MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

DIRECT TESTIMONY

OF

DAVID C. PARCELL

AQUILA, INC.
d/b/a AQUILA NETWORKS-MPS-ELECTRIC AND
AQUILA NETWORKS-L&P-ELECTRIC

CASE NO. ER-2007-0004

Jefferson City, Missouri
January 2007

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Aquila, Inc. d/b/a Aquila)
Networks-MPS and Aquila Networks-L&P, for)
authority to file tariffs increasing electric rates for)   Case No. ER-2007-0004
the service provided to customers in the Aquila)
Networks-MPS and Aquila Networks-L&P service)
area.)

AFFIDAVIT OF DAVID C. PARCELL

STATE OF MISSOURI)
)   ss.
COUNTY OF COLE)

    David C. Parcell, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Direct Testimony in question and answer form, consisting of __3/__ pages to be presented in the above case; that the answers in the foregoing Direct Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

David C. Parcell
David C. Parcell

Subscribed and sworn to before me this __11th__ day of __January__ 20__07__.

Susan W. Crew
Notary Public

My Commission Expires:
3/31/10

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DIRECT TESTIMONY AND EXHIBITS OF
DAVID C. PARCELL

AQUILA, INC.
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AND AQUILA NETWORKS L&P-ELECTRIC

CASE NO. ER-2007-0004

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DIRECT TESTIMONY AND EXHIBITS

OF

DAVID C. PARCELL

ON BEHALF OF
MISSOURI PUBLIC SERVICE COMMISSION STAFF

AQUILA, INC.
d/b/a AQUILA NETWORKS MPS-ELECTRIC
AND AQUILA NETWORKS L&P-ELECTRIC

CASE NO. ER-2007-0004

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I.   **INTRODUCTION**

Q.   PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A.   My name is David C. Parcell. I am Executive Vice President and Senior Economist of Technical Associates, Inc. My business address is Suite 601, 1051 East Cary Street, Richmond, Virginia 23219.

Q.   PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A.   I hold B.A. (1969) and M.A. (1970) degrees in economics from Virginia Polytechnic Institute and State University (Virginia Tech) and a M.B.A. (1985) from Virginia Commonwealth University. I have been a consulting economist with Technical Associates since 1970. I have provided cost of capital testimony in public utility ratemaking proceedings dating back to 1972. In connection with this, I have previously filed testimony and/or testified in over 375 utility proceedings before about 35 regulatory agencies in the United States and Canada. Schedule 1 provides a more complete description of my education and relevant work experience.

Q.   WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

1   A.   I have been retained by the Staff of the Missouri Public Service Commission ("Staff")

2   to evaluate the cost of capital aspects of the current filing of Aquila, Inc. d/b/a Aquila

3   Networks MPS ("MPS") and Aquila Networks L&P ("L&P"). I have performed

4   independent studies and am making recommendations of the current cost of capital for

5   Aquila.

6

7   **Q.**   **HAVE YOU PREPARED AN EXHIBIT IN SUPPORT OF YOUR**

8   **TESTIMONY?**

9   A.   Yes, I have prepared one exhibit, identified as Schedule 1 through Schedule 15. This

10   exhibit was prepared either by me or under my direction. The information contained

11   in this exhibit is correct to the best of my knowledge and belief.

12   **II.**   **RECOMMENDATIONS AND SUMMARY**

13   **Q.**   **WHAT ARE YOUR RECOMMENDATIONS IN THIS PROCEEDING?**

14   A.   My overall cost of capital recommendations for Aquila are:

15

Aquila Networks MPS

	Percent	Cost	Return
Long-Term Debt	52.5%	6.73%	3.53%
Common Equity	47.5%	9.0-10.25%	4.28-4.87%
Total	100.00%		7.81-8.40%
			8.11% Mid-Point

Aquila Networks L&P

	Percent	Cost	Return
Long-Term Debt	52.5%	7.95%	4.17%
Common Equity	47.5%	9.0-10.25%	4.28-4.87%
Total	100.00%		8.45-9.04%
			8.75% Mid-Point

25   Aquila's application requests a return on common equity of 11.5 percent and

26   overall rate of return of 8.99 percent for MPS and 9.63 percent for L&P. I propose a

27   return on common equity of 9.625 percent and an overall rate of return of 8.11 percent

28   for MPS and an 8.75 percent return for L&P.

29

1 **Q.** **PLEASE SUMMARIZE YOUR COST OF CAPITAL ANALYSES AND**
2 **RELATED CONCLUSIONS FOR AQUILA.**

3 A. This proceeding is concerned with Aquila's regulated electric utility operations in
4 Missouri (i.e., MPS and L&P). My analyses are concerned with the Company's total
5 costs of capital. The first step in performing an analysis of the Company's cost of
6 capital is the development of the appropriate capital structure. Aquila's proposed
7 capital structure is a hypothetical capital structure comprised of 52.5 percent debt and
8 47.5 percent common equity, which is described as the "internal capital assignment
9 process" utilized by the company. I do not accept the concept of a hypothetical capital
10 structure for Aquila, particularly since this capital structure has historically differed
11 substantially from the actual capitalization of Aquila. I instead use the actual
12 September 30, 2006 consolidating capital structure of Aquila. Coincidentally, this
13 results in the same capital structure ratios proposed by Aquila. I note that Aquila has
14 recently significantly improved its equity ratio, primarily from debt reduction
15 associated with asset sales.

16 The second step in a cost of capital calculation is a determination of the
17 embedded cost rate of long-term debt. Aquila's application employs a 6.73 percent
18 cost of debt for MPS and a 7.95 percent cost of debt for L&P, both of which are tied to
19 the "internal assignment process" cited above. Even though I do not endorse the
20 "internal assignment process," I do use these cost rates since they appear to represent
21 the actual rates supporting Missouri electric operations.

22 The third step in the cost of capital calculation is the estimation of the cost of
23 common equity. I have employed three recognized methodologies to estimate the cost
24 of equity for Aquila. Each of these methodologies is applied to two groups of proxy
25 electric utilities. These three methodologies and my findings are:

Methodology	Ranges
Discounted Cash Flow	9.0-9.5%
Capital Asset Pricing Model	9.75-10.25%
Comparable Earnings	10.0%

1   Based upon these findings, I conclude that the cost of common equity for Aquila is

2   within a range of 9.0 percent to 10.25 percent (9.625 percent mid-point).

3   **III.**   **ECONOMIC/LEGAL PRINCIPLES AND METHODOLOGIES**

4   **Q.**   **WHAT ARE THE PRIMARY ECONOMIC AND LEGAL PRINCIPLES THAT**

5   **ESTABLISH THE STANDARDS FOR DETERMINING A FAIR RATE OF**

6   **RETURN FOR A REGULATED UTILITY?**

7   A.   Public utility rates are normally established in a manner designed to allow the

8   recovery of their costs, including capital costs. This is frequently referred to as "cost

9   of service" ratemaking. Rates for regulated public utilities traditionally have been

10   primarily established using the "rate base - rate of return" concept. Under this

11   method, utilities are allowed to recover a level of operating expenses, taxes, and

12   depreciation deemed reasonable for rate-setting purposes, and are granted an

13   opportunity to earn a fair rate of return on the assets utilized (i.e., rate base) in

14   providing service to their customers.

15   The rate base is derived from the asset side of the utility's balance sheet as a

16   dollar amount and the rate of return is developed from the liabilities/owners' equity

17   side of the balance sheet as a percentage. The revenue impact of the cost of capital is

18   thus derived by multiplying the rate base by the rate of return (including income

19   taxes).

20   The rate of return is developed from the cost of capital, which is estimated by

21   weighting the capital structure components (i.e., debt, preferred stock, and common

22   equity) by their percentages in the capital structure and multiplying these by their cost

23   rates. This is also known as the weighted cost of capital.

24   Technically, "fair rate of return" is a legal and accounting concept that refers to

25   an ex post (after the fact) earned return on an asset base, while the cost of capital is an

26   economic and financial concept which refers to an ex ante (before the fact) expected

27   or required return on a liability base. In regulatory proceedings, however, the two

28   terms are often used interchangeably. I have not distinguished between the two

29   concepts in my testimony.

1   From an economic standpoint, a fair rate of return is normally interpreted to

2 mean that an efficient and economically managed utility will be able to maintain its

3 financial integrity, attract capital, and establish comparable returns for similar risk

4 investments. These concepts are derived from economic and financial theory and are

5 generally implemented using financial models and economic concepts.

6   Although I am not a lawyer and I do not offer a legal opinion, my testimony is

7 based on my understanding that two United States Supreme Court decisions are

8 universally cited as providing the standards for a fair rate of return. The first is

9 Bluefield Water Works and Improvement Co. v. Public Serv. Comm'n of West

10 Virginia, 262 U.S. 679 (1923). In this decision, the Court stated:

11   What annual rate will constitute just compensation depends upon many

12   circumstances and must be determined by the exercise of fair and

13   enlightened judgment, having regard to all relevant facts. A public

14   utility is entitled to such rates as will permit it to earn a return on the

15   value of the property which it employs for the convenience of the

16   public equal to that generally being made at the same time and in the

17   same general part of the country on investments in other business

18   undertakings which are attended by corresponding risks and

19   uncertainties; but it has no constitutional right to profits such as are

20   realized or anticipated in highly profitable enterprises or speculative

21   ventures. The return should be reasonably sufficient to assure

22   confidence in the financial soundness of the utility, and should be

23   adequate, under efficient and economical management, to maintain and

24   support its credit and enable it to raise the money necessary for the

25   proper discharge of its public duties. A rate of return may be

26   reasonable at one time, and become too high or too low by changes

27   affecting opportunities for investment, the money market, and business

28   conditions generally.

29 It is my understanding that the Bluefield decision established the following standards

30 for a fair rate of return: comparable earnings, financial integrity, and capital

31 attraction. It also noted the changing level of required returns over time as well as an

32 underlying assumption that the utility be operated in a efficient manner.

33   The second decision is Federal Power Comm'n v. Hope Natural Gas Co., 320

34 U.S. 591 (1942). In that decision, the Court stated:

35   The rate-making process under the [Natural Gas] Act, i.e., the fixing of

36   'just and reasonable' rates, involves a balancing of the investor and

37   consumer interests . . . . From the investor or company point of view it

38   is important that there be enough revenue not only for operating

1   expenses but also for the capital costs of the business. These include
2   service on the debt and dividends on the stock. By that standard the
3   return to the equity owner should be commensurate with returns on
4   investments in other enterprises having corresponding risks. That
5   return, moreover, should be sufficient to assure confidence in the
6   financial integrity of the enterprise, so as to maintain its credit and to
7   attract capital.

8   The Hope case is also frequently credited with establishing the "end result" doctrine,

9   which maintains that the methods utilized to develop a fair return are not important as

10 long as the end result is reasonable.

11 The three economic and financial parameters in the Bluefield and Hope

12 decisions - comparable earnings, financial integrity, and capital attraction - reflect the

13 economic criteria encompassed in the "opportunity cost" principle of economics. The

14 opportunity cost principle provides that a utility and its investors should be afforded an

15 opportunity (not a guarantee) to earn a return commensurate with returns they could

16 expect to achieve on investments of similar risk. The opportunity cost principle is

17 consistent with the fundamental premise on which regulation rests, namely, that it is

18 intended to act as a surrogate for competition.

19

20 **Q. HOW CAN THESE PARAMETERS BE EMPLOYED TO ESTIMATE THE**

21 **COST OF CAPITAL FOR A UTILITY?**

22 A. Neither the courts nor economic/financial theory have developed exact and

23 mechanical procedures for precisely determining the cost of capital. This is the case

24 because the cost of capital is an opportunity cost and is prospective-looking, which

25 dictates that it must be estimated.

26 There are several useful models that can be employed to assist in estimating

27 the cost of equity capital, which is the capital structure item that is the most difficult to

28 determine. These include the discounted cash flow ("DCF"), capital asset pricing

29 model ("CAPM"), comparable earnings ("CE") and risk premium ("RP") methods.

30 Each of these methods (or models) differs from the others and each, if properly

31 employed, can be a useful tool in estimating the cost of common equity for a regulated

32 utility.

33

1　Q.　WHICH METHODS HAVE YOU EMPLOYED IN YOUR ANALYSES OF

2　　　THE COST OF COMMON EQUITY IN THIS PROCEEDING?

3　A.　I have utilized three methodologies to determine Aquila's cost of common equity: the

4　　　DCF, CAPM, and CE methods. Each of these methodologies will be described in

5　　　more detail in my testimony that follows.

6　**IV.　GENERAL ECONOMIC CONDITIONS**

7

8　Q.　WHY ARE ECONOMIC AND FINANCIAL CONDITIONS IMPORTANT IN

9　　　DETERMINING THE COSTS OF CAPITAL?

10　A.　The costs of capital, for both fixed-cost (debt and preferred stock) components and

11　　　common equity, are determined in part by current and prospective economic and

12　　　financial conditions. At any given time, each of the following factors has an influence

13　　　on the costs of capital: the level of economic activity (i.e., growth rate of the

14　　　economy), the stage of the business cycle (i.e., recession, expansion, or transition), and

15　　　the level of inflation. My understanding is that use of these factors is consistent with

16　　　the Supreme Court's Bluefield decision, which noted that "[a] rate of return may be

17　　　reasonable at one time, and become too high or too low by changes affecting

18　　　opportunities for investment, the money market, and business conditions generally."

19

20　Q.　WHAT INDICATORS OF ECONOMIC AND FINANCIAL ACTIVITY HAVE

21　　　YOU EVALUATED IN YOUR ANALYSES?

22　A.　I have examined several sets of economic statistics for the period 1975 to present. I

23　　　chose this period because it permits the evaluation of economic conditions over three

24　　　full business cycles plus the current cycle to date, and thus makes it possible to assess

25　　　changes in long-term trends. This period also approximates the beginning and

26　　　continuation of active rate case activities by public utilities.

27　　　　A business cycle is commonly defined as a complete period of expansion

28　　　(recovery and growth) and contraction (recession). A full business cycle is a useful

29　　　and convenient period over which to measure levels and trends in long-term capital

1 costs because it incorporates the cyclical (i.e., stage of business cycle) influences and

2 thus permits a comparison of structural (or long-term) trends.

3

4 **Q. PLEASE DESCRIBE THE TIMEFRAME OF THE THREE PRIOR BUSINESS**

5 **CYCLES AND THE MOST CURRENT CYCLE.**

6 A. The three prior complete cycles and current cycle cover the following periods:

7

Business Cycle	Expansion Cycle	Contraction Period
1975-1982	Mar. 1975-July 1981	Aug. 1981-Oct. 1982
1982-1991	Nov. 1982-July 1990	Aug. 1990-Mar. 1991
1991-2001	Apr. 1991-Mar. 2001	Apr. 2001-Nov. 2001
Current	Dec. 2001-Present	

12

13 **Q. DO YOU HAVE ANY GENERAL OBSERVATIONS CONCERNING THE**

14 **CHANGING TRENDS IN ECONOMIC CONDITIONS AND THEIR IMPACT**

15 **ON COSTS OVER THIS BROAD PERIOD?**

16 A. Yes, I do. As I will describe below, the U.S. economy has enjoyed general prosperity

17 and stability over the period since the early 1980s. This period has been characterized

18 by longer economic expansions, relatively tame contractions, relatively low and

19 declining inflation, and declining interest rates and other capital costs. The current

20 business cycle began in late 2001, following a somewhat modest recession earlier in

21 the year. During the recession and early in the succeeding expansion, the Federal

22 Reserve lowered interest rates (i.e., Fed Funds rate) 11 times in 2001 and twice in

23 2003 in an effort to stimulate the economy.

24

25 **Q. PLEASE DESCRIBE RECENT AND CURRENT ECONOMIC AND**

26 **FINANCIAL CONDITIONS AND THEIR IMPACT ON THE COSTS OF**

27 **CAPITAL.**

28 A. Schedule 2 shows several sets of economic data. Page 1 contains general

29 macroeconomic statistics while Pages 2 and 3 contain financial market statistics. Page

30 1 of Schedule 2 shows that the U.S. economy is currently in the fifth year of an

31 economic expansion. This is indicated by the growth in real (i.e., adjusted for

1 inflation) Gross Domestic Product, industrial production, and the unemployment rate.

2 This current expansion has generally been characterized as slower growth, in

3 comparison to prior expansions. This has resulted in lower inflationary pressures and

4 interest rates, as well as slower growth in corporate profits.

5   The rate of inflation is also shown on Page 1 of Schedule 2. As is reflected in

6 the Consumer Price Index (CPI), for example, inflation rose significantly during the

7 1975-1982 business cycle and reached double-digit levels in 1979-1980. The rate of

8 inflation declined substantially in 1981 and remained at or below 6.1 percent during

9 the 1983-1991 business cycle. Since 1991, the CPI has been 3.4 percent or lower.

10 The 3.4 percent rate of inflation in 2005, which was similar to the level for 2004, was

11 slightly higher than the most recent years, but was well below the levels of the past

12 thirty years.

13

14 **Q.** **WHAT HAVE BEEN THE TRENDS IN INTEREST RATES?**

15 A. Page 2 of Schedule 2 shows several series of interest rates. Rates rose sharply to

16 record levels in 1975-1981 when the inflation rate was high and generally rising.

17 Interest rates then fell substantially in conjunction with inflation rates throughout the

18 remainder of the 1980s throughout the 1990s. Interest rates declined even further

19 from 2000-2005 and generally recorded their lowest levels since the 1960s.

20   This low level of interest rates, in conjunction with the recent strength of the

21 U.S. economy, may create an expectation that any near-term movement of interest

22 rates will be upward. In fact, the Federal Reserve has, since the middle of 2004,

23 increased short-term interest rates on 17 occasions, although each time by only 0.25

24 percent, in an attempt to insure that any perceived inflationary expectations will not

25 stifle continued economic growth. Nevertheless, the economic recovery to date has

26 not resulted in a pronounced increase in long-term rates. In fact, even the current level

27 of Fed Funds is about the same as the level in existence when the series of reductions

28 began in 2000. Even if rates were to increase moderately, they would still remain well

29 below historical levels.

30

31 **Q.** **WHAT HAVE BEEN THE TRENDS IN COMMON SHARE PRICES?**

1   A.   Page 3 of Schedule 2 shows several series of common stock prices and ratios. These

2   rates indicate that share prices were basically stagnant during the high inflation/high

3   interest rate environment of the late 1970s and early 1980s. On the other hand, the

4   1983-1991 business cycle and the most recent cycle have witnessed a significant

5   upward trend in stock prices. During the initial years of the current expansion,

6   however, stock prices were volatile and declined substantially from their highs

7   reached in 1999 and early 2000. Share prices have increased somewhat since 2003

8   and currently stand at near record high levels.

9

10   **Q.**   **WHAT CONCLUSIONS DO YOU DRAW FROM THIS DISCUSSION OF**

11   **ECONOMIC AND FINANCIAL CONDITIONS?**

12   A.   It is apparent that capital costs are currently low in comparison to the levels that have

13   prevailed over the past three decades. In addition, even a moderate increase in interest

14   rates, as well as other capital costs, would still result in capital costs that are low by

15   historic standards. Therefore, it can reasonably be expected that cost of equity

16   models, such as the DCF, currently will produce returns that are lower than was the

17   case in prior years.

18

19   **V.**   **AQUILA'S OPERATIONS AND RISKS**

20   **Q.**   **PLEASE SUMMARIZE AQUILA AND ITS OPERATIONS.**

21   A.   Aquila is a public utility that generates, transmits, and distributes electric energy in

22   two states, one of which is Missouri, and distributes natural gas in four states. It also

23   conducts unregulated operations. Aquila operates two electric utility divisions in

24   Missouri -- MPS and L&P, which correspond to Missouri Public Service Company

25   and St. Joseph Light & Power Company.

26   Aquila is presently organized into three segments – electric utilities, gas

27   utilities, and merchant services (unregulated). The Company was originally known as

28   Missouri Public Service Company, changed its name to UtiliCorp United, Inc. in

29   1985, and then changed its name to Aquila in 2002.

30

1 **Q.   WHAT ARE AQUILA'S BUSINESS SEGMENT RATIOS?**

2 A.   Aquila's business ratios are shown on Schedule 3 for the years 2003-2005.   As

3   indicated, the "Electric Utility" segment and "Gas Utility" segment have been

4   profitable, while the "Merchant Services" segment has not been profitable.

5   The unregulated segment of Aquila is operated by Aquila Merchant Services.

6   Prior to 2002, this company marketed natural gas, electricity, and other commodities

7   on a large scale throughout North America and Western Europe. Since 2002, Aquila

8   has been divesting much of its merchant services operations and currently owns or

9   controls non-regulated merchant power plants.

10

11 **Q.   PLEASE BRIEFLY DESCRIBE AQUILA'S EXPERIENCE WITH, AND**

12   **DIVESTITURE OF, ITS NON-REGULATED OPERATIONS.**

13 A.   As noted previously, prior to 2002 Aquila was heavily involved in the unregulated

14   wholesale energy trading business. Beginning in 2002, Aquila experienced very

15   unsatisfactory results in these operations. In connection with this, the 2002 Form 10-

16   K of Aquila cited "significant net losses and negative cash flows" and noted the

17   resulting credit downgrades in the Company's securities.   In fact, Aquila was

18   downgraded in 2002 from Triple-B ratings (i.e., investment grade) to Caa1 (Moody's),

19   B (S&P), and B- (Fitch); each of these is non-investment grade.

20   Also, in 2002 Aquila reported a $1.72 billion loss from continuing operations

21   and a net loss of over $2 billion. Its stock price declined from a second quarter high of

22        $25.23 to a fourth quarter low of $1.56. The Company also eliminated its dividend in

23   2002. (Source: Aquila 2002 Form 10-K).

24

25 **Q.   WHAT WERE THE CAPITAL MARKET CONSEQUENCES OF AQUILA'S**

26   **MERCHANT SERVICES?**

27 A.   As I noted above, Aquila's securities were downgraded to non-investment grade status

28   as a result of the Company's unregulated merchant services operations. This was

29   noted, for example, in a S&P Ratings Direct reported dated November 19, 2002:

30   Standard & Poor's Ratings Services today lowered its corporate credit
31   rating on electricity and natural gas distributor Aquila Inc. to 'BB' from

1   'BBB-' to reflect the slower-than-expected recovery of its credit quality
2   as the company exits the merchant energy business.

3   . . .
4   "Despite significant progress in its plan to restore its financial strength,
5   Standard & Poor's believes that depressed power prices and negative
6   spark spreads will continue to be a drag on Aquila's operating cash
7   flows on the Network Utilities side of the business," said Standard &
8   Poor's credit analyst Rajeev Sharma.

9   . . .
10   As the company transitions from a wholesale energy marketing and
11   trading company to a traditional utility, Aquila will face continuing
12   restructuring expense curtailing cash flow improvement.

13
14 Subsequent to 2002, Aquila continued to sell much of its assets, both regulated and

15 unregulated, in an effort to strengthen its finances. In an October 31, 2005

16 RatingsDirect report on Aquila, S&P noted the following points:

17

18   **Major Rating Factors**

19
20   Strengths:
21   ·   **Regulated electric and gas operations provide a relatively .... stable**
22   **source of cash flows**,
23   ·   Pending asset sales may contribute to material debt reduction, ...which
24   is likely to alter the company's debt maturity schedule and
25   reduce refinancing risk, and
26   ·   Pending gas utility asset sales will reduce the company's working
27   capital requirements, which should improve liquidity.

28
29   Weaknesses:
30   ·   The company is aggressively leveraged,
31   ·   High interest expense and cash losses at its **merchant services**
32   **segment challenge the company's** ability to generate positive .. funds
33   from operations, and
34   ·   Pending litigation related to the South Harper peaking facility
35   could adversely affect the timing and magnitude of future cash
36   flows.

37
38   **Rationale**
39   The ratings on diversified energy company Aquila Inc. are on
40   CreditWatch with positive implications reflecting the company's
41   announcement that it is selling four utility businesses for a total of $897
42   million, plus working capital and subject to net plant adjustments. If
43   approved by the various regulatory commissions, the sales would

provide an opportunity for debt reduction—potentially 30% of total adjusted debt.

. . .

Standard & Poor's expects the sale to improve the Kansas City, Mo.-based company's financial profile overall. First, the company intends to use sales proceeds to pay down debt. The debt reduction is likely to alter the company's maturity schedule, which would reduce intermediate refinancing risk. . . . Second, the asset sales involve three gas utilities. As such, the sales will reduce the company's working-capital requirements, which should improve liquidity.

. . .

Over the last two years, the company has worked to stem material cash losses by **exiting its noncore businesses** and terminating its tolls and gas contracts. For the first time since 2001, Aquila generated positive (albeit marginally positive) funds from operations (FFO) in the first half of the year.

. . .

The **company is aggressively leveraged**.

Business Profile
Aquila's business profile score is '8' (weak) on Standard & Poor's scale. . . . **The weak business profile score reflects the merchant divisions' poor business fundamentals**.

. . .

Aquila's legacy unregulated operations continue to drain cash due to weak industry fundamentals albeit at a considerably lesser rate than in previous years. Over the past three to four years, the company has pared down its wholesale energy trading activities, sold portions of its merchant loan portfolio, and sold its natural gas pipeline, gathering and storage assets and its investments in international utility networks and Quanta Services Inc.

. . .

The Company's merchant gas-fired plants barely cover their carrying costs. These plants operate in regions fraught with overcapacity.

. . .

Litigation risk weighs on the company's business profile.
[Emphasis added]

Q.   WHAT HAVE BEEN THE MORE RECENT STRUCTURAL CHANGES INVOLVING AQUILA?

A.   The Company continues to divest itself of assets, including regulated utility assets. In 2006, the Company sold gas distribution utility assets in Michigan, Missouri and

1   Minnesota, as well as electric utility assets in Kansas. The proceeds of these sales

2   were largely used to reduce the Company's debt.

3

4   **Q.   WHAT ARE THE CURRENT BOND RATINGS OF AQUILA?**

5   A.   The present bond ratings are as follows:

6
                    Moody's   B2
7   Standard & Poor's   B-
                    Fitch   B-
8
9   These ratings remain below investment grade.

10

11   **Q.   WHAT HAVE BEEN THE TRENDS IN AQUILA'S BOND RATINGS?**

12   A.   This is shown on Schedule 4, which indicates that Aquila has had single B or lower

13   ratings since 2002. The ratings of Aquila were lowered in 2002 in connection with the

14   Company's non-regulated losses and related restructuring.

15

16   **Q.   HAVE THERE BEEN ANY RECENT COMMENTS MADE BY THE RATING**

17   **AGENCIES CONCERNING AQUILA?**

18   A.   Yes. S&P made the following comments in a September 1, 2006 RatingsDirect report

19   on Aquila:

20   Standard & Poor's Ratings Services raised its long-term corporate
21   credit rating on Aquila Inc. to 'B' from 'B-'. The rating remains on
22   CreditWatch with positive implications.
23   . . .
24   The upgrade reflects the company's improved business risk profile,
25   significant debt reduction and plans for further deleveraging, expected
26   cash-flow improvement, and lower ongoing working capital
27   requirements.
28   . . .
29   The ratings on Aquila were placed on CreditWatch with positive
30   implications in September 2005 after the company signed definitive
31   agreements to sell four of its regulated utilities. The company's plan
32   was (and continues to be) to use proceeds from the above sales and
33   additional nonregulated sales to pay down $1.2 billion in debt and other
34   obligations (including the Elwood toll).
35   . . .
36   Aquila business profile score has been revised to a '6'. . . Over the last
37   year, **Aquila has reduced the size of its nonregulated segment,**

1   **unwinding energy trading contracts that remained from its energy**
2   **and gas trading days in the late 1990s and early 2000s, selling**
3   **assets related to its former merchant services segment**, and exiting
4   the Everest communications business. The company is now primarily a
5   regulated electric and gas utility company . . .
6   **[Emphasis Added]**

7 In addition, Moody's made similar comments in a September 19, 2006 Global Credit

8 Research Report on Aquila:

9   In recent years the company has focused its efforts on reducing
10   leverage and improving its credit profile following a severe weakening
11   of its business and liquidity in 2002/2003 due to its interests in
12   unregulated energy and trading operations. Over the course of
13   2005/2006 the company has made significant advances towards
14   recovery by exiting its weaker operations, selling assets and reducing
15   financial obligations; thereby improving its short-term liquidity profile
16   as well reducing long-term business risk.
17   . . .
18   Going forward, the company is now primarily viewed as a regional
19   electric generation, transmission and distribution company with a
20   smaller, yet still significant gas distribution business.
21   . . .
22   **Recent Developments**
23   On September 15, 2006, Moody's upgraded Aquila's $300 million
24   senior secured bank facility to Ba2 from Ba3. At the same time,
25   Moody's raised Aquila's corporate family rating to B1 from B2.
26   . . .
27   **Rating Rationale**
28   Aquila's ratings primarily reflect the company's position as a
29   leveraged, substantially integrated, regional electric and gas utility
30   provider in the Midwestern U.S. The company's credit profile has
31   shown improvement since 2005 as it continues to execute on its
32   strategic plan to exit uneconomic tolling arrangements with certain
33   non-core assets, and utilize proceeds to reduce debt levels; largely a
34   legacy of its merchant energy and other unregulated businesses.
35

36 **Q.** **PLEASE SUMMARIZE YOUR UNDERSTANDING OF THESE RATING**
37   **AGENCY COMMENTS AND ACTIONS CONCERNING AQUILA.**

38 **A.** The following points are evident:

39   • In years leading up to 2002, UtiliCorp United (now Aquila) was
40   heavily involved in unregulated operations, largely merchant
41   energy;
42

1   • The Company experienced disastrous results in these non-
2   regulated operations that resulted in significant operating and
3   income losses and related negative financial implications (e.g.,
4   dividend elimination, very large write-offs, plunge in stock
5   price, and decline in equity ratio);
6

7   • The rating agencies downgraded Aquila's securities to non-
8   investment grade status (i.e., "junk" status);
9

10   • Aquila exited from the non-regulated operations to the extent
11   that it could, however, this led to further losses;
12

13   • Aquila was forced to sell portions of its profitable utility
14   operations in order to reduce its debt load (i.e., leverage) in an
15   effort to restore its financial profile;
16

17   • Aquila is now largely an electric/gas utility, although it retains
18   some remaining merchant energy operations; and,
19

20   • The Company's securities remain below-investment grade, but
21   due to the lingering effects of the non-utility operations.
22

23 **Q.   WHAT IS THE SIGNIFICANCE OF THIS TRANSGRESSION OF EVENTS?**

24 A.   Aquila has been for the past five years, and remains at this time, a company whose

25   financial profile has been troubled and characterized as non-investment grade. This

26   situation has resulted from the Company's large-scale and disastrous venture into non-

27   regulated activities, as its utility operations have remained strong and profitable.

28   It would not be appropriate, and indeed it would be unfair, to request Aquila's

29   utility ratepayers to pay higher rates to offset any losses resulting from its non-

30   regulated operations.

31 **VI.   CAPITAL STRUCTURE AND COST OF DEBT**

32 **Q.   WHAT IS THE IMPORTANCE OF DETERMINING A PROPER CAPITAL**

33   **STRUCTURE IN A REGULATORY FRAMEWORK?**

34 A.   A utility's capital structure is important because the concept of rate base – rate of

35   return regulation requires that a utility's capital structure be determined and utilized in

36   estimating the total cost of capital. Within this framework, it is proper to ascertain

1   whether the utility's capital structure is appropriate relative to its level of business risk

2   and relative to other utilities.

3   As discussed in Section III of my testimony, the purpose of determining the

4   proper capital structure for a utility is to help ascertain its capital costs. The rate base

5   – rate of return concept recognizes the assets employed in providing utility services

6   and provides for a return on these assets by identifying the liabilities and common

7   equity (and their cost rates) used to finance the assets. In this process, the rate base is

8   derived from the asset side of the balance sheet and the cost of capital is derived from

9   the liabilities/owners' equity side of the balance sheet. The inherent assumption in

10   this procedure is that the dollar values of the capital structure and the rate base are

11   approximately equal and the former is utilized to finance the latter.

12   The common equity ratio (i.e., the percentage of common equity in the capital

13   structure) is the capital structure item which normally receives the most attention.

14   This is the case because common equity: (1) usually commands the highest cost rate;

15   (2) generates associated income tax liabilities; and, (3) causes the most controversy

16   since its cost cannot be precisely determined.

17

18 **Q.**   **HOW HAVE YOU EVALUATED THE CAPITAL STRUCTURES OF**

19   **AQUILA?**

20 A.   I have first examined the five year historic (2001-2005), and recent (September 30,

21   2006) capital structure ratios of Aquila. Schedule 5 shows the capital structures of

22   Aquila. The common equity ratios of this company are shown below:

	Including S-T Debt	Excluding S-T Debt
2001	47.0%	51.2%
2002	35.6%	38.0%
2003	33.4%	33.4%
2004	32.3%	32.3%
2005	39.7%	39.8%
Sept. 30, 2006	47.5%	47.5%

30   These indicate a significant decline in Aquila's equity ratio in 2002, the year in which

31   the Company began to de-emphasize its merchant services, followed by a gradual

1 increase through 2005. The 2006 equity ratio is back to the 2001 level, reflecting in

2 large part the retirement of debt with the proceeds of the recent sales of corporate

3 assets.

4

5 **Q. HOW DO THESE CAPITAL STRUCTURES COMPARE TO THOSE OF**

6 **INVESTOR-OWNED ELECTRIC UTILITIES?**

7 A. Schedule 6 shows the common equity ratios (including short-term debt in

8 capitalization) for the two groups of electric utilities covered by AUS Utility Reports.

9 These are:

10

| | | Combination Gas |
Year	Electric	And Electric
2001	42%	38%
2002	38%	36%
2003	42%	38%
2004	47%	43%
2005	44%	47%

15

16 These common equity ratios are generally higher than those of Aquila over the 2001-

17 2005 period. The 2005 equity ratio of the electric industry is similar to Aquila's 2006

18 level.

19

20 **Q. WHAT CAPITAL STRUCTURE RATIOS HAS AQUILA REQUESTED IN**

21 **THIS PROCEEDING?**

22 A. The Company requests use of the following capital structure:

23

Capital Item	Percent
Long-Term Debt	52.50%
Common Equity	47.50%

26 This is a hypothetical capital structure that is described by the Company as an

27 "internal capital assignment process."

28

29 **Q. DO YOU AGREE WITH THE USE OF A HYPOTHETICAL CAPITAL**

30 **STRUCTURE FOR AQUILA?**

1 A.   No, I do not. Aquila's proposed hypothetical capital structure, based on its "internal

2   capital assignment process" is not appropriate. Aquila's proposal amounts to an

3   attempt to impute capital of MPS and L&P in a manner that has, until recently,

4   differed materially from the actual capital structure of the Company.

5

6 Q.   **WHAT CAPITAL STRUCTURE DO YOU PROPOSE TO USE IN THIS**

7   **PROCEEDING?**

8 A.   I have utilized the actual consolidated capital structure of Aquila, as of September 30,

9   2006. This capital structure reflects the per books ratios of Aquila as of this date. By

10   coincidence, this matches the proposal of Aquila.

11

12 Q.   **WHAT IS THE COST RATE OF LONG-TERM DEBT IN THE COMPANY'S**

13   **APPLICATION?**

14 A.   The Company's filing cites a cost of long-term debt of 6.73 percent for MPS and 7.95

15   percent. Aquila maintains that these rates reflect the actual costs of the debt financing

16   the MPS and L&P divisions.

17   Consistent with my preference to use the actual consolidated capital structure

18   of Aquila, it might appear logical to also use the actual consolidated cost of Aquila's

19   debt. However, the Company's debt cost is also adversely impacted by the events of

20   2002/2003. Two of Aquila's debt issues – a $250 million senior notes issue at 9.95

21   percent and a $500 million senior notes issue at 14.875 percent, were issued during the

22   turbulence associated with Aquila's non-regulated operations crisis. As a result, it is

23   not proper to require utility ratepayer recovery of these excessive costs. It would be

24   potentially possible to either eliminate or "reprice" these two debt issues from

25   Aquila's consolidated cost of debt. However, even this would require making

26   assumptions.

27   For the purposes of this proceeding, I have accepted Aquila's proposal to use

28   the MPS and L&P division-specific cost rates.

29   An alternative way to calculate the cost of debt for Aquila is to combine the

30   individual debt cost rates for MPS and L&P into a single, weighted debt cost. This

1   can be done, for example, by weighting each division's debt cost by the respective size

2   of the rate base, as follows:

3

	Debt Cost	Rate Base	Rate Base %	Wgt. Debt Cost
MPS	6.73%	$887,106,225	83.03%	5.59%
L&P	7.95%	$181,348,201	16.97%	1.35%

6   Should the Commission decide to establish a single cost of debt, and thus single cost

7   of capital, for MPS and L&P, a cost of debt of 6.94 percent, as calculated above, can

8   be applied to the common capital structure ratios for these two divisions.

9

10   **Q.   CAN THE COST OF COMMON EQUITY BE DETERMINED WITH THE**

11   **SAME DEGREE OF PRECISION AS THE COST OF DEBT?**

12   A.   No. The cost rate of debt is largely determined by interest payments, issue prices, and

13   related expenses. The cost of common equity, on the other hand, cannot be precisely

14   quantified, primarily because this cost is an opportunity cost. There are, however,

15   several models which can be employed to estimate the cost of common equity. Three

16   of the primary methods - DCF, CAPM, and CE - are developed in the following

17   sections of my testimony.

18

19   **VII.   SELECTION OF PROXY GROUPS**

20   **Q.   HOW HAVE YOU ESTIMATED THE COST OF COMMON EQUITY FOR**

21   **AQUILA?**

22   A.   Aquila is a publicly traded company. As a result, it is possible to conduct direct

23   analyses of the cost of common equity for Aquila. However, the financial situation of

24   this Company, as well as the continuing diversified nature of its operations, indicate

25   that it is not an adequate proxy for a cost of equity analysis. As a result, it is necessary

26   to analyze groups of comparison or "proxy" companies as a substitute for Aquila to

27   determine its cost of common equity.

28   I have examined two such groups for comparison to Aquila. I have selected

29   one group of electric utilities using the criteria listed on Schedule 7. These criteria are

30   as follows:

1   (1)   Market capitalization of $500 million to $5 billion;

2   (2)   Electric revenues 50% or greater;

3   (3)   Common equity ratio 40% or greater;

4   (4)   Value Line Safety of 2 or 3;

5   (5)   S&P and/or Moody's bond ratings of Single A or Triple B;

6   (6)   S&P stock ranking of B or B+;

7   (7)   Company has not eliminated or reduced dividends; and,

8   (8)   Company not currently involved in a major merger.

9

10   Second, I have conducted studies of the cost of equity for the proxy group of 24

11   electric utilities selected by Aquila's witness Hadaway.

12   **VIII.**   **DISCOUNTED CASH FLOW ANALYSIS**

13   **Q.**   **WHAT IS THE THEORY AND METHODOLOGICAL BASIS OF THE**

14   **DISCOUNTED CASH FLOW MODEL?**

15   A.   The discounted cash flow (DCF) model is one of the oldest, as well as the most

16   commonly-used, models for estimating the cost of common equity for public utilities.

17   The DCF model is based on the "dividend discount model" of financial theory, which

18   maintains that the value (price) of any security or commodity is the discounted present

19   value of all future cash flows.

20   The most common variant of the DCF model assumes that dividends are

21   expected to grow at a constant rate. This variant of the dividend discount model is

22   known as the constant growth or Gordon DCF model. In this framework, cost of

23   capital is derived by the following formula:

24
$$K = \frac{D}{P} + g$$

25

26   where: K = discount rate (cost of capital)

27   P = current price

28   D = current dividend rate

29   G = constant rate of expected growth

1

2   This formula essentially recognizes that the return expected or required by investors is

3   comprised of two factors: the dividend yield (current income) and expected growth in

4   dividends (future income).

5

6   **Q.   PLEASE EXPLAIN HOW YOU HAVE EMPLOYED THE DCF MODEL.**

7   A.   For purposes of my analysis I have utilized the constant growth DCF model. In doing

8   so, I have combined the current dividend yield for each group of proxy utility stocks

9   described in the previous section with several indicators of expected dividend growth.

10

11 **Q.   HOW DID YOU DERIVE THE DIVIDEND YIELD COMPONENT OF THE**

12 **DCF EQUATION?**

13 A.   There are several methods that can be used for calculating the dividend yield

14   component. These methods generally differ in the manner in which the dividend rate

15   is employed; i.e., current versus future dividends or annual versus quarterly

16   compounding of dividends. I believe the most appropriate dividend yield component

17   is a quarterly compounding variant, which is expressed as follows:

18
$$Yield = \frac{D_0(1+0.5g)}{P_0}$$

19   This dividend yield component recognizes the timing of dividend payments and

20   dividend increases.

21   The P_0 in my yield calculation is the average (of high and low) stock price for

22   each proxy company for the most recent three month period (October-December

23   2006). The D_0 is the current annualized dividend rate for each proxy company.

24

25 **Q.   HOW HAVE YOU ESTIMATED THE DIVIDEND GROWTH COMPONENT**

26 **OF THE DCF EQUATION?**

27 A.   The dividend growth rate component of the DCF model is usually the most crucial and

28   controversial element involved in using this methodology. The objective of estimating

29   the dividend growth component is to reflect the growth expected by investors that is

30   embodied in the price (and yield) of a company's stock. As such, it is important to

1 recognize that individual investors have different expectations and consider alternative

2 indicators in deriving their expectations. This is evidenced by the fact that every

3 investment decision resulting in the purchase of a particular stock is matched by

4 another investment decision to sell that stock.

5 A wide array of indicators exist for estimating the growth expectations of

6 investors. As a result, it is evident that no single indicator of growth is always used by

7 all investors. It therefore is necessary to consider alternative indicators of dividend

8 growth in deriving the growth component of the DCF model.

9 I have considered five indicators of growth in my DCF analyses. These are:

10 1. 2001-2005 (5-year average) earnings retention, or fundamental growth

11 (per Value Line);

12 2. 5-year average of historic growth in earnings per share (EPS),

13 dividends per share (DPS), and book value per share (BVPS) (per

14 Value Line);

15 3. 2006, 2007, and 2009-2011 projections of earnings retention growth

16 (per Value Line);

17 4. 2003-2005 to 2009-2011 projections of EPS, DPS, and BVPS (per

18 Value Line); and

19 5. 5-year projections of EPS growth as reported in First Call (per Yahoo!

20 Finance).

21

22 I believe this combination of growth indicators is a representative and

23 appropriate set with which to begin the process of estimating investor expectations of

24 dividend growth for the groups of proxy companies. I also believe that these growth

25 indicators reflect the types of information that investors consider in making their

26 investment decisions. As I indicated previously, investors have an array of

27 information available to them, all of which should be expected to have some impact on

28 their decision-making process.

29

30 **Q. PLEASE DESCRIBE YOUR INITIAL DCF CALCULATIONS.**

1   A.   Schedule 8 presents my DCF analysis. Page 1 shows the calculation of the "raw" (i.e.,

2   prior to adjustment for growth) dividend yield for each proxy company. Pages 2 and 3

3   show the growth rates for the groups of proxy companies. Page 4 shows the "raw"

4   DCF calculations, which are presented on several bases: mean, median, and range of

5   low/high values. These results can be summarized as follows:

	Mean	Median	High[1]
Comparison Group	8.1%	8.3%	9.5%
Hadaway Group	8.2%	8.0%	9.5%

9   I note that the individual DCF calculations shown on Schedule 8 should not be

10   interpreted to reflect the expected cost of capital for the proxy groups; rather, the

11   individual values shown should be interpreted as alternative information considered by

12   investors.

13   The DCF results in Schedule 8 indicate average (mean and median) DCF cost

14   rates of about 8 percent to 8.5 percent. The highest DCF rates (i.e., using the highest

15   growth rates only) are 10.2 percent for my comparison group and 9.6 percent for the

16   Hadaway group.

17

18   **Q.   WHAT DO YOU CONCLUDE FROM YOUR DCF ANALYSES?**

19   A.   Based upon my analyses, I believe a broad range of 8 percent to 9½ percent represents

20   the current DCF cost of equity for Aquila. This is approximated by the upper portion

21   of the average/mean values, as well as the top DCF calculations for my comparison

22   group examined in the previous analysis. I recommend a 9 percent to 9½ percent

23   range for Aquila, which focuses on the upper portion of the broad DCF range.

24   With respect to my DCF analysis, generally I have focused on the upper

25   portion of the DCF calculations because current financial conditions (low interest rates

26   and high market-to-book ratios for utilities) have the effect of driving DCF results to

27   low levels by historic standards.

28

---

[1]   Using only the highest growth rate.

1   **IX.**   **CAPITAL ASSET PRICING MODEL ANALYSIS**

2   **Q.**   **PLEASE DESCRIBE THE THEORY AND METHODOLOGICAL BASIS OF**

3   **THE CAPITAL ASSET PRICING MODEL.**

4   A.   The Capital Asset Pricing Model (CAPM) is a version of the risk premium method.

5   The CAPM describes and measures the relationship between a security's investment

6   risk and its market rate of return. The CAPM was developed in the 1960s and 1970s

7   as an extension of modern portfolio theory (MPT), which studies the relationships

8   among risk, diversification, and expected returns.

9

10   **Q.**   **HOW IS THE CAPM DERIVED?**

11   A.   The general form of the CAPM is:

12

$$K = R_f + \beta(R_m - R_f)$$

13   where: K = cost of equity

14   R_f = risk free rate

15   R_m = return on market

16   β = beta

17   R_m-R_f = market risk premium

18

19   As noted previously, the CAPM is a variant of the risk premium method. I believe the

20   CAPM is generally superior to the simple risk premium method because the CAPM

21   specifically recognizes the risk of a particular company or industry (i.e., beta),

22   whereas the simple risk premium method assumes the same cost of equity for all

23   companies exhibiting similar bond ratings.

24

25   **Q.**   **WHAT GROUPS OF COMPANIES HAVE YOU UTILIZED TO PERFORM**

26   **YOUR CAPM ANALYSES?**

27   A.   I have performed CAPM analyses for the same groups of proxy utilities evaluated in

28   my DCF analyses.

29

30   **Q.**   **WHAT RATE DID YOU USE FOR THE RISK-FREE RATE?**

1   A.   The first term of the CAPM is the risk-free rate (R_f). The risk-free rate reflects the

2   level of return that can be achieved without accepting any risk.

3   In CAPM applications, the risk-free rate is generally recognized by use of U.S.

4   Treasury securities. Two general types of U.S. Treasury securities are often utilized as

5   the R_f component - short-term U.S. Treasury bills and long-term U.S. Treasury bonds.

6   I have performed CAPM calculations using the three month average yield

7   (October-December 2006) for 20-year U.S. Treasury bonds. Over this three month

8   period, these bonds had an average yield of 4.83 percent.

9

10   Q.   **WHAT IS BETA AND WHAT BETAS DID YOU EMPLOY IN YOUR CAPM?**

11   A.   Beta is a measure of the relative volatility (and thus risk) of a particular stock in

12   relation to the overall market. Betas of less than 1.0 are considered less risky than the

13   market, whereas betas greater than 1.0 are more risky. Utility stocks traditionally have

14   had betas below 1.0. I utilized the most recent Value Line betas for each company in

15   the groups of proxy utilities.

16

17   Q.   **HOW DID YOU ESTIMATE THE MARKET RISK PREMIUM**

18   **COMPONENT?**

19   A.   The market risk premium component (R_m-R_f) represents the investor-expected

20   premium of common stocks over the risk-free rate, or government bonds. For the

21   purpose of estimating the market risk premium, I considered alternative measures of

22   returns of the S&P 500 (a broad-based group of large U.S. companies) and 20-year

23   U.S. Treasury bonds.

24   First, I have compared the actual annual returns on equity of the S&P 500 with

25   the actual annual yields of U.S. Treasury bonds. Schedule 9 shows the return on

26   equity for the S&P 500 group for the period 1978-2005 (all available years reported by

27   S&P). The average return on equity for the S&P 500 group over the 1978-2005 period

28   is 14.09 percent. This schedule also indicates the annual yields on 20-year U.S.

29   Treasury bonds, as well as the annual differentials (i.e., risk premiums) between the

30   S&P 500 and U.S. Treasury 20-year bonds. Based upon these returns, I conclude that

31   this version of the risk premium is about 6.2 percent.

1   I have also considered the total returns (i.e., dividends/interest plus capital

2 gains/losses) for the S&P 500 group as well as for long-term government bonds, as

3 tabulated by Ibbotson Associates, using both arithmetic and geometric means. I have

4 considered the total returns for the entire 1926-2005 period, which are as follows:

5

	S&P 500	L-T Gov't Bonds	Risk Premium
6	Arithmetic	12.3%	5.8%	6.5%
Geometric	10.4%	5.5%	4.9%
7

8 I conclude from these total returns that the expected risk premium is about 5.9 percent

9 (i.e., average of all three risk premiums). I believe that a combination of arithmetic

10 and geometric means is appropriate because investors have access to both types of

11 means and, presumably, both types are reflected in investment decisions and thus

12 stock prices and cost of capital.

13   Schedule 10 shows my CAPM calculations using the risk premium. The

14 results are:

15

	Mean	Median
16	Comparison Group	10.3%	10.1%
Hadaway Group	9.9%	9.8%
17

18 **Q.**   **WHAT IS YOUR CONCLUSION CONCERNING THE CAPM COST OF**

19   **EQUITY?**

20 A.   The CAPM results collectively indicate a cost of about 9.8 percent to 10.3 percent for

21   the two groups of comparison utilities. I conclude that the CAPM cost of equity for

22   Aquila is within a range of 9¾ percent to 10¼ percent.

23 **X.**   **COMPARABLE EARNINGS ANALYSIS**

24 **Q.**   **PLEASE DESCRIBE THE BASIS OF THE CE METHODOLOGY.**

25 A.   The CE method is derived from the "corresponding risk" standard of the Bluefield and

26   Hope cases. This method is thus based upon the economic concept of opportunity

27   cost. As previously noted, the cost of capital is an opportunity cost: the prospective

28   return available to investors from alternative investments of similar risk.

29   The CE method is designed to measure the returns expected to be earned on

30   the original cost book value of similar risk enterprises. Thus, this method provides a

1   direct measure of the fair return, because the CE method translates into practice the

2   competitive principle upon which regulation is based.

3   The CE method normally examines the experienced and/or projected returns

4   on book common equity. The logic for examining returns on book equity follows

5   from the use of original cost rate base regulation for public utilities, which uses a

6   utility's book common equity to determine the cost of capital. This cost of capital is,

7   in turn, used as the fair rate of return which is then applied (multiplied) to the book

8   value of rate base to establish the dollar level of capital costs to be recovered by the

9   utility. This technique is thus consistent with the rate base methodology used to set

10 utility rates.

11

12 **Q.   HOW HAVE YOU EMPLOYED THE CE METHODOLOGY IN YOUR**

13 **ANALYSIS OF AQUILA'S COMMON EQUITY COST?**

14 A.   I conducted the CE methodology by examining realized returns on equity for several

15 groups of companies and evaluating the investor acceptance of these returns by

16 reference to the resulting market-to-book ratios. In this manner it is possible to assess

17 the degree to which a given level of return equates to the cost of capital. It is generally

18 recognized for utilities that market-to-book ratios of greater than one (i.e., 100%)

19 reflect a situation where a company is able to attract new equity capital without

20 dilution (i.e., above book value). As a result, one objective of a fair cost of equity is

21 the maintenance of stock prices above book value.

22 I would further note that the CE analysis, as I have employed it, is based upon

23 market data (through the use of market-to-book ratios) and is thus essentially a market

24 test. As a result, my CE analysis is not subject to the criticisms occasionally made by

25 some who maintain that past earned returns do not represent the cost of capital. In

26 addition, my CE analysis uses prospective returns and thus is not backward looking.

27

28 **Q.   WHAT TIME PERIODS HAVE YOU EXAMINED IN YOUR CE ANALYSIS?**

29 A.   My CE analysis considers the experienced equity returns of the proxy groups of

30 utilities for the period 1992-2005 (i.e., last fourteen years). The CE analysis requires

31 that I examine a relatively long period of time in order to determine trends in earnings

1　　over at least a full business cycle. Further, in estimating a fair level of return for a

2　　future period, it is important to examine earnings over a diverse period of time in order

3　　to avoid any undue influence from unusual or abnormal conditions that may occur in a

4　　single year or shorter period. Therefore, in forming my judgment of the current cost

5　　of equity I have focused on two periods: 2001-2005 (the last five years - the average

6　　length of a business cycle) and 1992-2001 (the most recent complete business cycle).

7

8　**Q.**　**PLEASE DESCRIBE YOUR CE ANALYSIS.**

9　A.　Schedules 11 and 12 contain summaries of experienced returns on equity for several

10　　groups of companies, while Schedule 13 presents a risk comparison of utilities versus

11　　unregulated firms.

12　　　　Schedule 11 shows the earned returns on average common equity and market-

13　　to-book ratios for the two groups of proxy utilities. These can be summarized as

14　　follows:

15

	Historic		Prospective
Group	ROE	M/B	ROE
Comparison Group	9.9-11.2%	144-154%	8.2-10.1%
Hadaway Group	10.6-11.2%	155-156%	9.7-10.7%

18

19　　These results indicate that historic returns of 9.9-11.2 percent have been adequate to

20　　produce market-to-book ratios of 144-155 percent for the groups of proxy utilities.

21　　Furthermore, projected returns on equity for 2006, 2007, and 2009-2011 are within a

22　　range of 8.2 percent to 10.7 percent for the utility groups. These relate to 2005

23　　market-to-book ratios of 154 percent or higher.

24

25　**Q.**　**HAVE YOU ALSO REVIEWED EARNINGS OF UNREGULATED FIRMS?**

26　A.　Yes. As an alternative, I also examined a group of largely unregulated firms. I have

27　　examined the Standard & Poor's 500 Composite group, because this is a well

28　　recognized group of firms that is widely utilized in the investment community and the

29　　composite group is indicative of the competitive sector of the economy. Schedule 12

30　　presents the earned returns on equity and market-to-book ratios for the S&P 500 group

31　　over the past fourteen years. As this exhibit indicates, over the two stated periods this

1   group's average earned returns ranged from 12.2-14.7 percent with market-to-book

2   ratios ranging between 299 percent and 341 percent.

3

4   **Q.   HOW CAN THE ABOVE INFORMATION BE USED TO ESTIMATE THE**

5   **COST OF EQUITY FOR AQUILA?**

6   A.   The recent earnings of the proxy utility and S&P 500 groups can be utilized as an

7   indication of the level of return realized and expected in the regulated and competitive

8   sectors of the economy. In order to apply these returns to the cost of equity for proxy

9   utilities, however, it is necessary to compare the risk levels of the electric utility

10   industries with those of the competitive sector. I have done this in Schedule 13, which

11   compares several risk indicators for the S&P 500 group and the utility groups. The

12   information in this exhibit indicates that the S&P 500 group is slightly more risky than

13   the utility proxy groups.

14

15   **Q.   WHAT RETURN ON EQUITY IS INDICATED BY THE CE ANALYSIS?**

16   A.   Based on the recent earnings and market-to-book ratios, I believe the CE analysis

17   indicates that the cost of equity for the proxy utilities is no more than 10 percent.

18   Recent returns of 9.9-11.2 percent have resulted in market-to-book ratios of 144 and

19   greater. Prospective returns of 8.2-10.7 percent have been accompanied by market-to-

20   book ratios of over 154 percent. As a result, it is apparent that returns below this level

21   would result in market-to-book ratios of well above 100 percent. An earned return of

22   10 percent or less should thus result in a market-to-book ratio of at least 100 percent.

23   As I indicated earlier, the fact that market-to-book ratios substantially exceed 100

24   percent indicates that historic and prospective returns of 10 percent reflect earnings

25   levels that exceed the cost of equity for those regulated companies.

26

27   **XI.   <u>RETURN ON EQUITY RECOMMENDATION</u>**

28   **Q.   PLEASE SUMMARIZE THE RESULTS OF YOUR THREE COST OF**

29   **EQUITY ANALYSES.**

30   A.   My three methodologies produce the following:

Discounted Cash Flow	9.0-9.5%
Capital Asset Pricing Model	9.75-10.25%
Comparable Earnings	10.0%

My overall conclusion from these results is an overall range of 9.0 percent to 10.25 percent, which focuses on the respective ranges of my individual model findings. I recommend a cost of equity rate of 9.0 percent to 10.25 percent for Aquila.

XII.   TOTAL COST OF CAPITAL

Q.   WHAT IS THE TOTAL COST OF CAPITAL FOR AQUILA?

A.   Schedule 14 reflects the total cost of capital for the Company using the September 30, 2006 capital structure of Aquila and costs of long-term debt, and my common equity cost recommendations. The resulting total cost of capital for MPS is a range of 7.81 percent to 8.40 percent, with a mid-point of 8.11 percent. I recommend that this 8.11 total cost of capital be established for MPS. The corresponding numbers for L&P is a cost of capital range of 8.45 percent to 9.04 percent, with a mid-point of 8.75 percent. I recommend that this 8.75 percent cost of capital be established for L&P.

Q.   DOES YOUR COST OF CAPITAL RECOMMENDATION PROVIDE THE COMPANY WITH A SUFFICIENT LEVEL OF EARNINGS TO MAINTAIN ITS FINANCIAL INTEGRITY?

A.   Yes, it does. Schedule 15 shows the pre-tax coverage that would result if Aquila earned the mid-point of my cost of capital recommendation. As the results indicate, the mid-point of my recommended range would produce a coverage level for MPS within the benchmark range for a BBB rated utility. In addition, the debt ratios for both MPS and L&P (which reflects the capital structure as proposed by the Company) are within that benchmark for a BBB rated utility.

Q.   DOES THIS CONCLUDE YOUR PRE-FILED TESTIMONY?

A.   Yes, it does.

BACKGROUND AND EXPERIENCE PROFILE
DAVID C. PARCELL, MBA, CRRA
EXECUTIVE VICE PRESIDENT/SENIOR ECONOMIST

EDUCATION

1985	M.B.A., Virginia Commonwealth University
1970	M.A., Economics, Virginia Polytechnic Institute and State University, (Virginia Tech)
1969	B.A., Economics, Virginia Polytechnic Institute and State University, (Virginia Tech)

POSITIONS

1995-Present	Executive Vice President and Senior Economist, Technical Associates, Inc.
1993-1995	Vice President and Senior Economist, C. W. Amos of Virginia
1972-1993	Vice President and Senior Economist, Technical Associates, Inc.
1969-1972	Research Economist, Technical Associates, Inc.
1968-1969	Research Associate, Department of Economics, Virginia Polytechnic Institute and State University

ACADEMIC HONORS

Omicron Delta Epsilon - Honor Society in Economics
Beta Gamma Sigma - National Scholastic Honor Society of Business Administration
Alpha Iota Delta - National Decision Sciences Honorary Society
Phi Kappa Phi - Scholastic Honor Society

PROFESSIONAL DESIGNATIONS

Certified Rate of Return Analyst - Founding Member
Member of Association for Investment Management and Research (AIMR)

RELEVANT EXPERIENCE

<u>Financial Economics</u> -- Advised and assisted many Virginia banks and savings and loan associations on organizational and regulatory matters. Testified approximately 25 times before the Virginia State Corporation Commission and the Regional Administrator of National Banks on matters related to branching and organization for banks, savings and loan associations, and consumer finance companies.

Advised financial institutions on interest rate structure and loan maturity. Testified before Virginia State Corporation Commission on maximum rates for consumer finance companies.

Testified before several committees and subcommittees of Virginia General Assembly on numerous banking matters.

Clients have included First National Bank of Rocky Mount, Patrick Henry National Bank, Peoples Bank of Danville, Blue Ridge Bank, Bank of Essex, and Signet Bank.

Published articles in law reviews and other periodicals on structure and regulation of banking/financial services industry.

<u>Utility Economics</u> -- Performed numerous financial studies of regulated public utilities. Testified in over 300 cases before some thirty state and federal regulatory agencies.

Prepared numerous rate of return studies incorporating cost of equity determination based on DCF, CAPM, comparable earnings and other models. Developed procedures for identifying differential risk characteristics by nuclear construction and other factors.

Conducted studies with respect to cost of service and indexing for determining utility rates, the development of annual review procedures for regulatory control of utilities, fuel and power plant cost recovery adjustment clauses, power supply agreements among affiliates, utility franchise fees, and use of short-term debt in capital structure.

Presented expert testimony before federal regulatory agencies Federal Energy Regulatory Commission, Federal Power Commission, and National Energy Board (Canada), state regulatory agencies in Alabama, Alaska, Arizona, California, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Missouri, Nebraska, Nevada, New Mexico, Ohio, Oklahoma, Ontario (Canada), Pennsylvania, South Carolina, Texas, Utah, Vermont, Virginia, West Virginia, Washington, Wisconsin, and Yukon Territory (Canada).

Published articles in law reviews and other periodicals on the theory and purpose of regulation and other regulatory subjects.

Clients served include state regulatory agencies in Alaska, Arizona, Delaware, Missouri, North Carolina, Ontario (Canada), and Virginia; consumer advocates and attorneys general in Alabama, Arizona, District of Columbia, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Maryland, Nevada, New Mexico, Ohio, Oklahoma, Pennsylvania, South Carolina, Texas, Utah, Vermont, Virginia, and West Virginia; federal agencies including Defense Communications Agency, the Department of Energy, Department of the Navy, and General Services Administration; and various organizations such as Bath Iron Works, Illinois Citizens' Utility Board, Illinois Governor's Office of Consumer Services, Illinois Small Business Utility Advocate, Wisconsin's Environmental Decade, Wisconsin's Citizens Utility Board, and Old Dominion Electric Cooperative.

<u>Insurance Economics</u> -- Conducted analyses of the relationship between the investment income earned by insurance companies on their portfolios and the premiums charged for insurance. Analyzed impact of diversification on financial strength of Blue Cross/Blue Shield Plans in Virginia.

Conducted studies of profitability and cost of capital for property/casualty insurance industry. Evaluated risk of and required return on surplus for various lines of insurance business.

Presented expert testimony before Virginia State Corporation Commission concerning cost of capital and expected gains from investment portfolio. Testified before insurance bureaus of Maine, New Jersey, North Carolina, Rhode Island, South Carolina and Vermont concerning cost of equity for insurance companies.

Prepared cost of capital and investment income return analyses for numerous insurance companies concerning several lines of insurance business. Analyses used by Virginia Bureau of Insurance for purposes of setting rates.

Special Studies -- Conducted analyses which evaluated the financial and economic implications of legislative and administrative changes. Subject matter of analyses include returnable bottles, retail beer sales, wine sales regulations, taxi-cab taxation, and bank regulation. Testified before several Virginia General Assembly subcommittees.

Testified before Virginia ABC Commission concerning economic impact of mixed beverage license.

Clients include Virginia Beer Wholesalers, Wine Institute, Virginia Retail Merchants Association, and Virginia Taxicab Association.

Franchise, Merger & Anti-Trust Economics -- Conducted studies on competitive impact on market structures due to joint ventures, mergers, franchising and other business restructuring. Analyzed the costs and benefits to parties involved in mergers. Testified in federal courts and before banking and other regulatory bodies concerning the structure and performance of markets, as well as on the impact of restrictive practices.

Clients served include Dominion Bankshares, asphalt contractors, and law firms.

Transportation Economics -- Conducted cost of capital studies to assess profitability of oil pipelines, trucks, taxicabs and railroads. Analyses have been presented before the Federal Energy Regulatory Commission and Alaska Pipeline Commission in rate proceedings. Served as a consultant to the Rail Services Planning Office on the reorganization of rail services in the U.S.

Economic Loss Analyses -- Testified in federal courts, state courts, and other adjudicative forums regarding the economic loss sustained through personal and business injury whether due to bodily harm, discrimination, non-performance, or anticompetitive practices. Testified on economic loss to a commercial bank resulting from publication of adverse information concerning solvency. Testimony has been presented on behalf of private individuals and business firms.

MEMBERSHIPS

      American Economic Association
      Virginia Association of Economists
      Richmond Society of Financial Analysts
      Financial Analysts Federation

Society of Utility and Regulatory Financial Analysts
   Board of Directors   1992-2000
   Secretary/Treasurer   1994-1998
   President   1998-2000

RESEARCH ACTIVITY

Books and Major Research Reports

"Stock Price As An Indicator of Performance," Master of Arts Thesis, Virginia Tech, 1970

"Revision of the Property and Casualty Insurance Ratemaking Process Under Prior Approval in the Commonwealth of Virginia," prepared for the Bureau of Insurance of the Virginia State Corporation Commission, with Charles Schotta and Michael J. Ileo, 1971

"An analysis of the Virginia Consumer Finance Industry to Determine the Need for Restructuring the Rate and Size Ceilings on Small Loans in Virginia and the Process by which They are Governed," prepared for the Virginia Consumer Finance Association, with Michael J. Ileo, 1973

State Banks and the State Corporation Commission: A Historical Review, Technical Associates, Inc., 1974

"A Study of the Implications of the Sale of Wine by the Virginia Department of Alcoholic Beverage Control", prepared for the Virginia Wine Wholesalers Association, Virginia Retail Merchants Association,
Virginia Food Dealers Association, Virginia Association of Chain Drugstores, Southland Corporation, and the Wine Institute, 1983.

"Performance and Diversification of the Blue Cross/Blue Shield Plans in Virginia: An Operational Review", prepared for the Bureau of Insurance of the Virginia State Corporation Commission, with Michael J. Ileo and Alexander F. Skirpan, 1988.

The Cost of Capital - A Practitioners' Guide, Society of Utility and Regulatory Financial Analysts, 1997 (previous editions in 1991, 1992, 1993, 1994, and 1995).

Papers Presented and Articles Published

"The Differential Effect of Bank Structure on the Transmission of Open Market Operations," Western Economic Association Meeting, with Charles Schotta, 1971

"The Economic Objectives of Regulation: The Trend in Virginia," (with Michael J. Ileo), William and Mary Law Review, Vol. 14, No. 2, 1973

"Evolution of the Virginia Banking Structure, 1962-1974: The Effects of the Buck-Holland Bill", (with Michael J. Ileo), <u>William and Mary Law Review</u>, Vol. 16, No. 3, 1975

"Banking Structure and Statewide Branching: The Potential for Virginia", <u>William and Mary Law Review</u>, Vol. 18, No. 1, 1976

"Bank Expansion and Electronic Banking: Virginia Banking Structure Changes Past, Present, and Future," <u>William and Mary Business Review</u>," Vol. 1, No. 2, 1976

"Electronic Banking - Wave of the Future?" (with James R. Marchand), <u>Journal of Management and Business Consulting</u>, Vol. 1, No. 1, 1976

"The Pricing of Electricity" (with James R. Marchand), <u>Journal of Management and Business Consulting</u>, Vol. 1, No. 2, 1976

"The Public Interest - Bank and Savings and Loan Expansion in Virginia" (with Richard D. Rogers), <u>University of Richmond Law Review</u>, Vol. 11, No. 3, 1977

"When Is It In the 'Public Interest' to Authorize a New Bank?", <u>University of Richmond Law Review</u>, Vol. 13, No. 3, 1979

"Banking Deregulation and Its Implications on the Virginia Banking Structure," <u>William and Mary Business Review</u>, Vol. 5, No. 1, 1983

"The Impact of Reciprocal Interstate Banking Statutes on The Performance of Virginia Bank Stocks", with William B. Harrison, <u>Virginia Social Science Journal</u>, Vol. 23, 1988

"The Financial Performance of New Banks in Virginia", <u>Virginia Social Science Journal</u>, Vol. 24, 1989

"Identifying and Managing Community Bank Performance After Deregulation", with William B. Harrison, <u>Journal of Managerial Issues</u>, Vol. II, No. 2, Summer 1990

"The Flotation Cost Adjustment To Utility Cost of Common Equity - Theory, Measurement and Implementation," presented at Twenty-Fifth Financial Forum, National Society of Rate of Return Analysts, Philadelphia, Pennsylvania, April 28, 1993.

Biography of Myon Edison Bristow, <u>Dictionary of Virginia Biography</u>, Volume 2, 2001.

ECONOMIC INDICATORS

YEAR	REAL GDP GROWTH	IND PROD GROWTH	UNEMP RATE	CPI	PPI
1975 - 1982 Cycle					
1975	-1.1%	-8.9%	8.5%	7.0%	6.6%
1976	5.4%	10.8%	7.7%	4.8%	3.7%
1977	5.5%	5.9%	7.0%	6.8%	6.9%
1978	5.0%	5.7%	6.0%	9.0%	9.2%
1979	2.8%	4.4%	5.8%	13.3%	12.8%
1980	-0.2%	-1.9%	7.0%	12.4%	11.8%
1981	1.8%	1.9%	7.5%	8.9%	7.1%
1982	-2.1%	-4.4%	9.5%	3.8%	3.6%
1983 - 1991 Cycle					
1983	4.0%	3.7%	9.5%	3.8%	0.6%
1984	6.8%	9.3%	7.5%	3.9%	1.7%
1985	3.7%	1.7%	7.2%	3.8%	1.8%
1986	3.1%	0.9%	7.0%	1.1%	-2.3%
1987	2.9%	4.9%	6.2%	4.4%	2.2%
1988	3.8%	4.5%	5.5%	4.4%	4.0%
1989	3.5%	1.8%	5.3%	4.6%	4.9%
1990	1.8%	-0.2%	5.6%	6.1%	5.7%
1991	-0.5%	-2.0%	6.8%	3.1%	-0.1%
1992 - 2001 Cycle					
1992	3.0%	3.1%	7.5%	2.9%	1.6%
1993	2.7%	3.3%	6.9%	2.7%	0.2%
1994	4.0%	5.4%	6.1%	2.7%	1.7%
1995	2.5%	4.8%	5.6%	2.5%	2.3%
1996	3.7%	4.2%	5.4%	3.3%	2.8%
1997	4.5%	7.3%	4.9%	1.7%	-1.2%
1998	4.2%	5.9%	4.5%	1.6%	0.0%
1999	4.5%	4.5%	4.2%	2.7%	2.9%
2000	3.7%	4.3%	4.0%	3.4%	3.6%
2001	0.8%	-3.5%	4.7%	1.6%	-1.6%
Current Cycle					
2002	1.6%	0.1%	5.8%	2.4%	1.2%
2003	2.7%	0.6%	6.0%	1.9%	4.0%
2004	3.9%	4.1%	5.5%	3.3%	4.2%
2005	3.2%	3.3%	5.1%	3.4%	5.4%
2004					
1st Qtr.	3.9%	2.8%	5.6%	5.2%	5.2%
2nd Qtr.	4.0%	4.9%	5.6%	4.4%	4.4%
3rd Qtr.	3.1%	4.6%	5.4%	0.8%	0.8%
4th Qtr.	2.6%	4.3%	5.4%	3.6%	7.2%
2005					
1st Qtr.	3.4%	3.8%	5.3%	4.4%	5.6%
2nd Qtr.	3.3%	3.0%	5.1%	1.2%	1.6%
3rd Qtr.	4.2%	2.7%	5.0%	9.6%	10.8%
4th Qtr.	1.8%	3.1%	4.9%	-2.0%	4.0%
2006					
1st Qtr.	5.6%	3.4%	4.7%	4.8%	-0.2%
2nd Qtr.	2.6%	4.5%	4.6%	4.8%	5.6%
3rd Qtr.	2.2%	5.3%	4.7%	0.4%	-4.4%

Source: Council of Economic Advisors, Economic Indicators, various issues.

INTEREST RATES

YEAR	PRIME RATE	US TREAS T BILLS 3 MONTH	US TREAS T BONDS 10 YEAR	UTILITY BONDS Aaa	UTILITY BONDS Aa	UTILITY BONDS A	UTILITY BONDS Baa
1975 - 1982 Cycle							
1975	7.86%	5.84%	7.99%	9.03%	9.44%	10.09%	10.96%
1976	6.84%	4.99%	7.61%	8.63%	8.92%	9.29%	9.82%
1977	6.83%	5.27%	7.42%	8.19%	8.43%	8.61%	9.06%
1978	9.06%	7.22%	8.41%	8.87%	9.10%	9.29%	9.62%
1979	12.67%	10.04%	9.44%	9.86%	10.22%	10.49%	10.96%
1980	15.27%	11.51%	11.46%	12.30%	13.00%	13.34%	13.95%
1981	18.89%	14.03%	13.93%	14.64%	15.30%	15.95%	16.60%
1982	14.86%	10.69%	13.00%	14.22%	14.79%	15.86%	16.45%
1983 - 1991 Cycle							
1983	10.79%	8.63%	11.10%	12.52%	12.83%	13.66%	14.20%
1984	12.04%	9.58%	12.44%	12.72%	13.66%	14.03%	14.53%
1985	9.93%	7.48%	10.62%	11.68%	12.06%	12.47%	12.96%
1986	8.33%	5.98%	7.68%	8.92%	9.30%	9.58%	10.00%
1987	8.21%	5.82%	8.39%	9.52%	9.77%	10.10%	10.53%
1988	9.32%	6.69%	8.85%	10.05%	10.26%	10.49%	11.00%
1989	10.87%	8.12%	8.49%	9.32%	9.56%	9.77%	9.97%
1990	10.01%	7.51%	8.55%	9.45%	9.65%	9.86%	10.06%
1991	8.46%	5.42%	7.86%	8.85%	9.09%	9.36%	9.55%
1992 - 2001 Cycle							
1992	6.25%	3.45%	7.01%	8.19%	8.55%	8.69%	8.86%
1993	6.00%	3.02%	5.87%	7.29%	7.44%	7.59%	7.91%
1994	7.15%	4.29%	7.09%	8.07%	8.21%	8.31%	8.63%
1995	8.83%	5.51%	6.57%	7.68%	7.77%	7.89%	8.29%
1996	8.27%	5.02%	6.44%	7.48%	7.57%	7.75%	8.16%
1997	8.44%	5.07%	6.35%	7.43%	7.54%	7.60%	7.95%
1998	8.35%	4.81%	5.26%	6.77%	6.91%	7.04%	7.26%
1999	8.00%	4.66%	5.65%	7.21%	7.51%	7.62%	7.88%
2000	9.23%	5.85%	6.03%	7.88%	8.06%	8.24%	8.36%
2001	6.91%	3.45%	5.02%	7.47%	7.59%	7.78%	8.02%
Current Cycle							
2002	4.67%	1.62%	4.61%		7.19%	7.37%	8.02%
2003	4.12%	1.02%	4.01%		6.40%	6.58%	6.84%
2004	4.34%	1.38%	4.27%		6.04%	6.16%	6.40%
2005	6.19%	3.16%	4.29%		5.44%	5.65%	5.93%
2004							
Jan	4.00%	0.89%	4.15%		6.06%	6.15%	6.47%
Feb	4.00%	0.92%	4.08%		6.10%	6.15%	6.28%
Mar	4.00%	0.94%	3.83%		5.93%	5.97%	6.12%
Apr	4.00%	0.94%	4.35%		6.33%	6.35%	6.46%
May	4.00%	1.04%	4.72%		6.66%	6.62%	6.75%
June	4.00%	1.27%	4.73%		6.30%	6.46%	6.84%
July	4.25%	1.35%	4.50%		6.09%	6.27%	6.67%
Aug	4.50%	1.48%	4.28%		5.95%	6.14%	6.45%
Sept	4.75%	1.65%	4.13%		5.79%	5.98%	6.27%
Oct	4.75%	1.75%	4.10%		5.74%	5.94%	6.17%
Nov	5.00%	2.06%	4.19%		5.79%	5.97%	6.16%
Dec	5.25%	2.20%	4.23%		5.78%	5.92%	6.10%
2005							
Jan	5.25%	2.32%	4.22%		5.68%	5.78%	5.95%
Feb	5.50%	2.53%	4.17%		5.55%	5.61%	5.76%
Mar	5.75%	2.75%	4.50%		5.76%	5.83%	6.01%
Apr	5.75%	2.79%	4.34%		5.56%	5.64%	5.95%
May	6.00%	2.86%	4.14%		5.39%	5.53%	5.88%
June	6.25%	2.99%	4.00%		5.05%	5.40%	5.70%
July	6.25%	3.22%	4.18%		5.18%	5.51%	5.81%
Aug	6.50%	3.45%	4.26%		5.23%	5.50%	5.80%
Sept	6.75%	3.47%	4.20%		5.27%	5.52%	5.83%
Oct	6.75%	3.70%	4.46%		5.50%	5.79%	6.08%
Nov	7.00%	3.90%	4.54%		5.59%	5.88%	6.19%
Dec	7.25%	3.89%	4.47%		5.55%	5.80%	6.14%
2006							
Jan	7.50%	4.20%	4.42%		5.50%	5.75%	6.06%
Feb	7.50%	4.41%	4.57%		5.55%	5.82%	6.11%
Mar	7.75%	4.51%	4.72%		5.71%	5.98%	6.26%
Apr	7.75%	4.59%	4.99%		6.02%	6.29%	6.54%
May	8.00%	4.72%	5.11%		6.16%	6.42%	6.59%
June	8.25%	4.79%	5.11%		6.16%	6.40%	6.61%
July	8.25%	4.96%	5.09%		6.13%	6.37%	6.61%
Aug	8.25%	4.98%	4.88%		5.97%	6.20%	6.43%
Sept	8.25%	4.82%	4.72%		5.81%	6.00%	6.26%
Oct	8.25%	4.89%	4.73%		5.80%	5.98%	6.24%
Nov	8.25%	4.95%	4.60%		5.61%	5.80%	6.04%

Sources: Council of Economic Advisors, Economic Indicators; Moody's Bond Record; Federal
Reserve Bulletin; various issues.

STOCK PRICE INDICATORS

YEAR	S&P Composite	Nasdaq Composite	DJIA	S&P D/P	S&P E/P
1975 - 1982 Cycle					
1975			802.49	4.31%	9.15%
1976			974.92	3.77%	8.90%
1977			894.63	4.62%	10.79%
1978			820.23	5.28%	12.03%
1979			844.40	5.47%	13.46%
1980			891.41	5.26%	12.66%
1981			932.92	5.20%	11.96%
1982			884.36	5.81%	11.60%
1983 - 1991 Cycle					
1983			1,190.34	4.40%	8.03%
1984			1,178.48	4.64%	10.02%
1985			1,328.23	4.25%	8.12%
1986			1,792.76	3.49%	6.09%
1987			2,275.99	3.08%	5.48%
1988			2,060.82	3.64%	8.01%
1989	322.84		2,508.91	3.45%	7.41%
1990	334.59		2,678.94	3.61%	6.47%
1991	376.18	491.69	2,929.33	3.24%	4.79%
1992 - 2001 Cycle					
1992	415.74	599.26	3,284.29	2.99%	4.22%
1993	451.21	715.16	3,522.06	2.78%	4.46%
1994	460.42	751.65	3,793.77	2.82%	5.83%
1995	541.72	925.19	4,493.76	2.56%	6.09%
1996	670.50	1,164.96	5,742.89	2.19%	5.24%
1997	873.43	1,469.49	7,441.15	1.77%	4.57%
1998	1,085.50	1,794.91	8,625.52	1.49%	3.46%
1999	1,327.33	2,728.15	10,464.88	1.25%	3.17%
2000	1,427.22	3,783.67	10,734.90	1.15%	3.63%
2001	1,194.18	2,035.00	10,189.13	1.32%	2.95%
Current Cycle					
2002	993.94	1,539.73	9,226.43	1.61%	2.92%
2003	965.23	1,647.17	8,993.59	1.77%	3.84%
2004	1,130.65	1,986.53	10,317.39	1.72%	4.89%
2005	1,207.23	2,099.32	10,547.67	1.83%	5.40%
2002					
1st Qtr.	1,131.56	1,879.85	10,105.27	1.39%	2.15%
2nd Qtr.	1,068.45	1,641.53	9,912.70	1.49%	2.70%
3rd Qtr.	894.65	1,308.17	8,487.59	1.76%	3.68%
4th Qtr.	887.91	1,346.07	8,400.17	1.79%	3.14%
2003					
1st Qtr.	860.03	1,350.44	8,122.83	1.89%	3.57%
2nd Qtr.	938.00	1,521.92	8,684.52	1.75%	3.55%
3rd Qtr.	1,000.50	1,765.96	9,310.57	1.74%	3.87%
4th Qtr.	1,056.42	1,934.71	9,856.44	1.69%	4.38%
2004					
1st Qtr.	1,133.29	2,041.95	10,488.43	1.64%	4.62%
2nd Qtr.	1,122.87	1,984.13	10,289.04	1.71%	4.92%
3rd Qtr.	1,104.15	1,872.90	10,129.85	1.79%	5.18%
4th Qtr.	1,162.07	2,050.22	10,362.25	1.75%	4.83%
2005					
1st Qtr.	1,191.98	2,056.01	10,648.48	1.77%	5.11%
2nd Qtr.	1,181.65	2,012.24	10,382.35	1.85%	5.32%
3rd Qtr.	1,224.14	2,149.20	10,544.06	1.83%	5.42%
4th Qtr.	1,230.47	2,178.67	10,615.78	1.86%	5.60%
2006					
1st Qtr.	1,283.04	2,287.97	10,996.04	1.85%	5.61%
2nd Qtr.	1,281.77	2,240.46	11,188.84	1.90%	5.88%
3rd Qtr.	1,288.40	2,141.97	11,584.69	1.91%	

Source: Council of Economic Advisors, Economic Indicators, various issues.

AQUILA, INC.
SEGMENT FINANCIAL INFORMATION
2003 - 2005
($millions)

Segment	Sales	EBITA	Identifiable Assets
		2003	
Electric Utilities	$545.1 55.4%	$128.0	
Gas Utilities	$506.2 51.5%	$46.8	
Merchant Services	-$70.1 -7.1%	-$378.4	
Aquila, Inc. (Consolidated)	$983.1	-$184.6	
		2004	
Electric Utilities	$594.9 61.3%	$130.3	$1,862.3 39.0%
Gas Utilities	$529.0 54.5%	$34.9	$1,353.4 28.3%
Other	-$152.9 -15.7%	-$416.7	$1,080.6 22.6%
Aquila, Inc. (Consolidated)	$971.0	-$275.3	$4,777.3
		2005	
Electric Utilities	$684.7 52.1%	$147.7	$2,073.8 44.8%
Gas Utilities	$631.1 48.0%	$33.6	$1,421.9 30.7%
Other	-$1.6 -0.1%	-$22.6	$918.6 19.8%
Aquila, Inc. (Consolidated)	$1,314.2	$55.5	$4,630.7

Note: Percentages may not add to 100.0% due to corporate and other.

Source: Aquila, Inc, Form 10-K.

BOND RATINGS

Date	S&P
2000	BBB
2001	BBB
2002	BBB-/BB
2003	B+/B
2004	B-/CCC+
2005	B-
2006	B

Source: Response to Data Request No. MPSC-150.

AQUILA, INC.
CAPITAL STRUCTURE RATIOS
2001 - 2006
($000)

YEAR	COMMON EQUITY	LONG-TERM DEBT	SHORT-TERM DEBT
2001	$2,551.6	$2,432.9	$445.0
	47.0%	44.8%	8.2%
	51.2%	48.8%	
2002	$1,607.9	$2,624.8	$287.8
	35.6%	58.1%	6.4%
	38.0%	62.0%	
2003	$1,359.3	$2,706.0	$0.0
	33.4%	66.6%	0.0%
	33.4%	66.6%	
2004	$1,130.5	$2,366.4	$0.0
	32.3%	67.7%	0.0%
	32.3%	67.7%	
2005	$1,309.9	$1,979.5	$12.0
	39.7%	60.0%	0.4%
	39.8%	60.2%	
Sept. 30, 2006	$1,272.1	$1,407.4	$0.0
	47.5%	52.5%	0.0%
	47.5%	52.5%	

Note: Percentages may not total 100.0% due to rounding.

Source: Aquila, Inc. 2005 Form 10-K, response to Data Request No. MPSC-0151.

AUS UTILITY REPORTS
ELECTRIC UTILITY GROUPS
AVERAGE COMMON EQUITY RATIOS

Year	Electric	Combination Electric and Gas
2001	42%	38%
2002	38%	36%
2003	42%	38%
2004	47%	43%
2005	44%	47%

Note: Averages include short-term debt.

Source: AUS Utility Reports.

COMPARISON COMPANIES
BASIS FOR SELECTION

Company	Market Cap (000)	Percent Revenues Electric	Common Equity Ratio	Value Line Safety	Moody's/ S&P Bond Rating	S&P Stock Ranking
Aquila	$1,700,000	68%	41%	5	B/B+	B
Comparison Group*						
Cleco	$1,300,000	96%	52%	3	Baa1/BBB	B+
Empire District Electric	$675,000	93%	49%	3	Baa1/BBB+	B
Energy East	$3,300,000	56%	44%	2	A3/BBB+	B+
Hawaiian Electric Industries	$2,300,000	83%	53%	2	Baa2/BBB	B+
Pepco Holdings	$4,600,000	79%	42%	3	Baa1/BBB+	B
Hadaway Reference Group						
Alliant Energy	$4,200,000	71%	53%	3	A2/A-	B
Ameren	$10,900,000	79%	54%	1	Baa1/BBB	A-
American Electric Power	$14,000,000	95%	45%	3	Baa1/BBB	B
CH Energy Group	$750,000	52%	58%	1	A2/A	A-
Central Vermont P. S.	$225,000	100%	62%	3	NR/BBB	NR
Consolidated Edison	$11,100,000	64%	49%	1	A1/A	B+
DTE Energy	$7,200,000	57%	45%	3	A3/BBB+	B+
Duquesne Light	$1,500,000	79%	37%	4	Baa1/BBB+	B
Empire District Electric	$675,000	93%	49%	3	Baa1/BBB+	B
Energy East	$3,300,000	56%	44%	2	A3/BBB+	B+
Green Mountain Power	$175,000	100%	59%	3	Baa1/BBB	B
Hawaiial Electric Industries	$2,300,000	83%	53%	2	Baa2/BBB	B+
MGE Energy	$675,000	60%	61%	1	Aa3/AA-	B+
NiSource	$5,800,000	16%	48%	3	Baa2/BBB	B
Northeast Utilities	$3,500,000	71%	35%	3	Baa1/BBB	B
NSTAR	$3,400,000	79%	39%	1	A1/A+	A-
Pinnacle West	$4,800,000	75%	57%	1	Baa1/BBB-	A-
PPL Corp	$13,000,000	68%	42%	2	Baa1/BBB+	B
Progress Energy	$11,000,000	80%	43%	2	A3/BBB	B+
Puget Energy	$2,800,000	61%	46%	3	Baa2/BBB	B
SCANA	$4,600,000	39%	47%	2	A1/A-	B
Southern Co.	$25,000,000	98%	44%	1	A2/A	A-
Vectren	$2,000,000	20%	49%	2	A3/A	B+
Xcel	$9,000,000	75%	47%	2	A3/A-	B

* Selected using following criteria:
Market cap of $500 million to $5 billion.
Electric Revenues of 50% or greater.
Common Equity Ratio of 40% or greater.
Value Line Safety of 2 or 3.
S&P and Moody's bond ratings of BBB and/or A.
S&P stock ranking of B or B+.
Company has not eliminated or reduced dividends.
Company not involved in a merger.

Sources: C.A. Turner Utility Reports, Standard & Poor's Stock Guide, Value Line Investment Survey.

COMPARISON COMPANIES
DIVIDEND YIELD

COMPANY	DPS	October - December, 2006			YIELD
		HIGH	LOW	AVERAGE	
Comparison Group					
Cleco	$0.90	$26.20	$24.78	$25.49	3.5%
Empire District Electric	$1.28	$25.10	$21.61	$23.36	5.5%
Energy East	$1.20	$25.66	$23.62	$24.64	4.9%
Hawaiian Electric Industries	$1.24	$28.18	$26.50	$27.34	4.5%
Pepco Holdings	$1.04	$26.99	$24.25	$25.62	4.1%
Average					**4.5%**
Hadaway Reference Group					
Alliant Energy	$1.15	$39.96	$35.69	$37.83	3.0%
Ameren	$2.54	$55.24	$52.19	$53.72	4.7%
American Electric Power	$1.56	$43.13	$36.49	$39.81	3.9%
CH Energy Group	$2.16	$54.92	$50.25	$52.59	4.1%
Central Vermont P. S.	$0.92	$23.92	$20.94	$22.43	4.1%
Consolidated Edison	$2.30	$49.28	$46.04	$47.66	4.8%
DTE Energy	$2.12	$49.24	$41.37	$45.31	4.7%
Duquesne Light	$1.00	$20.28	$19.49	$19.89	5.0%
Empire District Electric	$1.28	$25.10	$21.61	$23.36	5.5%
Energy East	$1.20	$25.66	$23.62	$24.64	4.9%
Green Mountain Power	$1.12	$34.10	$33.22	$33.66	3.3%
Hawaiial Electric Industries	$1.24	$28.18	$26.50	$27.34	4.5%
MGE Energy	$1.39	$37.00	$32.17	$34.59	4.0%
NiSource	$0.92	$24.80	$21.48	$23.14	4.0%
Northeast Utilities	$0.75	$28.90	$23.26	$26.08	2.9%
NSTAR	$1.21	$35.90	$33.26	$34.58	3.5%
Pinnacle West	$2.10	$51.00	$45.12	$48.06	4.4%
PPL Corp	$1.10	$37.34	$32.39	$34.87	3.2%
Progress Energy	$2.42	$49.55	$44.40	$46.98	5.2%
Puget Energy	$1.00	$25.91	$22.72	$24.32	4.1%
SCANA	$1.68	$42.43	$39.55	$40.99	4.1%
Southern Co.	$1.55	$37.40	$34.49	$35.95	4.3%
Vectren	$1.26	$29.25	$26.67	$27.96	4.5%
Xcel	$0.89	$23.63	$20.56	$22.10	4.0%
Average					**4.2%**

Source: Yahoo! Finance.

COMPARISON COMPANIES
RETENTION GROWTH RATES

COMPANY	2001	2002	2003	2004	2005	Average	2006	2007	2009-2011	Average
Comparison Group										
Cleco	6.5%	5.6%	3.5%	3.9%	4.1%	4.7%	2.5%	3.5%	4.0%	3.3%
Empire District Electric	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	1.0%	3.0%	1.3%
Energy East	7.1%	2.9%	3.1%	3.8%	3.7%	4.1%	3.0%	2.0%	2.5%	2.5%
Hawaiian Electric Industries	4.4%	4.3%	3.9%	1.1%	1.5%	3.0%	1.5%	2.0%	3.5%	2.3%
Pepco Holdings	12.6%	5.3%	2.0%	2.5%	2.4%	5.0%	1.5%	3.0%	5.0%	3.2%
Average						**3.4%**				**2.5%**
Hadaway Reference Group										
Alliant Energy	1.6%	0.0%	2.5%	3.8%	8.1%	3.2%	5.0%	5.5%	4.0%	4.8%
Ameren	3.6%	0.2%	2.2%	0.9%	1.7%	1.7%	1.0%	1.5%	2.0%	1.5%
American Electric Power	3.4%	2.4%	4.5%	5.7%	5.2%	4.2%	5.5%	5.5%	5.5%	5.5%
CH Energy Group	3.1%	0.0%	2.0%	1.7%	2.0%	1.8%	1.5%	2.0%	3.0%	2.2%
Central Vermont P. S.	0.5%	3.9%	3.2%	1.5%	0.0%	1.8%	3.0%	3.0%	3.5%	3.2%
Consolidated Edison	3.8%	4.0%	2.9%	0.8%	2.6%	2.8%	1.5%	2.0%	2.0%	1.8%
DTE Energy	0.1%	6.4%	2.5%	1.6%	3.7%	2.9%	0.0%	4.5%	3.5%	2.7%
Duquesne Light	0.0%	1.5%	2.5%	5.4%	4.5%	2.8%	0.0%	2.0%	4.5%	2.2%
Empire District Electric	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	1.0%	3.0%	1.3%
Energy East	7.1%	2.9%	3.1%	3.8%	3.7%	4.1%	3.0%	2.0%	2.5%	2.5%
Green Mountain Power	7.7%	8.7%	6.5%	6.0%	5.0%	6.8%	4.0%	4.5%	4.0%	4.2%
Hawaiial Electric Industries	4.4%	4.3%	3.9%	1.1%	1.5%	3.0%	1.5%	2.0%	3.5%	2.3%
MGE Energy	2.3%	2.6%	2.5%	2.3%	2.5%	2.4%	2.5%	3.5%	4.5%	3.5%
NiSource	0.0%	3.9%	3.0%	3.9%	0.9%	2.3%	2.0%	3.5%	4.0%	3.2%
Northeast Utilities	5.6%	3.2%	3.7%	1.6%	1.5%	3.1%	5.0%	4.0%	4.0%	4.3%
NSTAR	5.0%	5.2%	5.2%	4.9%	4.7%	5.0%	3.0%	5.5%	6.5%	5.0%
Pinnacle West	7.3%	2.9%	2.6%	2.3%	1.0%	3.2%	3.5%	4.0%	3.0%	3.5%
PPL Corp	20.2%	12.4%	11.7%	9.3%	8.8%	12.5%	10.0%	8.5%	10.5%	9.7%
Progress Energy	4.3%	5.0%	3.7%	2.6%	1.7%	3.5%	4.0%	5.5%	1.0%	3.5%
Puget Energy	0.0%	1.3%	2.1%	2.8%	2.9%	1.8%	2.0%	3.0%	3.5%	2.8%
SCANA	4.6%	5.5%	5.5%	5.6%	5.3%	5.3%	4.0%	4.0%	4.5%	4.2%
Southern Co.	2.5%	4.1%	4.4%	4.7%	4.6%	4.1%	4.0%	4.0%	4.5%	4.2%
Vectren	0.3%	4.8%	3.0%	1.9%	4.0%	2.8%	1.5%	3.5%	3.0%	2.7%
Xcel	4.3%	0.0%	3.9%	3.9%	2.9%	3.0%	4.0%	3.5%	4.0%	3.8%
Average						**3.5%**				**3.5%**

Source: Value Line Investment Survey.

COMPARISON COMPANIES
PER SHARE GROWTH RATES

COMPANY	5-Year Historic Growth Rates				Est'd '03-'05 to '09-'11 Growth Rates			
	EPS	DPS	BVPS	Average	EPS	DPS	BVPS	Average
Comparison Group								
Cleco	1.0%	2.0%	4.0%	2.3%	7.0%	5.0%	8.5%	6.8%
Empire District Electric	-5.0%	0.0%	2.0%	-1.0%	9.5%	0.0%	2.0%	3.8%
Energy East	-2.5%	5.0%	6.0%	2.8%	4.0%	5.0%	2.5%	3.8%
Hawaiian Electric Industries	1.0%	0.0%	3.0%	1.3%	3.0%	0.0%	2.5%	1.8%
Pepco Holdings	-1.0%		0.5%	-0.3%	8.0%	3.0%	3.0%	4.7%
Average				**1.1%**				**4.2%**
Hadaway Reference Group								
Alliant Energy	-1.0%	-12.5%	-2.5%	-5.3%	5.5%	7.5%	3.5%	5.5%
Ameren	0.5%	0.0%	5.0%	1.8%	1.0%	0.0%	3.0%	1.3%
American Electric Power	3.5%	-9.0%	-3.5%	-3.0%	6.5%	5.0%	6.0%	5.8%
CH Energy Group	-1.5%	0.0%	2.0%	0.2%	3.0%	0.5%	2.0%	1.8%
Central Vermont P. S.	1.0%	0.5%	2.5%	1.3%	10.0%	-1.0%	1.5%	3.5%
Consolidated Edison	-2.0%	1.0%	2.5%	0.5%	2.0%	1.0%	2.5%	1.8%
DTE Energy	-2.0%	0.0%	3.5%	0.5%	3.0%	2.0%	2.0%	2.3%
Duquesne Light	-12.0%	-8.5%	-14.5%	-11.7%	5.0%	0.0%	5.5%	3.5%
Empire District Electric	-5.0%	0.0%	2.0%	-1.0%	9.5%	0.0%	2.0%	3.8%
Energy East	-2.5%	5.0%	6.0%	2.8%	4.0%	5.0%	2.5%	3.8%
Green Mountain Power		5.0%	3.0%	4.0%	3.5%	10.0%	3.0%	5.5%
Hawaiial Electric Industries	1.0%	0.0%	3.0%	1.3%	3.0%	0.0%	2.5%	1.8%
MGE Energy	4.0%	1.0%	5.0%	3.3%	6.0%	0.5%	7.0%	4.5%
NiSource	0.0%	1.0%	7.0%	2.7%	3.5%	0.5%	3.0%	2.3%
Northeast Utilities		30.5%	3.0%	16.8%	8.5%	6.5%	1.5%	5.5%
NSTAR	4.0%	1.0%	2.0%	2.3%	7.5%	8.0%	6.0%	7.2%
Pinnacle West	-4.5%	6.5%	4.0%	2.0%	7.0%	5.0%	4.0%	5.3%
PPL Corp	8.5%	8.5%	12.0%	9.7%	11.0%	13.5%	8.0%	10.8%
Progress Energy	4.5%	3.0%	6.5%	4.7%	-1.5%	2.0%	3.0%	1.2%
Puget Energy	-7.5%	-11.5%	0.5%	-6.2%	5.0%	1.5%	4.0%	3.5%
SCANA	7.0%	2.0%	3.0%	4.0%	3.5%	4.5%	5.0%	4.3%
Southern Co.	2.0%	1.0%	-1.0%	0.7%	3.5%	4.0%	5.0%	4.2%
Vectren	4.0%	3.5%	4.5%	4.0%	3.0%	3.0%	3.0%	3.0%
Xcel	-5.5%	-11.0%	-4.5%	-7.0%	6.0%	5.5%	3.5%	5.0%
Average				**1.2%**				**4.1%**

Source: Value Line Investment Survey.

COMPARISON COMPANIES
DCF COST RATES

COMPANY	ADJUSTED YIELD	HISTORIC RETENTION GROWTH	PROSPECTIVE RETENTION GROWTH	HISTORIC PER SHARE GROWTH	PROSPECTIVE PER SHARE GROWTH	FIRST CALL EPS GROWTH	AVERAGE GROWTH	DCF RATES
Comparison Group								
Cleco	3.6%	4.7%	3.3%	2.3%	6.8%	10.5%	5.5%	9.2%
Empire District Electric	5.5%	0.0%	1.3%		3.8%	3.0%	2.0%	7.6%
Energy East	5.0%	4.1%	2.5%	2.8%	3.8%	4.0%	3.5%	8.4%
Hawaiian Electric Industries	4.6%	3.0%	2.3%	1.3%	1.8%	3.0%	2.3%	6.9%
Pepco Holdings	4.1%	5.0%	3.2%		4.7%	4.0%	4.2%	8.3%
Average	4.6%	3.4%	2.5%	2.2%	4.2%	4.9%	3.5%	**8.1%**
Median								**8.3%**
Composite		7.9%	7.1%	6.7%	8.8%	**9.5%**	8.1%	
Hadaway Reference Group								
Alliant Energy	3.1%	3.2%	4.8%		5.5%	6.0%	4.9%	8.0%
Ameren	4.8%	1.7%	1.5%	1.8%	1.3%	5.0%	2.3%	7.1%
American Electric Power	4.0%	4.2%	5.5%		5.8%	4.0%	4.9%	8.9%
CH Energy Group	4.1%	1.8%	2.2%	0.2%	1.8%		1.5%	5.6%
Central Vermont P. S.	4.2%	1.8%	3.2%	1.3%	3.5%		2.5%	6.6%
Consolidated Edison	4.9%	2.8%	1.8%	0.5%	1.8%	3.0%	2.0%	6.9%
DTE Energy	4.7%	2.9%	2.7%	0.5%	2.3%	5.0%	2.7%	7.4%
Duquesne Light	5.1%	2.8%	2.2%		3.5%		2.8%	7.9%
Empire District Electric	5.5%	0.0%	1.3%		3.8%	3.0%	2.0%	7.6%
Energy East	5.0%	4.1%	2.5%	2.8%	3.8%	4.0%	3.5%	8.4%
Green Mountain Power	3.4%	6.8%	4.2%	4.0%	5.5%		5.1%	8.5%
Hawaiial Electric Industries	4.6%	3.0%	2.3%	1.3%	1.8%	3.0%	2.3%	6.9%
MGE Energy	4.1%	2.4%	3.5%	3.3%	4.5%		3.4%	7.5%
NiSource	4.0%	2.3%	3.2%	2.7%	2.3%	3.5%	2.8%	6.8%
Northeast Utilities	3.0%	3.1%	4.3%	16.8%	5.5%	12.0%	8.3%	11.3%
NSTAR	3.6%	5.0%	5.0%	2.3%	7.2%	7.0%	5.3%	8.9%
Pinnacle West	4.5%	3.2%	3.5%	2.0%	5.3%	6.0%	4.0%	8.5%
PPL Corp	3.3%	12.5%	9.7%	9.7%	10.8%	10.5%	10.6%	14.0%
Progress Energy	5.2%	3.5%	3.5%	4.7%	1.2%	4.0%	3.4%	8.6%
Puget Energy	4.2%	1.8%	2.8%		3.5%	4.0%	3.0%	7.2%
SCANA	4.2%	5.3%	4.2%	4.0%	4.3%	5.0%	4.6%	8.8%
Southern Co.	4.4%	4.1%	4.2%	0.7%	4.2%	5.0%	3.6%	8.0%
Vectren	4.6%	2.8%	2.7%	4.0%	3.0%	4.0%	3.3%	7.9%
Xcel	4.1%	3.0%	3.8%		5.0%	6.0%	4.5%	8.6%
Average	4.3%	3.5%	3.5%	3.5%	4.1%	5.3%	3.9%	**8.2%**
Median								**8.0%**
Composite		7.8%	7.8%	7.8%	8.3%	**9.5%**	8.2%	

Note: Negative average values not considered.

Sources: Prior pages of this schedule.

STANDARD & POOR'S 500 COMPOSITE
20-YEAR U.S. TREASURY BOND YIELDS
RISK PREMIUMS

Year	EPS	BVPS	ROE	20-YEAR T-BOND	RISK PREMIUM
1977		$79.07			
1978	$12.33	$85.35	15.00%	7.90%	7.10%
1979	$14.86	$94.27	16.55%	8.86%	7.69%
1980	$14.82	$102.48	15.06%	9.97%	5.09%
1981	$15.36	$109.43	14.50%	11.55%	2.95%
1982	$12.64	$112.46	11.39%	13.50%	-2.11%
1983	$14.03	$116.93	12.23%	10.38%	1.85%
1984	$16.64	$122.47	13.90%	11.74%	2.16%
1985	$14.61	$125.20	11.80%	11.25%	0.55%
1986	$14.48	$126.82	11.49%	8.98%	2.51%
1987	$17.50	$134.04	13.42%	7.92%	5.50%
1988	$23.75	$141.32	17.25%	8.97%	8.28%
1989	$22.87	$147.26	15.85%	8.81%	7.04%
1990	$21.73	$153.01	14.47%	8.19%	6.28%
1991	$16.29	$158.85	10.45%	8.22%	2.23%
1992	$19.09	$149.74	12.37%	7.29%	5.08%
1993	$21.89	$180.88	13.24%	7.17%	6.07%
1994	$30.60	$193.06	16.37%	6.59%	9.78%
1995	$33.96	$215.51	16.62%	7.60%	9.02%
1996	$38.73	$237.08	17.11%	6.18%	10.93%
1997	$39.72	$249.52	16.33%	6.64%	9.69%
1998	$37.71	$266.40	14.62%	5.83%	8.79%
1999	$48.17	$290.68	17.29%	5.57%	11.72%
2000	$50.00	$325.80	16.22%	6.50%	9.72%
2001	$24.69	$338.37	7.43%	5.53%	1.90%
2002	$27.59	$321.72	8.36%	5.59%	2.77%
2003	$48.73	$367.17	14.15%	4.80%	9.35%
2004	$58.55	$414.75	14.98%	5.02%	9.96%
2005	$69.93	$453.06	16.12%	4.69%	11.43%
Average			**14.09%**	**7.90%**	**6.19%**

Sources: Standard & Poor's Analysts' Handbook and Ibbotson Associates 2006 Yearbook.

COMPARISON COMPANIES
CAPM COST RATES

COMPANY	RISK-FREE RATE	BETA	MARKET PREMIUM	CAPM RATES
Comparison Group				
Cleco	4.83%	1.30	5.90%	12.5%
Empire District Electric	4.83%	0.80	5.90%	9.6%
Energy East	4.83%	0.90	5.90%	10.1%
Hawaiian Electric Industries	4.83%	0.70	5.90%	9.0%
Pepco Holdings	4.83%	0.90	5.90%	10.1%
Average	4.83%	0.92	5.90%	**10.3%**
Median				**10.1%**
Hadaway Reference Group				
Alliant Energy	4.83%	0.95	5.90%	10.4%
Ameren	4.83%	0.75	5.90%	9.3%
American Electric Power	4.83%	1.35	5.90%	12.8%
CH Energy Group	4.83%	0.85	5.90%	9.8%
Central Vermont P. S.	4.83%	0.70	5.90%	9.0%
Consolidated Edison	4.83%	0.75	5.90%	9.3%
DTE Energy	4.83%	0.75	5.90%	9.3%
Duquesne Light	4.83%	1.00	5.90%	10.7%
Empire District Electric	4.83%	0.80	5.90%	9.6%
Energy East	4.83%	0.90	5.90%	10.1%
Green Mountain Power	4.83%	0.60	5.90%	8.4%
Hawaiial Electric Industries	4.83%	0.70	5.90%	9.0%
MGE Energy	4.83%	0.75	5.90%	9.3%
NiSource	4.83%	0.95	5.90%	10.4%
Northeast Utilities	4.83%	0.90	5.90%	10.1%
NSTAR	4.83%	0.80	5.90%	9.6%
Pinnacle West	4.83%	1.00	5.90%	10.7%
PPL Corp	4.83%	0.95	5.90%	10.4%
Progress Energy	4.83%	0.90	5.90%	10.1%
Puget Energy	4.83%	0.80	5.90%	9.6%
SCANA	4.83%	0.85	5.90%	9.8%
Southern Co.	4.83%	0.70	5.90%	9.0%
Vectren	4.83%	0.90	5.90%	10.1%
Xcel	4.83%	0.90	5.90%	10.1%
Average	4.83%	0.89	5.90%	**9.9%**
Median				**9.8%**

Sources: Value Line Investment Survey, Standard & Poor's Analysts' Handbook, Federal Reserve.

COMPARISON COMPANIES
RATES OF RETURN ON AVERAGE COMMON EQUITY

Company	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	1992-2001 Average	2001-2005 Average	2006	2007	2009-2011
Comparison Group																			
Cleco	14.0%	12.4%	12.9%	13.4%	13.8%	12.8%	12.6%	12.9%	15.0%	14.6%	13.5%	11.5%	12.6%	11.6%	13.4%	12.8%	8.0%	9.0%	10.5%
Empire District Electric	10.3%	9.4%	10.6%	9.4%	9.4%	9.9%	11.6%	8.4%	10.0%	4.3%	8.4%	8.7%	5.7%	6.2%	9.3%	6.7%	7.0%	9.0%	10.5%
Energy East	10.7%	9.1%	10.3%	10.5%	10.1%	9.9%	11.2%	14.4%	15.1%	13.4%	9.3%	8.3%	9.1%	9.3%	11.5%	9.9%	9.0%	8.0%	9.0%
Hawaiian Electric Industries	10.9%	10.5%	11.1%	11.0%	10.5%	10.9%	11.5%	11.1%	9.8%	12.4%	11.9%	11.1%	9.3%	9.7%	11.0%	10.9%	10.0%	10.0%	11.0%
Pepco Holdings	10.6%	12.0%	10.8%	10.5%	11.7%	10.5%	11.3%	11.7%	8.9%	11.9%	9.8%	7.6%	8.3%	8.1%	11.0%	9.1%	7.0%	8.5%	10.5%
Average	11.3%	10.7%	11.1%	11.0%	11.1%	10.8%	11.6%	11.7%	11.8%	11.3%	10.6%	9.4%	9.0%	9.0%	**11.2%**	**9.9%**	**8.2%**	**8.9%**	**10.3%**
Composite															**11.2%**	**9.9%**			
Hadaway Reference Group																			
Alliant Energy	12.2%	11.5%	11.6%	12.0%	11.6%	9.6%	6.2%	9.1%	9.3%	10.3%	5.7%	7.6%	8.5%	10.3%	10.3%	8.5%	10.5%	11.0%	10.0%
Ameren	12.7%	12.9%	13.7%	13.1%	12.5%	10.8%	12.7%	12.5%	14.5%	14.3%	10.8%	12.2%	10.0%	10.3%	13.0%	11.5%	9.0%	9.5%	9.0%
American Electric Power	11.1%	11.9%	12.0%	12.4%	13.2%	13.5%	11.3%	10.5%	4.1%	12.9%	12.3%	12.4%	12.7%	11.9%	11.3%	12.4%	11.5%	11.5%	12.5%
CH Energy Group	11.0%	11.1%	10.7%	10.7%	11.3%	10.9%	10.4%	10.2%	10.5%	10.4%	7.0%	9.1%	8.7%	8.9%	10.7%	8.8%	8.0%	8.5%	9.0%
Central Vermont P. S.	12.1%	11.2%	8.7%	9.8%	8.9%	8.1%	1.1%	8.1%	7.0%	5.7%	9.4%	8.1%	6.9%	0.4%	8.1%	6.1%	8.5%	8.0%	8.0%
Consolidated Edison	12.0%	12.5%	13.5%	12.7%	12.2%	11.9%	11.9%	12.2%	10.7%	12.2%	11.5%	10.0%	8.0%	10.2%	12.2%	10.4%	9.0%	9.0%	9.0%
DTE Energy	18.7%	15.3%	11.8%	13.0%	11.8%	11.9%	12.2%	12.7%	11.9%	7.6%	13.7%	9.7%	8.1%	10.2%	12.7%	9.9%	6.5%	10.5%	9.5%
Duquesne Light	12.4%	12.0%	12.5%	13.2%	13.2%	12.9%	13.1%	14.0%	8.0%	2.7%	16.2%	15.0%	15.6%	14.1%	11.4%	12.7%	6.0%	13.0%	13.5%
Empire District Electric	10.3%	9.4%	10.6%	9.4%	9.4%	9.9%	11.6%	8.4%	10.0%	4.3%	8.4%	8.7%	5.7%	6.2%	9.3%	6.7%	7.0%	9.0%	10.5%
Energy East	10.7%	9.1%	10.3%	10.5%	10.1%	9.9%	11.2%	14.4%	15.1%	13.4%	9.3%	8.3%	9.1%	9.3%	11.5%	9.9%	9.0%	8.0%	9.0%
Green Mountain Power	12.3%	10.4%	10.4%	10.4%	10.1%	7.1%	-3.8%	2.4%	-0.3%	10.9%	10.8%	10.5%	10.2%	9.6%	7.0%	10.4%	9.0%	9.5%	10.0%
Hawaiial Electric Industries	10.9%	10.5%	11.1%	11.0%	10.5%	10.9%	11.5%	11.1%	9.8%	12.4%	11.9%	11.1%	9.3%	9.7%	11.0%	10.9%	10.0%	10.0%	11.0%
MGE Energy	13.1%	13.3%	13.1%	12.5%	7.1%	12.5%	12.2%	13.0%	14.2%	13.1%	13.2%	12.5%	11.4%	8.1%	12.4%	11.7%	10.5%	11.5%	12.0%
NiSource	12.9%	14.3%	14.6%	15.4%	15.8%	15.9%	15.9%	12.3%	10.1%	6.8%	11.4%	9.5%	9.4%	6.0%	13.4%	8.6%	7.0%	8.0%	8.0%
Northeast Utilities	12.6%	9.4%	12.6%	11.9%	0.1%	-6.2%	-2.3%	-7.3%	-1.3%	8.6%	6.4%	7.1%	5.1%	5.4%	3.8%	6.5%	9.5%	8.5%	8.5%
NSTAR	11.4%	11.9%	12.2%	10.2%	12.6%	12.6%	12.5%	11.4%	12.3%	13.4%	14.0%	13.9%	13.4%	13.1%	12.1%	13.6%	13.0%	14.0%	15.0%
Pinnacle West	10.7%	10.9%	10.2%	10.6%	11.2%	11.9%	11.5%	12.3%	12.4%	12.8%	8.6%	8.3%	8.2%	6.9%	11.5%	9.0%	9.5%	9.5%	9.0%
PPL Corp	13.1%	13.2%	10.8%	12.1%	12.4%	11.7%	15.8%	17.9%	26.1%	27.0%	23.6%	23.1%	18.3%	16.8%	16.0%	21.8%	18.5%	17.0%	21.0%
Progress Energy	15.4%	13.9%	12.3%	14.8%	15.3%	14.6%	14.4%	12.5%	9.8%	12.8%	7.8%	11.6%	10.1%	9.4%	13.6%	11.5%	8.0%	8.0%	8.5%
Puget Energy	12.4%	11.0%	8.8%	10.2%	10.2%	7.4%	11.5%	11.8%	13.2%	7.6%	7.8%	7.4%	8.0%	8.4%	10.4%	7.8%	7.5%	8.5%	8.5%
SCANA	11.0%	13.5%	11.0%	11.5%	13.3%	11.7%	12.6%	7.8%	10.7%	10.7%	11.7%	12.4%	12.6%	12.4%	11.4%	12.0%	10.5%	10.5%	11.0%
Southern Co.	13.4%	13.4%	12.4%	13.0%	12.6%	11.4%	12.3%	13.1%	13.6%	11.9%	15.7%	15.6%	15.2%	15.0%	12.7%	14.7%	14.0%	14.0%	14.0%
Vectren	13.9%	13.9%	13.8%	13.6%	13.4%	13.6%	13.2%	10.9%	10.0%	8.8%	13.3%	11.6%	9.9%	12.3%	12.5%	11.2%	9.5%	11.5%	11.0%
Xcel	9.1%	11.3%	12.4%	13.5%	12.6%	10.3%	11.4%	8.8%	9.8%	13.2%	2.8%	10.0%	9.8%	9.1%	11.2%	9.0%	10.0%	10.0%	11.0%
Average	12.3%	12.0%	11.7%	12.0%	11.3%	10.6%	10.4%	10.4%	10.5%	11.0%	11.2%	11.1%	10.2%	9.8%	**11.2%**	**10.6%**	**9.6%**	**10.4%**	**10.8%**
Composite															**11.2%**	**10.6%**			

Source: Calculations made from data contained in Value Line Investment Survey.

COMPARISON COMPANIES
MARKET TO BOOK RATIOS

Company	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	1992-2001 Average	2001-2005 Average
Comparison Group																
Cleco	177%	175%	156%	162%	168%	171%	183%	172%	223%	224%	154%	134%	177%	177%	181%	173%
Empire District Electric	184%	178%	143%	142%	143%	138%	168%	177%	183%	162%	132%	133%	144%	148%	162%	144%
Energy East	131%	143%	105%	96%	94%	108%	169%	186%	151%	131%	121%	119%	138%	141%	131%	130%
Hawaiian Electric Industries	171%	154%	141%	149%	147%	147%	154%	132%	127%	145%	153%	151%	179%	181%	147%	162%
Pepco Holdings	160%	162%	135%	138%	161%	151%	161%	166%	139%	124%	110%	103%	109%	122%	150%	114%
Average	165%	162%	136%	137%	143%	143%	167%	167%	165%	157%	134%	128%	149%	154%	**154%**	**144%**
Composite															**154%**	**144%**
Hadaway Reference Group																
Alliant Energy	190%	185%	154%	152%	154%	155%	156%	120%	120%	129%	110%	97%	120%	131%	152%	117%
Ameren	169%	188%	160%	170%	175%	174%	180%	167%	163%	173%	163%	162%	161%	172%	172%	166%
American Electric Power	143%	159%	143%	156%	176%	187%	191%	154%	147%	179%	138%	124%	155%	165%	164%	152%
CH Energy Group	123%	133%	107%	112%	114%	135%	155%	133%	125%	141%	152%	147%	149%	146%	128%	147%
Central Vermont P. S.	158%	156%	115%	92%	85%	79%	78%	76%	70%	96%	108%	118%	117%	108%	101%	109%
Consolidated Edison	141%	160%	125%	125%	127%	138%	186%	170%	129%	142%	144%	146%	143%	154%	144%	146%
DTE Energy	162%	154%	120%	130%	137%	126%	165%	145%	126%	142%	145%	142%	132%	140%	141%	140%
Duquesne Light	137%	151%	130%	151%	163%	165%	197%	205%	255%	217%	219%	221%	240%	218%	177%	223%
Empire District Electric	184%	178%	143%	142%	143%	138%	168%	177%	183%	162%	132%	133%	144%	148%	162%	144%
Energy East	131%	143%	105%	96%	94%	108%	169%	186%	151%	131%	121%	119%	138%	141%	131%	130%
Green Mountain Power	152%	159%	127%	120%	118%	99%	71%	56%	56%	89%	102%	112%	126%	136%	105%	113%
Hawaiial Electric Industries	171%	154%	141%	149%	147%	147%	154%	132%	127%	145%	153%	151%	179%	181%	147%	162%
MGE Energy	189%	196%	189%	183%	203%	189%	197%	177%	172%	197%	214%	223%	207%	207%	189%	210%
NiSource	159%	189%	174%	192%	207%	227%	293%	229%	161%	153%	118%	114%	123%	128%	198%	127%
Northeast Utilities	154%	149%	127%	124%	95%	64%	91%	113%	136%	129%	99%	95%	106%	108%	118%	107%
NSTAR	138%	154%	130%	130%	125%	146%	181%	166%	161%	161%	170%	175%	189%	202%	149%	179%
Pinnacle West	116%	125%	99%	116%	133%	152%	180%	143%	145%	154%	116%	114%	130%	130%	136%	129%
PPL Corp	170%	181%	144%	138%	143%	128%	176%	232%	257%	352%	253%	239%	230%	259%	192%	267%
Progress Energy	171%	192%	159%	181%	209%	207%	233%	189%	163%	164%	152%	145%	144%	137%	187%	148%
Puget Energy	149%	146%	112%	119%	130%	155%	170%	146%	143%	143%	126%	129%	137%	133%	141%	134%
SCANA	161%	168%	157%	166%	175%	164%	195%	145%	134%	135%	137%	158%	171%	179%	160%	156%
Southern Co.	154%	180%	161%	174%	176%	167%	198%	186%	188%	209%	230%	233%	227%	238%	179%	227%
Vectren	199%	192%	157%	162%	171%	180%	209%	215%	180%	181%	174%	170%	175%	185%	185%	177%
Xcel	164%	165%	154%	159%	162%	165%	176%	144%	141%	163%	113%	113%	132%	139%	159%	132%
Average	158%	165%	139%	143%	148%	150%	174%	159%	151%	162%	150%	149%	157%	162%	**155%**	**156%**
Composite															**155%**	**156%**

Source: Calculations made from data contained in Value Line Investment Survey.

STANDARD & POOR'S 500 COMPOSITE
RETURNS AND MARKET-TO-BOOK RATIOS
1992 - 2005

YEAR	RETURN ON AVERAGE EQUITY	MARKET-TO BOOK RATIO
1992	12.2%	271%
1993	13.2%	272%
1994	16.4%	246%
1995	16.6%	264%
1996	17.1%	299%
1997	16.3%	354%
1998	14.6%	421%
1999	17.3%	481%
2000	16.2%	453%
2001	7.5%	353%
2002	8.4%	296%
2003	14.2%	278%
2004	15.0%	291%
2005	16.1%	278%
Averages:		
1992-2001	14.7%	341%
2001-2005	12.2%	299%

Source: Standard & Poor's Analyst's Handbook, 2006 edition, page 1.

RISK INDICATORS

GROUP	VALUE LINE SAFETY	VALUE LINE BETA	VALUE LINE FIN STR	S & P STK RANK
S & P's 500 Composite	2.7	1.05	B++	B+
Comparison Group	2.6	0.92	B+	B+
Hadaway Reference Group	2.2	0.85	B++	B+

Sources: Value Line Investment Survey, Standard & Poor's Stock Guide.

Definitions:

Safety rankings are in a range of 1 to 5, with 1 representing the highest safety or lowest risk.

Beta reflects the variability of a particular stock, relative to the market as a whole. A stock with a beta of 1.0 moves in concert with the market, a stock with a beta below 1.0 is less variable than the market, and a stock with a beta above 1.0 is more variable than the market.

Financial strengths range from C to A++, with the latter representing the highest level.

Common stock rankings range from D to A+, with the latter representing the highest level.

AQUILA, INC.
TOTAL COST OF CAPITAL

ITEM	PERCENT	COST RATE		WEIGHTED COST		
Aquila Networks MPS						
Long-Term Debt	52.50%	6.73%			3.53%	
Common Equity	47.50%	9.00%	10.25%	4.28%		4.87%
Total	100.00%			**7.81%**		**8.40%**
					8.11%	
Aquila Networks L&P						
Long-Term Debt	52.50%	7.95%			4.17%	
Common Equity	47.50%	9.00%	10.25%	4.28%		4.87%
Total	100.00%			**8.45%**		**9.04%**
					8.75%	

AQUILA, INC.
PRE-TAX COVERAGE

ITEM	PERCENT	COST RATE	WEIGHTED COST	PRE-TAX COST	
Aquila Networks MPS					
Long-Term Debt	52.50%	6.73%	3.53%	3.53%	
Common Equity	47.50%	9.63%	4.57%	7.42%	(1)
TOTAL CAPITAL	100.00%		8.11%	10.95%	
Aquila Networks L&P					
Long-Term Debt	52.50%	7.95%	4.17%	4.17%	
Common Equity	47.50%	9.63%	4.57%	7.42%	
Long-Term Debt	100.00%		8.75%	11.59%	

(1) Post-tax weighted cost divided by .616114 (composite tax factor)

Pre-tax coverage =	10.95%/3.53%	Aquila Networks MPS
	3.10 X	
	11.59%/4.17%	Aquila Networks L&P
	2.78 X	

Standard & Poor's Utility Benchmark Ratios:

	BBB
Pre-tax coverage (X) Business Position:	
6	3.1 - 4.5x
Total Debt to Total Capital (%) Business Position	
6	48 - 58%

Note: Since 2004, S&P no longer uses the ratio "Pre-tax Coverage" as one of its benchmark ratios. The benchmark levels shown above reflect the 1999 levels cited by S&P.