Exhibit No.:	
Witness:	Michael Gorman
Type of Exhibit:	Surrebuttal Testimony
Issue:	Return on Common Equity
Sponsoring Party:	Federal Executive Agencies, Sedalia Industrial Energy Users' Association and St. Joe Industrial Group
Case No.:	ER-2005-0436

Before the Public Service Commission of the State of Missouri

In the Matter of the Tariff Filing of Aquila, Inc., to Implement a General Rate Increase for Retail Electric Service Provided to Customers in its MPS and L&P Missouri Service Areas.	))))	Case No. ER-2005-0436

Surrebuttal Testimony and Schedules of

Michael Gorman

On behalf of

Federal Executive Agencies,
Sedalia Industrial Energy Users' Association
and St. Joe Industrial Group

Project 8415
December 13, 2005

BRUBAKER & ASSOCIATES, INC.
ST. LOUIS, MO 63141-2000

Before the Public Service Commission
of the State of Missouri

In the Matter of the Tariff Filing of Aquila, Inc., to Implement a General Rate Increase for Retail Electric Service Provided to Customers in its MPS and L&P Missouri Service Areas.	))))	Case No. ER-2005-0436

STATE OF MISSOURI)
) **SS**
COUNTY OF ST. LOUIS)

Affidavit of Michael Gorman

Michael Gorman, being first duly sworn, on his oath states:

1. My name is Michael Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Federal Executive Agencies, Sedalia Industrial Energy Users' Association and the St. Joe Industrial Group in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2005-0436.

3. I hereby swear and affirm that the surrebuttal testimony and schedules are true and correct and that they show the matters and things they purport to show.

Michael Gorman

Subscribed and sworn to before this 12th day of December 2005.

CAROL SCHULZ
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: Feb. 26, 2008

Notary Public

My Commission Expires February 26, 2008.

Before the Public Service Commission
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In the Matter of the Tariff Filing of Aquila, Inc., to Implement a General Rate Increase for Retail Electric Service Provided to Customers in its MPS and L&P Missouri Service Areas.	))))	Case No. ER-2005-0436

Surrebuttal Testimony of Michael Gorman

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A My name is Michael Gorman and my business address is 1215 Fern Ridge Parkway, Suite 208, St. Louis, MO 63141-2000.

Q ARE YOU THE SAME MICHAEL GORMAN WHO PRESENTED DIRECT TESTIMONY IN THIS PROCEEDING?

A Yes, I am.

Q WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A I will respond to the rebuttal testimony of Aquila witness Dr. Samuel C. Hadaway.

Q PLEASE SUMMARIZE YOUR SURREBUTTAL TESTIMONY.

A I respond to Dr. Hadaway's criticisms of my proposed capital structure and return on equity for Aquila in this proceeding. Specifically, I respond to Dr. Hadaway's flawed arguments in support of his proposed hypothetical capital structure and show this recommendation is not reasonable. Further, I show why his arguments concerning the DCF, risk premium and CAPM analyses are flawed and why his equity return recommendation for Aquila is inflated and flawed.

Q WHY IS THE DEVELOPMENT OF AN APPROPRIATE CAPITAL STRUCTURE AND A FAIR RETURN ON EQUITY IMPORTANT IN THIS PROCEEDING.

A A large portion of Aquila's revenue requirement is based on an operating income and income tax expense that is derived from an appropriate capital structure, embedded security cost and a fair return on equity. A capital structure that is too heavily weighted with common equity will increase Aquila's revenue requirement and claimed revenue deficiency, and inappropriately increase rates to retail customers. This occurs because common equity is the most expensive form of capital and is subject to income taxes.

Also, an unreasonably high authorized return on equity would inflate Aquila's revenue requirement and retail rates. The authorized return on equity should be no higher than necessary to fairly compensate investors, while minimizing the rate increase required to provide fair compensation.

Capital Structure

Q AT PAGE 23 OF HIS REBUTTAL TESTIMONY, DR. HADAWAY STATES THAT YOU AND HE TAKE SIMILAR APPROACHES TO ESTABLISHING A CAPITAL STRUCTURE TO SET AQUILA'S OVERALL RATE OF RETURN IN THIS PROCEEDING. IS THIS ACCURATE?

A No. Dr. Hadaway is proposing a purely hypothetical capital structure to set Aquila's rate of return. In significant contrast, I am proposing a projected Aquila capital structure. Our positions are not comparable.

Dr. Hadaway's proposed capital structure has nothing to do with Aquila. Rather, it is based on his proxy group's projected capital structure and is purely

hypothetical. Consequently, Dr. Hadaway's proposed capital structure should be rejected because it in no way relates to the actual cost of capital used to support Aquila's Missouri utility operations. His recommendation is not cost based and is unreasonable.

In contrast, my capital structure is based on Value Line's projections of Aquila's capitalization during the year rates determined in this proceeding will take effect (rate effective year). My capital structure reflects the expected sale of utility assets and use of the proceeds to pay down debt. This expected asset sale and debt retirement will increase Aquila's common equity ratio during the period rates determined in this proceeding will be in effect. The key to this projection is, of course, tied to Aquila completing the planned utility asset sale and using the proceeds to pay down debt. Hence, I conditioned my recommendation on the Missouri Public Service Commission (Commission) monitoring Aquila's progress in completing the planned asset sales and use of the proceeds to pay down debt. In the event the sale is not completed and/or debt is not retired, the Commission promptly should adjust Aquila's rates in a subsequent rate action.

Q PLEASE SUMMARIZE OTHER ISSUES DR. HADAWAY TAKES WITH THE CAPITAL STRUCTURE YOU RECOMMEND FOR AQUILA.

A Dr. Hadaway asserts that my recommended capital structure does not comply with Aquila's and Value Line's projected capital structure. He states that Aquila's and Value Line's projected common equity ratios for Aquila are 50.3% and 49.5%, respectively, which is higher than the 45% common equity ratio I proposed in my direct testimony (Hadaway Rebuttal at 24).

Q ARE DR. HADAWAY'S REPRESENTATIONS ACCURATE?

A No. In my direct testimony I relied on Value Line's projections and the Company's actual capital structure in arriving at what I believe to be a reasonable forecasted capital structure for the 2006 rate effective year. For calendar year 2006, Value Line is projecting a common equity ratio for Aquila of 43%. This is dramatically lower than Dr. Hadaway's proposed common equity ratio of 48%.

Dr. Hadaway's arguments are based on erroneous data and should be rejected. The projected common equity ratio for Aquila relied on by Dr. Hadaway reflects Value Line's three to five year projection for Aquila, and not for the year rates will go into effect, 2006. Hence, Dr. Hadaway is simply misrepresenting Value Line's data in support of his erroneous capital structure position. Value Line data simply does not support Dr. Hadaway's proposed hypothetical capital structure.

Further, I do not place significant weight on the Company's projected capital structure. The Company's capital structure projections are not well supported and should not be relied upon. Further, Staff witness David Murray found additional reasons not to rely on Aquila's projected capital structure. Mr. Murray states that in a recent analyst conference call, Aquila's Chief Financial Officer, Greg Dobson, refused to give guidance on what Aquila's capital structure might look like after the proposed utility asset sales are completed. This is significant because if Mr. Dobson is able to reasonably estimate what Aquila's capital structure will look like after the asset sale is completed, one would expect he could provide the market some guidance. The Company's non-public capital structure projections are not supported as reasonable by an officer of Aquila in this proceeding and are, therefore, not suitable for setting Aquila's rates in this proceeding.

Q AT PAGE 23 OF HIS TESTIMONY, DR. HADAWAY STATES THAT YOUR PROPOSED CAPITAL STRUCTURE IS FLAWED BECAUSE YOU HAVE INCLUDED SHORT-TERM DEBT. IS THIS CORRECT?

A No. As shown on my Schedule MPG-2, my proposed capital structure is based on total debt of 55% at a cost rate of 7.96% for St. Joe Light & Power, and 6.7% for Missouri Public Service. These are the very same debt costs Dr. Hadaway relied on in his own testimony. Hence, I relied on the same type of debt that Dr. Hadaway relied on and included in his own proposed capital structure. Hence, Dr. Hadaway's argument is misplaced.

DCF Analysis

Q WHAT ARGUMENTS DID DR. HADAWAY RAISE CONCERNING YOUR PROPOSED DCF ANALYSIS?

A Dr. Hadaway argues that the consensus analyst growth rate projections in my DCF analysis are too low, and that the low growth rate reduces my DCF result. Instead, Dr. Hadaway recommended the use of a 6.6% GDP growth rate projection as a proxy for a long-term sustainable DCF growth rate for the companies included in the comparable group.

Q ARE DR. HADAWAY'S DCF GROWTH RATE ARGUMENTS REASONABLE?

A No. The relevant issue in determining an unbiased and reasonable DCF estimate is to develop a reasonable estimate of the growth rate expectations of investors, not Dr. Hadaway's desired and inflated growth estimate.

The most unbiased and reasonable estimate of investors' growth expectations for utilities is embodied in published analysts' forecasted growth rates. These are the growth rate expectations most likely reflected in observable stock prices.

Further, as discussed in my direct testimony, the use of consensus analysts' projected growth for the companies in my comparable group is conservatively high, based on virtually every logical assessment of long-term sustainable growth.

Q PLEASE EXPLAIN WHY THAT IS THE CASE.

A As I discussed in my direct testimony, historically these utilities' dividend growth has not exceeded the rate of inflation. In contrast, my analyst-projected growth is approaching two times the projected rate of inflation of 2.5%. Also, analyst growth rate projections are near consensus economists' projections of long-term GDP growth of 5.5%. This is conservative based on historical comparisons. Historically, utility earnings and dividends have grown at a rate much slower than GDP growth.

Also, in my direct testimony I showed that the companies' financial metrics strongly support current dividend payments and provide adequate retention of earnings to fund future growth at levels consistent with analysts' growth projections. This demonstrates that those utilities are in a strong position to realize analysts' growth projections. Hence, these analyst growth projections are a reasonable and rational proxy for long-term sustainable growth.

Q DID DR. HADAWAY PROVIDE ANY REBUTTAL TO YOUR DEMONSTRATION THAT ANALYST GROWTH RATE ESTIMATES ARE CONSERVATIVE BASED ON A REVIEW OF HISTORICAL GROWTH RATE PROJECTIONS, AND IN

COMPARISON TO CONSENSUS ECONOMISTS' PROJECTIONS OF FUTURE INFLATION AND GDP GROWTH?

A No. Dr. Hadaway's rebuttal testimony is silent on this important fundamental assessment of long-term sustainable growth.

Q IS DR. HADAWAY'S PROPOSED 6.6% DCF GROWTH RATE REASONABLE?

A No. My direct testimony explained why it was excessive and out of line with realistic and reasonable expectations. This growth projection is based on historical GDP growth. However, Dr. Hadaway's GDP projection is excessive in comparison to the consensus independent published economists' projections of future GDP growth of 5.5%. Further, as I demonstrated in my direct testimony at Pages 34 and 35, Dr. Hadaway's 6.6% GDP growth rate is abnormally high because it is impacted by abnormally high historical inflation that occurred primarily in the 1970s and 1980s. Hence, his 6.6% GDP growth rate is not based on the current consensus market expectation of future GDP growth and inflation. For these reasons, Dr. Hadaway's 6.6% GDP growth rate is inflated, unreasonable and should be rejected.

Q AT PAGE 25, DR. HADAWAY CLAIMS THAT YOUR DCF RESULT OF 8.6% IS TOO LOW IN RELATIONSHIP TO HIS PROJECTED BBB UTILITY BOND YIELD OF 6.65%. PLEASE RESPOND.

A Dr. Hadaway claims that my projected DCF result is too low because it produces a risk premium of only 1.95% over his projected BBB utility bond yield. His argument is without merit for at least two reasons.

First, Dr. Hadaway's estimated equity risk premium is not accurate. He developed this risk premium from his own projected utility bond yield. Dr. Hadaway is

projecting a significant increase to utility bond yields. Dr. Hadaway has not shown his bond yield projection to be representative of the market expectations for future interest rates on BBB utility bonds. The current interest rate on BBB utility bonds is approximately 5.8%, as I showed in my direct testimony on Schedule MPG-10. Thus, my DCF return, in relationship to current actual and verifiable BBB market bond yields, produces an equity risk premium of 2.9% (8.7% less 5.8%), which is clearly supportable and consistent with market equity risk premiums on low-risk utility stocks.

Second, while the 1.95% equity risk premium is on the low side, it is not unreasonable. Therefore, Dr. Hadaway's arguments that the DCF return estimates are unreasonably low are without merit and should be rejected.

Risk Premium Analysis

Q WHAT ARE THE ISSUES DR. HADAWAY TAKES WITH YOUR RISK PREMIUM MODEL?

A First, Dr. Hadaway takes issue with the equity risk premium I estimated for Aquila compared to what I recently estimated for PacifiCorp in the state of Washington. Second, Dr. Hadaway takes issue with my use of both current and projected interest rates. Dr. Hadaway believes I should rely only on projected interest rates. Finally, Dr. Hadaway asserts that I should have reflected an adjustment to my equity risk premium for the inverse relationship between interest rates and equity risk premiums.

Q ARE DR. HADAWAY'S RISK PREMIUM ARGUMENTS CORRECT?

A No. I have already responded to most of these arguments in my direct testimony. However, I will reiterate these arguments to illustrate the flaws in Dr. Hadaway's reasoning.

Q WHY DID YOU ESTIMATE A HIGHER EQUITY RISK PREMIUM IN THE PACIFICORP CASE IN WASHINGTON THAN YOU ESTIMATED FOR AQUILA?

A My PacifiCorp testimony was filed a month after I filed my Aquila testimony in October. In my PacifiCorp testimony, I updated the equity risk premiums to reflect the first six months of calendar year 2005. This update did marginally impact my risk premium analysis, which I conservatively reflected as an increase to the high end of my utility bond equity risk premium. I do not object to using this updated risk premium estimate in this proceeding. However, even reflecting an increased equity risk premium would not change my recommended return on equity for Aquila.

Q HOW WOULD UPDATING YOUR RISK PREMIUM ANALYSIS FOR THE FIRST SIX MONTHS OF CALENDAR YEAR 2005 CHANGE THE RECOMMENDATIONS PUT FORTH IN YOUR DIRECT TESTIMONY?

A In my direct testimony at Page 23, I estimated a risk premium return in the range of 9.3% to 10.3%, with a mid-point of 9.8%. Using the updated equity risk premiums would make my recommended range 9.6% to 10.3%, with a mid-point of 9.9%. This update of my risk premium from 9.8% to 9.9% would not change my recommended range of 9.3% to 10.3% as developed on Page 28 of my direct testimony, and my mid-point estimate would remain at 9.8%. Hence, this update to the equity risk premium analysis would not change my recommended return for Aquila.

Q DR. HADAWAY ASSERTS THAT IT IS ONLY APPROPRIATE TO USE PROJECTED INTEREST RATES IN AN EQUITY RISK PREMIUM STUDY. PLEASE RESPOND.

A Dr. Hadaway's reliance on projected interest rates only, while completely ignoring current observable real market interest rates, is flawed. The Commission should not rely only on projected interest rates, because interest rate projection accuracy is highly problematic.

I demonstrated this in my direct testimony at Pages 6 though 8. In that testimony I showed that interest rate projections are highly inaccurate. I showed that economists' projections of future interest rates have consistently been overstated during the last five years. Hence, I concluded that current observable interest rates are as accurate projections of future interest rates as interest rate projections. Therefore, to be conservative, I used both current and projected interest rates in my rate of return analyses.

Q IS DR. HADAWAY'S ARGUMENT THAT YOU SHOULD HAVE ADJUSTED YOUR EQUITY RISK PREMIUM TO REFLECT THE INVERSE RELATIONSHIP BETWEEN INTEREST RATES AND EQUITY RISK PREMIUMS A REASONABLE ONE?

A No. The academic literature on the inverse relationship between interest rates and equity risk premiums has observed that there has been an inverse relationship that was caused by changes to perceived risk differentials between debt and equity investments. However, it is not tied only to changes in nominal interest rates. Further, the relationship between interest rates and equity risk premiums is not constant, but rather can change materially over time.

The academic literature addressing this issue that I am familiar with is based on market data in the 1980s and very early 1990s. During the 1980s and very early 1990s, an inverse relationship did exist, but that was not the case prior to 1980 and has not been shown to be the case since the early 1990s. For example, a paper

written by Eugene Brigham, Dilip K. Shome and Steve R. Vinson, entitled "The Risk Premium Approach to Measuring a Utility's Cost of Equity," published by the Public Utility Research Center, August 1984, stated as follows in the abstract:

> "(4) Before 1980, equity risk premiums for utilities increased as interest rates rose, but after that date an increase in interest rates was associated with lower risk premiums. As a result, in recent years a 100 basis point increase in long-term interest rates has led to an increase of about 37 basis points in the cost of equity. (5) Risk premiums are not stable; they change substantially over relatively short periods of time, and this volatility has implications for anyone who seeks to measure equity capital costs on the basis of a debt yield plus a risk premium, including advocates of the CAPM approach." (Emphasis added)

In a more recent, yet still outdated, study by Robert S. Harris and Felicia C. Marston published in the Journal of Applied Finance – 2001, "The Market Risk Premium: Expectational Estimates Using Analysts Forecasts," the authors expanded an earlier study of risk premiums to cover a period of 1982-1998. In this study, the authors did note a historical inverse relationship between equity risk premiums and interest rates. However, the authors went into detail to explain why that historical relationship was likely affected more by relative investment risk changes, and not simply changes to nominal interest rates as Dr. Hadaway implies in his testimony. The authors state as follows:

> ". . .The market risk premium changes over time and appears inversely related to government interest rates but is positively related to the bond yield spread, which proxies for the incremental risk of investing in equities as opposed to government bonds."

Importantly, the authors in that same study concluded as follows:

> ". . .As a result, our evidence does not resolve the equity premium puzzle; rather, the results suggest investors still expect to receive large spreads to invest in equity versus debt instruments.

> There is strong evidence, however, that the market risk premium changes over time. Moreover, these changes appear linked to the level of interest rates as well as *ex ante* proxies for risk drawn from interest rate spreads in the bond market . . ."

Clearly, the academic literature does not support a simplistic inverse relationship between interest rates and equity risk premiums. Rather, the authors of these studies recognize that equity risk premiums change with perceived changes in investment risk. Dr. Hadaway's simplistic analysis has no bearing on changes to perceived risk, and inappropriately increases equity risk premiums for no other reason than a reduction in nominal interest rates.

Reductions to nominal interest rates over the last ten years are simply not adequate reason for increases to equity risk premiums. Indeed, decreases to interest rates over the last ten years have been likely caused by reduced inflation expectations, which would decrease both bond interest rates and common equity required returns. Reduced inflation expectations alone should not change relative debt to equity investment risk, and thus would not cause equity risk premiums to increase. Consequently, Dr. Hadaway's proposal to reflect an inverse relationship between equity risk premiums and bond interest rates is flawed and unreliable, and should be rejected.

Q THE HARRIS ET AL. ARTICLE CITED ABOVE INDICATES THAT A BOND YIELD SPREAD COULD BE USED TO INDICATE WHETHER INDUSTRY RISK AND EQUITY RISK PREMIUMS HAVE CHANGED. DO UTILITY BOND SPREADS OVER TREASURY BONDS INDICATE THAT THE UTILITY INDUSTRY RISK HAS INCREASED AND UTILITY EQUITY RISK PREMIUMS HAVE INCREASED?

A No. Indeed, utility bond yield spreads over Treasury yields currently are below average, relative to the last 25 years. This indicates that the market's assessment of investment risk for the utility industry is not higher now than it has been over the last 25 years. Hence, utility equity risk premiums today should conservatively be comparable to the average equity risk premiums experienced over the last 25 years, not higher as Dr. Hadaway asserts.

This bond spread between utility bonds and Treasury bonds is shown on my Surrebuttal Schedule MPG-1. As shown on this schedule, the 2005 spread between A-rated and BBB-rated utility bonds is 0.99% and 1.26%, respectively. These are among the lowest utility bond spreads relative to Treasury bonds over the last 25 years.

Again, this indicates that the utility industry's risk has not increased, but rather is stable to declining. This is consistent with the "back to basics" outlook of the utility industry, where many utilities, including Aquila, are shedding higher-risk non-regulated companies and returning back to core competencies of operating low-risk regulated utility operations.

Q DR. HADAWAY IS ALSO CRITICAL OF YOUR RISK PREMIUM ANALYSIS BECAUSE HE CLAIMS THAT YOU USED AN "A" BOND YIELD RATHER THAN A BBB BOND YIELD IN ARRIVING AT YOUR EQUITY RISK PREMIUM. IS THIS CORRECT?

A No. My testimony does include a typographical error that says I relied on an "A" bond yield. However, my return on equity estimate for Aquila was based on a bond yield of 5.79%, as stated at Page 23, and that bond yield is based on a BBB bond yield, as

shown on my Schedule MPG-10. Hence, Dr. Hadaway's argument is erroneous. My projected equity risk premium was based on a BBB bond yield, not an "A" bond yield.

Comparison to PacifiCorp

Q DR. HADAWAY QUESTIONS THE ACCURACY OF YOUR RETURN ON EQUITY FOR AQUILA, A BBB-RATED COMPANY, BECAUSE IT IS THE SAME RETURN ON EQUITY YOU RECENTLY RECOMMENDED FOR PACIFICORP, AN A-RATED UTILITY COMPANY. PLEASE RESPOND.

A Dr. Hadaway's arguments are without merit. My analysis for PacifiCorp was based on a group of companies with risk attributes comparable to PacifiCorp. The same is true for my recommended return on equity for Aquila. The significant facts Dr. Hadaway is overlooking are that my recommendations for Aquila will support a BBB bond rating, when its actual bond rating is below investment grade. Hence, I am recommending a rate of return and capital structure that enhances Aquila's credit rating and financial integrity for Missouri retail operations. In contrast, my recommendations for PacifiCorp were based on PacifiCorp's actual capital structure mix and a return on equity that reflects its actual bond rating.

Further, PacifiCorp's actual senior security bond rating is A-, only slightly stronger than the BBB bond rating that my rate of return and capital structure will support for Aquila in this proceeding. Hence, there is a small risk differential between the actual credit rating of PacifiCorp and the target credit rating my recommendation will support for Aquila's Missouri utility operations. Hence, there is little risk difference between PacifiCorp's Washington regulated operations and my proposed return for Aquila's Missouri utility operations.

Dr. Hadaway's Updated Analysis

Q DOES DR. HADAWAY'S UPDATED RETURN ON EQUITY ANALYSIS CONTAIN THE SAME FLAWS AS THE ANALYSIS IN HIS DIRECT TESTIMONY?

A Yes. Dr. Hadaway's updated return on equity estimates contain the same flaws as those in his direct testimony. Specifically, he relies on a DCF growth rate of 6.6% based on historical GDP growth. This growth rate exceeds consensus economists' projections of future GDP growth and is not reasonable for use in the DCF analysis. Use of this inflated growth rate, inflated Dr. Hadaway's DCF return estimates. Dr. Hadaway also fails to recognize current observable real market interest rates in his risk premium studies. He relies solely on his projected interest rates. Dr. Hadaway has not provided any evidence that his projected utility bond yields reflect investors' expectations, or are shared by any credible and independent market research firm. Therefore, Dr. Hadaway's risk premium studies are substantially overstated, as they were in his direct testimony.

As shown on my Surrebuttal Schedule MPG-2, updating Dr. Hadaway's DCF analysis using the consensus economists' projected GDP growth rate of 5.5% would lower his updated DCF return estimates from 10.3% down to 9.5%. Further, reflecting current observable utility bond yields in Dr. Hadaway's risk premium analysis would lower his risk premium study from 10.9% down to 10.1%. Corrections to Dr. Hadaway's updated cost of equity estimates continue to show that a fair return on equity for Aquila is no higher than 9.8% (the midpoint of 9.5% to 10.1%).

Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A Yes

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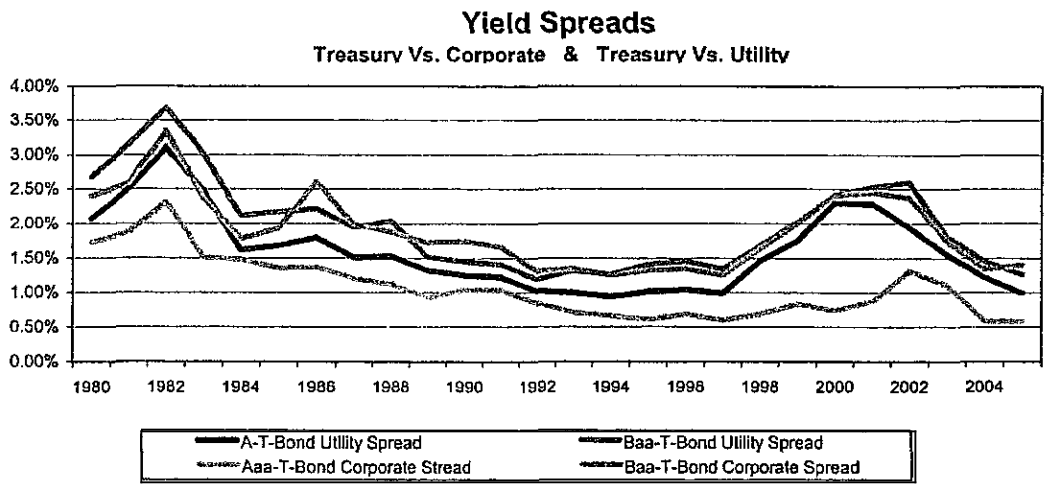
Aquila Missouri

Annual Average Yields

Line	Year	T-Bond Yield[1] (1)	Public Utility Bond Yields A[2] (2)	Public Utility Bond Yields Baa[2] (3)	A-T-Bond Spread (4)	Baa-T-Bond Spread (5)	Corporate Bond Yields Aaa[1] (6)	Corporate Bond Yields Baa[1] (7)	Aaa-T-Bond Spread (8)	Baa-T-Bond Spread (9)
1	1980	11.27%	13.34%	13.95%	2.07%	2.68%	11.94%	13.67%	1.73%	2.40%
2	1981	13.45%	15.95%	16.60%	2.50%	3.15%	14.17%	16.04%	1.87%	2.59%
3	1982	12.76%	15.86%	16.45%	3.10%	3.69%	13.79%	16.11%	2.32%	3.35%
4	1983	11.18%	13.66%	14.20%	2.48%	3.02%	12.04%	13.55%	1.51%	2.37%
5	1984	12.41%	14.03%	14.53%	1.62%	2.12%	12.71%	14.19%	1.48%	1.78%
6	1985	10.79%	12.47%	12.96%	1.68%	2.17%	11.37%	12.72%	1.35%	1.93%
7	1986	7.78%	9.58%	10.00%	1.80%	2.22%	9.02%	10.39%	1.37%	2.61%
8	1987	8.59%	10.10%	10.53%	1.51%	1.94%	9.38%	10.58%	1.20%	1.99%
9	1988	8.96%	10.49%	11.00%	1.53%	2.04%	9.71%	10.83%	1.12%	1.87%
10	1989	8.45%	9.77%	9.97%	1.32%	1.52%	9.26%	10.18%	0.92%	1.73%
11	1990	8.61%	9.86%	10.06%	1.25%	1.45%	9.32%	10.36%	1.04%	1.75%
12	1991	8.14%	9.36%	9.55%	1.22%	1.41%	8.77%	9.80%	1.03%	1.66%
13	1992	7.67%	8.69%	8.86%	1.02%	1.19%	8.14%	8.98%	0.84%	1.31%
14	1993	6.59%	7.59%	7.91%	1.00%	1.32%	7.22%	7.93%	0.71%	1.34%
15	1994	7.37%	8.31%	8.63%	0.94%	1.26%	7.96%	8.62%	0.66%	1.25%
16	1995	6.88%	7.89%	8.29%	1.01%	1.41%	7.59%	8.20%	0.61%	1.32%
17	1996	6.71%	7.75%	8.17%	1.04%	1.46%	7.37%	8.05%	0.68%	1.34%
18	1997	6.61%	7.60%	7.95%	0.99%	1.34%	7.26%	7.86%	0.60%	1.25%
19	1998	5.58%	7.04%	7.26%	1.46%	1.68%	6.53%	7.22%	0.69%	1.64%
20	1999	5.87%	7.62%	7.88%	1.75%	2.01%	7.04%	7.87%	0.83%	2.00%
21	2000	5.94%	8.24%	8.36%	2.30%	2.42%	7.62%	8.36%	0.74%	2.42%
22	2001	5.49%	7.78%	8.02%	2.29%	2.53%	7.08%	7.95%	0.87%	2.46%
23	2002	5.42%	7.36%	8.02%	1.94%	2.60%	6.49%	7.80%	1.31%	2.38%
24	2003	5.02%	6.57%	6.83%	1.55%	1.81%	5.67%	6.77%	1.10%	1.75%
25	2004	5.05%	6.27%	6.51%	1.22%	1.46%	5.63%	6.39%	0.58%	1.34%
26	2005[3]	4.64%	5.63%	5.90%	0.99%	1.26%	5.22%	6.04%	0.58%	1.40%



Notes:

[1] St. Louis Federal Reserve Bank.

[2] Mergent Public Utility Manual 2003. Mergent Daily News Reports.

[3] The data for 2005 is the average of the montly yields from January to November, 2005.

Michael Gorman
Surrebuttal
Schedule 1

Aquila Missouri

Hadaway's DCF Summary Results

Line		Traditional DCF Model (1)	LT GDP DCF Model (2)	Two-Stage DCF Model (3)	Average DCF Model (4)
1	Hadaway Diect	9.5%	11.1%	10.7%	**10.4%**
2	Direct Revised[1,2]	9.2%	10.0%	9.8%	**9.7%**
3	Hadaway Rebuttal	9.2%	11.0%	10.6%	**10.3%**
4	Rebutal Revised[1]	9.0%	9.9%	9.6%	**9.5%**

Notes:
[1] GDP growth rate changed to 5.5% from 6.6%.
[2] See Gorman Direct, Schedule MPG-15.

Aquila Missouri

Discounted Cash Flow Analysis
Traditional Constant Growth DCF Model

Line	Utility	Stock Price (P0) (1)	Next Year's Div (D1) (2)	Dividend Yield (3)	2009 DPS (4)	2009 EPS (5)	Retention Rate (B) (6)	2009 BVPS (7)	ROE (R) (8)	BxR Growth (9)	Zacks (10)	Value Line (11)	GDP (12)	Average Growth (13)	ROE (14)
1	Alliant Energy	28.98	1.11	3.83%	1.26	2.15	41.40%	26.55	8.10%	3.35%	4.00%	6.00%	5.50%	4.71%	8.5%
2	Ameren Corp.	53.76	2.54	4.72%	2.54	3.35	24.18%	35.20	9.52%	2.30%	4.90%	2.50%	5.50%	3.80%	8.5%
3	American Electric Power	38.14	1.44	3.78%	1.60	3.00	46.67%	27.75	10.81%	5.05%	3.00%	2.00%	5.50%	3.89%	7.7%
4	CH Energy	47.11	2.16	4.59%	2.20	3.25	32.31%	34.25	9.49%	3.07%	N/A	4.50%	5.50%	4.36%	8.9%
5	Cent. Vermount P.S.	17.92	0.92	5.13%	0.92	1.60	42.50%	17.25	9.28%	3.94%	N/A	2.00%	5.50%	3.81%	8.9%
6	Cinergy	42.72	1.96	4.59%	2.08	2.90	28.28%	27.35	10.60%	3.00%	4.50%	4.00%	5.50%	4.25%	8.8%
7	Cleco Corp.	22.69	0.90	3.97%	0.90	1.50	40.00%	17.50	8.57%	3.43%	4.00%	0.50%	5.50%	3.36%	7.3%
8	Consolidated Edison	47.25	2.30	4.87%	2.36	3.00	21.33%	32.60	9.20%	1.96%	3.30%	1.50%	5.50%	3.07%	7.9%
9	DTE Enrgy	45.19	2.06	4.56%	2.10	5.00	58.00%	41.25	12.12%	7.03%	4.60%	8.50%	5.50%	6.41%	11.0%
10	Duquesne Light	17.71	1.00	5.65%	1.00	1.40	28.57%	10.65	13.15%	3.76%	5.00%	3.00%	5.50%	4.31%	10.0%
11	Empire District	22.65	1.28	5.65%	1.28	1.50	14.67%	16.25	9.23%	1.35%	5.00%	5.00%	5.50%	4.21%	9.9%
12	Energy East Corp.	25.64	1.16	4.52%	1.35	2.00	32.50%	20.75	9.64%	3.13%	4.50%	4.50%	5.50%	4.41%	8.9%
13	FPL Group, Inc.	44.20	1.52	3.44%	1.82	2.95	38.31%	24.60	11.99%	4.59%	5.70%	7.50%	5.50%	5.82%	9.3%
14	FirstEnergy Corp.	50.36	1.72	3.42%	2.00	4.00	50.00%	35.25	11.35%	5.67%	4.30%	10.00%	5.50%	6.37%	9.8%
15	Green Mountain	31.34	1.08	3.45%	1.32	2.45	46.12%	23.90	10.25%	4.73%	N/A	3.50%	5.50%	4.58%	8.0%
16	Hawaiian Electric	27.19	1.24	4.56%	1.24	1.75	29.14%	17.25	10.14%	2.96%	3.50%	2.50%	5.50%	3.61%	8.2%
17	MGE Energy	35.62	1.38	3.87%	1.44	2.45	41.22%	18.70	13.10%	5.40%	N/A	6.00%	5.50%	5.63%	9.5%
18	NiSource Inc.	23.66	0.96	4.06%	1.10	2.00	45.00%	21.50	9.30%	4.19%	4.40%	2.50%	5.50%	4.15%	8.2%
19	NSTAR	28.78	1.21	4.20%	1.35	2.00	32.50%	17.25	11.59%	3.77%	4.80%	2.50%	5.50%	4.14%	8.3%
20	Pinnacle West Capital	43.98	2.03	4.62%	2.33	3.10	24.84%	37.05	8.37%	2.08%	5.20%	3.50%	5.50%	4.07%	8.7%
21	Progress Energy	43.47	2.44	5.61%	2.50	3.40	26.47%	35.25	9.65%	2.55%	4.10%	N/A	5.50%	4.05%	9.7%
22	Puget Energy, Inc.	22.67	1.00	4.41%	1.12	1.75	36.00%	19.25	9.09%	3.27%	4.80%	5.50%	5.50%	4.77%	9.2%
23	SCANA Corp.	41.28	1.66	4.02%	1.90	3.25	41.54%	29.50	11.02%	4.58%	4.70%	4.50%	5.50%	4.82%	8.8%
24	Southern Co.	34.69	1.53	4.41%	1.71	2.45	30.20%	18.15	13.50%	4.08%	4.50%	4.00%	5.50%	4.52%	8.9%
25	Vectren Corp.	27.60	1.23	4.46%	1.35	1.95	30.77%	17.45	11.17%	3.44%	4.60%	4.00%	5.50%	4.38%	8.8%
26	Westar Energy	23.67	0.96	4.06%	1.08	1.70	36.47%	19.45	8.74%	3.19%	4.00%	5.50%	5.50%	4.55%	8.6%
27	Xcel Energy, Inc.	19.2	0.88	4.58%	1.05	1.50	30.00%	15.00	10.00%	3.00%	4.20%	7.50%	5.50%	5.05%	9.6%
28	**Group Average**	**33.61**	**1.47**	**4.41%**	**1.59**	**2.49**	**35.15%**	**24.33**	**10.33%**	**3.66%**	**4.42%**	**4.35%**	**5.50%**	**4.49%**	**8.9%**
29	**Group Median**			**4.46%**											**8.8%**

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Discounted Cash Flow Analysis
Constant Growth DCF Model
Long-Term GDP Growth

Line	Utility	Stock Price (P0) (15)	Next Year's Div (D1) (16)	Dividend Yield (17)	GDP (18)	ROE Col 17+18 (19)
1	Alliant Energy	28.98	1.11	3.83%	5.50%	9.33%
2	Ameren Corp.	53.76	2.54	4.72%	5.50%	10.22%
3	American Electric Power	38.14	1.44	3.78%	5.50%	9.28%
4	CH Energy	47.11	2.16	4.59%	5.50%	10.09%
5	Cent. Vermount P.S.	17.92	0.92	5.13%	5.50%	10.63%
6	Cinergy	42.72	1.96	4.59%	5.50%	10.09%
7	Cleco Corp.	22.69	0.90	3.97%	5.50%	9.47%
8	Consolidated Edison	47.25	2.30	4.87%	5.50%	10.37%
9	DTE Engy	45.19	2.06	4.56%	5.50%	10.06%
10	Duquesne Light	17.71	1.00	5.65%	5.50%	11.15%
11	Empire District	22.65	1.28	5.65%	5.50%	11.15%
12	Energy East Corp.	25.64	1.16	4.52%	5.50%	10.02%
13	FPL Group, Inc.	44.20	1.52	3.44%	5.50%	8.94%
14	FirstEnergy Corp.	50.36	1.72	3.42%	5.50%	8.92%
15	Green Mountain	31.34	1.08	3.45%	5.50%	8.95%
16	Hawaiian Electric	27.19	1.24	4.56%	5.50%	10.06%
17	MGE Energy	35.62	1.38	3.87%	5.50%	9.37%
18	NiSource Inc.	23.66	0.96	4.06%	5.50%	9.56%
19	NSTAR	28.78	1.21	4.20%	5.50%	9.70%
20	Pinnacle West Capital	43.98	2.03	4.62%	5.50%	10.12%
21	Progress Energy	43.47	2.44	5.61%	5.50%	11.11%
22	Puget Energy, Inc.	22.67	1.00	4.41%	5.50%	9.91%
23	SCANA Corp.	41.28	1.66	4.02%	5.50%	9.52%
24	Southern Co.	34.69	1.53	4.41%	5.50%	9.91%
25	Vectren Corp.	27.60	1.23	4.46%	5.50%	9.96%
26	Westar Energy	23.67	0.96	4.06%	5.50%	9.56%
27	Xcel Energy, Inc.	19.20	0.88	4.58%	5.50%	10.08%
28	**Group Average**	**33.61**	**1.47**	**4.41%**	**5.50%**	**9.9%**
29	**Group Median**			**4.46%**		**10.0%**

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Discounted Cash Flow Analysis
Low Near-Term Growth
Two-Stage Growth DCF Model

Line	Utility	Next Year's Div (D_1) (20)	2009 DPS (21)	Annual Change to 2008 (22)	Stock Price (P_0) (23)	Year 1 Div (24)	Year 2 Div (25)	Year 3 Div (26)	Year 4 Div (27)	Year 5 Div (28)	Year 5-150 Growth (29)	ROE = IRR (30)
1	Alliant Energy	1.11	1.26	5.00%	-28.98	1.11	1.16	1.21	1.26	1.33	5.50%	9.2%
2	Ameren Corp.	2.54	2.54	0.00%	-53.76	2.54	2.54	2.54	2.54	2.68	5.50%	9.6%
3	American Electric Power	1.44	1.60	5.33%	-38.14	1.44	1.49	1.55	1.60	1.69	5.50%	9.1%
4	CH Energy	2.16	2.20	1.33%	-47.11	2.16	2.17	2.19	2.20	2.32	5.50%	9.5%
5	Cent. Vermount P.S.	0.92	0.92	0.00%	-17.92	0.92	0.92	0.92	0.92	0.97	5.50%	9.9%
6	Cinergy	1.96	2.08	4.00%	-42.72	1.96	2.00	2.04	2.08	2.19	5.50%	9.7%
7	Cleco Corp.	0.9	0.90	0.00%	-22.69	0.90	0.90	0.90	0.90	0.95	5.50%	8.9%
8	Consolidated Edison	2.3	2.36	2.00%	-47.25	2.30	2.32	2.34	2.36	2.49	5.50%	9.8%
9	DTE Enrgy	2.06	2.10	1.33%	-45.19	2.06	2.07	2.09	2.10	2.22	5.50%	9.5%
10	Duquesne Light	1	1.00	0.00%	-17.71	1.00	1.00	1.00	1.00	1.06	5.50%	10.4%
11	Empire District	1.28	1.28	0.00%	-22.65	1.28	1.28	1.28	1.28	1.35	5.50%	10.4%
12	Energy East Corp.	1.16	1.35	6.33%	-25.64	1.16	1.22	1.29	1.35	1.42	5.50%	10.0%
13	FPL Group, Inc.	1.52	1.82	10.00%	-44.2	1.52	1.62	1.72	1.82	1.92	5.50%	9.0%
14	FirstEnergy Corp.	1.72	2.00	9.33%	-50.36	1.72	1.81	1.91	2.00	2.11	5.50%	8.9%
15	Green Mountain	1.08	1.32	8.00%	-31.34	1.08	1.16	1.24	1.32	1.39	5.50%	9.1%
16	Hawaiian Electric	1.24	1.24	0.00%	-27.19	1.24	1.24	1.24	1.24	1.31	5.50%	9.4%
17	MGE Energy	1.38	1.44	2.00%	-35.62	1.38	1.40	1.42	1.44	1.52	5.50%	8.9%
18	NiSource Inc.	0.96	1.10	4.67%	-23.66	0.96	1.01	1.05	1.10	1.16	5.50%	9.5%
19	NSTAR	1.21	1.35	4.67%	-28.78	1.21	1.26	1.30	1.35	1.42	5.50%	9.5%
20	Pinnacle West Capital	2.03	2.33	10.00%	-43.98	2.03	2.13	2.23	2.33	2.46	5.50%	10.0%
21	Progress Energy	2.44	2.50	2.00%	-43.47	2.44	2.46	2.48	2.50	2.64	5.50%	10.5%
22	Puget Energy, Inc.	1.00	1.12	4.00%	-22.67	1.00	1.04	1.08	1.12	1.18	5.50%	9.7%
23	SCANA Corp.	1.66	1.90	8.00%	-41.28	1.66	1.74	1.82	1.90	2.00	5.50%	9.4%
24	Southern Co.	1.53	1.71	6.00%	-34.69	1.53	1.59	1.65	1.71	1.80	5.50%	9.7%
25	Vectren Corp.	1.23	1.35	4.00%	-27.6	1.23	1.27	1.31	1.35	1.42	5.50%	9.7%
26	Westar Energy	0.96	1.08	4.00%	-23.67	0.96	1.00	1.04	1.08	1.14	5.50%	9.4%
27	Xcel Energy, Inc.	0.88	1.05	5.67%	-19.2	0.88	0.94	0.99	1.05	1.11	5.50%	10.1%
28	**Group Average**	**1.47**	**1.59**	**0.04**	**-33.61**							**9.6%**
29	**Group Median**											**9.5%**

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