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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION)	CASE NO. AVU-E-08-01
OF AVISTA CORPORATION FOR THE)	CASE NO. AVU-G-08-01
AUTHORITY TO INCREASE ITS RATES)	
AND CHARGES FOR ELECTRIC AND)	DIRECT TESTIMONY
NATURAL GAS SERVICE TO ELECTRIC)	OF
AND NATURAL GAS CUSTOMERS IN THE)	WILLIAM E. AVERA
STATE OF IDAHO)	
_____)	

FOR AVISTA CORPORATION

(ELECTRIC AND NATURAL GAS)

DIRECT TESTIMONY OF WILLIAM E. AVERA

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I. INTRODUCTION

Q. Please state your name and business address.

A. William E. Avera, 3907 Red River, Austin, Texas, 78751.

Q. In what capacity are you employed?

A. I am the President of FINCAP, Inc., a firm providing financial, economic, and policy consulting services to business and government.

Q. Please describe your educational background and professional experience.

A. A description of my background and qualifications, including a resume containing the details of my experience, is attached as Schedule WEA-1.

A. Overview

Q. What is the purpose of your testimony in this case?

A. The purpose of my testimony is to present to the Idaho Public Utilities Commission (the "Commission" or "IPUC") my independent evaluation of the fair rate of return on equity ("ROE") for the jurisdictional electric and gas utility operations of Avista Corp. ("Avista" or "the Company"). In addition, I also examined the reasonableness of Avista's capital structure, considering both the specific risks faced by the Company and other industry guidelines.

1   Q.   Please summarize the information and materials
2   you relied on to support the opinions and conclusions
3   contained in your testimony.
4   A.   To prepare my testimony, I used information from
5   a variety of sources that would normally be relied upon by
6   a person in my capacity.   I am familiar with the
7   organization, finances, and operations of Avista from my
8   participation in prior proceedings before the IPUC, the
9   Washington Utilities and Transportation Commission, and the
10   Oregon Public Utility Commission.   In connection with the
11   present filing, I considered and relied upon corporate
12   disclosures, publicly available financial reports and
13   filings, and other published information relating to
14   Avista.   I also reviewed information relating generally to
15   current capital market conditions and specifically to
16   current investor perceptions, requirements, and
17   expectations for Avista's utility operations.   These
18   sources, coupled with my experience in the fields of
19   finance and utility regulation, have given me a working
20   knowledge of this issues relevant to investors' required
21   return for Avista, and they form the basis of my analyses
22   and conclusions.

23   Q.   What is the role of the rate of return on common
24   equity in setting a utility's rates?
25   A.   The ROE serves to compensate common equity
26   investors for the use of their capital to finance the plant

1   and equipment necessary to provide utility service.

2   Investors commit capital only if they expect to earn a

3   return on their investment commensurate with returns

4   available from alternative investments with comparable

5   risks.   To be consistent with sound regulatory economics

6   and the standards set forth by the Supreme Court in the

7   *Bluefield*[1] and *Hope*[2] cases, a utility's allowed ROE should

8   be sufficient to: 1) fairly compensate the utility's

9   investors, 2) enable the utility to offer a return adequate

10   to attract new capital on reasonable terms, and 3) maintain

11   the utility's financial integrity.

12   **Q.   How did you go about developing your conclusions**
13   **regarding a fair rate of return for Avista?**

14   A.   I first reviewed the operations and finances of

15   Avista and the general conditions in the utility industry.

16   With this as a background, I conducted various well-

17   accepted quantitative analyses to estimate the current cost

18   of equity, including alternative applications of the

19   discounted cash flow ("DCF") model and the Capital Asset

20   Pricing Model ("CAPM"), as well as reference to expected

21   earned rates of return for utilities. Based on the cost of

22   equity estimates indicated by my analyses, the Company's

23   ROE was evaluated taking into account the specific risks

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[1] *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262
U.S. 679 (1923).
[2] *Fed. Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

1 and potential challenges for Avista's utility operations in

2 Idaho.

B. Summary of Conclusions

4 **Q.   What are your findings regarding the fair rate of**

5 **return on equity for Avista?**

6 A.   Based on the results of my analyses and the

7 economic requirements necessary to support continuous

8 access to capital under reasonable terms, I determined that

9 a fair ROE for Avista falls in the range of 10.7 percent to

10 12.2 percent.   The bases for my conclusion are summarized

11 below:

12 • In order to reflect the risks and prospects
13   associated with Avista's jurisdictional utility
14   operations, my analyses focused on a proxy group of
15   twenty other utilities with comparable investment
16   risks.   Consistent with the fact that utilities
17   must compete for capital with firms outside their
18   own industry, I also referenced a proxy group of
19   comparable risk companies in the non-utility sector
20   of the economy;

21 • Because investors' required return on equity is
22   unobservable and no single method should be viewed
23   in isolation, I applied both the discounted cash
24   flow ("DCF") and capital asset pricing model
25   ("CAPM") methods, as well as the expected earnings
26   approach, to estimate a fair ROE for Avista:

27   o My application of the constant growth DCF model
28   considered four alternative growth measures
29   based on projected earnings growth, as well as
30   the sustainable, "br+sv" growth rate for each
31   firm in the respective proxy groups;

32   o After eliminating low- and high-end outliers,
33   my DCF analyses implied a cost of equity of
34   10.7 percent for the proxy group of utilities
35   and 12.6 percent for the group of non-utility
36   companies;

1   o Application of the CAPM approach using forward-
2   looking data that best reflects the underlying
3   assumptions of this approach implied a cost of
4   equity of 12.2 percent for the utility proxy
5   group and 11.4 percent for the firms in the
6   non-utility proxy group;

7   o Applying the CAPM method using historical
8   realized rates of return resulted in a cost of
9   equity of 10.7 percent for the utility proxy
10   group and 10.0 percent for the non-utility
11   proxy group;

12   o My evaluation of earned rates of return
13   expected for utilities suggested a cost of
14   equity on the order of 11.0 percent;

15   o Based on these results, I concluded that the
16   cost of equity for the proxy groups of electric
17   utilities and non-utility companies is in the
18   10.7 percent to 12.2 percent range.

19 Considering investors' expectations for capital

20 markets and the need to support financial integrity and

21 fund crucial capital investment even under adverse

22 circumstances, I concluded that Avista's requested ROE of

23 10.8 percent is reasonable. Based on my evaluation, I

24 determined that:

25   • Because Avista's requested ROE of 10.8 percent
26   barely exceeds the lower bound of my recommended
27   range, it represents a conservative estimate of
28   investors' required rate of return;

29   • The reasonableness of a 10.8 percent minimum ROE
30   for Avista is also supported by the need to
31   consider the Company's credit standing, which
32   remains relatively weak:

33   o The pressures of funding significant capital
34   expenditures and increased operating risks
35   heighten the uncertainties associated with
36   Avista;

37   o Because of Avista's reliance on hydroelectric
38   generation, the Company is exposed to
39   relatively greater risks of power cost
40   volatility;

1   o Investors view the Power Cost Adjustment
2   Mechanism ("PCA") as supportive of the
3   Company's financial integrity, but they
4   understand that the PCA does not apply to 100
5   percent of power costs; nor does it insulate
6   Avista from the need to finance accrued power
7   production and supply costs or shield the
8   Company from potential regulatory
9   disallowances;

10   o Given Avista's present credit ratings, an
11   inadequate rate of return imposed in this
12   proceeding would further pressure the Company's
13   financial flexibility and credit standing;

14   o My conclusion that a 10.8 percent ROE for
15   Avista is a conservative estimate of investors'
16   required return is also reinforced by the
17   Company's relatively greater risks as compared
18   with the proxy group, the greater uncertainties
19   associated with Avista's relatively small size,
20   and the fact that my recommended ROE range does
21   not consider flotation costs.

22

23   **Q.   What is your conclusion as to the reasonableness**

24 **of the Company's capital structure?**

25   A.   Based on my evaluation, I concluded that a common

26 equity ratio of 47.94 percent represents a reasonable basis

27 from which to calculate Avista's overall rate of return.

28 This conclusion was based on the following findings:

29   • Avista's requested capitalization is consistent
30   with the Company's need to strengthen its credit
31   standing and financial flexibility as it seeks to
32   raise additional capital to fund significant system
33   investments and meet the requirements of its
34   service territory;

35   • Avista's proposed common equity ratio is entirely
36   consistent with the 47.8 percent and 49.0 percent
37   average equity ratio maintained by the firms in my
38   utility proxy group, based on year-end 2007 data
39   and near-term expectations, respectively.

1 • My conclusion is reinforced by the investment
2 community's focus on the need for a greater equity
3 cushion to accommodate higher operating risks and
4 the pressures of funding significant capital
5 investments, as well as the impact of off-balance
6 sheet commitments such as purchased power
7 agreements.

8 **Q.   What other evidence did you consider in**
9 **evaluating your recommendation in this case?**
10   A.   My recommendation was reinforced by the following
11 findings:

12 • Sensitivity to regulatory uncertainties has
13 increased dramatically and investors recognize
14 that constructive regulation is a key ingredient
15 in supporting utility credit standing and
16 financial integrity;

17 • Providing Avista with the opportunity to earn a
18 return that reflects these realities is an
19 essential ingredient to strengthen the Company's
20 financial position, which ultimately benefits
21 customers by ensuring reliable service at lower
22 long-run costs;

23 • My conclusion is reinforced by the economic
24 reality that Avista's actual returns have fallen
25 systematically short of the allowed ROE; and the
26 financial impact of an ROE below the minimum level
27 requested by Avista would threaten the Company's
28 ability to maintain an investment grade credit
29 rating;

30 • Investors are aware of the near-term challenges
31 posed by upward pressure on costs and rising
32 capital expenditures. For Avista, these concerns
33 are magnified by the fact that financial metrics
34 continue to be anemic and its credit standing,
35 accordingly, remains relatively weak;

36 • Regulatory support, including a reasonable ROE,
37 will be a key driver in securing additional
38 progress towards restoring the Company's financial
39 health. Further strengthening Avista's financial
40 integrity is imperative to ensure that the Company
41 has the capability to maintain an investment grade
42 rating while confronting potential challenges

1 associated with funding infrastructure development
2 necessary to meet the needs of its customers.

II. RISKS OF AVISTA

4 **Q.** **What is the purpose of this section?**

5 A. As a predicate to my economic and capital market

6 analyses, this section examines the investment risks that

7 investors consider in evaluating their required rate of

8 return for Avista.

A. Operations & Finances

10 **Q.** **Briefly describe Avista.**

11 A. Avista is engaged primarily in the procurement,

12 transmission, and distribution of natural gas and electric

13 energy. Avista's generating facilities include 8

14 hydroelectric generating stations with a combined capacity

15 of approximately 980 megawatts ("MW") and the electrical

16 output of these plants, which has a significant impact on

17 total energy costs, is dependent on streamflows. Although

18 Avista estimates that hydroelectric generation is capable

19 of supplying approximately 50 percent of total system

20 requirements under normal conditions, the Company has

21 experienced prolonged periods of persistent below-normal

22 water conditions in the past.

23 Because close to one-half of Avista's total energy

24 requirements are provided by hydroelectric facilities, the

25 Company is exposed to a level of uncertainty not faced by

26 most utilities. While hydropower confers advantages in

1	terms of fuel cost savings and diversity, reduced
2	hydroelectric generation due to below-average water
3	conditions forces Avista to rely more heavily on wholesale
4	power markets or more costly thermal generating capacity to
5	meet its resource needs. As S&P recently observed:

6	A reduction in hydro generation typically
7	increases an electric utility's costs by
8	requiring it to buy replacement power or run more
9	expensive generation to serve customer loads.
10	Low hydro generation can also reduce utilities'
11	opportunity to make off-system sales. At the
12	same time, low hydro years increase regional
13	wholesale power prices, creating potentially a
14	double impact – companies have to buy more power
15	than under normal conditions, paying higher
16	prices.[3]

17	Additionally, all but one of Avista's hydroelectric
18	facilities are subject to licensing under the Federal Power
19	Act, which is administered by FERC. After agreeing to
20	institute various protections, mitigation, and enhancement
21	measures in order to address environmental concerns, Avista
22	received new 45-year operating licenses covering its two
23	largest hydroelectric facilities – Cabinet Gorge and Noxon
24	Rapids – in 2001. The license covering five hydroelectric
25	plants on the Spokane River expired in August 2007, with an
26	annual permit being issued to temporarily extend the
27	current license. Relicensing is not automatic under
28	federal law, and Avista must demonstrate that it has

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[3] Standard & Poor's Corporation, "Pacific Northwest Hydrology And Its Impact On Investor-Owned Utilities' Credit Quality," *RatingsDirect* (Jan. 28, 2008).

1   operated its facilities in the public interest, which

2   includes adequately addressing environmental concerns.

3   **Q.   How are fluctuations in Avista's operating**

4   **expenses caused by varying hydro and power market**

5   **conditions accommodated in its rates?**

6   A.   Under the PCA, Avista's Idaho jurisdictional

7   rates are adjusted periodically to reflect changes in

8   variable power production and supply costs.   When

9   hydroelectric generation is reduced and power supply costs

10   rise above those included in base rates, the PCA allows

11   Avista to increase rates to recover a portion of its

12   additional costs.   Conversely, if increased hydroelectric

13   generation were to lead to lower power supply costs, rates

14   would be reduced.   Although the PCA provides for rates to

15   be adjusted periodically, it applies to 90 percent of the

16   deviation between actual power supply costs and normalized

17   rates.

18   **Q.   Does the PCA completely eliminate the risk**

19   **associated with fluctuations in power supply costs?**

20   A.   No.   The PCA is viewed as supportive of the

21   Company's financial integrity and an example of

22   constructive regulation, but it does not apply to 100

23   percent of Avista's power costs.   Moreover, even for

24   utilities with permanent energy cost adjustment mechanisms

25   in place, there can be a significant lag between the time

26   the utility actually incurs the expenditure and when it is

1 recovered from ratepayers. The PCA does not insulate

2 Avista from the need to finance deferred power production

3 and supply costs, with Moody's observing, "The historical

4 financial metrics for Avista have been pressured by debt

5 added to fund energy cost deferrals during times when

6 drought conditions prevailed and this has caused us to

7 consider the metrics in line with the Ba rating category."[4]

8 Moreover, even with a PCA, investors recognize the ongoing

9 potential for regulatory disallowances if the Commission

10 determines that the amounts were not prudently incurred.

11 **Q. Are there other mechanisms that affect Avista's**
12 **Idaho jurisdictional rates for utility service?**

13 A. Yes. With respect to its Idaho gas utility

14 operations, Avista is allowed to adjust natural gas rates

15 to reflect the difference between actual purchased natural

16 gas costs and amounts collected through rates under a

17 Purchased Gas Adjustment ("PGA") clause.

18 **Q. Does Avista anticipate the need to access the**
19 **capital markets going forward?**

20 A. Most definitely. Avista will require capital

21 investment to meet customer growth, provide for necessary

22 maintenance and replacements of its natural gas utility

23 systems, as well as fund new investment in electric

24 generation, transmission and distribution facilities. As

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[4] Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Opinion* (Dec. 21, 2007).

1   discussed by Company witness Mr. Malquist, planned capital

2   expenditures for 2008 total approximately $190 million, and

3   approximately $200 million annually going forward.   In

4   addition to funding investment in utility infrastructure,

5   Avista will also be required to refinance $318 million of

6   its long-term debt outstanding in 2008 and will need to

7   issue new securities to fund a significant portion of these

8   requirements.

9   Continued support for Avista's financial integrity and

10   flexibility will be instrumental in attracting the capital

11   necessary to fund these projects in an effective manner.

12   Similarly, bolstering Avista's financial position will also

13   support the Company's efforts to refinance securities at

14   favorable terms, thereby lowering costs for customers in

15   the future.   Avista's reliance on purchased power to meet

16   shortfalls in hydroelectric generation magnifies the

17   importance of strengthening financial flexibility, which is

18   essential to guarantee access to the cash resources and

19   interim financing required to cover inadequate operating

20   cash flows, as well as fund required investments in the

21   utility system.

22   **Q.   What credit ratings have been assigned to Avista?**

23   A.   Standard & Poor's Corporation ("S&P") recently

24   raised the Company's corporate credit rating from "BB+" to

25   "BBB-", in large part due to improved financial metrics

1   resulting from the settlement of Avista's last general rate

2   case in Washington.[5] Similarly, Moody's Investors Service

3   ("Moody's") upgraded Avista's issuer credit rating from

4   "Ba1" to "Baa3" in December 2007.[6] Fitch Ratings, Ltd.

5   ("Fitch") upgraded its issuer default rating for Avista one

6   notch to "BB+", and has assigned the Company a "Positive

7   Outlook", indicating the potential for higher ratings going

8   forward.[7]   The ratings assigned by S&P and Moody's

9   represent the lowest rung on the ladder of the investment

10   grade scale.

11   **Q.   How have investors' risk perceptions for firms**
12   **involved in the utility industry evolved?**
13   A.   Implementation of structural change and related

14   events caused investors to rethink their assessment of the

15   relative risks associated with the utility industry. The

16   past decade witnessed steady erosion in credit quality

17   throughout the utility industry, both as a result of

18   revised perceptions of the risks in the industry and the

19   weakened finances of the utilities themselves.   S&P

20   recently reported that the majority of the companies in the

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[5] Standard & Poor's Corporation, "Avista Corp.'s Corporate Credit
Rating Raised One Notch To 'BBB-'," *RatingsDirect* (Feb. 7, 2008).
[6] Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global
Credit Research* (Dec. 21, 2007).
[7] Fitch Ratings, Ltd, "Fitch Upgrades Avista Corp.'s IDR to 'BB+' from
'BB'; Outlook Positive," *Press Release* (Aug. 9, 2007).

1 utility sector now fall in the triple-B rating category,[8]

2 with Fitch recently concluding that "the long-term outlook

3 is negative" for investor-owned electric utilities.[9]

4 Similarly, Moody's observed, "Material negative bias

5 appears to be developing over the intermediate and longer

6 term due to rapidly rising business and operating risks."[10]

7   **Q.   Is the potential for energy market volatility an**

8 **ongoing concern for investors?**

9   A.   Most definitely.   Investors recognize the ongoing

10 prospect for further turmoil in energy markets.   S&P has

11 reported continued spikes in wholesale market prices,[11] with

12 Fitch noting that "elevated energy commodity prices"

13 contribute to a "challenging environment" for electric

14 utilities.[12]   Similarly, the FERC Commission Staff has

15 continued to recognize the ongoing potential for market

16 disruption in the West, as a 2007 market assessment report

17 concluded:

18   Prices are likely to remain a concern. Last year
19   we monitored transactions above the $400 per
20   megawatt hour Western soft cap due to scarcity at
21   peak. Given the likelihood of higher-priced
22   natural gas in the West this year, extreme

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[8]Standard & Poor's Corporation, "Upgrades Lead In U..S. Electric
Utility Industry In 2007," *RatingsDirect* (Jan. 17, 2008).
[9] Fitch Ratings, Ltd., "U.S. Utilities, Power and Gas 2008 Outlook,"
Global Power North America Special Report (Dec. 11, 2007).
[10] Moody's Investors Service, "U.S. Electric Utility Sector," *Industry
Outlook* (Jan. 2008).
[11] Standard & Poor's Corporation, "Fuel and Purchased Power Cost
Recovery In The Wake Of Volatile Gas And Power Markets – U.S. Electric
Utilities To Watch," (Mar. 22, 2006).
[12] Fitch Ratings, Ltd., "U.S. Power and Gas 2007 Outlook," *Global Power
North American Special Report* (Dec. 15, 2006) at 1.

1   weather could easily raise prices to the peak
2   level again in summer 2007.[13]

3   The report noted that other regional electricity
4 markets were experiencing double-digit price increases and
5 expressed ongoing concern regarding tight supply and
6 congestion.[14]

7   In recent years utilities and their customers have
8 also had to contend with dramatic fluctuations in gas costs
9 due to ongoing price volatility in the spot markets.[15] S&P
10 concluded that "natural gas prices have proven to be very
11 volatile" and warned of a "turbulent journey" due to the
12 uncertainty associated with future fluctuations in energy
13 costs.[16] Fitch also highlighted the challenges that
14 fluctuations in commodity prices can have for utilities and
15 their investors, concluding that gas prices are subject to
16 near-term and longer-term fluctuations that contribute to
17 an "adverse environment" for electric utilities.[17]

18   In addition, while coal-fired generation has
19 historically provided relative stability with respect to

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[13] Federal Energy Regulatory Commission, Office of Market Oversight and Investigations, "Summer Energy Market Assessment 2007," (May 17, 2007) at 14.
[14] *Id.* at 4 and 15.
[15] For example, the Energy Information Administration reported that the average price of gas used by electricity generators (regulated utilities and non-regulated power producers) spiked from an average price of $7.18 per Mcf for the first eight months of 2005 to over $11.00 per Mcf in September and October (http://tonto.eia.doe.gov/dnav/ng/ng_pri_sum_dcu_ nus_m.htm).
[16] Standard & Poor's Corporation, "Top Ten Credit Issues Facing U.S. Utilities," *RatingsDirect* (Jan. 29, 2007).
[17]Fitch Ratings, Ltd., "U.S. Power and Gas 2008 Outlook," *Global Power North American Special Report*, at 3 (Dec. 11, 2007).

1   fuel costs, rising prices for this energy source has raised

2   investors' concerns.   In a 2004 article entitled "Rising

3   Coal Prices May Threaten U.S. Utility Credit Profiles," S&P

4   noted that:

5   [S]everal current and structural developments for
6   the coal mining industry have resulted in a
7   dramatic increase in spot coal prices.[18]

8   More recently, the Energy Information Administration

9   ("EIA"), a statistical agency of the U.S. Department of

10   Energy, reported that average delivered coal prices for

11   electric utilities increased 9.7 percent in 2006, the sixth

12   consecutive annual rise.[19]

13   **Q.   What are the key uncertainties considered by**

14   **investors in assessing their required rate of return for**

15   **Avista?**

16   A.   Because close to one-half of Avista's total

17   energy requirements are provided by hydroelectric

18   facilities, the Company is exposed to a level of

19   uncertainty not faced by most utilities.   Investors

20   recognize that volatile energy markets, unpredictable

21   stream flows, and Avista's reliance on wholesale purchases

22   to meet a significant portion of its resource needs can

23   expose the Company to the risk of reduced cash flows and

24   unrecovered power supply costs.   S&P cited this exposure as

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[18] Standard & Poor's Corporation, "Rising Coal Prices May Threaten U.S. Utility Credit Profiles," *RatingsDirect* (Aug. 12, 2004).
[19] Energy Information Administration, *Annual Coal Report 2006* at 9 (Nov. 2007).

1   the "key utility risk" confronting the Company,[20] and

2   concluded that Avista, along with Idaho Power Company,

3   "face the most substantial risks despite their PCAs and

4   cost-update mechanisms."[21] Similarly, Fitch concluded, "The

5   potential negative cash flow impact from a prolonged period

6   of below normal hydro conditions and high natural gas

7   prices are primary sources of concern" for Avista's

8   investors.[22]

9   In addition, investors are aware of the financial and

10   regulatory pressures faced by utilities associated with

11   rising costs and the need to undertake significant capital

12   investments. As Moody's observed:

13   [T]here are concerns arising from the sector's
14   sizeable infrastructure investment plans in the
15   face of an environment of steadily rising
16   operating costs. Combined, these costs and
17   investments can create a continuous need for
18   regulatory rate relief, which in turn can
19   increase the likelihood for political and/or
20   regulatory intervention.[23]

21   Similarly, S&P noted that "onerous construction programs",

22   along with rising operating and maintenance costs and

23   volatile fuel costs, were a significant challenge to the

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[20] Standard & Poor's Corporation, "Avista Corp.'s Corporate Credit
Rating Raised One Notch to 'BBB-'," *RatingsDirect* (Feb. 7, 2008).
[21] Standard & Poor's Corporation, "Pacific Northwest Hydrology And Its
Impact On Investor-Owned Utilities' Credit Quality," *RatingsDirect*
(Jan. 28, 2008).
[22] Fitch Ratings, Ltd., "Fitch Affirms Avista Corp.'s IDR at 'BB+';
Outlook Positive," *Press Release* (Feb. 6, 2008).
[23] Moody's Investors Service, "Storm Clouds Gathering on the Horizon
for the North American Electric Utility Sector," *Special Comment* (Aug.
2007).

1 utility   industry.[24]   Moody's recently echoed this

2 assessment, concluding, "There are significant negative

3 trends developing over the longer-term horizon."[25]

4   While providing the infrastructure necessary to meet

5 the energy needs of customers is certainly desirable, it

6 imposes additional financial responsibilities on Avista.

7 As noted earlier, the Company's plans include capital

8 expenditures of approximately $200 million annually,

9 including enhancements to its transmission and distribution

10 system and investment in generating resources. Investors

11 are aware that the challenge of achieving timely regulatory

12 recovery associated with rising costs and burdensome

13 capital expenditure requirements impacts Avista's ability

14 to earn a fair rate of return.

15   **Q.   What other considerations affect investors'**
16 **evaluation of Avista?**

17   A.   Avista and other utilities are confronting

18 increased environmental pressures that could impose

19 significant uncertainties and costs.   In 2007 S&P cited

20 environmental mandates, including emissions, conservation,

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[24] Standard & Poor's Corporation, "U.S. Electric Utilities Continued Their Long Shift To Stability In Third Quarter," *RatingsDirect* (Oct. 23, 2007).
[25] Moody's Investors Service, "U.S. Utility Sector," *Industry Outlook* (Jan. 2008).

1   and renewable resources as one of the top ten credit issues

2   facing U.S. utilities.[26] More recently, S&P observed that:

3   What the ultimate outcome will be is cloudy right
4   now, but legislation addressing carbon emissions
5   and other greenhouse gases is extremely probable
6   in the near future. The credit implications of
7   any policy will be vast due to the compliance
8   costs involved.[27]

9   Similarly, Moody's noted that "increasingly stringent

10   environmental compliance mandates will elevate cash outflow

11   recovery risk",[28] while Fitch noted that the electric

12   utility industry would be "a primary target" of new

13   environmental legislation, and concluded, "The murkiness of

14   the future policies and regulations on carbon emissions is

15   another factor clouding Fitch's long-term view of electric

16   utilities."[29]

17   Q.   Does Avista also face additional risks because of

18   the impact of industry restructuring on transmission

19   operations?

20   A.   Yes.   Policy evolution in the transmission area

21   has been wide reaching and Avista must address changes in

22   the electric transmission function of its business. S&P

23   confirmed a "continued lack of clarity from lawmakers and

24   regulators on the regulatory framework surrounding

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[26] Standard & Poor's Corporation, "Top Ten Credit Issues Facing U.S.
Utilities," *RatingsDirect* (Jan. 29, 2007).
[27] Standard & Poor's Corporation, "Upgrades Lead In U.S. Electric
Utility Industry In 2007," *RatingsDirect* (Jan. 17, 2008).
[28] Moody's Investors Service, "U.S. Electric Utility Sector," *Industry
Outlook* (Jan. 2008).
[29] Fitch Ratings, Ltd., "U.S. Utilities, Power and Gas 2008 Outlook,"
Global Power North America Special Report (Dec. 11, 2007).

1   transmission projects."[30]   Transmission operations have

2   become increasingly complex and investors have recognized

3   that difficulties in obtaining permits and uncertainty over

4   the adequacy of allowed rates of return have contributed to

5   heightened risk and fueled concerns regarding the need for

6   additional investment in the transmission sector of the

7   electric power industry.

8   **Q.   Would investors consider Avista's relative size**

9   **in their assessment of the Company's risks and prospects?**

10   A.   Yes.   A firm's relative size has important

11   implications   for   investors   in   their   evaluation   of

12   alternative investments, and it is well established that

13   smaller firms are more risky than larger firms.   With a

14   market capitalization of approximately $1.1 billion, Avista

15   is one of the smallest publicly traded electric utilities

16   followed   by   Value   Line,   which   have   an   average

17   capitalization of approximately $8.1 billion.[31]

18   The magnitude of the size disparity between Avista and

19   other firms in the utility industry has important practical

20   implications with respect to the risks faced by investors.

21   All else being equal, it is well accepted that smaller

22   firms are more risky than their larger counterparts, due in

23   part to their relative lack of diversification and lower

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[30] Standard & Poor's Corporation, "Capital Spending On Electric
Transmission Is On The Upswing Around The World," *RatingsDirect* (Aug.
7, 2006).
[31] www.valueline.com (Retrieved Feb. 13, 2008).

1 financial resiliency.[32] These greater risks imply a higher

2 required rate of return, and there is ample empirical

3 evidence that investors in smaller firms realize higher

4 rates of return than in larger firms.[33] Common sense and

5 accepted financial doctrine hold that investors require

6 higher returns from smaller companies, and unless that

7 compensation is provided in the rate of return allowed for

8 a utility, the legal tests embodied in the *Hope* and

9 *Bluefield* cases cannot be met.

B. Capital Structure

11 **Q. Is an evaluation of the capital structure**

12 **maintained by a utility relevant in assessing its return on**

13 **equity?**

14 A. Yes. Other things equal, a higher debt ratio, or

15 lower common equity ratio, translates into increased

16 financial risk for all investors. A greater amount of debt

17 means more investors have a senior claim on available cash

18 flow, thereby reducing the certainty that each will receive

19 his contractual payments. This increases the risks to

20 which lenders are exposed, and they require correspondingly

21 higher rates of interest. From common shareholders'

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[32] It is well established in the financial literature that smaller firms are more risky than larger firms. See, *e.g.*, Eugene F. Fama and Kenneth R. French, "The Cross-Section of Expected Stock Returns", *The Journal of Finance* (June 1992); George E. Pinches, J. Clay Singleton, and Ali Jahankhani, "Fixed Coverage as a Determinant of Electric Utility Bond Ratings", *Financial Management* (Summer 1978).
[33] See for example Rolf W. Banz, "The Relationship Between Return and Market Value of Common Stocks", *Journal of Financial Economics* (September 1981) at 16.

1   standpoint, a higher debt ratio means that there are

2   proportionately more investors ahead of them, thereby

3   increasing the uncertainty as to the amount of cash flow,

4   if any, that will remain.

5   **Q.   What common equity ratio is implicit in Avista's**

6   **requested capital structure?**

7   A.   Avista's capital structure is presented in the

8   testimony of Mr. Malquist. As summarized in his testimony,

9   the pro-forma common equity ratio used to compute Avista's

10   overall rate of return was 47.94 percent in this filing.

11   **Q.   What was the average capitalization maintained by**

12   **the utility proxy group?**

13   A.   As shown on Schedule WEA-3, for the twenty firms

14   in the utility proxy group, common equity ratios at

15   December 31, 2007 ranged between 40.1 percent and 57.9

16   percent and averaged 47.8 percent.

17   **Q.   What capitalization is representative for the**

18   **proxy group of utilities going forward?**

19   A.   As shown on Schedule WEA-3, The Value Line

20   Investment Survey ("Value Line") expects an average common

21   equity ratio for the proxy group of utilities of 49.0

22   percent for its three-to-five year forecast horizon, with

23   the individual common equity ratios ranging from 42.5

24   percent to 60.5 percent.

1   Q.   How does Avista's common equity ratio compare
2 with those maintained by the reference group of utilities?

3   A.   The 47.94 percent common equity ratio requested

4 by Avista is entirely consistent with the 47.8 percent and

5 49.0 percent average equity ratios for the firms in the

6 proxy group at year-end 2007 and based on Value Line's

7 near-term expectations, respectively.

8   Q.   What implication does the increasing risk of the
9 utility industry have for the capital structures maintained
10 by utilities?

11   A.   As discussed earlier, the average credit rating

12 associated with firms in the electric industry has fallen

13 to triple-B, with Avista's "BBB-" rating occupying the

14 lowest rung on the ladder of the investment grade scale.

15 At the same time, electric utilities are facing rising cost

16 structures, the need to finance significant capital

17 investment plans, uncertainties over accommodating future

18 environmental mandates, and ongoing regulatory risks.

19 Coupled with the decline in credit quality, these

20 considerations warrant a stronger balance sheet to deal

21 with an increasingly uncertain and competitive market.   A

22 more conservative financial profile, in the form of a

23 higher common equity ratio, is consistent with increasing

24 uncertainties and the need to maintain the continuous

25 access to capital that is required to fund operations and

26 necessary system investment, even during times of adverse

1   capital market conditions. This is especially the case if

2   electric utilities are to be successful in raising the

3   substantial funds necessary to boost investments for

4   network reliability.

5   Moody's has warned investors of the risks associated

6   with debt leverage and fixed obligations and advised

7   utilities not to squander the opportunity to strengthen the

8   balance sheet as a buffer against future uncertainties.[34]

9   Moody's recently noted that, absent a stronger equity

10   cushion, utilities would be faced with lower credit ratings

11   in the face of rising business and operating risks:

12   There are significant negative trends developing
13   over the longer-term horizon. This developing
14   negative concern primarily relates to our view
15   that the sector's overall business and operating
16   risks are rising – at an increasingly fast pace –
17   but that the overall financial profile remains
18   relatively steady. A rising risk profile
19   accompanied by a relatively stable balance sheet
20   profile would ultimately result in credit quality
21   deterioration.[35]

22   This is especially the case for electric utilities that are

23   exposed to the potential for significant fluctuations in

24   power supply costs, such as Avista.

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[34] Moody's Investors Service, "Storm Clouds Gathering on the Horizon for the North American Electric Utility Sector," *Special Comment* (Aug. 2007).
[35] Moody's Investors Service, "U.S. Electric Utility Sector," *Industry Outlook* (Jan. 2008).

1   **Q.   What other factors do investors consider in their**

2 **assessment of a company's capital structure?**

3   A.   Depending   on   their   specific   attributes,

4 contractual agreements or other obligations that require

5 the utility to make specified payments may be treated as

6 debt in evaluating Avista's financial risk. Because power

7 purchase agreements ("PPAs") and leases typically obligate

8 the utility to make specified minimum contractual payments

9 akin to those associated with traditional debt financing,

10 investors consider a portion of these commitments as debt

11 in evaluating total financial risks. Because investors

12 consider the debt impact of such fixed obligations in

13 assessing a utility's financial position, they imply

14 greater risk and reduced financial flexibility. In order

15 to offset the debt equivalent associated with off-balance

16 sheet obligations, the utility must rebalance its capital

17 structure by increasing its common equity in order to

18 restore its effective capitalization ratios to previous

19 levels.[36]

20   Reflecting the longstanding perception of investors

21 that the fixed obligations associated with PPAs, leases,

22 and other off-balance sheet obligations diminish a

23 utility's creditworthiness and financial flexibility, the

---

[36] The capital structure ratios presented earlier do not include
imputed debt associated with power purchase agreements or the impact
of other off-balance sheet obligations.

1   implications of these commitments have been repeatedly

2   cited by major bond rating agencies in connection with

3   assessments of utility financial risks. For example, in

4   explaining its evaluation of the credit implications of

5   PPAs, S&P affirmed its position that such agreements give

6   rise to "debt equivalents" and that the increased financial

7   risk must be considered in evaluating a utility's credit

8   risks.[37] As the rating agency explained:

9   For many years, Standard & Poor's Ratings
10   Services has viewed power supply agreements (PPA)
11   in the U.S. utility sector as creating fixed,
12   debt-like, financial obligations that represent
13   substitutes for debt-financed capital investments
14   in generation capacity. In a sense, a utility
15   that has entered into a PPA has contracted with a
16   supplier to make the financial investment on its
17   behalf. Consequently, PPA fixed obligations, in
18   the form of capacity payments, merit inclusion in
19   a utility's financial metrics as though they are
20   part of a utility's permanent capital structure
21   and are incorporated in our assessment of a
22   utility's creditworthiness.[38]

23   Apart from reaffirming the importance of imputed debt in

24   its analysis of credit standing, S&P also noted that it has

25   refined its methodology to include imputed debt associated

26   with shorter-term PPAs.[39] Similarly, S&P recently affirmed

27   its policy of modifying a utility's balance sheet to

---

[37] Standard & Poor's Corporation, "Standard & Poor's Methodology For
Imputing Debt For U.S. Utilities' Power Purchase Agreements,"
RatingsDirect (May 7, 2007).
[38] *Id.*
[39] *Id.*

1   include the debt equivalents associated with operating

2   leases.[40]

3   As discussed earlier, a significant portion of the

4   Company's power requirements are currently obtained through

5   purchased power contracts.   These contractual payment

6   obligations, along with operating leases and obligations

7   associated with postretirement benefits, are fixed

8   commitments with debt-like characteristics and are properly

9   considered when evaluating the financial risks implied by

10   Avista's capital structure.   S&P reported that it adjusts

11   Avista's capitalization to include approximately $226

12   million in imputed debt from off-balance sheet

13   obligations.[41]   Unless the Company takes action to offset

14   this additional financial risk by maintaining a higher

15   equity ratio, the resulting leverage will weaken Avista's

16   creditworthiness, implying a higher required rate of return

17   to compensate investors for the greater risks.[42]

18   **Q.   What did you conclude with respect to the**

19   **Company's capital structure?**

20   A.   Based on my evaluation, I concluded that Avista's

21   requested capital structure represents a reasonable mix of

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[40] Standard & Poor's Corporation, "Implications Of Operating Leases On
Analysis Of U.S. Electric Utilities," *RatingsDirect* (Jan. 15, 2008).
[41] Standard & Poor's Corporation, "Avista Corp.," *RatingsDirect* (Aug.
1, 2007).
[42] Apart from the immediate impact that the fixed obligation of
purchased power costs has on the utility's financial risk, higher
fixed charges also reduce ongoing financial flexibility, and the
utility may face other uncertainties, such as potential replacement
power costs in the event of supply disruption.

1   capital sources from which to calculate the Company's

2   overall rate of return. Avista's requested common equity

3   ratio is entirely consistent with the average capital

4   structure for the utility proxy group, based on year-end

5   2007 data and Value Line's near-term projections.

6   While industry averages provide one benchmark for

7   comparison, each firm must select its capitalization based

8   on the risks and prospects it faces, as well its specific

9   needs to access the capital markets. A public utility with

10 an obligation to serve must maintain ready access to

11 capital under reasonable terms so that it can meet the

12 service requirements of its customers. The need for access

13 becomes even more important when the company has capital

14 requirements over a period of years, and financing must be

15 continuously available, even during unfavorable capital

16 market conditions.

17   Avista's capital structure reflects the Company's

18 ongoing efforts to strengthen its credit standing and

19 support access to capital on reasonable terms.   As

20 indicated earlier, the challenges posed by significant

21 capital requirements, volatile energy prices, and reliance

22 on hydro generation and wholesale markets magnifies the

23 importance of preserving financial flexibility. Moody's

24 observed that Avista's financial metrics have been

25 pressured by the need to finance power cost deferrals

1   during low-water years, and noted that its ratings

2   anticipate "conservative financing strategies."[43] Financial

3   flexibility plays a crucial role in ensuring the

4   wherewithal to meet the needs of customers, and utilities

5   with higher leverage may be foreclosed from additional

6   borrowing, especially during times of stress.   In this

7   regard, Avista's equity ratio reflects the challenges posed

8   by its resource mix, as well as the burden of significant

9   capital spending requirements.

10   **III. CAPITAL MARKET ESTIMATES**

11   **Q.   What is the purpose of this section?**

12   A.   This section presents capital market estimates of

13   the cost of equity.   The details of my quantitative

14   analyses are contained in Schedule WEA-2, with the results

15   being summarized below.

16   **A. <u>Overview</u>**

17   **Q.   What role does the rate of return on common**

18   **equity play in a utility's rates?**

19   A.   The return on common equity is the cost of

20   inducing and retaining investment in the utility's physical

21   plant and assets.   This investment is necessary to finance

22   the asset base needed to provide utility service.

23   Investors will commit money to a particular investment only

---

[43] Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global
Credit Research* (Dec. 21, 2007).

1   if they expect it to produce a return commensurate with

2   those from other investments with comparable risks.

3   Moreover, the return on common equity is integral in

4   achieving the sound regulatory objectives of rates that are

5   sufficient to: 1) fairly compensate capital investment in

6   the utility, 2) enable the utility to offer a return

7   adequate to attract new capital on reasonable terms, and 3)

8   maintain the utility's financial integrity. Meeting these

9   objectives allows the utility to fulfill its obligation to

10   provide reliable service while meeting the needs of

11   customers through necessary system expansion.

12   **Q.   Did you rely on a single method to estimate the**
13   **cost of equity for Avista?**

14   A.   No.   In my opinion, no single method or model

15   should be relied upon to determine a utility's cost of

16   equity because no single approach can be regarded as wholly

17   reliable.   As   the   Federal   Communications   Commission

18   recognized:

19   Equity prices are established in highly volatile
20   and uncertain capital markets. ... Different
21   forecasting methodologies compete with each other
22   for eminence, only to be superceded by other
23   methodologies as conditions change. ... In these
24   circumstances, we should not restrict ourselves
25   to one methodology, or even a series of
26   methodologies, that would be applied
27   mechanically.   Instead, we conclude that we

1   should adopt a more accommodating and flexible
2   position.[44]

3 Therefore, I used both the DCF and CAPM methods to estimate

4 the cost of equity. In addition, I also evaluated a fair

5 ROE return using an earnings approach based on investors'

6 current expectations in the capital markets. In my

7 opinion, comparing estimates produced by one method with

8 those produced by other approaches ensures that the

9 estimates of the cost of equity pass fundamental tests of

10 reasonableness and economic logic.

11   **Q. What was your conclusion regarding a fair rate of**

12 **return on equity for the proxy companies?**

13   A. Based on the results of my quantitative analyses,

14 and my assessment of the relative strengths and weaknesses

15 inherent in each method, I concluded that the cost of

16 equity for the proxy companies is in the 10.7 percent 12.2

17 percent range.

18   **B. Results of Quantitative Analyses**

19   **Q. How did you define the proxy groups you used to**

20 **implement the DCF model?**

21   A. In estimating the cost of equity, the DCF model

22 is typically applied to publicly traded firms engaged in

23 similar business activities or with comparable investment

24 risks. As described in detail in Schedule No. WEA-2, I

---

[44] Federal Communications Commission, Report and Order 42-43, CC Docket
No. 92-133 (1995).

1   applied the DCF model to a utility proxy group composed of

2   those dividend-paying companies included by Value Line in

3   its Electric Utilities Industry groups with: (1) S&P

4   corporate credit ratings between "BBB-" and "BBB+," (2) a

5   Value Line Safety Rank of "2" or "3", (3) a Value Line

6   Financial Strength Rating of "B+" to "B++", and (4)

7   published growth estimates from IBES,[45] Value Line, Reuters,

8   Inc. ("Reuters"), and Zacks Investment Research ("Zacks").

9   I excluded two companies that otherwise would have been in

10   the proxy group because they are in the process of being

11   acquired.

12   Under the regulatory standards established by *Hope* and

13   *Bluefield*, the salient criteria in establishing a

14   meaningful benchmark to evaluate a fair rate of return is

15   relative risk, not the particular business activity or

16   degree of regulation. Consistent with this accepted

17   regulatory standard, I also applied the DCF model to a

18   reference group of comparable risk companies in the non-

19   utility sector of the economy. My assessment of comparable

20   risk relied on three objective benchmarks for the risks

21   associated with common stocks -- Value Line's Safety Rank,

22   Financial Strength rating, and beta. My non-utility proxy

23   group was composed of those U.S. companies followed by

_____

[45] IBES growth rates are compiled and reported by Thompson Financial,
an arm of The Thompson Corporation, which also publishes consensus
securities analyst growth rates under the First Call brand.

1   Value Line that 1) pay common dividends, 2) have a Safety

2   Rank of "1", 3) have a Financial Strength Rating of "A" or

3   above, 4) have beta values of 0.90 or less,[46] and 5) have

4   published data from IBES, Value Line, Reuters, and Zacks.

5   Consistent with the development of my utility proxy group,

6   I also eliminated firms with below-investment grade credit

7   ratings.

8   **Q.   How do the overall risks of your proxy groups**

9   **compare with Avista?**

10   A.   As shown below, Table 1 compares the non-utility

11   proxy group with the utility proxy group and Avista across

12   four key indicators of investment risk:

13   **TABLE 1**
14   **COMPARISON OF RISK INDICATORS**

	S&P	**Value Line**		
	Credit	**Safety**	**Financial**	
	Rating	**Rank**	**Strength**	**Beta**
Non-Utility Group	A+	1	A+	0.80
Utility Proxy Group	BBB	3	B++	0.89
Avista Corp.	BBB-	3	B+	0.95

15

16   Considered together, a comparison of these objective

17   measures indicates that the risks investors associate with

18   Avista generally exceed those of the proxy groups.   As a

19   result, the cost of equity estimates indicated by my

---

[46] This threshold corresponds to the average beta of 0.89 for the utility proxy group discussed earlier.

1 analyses provide a conservative estimate of investors'

2 required rate of return for Avista.

3 **Q. What cost of equity is implied by your DCF**

4 **results for the utility proxy group?**

5 A. My application of the DCF model, which is

6 discussed in greater detail in Schedule No. WEA-2,

7 considered four alternative measures of expected earnings

8 growth, as well as the sustainable growth rate based on the

9 relationship between expected retained earnings and earned

10 rates of return ("br + sv"). As shown on Schedule WEA-4

11 and summarized below in Table 2, after eliminating

12 illogical low- and high-end values, application of the

13 constant growth DCF model resulted in the following cost of

14 equity estimates:

15 **TABLE 2**
16 **DCF RESULTS – UTILITY PROXY GROUP**

Growth Rate	Average Cost of Equity
IBES	11.3%
Value Line	10.4%
Reuters	10.6%
Zacks	10.9%
br+sv	9.2%

17

18 Taken together, and considering the relative strengths and

19 weaknesses associated with the alternative growth measures,

20 I concluded that the constant growth DCF results for the

21 utility proxy group implied a cost of equity of 10.8

22 percent.

1   **Q.**   **What were the results of your DCF analysis for**
2 **the non-utility reference group?**

3   A.   As shown on Schedule WEA-6, I applied the DCF

4 model to the non-utility companies in exactly the same

5 manner described earlier for the utility proxy group. As

6 summarized below in Table 3, after eliminating illogical

7 low- and high-end values, application of the constant

8 growth DCF model resulted in the following cost of equity

9 estimates:

10
11

<div align="center">

TABLE 3

DCF RESULTS – NON-UTILITY GROUP

Growth Rate	Average Cost of Equity
IBES	12.9%
Value Line	12.2%
Reuters	12.5%
Zacks	12.7%
br+sv	13.0%

</div>

12

13 Based on my assessment of these results, I concluded that

14 the constant growth DCF results for the non-utility proxy

15 group implied a cost of equity of 12.6 percent.

16   **Q.**   **Do you believe the constant growth DCF model**
17 **should be relied on exclusively to evaluate a reasonable**
18 **ROE for Avista?**

19   A.   No. Because the cost of equity is unobservable,

20 no single method should be viewed in isolation. While the

21 DCF model has been routinely relied on in regulatory

22 proceedings as one guide to investors' required return, it

23 is a blunt tool that should not be used exclusively.

1 Regulators have customarily considered the results of

2 alternative approaches in determining allowed returns.[47] It

3 is widely recognized that no single method can be regarded

4 as a panacea; all approaches having their own advantages

5 and shortcomings. For example, a publication of the

6 Society of Utility and Financial Analysts (formerly the

7 National Society of Rate of Return Analysts), concluded

8 that:

9   Each model requires the exercise of judgment as
10   to the reasonableness of the underlying
11   assumptions of the methodology and on the
12   reasonableness of the proxies used to validate
13   the theory. Each model has its own way of
14   examining investor behavior, its own premises,
15   and its own set of simplifications of reality.
16   Each method proceeds from different fundamental
17   premises, most of which cannot be validated
18   empirically. Investors clearly do not subscribe
19   to any singular method, nor does the stock price
20   reflect the application of any one single method
21   by investors.[48]

22 Moreover, evidence suggests that reliance on the DCF

23 model as a tool for estimating investors' required rate of

24 return has declined outside the regulatory sphere, with the

25 CAPM being "the dominant model for estimating the cost of

---

[47] For example, a NARUC survey reported that 26 regulatory
jurisdictions ascribe to no specific method for setting allowed ROEs,
with the results of all approaches being considered. "Utility
Regulatory Policy in the U.S. and Canada, 1995-1996," National
Association of Regulatory Utility Commissioners (December 1996).
[48] Parcell, David C., "The Cost of Capital - A Practitioner's Guide,"
Society of Utility and Regulatory Financial Analysts (1997) at Part 2,
p. 4.

1   equity."[49]   *Regulatory Finance: Utilities Cost of Capital*

2   noted the inherent difficulties of the DCF approach:

3   [C]aution and judgment are required in
4   interpreting the results of DCF models because of
5   (1) the questionable applicability of the DCF
6   model to utility stocks in certain market
7   environments, (2) the effect of declining
8   earnings and dividends on financial inputs to the
9   DCF model and biases caused by the effect of
10   changes in risk and growth, and (3) the
11   conceptual and practical difficulties associated
12   with the growth component of the DCF model.[50]

13 The publication concluded, "If the cost of equity

14 estimation process is limited to one methodology, such as

15 DCF, it may severely bias the results."[51]

16   **Q.   How did you apply the CAPM to estimate the cost**

17 **of equity?**

18   A.   Like the DCF model, the CAPM is an *ex-ante*, or

19 forward-looking model based on expectations of the future.

20 As a result, in order to produce a meaningful estimate of

21 investors' required rate of return, the CAPM is best

22 applied using estimates that reflect the expectations of

23 actual investors in the market, not with backward-looking,

24 historical data.

25   I applied the CAPM to the utility proxy group based on

26 a forward-looking estimate for investors' required rate of

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[49]See, *e.g.*, Bruner, R.F., Eades, K.M., Harris, R.S., and Higgins,
R.C., "Best Practices in Estimating Cost of Capital: Survey and
Synthesis," Financial Practice and Education (1998).
[50] Morin, Roger A., "Regulatory Finance: Utilities' Cost of Capital,"
Public Utilities Reports, Inc. (1994) at 238.
[51] *Id.*

1   return from common stocks. In addition, because it is

2   frequently referenced in regulatory proceedings, I also

3   applied the CAPM using risk premiums based on historical

4   realized rates of return published by Ibbotson Associates

5   (now Morningstar). Reference to historical data represents

6   one way to apply the CAPM, but these realized rates of

7   return reflect, at best, an indirect estimate of investors'

8   current requirements.   As a result, forward-looking

9   applications of the CAPM that look directly at investors'

10   expectations in the capital markets are apt to provide a

11   more meaningful guide to investors' required rate of

12   return.

13   **Q.   What cost of equity was indicated by the CAPM**

14   **approach?**

15   A.   As shown on Schedule WEA-8, my forward-looking

16   application of the CAPM model indicated an ROE of

17   approximately 12.2 percent for the utility proxy group.

18   Applying the forward-looking CAPM approach to the firms in

19   the non-utility proxy group (Schedule WEA-9) implied a cost

20   of equity of 11.4 percent.

21   Application of the CAPM to the firms in the utility

22   and non-utility proxy groups using risk premiums based on

23   historical realized rates of return published by Ibbotson

24   Associates is presented on Schedules WEA-10 and WEA-11,

25   respectively.   As shown there, this historical CAPM

26   approach implied a cost of equity of 10.7 percent for the

1   utility proxy group and 10.0 percent for the firms in the

2   non-utility proxy group.

3   **Q.   What other analyses did you conduct to estimate**

4   **the cost of equity?**

5   A.   As I noted earlier, I also evaluated the cost of

6   equity using the expected earnings method.   Reference to

7   rates of return available from alternative investments of

8   comparable risk can provide an important benchmark in

9   assessing the return necessary to assure confidence in the

10   financial integrity of a firm and its ability to attract

11   capital.   This expected earnings approach is consistent

12   with the economic underpinnings for a fair rate of return

13   established by the Supreme Court.   Moreover, it avoids the

14   complexities and limitations of capital market methods and

15   instead focuses on the returns earned on book equity, which

16   are readily available to investors.

17   **Q.   What rates of return on equity are indicated for**

18   **utilities based on the expected earnings approach?**

19   A.   Value Line reports that its analysts anticipate

20   an average rate of return on common equity for the electric

21   utility industry of 11.5 percent over its forecast

22   horizon,[52] with natural gas distribution utilities expected

23   to earn an average rate of return on common equity of 11.5

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[52] The Value Line Investment Survey at 1776 (Feb. 8, 2008).

1   percent to 12.0 percent.[53]   As shown on Schedule WEA-12,

2   Value Line's projections for the utility proxy group

3   suggested an average ROE of 10.5 percent after eliminating

4   potential outliers.[54] Based on the results discussed above,

5   I concluded that the expected earnings approach implies a

6   fair rate of return on equity of 11.0 percent.

7   **Q.   What did you conclude with respect to the cost of**

8   **equity implied by your analyses for the proxy groups?**

9   A.   The cost of equity estimates implied by my

10   quantitative analyses are summarized in Table 4, below:

11   **TABLE 4**
12   **SUMMARY OF QUANTITATIVE RESULTS**

	Cost of Equity Estimates	
Method	Utility Proxy Group	Non-Utility Proxy Group
DCF	10.7%	12.6%
CAPM		
Forward-looking	12.2%	11.4%
Historical	10.7%	10.0%
Expected Earnings	11.0%	--

13   Based on the results of my quantitative analyses, and

14   my assessment of the relative strengths and weaknesses

15   inherent in each method, I concluded that the cost of

16   equity is in the 10.7 percent to 12.2 percent range.

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[53] The Value Line Investment Survey 445 (Dec. 14, 2007).
[54] As highlighted on Schedule WEA-12, I eliminated two low-end
estimates of 7.1 percent, as well as an extreme high-end outlier of
24.4%. While these three Value Line projections may accurately
reflect expectations for actual earned rates of return on common
equity over the forecast horizon, they are unlikely to be
representative of investors' required rate of return.

IV. RETURN ON EQUITY FOR AVISTA CORP.

Q.   What is the purpose of this section?

A.   In addition to presenting the conclusions of my evaluation of a fair rate of return on equity range for Avista, this section also discusses the relationship between ROE and preservation of a utility's financial integrity and the ability to attract capital under reasonable terms on a sustainable basis.

A. Implications for Financial Integrity

Q.   Why is it important to allow Avista an adequate return on equity?

A.   Given the importance of the utility industry to the economy and society, it is essential to maintain reliable and economical service to all consumers. While Avista remains committed to provide reliable utility service, a utility's ability to fulfill its mandate can be compromised if it lacks the necessary financial wherewithal or is unable to earn a return sufficient to attract capital. Coupled with the ongoing potential for energy market volatility, Avista's plans for infrastructure investment and ongoing exposure to regulatory uncertainty pose a number of potential challenges that might require the relatively swift commitment of significant capital resources in order to maintain the high level of service that customers have come to expect.

1   As documented earlier, the major rating agencies have

2   warned of exposure to uncertainties associated with

3   political and regulatory developments, especially in view

4   of the pressures associated with large capital expenditure

5   programs and the potential for high and volatile commodity

6   costs in wholesale energy markets.   Investors understand

7   just how swiftly unforeseen circumstances can lead to

8   deterioration in a utility's financial condition, and

9   stakeholders have discovered first hand how difficult and

10 complex it can be to remedy the situation after the fact.

11 While providing the infrastructure necessary to enhance the

12 power system and meet the energy needs of customers is

13 certainly desirable, it imposes additional financial

14 responsibilities on Avista.   For a utility with an

15 obligation to provide reliable service, investors'

16 increased reticence to supply additional capital during

17 times of crisis highlights the necessity of preserving the

18 flexibility necessary to overcome periods of adverse

19 capital market conditions.   These considerations heighten

20 the importance of allowing Avista an adequate return on the

21 fair value of its investment.

22   **Q.   What role does regulation play in ensuring that**
23 **Avista has access to capital under reasonable terms and on**
24 **a sustainable basis?**
25   A.   Considering investors' heightened awareness of

26 the risks associated with the utility industry and the

1   damage that results when a utility's financial flexibility

2   is compromised, supportive regulation remains crucial to

3   Avista's access to capital.   Investors recognize that

4   regulation has its own risks, and that constructive

5   regulation is a key ingredient in supporting utility credit

6   ratings and financial integrity, particularly during times

7   of adverse conditions.   S&P noted that:

8   Regulatory rulings have returned to center stage
9   as a dominant factor in assessing companies'
10   credit quality. These decisions will be critical
11   for an industry that in many jurisdictions is
12   nearing the end of extended transition periods
13   and will be making significant capital investment
14   in infrastructure during the next several years.[55]

15   With respect to Avista specifically, the major bond

16   rating agencies have noted the near-term challenges posed

17   by upward pressure on costs and rising capital

18   expenditures, while explicitly citing the potential that

19   adverse regulatory rulings could compromise the Company's

20   credit standing.[56] Of particular concern to investors is

21   the impact of regulatory lag and cost-recovery on Avista's

22   ability to earn its authorized ROE and maintain its

23   financial metrics, with Moody's noting an ongoing need for

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[55] Standard & Poor's Corporation, "Industry Report Card: U.S.
Electric/Gas/Water," *RatingsDirect* (May 3, 2005).
[56] See, *e.g.*, Standard & Poor's Corporation, "Avista Corp.'s Corporate
Credit Rating Raised One Notch To 'BBB-'," *RatingsDirect* (Feb 7,
2008); Moody's Investors Service, "Credit Opinion: Avista Corp.,"
Global Credit Research (Dec. 21, 2007).

1   supportive regulation in light of a significant capital

2   investment program.[57] Moody's concluded:

3   Continuation of supportive treatment in future
4   PGA and general rate cases would be particularly
5   important in helping Avista continue to make
6   progress towards consistently earning at the
7   utility division's allowed level of return on its
8   investment.[58]

9   S&P concluded that Avista's credit outlook could be revised

10   to "negative" if the Company's financial profile is

11   weakened due to an inability to obtain timely rate relief.[59]

12   Moreover, the negative impact of declining credit

13   quality on a utility's capital costs and financial

14   flexibility becomes more pronounced as debt ratings move

15   down the scale from investment to non-investment grade. In

16   light of Avista's present ratings, an inadequate rate of

17   return imposed in this proceeding would further pressure

18   the Company's financial flexibility and credit standing.

19   **Q. Do the potential exposures faced by Avista**
20   **highlight the need for ongoing support of the Company's**
21   **financial strength and ability to attract capital?**
22   A.   Most definitely. Avista must finance a major

23   construction program and a number of potential challenges

24   might require the relatively swift commitment of capital

25   resources in order to maintain the high level of service to

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[57] Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Research* (Dec. 21, 2007).
[58] *Id.*.
[59] Standard & Poor's Corporation, "Avista Corp.'s Corporate Credit Rating Raised One Notch To 'BBB-'," *RatingsDirect* (Feb. 7, 2008).

1   which its customers have become accustomed. Avista faces

2   the potential for fluctuating stream flows and significant

3   volatility in wholesale fuel and energy markets.   S&P

4   concluded that Avista's "key utility risk going forward is

5   its exposure to high-cost replacement power, particularly

6   in low water years."[60]   Given utilities' lack of control

7   over the timing of such events, the Company must have the

8   wherewithal to meet these challenges even when capital and

9   energy market conditions are unfavorable.

10   For Avista, these concerns are magnified by the fact

11   that its credit standing remains relatively weak.   While

12   the Company's efforts to regain an investment grade credit

13   rating have been successful, Avista's financial metrics

14   remain pressured.   As Mr. Malquist confirms in his

15   testimony, regulatory support will be a key driver in

16   securing   additional   progress   towards   restoring   the

17   Company's financial health. Further strengthening Avista's

18   financial integrity is imperative to ensure that the

19   Company has the capability to maintain an investment grade

20   rating while confronting potential challenges.

[60] Standard & Poor's Corporation, "Avista Corp.'s Corporate Credit
Rating Raised One Notch To 'BBB-'," *RatingsDirect* (Feb. 7, 2008).

1   Q.   Do customers benefit by enhancing the utility's

2   financial flexibility?

3   A.   Yes.   While providing an ROE that is sufficient

4   to maintain Avista's ability to attract capital, even in

5   times of financial and market stress, is consistent with

6   the economic requirements embodied in the Supreme Court's

7   *Hope* and *Bluefield* decisions, it is also in customers' best

8   interests.   Ultimately, it is customers and the service

9   area economy that enjoy the benefits that come from

10   ensuring that the utility has the financial wherewithal to

11   take whatever actions are required to ensure reliable

12   service.   By the same token, customers also bear a

13   significant burden when the ability of the utility to

14   attract necessary capital is impaired and service quality

15   is compromised.

16   **B. Flotation Costs**

17   Q.   What other considerations are relevant in setting

18   the return on equity for a utility?

19   A.   The common equity used to finance the investment

20   in utility assets is provided from either the sale of stock

21   in the capital markets or from retained earnings not paid

22   out as dividends.   When equity is raised through the sale

23   of common stock, there are costs associated with "floating"

24   the new equity securities.   These flotation costs include

25   services such as legal, accounting, and printing, as well

26   as the fees and discounts paid to compensate brokers for

1 selling the stock to the public. Also, some argue that the

2 "market pressure" from the additional supply of common

3 stock and other market factors may further reduce the

4 amount of funds a utility nets when it issues common

5 equity.

6 **Q. Is there an established mechanism for a utility**

7 **to recognize equity issuance costs?**

8 A. No. While debt flotation costs are recorded on

9 the books of the utility, amortized over the life of the

10 issue, and thus increase the effective cost of debt

11 capital, there is no similar accounting treatment to ensure

12 that equity flotation costs are recorded and ultimately

13 recognized. Alternatively, no rate of return is authorized

14 on flotation costs necessarily incurred to obtain a portion

15 of the equity capital used to finance plant. In other

16 words, equity flotation costs are not included in a

17 utility's rate base because neither that portion of the

18 gross proceeds from the sale of common stock used to pay

19 flotation costs is available to invest in plant and

20 equipment, nor are flotation costs capitalized as an

21 intangible asset. Unless some provision is made to

22 recognize these issuance costs, a utility's revenue

23 requirements will not fully reflect all of the costs

24 incurred for the use of investors' funds. Because there is

25 no accounting convention to accumulate the flotation costs

26 associated with equity issues, they must be accounted for

1   indirectly, with an upward adjustment to the cost of equity

2   being the most logical mechanism.

3   **Q.   What is the magnitude of the adjustment to the**

4   **"bare bones" cost of equity to account for issuance costs?**

5   A.   There are any number of ways in which a flotation

6   cost adjustment can be calculated, and the adjustment can

7   range from just a few basis points to more than a full

8   percent.   One of the most common methods used to account

9   for flotation costs in regulatory proceedings is to apply

10   an   average   flotation-cost   percentage   to   a   utility's

11   dividend   yield.   Based   on   a   review   of   the   finance

12   literature, *Regulatory Finance: Utilities' Cost of Capital*

13   concluded:

14   The   flotation   cost   allowance   requires   an
15   estimated adjustment to the return on equity of
16   approximately 5% to 10%, depending on the size
17   and risk of the issue.[61]

18   Alternatively,   a   study   of   data   from   Morgan   Stanley

19   regarding   issuance   costs   associated   with   utility   common

20   stock   issuances   suggests   an   average   flotation   cost

21   percentage of 3.6%.[62]   Applying these expense percentages to

22   a   representative   dividend   yield   for   a   utility   of   4.0

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[61] Roger A. Morin, *Regulatory Finance: Utilities' Cost of Capital*, 1994, at 166.
[62] *Application of Yankee Gas Services Company for a Rate Increase*, DPUC Docket No. 04-06-01, Direct Testimony of George J. Eckenroth (Jul. 2, 2004) at Exhibit GJE-11.1.   Updating the results presented by Mr. Eckenroth through April 2005 also resulted in an average flotation cost percentage of 3.6%.

1   percent implies a flotation cost adjustment on the order of

2   14 to 40 basis points.

3   **Q.   Has   the   IPUC   Staff   previously   considered**

4   **flotation costs in estimating a fair ROE?**

5   A.   Yes.   For example, in Case No. IPC-E-07-8, IPUC

6   Staff witness Terri Carlock noted that she had adjusted her

7   DCF analysis to incorporate an allowance for flotation

8   costs.[63]   While   issuance   costs   are   a   legitimate

9   consideration   in   setting   the   return   on   equity   for   a

10   utility, a specific adjustment for flotation costs was not

11   included in defining my recommended ROE range.

12   **C. Return on Equity Recommendation**

13   **Q.   What then is your conclusion as to a fair rate of**

14   **return on equity range for Avista?**

15   A.   As explained above, based on the capital market

16   oriented analyses for the utility and non-utility proxy

17   groups described in my testimony, I concluded that the fair

18   rate of return on equity range was 10.7 percent to 12.2

19   percent.   Considering capital market expectations, the

20   potential exposures faced by Avista, and the economic

21   requirements necessary to maintain financial integrity and

22   support additional capital investment even under adverse

23   circumstances, it is my opinion that this represents a fair

24   and reasonable ROE range for Avista.

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[63] Case No. IPC-E-07-8, *Direct Testimony of Terri Carlock* at 10 (Dec. 10, 2007).

1   Q. Based on the results of your evaluation, what is
2 your opinion regarding the reasonableness of the ROE
3 requested by Avista in this case?

4   A. My evaluation indicates that Avista's requested

5 ROE of 10.8 percent represents a conservative estimate of

6 investors' required rate of return. Given the fact that

7 the Company's requested ROE falls barely above the lower

8 bound of my recommended range, it should be viewed as an

9 absolute floor in establishing rates for Avista. This

10 conclusion is reinforced by the need to buttress the

11 Company's credit standing, which remains relatively weak,

12 as well as the pressures of funding significant capital

13 expenditures and meeting increased operating risks,

14 including those associated with Avista's reliance on

15 hydroelectric generation and wholesale energy markets. The

16 reasonableness of a minimum 10.8 percent ROE for Avista is

17 also supported by the Company's relatively greater risks as

18 compared with the proxy groups, the higher uncertainties

19 associated with Avista's relatively small size, and the

20 fact that my recommended ROE range does not consider

21 flotation costs.

22   Q. Does this conclude your pre-filed direct
23 testimony?
24   A. Yes.

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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION)	CASE NO. AVU-E-08-01
OF AVISTA CORPORATION FOR THE)	CASE NO. AVU-G-08-01
AUTHORITY TO INCREASE ITS RATES)	
AND CHARGES FOR ELECTRIC AND)	
NATURAL GAS SERVICE TO ELECTRIC)	EXHIBIT NO. 3
AND NATURAL GAS CUSTOMERS IN THE)	
STATE OF IDAHO)	WILLIAM E. AVERA
)	

FOR AVISTA CORPORATION

(ELECTRIC AND NATURAL GAS)

SCHEDULE WEA-1

QUALIFICATIONS OF WILLIAM E. AVERA

1   Q.   What is the purpose of this exhibit?

2   A.   This exhibit describes my background and experience

3   and contains the details of my qualifications.

4   Q.   What are your qualifications?

5   A.   I received a B.A. degree with a major in economics

6   from Emory University. After serving in the U.S. Navy, I

7   entered the doctoral program in economics at the University

8   of North Carolina at Chapel Hill. Upon receiving my Ph.D., I

9   joined the faculty at the University of North Carolina and

10   taught finance in the Graduate School of Business.   I

11   subsequently accepted a position at the University of Texas

12   at Austin where I taught courses in financial management and

13   investment analysis. I then went to work for International

14   Paper Company in New York City as Manager of Financial

15   Education, a position in which I had responsibility for all

16   corporate education programs in finance, accounting, and

17   economics.

18   In 1977, I joined the staff of the Public Utility

19   Commission of Texas (PUCT) as Director of the Economic

20   Research Division. During my tenure at the PUCT, I managed a

21   division responsible for financial analysis, cost allocation

22   and rate design, economic and financial research, and data

23   processing systems, and I testified in cases on a variety of

1   financial and economic issues. Since leaving the PUCT, I

2   have been engaged as a consultant. I have participated in a

3   wide range of assignments involving utility-related matters

4   on behalf of utilities, industrial customers, municipalities,

5   and regulatory commissions. I have previously testified

6   before the Federal Energy Regulatory Commission ("FERC"), as

7   well as the Federal Communications Commission ("FCC"), the

8   Surface Transportation Board (and its predecessor, the

9   Interstate Commerce Commission), the Canadian Radio-

10 Television and Telecommunications Commission, and regulatory

11 agencies, courts, and legislative committees in 39 states.

12   In 1995, I was appointed by the PUCT to the Synchronous

13 Interconnection Committee to advise the Texas legislature on

14 the costs and benefits of connecting Texas to the national

15 electric transmission grid. In addition, I served as an

16 outside director of Georgia System Operations Corporation,

17 the system operator for electric cooperatives in Georgia.

18   I have served as Lecturer in the Finance Department at

19 the University of Texas at Austin and taught in the evening

20 graduate program at St. Edward's University for twenty years.

21 In addition, I have lectured on economic and regulatory

22 topics in programs sponsored by universities and industry

23 groups. I have taught in hundreds of educational programs

24 for financial analysts in programs sponsored by the

25 Association for Investment Management and Research, the

1   Financial Analysts Review, and local financial analysts

2   societies.   These programs have been presented in Asia,

3   Europe, and North America, including the Financial Analysts

4   Seminar at Northwestern University.   I hold the Chartered

5   Financial Analyst (CFA®) designation and have served as Vice

6   President for Membership of the Financial Management

7   Association. I have also served on the Board of Directors of

8   the North Carolina Society of Financial Analysts.   I was

9   elected Vice Chairman of the National Association of

10   Regulatory Commissioners ("NARUC") Subcommittee on Economics

11   and appointed to NARUC's Technical Subcommittee on the

12   National Energy Act.   I have also served as an officer of

13   various other professional organizations and societies.   A

14   resume containing the details of my experience and

15   qualifications is attached.

WILLIAM E. AVERA

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Summary of Qualifications

Ph.D. in economics and finance; Chartered Financial Analyst (CFA®) designation; extensive expert witness testimony before courts, alternative dispute resolution panels, regulatory agencies and legislative committees; lectured in executive education programs around the world on ethics, investment analysis, and regulation; undergraduate and graduate teaching in business and economics; appointed to leadership positions in government, industry, academia, and the military.

Employment

Principal,
FINCAP, Inc.
(Sep. 1979 to present)

Financial, economic and policy consulting to business and government. Perform business and public policy research, cost/benefit analyses and financial modeling, valuation of businesses (over 150 entities valued), estimation of damages, statistical and industry studies. Provide strategy advice and educational services in public and private sectors, and serve as expert witness before regulatory agencies, legislative committees, arbitration panels, and courts.

*Director, Economic
Research Division,*
Public Utility
Commission of Texas
(Dec. 1977 to Aug. 1979)

Responsible for research and testimony preparation on rate of return, rate structure, and econometric analysis dealing with energy, telecommunications, water and sewer utilities. Testified in major rate cases and appeared before legislative committees and served as Chief Economist for agency. Administered state and federal grant funds. Communicated frequently with political leaders and representatives from consumer groups, media, and investment community.

Manager, Financial Education,
International Paper Company
New York City
(Feb. 1977 to Nov. 1977)

Directed corporate education programs in accounting, finance, and economics. Developed course materials, recruited and trained instructors, liaison within the company and with academic institutions. Prepared operating budget and designed financial controls for corporate professional development program.

Lecturer in Finance,
The University of Texas at Austin
(Sep. 1979 to May 1981)
Assistant Professor of Finance,
(Sep. 1975 to May 1977)

Taught graduate and undergraduate courses in financial management and investment theory. Conducted research in business and public policy. Named Outstanding Graduate Business Professor and received various administrative appointments.

Assistant Professor of Business,
University of North Carolina at Chapel Hill
(Sep. 1972 to Jul. 1975)

Taught in BBA, MBA, and Ph.D. programs. Created project course in finance, Financial Management for Women, and participated in developing Small Business Management sequence. Organized the North Carolina Institute for Investment Research, a group of financial institutions that supported academic research. Faculty advisor to the Media Board, which funds student publications and broadcast stations.

Education

Ph.D., Economics and Finance,
University of North Carolina at Chapel Hill
(Jan. 1969 to Aug. 1972)

Elective courses included financial management, public finance, monetary theory, and econometrics. Awarded the Stonier Fellowship by the American Bankers' Association and University Teaching Fellowship. Taught statistics, macroeconomics, and microeconomics.

Dissertation: *The Geometric Mean Strategy as a Theory of Multiperiod Portfolio Choice*

B.A., Economics,
Emory University,
Atlanta, Georgia
(Sep. 1961 to Jun. 1965)

Active in extracurricular activities, President of the Barkley Forum (debate team), Emory Religious Association, and Delta Tau Delta chapter.

Individual awards and team championships at national collegiate debate tournaments.

Professional Associations

Received Chartered Financial Analyst (CFA) designation in 1977; Vice President for Membership, Financial Management Association; President, Austin Chapter of Planning Executives Institute; Board of Directors, North Carolina Society of Financial Analysts; Candidate Curriculum Committee, Association for Investment Management and Research; Executive Committee of Southern Finance Association; Vice Chair, Staff Subcommittee on Economics and National Association of Regulatory Utility Commissioners (NARUC); Appointed to NARUC Technical Subcommittee on the National Energy Act.

Teaching in Executive Education Programs

University-Sponsored Programs: Central Michigan University, Duke University, Louisiana State University, National Defense University, National University of Singapore, Texas A&M University, University of Kansas, University of North Carolina, University of Texas.

Business and Government-Sponsored Programs: Advanced Seminar on Earnings Regulation, American Public Welfare Association, Association for Investment Management and Research, Congressional Fellows Program, Cost of Capital Workshop, Electricity Consumers Resource Council, Financial Analysts Association of Indonesia, Financial Analysts Review, Financial Analysts Seminar at Northwestern University, Governor's Executive Development Program of Texas, Louisiana Association of Business and Industry, National Association of Purchasing Management, National Association of Tire Dealers, Planning Executives Institute, School of Banking of the South, State of Wisconsin Investment Board, Stock Exchange of Thailand, Texas Association of State Sponsored Computer Centers, Texas Bankers' Association, Texas Bar Association, Texas Savings and Loan League, Texas Society of CPAs, Tokyo Association of Foreign Banks, Union Bank of Switzerland, U.S. Department of State, U.S. Navy, U.S. Veterans Administration, in addition to Texas state agencies and major corporations.

Presented papers for Mills B. Lane Lecture Series at the University of Georgia and Heubner Lectures at the University of Pennsylvania. Taught graduate courses in finance and economics in evening program at St. Edward's University in Austin from January 1979 through 1998.

Expert Witness Testimony

Testified in over 250 cases before regulatory agencies addressing cost of capital, regulatory policy, rate design, and other economic and financial issues.

Federal Agencies: Federal Communications Commission, Federal Energy Regulatory Commission, Surface Transportation Board, Interstate Commerce Commission, and the Canadian Radio-Television and Telecommunications Commission.

State Regulatory Agencies: Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Kansas, Maryland, Michigan, Missouri, Nevada, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

Testified in 41 cases before federal and state courts, arbitration panels, and alternative dispute tribunals (86 depositions given) regarding damages, valuation, antitrust liability, fiduciary duties, and other economic and financial issues.

Board Positions and Other Professional Activities

Audit Committee and Outside Director, Georgia System Operations Corporation (electric system operator for member-owned electric cooperatives in Georgia); Chairman, Board of Print Depot, Inc. and FINCAP, Inc.; Co-chair, Synchronous Interconnection Committee, appointed by Public Utility Commission of Texas and approved by governor; Appointed by Hays County Commission to Citizens Advisory Committee of Habitat Conservation Plan, Operator of AAA Ranch, a certified organic producer of agricultural products; Appointed to Organic Livestock Advisory Committee by Texas Agricultural Commissioner Susan Combs; Appointed by Texas Railroad Commissioners to study group for *The UP/SP Merger: An Assessment of the Impacts on the State of Texas;* Appointed by Hawaii Public Utilities Commission to team reviewing affiliate relationships of Hawaiian Electric Industries; Chairman, Energy Task Force, Greater Austin-San Antonio Corridor Council; Consultant to Public Utility Commission of Texas on cogeneration policy and other matters; Consultant to Public Service Commission of New Mexico on cogeneration policy; Evaluator of Energy Research Grant Proposals for Texas Higher Education Coordinating Board.

Community Activities

Board Member, Sustainable Food Center; Chair, Board of Deacons, Finance Committee, and Elder, Central Presbyterian Church of Austin; Founding Member, Orange-Chatham County (N.C.) Legal Aid Screening Committee.

Military

Captain, U.S. Naval Reserve (retired after 28 years service); Commanding Officer, Naval Special Warfare Engineering Support Unit; Officer-in-charge of SWIFT patrol boat in Vietnam; Enlisted service as weather analyst (advanced to second class petty officer).

Bibliography

Monographs

Ethics and the Investment Professional (video, workbook, and instructor's guide) and *Ethics Challenge Today* (video), Association for Investment Management and Research (1995)

"Definition of Industry Ethics and Development of a Code" and "Applying Ethics in the Real World," in *Good Ethics: The Essential*

Element of a Firm's Success, Association for Investment Management and Research (1994)

"On the Use of Security Analysts' Growth Projections in the DCF Model," with Bruce H. Fairchild in *Earnings Regulation Under Inflation*, J. R. Foster and S. R. Holmberg, eds. Institute for Study of Regulation (1982)

An Examination of the Concept of Using Relative Customer Class Risk to Set Target Rates of Return in Electric Cost-of-Service Studies, with Bruce H. Fairchild, Electricity Consumers Resource Council (ELCON) (1981); portions reprinted in *Public Utilities Fortnightly* (Nov. 11, 1982)

"Usefulness of Current Values to Investors and Creditors," *Research Study on Current-Value Accounting Measurements and Utility*, George M. Scott, ed., Touche Ross Foundation (1978)

"The Geometric Mean Strategy and Common Stock Investment Management," with Henry A. Latané in *Life Insurance Investment Policies*, David Cummins, ed. (1977)

Investment Companies: Analysis of Current Operations and Future Prospects, with J. Finley Lee and Glenn L. Wood, American College of Life Underwriters (1975)

Articles

"Should Analysts Own the Stocks they Cover?" *The Financial Journalist*, (March 2002)

"Liquidity, Exchange Listing, and Common Stock Performance," with John C. Groth and Kerry Cooper, *Journal of Economics and Business* (Spring 1985); reprinted by National Association of Security Dealers

"The Energy Crisis and the Homeowner: The Grief Process," *Texas Business Review* (Jan.-Feb. 1980); reprinted in *The Energy Picture: Problems and Prospects*, J. E. Pluta, ed., Bureau of Business Research (1980)

"Use of IFPS at the Public Utility Commission of Texas," *Proceedings of the IFPS Users Group Annual Meeting* (1979)

"Production Capacity Allocation: Conversion, CWIP, and One-Armed Economics," *Proceedings of the NARUC Biennial Regulatory Information Conference* (1978)

"Some Thoughts on the Rate of Return to Public Utility Companies," with Bruce H. Fairchild in *Proceedings of the NARUC Biennial Regulatory Information Conference* (1978)

"A New Capital Budgeting Measure: The Integration of Time, Liquidity, and Uncertainty," with David Cordell in *Proceedings of the Southwestern Finance Association* (1977)

"Usefulness of Current Values to Investors and Creditors," in *Inflation Accounting/Indexing and Stock Behavior* (1977)

"Consumer Expectations and the Economy," *Texas Business Review* (Nov. 1976)

"Portfolio Performance Evaluation and Long-run Capital Growth," with Henry A. Latané in *Proceedings of the Eastern Finance Association* (1973)

Book reviews in *Journal of Finance* and *Financial Review*. Abstracts for *CFA Digest*. Articles in *Carolina Financial Times*.

Selected Papers and Presentations

"The Who, What, When, How, and Why of Ethics", San Antonio Financial Analysts Society (Jan. 16, 2002). Similar presentation given to the Austin Society of Financial Analysts (Jan. 17, 2002)

"Ethics for Financial Analysts," Sponsored by Canadian Council of Financial Analysts: delivered in Calgary, Edmonton, Regina, and Winnipeg, June 1997. Similar presentations given to Austin Society of Financial Analysts (Mar. 1994), San Antonio Society of Financial Analysts (Nov. 1985), and St. Louis Society of Financial Analysts (Feb. 1986)

"Cost of Capital for Multi-Divisional Corporations," Financial Management Association, New Orleans, Louisiana (Oct. 1996)

"Ethics and the Treasury Function," Government Treasurers Organization of Texas, Corpus Christi, Texas (Jun. 1996)

"A Cooperative Future," Iowa Association of Electric Cooperatives, Des Moines (December 1995). Similar presentations given to National G & T Conference, Irving, Texas (June 1995), Kentucky Association of Electric Cooperatives Annual Meeting, Louisville (Nov. 1994), Virginia, Maryland, and Delaware Association of Electric Cooperatives Annual Meeting, Richmond (July 1994), and Carolina Electric Cooperatives Annual Meeting, Raleigh (Mar. 1994)

"Information Superhighway Warnings: Speed Bumps on Wall Street and Detours from the Economy," Texas Society of Certified Public Accountants Natural Gas, Telecommunications and Electric Industries Conference, Austin (Apr. 1995)

"Economic/Wall Street Outlook," Carolinas Council of the Institute of Management Accountants, Myrtle Beach, South Carolina (May 1994). Similar presentation given to Bell Operating Company Accounting Witness Conference, Santa Fe, New Mexico (Apr. 1993)

"Regulatory Developments in Telecommunications," Regional Holding Company Financial and Accounting Conference, San Antonio (Sep. 1993)

"Estimating the Cost of Capital During the 1990s: Issues and Directions," The National Society of Rate of Return Analysts, Washington, D.C. (May 1992)

"Making Utility Regulation Work at the Public Utility Commission of Texas," Center for Legal and Regulatory Studies, University of Texas, Austin (June 1991)

"Can Regulation Compete for the Hearts and Minds of Industrial Customers," Emerging Issues of Competition in the Electric Utility Industry Conference, Austin (May 1988)

"The Role of Utilities in Fostering New Energy Technologies," Emerging Energy Technologies in Texas Conference, Austin (Mar. 1988)

"The Regulators' Perspective," Bellcore Economic Analysis Conference, San Antonio (Nov. 1987)

"Public Utility Commissions and the Nuclear Plant Contractor," Construction Litigation Superconference, Laguna Beach, California (Dec. 1986)

"Development of Cogeneration Policies in Texas," University of Georgia Fifth Annual Public Utilities Conference, Atlanta (Sep. 1985)

"Wheeling for Power Sales," Energy Bureau Cogeneration Conference, Houston (Nov. 1985).

"Asymmetric Discounting of Information and Relative Liquidity: Some Empirical Evidence for Common Stocks" (with John Groth and Kerry Cooper), Southern Finance Association, New Orleans (Nov. 1982)

"Used and Useful Planning Models," Planning Executive Institute, 27th Corporate Planning Conference, Los Angeles (Nov. 1979)

"Staff Input to Commission Rate of Return Decisions," The National Society of Rate of Return Analysts, New York (Oct. 1979)

"Electric Rate Design in Texas," Southwestern Economics Association, Fort Worth (Mar. 1979)

"Discounted Cash Life: A New Measure of the Time Dimension in Capital Budgeting," with David Cordell, Southern Finance Association, New Orleans (Nov. 1978)

"The Relative Value of Statistics of Ex Post Common Stock Distributions to Explain Variance," with Charles G. Martin, Southern Finance Association, Atlanta (Nov. 1977)

"An ANOVA Representation of Common Stock Returns as a Framework for the Allocation of Portfolio Management Effort," with Charles G. Martin, Financial Management Association, Montreal (Oct. 1976)

"A Growth-Optimal Portfolio Selection Model with Finite Horizon," with Henry A. Latané, American Finance Association, San Francisco (Dec. 1974)

"An Optimal Approach to the Finance Decision," with Henry A. Latané, Southern Finance Association, Atlanta (Nov. 1974)

"A Pragmatic Approach to the Capital Structure Decision Based on Long-Run Growth," with Henry A. Latané, Financial Management Association, San Diego (Oct. 1974)

"Multi-period Wealth Distributions and Portfolio Theory," Southern Finance Association, Houston (Nov. 1973)

"Growth Rates, Expected Returns, and Variance in Portfolio Selection and Performance Evaluation," with Henry A. Latané, Econometric Society, Oslo, Norway (Aug. 1973)

SCHEDULE WEA-2

DESCRIPTIONS OF QUANTITATIVE ANALYSES

1   **Q.   What is the purpose of this schedule?**

2   A.   Schedule WEA-2 presents capital market estimates

3   of the cost of equity. First, I examine the concept of the

4   cost of equity, along with the risk-return tradeoff

5   principle fundamental to capital markets. Next, I describe

6   DCF, CAPM, and expected earnings analyses conducted to

7   estimate the cost of equity for reference groups of

8   comparable risk firms.

A.   Overview

9   **Q.   What role does the rate of return on common**

10   **equity play in a utility's rates?**

11   A.   The return on common equity is the cost of

12   inducing and retaining investment in the utility's physical

13   plant and assets.   This investment is necessary to finance

14   the asset base needed to provide utility service.

15   Investors will commit money to a particular investment only

16   if they expect it to produce a return commensurate with

17   those from other investments with comparable risks.

18   Moreover, the return on common equity is integral in

19   achieving the sound regulatory objectives of rates that are

20   sufficient to: 1) fairly compensate capital investment in

21   the utility, 2) enable the utility to offer a return

22   adequate to attract new capital on reasonable terms, and 3)

1   maintain the utility's financial integrity. Meeting these

2   objectives allows the utility to fulfill its obligation to

3   provide reliable service while meeting the needs of

4   customers through necessary system expansion.

5   **Q.   What fundamental economic principle underlies any**
6   **evaluation of investors' required return on equity?**

7   A.   The fundamental economic principle underlying the

8   cost of equity concept is the notion that investors are

9   risk averse. The required rate of return for a particular

10   asset at any point in time is a function of: 1) the yield

11   on risk-free assets, and 2) its relative risk, with

12   investors demanding correspondingly larger risk premiums

13   for assets bearing greater risk. Given this risk-return

14   tradeoff, the required rate of return (k) from an asset (i)

15   can be generally expressed as:

16   $$k_i = R_f + RP_i$$

17   where: R_f = Risk-free rate of return; and
18   RP_i = Risk premium required to hold
19   risky asset i.

20   Thus, the required rate of return for a particular asset at

21   any point in time is a function of: 1) the yield on risk-

22   free assets, and 2) its relative risk, with investors

23   demanding correspondingly larger risk premiums for assets

24   bearing greater risk.

25   Because common shareholders have the lowest priority

26   claim on a firm's cash flows, they receive only the

1   residual that remains after all other claimants (employees,

2   suppliers, governments, lenders) have been paid. As a

3   result, the rate of return that investors require from a

4   utility's common stock, the most junior and riskiest of its

5   securities, is considerably higher than the yield on the

6   utility's long-term debt.

7   **Q.   Is the cost of equity observable in the capital**

8   **markets?**

9   A.   No. Unlike debt capital, there is no

10   contractually guaranteed return on common equity capital

11   since shareholders are the residual owners of the utility.

12   Because it is unobservable, the cost of equity for a

13   particular utility must be estimated by analyzing

14   information about capital market conditions generally,

15   assessing the relative risks of the company specifically,

16   and employing various quantitative methods that focus on

17   investors' current required rates of return. These various

18   quantitative methods typically attempt to infer investors'

19   required rates of return from stock prices, interest rates,

20   or other capital market data.

A.   Discounted Cash Flow Analyses

21   **Q.   How are DCF models used to estimate the cost of**

22   **equity?**

23   A.   DCF models attempt to replicate the market

24   valuation process that sets the price investors are willing

25   to pay for a share of a company's stock. The model rests

1   on the assumption that investors evaluate the risks and

2   expected rates of return from all securities in the capital

3   markets. Given these expectations, the price of each stock

4   is adjusted by the market until investors are adequately

5   compensated for the risks they bear. Therefore, we can

6   look to the market to determine what investors believe a

7   share of common stock is worth. By estimating the cash

8   flows investors expect to receive from the stock in the way

9   of future dividends and capital gains, we can calculate

10   their required rate of return. In other words, the cash

11   flows that investors expect from a stock are estimated, and

12   given its current market price, we can "back-into" the

13   discount rate, or cost of equity, that investors implicitly

14   used in bidding the stock to that price.

15   **Q.   What market valuation process underlies DCF**
16   **models?**

17   A.   DCF models assume that the price of a share of

18   common stock is equal to the present value of the expected

19   cash flows (i.e., future dividends and stock price) that

20   will be received while holding the stock, discounted at

21   investors' required rate of return. That is, the cost of

22   equity is the discount rate that equates the current price

23   of a share of stock with the present value of all expected

24   cash flows from the stock.

1   **Q.   What form of the DCF model is customarily used to**
2 **estimate the cost of equity in rate cases?**

3   A.   Rather than developing annual estimates of cash

4   flows into perpetuity, the DCF model can be simplified to a

5   "constant growth" form: [1]

6
$$P_0 = \frac{D_1}{k_e - g}$$

7   where: P_0 = Current price per share;
8   D_1 = Expected dividend per share in the
9   coming year;
10   k_e = Cost of equity;
11   g = Investors' long-term growth
12   expectations.

13   The cost of equity (K_e) can be isolated by rearranging

14   terms:

15
$$k_e = \frac{D_1}{P_0} + g$$

16   This constant growth form of the DCF model recognizes that

17   the rate of return to stockholders consists of two parts:

18   1) dividend yield (D_1/P_0), and 2) growth (g). In other

19   words, investors expect to receive a portion of their total

20   return in the form of current dividends and the remainder

21   through price appreciation.

---

[1] The constant growth DCF model is dependent on a number of strict
assumptions, which in practice are never strictly met. These include
a constant growth rate for both dividends and earnings; a stable
dividend payout ratio; the discount rate exceeds the growth rate; a
constant growth rate for book value and price; a constant earned rate
of return on book value; no sales of stock at a price above or below
book value; a constant price-earnings ratio; a constant discount rate
(*i.e.*, no changes in risk or interest rate levels and a flat yield
curve); and all of the above extend to infinity.

1   Q.   How did you define the utility proxy group you
2   used to implement the DCF model?
3   A.   As discussed in my testimony, my utility proxy
4   group was composed of those dividend-paying companies
5   included by Value Line in its Electric Utilities Industry
6   groups with: (1) S&P corporate credit ratings between "BBB-
7   " and "BBB+," (2) a Value Line Safety Rank of "2" or "3",
8   and (3) a Value Line Financial Strength Rating of "B+" to
9   "B++", and (4) published growth estimates from IBES, Value
10   Line, Reuters, and Zacks. I excluded two companies that
11   otherwise would have been in the proxy group (Energy East
12   Corporation and Puget Energy, Inc.) because they are in the
13   process of being acquired.

14   Q.   Do these criteria provide objective evidence that
15   investors would view the firms in the utility proxy group
16   as risk-comparable to Avista?
17   A.   Yes. Credit ratings are assigned by independent
18   rating agencies to provide investors with a broad
19   assessment of the creditworthiness of a firm. Because the
20   rating agencies' evaluation includes virtually all of the
21   factors normally considered important in assessing a firm's
22   relative credit standing, corporate credit ratings provide
23   a broad measure of overall investment risk that is readily
24   available to investors. Widely cited in the investment
25   community and referenced by investors as an objective
26   measure of risk, credit ratings are also frequently used as

1   a primary risk indicator in establishing proxy groups to

2   estimate the cost of equity.

3   Apart from the broad assessment of investment risk

4   provided by credit ratings, other quality rankings

5   published by investment advisory services also provide

6   relative assessments of risk that are considered by

7   investors in forming their expectations. Given that Value

8   Line is perhaps the most widely available source of

9   investment advisory information, its Safety Rank and

10   Financial Strength Rating provide useful guidance regarding

11   the risk perceptions of investors.

12   The Safety Rank is Value Line's primary risk indicator

13   and ranges from "1" (Safest) to "5" (Riskiest). This

14   overall risk measure is intended to capture the total risk

15   of a stock, and incorporates elements of stock price

16   stability and financial strength. The Financial Strength

17   Rating is designed as a guide to overall financial strength

18   and creditworthiness, with the key inputs including

19   financial leverage, business volatility measures, and

20   company size. Value Line's Financial Strength Ratings

21   range from "A++" (strongest) down to "C" (weakest) in nine

22   steps.

23   As discussed earlier, Avista is rated "BBB-" by S&P,

24   which indicates slightly greater risk than the "BBB"

25   average rating for the firms in the utility proxy group.

26   Meanwhile, Value Line has assigned Avista a Safety Rank of

1   "3" and a Financial Strength Rating of "B+" versus averages

2   of "3" and "B++", respectively for the utility proxy group.

3   Based on my screening criteria, which reflect objective,

4   published indicators that incorporate consideration of a

5   broad spectrum of risks, including financial and business

6   position, relative size, and exposure to company specific

7   factors, investors are likely to regard this group as

8   having risks and prospects generally comparable to Avista.

9   Q.   **What steps are required to apply the DCF model?**

10   A.   The first step in implementing the constant

11   growth DCF model is to determine the expected dividend

12   yield (D_1/P_0) for the firm in question. This is usually

13   calculated based on an estimate of dividends to be paid in

14   the coming year divided by the current price of the stock.

15   The second, and more controversial, step is to estimate

16   investors' long-term growth expectations (g) for the firm.

17   The final step is to sum the firm's dividend yield and

18   estimated growth rate to arrive at an estimate of its cost

19   of equity.

20   Q.   **How was the dividend yield for the utility proxy**

21   **group determined?**

22   A.   Estimates of dividends to be paid by each of

23   these utilities over the next twelve months, obtained from

24   Value Line, served as D_1. This annual dividend was then

25   divided by the corresponding stock price for each utility

26   to arrive at the expected dividend yield. The expected

1   dividends, stock prices, and resulting dividend yields for

2   the firms in the utility proxy group are presented on

3   Schedule WEA-4. As shown there, dividend yields for the

4   twenty firms in the utility proxy group ranged from 2.4

5   percent to 6.0 percent.

6   **Q.   What is the next step in applying the constant**
7   **growth DCF model?**

8   A.   The next step is to evaluate long-term growth

9   expectations, or "g", for the firm in question. In

10 constant growth DCF theory, earnings, dividends, book

11 value, and market price are all assumed to grow in

12 lockstep, and the growth horizon of the DCF model is

13 infinite. But implementation of the DCF model is more than

14 just a theoretical exercise; it is an attempt to replicate

15 the mechanism investors used to arrive at observable stock

16 prices. A wide variety of techniques can be used to derive

17 growth rates, but the only "g" that matters in applying the

18 DCF model is the value that investors expect.

19 **Q.   Are historical growth rates likely to be**
20 **representative of investors' expectations for utilities?**

21   A.   No. If past trends in earnings, dividends, and

22 book value are to be representative of investors'

23 expectations for the future, then the historical conditions

24 giving rise to these growth rates should be expected to

25 continue. That is clearly not the case for utilities,

26 where structural and industry changes have led to declining

1   dividends, earnings pressure, and, in many cases,

2   significant write-offs. While these conditions serve to

3   depress historical growth measures, they are not

4   representative of long-term expectations for the utility

5   industry. Moreover, to the extent historical trends for

6   utilities are meaningful, they are also captured in

7   projected growth rates, since securities analysts also

8   routinely examine and assess the impact and continued

9   relevance (if any) of historical trends.

10   **Q.   What are investors most likely to consider in**
11   **developing their long-term growth expectations?**

12   A.   While the DCF model is technically concerned with

13   growth in dividend cash flows, implementation of this DCF

14   model is solely concerned with replicating the forward-

15   looking evaluation of real-world investors. In the case of

16   electric utilities, dividend growth rates are not likely to

17   provide a meaningful guide to investors' current growth

18   expectations. This is because utilities have significantly

19   altered their dividend policies in response to more

20   accentuated business risks in the industry.[2] As a result

21   of this trend towards a more conservative payout ratio,

22   dividend growth in the utility industry has remained

23   largely stagnant as utilities conserve financial resources

24   to provide a hedge against heightened uncertainties.

---

[2] For example, the payout ratio for electric utilities fell from
approximately 80% historically to on the order of 60%. The Value Line
Investment Survey (Sep. 15, 1995 at 161, Dec. 28, 2007 at 695).

1   As payout ratios for firms in the utility industry

2   trended downward, investors' focus has increasingly shifted

3   from dividends to earnings as a measure of long-term

4   growth. Future trends in earnings, which provide the

5   source for future dividends and ultimately support share

6   prices, play a pivotal role in determining investors' long-

7   term growth expectations. The importance of earnings in

8   evaluating investors' expectations and requirements is well

9   accepted in the investment community. As noted in *Finding*

10   *Reality in Reported Earnings* published by the Association

11   for Investment Management and Research:

12   [E]arnings, presumably, are the basis for the
13   investment benefits that we all seek. "Healthy
14   earnings equal healthy investment benefits" seems
15   a logical equation, but earnings are also a
16   scorecard by which we compare companies, a filter
17   through which we assess management, and a crystal
18   ball in which we try to foretell future
19   performance.[3]

20   Value Line's near-term projections and its Timeliness

21   Rank, which is the principal investment rating assigned to

22   each individual stock, are also based primarily on various

23   quantitative analyses of earnings. As Value Line

24   explained:

25   The future earnings rank accounts for 65% in the
26   determination of relative price change in the
27   future; the other two variables (current earnings
28   rank and current price rank) explain 35%.[4]

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[3] Association for Investment Management and Research, "Finding Reality
in Reported Earnings: An Overview", p. 1 (Dec. 4, 1996).
[4] The Value Line Investment Survey, *Subscriber's Guide*, p. 53.

1   The fact that investment advisory services, such as Value

2   Line, Thompson, and Reuters, focus on growth in earnings

3   indicates that the investment community regards this as a

4   superior indicator of future long-term growth. Indeed, "A

5   Study of Financial Analysts: Practice and Theory,"

6   published in the *Financial Analysts Journal*, reported the

7   results of a survey conducted to determine what analytical

8   techniques investment analysts actually use.[5] Respondents

9   were asked to rank the relative importance of earnings,

10   dividends, cash flow, and book value in analyzing

11   securities. Of the 297 analysts that responded, only 3

12   ranked dividends first while 276 ranked it last. The

13   article concluded:

14   Earnings and cash flow are considered far more
15   important than book value and dividends.[6]

16   More recently, the *Financial Analysts Journal* reported

17   the results of a study of the relationship between

18   valuations based on alternative multiples and actual market

19   prices, which concluded, "In all cases studied, earnings

20   dominated operating cash flows and dividends."[7]

---

[5] Block, Stanley B., "A Study of Financial Analysts: Practice and
Theory", *Financial Analysts Journal* (July/August 1999).
[6] *Id.* at 88.
[7] Liu, Jing, Nissim, Doron, & Thomas, Jacob, "Is Cash Flow King in
Valuations?," *Financial Analysts Journal*, Vol. 63, No. 2 (March/April
2007) at 56.

1   Q.   **What are security analysts currently projecting**
2   **in the way of growth for the firms in the utility proxy**
3   **group?**
4   A.   The IBES earnings growth projections for each of
5   the firms in the utility proxy group reported by Thomson
6   Financial are displayed on Schedule WEA-4. Also presented
7   are the earnings per share ("EPS") growth projections
8   reported by Value Line, Reuters, and Zacks.

9   Q.   **How else are investors' expectations of future**
10 **long-term growth prospects often estimated for use in the**
11 **constant growth DCF model?**
12   A.   Based on the assumptions underlying constant
13 growth theory, conventional applications of the constant
14 growth DCF model often examine the relationship between
15 retained earnings and earned rates of return as an
16 indication of the sustainable growth investors might expect
17 from the reinvestment of earnings within a firm. The
18 sustainable growth rate is calculated by the formula, $g =$
19 $br+sv$, where "b" is the expected retention ratio, "r" is
20 the expected earned return on equity, "s" is the percent of
21 common equity expected to be issued annually as new common
22 stock, and "v" is the equity accretion rate.

23   Q.   **What is the purpose of the "sv" term?**
24   A.   Under DCF theory, the "sv" factor is a component
25 of the growth rate designed to capture the impact of
26 issuing new common stock at a price above, or below, book
27 value. When a company's stock price is greater than its

1   book value per share, the per-share contribution in excess

2   of book value associated with new stock issues will accrue

3   to the current shareholders. This increase to the book

4   value of existing shareholders leads to higher expected

5   earnings and dividends, with the "sv" factor incorporating

6   this additional growth component.

7   **Q.   How did you apply the earnings retention method**

8   **for the proxy group of utilities?**

9   A.   The sustainable, "br+sv" growth rates for each

10   firm in the proxy group are summarized on Schedule WEA-4,

11   with the underlying details being presented on

12   Schedule WEA-5. For each firm, the expected retention

13   ratio (b) was calculated based on Value Line's projected

14   dividends and earnings per share. Likewise, each firm's

15   expected earned rate of return (r) was computed by dividing

16   projected earnings per share by projected net book value.

17   Because Value Line reports end-of-year book values, an

18   adjustment was incorporated to compute an average rate of

19   return over the year, consistent with the theory underlying

20   this approach to estimating investors' growth expectations.

21   Meanwhile, the percent of common equity expected to be

22   issued annually as new common stock (s) was equal to the

23   product of the projected market-to-book ratio and growth in

24   common shares outstanding, while the equity accretion rate

25   (v) was computed as 1 minus the inverse of the projected

26   market-to-book ratio.

1   Q.   **What cost of equity estimates were implied for**
2   **the utility proxy group using the DCF model?**
3   A.   After combining the dividend yields and
4   respective growth projections for each utility, the
5   resulting cost of equity estimates are shown on
6   Schedule WEA-4.

7   Q.   **In evaluating the results of the constant growth**
8   **DCF model, is it appropriate to eliminate cost of equity**
9   **estimates that fail to meet threshold tests of economic**
10   **logic?**
11   A.   Yes. It is a basic economic principle that
12   investors can be induced to hold more risky assets only if
13   they expect to earn a return to compensate them for their
14   risk bearing. As a result, the rate of return that
15   investors require from a utility's common stock, the most
16   junior and riskiest of its securities, must be considerably
17   higher than the yield offered by senior, long-term debt.
18   Consistent with this principle, the DCF range for the proxy
19   group of electric utilities must be adjusted to eliminate
20   cost of equity estimates that fail fundamental tests of
21   economic logic.

22   Q.   **Have similar tests been applied by regulators?**
23   A.   Yes. The FERC has noted that adjustments are
24   justified where applications of the DCF approach produce
25   illogical results. FERC evaluates DCF results against
26   observable yields on long-term public utility debt and has
27   recognized that it is appropriate to eliminate cost of

1   equity estimates that do not sufficiently exceed this

2   threshold. In a 2002 opinion establishing its current

3   precedent for determining ROEs for electric utilities, for

4   example, FERC concluded:

5   An adjustment to this data is appropriate in the
6   case of PG&E's low-end return of 8.42 percent,
7   which is comparable to the average Moody's "A"
8   grade public utility bond yield of 8.06 percent,
9   for October 1999. Because investors cannot be
10   expected to purchase stock if debt, which has
11   less risk than stock, yields essentially the same
12   return, this low-end return cannot be considered
13   reliable in this case.[8]

14   More recently, in its October 2006 decision in *Kern River*

15   *Gas Transmission Company*, FERC noted that:

16   [T]he 7.31 and 7.32 percent costs of equity for
17   El Paso and Williams found by the ALJ are only
18   110 and 122 basis points above that average yield
19   for public utility debt.[9]

20   FERC upheld the opinion of Staff and the Administrative Law

21   Judge that cost of equity estimates for these two proxy

22   group companies "were too low to be credible."[10]

23   Q.   What does this test of logic imply with respect
24   to the DCF results for the utility proxy group?

25   A.   The average bond rating associated with the firms

26   in the utility proxy group is triple-B, with Moody's

27   monthly yields on triple-B bonds averaging approximately

28   6.4 percent in January 2008.[11] As highlighted on

29   Schedule WEA-4, six of the individual equity estimates for

---

[8] *Southern California Edison Company*, 92 FERC ¶ 61,070 (2000) at p. 22.
[9] *Kern River Gas Transmission Company*, Opinion No. 486, 117 FERC ¶
61,077 at P 140 & n. 227 (2006).
[10] *Id.*
[11] Moody's Investors Service, *Credit Perspectives* (Feb. 11, 2008).

1   the firms in the utility proxy group exceeded this

2   threshold by 120 basis points or less.[12] In light of the

3   risk-return tradeoff principle and the test applied in *Kern*

4   *River Gas Transmission Company*, it is inconceivable that

5   investors are not requiring a substantially higher rate of

6   return for holding common stock, which is the riskiest of a

7   utility's securities. As a result, these values provide

8   little guidance as to the returns investors require from

9   the common stock of an electric utility.

10   **Q.   Do you also recommend excluding cost of equity**

11   **estimates at the high end of the range of DCF results?**

12   A.   Yes. As highlighted on Schedule WEA-4, I also

13   eliminated cost of equity estimates at the upper end of the

14   range of DCF results.   Compared with the balance of the

15   remaining estimates, these values are extreme outliers and

16   should also be excluded in evaluating the results of the

17   DCF model for the utility proxy group. This is also

18   consistent with the approach and threshold adopted by FERC,

19   which established that a 17.7 percent DCF estimate for an

20   electric utility was "an extreme outlier" and should be

21   disregarded.[13]

---

[12] As highlighted on Schedule WEA-4, these DCF estimates ranged from
5.7 percent to 7.5 percent.
[13] *ISO New England, Inc.*, 109 FERC ¶ 61,147 at P 205 (2004).

1   Q.   What cost of equity is implied by your DCF

2 results for the utility proxy group?

3   A.   As shown on Schedule WEA-4 and summarized in

4 Table 1, below, after eliminating illogical low- and high-

5 end values, application of the constant growth DCF model

6 resulted in the following cost of equity estimates:

7   TABLE 1
8   DCF RESULTS - UTILITY PROXY GROUP

Growth Rate	Average Cost of Equity
IBES	11.3%
Value Line	10.4%
Reuters	10.6%
Zacks	10.9%
br+sv	9.2%

9   Q.   What did you conclude based on the results of the

10 DCF analyses for the utility proxy group?

11   A.   Taken together, and considering the relative

12 strengths and weaknesses associated with the alternative

13 growth measures, I concluded that the constant growth DCF

14 results for the utility proxy group implied a cost of

15 equity of 10.7 percent.

16   Q.   How else can the DCF model be applied to estimate

17 the ROE for Avista?

18   A.   Under the regulatory standards established by

19 *Hope* and *Bluefield*, the salient criteria in establishing a

20 meaningful benchmark to evaluate a fair rate of return is

21 relative risk, not the particular business activity or

22 degree of regulation. Utilities must compete for capital,

23 not just against firms in their own industry, but with

1   other investment opportunities of comparable risk. With

2   regulation taking the place of competitive market forces,

3   required returns for utilities should be in line with those

4   of non-utility firms of comparable risk operating under the

5   constraints of free competition. Consistent with this

6   accepted regulatory standard, I also applied the DCF model

7   to a reference group of comparable risk companies in the

8   non-utility sector of the economy.

9   Q.   What criteria did you apply to evaluate

10   investors' risk perceptions?

11   A.   As discussed in my testimony, my assessment of

12   comparable risk relied on three objective benchmarks for

13   the risks associated with common stocks -- Value Line's

14   Safety Rank, Financial Strength rating, and beta. My

15   comparable risk proxy group was composed of those U.S.

16   companies followed by Value Line that 1) pay common

17   dividends, 2) have a Safety Rank of "1", 2) have a

18   Financial Strength Rating of "A" or above, and 3) have beta

19   values of 0.90 or less,[14] and (4) have published data from

20   IBES, Value Line, Reuters, and Zacks. Consistent with the

21   development of my utility proxy group, I also eliminated

22   firms with below-investment grade credit ratings.

---

[14] This threshold corresponds to the average beta of 0.89 for the
utility proxy group discussed earlier.

1   Q.   **What were the results of your DCF analysis for**
2   **the non-utility reference group?**
3   A.   As shown on Schedule WEA-6, I applied the DCF
4   model to the non-utility proxy group in exactly the same
5   manner described earlier for the utility proxy group.[15] As
6   summarized in Table 2, below, after eliminating illogical
7   low- and high-end values, application of the constant
8   growth DCF model resulted in the following cost of equity
9   estimates:

10   **TABLE 2**
11   **DCF RESULTS - NON-UTILITY PROXY GROUP**

Growth Rate	Average Cost of Equity
I/B/E/S	12.9%
Value Line	12.2%
Reuters	12.5%
Zacks	12.7%
br+sv	13.0%

12   Taken together, I concluded that the constant growth DCF
13   results for the non-utility proxy group implied a cost of
14   equity of 12.6 percent.

                   B.   Capital Asset Pricing Model
15   Q   **Please describe the CAPM.**
16   A.   The CAPM is a theory of market equilibrium that
17   measures risk using the beta coefficient. The CAPM assumes
18   that investors are fully diversified, so the relevant risk
19   of an individual asset (*e.g.*, common stock) is its
20   volatility relative to the market as a whole. Beta

---

[15] Schedule WEA-7 contains the details underlying the calculation of
the br+sv growth rates for the non-utility proxy group.

1   reflects the tendency of a stock's price to follow changes

2   in the market. A stock that tends to respond relatively

3   less to market movements has a beta less than 1.00, while

4   stocks that tend to move more than the market have betas

5   greater than 1.00. The CAPM is mathematically expressed

6   as:

7                    $R_j = R_f + \beta_j (R_m - R_f)$

8   where: R_j = required rate of return for stock j;
9   R_f = risk-free rate;
10   R_m = expected return on the market
11   portfolio; and,
12   β_j = beta, or systematic risk, for stock j.

13   Like the DCF model, the CAPM is an *ex-ante*, or

14   forward-looking model based on expectations of the future.

15   As a result, in order to produce a meaningful estimate of

16   investors' required rate of return, the CAPM must be

17   applied using estimates that reflect the expectations of

18   actual investors in the market, not with backward-looking,

19   historical data.

20   **Q.   How did you apply the CAPM to estimate the cost**

21   **of equity?**

22   A.   Application of the CAPM to the utility proxy

23   group based on a forward-looking estimate for investors'

24   required rate of return from common stocks is presented on

25   Schedule WEA-8. In order to capture the expectations of

26   today's investors in current capital markets, the expected

1   market rate of return was estimated by conducting a DCF

2   analysis on the dividend paying firms in the S&P 500.

3   The dividend yield for each firm was obtained from

4   Value Line, with the growth rate being equal to the average

5   of the earnings growth projections for each firm compiled

6   by IBES and Value Line, with each firm's dividend yield and

7   growth rate being weighted by its proportionate share of

8   total market value. Based on the weighted average of the

9   projections for the 354 individual firms, current estimates

10   imply an average growth rate over the next five years of

11   11.0 percent. Combining this average growth rate with a

12   dividend yield of 2.2 percent results in a current cost of

13   equity estimate for the market as a whole of approximately

14   13.2 percent. Subtracting a 4.4 percent risk-free rate

15   based on the average yield on 20-year Treasury bonds for

16   January 2008 produced a market equity risk premium of 8.8

17   percent. Multiplying this risk premium by the average

18   Value Line beta of 0.89 for the utility proxy group, and

19   then adding the resulting 7.8 percent risk premium to the

20   average long-term Treasury bond yield, indicated an ROE of

21   approximately 12.2 percent.

1   Q.   What cost of equity was indicated for the non-
2   utility proxy group based on this forward-looking
3   application of the CAPM?
4   A.   As shown on Schedule WEA-9, applying the forward-
5   looking CAPM approach to the firms in the non-utility proxy
6   group implied a cost of equity of 11.4 percent.

7   Q.   What other CAPM analyses did you conduct to
8   estimate the cost of equity?
9   A.   I also applied the CAPM using risk premiums based
10   on historical realized rates of return. This approach to
11   estimating investors' equity risk premiums is premised on
12   the notion that past experience heavily conditions future
13   expectations. The essential assumption of the historical
14   risk premium when used in the CAPM approach is that, while
15   historical returns do not predict the future, investors
16   form expectations of future stock returns based on
17   observable debt yields and the historical experience of
18   returns from common stock investments relative to debt
19   investments.
20   While reference to historical data represents one way
21   to apply the CAPM, these realized rates of return reflect,
22   at best, an indirect estimate of investors' current
23   requirements. The cost of capital is a forward-looking, or
24   expectational concept that is focused on the perceptions of
25   today's capital market investors. Past investment returns
26   are frequently referenced and may provide a useful
27   benchmark, but the only factors that actually determine the

1   current required rate of return are investors' expectations

2   for the future. As a result, forward-looking applications

3   of the CAPM that look directly at investors' expectations

4   in the capital markets are apt to provide a more meaningful

5   guide to investors' required rate of return.

6   **Q.   What CAPM cost of equity is produced based on**

7   **historical realized rates of return for stocks and long-**

8   **term government bonds?**

9   A.   I applied the CAPM using data published by

10   Ibbotson Associates, which is perhaps the most exhaustive

11   and widely referenced annual study of realized rates of

12   return. Application of the CAPM based on historical

13   realized rates of return is presented in Schedule WEA-10.

14   In their *2007 Yearbook, Valuation Edition*, Ibbotson

15   Associates reported that, over the period from 1926 through

16   2006, the arithmetic mean realized rate of return on the

17   S&P 500 exceeded that on long-term government bonds by 7.1

18   percent.[16] Multiplying this historical market risk

19   premium by the average Value Line beta of 0.89

20   produced an equity risk premium of 6.3 percent for the

21   utility proxy group. As shown on Schedule WEA-10,

22   adding this equity risk premium to the January 2008

23   average yield on 20-year Treasury bonds of 4.4 percent

24   resulted in an implied cost of equity of 10.7 percent.

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[16] Ibbotson Associates computes the equity risk premium by subtracting
the income return (not the total return) on long-term Treasury bonds
from the return on common stocks.

1   Q.   What cost of equity was indicated for the non-
2 utility proxy group based on the historical CAPM approach?
3   A.   As shown on Schedule WEA-11, applying the
4 historical CAPM approach to the firms in the non-utility
5 proxy group implied a cost of equity of 10.0 percent.

C.   Expected Earnings Method

6   Q.   What other analyses did you conduct to estimate
7 the cost of equity?
8   A.   As I noted earlier, I also evaluated the ROE
9 using the expected earnings method. Reference to rates of
10 return available from alternative investments of comparable
11 risk can provide an important benchmark in assessing the
12 return necessary to assure confidence in the financial
13 integrity of a firm and its ability to attract capital.
14 This expected earnings approach is consistent with the
15 economic underpinnings for a fair rate of return
16 established by the Supreme Court in *Hope* and *Bluefield.*
17 Moreover, it avoids the complexities and limitations of
18 capital market methods and instead focuses on expected
19 earned returns on book equity, which are more readily
20 available to investors.

21   Q.   What rates of return are indicated for utilities
22 based on this approach?
23   A.   With respect to expectations for electric
24 utilities generally, the February 8, 2008 edition of Value
25 Line reports that its analysts anticipate an average rate
26 of return on common equity for the electric utility

1   industry of 11.5 percent in 2008 and over its three-to-five

2   year forecast horizon.[17] Meanwhile, Value Line expects that

3   natural gas utilities will earn an average rate of return

4   on common equity of 11.5 percent in 2008 and 12.0 percent

5   over the years 2010 through 2012.[18]

6   For the firms in the utility proxy group specifically,

7   the returns on common equity projected by Value Line over

8   its three-to-five year forecast horizon are shown on

9   Schedule WEA-12. Consistent with the rationale underlying

10   the development of the br+sv growth rates, these year-end

11   values were converted to average returns using the same

12   adjustment factor discussed earlier. As shown on Schedule

13   WEA-12, after eliminating potential outliers, Value Line's

14   projections suggested an average ROE of 10.5 percent for

15   the utility proxy group.

16   **Q.   What return on equity is indicated by the results**

17   **of the expected earnings approach?**

18   A.   Based on the results discussed above, I concluded

19   that the comparable earnings approach implies a fair rate

20   of return on equity of 11.0 percent.

D.   Summary of Quantitative Results

21   **Q.   Please summarize the results of your quantitative**

22   **analyses.**

23   A.   The cost of equity estimates implied by my

24   quantitative analyses are summarized in Table 3 below:

---

[17] The Value Line Investment Survey, at 1776 (Feb. 8, 2008).
[18] The Value Line Investment Survey, at 445 (Dec. 14, 2007).

1
2

TABLE 3
SUMMARY OF QUANTITATIVE RESULTS

	Cost of Equity Estimates	
Method	**Utility Proxy Group**	**Non-Utility Proxy Group**
DCF	10.7%	12.6%
CAPM		
Forward-looking	12.2%	11.4%
Historical	10.7%	10.0%
Expected Earnings	11.0%	--

CAPITAL STRUCTURE

UTILITY PROXY GROUP

Schedule WEA-3
Page 1 of 1

	Company	At December 31, 2007 (a)			Value Line Projected (b)		
		Long-term Debt	Preferred	Common Equity	Long-term Debt	Other	Common Equity
1	American Elec Pwr	59.7%	0.2%	40.1%	56.5%	0.5%	43.0%
2	Avista Corp.	48.0%	5.7%	46.2%	50.5%	0.0%	49.5%
3	Black Hills Corp.	42.1%	0.0%	57.9%	39.5%	0.0%	60.5%
4	Cleco Corp.	46.2%	0.1%	53.7%	50.0%	0.0%	50.0%
5	DTE Energy Co.	53.5%	2.2%	44.3%	56.5%	0.0%	43.5%
6	Edison International	48.3%	4.9%	46.8%	47.0%	4.0%	49.0%
7	Hawaiian Elec.	48.7%	1.3%	50.0%	51.5%	1.5%	47.0%
8	IDACORP, Inc.	49.2%	0.0%	50.8%	50.0%	0.0%	50.0%
9	NiSource Inc.	52.6%	0.0%	47.4%	51.0%	0.0%	49.0%
10	Northeast Utilities	54.6%	1.7%	43.7%	56.5%	1.0%	42.5%
11	PG&E Corp.	48.1%	1.5%	50.4%	45.5%	1.5%	53.0%
12	PNM Resources	49.7%	0.3%	50.0%	48.5%	0.5%	51.0%
13	Portland General Elec.	49.9%	0.0%	50.1%	51.5%	0.0%	48.5%
14	PPL Corp.	56.3%	2.2%	41.5%	48.5%	2.0%	49.5%
15	Progress Energy	52.8%	0.5%	46.7%	49.5%	0.5%	50.0%
16	P S Enterprise Group	52.8%	0.5%	46.7%	46.0%	0.5%	53.5%
17	Westar Energy	50.6%	0.6%	48.9%	50.0%	0.5%	49.5%
18	Wisconsin Energy	53.0%	0.5%	46.6%	52.0%	0.5%	47.5%
19	Xcel Energy, Inc.	52.1%	0.8%	47.1%	54.5%	0.5%	45.0%
	Average	**51.0%**	**1.2%**	**47.8%**	**50.3%**	**0.7%**	**49.0%**

(a) Company Form 10-K and Annual Reports.
(b) The Value Line Investment Survey (Nov. 30 & Dec. 28, 2007, Feb. 8, 2008).

Exhibit No. 3
Case Nos AVU-E-08-01 AVU-G-08-01
W. Avera, Avista
Schedule WEA-3, p. 1of 1

CONSTANT GROWTH DCF MODEL

UTILITY PROXY GROUP

	(a) Dividend Yield			(b)	(c) Growth Rates	(d)	(e)	(f)	(g) Cost of Equity Estimates				
Company	Price	Dividends	Yield	IBES	V Line	Reuters	Zacks	br+sv	IBES	V Line	Reuters	Zacks	br+sv
1 American Elec Pwr	$ 42.65	$ 1.67	3.9%	6.0%	6.5%	5.4%	5.0%	6.3%	9.9%	10.4%	9.3%	8.9%	10.2%
2 Avista Corp.	$ 19.64	$ 0.63	3.2%	4.5%	9.0%	4.5%	5.0%	3.4%	7.7%	12.2%	7.7%	8.2%	6.6%
3 Black Hills Corp.	$ 38.95	$ 1.40	3.6%	6.5%	5.5%	6.0%	6.5%	4.7%	10.1%	9.1%	9.6%	10.1%	8.3%
4 Cleco Corp.	$ 25.17	$ 0.90	3.6%	14.0%	6.5%	15.5%	9.5%	4.6%	17.6%	10.1%	19.1%	13.1%	8.1%
5 DTE Energy Co.	$ 41.58	$ 2.18	5.2%	5.8%	4.0%	6.4%	6.0%	2.2%	11.0%	9.2%	11.6%	11.2%	7.4%
6 Edison International	$ 49.70	$ 1.24	2.5%	8.8%	6.5%	8.0%	10.3%	6.6%	11.3%	9.0%	10.5%	12.8%	9.1%
7 Hawaiian Elec.	$ 21.85	$ 1.24	5.7%	8.5%	1.5%	3.1%	4.5%	2.6%	14.2%	7.2%	8.8%	10.2%	8.3%
8 IDACORP, Inc.	$ 32.20	$ 1.20	3.7%	6.0%	2.0%	6.0%	5.0%	3.5%	9.7%	5.7%	9.7%	8.7%	7.3%
9 NiSource Inc.	$ 17.51	$ 0.92	5.3%	2.8%	2.5%	2.7%	2.8%	2.5%	8.1%	7.8%	8.0%	8.1%	7.8%
10 Northeast Utilities	$ 28.26	$ 0.82	2.9%	10.4%	17.0%	10.0%	12.7%	7.6%	13.3%	19.9%	12.9%	15.6%	10.5%
11 PG&E Corp.	$ 41.39	$ 1.53	3.7%	9.5%	4.5%	8.5%	8.5%	5.0%	13.2%	8.2%	12.2%	12.2%	8.7%
12 PNM Resources	$ 18.90	$ 0.94	5.0%	9.0%	2.5%	10.3%	6.3%	3.4%	14.0%	7.5%	15.3%	11.3%	8.4%
13 Portland General Elec.	$ 24.26	$ 0.97	4.0%	7.9%	14.5%	7.9%	7.0%	4.1%	11.9%	18.5%	11.9%	11.0%	8.1%
14 PPL Corp.	$ 47.68	$ 1.31	2.7%	13.7%	14.0%	15.2%	10.3%	9.4%	16.4%	16.7%	17.9%	13.0%	12.1%
15 Progress Energy	$ 44.42	$ 2.46	5.5%	4.6%	3.5%	4.5%	5.2%	2.9%	10.1%	9.0%	10.0%	10.7%	8.4%
16 P S Enterprise Group	$ 91.20	$ 2.58	2.8%	19.7%	11.5%	14.3%	18.5%	9.2%	22.5%	14.3%	17.1%	21.3%	12.1%
17 Westar Energy	$ 23.03	$ 1.14	5.0%	5.6%	4.5%	4.6%	4.5%	4.0%	10.6%	9.5%	9.5%	9.5%	9.0%
18 Wisconsin Energy	$ 45.21	$ 1.08	2.4%	8.1%	8.0%	9.3%	9.4%	6.8%	10.5%	10.4%	11.7%	11.8%	9.1%
19 Xcel Energy, Inc.	$ 20.71	$ 0.94	4.5%	6.0%	5.5%	6.1%	5.2%	4.2%	10.5%	10.0%	10.7%	9.7%	8.7%
Average (h)									11.3%	10.4%	10.6%	10.9%	9.2%

(a) Recent price and estimated dividend for next 12 mos. from The Value Line Investment Survey, Summary and Index (Feb. 1, 2008).

(b) Thompson Financial Company in Context Report (Feb. 1, 2008).

(c) The Value Line Investment Survey (Nov. 30 & Dec. 28, 2007, Feb. 8, 2008).

(d) http://stocks.us.reuters.com (retrieved Feb. 4, 2008)

(e) http://www.zacks.com/research (retrieved Feb. 4, 2008)

(f) See Schedule WEA-5.

(g) Sum of dividend yield and respective growth rate

(h) Excludes highlighted figures

SUSTAINABLE GROWTH RATE

UTILITY PROXY GROUP

		(a)	(a)	(a)	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
		Projections			Historical		Mid-Year		Adjusted	Adjusted "b x r"	"sv"	Sustainable
	Company	EPS	DPS	Net Book Value	Net Book Value	Annual Change	Adjustment Factor	"b"	"r"	growth	Factor	Growth
1	American Elec Pwr	$4.00	$2.20	$32.00	$23.73	6.2%	1.0299	45.0%	12.9%	5.8%	0.52%	6.3%
2	Avista Corp.	$1.75	$1.10	$20.75	$17.46	3.5%	1.0173	37.1%	8.6%	3.2%	0.19%	3.4%
3	Black Hills Corp.	$2.75	$1.53	$30.75	$23.68	5.4%	1.0261	44.4%	9.2%	4.1%	0.67%	4.7%
4	Cleco Corp.	$2.00	$1.30	$19.50	$15.22	5.1%	1.0248	35.0%	10.5%	3.7%	0.88%	4.6%
5	DTE Energy Co.	$3.50	$2.40	$38.00	$33.02	2.8%	1.0140	31.4%	9.3%	2.9%	-0.75%	2.2%
6	Edison International	$3.60	$1.42	$34.30	$23.66	7.7%	1.0371	60.6%	10.9%	6.6%	0.01%	6.6%
7	Hawaiian Elec.	$1.50	$1.24	$13.75	$13.44	0.5%	1.0023	17.3%	10.9%	1.9%	0.75%	2.6%
8	IDACORP, Inc.	$2.25	$1.20	$30.95	$25.76	3.7%	1.0184	46.7%	7.4%	3.5%	0.09%	3.5%
9	NiSource Inc.	$1.50	$1.00	$20.25	$18.32	2.0%	1.0100	33.3%	7.5%	2.5%	0.01%	2.5%
10	Northeast Utilities	$2.30	$0.98	$22.20	$18.14	4.1%	1.0202	57.4%	10.6%	6.1%	1.56%	7.6%
11	PG&E Corp.	$3.10	$1.92	$28.45	$20.95	6.3%	1.0306	38.1%	11.2%	4.3%	0.72%	5.0%
12	PNM Resources	$1.95	$1.07	$26.35	$22.09	3.6%	1.0176	45.1%	7.5%	3.4%	0.04%	3.4%
13	Portland General Elec.	$2.25	$1.30	$24.75	$19.58	4.8%	1.0234	42.2%	9.3%	3.9%	0.16%	4.1%
14	PPL Corp.	$4.50	$2.20	$19.75	$13.30	8.2%	1.0395	51.1%	23.7%	12.1%	-2.72%	9.4%
15	Progress Energy	$3.30	$2.53	$35.05	$32.37	1.6%	1.0080	23.3%	9.5%	2.2%	0.68%	2.9%
16	P S Enterprise Group	$6.20	$2.64	$43.15	$25.33	11.2%	1.0532	57.4%	15.1%	8.7%	0.55%	9.2%
17	Westar Energy	$2.00	$1.28	$22.35	$17.62	4.9%	1.0238	36.0%	9.2%	3.3%	0.74%	4.0%
18	Wisconsin Energy	$3.75	$1.60	$32.75	$24.70	5.8%	1.0282	57.3%	11.8%	6.8%	0.00%	6.8%
19	Xcel Energy, Inc.	$1.75	$1.10	$17.25	$14.28	3.9%	1.0189	37.1%	10.3%	3.8%	0.36%	4.2%

(a) The Value Line Investment Survey (Nov. 30 & Dec. 28, 2007, Feb. 8, 2008).

(b) Annual growth in book value per share from historical to projected period.

(c) Equal to 2(1+b)/(2+b), where b = annual change in net book value.

(d) (EPS-DPS)/EPS.

(e) (Projected EPS/Projected Net Book Value) x Mid-Year Adjustment Factor.

(f) (d) x (e).

(g) "s" equals projected market-to-book ratio x growth in common shares. "v" equals (1 - 1/projected market-to-book ratio).

(h) (f) + (g).

CONSTANT GROWTH DCF MODEL

NON-UTILITY PROXY GROUP

	Company	(a) Dividend Yield	(b) IBES	(a) VL EPS	(c) Reuters	(d) Zacks	(e) br+sv	(f) IBES	(f) VL EPS	(f) Reuters	(f) Zacks	(f) br+sv
					Growth Rates			Cost of Equity Estimates				
1	3M Company	2.41%	11.3%	5.0%	11.1%	10.7%	12.7%	13.7%	7.4%	13.5%	13.1%	15.1%
2	Abbott Labs.	2.31%	11.9%	10.0%	10.4%	9.7%	14.4%	14.2%	12.3%	12.7%	12.0%	16.7%
3	Aflac Inc.	1.57%	14.6%	14.0%	13.8%	14.0%	13.1%	16.2%	15.6%	15.4%	15.6%	14.6%
4	Anheuser-Busch	2.84%	8.2%	7.5%	8.5%	8.7%	25.3%	11.0%	10.3%	11.3%	11.5%	28.2%
5	Automatic Data Proc.	2.88%	14.2%	10.5%	13.3%	13.0%	12.8%	17.1%	13.4%	16.2%	15.9%	15.7%
6	Bank of America	5.80%	9.3%	7.0%	7.6%	8.4%	7.8%	15.1%	12.8%	13.4%	14.2%	13.6%
7	Bard (C.R.)	0.62%	14.3%	14.0%	14.5%	14.1%	11.6%	14.9%	14.6%	15.1%	14.7%	12.3%
8	Becton, Dickinson	1.32%	13.2%	12.0%	12.8%	13.1%	13.4%	14.5%	13.3%	14.1%	14.4%	14.7%
9	Chevron Corp.	2.79%	8.7%	5.0%	6.5%	3.5%	6.9%	11.5%	7.8%	9.3%	6.3%	9.7%
10	Coca-Cola	2.31%	10.1%	9.0%	10.1%	9.0%	11.9%	12.4%	11.3%	12.4%	11.3%	14.2%
11	Colgate-Palmolive	1.88%	10.9%	12.0%	10.9%	10.9%	21.0%	12.8%	13.9%	12.8%	12.8%	22.9%
12	Commerce Bancshs.	2.25%	6.3%	4.5%	6.3%	6.5%	8.2%	8.6%	6.8%	8.5%	8.8%	10.5%
13	ConocoPhillips	2.05%	10.9%	2.5%	6.2%	5.8%	8.9%	13.0%	4.6%	8.3%	7.9%	11.0%
14	Ecolab Inc.	1.08%	14.0%	13.0%	14.3%	14.3%	17.0%	15.1%	14.1%	15.4%	15.4%	18.1%
15	Exxon Mobil Corp.	1.62%	8.3%	7.0%	6.7%	5.0%	12.3%	9.9%	8.6%	8.3%	6.6%	13.9%
16	Fortune Brands	2.40%	9.4%	6.0%	9.0%	10.2%	10.5%	11.8%	8.4%	11.4%	12.6%	12.9%
17	Gannett Co.	4.33%	2.5%	4.0%	3.3%	3.6%	7.8%	6.8%	8.3%	7.7%	7.9%	12.1%
18	Gen'l Mills	2.86%	8.6%	8.5%	8.7%	8.6%	7.1%	11.5%	11.4%	11.5%	11.5%	9.9%
18	Genuine Parts	3.32%	8.9%	9.0%	8.9%	8.6%	9.3%	12.2%	12.3%	12.3%	11.9%	12.7%
18	Heinz (H.J.)	3.57%	7.9%	8.0%	7.9%	8.2%	11.7%	11.5%	11.6%	11.5%	11.8%	15.3%
18	Hormel Foods	1.91%	8.9%	11.5%	9.0%	8.7%	11.2%	10.8%	13.4%	10.9%	10.6%	13.1%
18	Johnson & Johnson	2.63%	7.6%	8.0%	9.4%	9.8%	10.3%	10.2%	10.6%	12.1%	12.4%	12.9%
18	Kimberly-Clark	3.23%	7.4%	6.5%	7.5%	8.0%	7.5%	10.6%	9.7%	10.7%	11.2%	10.8%
18	Kraft Foods	3.69%	7.1%	5.5%	7.3%	6.9%	3.8%	10.8%	9.2%	11.0%	10.6%	7.4%
18	Lilly (Eli)	3.66%	8.0%	7.0%	9.6%	8.8%	10.8%	11.7%	10.7%	13.3%	12.5%	14.5%
18	Medtronic, Inc.	1.08%	13.5%	12.0%	14.2%	13.8%	12.2%	14.6%	13.1%	15.3%	14.9%	13.3%
18	Meredith Corp.	1.58%	11.8%	11.5%	12.3%	12.7%	9.7%	13.4%	13.1%	13.9%	14.3%	11.3%

CONSTANT GROWTH DCF MODEL

NON-UTILITY PROXY GROUP

	(a)	(b)	(a)	(c)	(d)	(e)	(f)	(f)	(f)	(f)	(f)
	Dividend		VL	Growth Rates				VL	Cost of Equity Estimates		
Company	Yield	IBES	EPS	Reuters	Zacks	br+sv	IBES	EPS	Reuters	Zacks	br+sv
21 NIKE, Inc. 'B'	1.50%	13.4%	13.0%	10.2%	13.9%	8.5%	14.9%	14.5%	11.7%	15.4%	10.0%
22 Northrop Grumman	1.87%	14.0%	13.0%	10.2%	9.6%	7.5%	15.9%	14.9%	12.1%	11.5%	9.3%
23 PepsiCo, Inc.	2.20%	10.9%	10.5%	10.8%	11.0%	9.4%	13.1%	12.7%	13.0%	13.2%	11.6%
24 Pfizer, Inc.	5.48%	5.1%	2.0%	7.8%	5.8%	0.9%	10.6%	7.5%	13.3%	11.3%	6.4%
25 Procter & Gamble	2.14%	13.3%	11.5%	12.8%	11.6%	6.0%	15.4%	13.6%	15.0%	13.7%	8.1%

CONSTANT GROWTH DCF MODEL

NON-UTILITY PROXY GROUP

		(a)	(b)	(a)	(c)	(d)	(e)	(f)	(f)	(f)	(f)	(f)
					Growth Rates			**Cost of Equity Estimates**				
		Dividend		VL					VL			
	Company	Yield	IBES	EPS	Reuters	Zacks	br+sv	IBES	EPS	Reuters	Zacks	br+sv
26	Regions Financial	6.04%	6.8%	6.5%	6.7%	6.7%	4.9%	12.8%	12.5%	12.7%	12.7%	11.0%
27	Reinsurance Group	0.62%	10.3%	11.5%	10.0%	11.5%	11.3%	10.9%	12.1%	10.6%	12.1%	11.9%
28	Sigma-Aldrich	0.93%	9.8%	11.5%	10.3%	10.5%	18.5%	10.7%	12.4%	11.2%	11.4%	19.4%
29	Sysco Corp.	3.03%	13.1%	13.0%	13.1%	12.6%	10.1%	16.1%	16.0%	16.1%	15.6%	13.2%
30	United Parcel Serv.	2.30%	13.1%	8.0%	12.8%	12.7%	12.9%	15.4%	10.3%	15.1%	15.0%	15.2%
31	Wal-Mart Stores	1.73%	12.0%	10.0%	12.3%	11.8%	8.8%	13.7%	11.7%	14.0%	13.5%	10.5%
32	Walgreen Co.	1.08%	13.4%	13.0%	13.4%	13.7%	13.1%	14.5%	14.1%	14.5%	14.8%	14.2%
33	Washington Federal	3.44%	7.7%	9.5%	7.3%	6.5%	9.0%	11.1%	12.9%	10.7%	9.9%	12.5%
34	Wells Fargo	3.64%	10.6%	9.5%	10.1%	10.9%	10.7%	14.2%	13.1%	13.8%	14.5%	14.3%
35	Wrigley (Wm.) Jr.	2.02%	10.7%	9.5%	10.4%	10.1%	10.9%	12.7%	11.5%	12.4%	12.1%	12.9%
	Average (g)							12.9%	12.2%	12.5%	12.7%	13.0%

(a) www.valueline.com (retrieved Feb. 6, 2008).

(b) Thompson Financial Company in Context (Feb. 5, 2008).

(c) http://stocks.us.reuters.com (retrieved Feb. 5, 2008).

(d) http://www.zacks.com/research (retrieved Feb. 4, 2008).

(e) See Schedule WEA-7.

(f) Sum of dividend yield and respective growth rate.

(g) Excludes highlighted figures.

SUSTAINABLE GROWTH RATE

NON-UTILITY PROXY GROUP

	(a)	(a)	(a)	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Projections			Historical		Mid-Year		Adjusted	"b x r"	"sv"	Sustainable
Company	EPS	DPS	Net Book Value	Net Book Value	Annual Change	Adjustment Factor	"b"	"r"	growth	Factor	Growth
1 3M Company	$5.80	$2.28	$22.65	$13.56	10.8%	1.0513	60.7%	26.9%	16.3%	-3.68%	12.7%
2 Abbott Labs.	$4.35	$1.60	$18.05	$9.14	14.6%	1.0679	63.2%	25.7%	16.3%	-1.88%	14.4%
3 Aflac Inc.	$5.60	$1.52	$26.90	$16.93	9.7%	1.0463	72.9%	21.8%	15.9%	-2.79%	13.1%
4 Anheuser-Busch	$3.95	$1.46	$6.90	$5.11	6.2%	1.0300	63.0%	59.0%	37.2%	-11.84%	25.3%
5 Automatic Data Proc.	$3.00	$1.25	$17.20	$9.61	15.7%	1.0726	58.3%	18.7%	10.9%	1.92%	12.8%
6 Bank of America	$6.10	$3.00	$40.80	$29.70	6.6%	1.0317	50.8%	15.4%	7.8%	-0.03%	7.8%
7 Bard (C.R.)	$6.35	$0.86	$32.85	$16.46	14.8%	1.0690	86.5%	20.7%	17.9%	-6.22%	11.6%
8 Becton, Dickinson	$5.75	$1.60	$30.15	$15.63	14.0%	1.0656	72.2%	20.3%	14.7%	-1.27%	13.4%
9 Chevron Corp.	$9.15	$2.50	$47.55	$28.22	11.0%	1.0521	72.7%	20.2%	14.7%	-7.78%	6.9%
10 Coca-Cola	$3.65	$1.84	$15.00	$7.30	15.5%	1.0719	49.6%	26.1%	12.9%	-1.01%	11.9%
11 Colgate-Palmolive	$5.25	$2.16	$10.40	$2.32	35.0%	1.1489	58.9%	58.0%	34.1%	-13.15%	21.0%
12 Commerce Bancshs.	$3.70	$1.15	$30.00	$19.61	8.9%	1.0425	68.9%	12.9%	8.9%	-0.66%	8.2%
13 ConocoPhillips	$9.60	$1.75	$94.65	$50.21	13.5%	1.0633	81.8%	10.8%	8.8%	0.11%	8.9%
14 Ecolab Inc.	$2.65	$0.65	$11.00	$6.69	10.5%	1.0497	75.5%	25.3%	19.1%	-2.04%	17.0%
15 Exxon Mobil Corp.	$8.00	$1.75	$35.50	$19.87	12.3%	1.0580	78.1%	23.8%	18.6%	-6.32%	12.3%
16 Fortune Brands	$7.15	$1.76	$54.05	$31.08	11.7%	1.0553	75.4%	14.0%	10.5%	0.01%	10.5%
17 Gannett Co.	$6.15	$1.96	$53.80	$35.71	8.5%	1.0410	68.1%	11.9%	8.1%	-0.35%	7.8%
18 Gen'l Mills	$4.40	$2.00	$18.95	$15.64	4.9%	1.0240	54.5%	23.8%	13.0%	-5.90%	7.1%
18 Genuine Parts	$4.25	$1.90	$23.55	$14.95	9.5%	1.0454	55.3%	18.9%	10.4%	-1.09%	9.3%
18 Heinz (H.J.)	$3.70	$1.90	$10.30	$5.72	12.5%	1.0587	48.6%	38.0%	18.5%	-6.79%	11.7%
18 Hormel Foods	$3.50	$1.00	$21.80	$13.89	11.9%	1.0563	71.4%	17.0%	12.1%	-0.93%	11.2%
18 Johnson & Johnson	$5.50	$2.04	$25.95	$13.59	13.8%	1.0646	62.9%	22.6%	14.2%	-3.92%	10.3%
18 Kimberly-Clark	$5.50	$2.76	$19.00	$13.38	7.3%	1.0351	49.8%	30.0%	14.9%	-7.40%	7.5%
18 Kraft Foods	$2.60	$1.20	$24.65	$17.45	7.2%	1.0345	53.8%	10.9%	5.9%	-2.12%	3.8%
18 Lilly (Eli)	$4.40	$2.12	$18.35	$9.70	13.6%	1.0637	51.8%	25.5%	13.2%	-2.41%	10.8%
18 Medtronic, Inc.	$4.30	$0.83	$18.45	$9.60	14.0%	1.0652	80.7%	24.8%	20.0%	-7.79%	12.2%
18 Meredith Corp.	$4.80	$0.90	$29.45	$17.28	14.3%	1.0665	81.3%	17.4%	14.1%	-4.41%	9.7%
21 NIKE, Inc. 'B'	$4.70	$1.50	$23.30	$13.94	13.7%	1.0641	68.1%	21.5%	14.6%	-6.10%	8.5%

SUSTAINABLE GROWTH RATE

NON-UTILITY PROXY GROUP

	(a)			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Projections			Historical		Mid-Year		Adjusted	"b x r"	"sv"	Sustainable
Company	EPS	DPS	Net Book Value	Net Book Value	Annual Change	Adjustment Factor	"b"	"r"	growth	Factor	Growth
22 Northrop Grumman	$7.65	$2.00	$68.75	$48.03	7.4%	1.0358	73.9%	11.5%	8.5%	-1.04%	7.5%
23 PepsiCo, Inc.	$4.85	$1.96	$13.15	$9.36	7.0%	1.0340	59.6%	38.1%	22.7%	-13.33%	9.4%
24 Pfizer, Inc.	$2.30	$1.36	$12.25	$9.98	4.2%	1.0205	40.9%	19.2%	7.8%	-6.96%	0.9%
25 Procter & Gamble	$4.75	$1.90	$32.30	$20.87	11.5%	1.0545	60.0%	15.5%	9.3%	-3.34%	6.0%
26 Regions Financial	$3.50	$1.60	$34.45	$28.36	4.0%	1.0195	54.3%	10.4%	5.6%	-0.70%	4.9%
27 Reinsurance Group	$7.60	$0.50	$65.65	$45.85	7.4%	1.0359	93.4%	12.0%	11.2%	0.05%	11.3%
28 Sigma-Aldrich	$3.60	$0.62	$16.15	$10.56	8.9%	1.0425	82.8%	23.2%	19.2%	-0.76%	18.5%
29 Sysco Corp.	$2.70	$1.25	$7.80	$5.36	9.8%	1.0469	53.7%	36.2%	19.5%	-9.32%	10.1%
30 United Parcel Serv.	$5.40	$2.10	$22.45	$14.47	9.2%	1.0439	61.1%	25.1%	15.3%	-2.40%	12.9%
31 Wal-Mart Stores	$4.65	$1.20	$22.30	$14.91	8.4%	1.0402	74.2%	21.7%	16.1%	-7.34%	8.8%
32 Walgreen Co.	$3.15	$0.56	$19.50	$11.20	14.9%	1.0692	82.2%	17.3%	14.2%	-1.11%	13.1%
33 Washington Federal	$2.75	$1.00	$19.40	$15.07	6.5%	1.0316	63.6%	14.6%	9.3%	-0.29%	9.0%
34 Wells Fargo	$3.90	$1.44	$22.90	$13.58	11.0%	1.0522	63.1%	17.9%	11.3%	-0.65%	10.7%
35 Wrigley (Wm.) Jr.	$3.25	$1.38	$15.05	$8.65	11.7%	1.0553	57.5%	22.8%	13.1%	-2.23%	10.9%

(a) www.valueline.com (retrieved Feb. 6, 2008).

(b) Annual growth in book value per share from historical to projected period.

(c) Equal to 2(1+b)/(2+b), where b = annual change in net book value.

(d) (EPS-DPS)/EPS.

(e) (Projected EPS/Projected Net Book Value) x Mid-Year Adjustment Factor.

(f) (d) x (e).

(g) "s" equals projected market-to-book ratio x growth in common shares. "v" equals (1- 1/projected market-to-book ratio).

(h) (f) + (g).

UTILITY PROXY GROUP

Market Rate of Return

Dividend Yield (a)	2.2%	
Growth Rate (b)	11.0%	
Market Return (c)		13.2%

Less: Risk-Free Rate (d)

Long-term Treasury Bond Yield	4.4%

Market Risk Premium (e)	8.8%
Proxy Group Beta (f)	0.89
Proxy Group Risk Premium (g)	7.8%

Plus: Risk-free Rate (d)

Long-term Treasury Bond Yield	4.4%

Implied Cost of Equity (h)	**12.2%**

(a) Weighted average dividend yield for the dividend paying firms in the S&P 500 from www.valueline.com (Retreived Dec. 11, 2007).

(b) Weighted average of IBES and Value Line growth rates for the dividend paying firms in the S&P 500 based on data from Standard & Poor's Earnings Guide (Nov. 2007) and www.valueline.com (Retrieved Dec. 11, 2007).

(c) (a) + (b)

(d)
   Average yield on 20-year Treasury bonds for January 2008 from the Federal Reserve Board at http://www.federalreserve.gov/releases/h15/data/Monthly/H15_TCMNOM_ Y20.txt.

(e) (c) - (d).

(f) The Value Line Investment Survey (Nov. 30 & Dec. 28, 2007, Feb. 8, 2008).

(g) (e) × (f).

(h) (d) + (g).

NON-UTILITY PROXY GROUP

Market Rate of Return

Dividend Yield (a)	2.2%	
Growth Rate (b)	11.0%	
Market Return (c)		13.2%

Less: Risk-Free Rate (d)

Long-term Treasury Bond Yield	4.4%

Market Risk Premium (e)	8.8%
Proxy Group Beta (f)	0.80
Proxy Group Risk Premium (g)	7.0%

Plus: Risk-free Rate (d)

Long-term Treasury Bond Yield	4.4%

Implied Cost of Equity (h)	11.4%

(a) Weighted average dividend yield for the dividend paying firms in the S&P 500 from www.valueline.com (Retreived Dec. 11, 2007).

(b) Weighted average of IBES and Value Line growth rates for the dividend paying firms in the S&P 500 based on data from Standard & Poor's Earnings Guide (Nov. 2007) and www.valueline.com (Retreived Dec. 11, 2007).

(c) (a) + (b)

(d)
Average yield on 20-year Treasury bonds for January 2008 from the Federal Reserve Board at http://www.federalreserve.gov/releases/h15/data/Monthly/H15_TCMNOM_Y20.txt.

(e) (c) - (d).

(f) www.valueline.com (retrieved Feb. 6, 2008).

(g) (e) x (f).

(h) (d) + (g).

UTILITY PROXY GROUP

Market Risk Premium

    Long-Horizon Equity Risk Premium (a)   7.1%

Proxy Group Beta (b)   0.89

Proxy Group Risk Premium (c)   6.3%

Plus: Risk-free Rate (d)
    Long-term Treasury Bond Yield   4.4%

Implied Cost of Equity (e)   **10.7%**

(a) Arithmetic mean risk premium on Large Company Stocks from 1926-2006 reported by
Ibbotson Associates, *Stocks, Bonds, Bills, and Inflation, Valuation Edition, 2007 Yearbook*, at
Appendix C, Table C-1, p. 262.

(b) The Value Line Investment Survey (Nov. 30 & Dec. 28, 2007, Feb. 8, 2008).

(c) (a) x (b).

(d)
Average yield on 20-year Treasury bonds for January 2008 from the Federal Reserve Board at
http://www.federalreserve.gov/releases/h15/data/Monthly/H15_TCMNOM_ Y20.txt.

(e) (c) + (d).

NON-UTILITY PROXY GROUP

Market Risk Premium	
Long-Horizon Equity Risk Premium (a)	7.1%
Proxy Group Beta (b)	0.80
Proxy Group Risk Premium (c)	5.6%
Plus: Risk-free Rate (d)	
Long-term Treasury Bond Yield	4.4%
Implied Cost of Equity (e)	**10.0%**

(a) Arithmetic mean risk premium on Large Company Stocks from 1926-2006 reported by Ibbotson Associates, *Stocks, Bonds, Bills, and Inflation, Valuation Edition, 2007 Yearbook*, at Appendix C, Table C-1, p. 262.

(b) www.valueline.com (retrieved Feb. 6, 2008).

(c) (a) x (b).

(d)
Average yield on 20-year Treasury bonds for January 2008 from the Federal Reserve Board at http://www.federalreserve.gov/releases/h15/data/Monthly/H15_TCMNOM_ Y20.txt.

(e) (c) + (d).

EXPECTED EARNINGS APPROACH

UTILITY PROXY GROUP

	Company	(a) Expected Return on Common Equity	(b) Adjustment Factor	(c) Adjusted Return on Common Equity
1	American Elec Pwr	12.5%	1.0299	12.9%
2	Avista Corp.	8.5%	1.0173	8.6%
3	Black Hills Corp.	9.5%	1.0261	9.7%
4	Cleco Corp.	10.5%	1.0248	10.8%
5	DTE Energy Co.	9.0%	1.0140	9.1%
6	Edison International	10.5%	1.0371	10.9%
7	Hawaiian Elec.	11.0%	1.0023	11.0%
8	IDACORP, Inc.	7.0%	1.0184	7.1%
9	NiSource Inc.	7.5%	1.0100	7.6%
10	Northeast Utilities	10.5%	1.0202	10.7%
11	PG&E Corp.	11.0%	1.0306	11.3%
12	PNM Resources	7.0%	1.0176	7.1%
13	Portland General Elec.	8.5%	1.0234	8.7%
14	PPL Corp.	23.5%	1.0395	24.4%
15	Progress Energy	9.5%	1.0080	9.6%
16	P S Enterprise Group	14.5%	1.0532	15.3%
17	Westar Energy	9.0%	1.0238	9.2%
18	Wisconsin Energy	11.5%	1.0282	11.8%
19	Xcel Energy, Inc.	10.0%	1.0189	10.2%
	Average (d)			10.5%

(a) 3-5 year projections from The Value Line Investment Survey(Nov. 30 & Dec. 28, 2007, Feb. 8, 2008).
(b) Adjustment to convert year-end "r" to an average rate of return from Schedule WEA-5.
(c) (a) x (b).
(d) Excludes highlighted figures.