUITY RATIO OF 35.31% COMPARE TO INDUSTRY NORMS?

A. Once again, it is significantly below industry norms. Based on the research published by the RRA, the average equity ratios allowed utilities by state commissions have ranged from 44% to 50% over the past seven years, as shown on the following table:

	AUTHORIZED EQUITY RATIOS	
	ELECTRIC	**GAS**
1997	48.79%	47.78%
1998	46.14%	49.50%
1999	45.08%	49.06%
2000	48.85%	48.59%
2001	47.20%	43.96%
2002	46.27%	48.29%
2003	49.41%	49.93%
Average	**47.39%**	**48.16%**

These data show that throughout cycles in financial and energy markets, the allowed equity ratios for gas utilities have remained in a fairly narrow range, i.e. 44% to 50%, and have averaged 48%. There are no years in which an allowed equity ratio of 35.31% would even come close to industry norms.

Q. IS THERE OTHER EVIDENCE THAT REGULATORS ACROSS THE U.S. WOULD CONSIDER AN EQUITY RATIO OF 35.31% TO BE INAPPROPRIATE?

A. Yes, there is. In response to the diversification by many utility companies into unregulated activities, and the financial problems that have often occurred within those unregulated businesses, several state commissions have established minimum or target equity ratios for the utility portions of these companies. Recent activities in this area have included the following:

MINIMUM OR TARGET EQUITY RATIOS

Utility	State	Date	Equity Ratio	Min. or Target
Citizens Util.	AZ	7/03	40%	M
Ariz. Pub. Svc.	AZ	3/03	40%	M
Aquila	CO	7/03	47.5% Elec.	T
			50.0% Gas	T
MidAmerican	IA	1999	42%	M
Interstate Pwr.	IA	2000	42%	M
Westar	KN	7/03	40%	M
KCP&L	KN	2001	35%	M
Northern Utils.	ME	2000	40%	M
Maine Pub. Svc.	ME	3/03	48%	M
Portland Gen.	OR	1997	48%	M
Pacificorp	OR	1999	40%	M
Puget Sound	WA	8/02	39%	M
Wisc. Pub. Svc.	WI	4/03	55.61%	M

Notably, several of these decisions were issued in 2003, and those decisions reflect a consensus view that the *minimum* equity ratios for a utility should be between 40% and 55.6%. The regulatory policies in these states call for utilities to increase their equity ratios, over time, to improve their financial strength, not to force rates down by adopting allowed equity ratios that are far below industry norms.

Q. HOW DO PREVIOUS DECISIONS BY THE COMMISSION COMPARE TO INDUSTRY NORMS AND TO STAFF'S PROPOSAL IN THIS CASE?

A. Missouri's cases that have been fully litigated in the past five years, as opposed to being settled, have tended to have below-average authorized returns on equity, but allowed equity ratios that are closer to industry norms. The last rate of return decision for Aquila-MPS was issued in March, 1998, and granted a 10.75% AROE on an equity ratio of 39.59%. The last rate of return decision for Aquila-SJL&P was issued in June, 1993, and granted an 11.67% AROE on an equity ratio of 51.71%.

Subsequent rate cases for both companies have been settled, without an explicit rate of return mentioned in the settlement. However, in January, 2002, in a consolidated rate/earnings investigation case, the Staff recommended that a mid-point 9.93% AROE on an equity ratio of 48.51% was appropriate for the electric operations of Aquila-MPS. The parties ultimately settled that case at a higher rate level than that recommended by Staff, but Staff's position in that case can be considered a lower bound for what is reasonable in this case for the Companies. Certainly no changes have occurred in

industry norms or in the Company's risk profile since January, 2002 that would warrant a lower AROE or equity ratio.

It is also worth noting that in an Ameren-UE rate case in March, 2002 Staff recommended a midpoint equity return of 9.41% on an equity ratio of 59.08% for that utility. That case was also settled at a far higher rate level than that recommended by Staff, but without an explicit return identified in the settlement. There is no reasonable or rational explanation of Staff's views in these prior cases as compared with its recommendations in this case.

Q. IS THERE ANY OTHER EVIDENCE FROM OTHER REGULATORY JURISDICTIONS THAT YOU BELIEVE SHOULD BE CONSIDERED WHEN EVALUATING STAFF'S POSITION IN THIS CASE?

A. Yes, there is. Staff Witness Murray has based his recommendation in this case on an analysis of eight allegedly comparable utilities, and the estimated costs of equity and capital structures for those companies. Putting aside the issue of whether those eight utilities are comparable to Aquila-MPS and Aquila-L&P, which is addressed in the rebuttal testimony of Aquila witness Dr. Donald Murry, it is interesting to note how these eight utilities have had their rates set by their regulators. On the table below, I have listed for each of Staff Witness Murray's eight comparable utilities the equity ratio used by Staff Witness Murray, along with his estimated cost of equity for each of the utilities. For comparison purposes, I have also shown the AROE and allowed equity ratio awarded

by that utility's regulators in its most recent adjudicated case. I have also shown the most recent earned return on equity for each of the six utilities.

STAFF WITNESS MURRAY'S COMPARABLE UTILITIES

	Staff Witness Murray's Position		Most Recent Rate Order		Most Recent
Company	**Equity Ratio**	**DCF Cost of Equity***	**Equity Ratio**	**AROE**	**Earned ROE**
AGL Resrcs.	41.70%	8.42%	47.00%	11.00%	13.5%
Cascade Nat'l Gas	40.90%	8.02%	45.00%	11.25%	8.0%
New Jersey Resrcs.	49.40%	9.32%	52.74%	11.50%	15.0%
Northwest Nat'l Gas	51.50%	8.10%	49.50%	10.20%	9.0%
Peoples Energy	59.30%	8.45%	51.08%	11.10%	12.3%
Piedmont Nat'l Gas	56.10%	9.41%	52.66%	11.30%	10.5%
South Jersey	46.10%	8.42%	44.35%	11.25%	13.5%
WGL Holdings	52.40%	7.45%	54.00%	10.60%	13.7%
Average	**49.68%**	**8.45%**	**49.54%**	**11.03%**	**11.94%**

*Staff Witness Murray's primary methodology for determining the cost of equity
Sources: Murray Sch. 16, 20; Regulatory Research Associates; Value Line

While the most recent rate orders for these companies are sometimes a few years old, they are the best evidence of how their regulators have set reasonable rates of return. From this information it is clear that Mr. Murray's "comparable" utilities are regulated on a basis that is very consistent with industry norms, but that his proposal for Aquila, and in fact his cost of capital estimates for the comparable companies, are far below those same norms.

In addition to the allowed and earned returns for these eight "comparable" gas distribution companies, it is interesting to review the opinions of other state commissions regarding the "target" or "optimal" capital structure for a utility. One state commission staff, the California Office of Ratepayer Advocates ("ORA"), conducted a study of what an "optimum" capital structure would be for California's public utilities. That study, which was submitted in the case which set the allowed rates of return for 2003 for all of

California's energy utilities, defined an optimum capital structure as one which, from the ratepayers' perspectives, minimized costs over the long term. This study concluded that the "optimum" equity ratios for California's utilities were as follows:

Company	ORA "Optimum" Equity Ratio	CPUC Decision
Pacific Gas & Electric	45.20%	48.00%
Southern California Edison	45.85%	48.00%
San Diego Gas & Electric	46.55%	49.00%
Sierra Pacific Power	48.27%	42.00%

It is also interesting to note that the California Public Utilities Commission ("CPUC") felt that the ORA's "optimum" equity ratios were generally too low and too restrictive, and it adopted the equity ratios as proposed by the utilities (Sierra Pacific only sought a 42.00% equity ratio). It is also interesting to note that:

1. In every case, the year-end 2002 and 2003 actual equity ratios for each of the consolidated companies was lower than that which the CPUC chose to use for ratemaking;

2. Only one of the four companies (San Diego Gas & Electric) is at or above investment grade;

3. The CPUC found that these higher equity ratios were in the public interest because they were "intended to either return their credit ratings to investment grade from a speculative grade or to maintain an investment grade rating" and were "designed to attract capital."

The needs faced by California's utilities are very similar to those currently facing Aquila. Consolidated corporate equity ratios which have been affected by the financial distress of other operations should not be the basis for setting the rates of the utility if we want the utility to be able to return to financial health.

LIKELY RESPONSE OF CAPITAL MARKETS TO STAFF'S PROPOSALS

Q. YOU STATED IN YOUR SUMMARY OF CONCLUSIONS THAT, IF THE COMMISSION WERE TO ADOPT STAFF'S PROPOSALS IN THIS CASE, CAPITAL MARKETS SHOULD BE EXPECTED TO REACT VERY NEGATIVELY. WHAT IS YOUR BASIS FOR THIS CONCLUSION?

A. As part of my ongoing work providing utilities with financial advisory services, I monitor research on utility companies from several leading brokerage/research firms, and I often advise clients on the valuation of utility securities and assets. From my work, I began by compiling a list of traits that capital markets are currently rewarding in securities valuations, and another list of traits that cause capital markets to discount utility securities valuations. I have also developed a list of issues that are being watched very carefully by utility analysts. By comparing Staff's position to these traits, I can confidently predict how capital markets would react to the Commission adopting Staff's recommendations in this case.

Q. PLEASE LIST THE TRAITS THAT POSITIVELY AFFECT THE VALUES OF UTILITY SECURITIES.

A. I have grouped these traits into the following seven categories:

1. A strong balance sheet
2. Dividend security
3. Dividend growth
4. A constructive regulatory environment
5. Predictability of earnings
6. Low operating risk

7. Rate base growth

Q. PLEASE BRIEFLY EXPAND ON EACH OF THESE TRAITS AND HOW THEY AFFECT UTILITY VALUATIONS.

A. First, having a strong balance sheet is important because of the adverse effects that high degrees of leverage and high debt costs have on the earnings available to common stockholders. Capital markets reward utilities that maintain investment-grade debt ratings, that retain a reasonable amount of debt issuance capacity, and that have deleveraged, or are in the process of deleveraging, their balance sheets in response to tougher credit standards being adopted by rating agencies.

Since utility stocks typically include an income stream element of value, the security of the dividend (measured by the payout ratio and dividend coverage ratio) is very important, as demonstrated by the precipitous drops in the prices of stocks that have slashed or eliminated their dividends. In addition, the ability to achieve reasonable growth in dividends is very important, but this growth needs to be sustainable. Equity markets most highly value dividend growth when it can be achieved through organic (i.e., non M&A) earnings growth in core businesses.

In assessing whether a utility operates in a constructive regulatory environment, analysts pay close attention to the AROE, allowed equity ratio, treatment of regulatory assets, ability to actually earn at or above the AROE, use of rate adjustment mechanisms for the "flow through" of costs such as fuel and power purchases, timeliness of rate relief, and the use of performance-based regulation. All of these attributes contribute to higher

levels of earnings, higher quality earnings, and more predictable earnings, and therefore higher securities valuations.

The predictability and stability of earnings are also important traits for valuing utility securities. Utility investors value low volatility and the avoidance of negative "earnings surprises." Earnings "shocks" have an asymmetrical effect on utility valuations; a ten percent unexpected drop in earnings will cause a significantly larger drop in price than the price increase resulting from a ten percent unexpected increase in earnings.

Utility investors have come to recognize that different utilities now have significantly different operating risks, because of the fact that some utilities remain vertically integrated, while others have limited their business to the distribution of energy, as opposed to its production or sale. Markets generally view the operating risks of a "wires and pipes" distribution business as being lower than that of natural gas exploration and production, or energy marketing.

Finally, capital markets favor utilities with service territories that lend themselves to growth in the utility's rate base and sales. Investors understand that these attributes should lead to higher earnings for a regulated utility, and help to ensure that all of the utility's assets remain fully used and useful.

Q. WHAT ARE THE ATTRIBUTES THAT CAUSE CAPITAL MARKETS TO DEVALUE A UTILITY'S SECURITIES?

A. For the most part, these traits are the negative form of the positive attributes that are described above. The negative attributes are:

1. Unpredictable earnings that lead to negative earnings surprises
2. Dividend reductions and high payout ratios
3. Equity dilution through the issuance of additional shares, especially when the stock price is low
4. Below investment-grade debt, which often means that the borrower could be restricted from issuing new debt
5. Regulatory environments which are seen as micromanaging the utility or hostile to investor interests
6. Operating risks stemming from energy commodity risks or the utility's merchant function.

Q. YOU ALSO STATED THAT CAPITAL MARKETS HAVE SEVERAL ISSUES THAT THEY ARE WATCHING CLOSELY. WHAT ARE THOSE ISSUES?

A. Most of these issues relate to the regulatory climate for utilities. Analysts are paying a higher level of attention to regulatory issues because it is widely expected that the number of rate proceedings will increase significantly over the next one to two years. The issues that are currently drawing the most attention are:

1. The allowed returns in new cases; many utilities are expected to come in for their first rate proceeding in three or four years, and analysts will be watching how the new allowed returns compare to the previously authorized levels;
2. Analysts are also watching to see if utilities will be able to secure multi-year rate plans and/or performance-based rate plans which permit the utility to share in the potential for higher earnings if costs can be reduced;

3. The recovery of specific unfunded and/or volatile costs is drawing significant attention, such as pension costs, purchased gas costs, medical benefit expenses, uncollectible accounts, etc.

Q. GIVEN THE TRAITS AND ISSUES THAT CAPITAL MARKETS ARE FOCUSED ON, HOW DO YOU EXPECT THESE MARKETS WOULD RESPOND IF STAFF'S PROPOSALS IN THIS CASE WERE ADOPTED BY THE COMMISSION?

A. Such a finding by the Commission should be expected to produce a very significant negative response from capital markets. For almost every key metric that investors are focused on, the Staff's proposal would significantly worsen Aquila's performance relative to its peers, at a time when the markets have never been more concerned about financial strength and earnings stability. The Staff's proposals would cause the Aquila operating utilities in Missouri to be rated well below investment grade if they were stand-alone companies. Based on the financial metrics used by credit rating agencies such as Standard & Poor's, Staff's proposals would be likely to result in a bond rating for Aquila-MPS and Aquila-L&P, if they were financed on a stand alone basis, that was either B or BB. Both of these ratings are considered speculative grades, which carry significant debt cost premiums over investment-grade securities.

The Staff's proposals would cause a substantial reduction in the operating utilities' earned returns even though there is no evidence to suggest that their risks are lower than they were at any time in the past several years. Given the resulting poor credit profile for the Companies, many institutional investors would be foreclosed from holding the

Companies' debt, and additional equity would probably have to be raised on unfavorable terms, if the operating utilities were financed on a stand-alone basis.

Moody's Investor Services, one of the leading credit rating agencies, already carries a negative outlook for Aquila's bonds, based, in part, on the risks posed by potential regulatory actions in Aquila's pending rate cases. Analysts would likely see the adoption of Staff's position as a signal that the Commission is not concerned about preserving the financial health of Aquila's utility operations in the state, and that it is prepared to import the adverse financial consequences of the Company's unregulated businesses into the ratemaking process for the Company's utility business. The adoption of Staff's position on rate of return would mean that the operating utilities would earn a return on equity that is among the lowest of any utility in the country, and is far below industry norms. Capital is very mobile, and investors should be expected to quickly exit Aquila's stock and bonds in search of returns that are more commensurate with the risks of owning these securities.

Q. YOUR ASSESSMENT OF HOW ANALYSTS WILL VIEW THE MISSOURI REGULATORY ENVIRONMENT IS QUITE BLEAK. IS IT YOUR VIEW THAT ONE ADVERSE DECISION WOULD HAVE THAT MUCH OF AN EFFECT ON ANALYSTS' PERCEPTIONS?

A. No, my assessment is not the product of one potentially adverse decision. Unfortunately, the Commission comes into this case with the reputation for being a restrictive regulatory environment, not a constructive one. The RRA evaluates the Commission as being the second worst of the six categories into which it has grouped state commissions, and

Lehman Brothers puts it on the border of the worst and the second worst of the five rankings it uses. These rankings reflect analysts' views based on past allowed returns, the regulatory structures used in Missouri, and the contentiousness of the rate proceedings in the state. No single decision labels a regulator as "constructive" or "restrictive". However, the Commission is on the brink, in analysts' opinions, of becoming one of the most restrictive regulatory regimes in the nation. In my opinion, if the Commission were to adopt Staff's position in this case, such an action would cause further deterioration in the financial market's perspective on the regulatory climate in this state. An allowed return on equity of 9.22%, on a 35.31% equity ratio, is significantly below rate of return levels being granted by state commissions that are currently considered to be the least constructive in the entire nation (e.g., California, which receives the worst rankings, currently allows an 11.2% to 11.6% AROE on an equity ratio of 48%).

IMPACTS OF FINANCIAL DETERIORATION

Q. IF THE STAFF'S POSITION WAS ADOPTED BY THE COMMISSION, AND THE CAPITAL MARKETS REACTED AS NEGATIVELY AS YOU HAVE PREDICTED, WHAT WOULD BE THE IMPACTS ON AQUILA'S INVESTORS?

A. These investors would face substantial reductions in the values of their investments in the Company. The yield spread for bonds that are below investment grade is very wide, which means that the value of these lower-grade bonds would be far less than that of investment-grade debt. The same would be true for stockholders. If investors believed that the substantially lower level of earnings that Staff's proposal produces is all that the

operating utilities could earn over a sustained period, the market value of the capital invested in Aquila's Missouri gas distribution utilities would be expected to decline significantly. If the operating utilities were publicly traded on a stand-alone basis, these results would be expected to cause a substantial sell-off in their securities, and new investors would have to be attracted by offering higher returns in the future.

Q. HOW DO RESULTS SUCH AS YOU HAVE DISCUSSED AFFECT THE MISSOURI CUSTOMERS OF AQUILA?

A. First, there would be immediately higher debt costs for both utilities, which would raise rates for customers. Second, the market would demand higher returns for investing in the equity of Aquila, which would be felt whenever new equity was raised and whenever rates were set in future rate proceedings. Of equal importance, Aquila would face restricted access to capital markets, and would likely face great difficulty in raising new capital for maintenance and expansion of the utility assets. One only has to look at the financial collapses of PG&E, Mirant, NRG, Enron and the energy merchant business units of other companies to see how severe the consequences can be when a firm's access to capital markets is cut off. The utilities that have faced these challenges have often had to resort to extreme levels of spending reductions, which inevitably degrade utility service and raise rates to consumers for years into the future.

Q. CAN THESE EFFECTS SPREAD BEYOND AQUILA'S CUSTOMERS?

A. Yes, the adverse consequences of a regulatory commission causing one utility in the state to suffer financial deterioration often has ripple effects on the financial standing of the other utilities in the state as well. For example, when Rochester Gas & Electric received an adverse decision in its gas rate case in early 2003, analysts not only reacted negatively

in terms of their views of RG&E's securities, but they also cited that rate order as grounds for taking a more negative stance towards Consolidated Edison, the largest utility in the state.

One of the most important lessons to learn from the financial distress that has confronted many other utilities in the U.S., and the capital market's reaction to these events, is that corporate and regulatory credibility are both very important to maintaining the financial standing of utilities, and that either or both of these can collapse very quickly. Unfortunately, the quick collapse of credibility is not matched by a quick value restoration; markets often take years to restore the valuations of companies that were slashed in a period of days or weeks.

CONCLUSIONS

Q. WHAT CONCLUSIONS HAVE YOU REACHED REGARDING WHETHER STAFF'S PROPOSED RATE OF RETURN MEETS ESTABLISHED STANDARDS FOR A FAIR RATE OF RETURN IN UTILITY RATEMAKING?

A. Staff's proposed rate of return falls far short of these standards. In both its proposed return on equity and its proposed equity ratio the Staff has taken positions that are essentially "off the chart" in terms of industry norms. The combined result is even more unjust because, all other things being equal, a lower equity ratio should command a higher rate of return.

Staff's proposal does not even approach the returns and equity ratios being granted by other jurisdictions, and would ensure that the earned return on equity for the Companies would be extraordinarily below the cost of capital.

The Staff's proposal fails to meet any of the standards that Staff Witness Murray agrees govern the determination of a fair rate of return, in that it would not:

- Be commensurate with returns being earned by firms of comparable risk
- Maintain or support the credit of the utility
- Maintain confidence in the financial integrity of the utility
- Allow the utility to attract capital on reasonable terms
- Avoid confiscation of utility investors' capital

Q. TO WHAT DO YOU ATTRIBUTE THE INADEQUACY AND UNREASONABLENESS OF STAFF'S RATE OF RETURN RECOMMENDATION IN THIS CASE?

A. First, Staff relied on Aquila's year-end 2002 capital structure as being appropriate for setting the rates for Aquila's utility operating divisions in Missouri. This is inappropriate, and the Staff should have used a more balanced capital structure that is representative of the risks of a utility. Second, Staff failed to adjust its estimated costs of equity, to reflect the allowed and earned returns on equity that utilities actually have achieved. However, the defects in the process that Staff used to arrive at its recommendation are only part of the issue. The reasonableness of a rate of return

determination, or of the resulting rates, is based on the end result, not the process. Staff's proposal produces an end result that is clearly out of line with industry norms.

Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE LIKELY EFFECTS IN CAPITAL MARKETS IF THE COMMISSION APPROVED STAFF'S RECOMMENDATION?

A. The capital markets would respond very negatively. The markets are not currently expecting that such a negative result would come out of this case, and Aquila has not entered this case in robust financial health. As discussed throughout this testimony, utility investors look for predictable earnings and steady growth in dividends; Staff's proposed rate of return, if implemented, would undercut the Companies' financial health, and be completely inconsistent with reasonable investor expectations. If the utility operating divisions were financed on a stand-alone basis, the adoption of Staff's proposal would reduce their credit ratings to significantly below investment grade, and create a significant sell-off in their securities.

The adoption of Staff's position in this case would also cause analysts to further reduce their evaluation of the regulatory climate in Missouri. As discussed earlier, analysts are very focused on how the next wave of rate cases will be adjudicated by state regulators, and the Commission enters this period of focus with the legacy of being considered a restrictive regulatory environment.

Q. WHAT ARE YOUR CONCLUSIONS REGARDING HOW AQUILA'S CUSTOMERS WOULD BE AFFECTED BY THESE FINANCIAL MARKET DEVELOPMENTS?

A. The flight of capital from Aquila's securities, and the effects of investors losing substantial amounts of their investments in the Company, would lead to higher interest rates and higher required returns for years to come. These higher costs of capital, combined with the capital spending plans of the operating divisions, translate into higher rates for customers. Beyond higher rates, the operating divisions, if financed on a stand-alone basis, would face significantly curtailed access to capital. The effects of lack of access to capital often result in drastic spending cuts and the prospect of diminished service quality for customers.

In addition, these effects should be expected to spread beyond Aquila and its customers. The credibility of the Commission in capital markets affects the cost of capital for all of the utilities it regulates, and the Commission's credibility with investors would clearly be put in peril if Staff's recommended rate of return is adopted in this case.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does.

John J. Reed
Chairman and Chief Executive Officer

John J. Reed is a financial and economic consultant with more than 25 years of experience in the energy industry. Mr. Reed has also been the CEO of an NASD member securities firm, and Co-CEO of the nation's largest publicly traded management consulting firm (NYSE: NCI). He has provided advisory services in the areas of mergers and acquisitions, asset divestitures and purchases, strategic planning, project finance, corporate valuation, energy market analysis, rate and regulatory matters and energy contract negotiations to clients across North and Central America. Mr. Reed's comprehensive experience includes the development and implementation of nuclear, fossil, and hydroelectric generation divestiture programs with an aggregate valuation in excess of $20 billion. Mr. Reed has also provided expert testimony on financial and economic matters on more than 125 occasions before the FERC, Canadian regulatory agencies, state utility regulatory agencies, various state and federal courts, and before arbitration panels in the United States and Canada. After graduation from the Wharton School of the University of Pennsylvania, Mr. Reed joined Southern California Gas Company, where he worked in the regulatory and financial groups, leaving the firm as Chief Economist in 1981. He served as executive and consultant with Stone & Webster Management Consulting and R.J. Rudden Associates prior to forming REED Consulting Group (RCG) in 1988. RCG was acquired by Navigant Consulting in 1997, where Mr. Reed served as an executive until leaving Navigant to join CEA as Chairman and Chief Executive Officer.

REPRESENTATIVE PROJECT EXPERIENCE

Executive Management

As an executive-level consultant, worked with CEOs, CFOs, other senior officers, and Boards of Directors of many of North America's top electric and gas utilities, as well as with senior political leaders of the U.S. and Canada on numerous engagements over the past 20 years. Directed merger, acquisition, divestiture, and project development engagements for utilities, pipelines and electric generation companies, repositioned several electric and gas utilities as pure distributors through a series of regulatory, financial, and legislative initiatives, and helped to develop and execute several "roll-up" or market aggregation strategies for companies seeking to achieve substantial scale in energy distribution, generation, transmission, and marketing.

Financial and Economic Advisory Services

Retained by many of the nation's leading energy companies and financial institutions for services relating to the purchase, sale or development of new enterprises. These projects included major new gas pipeline projects, gas storage projects, several non-utility generation projects, the purchase and sale of project development and gas marketing firms, and utility acquisitions. Specific services provided include the development of corporate expansion plans, review of acquisition candidates, establishment of divestiture standards, due diligence

on acquisitions or financing, market entry or expansion studies, competitive assessments, project financing studies, and negotiations relating to these transactions.

Litigation Support and Expert Testimony

Provided expert testimony on more than 125 occasions in administrative and civil proceedings on a wide range of energy and economic issues. Clients in these matters have included gas distribution utilities, gas pipelines, gas producers, oil producers, electric utilities, large energy consumers, governmental and regulatory agencies, trade associations, independent energy project developers, engineering firms, and gas and power marketers. Testimony has focused on issues ranging from broad regulatory and economic policy to virtually all elements of the utility ratemaking process. Also frequently testified regarding energy contract interpretation, accepted energy industry practices, horizontal and vertical market power, quantification of damages, and management prudence. Have been active in regulatory contract and litigation matters on virtually all interstate pipeline systems serving the U.S. Northeast, Mid-Atlantic, Midwest, and Pacific regions.

Also served on FERC Commissioner Terzic's Task Force on Competition, which conducted an industry-wide investigation into the levels of and means of encouraging competition in U.S. natural gas markets. Represented the interests of the gas distributors (the AGD and UDC) and participated actively in developing and presenting position papers on behalf of the LDC community.

Resource Procurement, Contracting and Analysis

On behalf of gas distributors, gas pipelines, gas producers, electric utilities, and independent energy project developers, personally managed or participated in the negotiation, drafting, and regulatory support of hundreds of energy contracts, including the largest gas contracts in North America, electric contracts representing billions of dollars, pipeline and storage contracts, and facility leases.

These efforts have resulted in bringing large new energy projects to market across North America, the creation of hundreds of millions of dollars in savings through contract renegotiation, and the regulatory approval of a number of highly contested energy contracts.

Strategic Planning and Utility Restructuring

Acted as a leading participant in the restructuring of the natural gas and electric utility industries over the past fifteen years, as an adviser to local distribution companies (LDCs), pipelines, electric utilities, and independent energy project developers. In the recent past, provided services to many of the top 50 utilities and energy marketers across North America. Managed projects that frequently included the redevelopment of strategic plans, corporate reorganizations, the development of multi-year regulatory and legislative agendas, merger, acquisition and divestiture strategies, and the development of market entry strategies. Developed and supported merchant function exit strategies, marketing affiliate strategies, and detailed plans for the functional business units of many of North America's leading utilities.

PROFESSIONAL HISTORY

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Chairman and Chief Executive Officer

Navigant Consulting, Inc. (1997- 2002)
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Executive Director (2000 – 2002)
Co-Chief Executive Officer, Vice Chairman (1999 – 2000)
Executive Managing Director (1998 – 1999)
President, REED Consulting Group, Inc. (1997 – 1998)
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Consultant

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Financial Analyst
Treasury Analyst

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Nukem, Inc.
New England Gas Association
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AFFILIATIONS

National Association of Business Economists
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Guild of Gas Managers

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