BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI
SURREBUTTAL TESTIMONY OF DONALD A. MURRY, PH.D.
ON BEHALF OF AQUILA, INC.
D/B/A AQUILA NETWORKS-MPS AND AQUILA NETWORKS-L&P
CASE NOS. ER-2004-0034 AND HR-2004-0024 (CONSOLIDATED)

Q. WHAT IS YOUR NAME?

A. My name is Donald A. Murry.

Q. ARE YOU THE SAME DONALD A. MURRY WHO FILED DIRECT AND REBUTTAL TESTIMONY PREVIOUSLY IN THIS PROCEEDING BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION ("COMMISSION")?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. I have prepared surrebuttal testimony in response to the rebuttal testimony of Commission Staff ("Staff") witnesses, Mr. David Murray and Trisha Miller, in the cases involving Aquila Networks-MPS-Electric and Aquila Networks-L&P-Electric and Steam, also referred to as "Aquila" or the "Company."

Q. WHAT IS THE NATURE OF YOUR SURREBUTTAL TESTIMONY OF THE REBUTTAL TESTIMONY OF STAFF WITNESS DAVID MURRAY?

A. My surrebuttal testimony addresses several issues and misconceptions raised by Mr. Murray in his rebuttal testimony. A portion of his rebuttal testimony focused on my direct testimony, and a number of his comments were without analytical foundation or simply misconceptions of my direct testimony. An important example is his analytically misguided criticism, (at page 6, lines 6-8 of his rebuttal testimony), of my use of the common equity ratio to select comparable companies for my analysis. He also offered misdirected comments regarding both my Discounted Cash Flow ("DCF") and my Capital Asset Pricing Model ("CAPM") calculations.

Q. WHY DO YOU SAY MR. MURRAY'S CRITICISM OF YOUR USING AN EQUITY RATIO AS A CRITERION FOR SELECTING COMPARABLE UTILITY IS ANALYTICALLY WRONG?

A. His criticism is wrong because the common equity ratio selects companies of similar financial risk to MPS and L&P, and is, therefore, an important criterion to review in selecting comparable companies for analysis. The cost of capital is a function of the risk exposure of the regulated utility and not the other way around. Mr. Murray is simply wrong when he states, at page 6, lines 19-20 of his rebuttal, "…it should be obvious that a criterion based on a desired equity ratio is not appropriate."

Q. PLEASE EXPLAIN.

A. Contrary to his claim, it is important to select healthy utility companies as comparable standards for ratemaking. In fact, the equity ratio of a healthy group of utilities-- that represent the target capital structure for the regulated utility to support the assets during the period when rates are in effect-- is precisely the capital structure that is appropriate. Moreover, the divisional target capital structure urged by Aquila in this case is the most representative capital structure for MPS and L&P for ratemaking in this proceeding. The Aquila corporate capital structure, on the other hand, is not a utility capital structure because it is the capital structure of a very diversified company. Therefore the corporate capital structure should not be used for ratemaking purposes in this case. In fact, its use in this case is clearly inappropriate.

Q. IF MR. MURRAY HAD WISHED NOT TO USE THE DIVISIONAL CAPITAL STRUCTURE OF MPS AND L&P, DID HE HAVE A BETTER ALTERNATIVE THAN USING THE INAPPROPRIATE AQUILA CORPORATE CAPITAL STRUCTURE?

A. Yes, he could have used a hypothetical capital structure based on similar, healthy electric utilities, as opposed to his selection of non-representative low-common-stock equity companies that are not healthy.

Q. HOW WOULD MR. MURRAY KNOW THAT HE COULD HAVE OR SHOULD HAVE USED A HYPOTHETICAL CAPITAL STRUCTURE IN THIS CASE RATHER THAN THE AQUILA CORPORATE CAPITAL STRUCTURE?

A. He quoted Mr. David Parcell's *The Cost of Capital – A Practitioner's Guide* extensively, in his rebuttal testimony pages 16-18, which indicates that he is familiar with this publication. At page 4-22, the Parcell text states:

> There are circumstances where a hypothetical capital structure is used for a utility, rather than the utility's own capital structure. The most common reasons for utilizing a hypothetical capital structure are:
>
> 1. The utility's capital structure is deemed to be substantially different from the typical or "proper" capital structure.
> 2. The utility is funded as part of a diversified organization *whose overall capital structure reflects its diversified nature rather than its utility operations only.* [Emphasis added.]

Q. DOES THE CRITERIA SET BY PARCELL FOR NOT USING THE PARENT COMPANY'S CAPITAL STRUCTURE APPLY TO MPS AND L&P IN THIS INSTANCE?

A. Yes. These circumstances are precisely those of MPS and L&P in this case.

Q, FROM HIS REBUTTAL TESTIMONY COULD YOU DETERMINE WHY MR. MURRAY SELECTED THE AQUILA CAPITAL STRUCTURE FOR MPS AND L&P IN THIS PROCEEDING?

A. His statement at page 7, lines 7-8, indicates his confusion regarding regulation when he states, that Aquila "…does not actually have enough equity capital to allocate to its divisions at the ratios Aquila uses for ratemaking purposes in this case." He made the same argument at page 8, lines 31-32 and page 10, lines 9-11.

Q. IS THERE ANYTHING WRONG WITH THIS STATEMENT?

A. Yes. It shows a misconception of the roles of debt and equity and the purpose of regulation.

Q. COULD YOU EXPLAIN WHAT YOU MEAN BY A MISCONCEPTION OF THE ROLES OF DEBT AND EQUITY?

A. Let me use an example. If a utility is to build a new plant, it can raise a portion of the permanent capital to build the plant by selling debt instruments, probably in the form of first mortgage bonds. The only other alternative to permanent debt is, in fact, equity in the ownership of the plant. This equity by the owners of the plant is equity regardless of how they acquire the cash to pay for the land, permits, construction and equipment. For a standalone utility, it may issue shares of common stock to raise this permanent capital. For a utility such as MPS and L&P

that is part of a diversified organization, the equity is held by the parent. The parent is Aquila in this instance. Stated differently, the value of the plant when constructed that is not mortgaged is the “equity”. He is simply confused--and has it backwards-- when he talks about not having “equity capital to allocate.”

Q. ARE YOU SAYING THAT AN AFFILIATED UTILITY OF A DIVERSIFIED COMPANY SHOULD MAINTAIN A CAPITAL STRUCTURE APPROPRIATE FOR A REGULATED UTILITY?

A. Management of any affiliated operating utility should maintain a capital structure of a utility regardless of the capital structure of the parent and any non-regulated affiliates. This utility capital structure is the one that supports the utility assets and which is appropriate for ratemaking. As Mr. Murray admits on page 11, line 9 of his rebuttal testimony, he could have proposed a hypothetical capital structure representative of a healthy electric utility rather than the non-representative corporate capital structure of the very diversified Aquila.

Q. ARE THERE OTHER MISCONCEPTIONS IN MR. MURRAY’S REBUTTAL?

A. Yes. At page 13 of his rebuttal, he criticized my inclusion of Empire District Electric Company and Great Plains Energy because they have Missouri operations, but he does not explain why this might be an analytical problem. The analysis of the cost of capital is a market concept. The inclusion of Missouri utilities will not necessarily bias the calculated market results and, in fact, provides the Commission with valuable information as to how the market perceives the risk of companies operating under its jurisdiction.

Q. YOU STATED THAT MR. MURRAY OFFERED MISDIRECTED CRITICISM OF YOUR DCF ANALYSIS. WHAT DO YOU MEAN?

A. Mr. Murray, at page 16, lines 6-8 of his rebuttal, provided an unfounded criticism of my use of forecasted growth rates and identified other methods for measuring the growth rates to use in a DCF analysis. On page 17, lines 3-39 and page 18, lines 1-27 of his rebuttal testimony, he cited three pages of David Parcell's *The Cost of Capital* as "…authoritative support…" as justification for this criticism.

Q. IS THERE ANYTHING WRONG WITH HIS ASSERTION?

A. Yes. This assertion is a misuse of the cost of capital publication, which is a training manual prepared by Mr. Parcell for the Society of Utility and Regulatory Financial Analysts. For example, on the title page of the publication, there is the following disclaimer:

> Author's Note: This manual has been prepared as an educational reference on cost of capital concepts. Its purpose is to describe a broad array of cost of capital models and techniques. *No cost of equity model or other concept is recommended.* Furthermore, no opinions or preferences are expressed by either the author or the Society of Utility And Regulatory Financial Analysts. [Emphasis added.]

Furthermore, contrary to Mr. Murray's criticism of my use of earnings growth rate in my DCF analysis, there have been studies indicating that forecasted earnings per share growth is the most accurate predictor of investor expectations. Perhaps the most widely quoted article on the appropriateness of using analyst's growth forecasts is Vander Weide, James H. and Willard T. Carleton. "Investor Growth Expectations: Analysts vs. History," The Journal of Portfolio Management, Vol. 14, No.3, Spring, 1988, 78-87.

Q, WAS THIS THE ONLY PROBLEM WITH MR. MURRAY'S REBUTTAL OF YOUR DCF GROWTH RATE?

A. No. He also criticized my use of *Value Line's* forecasted growth rates at page 20, lines 19-20. However, *Value Line* is a widely recognized and well-respected source available to both professional portfolio managers and to individual investors. This broad use implies that it is a good representation of investor expectations, and investor expectations are what any analyst is attempting to determine in a DCF analysis. Moreover, *Value Line* is an independent financial service organization that does not have the potential conflicts of brokerage and investment banking firms. By comparison, to justify a lower projected growth rate, Mr. Murray quoted, on page 21, a December 2001 *Business Week* article. Of course, this article is even from a more general publication than an accepted financial service, but, more important, it is now outdated because it was published prior to the structural market shifts over the past two years. It is not relevant to current markets.

Q, WERE THERE OTHER IMPORTANT PROBLEMS WITH MR. MURRAY'S REBUTTAL OF YOUR DCF METHOD?

A. Yes. Ignoring that the only reason for reviewing historical growth rates is to determine investors' expected growth in returns, Mr. Murray criticized me, on page 22, lines 10-16 of his rebuttal testimony, for calculating historical growth rates and not averaging them with other growth rates. As I pointed out in my rebuttal testimony, averaging numbers together without any justification will not generate the future earnings expectations of investors. In fact, if a historical growth rate is not useful for estimating the future growth in returns to investors, one should ignore it. A historical growth rate will not, *ipso facto,* become the forecasted growth rate.

Q. YOU MENTIONED THAT MR. MURRAY CRITICIZED YOUR CAPM ANALYSIS IN HIS REBUTTAL TESTIMONY. WHAT WAS THE NATURE OF HIS CRITICISM?

A. Mr. Murray criticized my size adjusted CAPM analysis. Of course, my calculations are in accordance with the recommendation by Ibbotson Associates. I explained in my rebuttal testimony this recommendation to compensate for the data bias. His position ignores the size bias benefits of economies of scale in financing, market diversification, access to the capital markets and regulatory proceedings favoring large companies. This results in greater risk for smaller companies that Mr. Murray ignores. The Ibbotson Associates, in the *SBBI Valuation Edition 2003 Yearbook,* page 122, states clearly, " In the CAPM, only systematic or beta risk is rewarded; small company stocks have had returns in excess of those implied by their betas."

Q. WHY DID MR. MURRAY IGNORE FIRM SIZE AS A FACTOR IN RECOMMENDING AN ALLOWED RETURN?

A. He stated at page 25, lines 12-13 of his rebuttal that small utilities and large utilities are both regulated "and an adjustment for firm sizes is not appropriate."

Q. How do you respond?

A. This is not consistent with the behavior of the financial markets. For example, on page 521, "Rate Setting in the Utilities Industry: Does Size Make a Difference?" The Financial Review, Vol. 29, No. 4, Scott Besley and Steven E. Bolten state:

> This study provides evidence that the "size effect," which has been investigated extensively in the literature, has not been considered by regulators in the utility rate setting process. In essence, the results indicate the rates assigned to both large and small utilities have not differed significantly in the past, statistically. However, to be consistent with the behavior observed in the competitive financial markets, the rates regulators set should be significantly higher for small utilities compared to large utilities. The fact that this was not observed might suggest inequities exist in the rate-setting process.

Q. WERE THERE ANY OTHER CONCERNS THAT YOU HAVE ABOUT MR. MURRAY'S REBUTTAL TESTIMONY?

A. Yes. Mr. Murray contended that there is no need for a "cushion" to provide a reasonable chance for the utility to achieve its allowed return. His position, however, is inconsistent with the regulatory standard of setting an allowed return that is commensurate with returns of enterprises having corresponding risks. For example, his recommendation may ignore such factors as the costs of issuance, regulatory lag, expenses of adding new customers, or adverse market shifts. Following his recommendation means that there is very little likelihood that the utility, Aquila in this instance, will achieve the allowed return.

Q. WHAT RESPONSE DO YOU HAVE TO THE REBUTTAL TESTIMONY OF TRISHA D. MILLER?

A. On page 3, lines 15 –16 of her rebuttal testimony, Ms. Miller states: "By denying rate base treatment, the shareholders do not recover the time value of the monies expended, and thus share in the business risk with the ratepayer."

Q. How do you respond?

A. There is no way that the Company can "share" business risk with its ratepayers if it is denied recovery of a legitimate, extraordinary expense it incurred when providing utility service.

Ms. Miller acknowledged that Aquila legitimately spent $8 million dollars to repair storm damage in 2002. Not allowing the Company to fully recover this amount without compensation for the time value of money for five years, simply means that it will not fully recover the full amount of its deferred extraordinary maintenance expense. This is not a "sharing" of business risk with the ratepayers. It is a reduction in the cost of providing utility service. In fact, because MPS incurred the costs of restoring electric service to customers in 2002, the Company will incur more than 50 percent of the cost of repairing the storm damage even if recovery as proposed by Aquila were to be approved in rates. As Mr. Dennis Williams pointed out in his surrebuttal testimony, the consequence of this "regulatory lag" is a failure of the Company to receive an adequate "return of" and a "return on" its expenditures for repair of storm damage. To the investors in the Company's common stock, even if the Commission includes an amortization of the incurred costs in rates, there still is a loss of the time-value-of-money, and this is an added risk to common equity investors.

Q. HOW WOULD YOU RECOMMEND THE COMMISSION TREAT THIS TIME-VALUE-OF-MONEY ISSUE?

A. It is appropriate to allow the Company to recover a return equal to the loss of the time value of money on the unamortized balance of storm damages. For example, a return measure equal to the cost of the Company's secured revolving credit agreement, or eight percent, represents a good proxy to use for this purpose. It is relatively short term in nature (three years) and it is collateralized with the benefits of a lower interest rate. This represents a reasonable compromise between the Staff's recommendation of zero return on the unamortized storm damage balance and the allowance of a full rate of return applicable to rate base.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes, it does.