

BEFORE THE CORPORATION COMMISSION OF THE STATE OF OKLAHOMA

**IN THE MATTER OF THE APPLICATION OF)
OKLAHOMA GAS AND ELECTRIC COMPANY)
FOR AN ORDER OF THE COMMISSION)
AUTHORIZING APPLICANT TO MODIFY ITS)
RATES, CHARGES, AND TARIFFS FOR RETAIL)
ELECTRIC SERVICE IN OKLAHOMA.)**

CAUSE NO. PUD 200800398

DIRECT TESTIMONY AND EXHIBITS

OF

DAVID C. PARCELL

ON BEHALF OF

OKLAHOMA INDUSTRIAL ENERGY CONSUMERS

JUNE 22, 2009

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1 testified on behalf of commission staffs in several states, including Arizona, Arkansas,
2 Delaware, Georgia, Massachusetts, Missouri, New Hampshire, South Carolina,
3 Washington, Virginia, and the U.S. Virgin Islands. I have also testified on behalf of
4 public counsel offices in states where the commission staff does not put on testimony and
5 the public counsel essentially functions as the staff for litigation purposes, such as
6 Hawaii.

7
8 **Q. ARE YOU INVOLVED IN ANY PROFESSIONAL SOCIETIES THAT ARE**
9 **CONCERNED WITH THE COST OF CAPITAL CONCEPT?**

10 **A.** Yes, I am. For the past 20 years, I have been actively involved with the Society of Utility
11 and Regulatory Financial Analysts (“SURFA”), which is a national professional society
12 dealing with the cost of capital concept. I am a past President of SURFA and have served
13 on its Board of Directors for a number of years. I am also the Chair of SURFA’s
14 Certified Rate of Return Analyst (“CRRA”) program, which is a professional designation
15 that recognizes experience and knowledge in providing cost of capital analysis. I am the
16 author of *The Cost of Capital – A Practitioners’ Guide*, which is the study guide for the
17 CRRA program.

18
19 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

20 **A.** I have been retained by the Oklahoma Industrial Energy Consumers (“OIEC”) to evaluate
21 the cost of capital aspects of the filing of Oklahoma Gas & Electric Company (“OG&E”).
22 I have performed independent studies and am making recommendations of the current
23 cost of capital for OG&E. In addition, because OG&E is a subsidiary of OGE Energy
24 Resources (“OGE”), I also have evaluated this entity in my analyses.

25
26 **Q. HAVE YOU PREPARED AN EXHIBIT IN SUPPORT OF YOUR TESTIMONY?**

27 **A.** Yes, I have prepared one exhibit (DCP-1), identified as Schedule 1 through Schedule 12.
28 This exhibit was prepared either by me or under my direction. The information contained
29 in this exhibit is correct to the best of my knowledge and belief.

30

31

1 **II. RECOMMENDATIONS AND SUMMARY**

2
3 **Q. WHAT ARE YOUR RECOMMENDATIONS IN THIS PROCEEDING?**

4 A. My overall cost of capital recommendations for OG&E are shown on Schedule 1 and can
5 be summarized as follows:

6

	<u>Percent</u>	<u>Cost</u>	<u>Return</u>
7 Long-Term Debt	45.858%	6.559%	3.01%
8 Common Equity	54.142%	9.75-10.25%	5.28-5.55%
9 Total	100.00%		8.29-8.56%
			8.42% mid-point

10

11 OG&E's application requests a return on common equity of 12.25 percent and overall
12 rate of return of 9.64 percent.

13
14 **Q. PLEASE SUMMARIZE YOUR COST OF CAPITAL ANALYSES AND**
15 **RELATED CONCLUSIONS FOR OG&E.**

16 A. This proceeding is concerned with OG&E's regulated electric utility operations in
17 Oklahoma. My analyses are concerned with the Company's total cost of capital. The
18 first step in performing these analyses is the development of the appropriate capital
19 structure. OG&E's proposed capital structure is the proforma December 1, 2008 capital
20 structure ratios of the Company. I also use this capital structure in my cost of capital
21 analyses.

22 The second step in a cost of capital calculation is a determination of the embedded
23 cost rate of long-term debt. I have used the 6.559 percent cost rate for long-term debt
24 contained in OG&E's filing.

25 The third step in the cost of capital calculation is the estimation of the cost of
26 common equity. I have employed three recognized methodologies to estimate the cost of
27 equity for OG&E. Each of these methodologies is applied to three groups of proxy
28 utilities. These three methodologies and my findings are:

29

<u>Methodology</u>	<u>Range</u>	<u>Mid-Point</u>
30 Discounted Cash Flow	9.9-10.7%	10.3%
Capital Asset Pricing Model	7.8%	7.8%
31 Comparable Earnings	9.5-10.0%	9.75%

1 Based upon these findings, I conclude that the cost of common equity for OG&E
2 is within a range of 9.75 percent to 10.25 percent (10.0 percent mid-point).

3 Combining these three steps into a weighted cost of capital results in an overall
4 rate of return range of 8.29 percent to 8.56 percent (8.42 percent with 10.00 percent cost
5 of equity).

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

9 **Q. WHAT ARE THE PRIMARY ECONOMIC AND LEGAL PRINCIPLES THAT** 10 **ESTABLISH THE STANDARDS FOR DETERMINING A FAIR RATE OF** 11 **RETURN FOR A REGULATED UTILITY?**

12 A. Public utility rates are normally established in a manner designed to allow the recovery of
13 their costs, including capital costs. This is frequently referred to as “cost of service”
14 ratemaking. Rates for regulated public utilities traditionally have been primarily
15 established using the “rate base - rate of return” concept. Under this method, utilities are
16 allowed to recover a level of operating expenses, taxes, and depreciation deemed
17 reasonable for rate-setting purposes, and are granted an opportunity to earn a fair rate of
18 return on the assets utilized (i.e., rate base) in providing service to their customers.

19 The rate base is derived from the asset side of the utility’s balance sheet as a
20 dollar amount and the rate of return is developed from the liabilities/owners’ equity side
21 of the balance sheet as a percentage. The revenue impact of the cost of capital is thus
22 derived by multiplying the rate base by the rate of return (including income taxes).

23 The rate of return is developed from the cost of capital, which is estimated by
24 weighting the capital structure components (i.e., debt, preferred stock, and common
25 equity) by their percentages in the capital structure and multiplying these by their cost
26 rates. This is also known as the weighted cost of capital.

27 Technically, “fair rate of return” is a legal and accounting concept that refers to an
28 ex post (after the fact) earned return on an asset base, while the cost of capital is an
29 economic and financial concept which refers to an ex ante (before the fact) expected or
30 required return on a liability base. In regulatory proceedings, however, the two terms are
31 often used interchangeably. I have equated the two concepts in my testimony.

1 From an economic standpoint, a fair rate of return is normally interpreted to mean
2 that an efficient and economically managed utility will be able to maintain its financial
3 integrity, attract capital, and establish comparable returns for similar risk investments.
4 These concepts are derived from economic and financial theory and are generally
5 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 provide the
8 main standards for a fair rate of return. The first decision is Bluefield Water Works and
9 Improvement Co. v. Public Serv. Comm'n of West Virginia, 262 U.S. 679 (1923). In this
10 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 public
16 equal to that **generally being made** at the same time and in the same
17 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 reasonable at
26 one time, and become too high or too low by changes affecting
27 opportunities for investment, the money market, and business conditions
28 generally. **[Emphasis added.]**

29
30 It is my understanding that the Bluefield decision established the following standards for
31 a fair rate of return: comparable earnings, financial integrity, and capital attraction. It
32 also noted the changing level of required returns over time as well as an underlying
33 assumption that the utility be operated in an efficient manner.

34 The second decision is Federal Power Comm'n v. Hope Natural Gas Co., 320
35 U.S. 591 (1942). In that decision, the Court stated:

36 The rate-making process under the [Natural Gas] Act, i.e., the fixing of
37 'just and reasonable' rates, involves a **balancing** of the **investor** and
38 **consumer interests** From the investor or company point of view it is

1 important that there be enough revenue not only for operating expenses
2 but also for the capital costs of the business. These include service on the
3 debt and dividends on the stock. By that standard the **return** to the equity
4 **owner** should be **commensurate** with **returns on investments** in **other**
5 **enterprises having corresponding risks**. That return, moreover, should
6 be sufficient to assure confidence in the **financial integrity** of the
7 enterprise, so as to **maintain its credit** and to **attract capital**. [**Emphasis**
8 **added.**]
9

10 The Hope case is also frequently credited with establishing the “end result” doctrine,
11 which maintains that the methods utilized to develop a fair return are not important as
12 long as the end result is reasonable.

13 The three economic and financial parameters in the Bluefield and Hope decisions
14 - comparable earnings, financial integrity, and capital attraction - reflect the economic
15 criteria encompassed in the “opportunity cost” principle of economics. The opportunity
16 cost principle provides that a utility and its investors should be afforded an opportunity
17 (not a guarantee) to earn a return commensurate with returns they could expect to achieve
18 on investments of similar risk. The opportunity cost principle is consistent with the
19 fundamental premise, on which regulation rests, namely, that it is intended to act as a
20 surrogate for competition.

21
22 **Q. HOW CAN THESE PARAMETERS BE EMPLOYED TO ESTIMATE THE COST**
23 **OF CAPITAL FOR A UTILITY?**

24 A. Neither the courts nor economic/financial theory have developed exact and mechanical
25 procedures for precisely determining the cost of capital. This is the case because the cost
26 of capital is an opportunity cost and is prospective-looking, which dictates that it must be
27 estimated.

28 There are several useful models that can be employed to assist in estimating the
29 cost of equity capital, which is the capital structure item that is the most difficult to
30 determine. These include the discounted cash flow (“DCF”), capital asset pricing model
31 (“CAPM”), comparable earnings (“CE”) and risk premium (“RP”) methods. Each of
32 these methods (or models) differs from the others and each, if properly employed, can be
33 a useful tool in estimating the cost of common equity for a regulated utility.

1 **Q. WHICH METHODS HAVE YOU EMPLOYED IN YOUR ANALYSES OF THE**
2 **COST OF COMMON EQUITY IN THIS PROCEEDING?**

3 A. I have utilized three methodologies to determine OG&E's cost of common equity: the
4 DCF, CAPM, and CE methods. I have not employed a RP model in my analyses
5 although, as I indicate later, my CAPM analysis is a form of the RP methodology. Each
6 of these methodologies will be described in more detail in my testimony that follows.

7
8 **IV. GENERAL ECONOMIC CONDITIONS**
9

10 **Q. WHY ARE ECONOMIC AND FINANCIAL CONDITIONS IMPORTANT IN**
11 **DETERMINING THE COSTS OF CAPITAL?**

12 A. The costs of capital, for both fixed-cost (debt and preferred stock) components and
13 common equity, are determined in part by current and prospective economic and
14 financial conditions. At any given time, each of the following factors has an influence on
15 the costs of capital: the level of economic activity (i.e., growth rate of the economy), the
16 stage of the business cycle (i.e., recession, expansion, or transition), the level of inflation,
17 and expected economic conditions. My understanding is that this position is consistent
18 with the Bluefield decision that noted "[a] rate of return may be reasonable at one time,
19 and become too high or too low by changes affecting opportunities for investment, the
20 money market, and business conditions generally."

21
22 **Q. WHAT INDICATORS OF ECONOMIC AND FINANCIAL ACTIVITY HAVE**
23 **YOU EVALUATED IN YOUR ANALYSES?**

24 A. I have examined several sets of economic statistics from 1975 to the present. I chose this
25 time period because it permits the evaluation of economic conditions over three full
26 business cycles plus the current cycle to date, allowing for an assessment of changes in
27 long-term trends. This period also approximates the beginning and continuation of active
28 rate case activities by public utilities.

29 A business cycle is commonly defined as a complete period of expansion
30 (recovery and growth) and contraction (recession). A full business cycle is a useful and
31 convenient period over which to measure levels and trends in long-term capital costs

1 because it incorporates the cyclical (i.e., stage of business cycle) influences, and thus,
2 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 RECENT CYCLE.**

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

7
8

<u>Business Cycle</u>	<u>Expansion Cycle</u>	<u>Contraction Period</u>
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-Nov. 2007	Dec. 2007-Present

9
10
11

12 Source: National Bureau of Economic Research, "Business Cycle Expansions and Contractions."
13

14 **Q. DO YOU HAVE ANY GENERAL OBSERVATIONS CONCERNING THE**
15 **RECENT TRENDS IN ECONOMIC CONDITIONS AND THEIR IMPACT ON**
16 **CAPITAL COSTS OVER THIS BROAD PERIOD?**

17 A. Yes, I do. As I will describe below, until recently the U.S. economy enjoyed general
18 prosperity and stability over the period since the early 1980s. This period has been
19 characterized by longer economic expansions, relatively tame contractions, relatively low
20 and declining inflation, and declining interest rates and other capital costs. The current
21 business cycle began in late 2001, following a somewhat modest recession earlier in the
22 year.

23 Over the past two years, on the other hand, the economy has declined
24 significantly, initially as a result of the 2007 collapse of the "sub-prime" mortgage market
25 and related liquidity crises in the financial sector of the economy. Subsequently, this
26 financial crisis intensified with a more broad-based decline initially based on an intensive
27 increase in petroleum prices and an increasing decline in the U.S. financial sector
28 culminating with the collapse and/or bailouts of a substantial number of long-standing
29 institutions such as Bear Stearns, Lehman Brothers, Merrill Lynch, Freddie Mac, Fannie
30 Mae, AIG and Wachovia. This crisis has been described as the worst financial crisis
31 since the Great Depression. The U.S. and global governments are in the process of

1 implementing unprecedented actions to attempt to correct or minimize its scope and
2 effects. As of this time the consequences of these governmental initiatives are unclear.
3 There is also a universal acceptance that the economy is in a serious recession. The
4 impacts of a severe recession on cost of capital is very likely to be characterized by lower
5 utility growth and declining capital costs due to a decline in corporate profits and
6 expected earnings growth. It is clear that a serious recession also has negative impacts on
7 OG&E's customers, in terms of income levels, unemployment and higher poverty levels.
8 In addition, it is likely that OG&E's business customers are experiencing lower profits as
9 a result of the recession. Clearly, this is not an environment in which it is sensible to
10 increase the profitability of a regulated company such as OG&E.

11
12 **Q. PLEASE DESCRIBE RECENT AND CURRENT ECONOMIC AND FINANCIAL**
13 **CONDITIONS AND THEIR IMPACT ON THE COSTS OF CAPITAL.**

14 A. Schedule 2 shows several sets of economic data. Pages 1 and 2 contain general
15 macroeconomic statistics while Pages 4 through 6 contain financial market statistics.
16 Pages 1 and 2 show that the U.S. economy ended 2007 as the sixth year of an economic
17 expansion although, as indicated previously, the economy was then entering a decline.
18 This is indicated by the growth in real (i.e., adjusted for inflation) Gross Domestic
19 Product ("GDP"), industrial production, and the increase in the unemployment rate. This
20 most recent expansion was characterized by slower growth, in comparison to prior
21 expansions which resulted in lower inflationary pressures and interest rates.

22 The rate of inflation is also shown on Pages 1 and 2. As is reflected in the
23 Consumer Price Index ("CPI"), for example, inflation rose significantly during the 1975-
24 1982 business cycle and reached double-digit levels in 1979-1980. The rate of inflation
25 declined substantially in 1981 and remained at or below 6.1 percent during the 1983-1991
26 business cycle. Since 1991, the CPI has been 4.1 percent or lower. The 0.1 percent rate
27 of inflation in 2008 was the lowest level of the past thirty years. This is indicative of
28 virtually no inflation, which should also be reflective of lower capital costs.

29
30 **Q. WHAT HAVE BEEN THE TRENDS IN INTEREST RATES?**

1 A. Pages 3 and 4 show several series of interest rates. Rates rose sharply to record levels in
2 1975-1981 when the inflation rate was high and generally rising. Interest rates declined
3 substantially in conjunction with inflation rates throughout the remainder of the 1980s
4 and throughout the 1990s. Interest rates declined even further from 2000-2005 and
5 generally recorded their lowest levels since the 1960s.

6 During the past several years, long-term interest rates remained low by historic
7 standards. During the 2001 recession and early in the succeeding expansion, the Federal
8 Reserve lowered interest rates (i.e., Federal Funds rate) 11 times in 2001 and twice in
9 2003 in an effort to stimulate the economy. Following this, the Federal Reserve
10 increased short-term interest rates on 17 occasions between 2004 and 2006,¹ although
11 each time by only 0.25 percent, in an attempt to ensure that any perceived inflationary
12 expectations will not stifle continued economic growth. Nevertheless, the Federal
13 Reserve actions did not result in a pronounced increase in long-term rates. Most recently,
14 however, the Federal Reserve has lowered the Federal Funds rate (i.e., short-term rate) on
15 several occasions and it is currently 0.25 percent, an all-time low. The year 2008
16 experienced a pronounced decline in short-term rates, a slight decline in long-term U.S.
17 Treasury Securities yields, and an increase in utility bond yields. The initial months of
18 2009 have seen a reduction in the levels of corporate yields. I note that recent yields on
19 A-rated utility bonds (i.e., OG&E's primary rating) are similar now to those in effect
20 prior to the late-2008 financial crisis.

21
22 **Q. WHAT HAVE BEEN THE TRENDS IN COMMON SHARE PRICES?**

23 A. Pages 5 and 6 show several series of common stock prices and ratios. These ratios
24 indicate that share prices were essentially stagnant during the high inflation/interest rate
25 environment of the late 1970s and early 1980s. On the other hand, the 1983-1991
26 business cycle and the most recent cycles witnessed a significant upward trend in stock
27 prices. Since the beginning of the current financial crisis, on the other hand, stock prices
28 have declined precipitously and have been very volatile. Stock prices in 2008 and early
29 2009 are down significantly from 2007 levels, reflecting the financial/economic crises.

¹ See Federal Reserve Bank of New York, "Historical Changes of the Target Federal Funds and Discount Rates," www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html.

1 **Q. WHAT CONCLUSIONS DO YOU DRAW FROM YOUR DISCUSSION OF**
2 **ECONOMIC AND FINANCIAL CONDITIONS?**

3 A. It is apparent that recent and current economic/financial circumstances are radically
4 different from any that have prevailed since at least the 1930s. The recent deterioration in
5 stock prices and the decline in U.S. Treasury bond yields and increase in corporate bond
6 yields reflect the “flight to quality” that describes the extreme reluctance of investors to
7 purchase common stocks and corporate bonds while moving investments into the very
8 safe government bonds.

9 This “flight to safety” should not be interpreted to reflect an increase in the cost of
10 capital, however. Rather, it more properly reflects an “availability of capital” since
11 investors have been recently been unwilling to invest in any assets other than U.S.
12 Treasury bonds. As I noted previously, the opportunity cost of capital, as measured by
13 the recent and current returns of unregulated firms, has been the lowest in recent memory.
14 Clearly, this cannot be claimed to reflect an increase in the cost of capital for a regulated
15 firm such as OG&E.

16
17 **V. OKLAHOMA GAS & ELECTRIC’S OPERATIONS AND RISKS**

18
19 **Q. PLEASE SUMMARIZE OG&E AND ITS OPERATIONS.**

20 A. OG&E is a public utility that is engaged in the distribution, transmission, generation,
21 purchase and sale of electric energy to about 750,000 customers in Oklahoma and
22 Western Arkansas. The Company is the largest electric utility in Oklahoma. OG&E is a
23 subsidiary of OGE.

24
25 **Q. PLEASE DESCRIBE OGE.**

26 A. OGE is a holding company which is engaged in electric utility, natural gas transportation
27 and storage, natural gas gathering and processing and natural gas marketing. Its principal
28 subsidiaries are OG&E and Enogex, LLC.

29
30 **Q. WHAT ARE THE CURRENT SECURITY RATINGS OF OG&E AND OGE?**

31 A. The senior notes of OG&E are rated as follows:

		<u>OG&E</u>	<u>OGE Energy</u>	<u>Enogex</u>
1				
2	S&P	BBB+	BBB	BBB+
3				
4	Moody's	A2	Baa1	Baa3
5	Fitch	AA-	A	BBB

(Source: OGE Financial Update, dated May 11-13, 2009)

These ratings have been in effect since 2002. The ratings of OGE are generally one rating category below those of OG&E and several categories above these of Enogex.

Q. HOW HAVE THE RATING AGENCIES DESCRIBED OG&E RECENTLY?

A. S&P made the following statements about OG&E in a August 22, 2008 RatingsDirect:

Major Rating Factors

Strengths:

- **Stable utility** accounts for majority of OGE Energy credit profile;
- Regulatory pre-approval and trackers for investments in generation, transmission, and environmental upgrades at OG&E; . . .

...

Rationale

The **ratings** on electric utility **Oklahoma Gas & Electric Co. (OG&E)** **reflect the consolidated credit profile of its parent**, diversified energy company OGE Energy Corp. OG&E contributes roughly 75% to the consolidated credit profile, and Enogex Inc., a natural gas midstream company, accounts for the remainder.

...

OGE Energy's consolidated credit profile consists of the **strength and stability of its regulated utility** and gas transportation business, offset by the riskier, more volatile nature of its gas gathering, storage, processing, and marketing business.

...

OG&E has an "excellent" business profile.

[Emphasis added]

1 This reflects the following observations by S&P:

2 OGE's financials are dominated by "stable utility" operations;

3 OG&E enjoys a number of regulatory pre-approval and trackers for investments;

4 The utility operations of OG&E are less risky than the other operations of OGE;

5 OG&E's ratings reflect the "consolidated" credit profile of OGE, which includes
6 certain more risky non-regulated operations; and,

7 OG&E has an "excellent" business profile.
8

9 **Q. DOES OG&E ACKNOWLEDGE THE TARIFFS THAT THE COMMISSION**
10 **HAS APPROVED FOR THE COMPANY IN RECENT YEARS?**

11 A. Yes, it does. OG&E witness Motley acknowledges, on page 11 of his testimony, that the
12 Commission has approved three tariff riders to recover the revenue requirement
13 associated with special projects of OG&E in the past five years: (1) Security Rider; (2)
14 Centennial Wind Energy Project Rider; and, (3) Rebud Acquisition Rider. In addition,
15 OG&E has had the benefit of other tariff riders that permit OG&E to recover an
16 "extraordinary expense" such as the Storm Cost Recovery Rider cited by Mr. Motley on
17 page 10.
18

19 **Q. DOES OG&E ACKNOWLEDGE THE REDUCED RISK ASSOCIATED WITH**
20 **THESE RIDERS?**

21 A. No, it does not. Mr. Motley states, on pages 11-12, that these riders do not "eliminate"
22 OG&E's regulatory risk. He implies that there is no reduction in risk associated with
23 these riders. Obviously, his position is in direct conflict with the above-cited assessment
24 of OG&E by Standard & Poor's, an independent agency who is charged with an impartial
25 assessment of a utility's risks. S&P has clearly indicated its perception that OG&E's
26 "trackers" are a strength of the Company.
27

28 **Q. HOW DOES THE RISK OF OG&E COMPARE TO OTHER ELECTRIC**
29 **UTILITIES?**

30 A. OG&E is a very low-risk electric utility. As I noted above, the Company's debt is
31 double-A by Fitch, single-A by Moody's and triple-B plus by S&P (note that S&P's

1 ratings of OG&E by S&P largely reflect the consolidated credit profile of OGE, which is
 2 negatively impacted by its more risky unregulated operations). This compares favorably
 3 with other electric utilities. Of the 60 electric utilities and combination gas and electric
 4 utilities covered by AUS utility Reports, the following number of bond ratings currently
 5 exist.

	<u>Moody's</u> <u>Rating</u>	<u>No. of Cos.</u>	<u>S&P</u> <u>Rating</u>	<u>No. of Cos.</u>
8	Aa2	1		
9	Aa3	2	AA-	2
10	A1	4	A+	1
11	A2	8*	A	8
12	A3	12	A-	18
13	Baa1	10	BBB+*	9
14	Baa2	15	BBB	11
15	Baa3	1	BBB-	5
16	Ba or less	1	BB	1
17	NR	6	NR	5

* OG&E's rating.

18
 19 **VI. CAPITAL STRUCTURE AND COSTS OF DEBT AND PREFERRED STOCK**

20 **Q. WHAT IS THE IMPORTANCE OF DETERMINING A PROPER CAPITAL**
 21 **STRUCTURE IN A REGULATORY FRAMEWORK?**

22 A. A utility's capital structure is important because the concept of rate base – rate of return
 23 regulation requires that a utility's capital structure be determined and utilized in
 24 estimating the total cost of capital. Within this framework, it is proper to ascertain
 25 whether the utility's capital structure is appropriate relative to its level of business risk
 26 and relative to other utilities.

27 As discussed in Section III of my testimony, the purpose of determining the
 28 proper capital structure for a utility is to help ascertain its capital costs. The rate base –
 29 rate of return concept recognizes the assets employed in providing utility services and
 30 provides for a return on these assets by identifying the liabilities and common equity (and
 31 their cost rates) used to finance the assets. In this process, the rate base is derived from
 the asset side of the balance sheet and the cost of capital is derived from the

1 liabilities/owners' equity side of the balance sheet. The inherent assumption in this
2 procedure is that the dollar values of the capital structure and the rate base are
3 approximately equal and the former is utilized to finance the latter.

4 The common equity ratio (i.e., the percentage of common equity in the capital
5 structure) is the capital structure item which normally receives the most attention. This is
6 the case because common equity: (1) usually commands the highest cost rate; (2)
7 generates associated income tax liabilities; and, (3) causes the most controversy since its
8 cost cannot be precisely determined.

9
10 **Q. HOW HAVE YOU EVALUATED THE CAPITAL STRUCTURE OF OG&E?**

11 A. I have first examined the five year historic (2004-2008) capital structure ratios of OG&E.
12 These are shown on Page 1 of Schedule 3.

13 I have summarized below the common equity ratios for OG&E:

14

	<u>Including S-T Debt</u>	<u>Excluding S-T Debt</u>
15 2004	55.3%	55.6%
16 2005	54.0%	56.9%
17 2006	58.3%	61.1%
18 2007	54.4%	62.8%
19 2008	54.2%	54.2%

20 This indicates that the Company's equity ratio has generally remained at about 55 percent
21 (including short-term debt).

22
23 **Q. HAVE YOU ALSO EXAMINED THE CAPITAL STRUCTURE RATIOS OF**
24 **OGE?**

25 A. Yes, I have. These are shown on Page 2 of Schedule 3. The common equity ratios of
26 OGE, on a consolidated basis, are summarized below:

27

	<u>Including S-T Debt</u>	<u>Excluding S-T Debt</u>
28 2004	45.2%	46.8%
29 2005	50.1%	50.1%
30 2006	54.3%	54.3%
31 2007	50.7%	55.6%
	45.4%	46.7%

1 The equity ratios of OGE have remained well below those of OG&E.

2
3 **Q. HOW DO THESE CAPITAL STRUCTURES COMPARE TO THOSE OF**
4 **INVESTOR-OWNED ELECTRIC UTILITIES?**

5 A. Schedule 4 shows the common equity ratios (including short-term debt in
6 capitalization) for the two groups of electric utilities covered by AUS Utility Reports.
7 These are:

8
9

	Year	Electric	Combination Gas And Electric
10	2004	47%	43%
11	2005	44%	47%
12	2006	45%	44%
13	2007	47%	46%
	2008	45%	43%

14 These common equity ratios are generally lower than those of OG&E.

15
16 **Q. WHAT CAPITAL STRUCTURE RATIOS HAS OG&E REQUESTED IN THIS**
17 **PROCEEDING?**

18 A. The Company requests use of a proforma December 31, 2008 capital structure, which is
19 as follows:

20

Long-Term Debt	45.858%
Common Equity	54.142%

21
22

23 I also use these capital structure ratios as the initial capital structure in my cost of capital
24 analyses.

25
26 **Q. WHAT IS THE COST RATE OF LONG-TERM DEBT IN THE COMPANY'S**
27 **APPLICATION?**

28 A. The Company's filing cites a cost of long-term debt of 6.559 percent. I use this cost of
29 long-term debt in my cost of capital analyses for OG&E.

30

1 **Q. CAN THE COST OF COMMON EQUITY BE DETERMINED WITH THE SAME**
2 **DEGREE OF PRECISION AS THE COSTS OF DEBT AND COMMON**
3 **DEPOSITS?**

4 A. No. The cost rates of debt and preferred stock are largely determined by interest
5 payments, issue prices, and related expenses. The cost of common equity, on the other
6 hand, cannot be precisely quantified, primarily because this cost is an opportunity cost.
7 There are, however, several models which can be employed to estimate the cost of
8 common equity. Three of the primary methods – DCF, CAPM, and CE – are developed
9 in the following sections of my testimony.

10
11 **VII. SELECTION OF PROXY GROUPS**
12

13 **Q. HOW HAVE YOU ESTIMATED THE COST OF COMMON EQUITY FOR**
14 **OG&E?**

15 A. OG&E is not a publicly-traded company. Consequently, it is not possible to directly
16 apply cost of equity models to this entity. Its parent company, OGE is publicly-traded,
17 and consequently, it is possible to conduct direct analyses of its cost of common equity.
18 However, it is generally preferable to analyze groups of comparison or “proxy”
19 companies as a substitute for OG&E to determine its cost of common equity.

20 I have examined two such groups for comparison to OG&E. I selected one group
21 of electric utilities similar to OG&E and OGE using the criteria listed on Schedule 5.
22 These criteria are as follows:

- 23 (1) Market cap of \$1 billion to \$5 billion;
24 (2) Electric revenues 50% or greater;
25 (3) Common equity ratio 40% or greater;
26 (4) S&P stock ranking of B or B+;
27 (5) S&P and Moody’s bond ratings of BBB; and,
28 (6) Currently pays dividends.

29
30 Second, I have conducted studies of the cost of equity for the group of proxy
31 companies selected by OG&E’s witness Donald A. Murry.

1 **VIII. DISCOUNTED CASH FLOW ANALYSIS**

2

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

4 **DISCOUNTED CASH FLOW MODEL?**

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

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

7 The DCF model is based on the “dividend discount model” of financial theory, which

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

9 value of all future cash flows.

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

11 to grow at a constant rate. This variant of the dividend discount model is known as the

12 constant growth or Gordon DCF model. In this framework cost of capital is derived by

13 the following formula:

14
$$K = \frac{D}{P} + g$$

15

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

17 P = current price

18 D = current dividend rate

19 g = constant rate of expected growth

20

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

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

23 dividends (future income).

24

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

26 A. I have utilized the constant growth DCF model. In doing so, I have combined the current

27 dividend yield for each group of proxy utility stocks described in the previous section

28 with several indicators of expected dividend growth.

29

1 **Q. HOW DID YOU DERIVE THE DIVIDEND YIELD COMPONENT OF THE DCF**
2 **EQUATION?**

3 A. There are several methods that can be used for calculating the dividend yield component.
4 These methods generally differ in the manner in which the dividend rate is employed;
5 i.e., current versus future dividends or annual versus quarterly compounding of
6 dividends. I believe the most appropriate dividend yield component is the version listed
7 below:

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

9 This dividend yield component recognizes the timing of dividend payments and dividend
10 increases.

11 The P_0 in my yield calculation is the average (of high and low) stock price for
12 each proxy company for the most recent three month period (February – April, 2009).
13 The D_0 is the current annualized dividend rate for each proxy company.

14
15 **Q. HOW HAVE YOU ESTIMATED THE DIVIDEND GROWTH COMPONENT OF**
16 **THE DCF EQUATION?**

17 A. The dividend growth rate component of the DCF model is usually the most crucial and
18 controversial element involved in using this methodology. The objective of estimating
19 the dividend growth component is to reflect the growth expected by investors that is
20 embodied in the price (and yield) of a company's stock. As such, it is important to
21 recognize that individual investors have different expectations and consider alternative
22 indicators in deriving their expectations. This is evidenced by the fact that every
23 investment decision resulting in the purchase of a particular stock is matched by another
24 investment decision to sell that stock. Obviously, since two investors reach different
25 decisions at the same market price, their expectations differ.

26 A wide array of indicators exist for estimating the growth expectations of
27 investors. As a result, it is evident that no single indicator of growth is always used by all
28 investors. It therefore is necessary to consider alternative indicators of dividend growth
29 in deriving the growth component of the DCF model.

30

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

- 2 1. 2004-2008 (5-year average) earnings retention, or fundamental growth
3 (per Value Line);
- 4 2. 5-year average of historic growth in earnings per share (EPS), dividends
5 per share (DPS), and book value per share (BVPS) (per Value Line);
- 6 3. 2009 and 2011-2013 projections of earnings retention growth (per Value
7 Line);
- 8 4. 2006-2008 to 2011-2013 projections of EPS, DPS, and BVPS (per Value
9 Line); and
- 10 5. 5-year projections of EPS growth as reported in First Call (per Yahoo!
11 Finance).

12
13 I believe this combination of growth indicators is a representative and appropriate
14 set with which to begin the process of estimating investor expectations of dividend
15 growth for the groups of proxy companies. I also believe that these growth indicators
16 reflect the types of information that investors consider in making their investment
17 decisions. As I indicated previously, investors have an array of information available to
18 them, all of which should be expected to have some impact on their decision-making
19 process.

20
21 **Q. PLEASE DESCRIBE YOUR INITIAL DCF CALCULATIONS.**

- 22 A. Schedule 6 presents my DCF analysis. Page 1 shows the calculation of the “raw” (i.e.,
23 prior to adjustment for growth) dividend yield for each proxy company. Pages 2 and 3
24 show the growth rate for the groups of proxy companies. Page 4 shows the “raw” DCF
25 calculations, which are presented on several bases: mean, median, and high values.
26 These results can be summarized as follows:

27
28

	<u>Mean</u>	<u>Median</u>	<u>Mean Range</u>	<u>Median Range</u>
29 Proxy Group	10.4%	9.9%	9.1-11.4%	9.5-12.0%
30 Murry Group	10.6%	10.7%	9.8-11.7%	10.0-11.9%

31

1 I note that the individual DCF calculations shown on Schedule 6 should not be
2 interpreted to reflect the expected cost of capital for the proxy groups; rather, the
3 individual values shown should be interpreted as alternative information considered by
4 investors. The individual DCF calculations also demonstrate how the focus on a single
5 growth rate, such as EPS projections, can produce a DCF conclusion that is not reflective
6 of a broader perspective of available information.

7 The DCF results in Schedule 6 indicate average (mean and median) DCF cost
8 rates of 9.9 percent to 10.7 percent. The range DCF rates (i.e., using the lowest and
9 highest growth rates) are about 9 percent to 12 percent.

10
11 **Q. WHAT DO YOU CONCLUDE FROM YOUR DCF ANALYSES?**

12 A. This analysis reflects a broad DCF range of about 9 percent to about 12 percent for the
13 proxy groups. This is approximated by the average/mean values, as well as the individual
14 DCF calculations for the proxy groups examined in the previous analysis. I give less
15 weight to the lower end of the mean/median results, as well as less weight to the extreme
16 upper ends of the groups (i.e., mean results, which are impacted by outlier results). I
17 believe that 9.9 percent to 10.7 percent (10.3 percent mid-point) reflects the proper DCF
18 cost for OG&E.

19
20 **IX. CAPITAL ASSET PRICING MODEL ANALYSIS**

21
22 **Q. PLEASE DESCRIBE THE THEORY AND METHODOLOGICAL BASIS OF**
23 **THE CAPITAL ASSET PRICING MODEL.**

24 A. The Capital Asset Pricing Model (CAPM) is a version of the risk premium method. The
25 CAPM describes and measures the relationship between a security's investment risk and
26 its market rate of return. The CAPM was developed in the 1960s and 1970s as an
27 extension of modern portfolio theory (MPT), which studies the relationships among risk,
28 diversification, and expected returns.

29
30 **Q. HOW IS THE CAPM DERIVED?**

31 A. The general form of the CAPM is:

1
$$K = R_f + \beta(R_m - R_f)$$

2 where: K = cost of equity

3 R_f = risk free rate

4 R_m = return on market

5 β = beta

6 $R_m - R_f$ = market risk premium

7
8 As noted previously, the CAPM is a variant of the risk premium method. I believe the
9 CAPM is generally superior to the simple risk premium method because the CAPM
10 specifically recognizes the risk of a particular company or industry (i.e., beta), whereas
11 the simple risk premium method assumes the same risk premium for all companies
12 exhibiting similar bond ratings.

13
14 **Q. WHAT GROUPS OF COMPANIES HAVE YOU UTILIZED TO PERFORM**
15 **YOUR CAPM ANALYSES?**

16 A. I have performed CAPM analyses for the same groups of proxy utilities evaluated in my
17 DCF analyses.

18
19 **Q. WHAT RATE DID YOU USE FOR THE RISK-FREE RATE?**

20 A. The first term of the CAPM is the risk-free rate (R_f). The risk-free rate reflects the level
21 of return that can be achieved without accepting any risk.

22 In CAPM applications, the risk-free rate is generally recognized by use of U.S.
23 Treasury securities. Two general types of U.S. Treasury securities are often utilized as
24 the R_f component - short-term U.S. Treasury bills and long-term U.S. Treasury bonds.

25 I have performed CAPM calculations using the three month average yield (March
26 – May, 2009) for 20-year U.S. Treasury bonds. Over this three month period, these
27 bonds had an average yield of 3.95 percent.

28
29 **Q. WHAT IS BETA AND WHAT BETAS DID YOU EMPLOY IN YOUR CAPM?**

30 A. Beta is a measure of the relative volatility (and thus risk) of a particular stock in relation
31 to the overall market. Betas of less than 1.0 are considered less risky than the market,

1 whereas betas greater than 1.0 are more risky. Utility stocks traditionally have had betas
2 below 1.0. I utilized the most recent Value Line betas for each company in the groups of
3 proxy utilities.
4

5 **Q. HOW DID YOU ESTIMATE THE MARKET RISK PREMIUM COMPONENT?**

6 A. The market risk premium component ($R_m - R_f$) represents the investor-expected premium
7 of common stocks over the risk-free rate, or government bonds. For the purpose of
8 estimating the market risk premium, I considered alternative measures of returns of the
9 S&P 500 (a broad-based group of large U.S. companies) and 20-year U.S. Treasury
10 bonds.

11 First, I have compared the actual annual returns on equity of the S&P 500 with the
12 actual annual yields of U.S. Treasury bonds. Schedule 7 shows the return on equity for
13 the S&P 500 group for the period 1978-2007 (all available years reported by S&P). This
14 schedule also indicates the annual yields on 20-year U.S. Treasury bonds, as well as the
15 annual differentials (i.e., risk premiums) between the S&P 500 and U.S. Treasury 20-year
16 bonds. Based upon these returns, I conclude that this version of the risk premium is
17 about 6.45 percent.

18 I have also considered the total returns (i.e., dividends/interest plus capital
19 gains/losses) for the S&P 500 group as well as for the long-term government bonds, as
20 tabulated by Morningstar (formerly Ibbotson Associates), using both arithmetic and
21 geometric means. I have considered the total returns for the entire 1926-2008 period,
22 which are as follows:

	<u>S&P 500</u>	<u>L-T Gov't Bonds</u>	<u>Risk Premium</u>
24 Arithmetic	11.7%	6.1%	5.6%
25 Geometric	9.6%	5.7%	3.9%

26 I conclude from this that the expected risk premium is about 5.32 percent (i.e., average of
27 all three risk premiums). I believe that a combination of arithmetic and geometric means
28 is appropriate since investors have access to both types of means and, presumably, both
29 types are reflected in investment decisions and thus stock prices and cost of capital.

30 Schedule 8 shows my CAPM calculations using the risk premium. The results
31 are:

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31

	<u>Mean</u>	<u>Median</u>
Proxy Group	7.8%	7.7%
Murry Group	7.7%	7.7%

Q. WHAT IS YOUR CONCLUSION CONCERNING THE CAPM COST OF EQUITY?

A. The CAPM results collectively indicate a cost of 7.7 percent to 7.8 percent for the two groups of comparison utilities. I conclude that the CAPM cost of equity for OG&E is 7.8 percent.

X. COMPARABLE EARNINGS ANALYSIS

Q. PLEASE DESCRIBE THE BASIS OF THE CE METHODOLOGY.

A. The CE method is derived from the “corresponding risk” standard of the Bluefield and Hope cases. This method is thus based upon the economic concept of opportunity cost. As previously noted, the cost of capital is an opportunity cost: the prospective return available to investors from alternative investments of similar risk.

The CE method is designed to measure the returns expected to be earned on the original cost book value of similar risk enterprises. Thus, this method provides a direct measure of the fair return, because the CE method translates into practice the competitive principle upon which regulation is based.

The CE method normally examines the experienced and/or projected returns on book common equity. The logic for examining returns on book equity follows from the use of original cost rate base regulation for public utilities, which uses a utility’s book common equity to determine the cost of capital. This cost of capital is, in turn, used as the fair rate of return which is then applied (multiplied) to the book value of rate base to establish the dollar level of capital costs to be recovered by the utility. This technique is thus consistent with the rate base methodology used to set utility rates.

Q. HOW HAVE YOU EMPLOYED THE CE METHODOLOGY IN YOUR ANALYSIS OF OG&E’S COMMON EQUITY COST?

1 A. I conducted the CE methodology by examining realized returns on equity for several
2 groups of companies and evaluating the investor acceptance of these returns by reference
3 to the resulting market-to-book ratios. In this manner it is possible to assess the degree to
4 which a given level of return equates to the cost of capital. It is generally recognized for
5 utilities that market-to-book ratios of greater than one (i.e., 100%) reflect a situation
6 where a company is able to attract new equity capital without dilution (i.e., above book
7 value). As a result, one objective of a fair cost of equity is the maintenance of stock
8 prices above book value.

9 I would further note that the CE analysis, as I have employed it, is based upon
10 market data (through the use of market-to-book ratios) and is thus essentially a market
11 test. As a result, my analysis is not subject to the criticisms occasionally made by some
12 who maintain that past earned returns do not represent the cost of capital. In addition, my
13 analysis uses prospective returns and thus is not confined to historical data.

14
15 **Q. WHAT TIME PERIODS HAVE YOU EXAMINED IN YOUR CE ANALYSIS?**

16 A. My CE analysis considers the experienced equity returns of the proxy groups of utilities
17 for the period 1992-2008 (i.e., last seventeen years). The CE analysis requires that I
18 examine a relatively long period of time in order to determine trends in earnings over at
19 least a full business cycle. Further, in estimating a fair level of return for a future period,
20 it is important to examine earnings over a diverse period of time in order to avoid any
21 undue influence from unusual or abnormal conditions that may occur in a single year or
22 shorter period. Therefore, in forming my judgment of the current cost of equity I have
23 focused on two periods: 2002-2008 (the current cycle) and 1992-2001 (the most recent
24 complete business cycle).

25
26 **Q. PLEASE DESCRIBE YOUR CE ANALYSIS.**

27 A. Schedules 9 and 10 contain summaries of experienced returns on equity for several
28 groups of companies, while Schedule 11 presents a risk comparison of utilities versus
29 unregulated firms.

30 Schedule 9 shows the earned returns on average common equity and market-to-
31 book ratios for the three groups of proxy utilities. These can be summarized as follows:

		Proxy Group	Murry Group
1			
2			
3	Historic ROE		
4	Mean	8.6-9.6%	9.9%
5	Median	8.5-10.8%	9.9-11.2%
6	Historic M/B		
7	Mean	133-144%	145-151%
8	Median	124-144%	141-148%
9	Prospective ROE		
10	Mean	8.5-9.1%	9.6-10.5%
11	Median	8.3-8.5%	9.8-10.0%

11 These results indicate that historic returns of 8.6 percent to 11.2 percent have been
12 adequate to produce market-to-book ratios of 124 percent to 151 percent for the groups of
13 proxy utilities. Furthermore, projected returns on equity for 2009, and 2011-2013 are
14 within a range of 8.3 percent to 10.5 percent for the utility groups. These relate to 2008
15 market-to-book ratios of 123 percent or higher. I also note that, while the historic and
16 projected returns on equity for the Murry Group are higher than the other groups, the
17 market-to-book ratios of this group are also higher. This indicates that the returns of this
18 group exceed the cost of capital.

19
20 **Q. HAVE YOU ALSO REVIEWED EARNINGS OF UNREGULATED FIRMS?**

21 A. Yes. As an alternative, I also examined a group of largely unregulated firms. I have
22 examined the Standard & Poor's 500 Composite group, since this is a well recognized
23 group of firms that is widely utilized in the investment community and is indicative of the
24 competitive sector of the economy. Schedule 10 presents the earned returns on equity
25 and market-to-book ratios for the S&P 500 group over the past sixteen years. As this
26 Schedule indicates, over the two periods this group's average earned returns ranged from
27 13.9 percent to 14.7 percent with market-to-book ratios ranging between 284 percent and
28 341 percent.

29
30 **Q. HOW CAN THE ABOVE INFORMATION BE USED TO ESTIMATE THE COST
31 OF EQUITY FOR OG&E?**

1 A. The recent earnings of the proxy utility and S&P 500 groups can be utilized as an
2 indication of the level of return realized and expected in the regulated and competitive
3 sectors of the economy. In order to apply these returns to the cost of equity for proxy
4 utilities, however, it is necessary to compare the risk levels of the utility industry with
5 those of the competitive sector. I have done this in Schedule 11, which compares several
6 risk indicators for the S&P 500 group and the utility groups. The information in this
7 schedule indicates that the S&P 500 group is more risky than the utility proxy groups.
8

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

10 A. Based on the recent earnings and market-to-book ratios, I believe the CE analysis
11 indicates that the cost of equity for the proxy utilities is no more than 9.5 percent to 10.0
12 percent (9.75 percent mid-point). Recent returns of 8.6 percent to 11.2 percent have
13 resulted in market-to-book ratios of 120 and greater, with the upper portion of the return
14 on equity range being accompanied by the upper portion of the market-to-book range.
15 Prospective returns of 8.3 percent to 10.5 percent result in anticipated market-to-book
16 ratios of over 120 percent, again with the higher returns being associated with much
17 higher market-to-book ratios. As a result, it is apparent that returns below this level
18 would result in market-to-book ratios of well above 100 percent. An earned return of 9.5
19 percent to 10.0 percent should thus result in a market-to-book ratio of over 100 percent.
20 As I indicated earlier, the fact that market-to-book ratios substantially exceed 100 percent
21 indicates that historic and prospective returns of 11 percent to 13 percent reflect earnings
22 levels that exceed the cost of equity for those regulated companies.

23 Please also note that my CE analysis is not based on a mathematic formula
24 approach, as are the DCF and CAPM methodologies. Rather, it is based on recent trends
25 and current conditions in equity markets. Further, it is based on the direct relationship
26 between returns on common stock and market-to-book ratios of common stock. In utility
27 rate setting, a fair rate of return is based on the utility's assets (i.e., rate base) and the
28 book value of the utility's capital structure. As stated earlier, maintenance of a
29 financially stable utility's market-to-book ratio at 100%, or a bit higher, is fully adequate
30 to maintain the utility's financial stability. On the other hand, a market price of a utility's
31 common stock that is 150 percent or more above the stock's book value is indicative of

1 earnings that exceed the utility's reasonable cost of capital. Thus, actual or projected
2 earnings do not directly translate into a utility's reasonable cost of equity. Rather, they
3 must be viewed in relation to the market-to-book ratios of the utility's common stock.
4

5 **XI. RETURN ON EQUITY RECOMMENDATION**
6

7 **Q. PLEASE SUMMARIZE THE RESULTS OF YOUR THREE COST OF EQUITY**
8 **ANALYSES.**

9 A. My three methodologies produce the following:

10 Discounted Cash Flow	9.9-10.7%	(10.3% mid-point)
11 Capital Asset Pricing Model	7.8%	
12 Comparable Earnings	9.5-10.0%	(9.75% mid-point)

13 My overall conclusion from these results is a reasonable range of 9.75 percent to
14 10.25 percent, which focuses on the respective mid-point findings for the DCF and CE
15 methods.
16

17 **Q. IT APPEARS THAT YOUR CAPM RESULTS ARE SOMEWHAT LOWER**
18 **THAN YOUR DCF RESULTS. DOES THIS INDICATE THAT THE CAPM**
19 **RESULTS SHOULD NOT BE USED AT THIS TIME?**

20 A. No, this is not the case. It is apparent that the CAPM results are lower than the DCF
21 results, as well as being lower than CAPM results in recent years. The two reasons for
22 the lower CAPM results are the current relatively low yields on U.S. Treasury bonds (i.e.,
23 risk-free rate) and a lower risk premium that reflects the decline in stock prices in 2008.
24 However, these currently lower CAPM results are only one half of the impact of recent
25 economic conditions. The other impact is on the DCF results, which are somewhat
26 higher currently due to the higher yields attributable to the decline in stock prices. It
27 would not be proper to disregard the lower CAPM results while not discounting the
28 higher DCF results.
29

30 **Q. PLEASE EXPLAIN HOW THE RECENT AND CURRENT ECONOMIC AND**
31 **FINANCIAL CRISES IMPACT THE COST OF EQUITY FOR OG&E.**

1 A. It is well chronicled that, over the past year and especially over the past several months,
2 the United States and global financial markets have been in turmoil. The impacts of this
3 have been far-reaching in the extreme, with global credit markets virtually coming to a
4 standstill. This crisis and its impact, however, do not imply that the cost of equity for
5 electric utilities such as OG&E has increased. I say this for the following reasons.

6 First, it must be emphasized that depressed economic conditions and the financial
7 crisis affect virtually all sectors of the economy – households, small businesses, larger
8 commercial and industrials – and, in most cases, the impact is greater than is the case for
9 OG&E. OG&E is a regulated utility that sells a product that has no real substitutes and is
10 a product that consumers must use. As such, OG&E and utilities are partially, if not
11 largely, insulated from the impacts of depressed economic conditions.

12 Second, the major impact of such a significant recession will be to depress the
13 profits of most enterprises. As a result, it is to be expected that capital costs will decrease
14 if a significant recession occurs. There is no justification for increasing the profit level of
15 a regulated utility such as OG&E at the same time that other enterprises are experiencing
16 lower profits.

17 Third, the United States and global governments have and are taking
18 extraordinary measures to avoid a further worsening of the current market turmoil. Most
19 of these measures are designed to put liquidity into the credit markets and make credit
20 more accessible again and, in the process, restore more confidence to the financial
21 markets.

22 All of these measures are clearly designed to lower the cost of capital. In this
23 environment, it would be counter-productive to make any claim that OG&E should have
24 a higher return at this time due to the above-cited market turmoil.

25
26 **Q. DOES YOUR RECOMMENDATION IN THIS PROCEEDING RECOGNIZE**
27 **RECENT TRENDS AND LEVELS OF INTEREST RATES AND RETURN ON**
28 **EQUITY AWARDS FOR ELECTRIC UTILITIES?**

29 A. Yes, it does. As I showed in Schedule 2, pages 3-4, interest rates on A-rated utility bonds
30 have recently declined to a level below 6 ½ percent, which is similar to what prevailed in
31 mid-2008 prior to the financial crisis that occurred in the last quarter of 2008 and into

1 early 2009. As a result, my cost of equity equates to interest rate levels similar to those
2 prevailing prior to the financial crisis.

3 In addition, I note that the average cost of equity award for electric utilities in the
4 first quarter of 2009 was 10.29 percent,² or just above the top end of my cost of equity
5 recommended range. Given that OG&E is less risky than the average electric utility, this
6 verifies my recommendation.

7 8 **XII. TOTAL COST OF CAPITAL**

9 10 **Q. WHAT IS THE TOTAL COST OF CAPITAL FOR OG&E?**

11 A. Schedule 1, page 1, reflects the total cost of capital for the Company using OG&E's
12 proposed capital structure and cost of long-term debt, and my common equity cost
13 recommendation. The resulting total cost of capital is a range of 8.15 percent to 8.69
14 percent (8.42 percent with 10.0 percent cost of equity).

15 16 **Q. DOES YOUR COST OF CAPITAL RECOMMENDATION PROVIDE THE** 17 **COMPANY WITH A SUFFICIENT LEVEL OF EARNINGS TO MAINTAIN ITS** 18 **FINANCIAL INTEGRITY?**

19 A. Yes, it does. Schedule 12 shows the pre-tax coverage that would result if OG&E earned
20 my cost of capital recommendation. As the results indicate, my recommended range
21 would produce a coverage level within the benchmark range for an A rated utility. In
22 addition, the debt ratio (which reflects the Company's proposed capital structure) is
23 within the benchmark for an A rated utility.

24 25 **XIII. COMMENTS ON COMPANY TESTIMONY**

26 27 **Q. HAVE YOU REVIEWED THE TESTIMONY OF OG&E WITNESS DONALD A.** 28 **MURRY?**

29 A. Yes, I have. Dr. Murry is recommending a 12.25 percent cost of equity for OG&E, based
30 on the following models and conclusions:

² Source: Regulatory Research Associates.

	OGE Energy	Comparable Electrics
1		
2		
3	9.71%-11.43%	9.35%-11.00%
4	10.99%-14.20%	10.12%-12.45%
5	8.60%-13.31	10.17%-15.25%

(Source: Schedule DAM-25)

7 **Q. DO YOU AGREE WITH HIS CAPM AND DCF ANALYSES AND**
8 **CONCLUSIONS?**

9 A. No, I do not. Each of his CAPM and DCF models suffer from methodological and
10 implementation flaws that have the result of over-stating the cost of equity for OG&E.

12 **Q. PLEASE DESCRIBE DR. MURRY’S CAPM RESULTS.**

13 A. Dr. Murry develops two sets of CAPM analyses. His first CAPM utilizes the following
14 inputs:

16	Risk Free Return	3.46%
17	Beta	Value Line betas
18	Equity Risk Premium	7.10%
19	Size Premium	0.92%

20 Of these components, I disagree with two – the 7.10 percent equity risk premium and the
21 size premium.

23 **Q. WHAT IS THE SOURCE OF DR. MURRY’S 7.10 PERCENT EQUITY RISK**
24 **PREMIUM?**

25 A. That is not clear from Dr. Murry’s testimony. His Exhibit DAM-23 cites a 7.10 percent
26 equity risk premium, but this is not derived or otherwise described in his testimony. It
27 appears that his 7.1 risk premium reflects the 1926-2007 risk premium between total
28 returns on the S&P 500 and income returns on long-term government bonds, as reported
29 in Morningstar (Ibbotson).

30 I disagree with Dr. Murry’s risk premium which appears to employ exclusive
31 reliance on the 1926-2007 arithmetic average differences between large company stocks

1 (i.e., S&P 500) and long-term Treasury bonds. As I indicated earlier in my testimony, it
2 is preferable to use multiple sources of risk premium measures, as I have done. Dr.
3 Murry's 7.1 percent risk premium used only arithmetic returns, and ignores geometric
4 (compound) returns in deriving the risk premium component of the CAPM. This is not
5 proper. It is apparent that investors have access to both types of returns, and
6 correspondingly use both types of returns, which they make investment decisions.

7 In fact, it is noteworthy that mutual fund investors regularly receive reports on
8 their own funds, as well as prospective funds they are considering investing in, that show
9 only geometric returns. Based on this, I find it difficult to accept Dr. Murry's position
10 that only arithmetic returns are considered by investors, and, thus, only arithmetic returns
11 are appropriate in a CAPM context.

12 I also disagree with Dr. Murry's 7.1 percent risk premium since it improperly
13 used "income returns" from the Morningstar study rather than "total returns." What Dr.
14 Murry did was compare the differential between total returns for common stocks (i.e.,
15 dividends and capital gains) and only income returns for Treasury bonds. As such, he has
16 ignored the capital gains component of the Treasury bonds return. As I indicated in my
17 earlier testimony, the differential between total returns of common stocks and Treasury
18 bonds, is 5.6 percent on an arithmetic basis. In addition, Dr. Murry's use of the
19 Morningstar study only used half of the reported data (arithmetic means) and ignored the
20 other half of the reported data (geometric means).

21 It is apparent that, when Dr. Murry's historic risk premium estimate is updated for
22 the inclusion of 2008 data, a much different picture emerges. The 1926-2008 differential
23 between the arithmetic returns of the S&P 500 and long-term government bonds has
24 declined from 6.5 percent to 5.6 percent (i.e., 11.7 percent total return from S&P 500
25 minus 6.1 percent total return for long-term government bonds), a reduction of 150 basis
26 points. A similar update of his "income return" would have the effect of reducing his
27 CAPM risk premium to 6.5 percent, or 60 basis points.

28
29 **Q. WHY DO YOU DISAGREE WITH DR. MURRY'S SIZE PREMIUM?**

30 A. OG&E is not a small company. Value Line, for example, describes OG&E as a "mid-
31 cap" stock and reports it has a market value of common equity of some \$2.2 billion.

1 There is no viable reason to include a size premium in the return on equity award for a
2 company whose equity value exceeds \$2 billion.

3
4 **Q. PLEASE DESCRIBE DR. MURRY'S SECOND CAPM METHOD.**

5 A. Dr. Murry's second CAPM model uses the following inputs:

6
7

Risk Free Return	5.50% (?) not specifically shown
Beta	Value Line betas
Equity Risk Premium	8.50%

8
9
10

11 **Q. WHAT ARE YOUR DISAGREEMENTS WITH DR. MURRY'S SECOND CAPM**
12 **ANALYSIS?**

13 A. My primary disagreement is his 8.50 percent risk premium. Dr. Murry derives this risk
14 premium as follows:

15
16

Market Total Returns	14.70%
Long-Term Corp Bonds Returns	6.20%
Risk Premium	8.50%

17
18
19

20 What Dr. Murry has apparently done is subtract his measure of current long-term
21 corporate bonds (6.20 percent) from some measure of market total returns (14.70
22 percent). His testimony does not show the derivation of this market total returns.

23 My testimony has shown, on the other hand, that total market returns, as measured
24 by the S&P 500 have been 11.7 percent on an arithmetic basis and 9.6 percent on a
25 geometric basis, for the 1926-2008 period.

26 It is apparent that the returns expected by investors are lower now than has been
27 the case throughout the past three decades. This is, of course, not surprising since interest
28 rates and inflation are both low by historic standards.

29 It is also inappropriate to compare market total returns with current yields on
30 corporate bonds. Such a comparison is incorrect since one measure considers both
31 dividends and growth, whereas the second only considers interest income. This
comparison also has the effect of overstating the risk premium.

1 **Q. WHAT ARE YOUR DISAGREEMENTS WITH DR. MURRY'S DCF**
2 **ANALYSES?**

3 A. Even though Dr. Murry appears to use two different sets of DCF analyses, it is apparent
4 that both rely on a single source of the growth component of the DCF model – forecasts
5 of EPS. This is not proper and overstates the cost of equity.
6

7 **Q. WHAT IS IMPROPER ABOUT RELYING EXCLUSIVELY ON ANALYSTS'**
8 **FORECAST OF EPS IN A DCF CONTEXT?**

9 A. There are several reasons why it is not proper to rely exclusively on analysts' forecasts in
10 a DCF context.

11 First, it is not realistic to believe that investors rely exclusively on a single factor,
12 such as analysts' forecasts, in making their investment decisions. Investors have an
13 abundance of available information to assist them in evaluating stocks and EPS forecasts
14 are only one of many such statistics.

15 Second, Value Line, one of Dr. Murry's sources of EPS projections, publishes a
16 large number of individual company data and ratios. Presumably these are published for
17 the consideration of subscribers/investors. It is also apparent that Value Line publishes
18 both historic and forecast data – yet Dr. Murry considers only one factor and only the
19 forecast version of this factor.

20 Third, the vast majority of information available to investors, by both individual
21 companies in the form of annual reports and offering circulars, and by investment
22 publications such as Value Line, is historic data. It is neither realistic nor logical to
23 maintain that investors only consider projected (estimated) data to the exclusion of
24 historic (actual) data.

25 Fourth, there have been a number of academic studies that indicate that analysts'
26 forecasts have been overly-optimistic in the past. See, for example a 1998 article (in the
27 Financial Analysts Journal, Vol. 54, No. 6, Nov./Dec. 1998, 35-42) titled "Why So Much
28 Error In Analysts' Earnings Forecasts?," by Vijay Kumer Chopra. In this article, the
29 author concluded "Analysts' forecasts of EPS and growth in EPS tend to be overly
30 optimistic." He concluded that analysts' forecasts of EPS over the past 13 years have
31 been more than twice the actual growth rate. Investors are aware of the propensity of

1 analysts to over-estimate EPS forecasts. In addition, the presumption that investors rely
2 only on a single projection implies that investors are unsophisticated and unable to make
3 their own decisions. This also is not rational.

4 Fifth, the experience over the past two years should be a clear signal to investors
5 that analysts cannot accurately predict EPS levels. Hardly any security analysts predicted
6 the decline in profits that occurred in 2008 and 2009 to-date.

7 Sixth well-publicized financial debacles of Enron and WorldCom demonstrate
8 dramatically how analysts are often either unwilling or incapable of discerning
9 potentially disastrous impacts of a company's projected EPS, and how even current
10 earnings can be distorted by the complex financial machinations of large, aggressive
11 corporations.

12 Finally, during 2003, ten of the nation's largest securities firms agreed to pay a
13 record \$1.4 billion in penalties to settle U.S. government charges involving investor
14 abuses, many of which resulted from analysts' forecasts and recommendations that the
15 government charged were biased and subject to conflicts-of-interests. This settlement
16 largely grew out of a New York State investigation and reflects the national, and even
17 international, scope of the negative perceptions of analysts' forecasts and
18 recommendations. These, and other, similar investigations and complaints have
19 underscored a growing awareness that analysts' estimates cannot be considered an
20 unbiased source of growth expectations by investors, and this understanding has
21 important implications for a DCF analysis that exclusively incorporates any such
22 estimates.

23 In summary, investors are now very much aware of recent scandals involving
24 security analysts, including the Enron and WorldCom debacles, conflicts of interest that
25 have resulted in settlements, fines, and public admonishments, as well as other negative
26 connotations related to the reliability of analysts' forecasts. These problems clearly call
27 into question the reliance of analysts' forecasts as the only source of growth in a DCF
28 context. The landscape has changed in recent years and investors have ample reasons to
29 doubt the reliability of such forecasts at the present time.

30

1 **Q. ARE EPS PROJECTIONS GENERALLY HIGHER THAN THE ALTERNATIVE**
2 **INDICATORS OF GROWTH AVAILABLE TO INVESTORS?**

3 A. Yes, they are. It is apparent from the data in my Schedule 6 that EPS projections are
4 generally the highest indicators of growth. Again, it is not realistic to believe that all
5 investors rely exclusively on this single source of data.

6

7 **Q. DOES THIS CONCLUDE YOUR PRE-FILED TESTIMONY?**

8 A. Yes, it does.

BACKGROUND AND EXPERIENCE PROFILE
DAVID C. PARCELL, MBA, CRRA
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

2007-Present	President, Technical Associates, Inc.
1995-2007	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

Financial Economics -- 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.

Utility Economics -- 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, Arkansas, California, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, 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.

Insurance Economics -- 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), William and Mary Law Review, Vol. 16, No. 3, 1975

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

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

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

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

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

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

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

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

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

"Identifying and Managing Community Bank Performance After Deregulation", with William B. Harrison, Journal of Managerial Issues, 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, Dictionary of Virginia Biography, Volume 2, 2001.

**OKLAHOMA GAS AND ELECTRIC COMPANY
TOTAL COST OF CAPITAL
AS OF DECEMBER 31, 2008**

Item	Percent	Cost	Weighted Cost
Long-Term Debt	45.858%	6.559%	3.01%
Common Equity	54.142%	9.75% 10.25%	5.28% 5.55%
Total	100.000%		8.29% 8.56%

Mid-Point 8.42%

ECONOMIC INDICATORS

Year	Real GDP Growth*	Industrial Production Growth	Unemploy- ment Rate	Consumer Price Index	Producer Price Index
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%	4.3%	5.4%	3.3%	2.8%
1997	4.5%	7.2%	4.9%	1.7%	-1.2%
1998	4.2%	6.1%	4.5%	1.6%	0.0%
1999	4.5%	4.3%	4.2%	2.7%	2.9%
2000	3.7%	4.2%	4.0%	3.4%	3.6%
2001	0.8%	-3.4%	4.7%	1.6%	-1.6%
Current Cycle					
2002	1.6%	-0.1%	5.8%	2.4%	1.2%
2003	2.5%	1.3%	6.0%	1.9%	4.0%
2004	3.6%	2.5%	5.5%	3.3%	4.2%
2005	2.9%	3.3%	5.1%	3.4%	5.4%
2006	2.8%	2.3%	4.6%	2.5%	1.1%
2007	2.0%	1.5%	4.6%	4.1%	6.2%
2008	1.1%	-2.2%	5.8%	0.1%	-0.9%

*GDP=Gross Domestic Product

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

ECONOMIC INDICATORS

Year	Real GDP Growth*	Industrial Production Growth	Unemployment Rate	Consumer Price Index	Producer Price Index
2002					
1st Qtr.	2.7%	-3.8%	5.6%	2.8%	4.4%
2nd Qtr.	2.2%	-1.2%	5.9%	0.9%	-2.0%
3rd Qtr.	2.4%	0.8%	5.8%	2.4%	1.2%
4th Qtr.	0.2%	1.4%	5.9%	1.6%	0.4%
2003					
1st Qtr.	1.2%	1.1%	5.8%	4.8%	5.6%
2nd Qtr.	3.5%	-0.9%	6.2%	0.0%	-0.5%
3rd Qtr.	7.5%	-0.9%	6.1%	3.2%	3.2%
4th Qtr.	2.7%	1.5%	5.9%	-0.3%	2.8%
2004					
1st Qtr.	3.0%	2.8%	5.6%	5.2%	5.2%
2nd Qtr.	3.5%	4.9%	5.6%	4.4%	4.4%
3rd Qtr.	3.6%	4.6%	5.4%	0.8%	0.8%
4th Qtr.	2.5%	4.3%	5.4%	3.6%	7.2%
2005					
1st Qtr.	3.0%	3.8%	5.3%	4.4%	5.6%
2nd Qtr.	2.6%	3.0%	5.1%	1.6%	-0.4%
3rd Qtr.	3.8%	2.7%	5.0%	8.8%	14.0%
4th Qtr.	1.3%	2.9%	4.9%	-2.0%	4.0%
2006					
1st Qtr.	4.8%	3.4%	4.7%	4.8%	-0.2%
2nd Qtr.	2.7%	4.5%	4.6%	4.8%	5.6%
3rd Qtr.	0.8%	5.2%	4.7%	0.4%	-4.4%
4th Qtr.	1.5%	3.5%	4.5%	0.0%	3.6%
2007					
1st Qtr.	0.1%	2.5%	4.5%	4.8%	6.4%
2nd Qtr.	4.8%	1.6%	4.5%	5.2%	6.8%
3rd Qtr.	4.8%	1.8%	4.6%	1.2%	1.2%
4th Qtr.	-0.2%	1.7%	4.8%	5.6%	12.8%
2008					
1st Qtr.	0.9%	1.8%	4.9%	2.8%	9.6%
2nd Qtr.	2.8%	-0.4%	5.4%	7.6%	14.0%
3rd Qtr.	-0.5%	-3.2%	6.1%	2.8%	-0.4%
4th Qtr.	-6.3%	-6.6%	6.9%	-13.6%	-27.6%
2009					
1st Qtr.	-6.1%	-11.8%	8.1%	2.4%	-1.2%

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%		[1] 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%
2006	7.96%	4.73%	4.80%		5.84%	6.07%	6.32%
2007	8.05%	4.41%	4.63%		5.94%	6.07%	6.33%
2008	5.09%	1.48%	3.66%		6.18%	6.53%	7.25%

[1] Note: Moody's has not published Aaa utility bond yields since 2001.

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

INTEREST RATES

Year	Prime Rate	US Treas T Bills 3 Month	US Treas T Bonds 10 Year	Utility Bonds Aaa [1]	Utility Bonds Aa	Utility Bonds A	Utility Bonds Baa
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%
Dec	8.25%	4.85%	4.56%		5.62%	5.81%	6.05%
2007							
Jan	8.25%	4.96%	4.76%		5.78%	5.96%	6.16%
Feb	8.25%	5.02%	4.72%		5.73%	5.90%	6.10%
Mar	8.25%	4.97%	4.56%		5.66%	5.85%	6.10%
Apr	8.25%	4.88%	4.69%		5.83%	5.97%	6.24%
May	8.25%	4.77%	4.75%		5.86%	5.99%	6.23%
June	8.25%	4.63%	5.10%		6.18%	6.30%	6.54%
July	8.25%	4.84%	5.00%		6.11%	6.25%	6.49%
Aug	8.25%	4.34%	4.67%		6.11%	6.24%	6.51%
Sept	7.75%	4.01%	4.52%		6.10%	6.18%	6.45%
Oct	7.50%	3.97%	4.53%		6.04%	6.11%	6.36%
Nov	7.50%	3.49%	4.15%		5.87%	5.97%	6.27%
Dec	7.25%	3.08%	4.10%		6.03%	6.16%	6.51%
2008							
Jan	6.00%	2.86%	3.74%		5.87%	6.02%	6.35%
Feb	6.00%	2.21%	3.74%		6.04%	6.21%	6.60%
Mar	5.25%	1.38%	3.51%		5.99%	6.21%	6.68%
Apr	5.00%	1.32%	3.68%		5.99%	6.29%	6.82%
May	5.00%	1.71%	3.88%		6.07%	6.27%	6.79%
June	5.00%	1.90%	4.10%		6.19%	6.38%	6.93%
July	5.00%	1.72%	4.01%		6.13%	6.40%	6.97%
Aug	5.00%	1.79%	3.89%		6.09%	6.37%	6.98%
Sept	5.00%	1.46%	3.69%		6.13%	6.49%	7.15%
Oct	4.00%	0.84%	3.81%		6.95%	7.56%	8.58%
Nov	4.00%	0.30%	3.53%		6.83%	7.60%	8.98%
Dec	3.25%	0.04%	2.42%		5.93%	6.54%	8.13%
2009							
Jan	3.25%	0.12%	2.52%		6.01%	6.39%	7.90%
Feb	3.25%	0.31%	2.87%		6.11%	6.30%	7.74%
Mar	3.25%	0.25%	2.82%		6.14%	6.42%	8.00%
Apr	3.25%	0.17%	2.93%		6.20%	6.48%	8.03%
May	3.25%				6.23%	6.49%	7.76%

[1] Note: Moody's has not published Aaa utility bond yields since 2001.

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

STOCK PRICE INDICATORS

Year	S&P Composite [1]	NASDAQ Composite [1]	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%	5.36%
2006	1,310.46	2,263.41	11,408.67	1.87%	5.78%
2007	1,477.19	2,578.47	13,169.98	1.86%	5.29%
2008	1,220.04	2,161.65	11,252.62	2.37%	3.84%

[1] Note: this source did not publish the S&P Composite prior to 1988 and the NASDAQ Composite prior to 1991.

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

STOCK PRICE INDICATORS

YEAR	S&P Composite	NASDAQ Composite	DJIA	S&P D/P	S&P E/P
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.	1,225.91	2,144.61	10,532.24	1.83%	5.42%
4th Qtr.	1,262.07	2,246.09	10,827.79	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%	5.86%
3rd Qtr.	1,288.40	2,141.97	11,274.49	1.91%	5.88%
4th Qtr.	1,389.48	2,390.26	12,175.30	1.81%	5.75%
2007					
1st Qtr.	1,425.30	2,444.85	12,470.97	1.84%	5.85%
2nd Qtr.	1,496.43	2,552.37	13,214.26	1.82%	5.65%
3rd Qtr.	1,490.81	2,609.68	13,488.43	1.86%	5.15%
4th Qtr.	1,494.09	2,701.59	13,502.95	1.91%	4.51%
2008					
1st Qtr.	1,350.19	2,332.91	12,383.86	2.11%	4.57%
2nd Qtr.	1,371.65	2,426.26	12,508.59	2.10%	4.01%
3rd Qtr.	1,251.94	2,290.87	11,322.40	2.29%	3.94%
4th Qtr.	909.80	1,599.64	8,795.61	2.98%	1.65%
2009					
1st Qtr.	809.31	1,485.14	7,774.06	3.00%	

[1] Note: this source did not publish the S&P Composite prior to 1988 and the NASDAQ Composite prior to 1991.

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

**OKLAHOMA GAS & ELECTRIC
CAPITAL STRUCTURE RATIOS
2004 - 2008
(\$Millions)**

YEAR	COMMON EQUITY	LONG-TERM DEBT	SHORT-TERM DEBT
2004	\$1,062.4	\$847.2	\$10.2
	55.3%	44.1%	0.5%
	55.6%	44.4%	
2005	\$1,116.0	\$844.0	\$108.3
	54.0%	40.8%	5.2%
	56.9%	43.1%	
2006	\$1,322.0	\$843.3	\$102.1
	58.3%	37.2%	4.5%
	61.1%	38.9%	
2007	\$1,423.3	\$843.4	\$348.8
	54.4%	32.2%	13.3%
	62.8%	37.2%	
2008	\$1,824.3	\$1,541.4	\$0.0
	54.2%	45.8%	0.0%
	54.2%	45.8%	

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

Source: Response to OIEC 5-2.

OGE ENERGY CORP
CAPITAL STRUCTURE RATIOS
2004 - 2008
(\$000)

YEAR	COMMON EQUITY	LONG-TERM DEBT	SHORT-TERM DEBT
2004	\$1,285.6	\$1,459.2	\$98.6
	45.2%	51.3%	3.5%
	46.8%	53.2%	
2005	\$1,357.8	\$1,350.8	\$3.6
	50.1%	49.8%	0.1%
	50.1%	49.9%	
2006	\$1,603.8	\$1,349.3	\$0.0
	54.3%	45.7%	0.0%
	54.3%	45.7%	
2007	\$1,680.9	\$1,344.6	\$287.0
	50.7%	40.6%	8.7%
	55.6%	44.4%	
2008	\$1,896.8	\$2,161.8	\$123.6
	45.4%	51.7%	3.0%
	46.7%	53.3%	

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

Source: Response to OIEC 5-2.

**AUS UTILITY REPORTS
ELECTRIC UTILITY GROUPS
AVERAGE COMMON EQUITY RATIOS**

Year	Electric	Combination Electric and Gas
2004	47%	43%
2005	44%	47%
2006	45%	44%
2007	47%	46%
2008	45%	43%

Note: Averages include short-term debt.

Source: AUS Utility Reports.

**PROXY COMPANIES
BASIS FOR SELECTION**

Company	Market Cap	Percent Revenues Electric **	Common Equity Ratio **	Valueline Safety	S&P Stock Ranking	Moody's/ S&P Bond Rating
OGE Energy Corp.	\$2,400,000	94%	42%	2	A-	Baa2/BBB+
Comparison Group*						
Avista Corp	\$1,100,000	50%	59.0%	3	B	Baa2/BBB+
Hawaiian Electric Industries	\$1,900,000	83%	51.0%	2	B	Baa2/BBB
Northeast Utilities	\$3,600,000	85%	48.8%	3	B	Baa1/BBB+
Pepco Holdings	\$3,400,000	53%	45.9%	3	B	Baa1/BBB+
Pinnacle West Capital	\$3,500,000	83%	53.0%	2	B+	Baa2/BBB-
Westar Energy	\$2,100,000	69%	48.9%	2	B	Baa2/BBB-

* Selected using following criteria:
 Market Cap of \$1 Billion to \$5 Billion
 Electric Revenues of 50% or greater.
 Common Equity Ratio of 40% or greater.
 S&P Stock Ranking of B or B+
 S&P and Moody's bond ratings of Baa/BBB.
 Currently pays common stock dividends.

** 2007 figures.

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

**COMPARISON COMPANIES
DIVIDEND YIELD**

COMPANY	DPS	February, 2009 to April, 2009			YIELD
		HIGH	LOW	AVERAGE	
PROXY GROUP					
Avista Corp	\$0.72	\$19.52	\$12.67	\$16.10	4.5%
Hawaiian Electric Industries	\$1.24	\$22.73	\$12.09	\$17.41	7.1%
Northeast Utilities	\$0.95	\$25.25	\$19.01	\$22.13	4.3%
OGE Energy	\$1.42	\$26.00	\$19.70	\$22.85	6.2%
Pepco Holdings	\$1.08	\$18.71	\$10.07	\$14.39	7.5%
Pinnacle West Capital	\$2.10	\$35.13	\$22.32	\$28.73	7.3%
Westar Energy	\$1.20	\$20.84	\$14.86	\$17.85	6.7%
Average					6.2%
MURRY PROXY GROUP					
DPL	\$1.14	\$23.45	\$19.18	\$21.32	5.3%
Northeast Utilities	\$0.95	\$25.25	\$19.01	\$22.13	4.3%
NSTAR	\$1.50	\$35.15	\$27.49	\$31.32	4.8%
Pepco Holdings	\$1.08	\$18.71	\$10.07	\$14.39	7.5%
Pinnacle West Capital	\$2.10	\$35.13	\$22.32	\$28.73	7.3%
SCANA	\$1.88	\$35.55	\$26.01	\$30.78	6.1%
Wisconsin Energy	\$1.35	\$46.48	\$36.31	\$41.40	3.3%
Average					5.5%

Source: Yahoo! Finance.

**COMPARISON COMPANIES
RETENTION GROWTH RATES**

COMPANY	2004	2005	2006	2007	2008	Average	2009	2010	'12-'14	Average
PROXY GROUP										
Avista Corp	1.4%	2.4%	4.9%	0.8%	3.7%	2.6%	4.0%	3.5%	2.5%	3.3%
Hawaiian Electric Industries	1.1%	1.5%	0.7%	0.8%	0.5%	0.9%	0.5%	2.5%	3.0%	2.0%
Northeast Utilities	1.6%	1.5%	0.3%	4.3%	5.3%	2.6%	4.5%	4.5%	4.5%	4.5%
OGE Energy	3.4%	3.4%	6.6%	7.1%	5.4%	5.2%	4.5%	5.5%	5.5%	5.2%
Pepco Holdings	2.5%	2.4%	1.5%	2.3%	4.2%	2.6%	2.0%	3.0%	3.5%	2.8%
Pinnacle West Capital	2.3%	1.0%	3.4%	2.5%	0.3%	1.9%	1.0%	2.0%	3.0%	2.0%
Westar Energy	3.2%	4.3%	5.5%	4.3%	1.2%	3.7%	2.5%	2.5%	3.0%	2.7%
Average						2.8%				3.2%
MURRY PROXY GROUP										
DPL	9.8%	0.8%	1.7%	11.4%	11.5%	7.0%	11.0%	11.0%	9.0%	10.3%
Northeast Utilities	1.6%	1.5%	0.3%	4.3%	5.3%	2.6%	4.5%	4.5%	4.5%	4.5%
NSTAR	4.8%	4.6%	4.9%	4.9%	4.9%	4.8%	5.0%	5.0%	6.0%	5.3%
Pepco Holdings	2.5%	2.4%	1.5%	2.3%	4.2%	2.6%	2.0%	3.0%	3.5%	2.8%
Pinnacle West Capital	2.3%	1.0%	3.4%	2.5%	0.3%	1.9%	1.0%	2.0%	3.0%	2.0%
SCANA	5.6%	5.3%	3.8%	4.0%	4.4%	4.6%	4.0%	3.5%	4.0%	3.8%
Wisconsin Energy	4.9%	7.5%	7.1%	7.1%	7.0%	6.7%	6.0%	7.0%	7.0%	6.7%
Average						4.3%				5.1%

Source: Value Line Investment Survey.

**COMPARISON COMPANIES
PER SHARE GROWTH RATES**

COMPANY	5-Year Historic Growth Rates				Est'd '06-'08 to '12-'14 Growth Rates			
	EPS	DPS	BVPS	Average	EPS	DPS	BVPS	Average
PROXY GROUP								
Avista Corp	4.0%	5.0%	3.0%	4.0%	6.5%	12.5%	3.5%	7.5%
Hawaiian Electric Industries	-6.0%	-	1.0%	-2.5%	7.0%	0.0%	2.5%	3.2%
Northeast Utilities	3.0%	8.5%	2.0%	4.5%	8.0%	6.5%	5.0%	6.5%
OGE Energy	11.0%	0.5%	7.0%	6.2%	4.5%	3.0%	7.0%	4.8%
Pepco Holdings	-2.0%	17.5%	1.5%	5.7%	3.0%		2.5%	2.8%
Pinnacle West Capital	-1.0%	5.0%	3.0%	2.3%	3.0%	1.0%	1.0%	1.7%
Westar Energy	32.0%	-5.0%	-4.5%	7.5%	4.0%	4.5%	6.0%	4.8%
Average				4.0%				4.5%
MURRY PROXY GROUP								
DPL	-1.0%	1.0%	2.5%	0.8%	8.0%	3.5%	10.5%	7.3%
Northeast Utilities	3.0%	8.5%	2.0%	4.5%	8.0%	6.5%	5.0%	6.5%
NSTAR	4.0%	6.0%	5.0%	5.0%	8.0%	5.5%	5.5%	6.3%
Pepco Holdings	-2.0%	17.5%	1.5%	5.7%	3.0%	0.0%	2.5%	1.8%
Pinnacle West Capital	-1.0%	5.0%	3.0%	2.3%	3.0%	1.0%	1.0%	1.7%
SCANA	3.5%	6.5%	4.0%	4.7%	4.0%	3.0%	4.5%	3.8%
Wisconsin Energy	6.0%	4.5%	7.5%	6.0%	8.0%	12.0%	6.0%	8.7%
Average				4.1%				5.2%

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
PROXY GROUP								
Avista Corp	4.6%	2.6%	3.3%	4.0%	7.5%	4.7%	4.4%	9.0%
Hawaiian Electric Industries	7.2%	0.9%	2.0%		3.2%	4.8%	2.7%	9.9%
Northeast Utilities	4.4%	2.6%	4.5%	4.5%	6.5%	7.4%	5.1%	9.5%
OGE Energy	6.4%	5.2%	5.2%	6.2%	4.8%	6.0%	5.5%	11.9%
Pepco Holdings	7.6%	2.6%	2.8%	5.7%	2.8%	3.7%	3.5%	11.1%
Pinnacle West Capital	7.4%	1.9%	2.0%	2.3%	1.7%	4.5%	2.5%	9.9%
Westar Energy	6.9%	3.7%	2.7%	7.5%	4.8%	3.6%	4.5%	11.3%
Mean	6.4%	2.8%	3.2%	5.0%	4.5%	5.0%	4.0%	10.4%
Median	6.9%	2.6%	2.8%	5.1%	4.8%	4.7%	4.4%	9.9%
Composite-Mean		9.1%	9.6%	11.4%	10.8%	11.3%	10.4%	
Composite-Median		9.5%	9.7%	12.0%	11.7%	11.5%	11.3%	
MURRY PROXY GROUP								
DPL	5.5%	7.0%	10.3%	0.8%	7.3%	6.3%	6.4%	11.9%
Northeast Utilities	4.4%	2.6%	4.5%	4.5%	6.5%	7.4%	5.1%	9.5%
NSTAR	4.9%	4.8%	5.3%	5.0%	6.3%	6.3%	5.6%	10.5%
Pepco Holdings	7.6%	2.6%	2.8%	5.7%	1.8%	3.7%	3.3%	10.9%
Pinnacle West Capital	7.4%	1.9%	2.0%	2.3%	1.7%	4.5%	2.5%	9.9%
SCANA	6.2%	4.6%	3.8%	4.7%	3.8%	5.2%	4.4%	10.7%
Wisconsin Energy	3.4%	6.7%	6.7%	6.0%	8.7%	9.0%	7.4%	10.8%
Mean	5.6%	4.3%	5.1%	4.1%	5.2%	6.1%	5.0%	10.6%
Median	5.5%	4.6%	4.5%	4.7%	6.3%	6.3%	5.1%	10.7%
Composite-Mean		10.0%	10.7%	9.8%	10.8%	11.7%	10.6%	
Composite-Median		10.1%	10.0%	10.2%	11.9%	11.8%	10.6%	

Sources: Prior pages of this schedule.

**STANDARD & POOR'S 500 COMPOSITE
RETURN ON AVERAGE COMMON EQUITY**

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%	7.26%	5.11%
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%
2006	\$81.51	\$504.39	17.03%	4.68%	12.35%
2007	\$66.17	\$529.59	12.80%	4.86%	7.94%
Average					6.45%

**COMPARISON COMPANIES
CAPM COST RATES**

COMPANY	RISK-FREE RATE	BETA	RISK PREMIUM	CAPM RATES
PROXY GROUP				
Avista Corp	3.95%	0.70	5.32%	7.7%
Hawaiian Electric Industries	3.95%	0.60	5.32%	7.1%
Northeast Utilities	3.95%	0.70	5.32%	7.7%
OGE Energy	3.95%	0.75	5.32%	7.9%
Pinnacle West Capital	3.95%	0.80	5.32%	8.2%
Pepco Holdings	3.95%	0.70	5.32%	7.7%
Westar Energy	3.95%	0.75	5.32%	7.9%
Mean				7.8%
Median				7.7%
MURRY PROXY GROUP				
DPL				
Northeast Utilities	3.95%	0.70	5.32%	7.7%
NSTAR	3.95%	0.65	5.32%	7.4%
Pepco Holdings	3.95%	0.80	5.32%	8.2%
Pinnacle West Capital	3.95%	0.70	5.32%	7.7%
SCANA	3.95%	0.70	5.32%	7.7%
Wisconsin Energy	3.95%	0.65	5.32%	7.4%
Mean				7.7%
Median				7.7%

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	2006	2007	2008	1992-2001 Average	2002-2008 Average	2009	2010	2012-2014
PROXY GROUP																						
Avisia Corp	11.7%	12.2%	10.5%	11.2%	10.6%	15.0%	10.2%	1.1%	13.4%	7.9%	4.5%	6.7%	4.6%	5.8%	8.8%	4.1%	7.4%	10.4%	6.0%	8.0%	8.0%	8.0%
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%	9.3%	7.7%	6.5%	11.0%	9.4%	8.5%	10.0%	10.5%
Northeast Utilities	12.6%	9.4%	12.6%	11.9%	0.1%	-6.2%	-2.3%	-7.3%	-1.3%	6.6%	6.4%	7.1%	5.1%	5.4%	4.5%	8.6%	9.8%	3.8%	6.7%	8.5%	9.5%	8.5%
OGE Energy	10.8%	12.4%	13.3%	13.2%	13.8%	13.4%	16.3%	14.9%	14.1%	9.6%	11.1%	13.2%	12.7%	12.4%	14.9%	14.7%	12.9%	13.2%	13.1%	11.5%	12.0%	11.5%
Peppo Holdings	10.6%	10.9%	10.8%	10.5%	11.7%	10.5%	11.3%	11.7%	8.9%	11.9%	9.8%	7.9%	8.3%	8.1%	7.1%	7.9%	9.0%	11.0%	8.3%	7.5%	8.5%	8.5%
Pinnacle West Capital	10.7%	10.9%	10.2%	10.6%	11.2%	11.8%	11.5%	12.5%	12.4%	12.8%	8.6%	8.3%	8.6%	6.7%	8.2%	8.5%	6.2%	11.5%	8.0%	7.5%	8.0%	9.0%
Westar Energy	11.0%	12.4%	10.7%	11.1%	10.4%	-1.6%	7.1%	5.2%	3.2%	-2.5%	5.0%	10.6%	7.7%	9.6%	11.1%	10.0%	6.6%	6.7%	8.7%	8.0%	8.0%	8.0%
Mean	11.2%	11.4%	11.3%	11.4%	9.7%	7.7%	9.4%	7.0%	8.6%	8.7%	8.2%	9.2%	8.0%	8.2%	9.3%	8.8%	8.3%	9.6%	8.6%	8.5%	9.1%	9.1%
Median	10.9%	12.0%	10.8%	11.1%	10.6%	10.9%	11.3%	11.1%	9.6%	9.6%	8.6%	8.5%	8.2%	8.1%	9.2%	8.5%	7.4%	10.8%	8.5%	8.3%	8.5%	8.5%
MURRY PROXY GROUP																						
DPL	13.3%	14.5%	15.1%	15.2%	15.5%	15.4%	1.9%	15.2%	18.6%	26.5%	11.3%	16.1%	23.5%	11.8%	14.1%	25.9%	25.8%	15.1%	18.4%	23.0%	22.5%	19.0%
Northeast Utilities	12.6%	9.4%	12.6%	11.9%	0.1%	-6.2%	-2.3%	-7.3%	-1.3%	6.6%	6.4%	7.1%	5.1%	5.4%	4.5%	8.6%	9.8%	3.8%	6.7%	8.5%	9.5%	8.5%
NSTAR	11.4%	11.9%	12.2%	10.2%	12.5%	12.6%	12.5%	11.4%	12.3%	13.4%	14.0%	13.9%	13.4%	13.1%	13.2%	13.5%	13.6%	12.1%	13.5%	13.5%	14.0%	14.5%
Peppo Holdings	10.6%	12.6%	10.5%	10.5%	11.7%	10.5%	11.3%	11.7%	8.9%	11.9%	9.8%	7.6%	8.3%	8.1%	7.1%	7.9%	9.0%	11.0%	8.3%	7.5%	8.5%	8.5%
Pinnacle West Capital	10.7%	10.8%	10.2%	10.6%	11.2%	11.9%	11.5%	12.3%	12.4%	12.8%	8.6%	8.3%	8.2%	6.7%	9.2%	8.5%	6.2%	11.5%	8.0%	7.5%	8.0%	9.0%
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%	10.9%	11.0%	11.5%	11.4%	11.8%	10.5%	10.5%	10.5%
Wisconsin Energy	11.4%	11.8%	10.5%	12.9%	11.5%	3.2%	10.0%	11.3%	6.4%	10.6%	12.8%	11.8%	9.0%	11.6%	11.1%	11.1%	11.0%	10.0%	11.2%	10.0%	12.0%	12.0%
Mean	11.3%	11.6%	11.2%	11.3%	10.1%	7.3%	9.3%	7.9%	8.2%	11.3%	10.6%	10.2%	9.4%	9.6%	9.3%	10.1%	10.2%	9.9%	9.9%	9.6%	10.4%	10.5%
Median	11.2%	11.9%	10.9%	11.1%	11.6%	11.1%	11.4%	11.4%	9.8%	11.3%	10.8%	10.1%	8.7%	9.9%	10.1%	9.8%	10.4%	11.2%	9.9%	10.0%	10.0%	9.8%

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	2006	2007	2008	1992-2001 Average	2002-2008 Average
PROXY GROUP																			
Avisia Corp	151%	163%	133%	125%	145%	162%	163%	152%	317%	114%	85%	94%	111%	115%	135%	127%	110%	163%	111%
Hawaiian Electric Industries	171%	154%	141%	149%	147%	147%	154%	132%	127%	145%	153%	151%	179%	181%	192%	166%	164%	147%	169%
Northeast Utilities	154%	149%	127%	124%	95%	64%	91%	113%	136%	129%	99%	95%	106%	108%	131%	163%	128%	118%	119%
OGE Energy	165%	159%	147%	166%	171%	198%	222%	183%	154%	166%	147%	153%	178%	189%	204%	196%	145%	173%	173%
Peppo Holdings	160%	162%	135%	138%	161%	151%	161%	166%	139%	124%	110%	103%	109%	122%	129%	141%	110%	150%	118%
Pinnacle West Capital	116%	125%	99%	116%	133%	152%	180%	143%	145%	154%	116%	114%	130%	130%	129%	127%	97%	136%	120%
Westar Energy	144%	152%	130%	129%	126%	131%	128%	89%	74%	78%	67%	109%	132%	142%	139%	140%	106%	118%	119%
Mean	152%	152%	130%	135%	140%	144%	157%	140%	156%	130%	111%	117%	135%	141%	151%	151%	123%	144%	133%
Median	154%	154%	133%	129%	145%	151%	161%	143%	139%	129%	110%	109%	130%	130%	135%	141%	110%	144%	124%
MURRY PROXY GROUP																			
DPL	177%	206%	196%	213%	214%	221%	231%	215%	314%	422%	322%	241%	272%	318%	373%	415%	298%	241%	320%
Northeast Utilities	154%	149%	127%	124%	95%	64%	91%	113%	136%	129%	99%	95%	106%	108%	131%	163%	128%	149%	119%
NSTAR	138%	154%	130%	130%	125%	146%	181%	166%	161%	161%	170%	175%	189%	202%	214%	222%	201%	149%	196%
Peppo Holdings	160%	162%	135%	138%	161%	151%	161%	166%	139%	124%	110%	103%	109%	122%	129%	141%	110%	150%	118%
Pinnacle West Capital	116%	125%	99%	116%	133%	152%	180%	143%	145%	154%	116%	114%	130%	130%	129%	127%	97%	136%	120%
SCANA	161%	168%	157%	166%	175%	164%	195%	145%	134%	135%	137%	158%	171%	179%	167%	158%	141%	160%	159%
Wisconsin Energy	178%	177%	160%	172%	169%	154%	185%	152%	119%	126%	129%	147%	155%	168%	183%	178%	154%	159%	159%
Mean	151%	156%	135%	141%	143%	139%	166%	148%	139%	138%	127%	132%	143%	152%	159%	165%	139%	161%	145%
Median	157%	158%	133%	134%	147%	152%	181%	149%	138%	132%	123%	131%	143%	149%	149%	161%	135%	148%	141%

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

**STANDARD & POOR'S 500 COMPOSITE
RETURNS AND MARKET-TO-BOOK RATIOS
1992 - 2007**

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%
2006	17.0%	277%
2007	12.8%	284%
Averages:		
1992-2001	14.7%	341%
2002-2007	13.9%	284%

Source: Standard & Poor's Analyst's Handbook, 2008 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	2.6	1.05	B++	B+
PROXY GROUP	2.7	0.71	B+	B
MURRY PROXY GROUP	2.3	0.70	B++	B
OG&E	2.0	0.75	A	A-

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 later representing the highest level.

RISK INDICATORS

COMPANY	VALUE LINE SAFETY	VALUE LINE BETA	VALUE LINE FIN STR	S & P STK RANK		
Comparison Group						
Avista Corp	3	0.70	B+	3.33	B	3.00
Hawaiian Electric Industries	3	0.60	B+	3.33	B	3.00
Northeast Utilities	3	0.70	B+	3.33	B	3.00
OGE Energy	2	0.75	A	4.00	A-	3.67
Pepco Holdings	3	0.80	B	3.00	B	3.00
Pinnacle West Capital	3	0.70	B+	3.33	B+	3.33
Westar Energy	2	0.75	B++	3.67	B	3.00
Average	2.7	0.71	B+	3.43	B	3.14
MURRY PROXY GROUP						
DPL	3	0.60	B++	3.67	B+	3.33
Northeast Utilities	3	0.7	B+	3.3	B	3.00
NSTAR	1	0.65	A	4.00	A-	3.67
Pepco Holdings	3	0.8	B	3.0	B	3.00
Pinnacle West Capital	3	0.7	B+	3.3	B+	3.33
SCANA	2	0.70	A	4.00	B	3.00
Wisconsin Energy	2	0.65	B++	3.67	B	3.00
Average	2.3	0.70	B++	3.56	B	3.17

OKLAHOMA GAS & ELECTRIC RATING AGENCY RATIOS

ITEM	PERCENT	COST RATE	WEIGHTED COST	PRE-TAX COST
Long-Term Debt	45.86%	6.56%	3.01%	3.01%
Common Equity	<u>54.14%</u>	9.75%	<u>5.28%</u>	<u>8.12%</u> (1)
TOTAL CAPITAL	100.00%		8.29%	11.13%

(1) Post-tax weighted cost divided by .65 (composite tax factor)

Pre-tax coverage = $11.13\%/3.01\%$
3.70 X

Standard & Poor's Utility Benchmark Ratios:

	<u>A</u>	<u>BBB</u>
Pre-tax coverage (X)		
Business Position:		
5		2.4 - 3.5 x
Total Debt to Total Capital (%)		
Business Position		
5		50 - 60 %

Note: Standard & Poor's no longer employs the pre-tax coverage ratios as one of its qualitative ratings criteria. The above-cited S&P benchmark ratios reflect the 1999 criteria reported by S&P.