1	Q.	**Please state your name and occupation.**
2	A.	My name is Richard J. Lurito. I am the senior economist at Commonwealth Consulting
3		Group, Inc., with offices in McLean, Virginia.
4	Q.	**Have you prepared a statement of your educational background and experience in**
5		**exhibit form?**
6	A.	Yes.
7	Q.	**Is what has been marked for identification as Exhibit _____ (RJL-1) that statement?**
8	A.	Yes, it is.

9   **A.   SUMMARY OF CONCLUSIONS**

10	Q.	**By way of summarizing your testimony, what capital structure did you use to**
11		**compute an overall fair rate of return for Avista?**
12	A.	In my opinion, a capital structure containing 40.0% long-term debt, 8.5% short-term debt,
13		9.5% preferred stock, and 42.0% common equity capital is appropriate to use to set rates in
14		this case. This capital structure is both safe and economical; it will permit Avista to
15		maintain a BBB+/A rating based on Standard & Poor's guidelines. Finally, the capital
16		structure I recommend is in line with the year-end 1999 common equity ratios of the group
17		of five utilities I find to be of comparable risk to Avista Utilities' regulated electric and gas
18		operations.
19	Q.	**What cost rates of long-term debt, short-term debt and preferred stock did you use**
20		**to compute the overall fair rate of return you recommend?**

| 1 | A. | At this time, I propose to use the cost rates recommended by Dr. Avera. These cost rates |

1   A.   At this time, I propose to use the cost rates recommended by Dr. Avera. These cost rates

2   are 7.97% for long-term debt, 5.74% for short-term debt, and 8.11% for preferred stock. If

3   evidence is adduced during the pendency of this case that indicates that different rates

4   should be used, I will adjust the cost rates of long-term debt, short-term debt, and preferred

5   stock accordingly.

6   **Q.**   **What are your return on equity findings?**

7   A.   Based on various forms of the traditional DCF model, as applied to a group of five utilities

8   I believe are of comparable risk to the regulated operations of Avista, the cost of equity is

9   found to be 10.15%. It is appropriate to mark up this 10.15% cost of equity to 10.4% to

10   permit Avista to recover the sunk financing costs related to past issuances of new common

11   stock.

12   **Q.**   **What is your opinion as to the fair overall rate of return to use to set Avista's**

13   **regulated electric and gas rates in this case?**

14   A.   By combining the capital structure I recommend be used to set rates with the cost rates of

15   debt, preferred and common equity capital I find reasonable, produces an 8.82% overall

16   fair rate of return.

17   **B.**   **GENERAL PRINCIPLES**

18   **Q.**   **Mr. Lurito, are you familiar in general with the Washington regulated electric and**

19   **gas operations of Avista Utilities, an operating division of Avista Corporation?**

20   A.   I am.

1	Q.	**Have you made a detailed study of the cost of capital and fair rate of return for the**
2		**Washington regulated electric and gas operations of Avista Utilities?**
3	A.	I have.
4	Q.	**I show you Exhibit _____ (RJL-2) for identification, and ask if it was prepared by**
5		**you or under your supervision and control.**
6	A.	It was.
7	Q.	**What does that exhibit portray?**
8	A.	That exhibit summarizes certain of the basic data upon which I relied in making my study.
9	Q.	**What are the principal sources of the data that you used in making your analyses?**
10	A.	The Annual Reports to Stockholders, Form 10-K reports to the Securities and Exchange
11		Commission, Standard and Poor's Stock and Bond Guides, Value Line Investment
12		Surveys, Standard & Poor's Earnings Guides, Zack's Investment Research Reports, IBES
13		Surveys, various Orders of the Washington Utilities and Transportation Commission,
14		certain financial data contained in the Wall Street Journal, and, of course, the record and
15		exhibits in the instant proceeding.
16	Q.	**Will you tell the Commission what, in your opinion, is the fair rate of return for the**
17		**Washington regulated electric and gas operations of Avista Utilities?**
18	A.	The analyses I present indicate that a fair rate of return for the regulated operations is
19		8.82% to be applied to an original cost rate base.
20	Q.	**Will you briefly describe the function of the overall rate of return in utility**
21		**ratemaking?**

1	A.	The overall rate of return is a basic element in utility ratemaking; its role is as follows: the
2		overall rate of return times the rate base equals the fair dollar return; the utility's revenue
3		requirement is calculated by adding the operating expenses (including taxes and
4		depreciation) to the fair dollar return. Rates for the various types of service and various
5		groups of customers are then designed so as to collect from customers, in the aggregate, a
6		sum equal to the above revenue requirement. It is thus evident that the fair dollar return,
7		*i.e.,* the product of the fair rate of return and the rate base, is one of the costs that makes up
8		the utility's total cost of service.
9	**Q.**	**Is the overall cost of capital estimated as a whole or is it determined by analyzing the**
10		**cost of its various components?**
11	A.	Since capital is not homogeneous, and for the typical utility consists of debt and equity
12		capital, the measurement of the overall cost of capital consists of ascertaining:
13		1) the cost of fixed charge capital, debt and preferred stock;
14		2) the cost of common equity capital; and
15		3) the capital structure, *i.e.,* the composition of total capital on the basis of which the
16		above costs of debt, preferred and common equity may be combined to arrive at an
17		overall cost of capital.

<div align="center">

C. COST OF DEBT

</div>

19	**Q.**	**What cost of long-term and short-term debt do you recommend be used to set rates**
20		**in this case?**

Testimony of Richard J. Lurito, Ph.D.   Exhibit T-____ (RJL-T)
                                                                                                    Page 4

1   A.   Dr. Avera found the cost of long-term debt to be 7.97% (7.968%) at June 30, 1999. Since

2   the amount of long-term debt fell just $3.5 million between June 30, 1999 and

3   December 31, 1999 and since the composition of the debt has changed only slightly, I will

4   adopt the 7.97% cost of long-term debt for purposes of this study. The data needed to

5   compute the precise cost of debt at year-end 1999 are not available me at this time.

6   However, should a revised cost of long-term debt be justified when the data are made

7   available, the 7.97% cost rate should be adjusted to comport with the revision.

8   As far as short-term debt is concerned, Dr. Avera costed out only $38.52 million of

9   the $90.2 million of short-term debt that was outstanding at June 30, 1999. His cost rate

10   was 5.74% (5.739%). At year-end 1999, Avista Corporation had $131.0 million of short-

11   term debt outstanding. My computations revealed that in 1999 the average interest rate for

12   short-term debt was 5.76%, which is virtually the same as Dr. Avera's 5.74%. Therefore, I

13   will use 5.74% as the cost of short-term debt in this study.

14   **D.**   **COST OF PREFERRED STOCK**

15   **Q.   What cost of preferred stock does Dr. Avera recommend be used in this case?**

16   A.   He proposed that an 8.11% cost rate (8.113%) be used to set rates.

17   **Q.   What cost of preferred do you recommend?**

18   A.   There was no change in the amount of preferred stock outstanding between mid-year 1999

19   and the end of the year. Hence, I propose to use 8.11% as the cost of preferred in this case.

20

1   **E.**   **COST OF COMMON EQUITY CAPITAL**

2   **Q.**   **Turning now to the matter of the cost of common equity capital, would you first**

3   **discuss the cost of equity as an economic concept?**

4   **A.**   In economics, the market price of any good or service represents what willing buyers are

5   prepared to pay and what willing sellers are prepared to accept for something of value.

6   Hence, it is said that the market price is determined by the forces of supply and demand.

7   On the demand side, the price that a purchaser is willing to pay for a share of stock

8   depends on the future stream of income he/she expects to receive from the ownership of a

9   portion of the equity earnings of the company. Because the future stream of income the

10   purchaser expects to receive is not in hand at the time of purchase, there is a risk it may

11   never be. The greater the risk the investor perceives of not receiving the expected income,

12   the lower the price the investor is willing to pay for the stock. The price the investor is

13   willing to pay also depends on the rate of inflation he/she expects will persist in the future.

14   The higher the expected rate of inflation, the lower the price the investor is willing to pay.

15   Finally, the investor requires compensation for giving up dollars today to buy

16   stock, thereby postponing current consumption. These three factors, expected inflation,

17   postponement of consumption, and risk, in combination, comprise the investor's cost of

18   common equity capital. It is apparent then that the price an investor is willing to pay for a

19   share of common stock today depends directly on the size of the future expected stream of

20   income and inversely on the cost of common equity capital.

1   Q.   **How do you propose to measure the cost of common equity capital for the**

2   **Washington jurisdictional electric and gas operations of Avista Utilities?**

3   A.   As already mentioned, the market price of a share of common stock depends on two

4   factors:

5   1.   The expected stream of future income to be received from the ownership of the

6   stock.

7   2.   The investors' required rate of return or cost of common equity capital which, as

8   seen, depends, among other things, on the equity risk perceived by investors. In

9   view of this, it is clear that the cost of common equity depends on the investors'

10   expected stream of future income and the market price of the stock. Approaches to

11   the estimation of the cost of common equity capital have been developed precisely

12   along these lines.

13   The Discounted Cash Flow (DCF) method is consistent with the economic logic

14   that has been discussed and can be used to estimate the cost of common equity capital. It

15   is a market-oriented, opportunity cost approach which views the relationship between the

16   cost of common equity, investors' income (dividend) expectations and market price in a

17   rational economic way. Specifically, the DCF method views the investors' cost of

18   common equity as being equal to the dividend yield plus the expected growth in dividends

19   per share.

20   Symbolically, the DCF approach views the market price investors are willing to

21   pay for a share of a company's common stock as being equal to

1   $$M_o = \frac{D_1}{k - g}$$, where k is the investors' required rate of return on common equity (cost of

2   common equity capital), M_o is the current market price, D_1 is the expected dividend per

3   share, and g is the expected annual growth in book value per share (dividends per share).

4   Under this traditional formulation of the DCF, the cost of common equity capital can be

5   measured by estimating at a point in time the dividends per share that rational investors can

6   reasonably expect to receive over the long-term future. Measurement of the cost of

7   common equity will be made using this traditional DCF formulation.

8   **Q.   Will you now explain how you propose to choose companies to which you will apply**

9   **the traditional DCF formulation in order to measure the cost of common equity to**

10   **Avista Utilities' Washington regulated electric and gas operations?**

11   A.   At the outset it must be made very clear precisely whose cost of common equity capital

12   should be determined. In this proceeding, the issue is what is an appropriate return on

13   common equity capital for Avista Utilities' regulated Washington electric and gas

14   operations. Because, as is well known, the electric/gas utility industry has undergone and

15   will likely continue to undergo major changes, such as merger/acquisition activities,

16   diversification into non-regulated businesses, and retail consumer choice of service

17   provider. Consequently, it becomes a difficult task for the analyst to assess investor

18   expectations concerning prospective earned returns on equity and dividend per share

19   growth, especially for those utilities that have recently experienced, or are currently

20   experiencing, many of the major changes already enumerated. As mentioned, the ability to

21   accurately assess these two critical investor expectations is necessary in order to generate

1   reliable estimates of the cost of equity capital using the traditional DCF approach outlined

2   above.

3   In view of this, a sufficiently stringent list of selection criteria needs to be applied

4   to the universe of electric and combination electric and gas utilities to cull out a group of

5   companies that are less exposed to the major changes that have been, and are being,

6   experienced by many such utilities. An analysis of the group of utilities selected can then

7   proceed along traditional lines in order to produce a reliable estimate of the cost of equity

8   to apply to the regulated operations at issue in this case.

9   **Q.   What are the criteria you recommend be used to select utilities that are of**

10   **comparable risk to the regulated electric and gas operations of Avista Utilities and**

11   **why have you chosen them?**

12   A.   The six selection criteria I recommend be applied to all electric and combination

13   electric/gas utilities are as follows:

14   1)   the company's dividend payout ratio was 70% to 90% in 1999;

15   2)   the company's current dividend yield is in excess of 7.0%;

16   3)   the company did not cut its dividend over the 1989-1999 period;

17   4)   the company is not currently in a merger/acquisition mode;

18   5)   the company has not been involved in a significant merger/acquisition for at least

19   10 years; and

20   6)   the company's non-regulated business revenues in 1999 account for about 30% of

21   total revenues or less.

22

1	**Q.**	**Please describe why you chose each of these criteria.**

2   A.   The purpose of the first criterion is to isolate a group of companies that investors view as

3   having below average dividend growth prospects. Companies with high dividend payout

4   ratios cannot be expected to grow their dividends at a rapid rate unless extremely rapid

5   earnings growth can be anticipated. To ensure that investors are not anticipating rapid

6   earnings growth, the second criterion was selected. This is an extremely important

7   variable for the following reason.

8   As is well known, two companies can have the same cost of equity capital, say

9   10%, but a different combination of dividend yield and dividend growth. For example,

10   company A could have a 7% dividend yield and a 3% dividend growth expectation, while

11   company B could have a 3% dividend yield and a 7% dividend growth. It should not be

12   surprising that it is more difficult for the analyst to accurately determine that investors are

13   anticipating a 7% dividend growth than to determine that only a 3% dividend growth is

14   being expected. It is interesting in this regard that Dr. Avera made this very point during

15   his cross-examination. (TR 718) This is the rationale for the second criterion.

16   The third criterion was chosen to eliminate those utilities that have cut their

17   dividend over the last 10 years so that an uninterrupted dividend growth history is

18   obtained. Some utilities that have cut their dividend have done so owing to a fall in

19   earnings per share below the dividend, a situation that was expected to persist. This

20   criterion, therefore, tends to weed out companies with large, negative historical earnings

21   per share growth.

22   The fourth and fifth criteria were chosen to eliminate those utilities whose market

23   price may have been, or is being, artificially raised or lowered by investors as they

Testimony of Richard J. Lurito, Ph.D.   Exhibit T-_____ (RJL-T)

1   speculate about the terms of mergers/acquisitions. Such speculation can produce

2   artificially high or low dividend yields that can lead to distortions in cost of equity

3   estimates. The fifth criterion also permits a historical view of earnings, dividends, and

4   book value per share growth uncontaminated by having to compare the history of different

5   entities at different points in time.

6   The last criterion was needed to minimize the probability that investors' dividend

7   growth expectations are dominated, or significantly affected, by potentially high,

8   anticipated earnings growth from non-regulated businesses which becomes difficult to

9   measure with any confidence. Application of these six criteria produced a group of five

10   electric and combination utilities.

11   Table A below presents the percentage of each of the five utilities' total revenue

12   that in 1999 was accounted for by non-regulated operations.

13   TABLE A

	Percentage of Total Revenues In 1999
Company	Accounted For By Non-Regulated Operations
CH Energy Group	- %
Hawaiian Electric Industries	31.4
RGS Energy Group	22.0
United Illuminating Company	2.4
WPS Resources Corp	29.5
Average:	17.1%
Avista Corporation	86.0%

26 Q.   **Would you provide an outline of the operations of each of the five utilities you have**

27   **selected?**

28 A.   CH Energy Group, Inc. has two subsidiaries, Central Hudson Gas & Electric (CHG&E)

29   and Central Hudson Energy Services. CHG&E's allowed return on equity is 10.6% and is

1   capped at that level. Earnings in excess of 10.6% are deferred to offset future stranded

2   investment costs. Under an agreement with the New York Public Service Commission,

3   CHG&E must sell off its fossil fuel generating plant which accounted for 80% of its net

4   MWH output in 1999. Moreover, it is possible that its share in the Nine Mile 2 nuclear

5   plant will also be sold. Should that occur, CHG&E would have virtually no native

6   generating capacity. Under the agreement, there will be a phase-in to retail competition

7   through June, 2001.

8   Central Hudson Energy Services (CHES) will offer retail customers in competitive

9   markets electricity, gas, fuel oil, and other energy services. Three new electric generating

10   plants were put on-line in 1999 and a large natural gas supply company was acquired along

11   with a fuel oil company. Because CHES wasn't formed until December, 1999 it had

12   virtually no impact on consolidated results of operations. In my view, at this point in time

13   rational investors realize that with a cap on electric earnings and with the future earnings of

14   CHES problematic, the prospects for significant future earnings per share growth are quite

15   constrained.

16   In the case of Hawaiian Electric (HEI), 28 percentage points of the 31.4 percentage

17   points of its total non-regulated revenues in 1999 were accounted for by American Savings

18   Bank (ASB). Because of the conservative nature of the business of this subsidiary, there is

19   little, if any, reason for HEI's investors to expect the company will earn any material

20   amount above its 11.4% authorized utility rate of return on equity. Indeed, according to

21   the company, ASB earned 10.2% on common equity in 1999, 9.2% in 1998, and 11.0% in

22   1997. This same picture is seen in the 1992-1994 period when ASB earned 13.0% on

23   average on its common equity capital. In sum, there is no basis for believing that in the

Testimony of Richard J. Lurito, Ph.D.   Exhibit T-____ (RJL-T)
                                                         Page 12

1   future HEI will experience either rapid earnings per share growth or high returns on

2   common equity from its non-regulated operations. This provides a constraint to investor

3   expectations concerning future dividend per share growth.

4   RGS Energy Group (RGS) formed Energetix in 1999; Energetix sells electricity

5   and natural gas in competitive markets and it owns a subsidiary, Griffith Energy, that sells

6   home heating oil, propane, and a variety of energy services in unregulated markets. Under

7   the Energy Choice program, RG&E, its regulated subsidiary, will phase-in retail electric

8   competition over a four-year period. Once this program is fully in place, Energetix and

9   other energy providers will compete for retail customers throughout the state of New York.

10   RGS's unregulated operations lost money last year and, according to Value Line, this is

11   expected to continue in 2000. By 2001, unregulated operations are expected to make a

12   "modest" contribution to per share earnings.

13   In my view, current investors can have no rational basis for making any judgments

14   about the potential profitability of RGS's unregulated operations; moreover, the regulatory

15   treatment for its nuclear plant has not been determined. Accordingly, investors have

16   driven down RGS' stock price to yield nearly 8.5% at the end of March, 2000. This has

17   occurred because, as will be shown later, dividend growth expectations are very modest.

18   **Q.   What is United Illuminating's and WPS Resources' situation with respect to**

19   **unregulated operations?**

20   A.   United Illuminating (United) is no longer involved in the business of retail power

21   generation; it is principally in the business of the purchase, transmission, and distribution

22   of electricity. One of its unregulated subsidiaries is involved in the processing of bill

23   payments; another provides specialty electrical, telecommunications, and mechanical

1 contracting and power-related services to building owners. Finally, one of its subsidiaries,

2 United Bridgeport Energy, Inc. is a participant in a merchant wholesale electric generating

3 venture. At present, United's unregulated subsidiaries are contributing little, if anything, to

4 its earnings. Here again, rational investors currently have little reason to expect any rapid

5 growth in earnings per share owing to United's unregulated activities.

6   As far as WPS Resources is concerned, it has two principal non-regulated

7 subsidiaries: WPS Energy Services (WPS Energy) and WPS Power Development (WPS

8 Power). WPS Energy provides energy (electric and gas) to the non-regulated market.

9 While WPS Energy had $292 million of revenues in 1999, which was down 16.8% from

10 1998 levels, this non-regulated subsidiary lost $3.5 million in 1999 and $6.9 million in

11 1998.

12   While WPS Energy might increase its revenues and begin earning a profit as

13 consumer markets are opened to competition in Ohio at the start of 2001, there is no

14 reason to believe that rational investors today are expecting that returns on equity from

15 energy sales in the future will provide returns on equity significantly above what regulated

16 operations provide. Retail competition in Wisconsin, the major source of utility revenues,

17 remains closed.

18   WPS Power develops and owns electric generation projects and provides services

19 to the electric industry. It lost $3.8 million in 1999 and $2.4 million in 1998. WPS

20 Development's revenues were just $35.4 million in 1999 and $5.9 million in 1998. Here

21 again, rational investors cannot be expecting earnings per share growth significantly above

22 levels currently being governed by the 12.1% authorized rate of return for regulated

23 operations.

| 1 | **Q.** | **Please summarize your rationale for the criteria you used to select the group of five** |
| 2 | | **utilities you propose to analyze?** |

3   A.   The rationale is as simple as it is difficult to implement. To be able to accurately estimate

4   the cost of equity capital for the Washington jurisdictional electric and gas operations of

5   Avista Utilities, it is critical that the utilities selected for this purpose be as similar to these

6   operations as possible. Consequently, utilities that are diversifying into the kind of non-

7   regulated activities that have the potential to produce high returns on equity and rapid

8   earnings per share growth must be weeded out. Electric utilities that have below average

9   dividend payout ratios and below average dividend yields likely have higher dividend

10   growth expectations. As mentioned, it is far more difficult to estimate what those

11   expectations might be. Therefore, such utilities need to be eliminated from the analysis.

12   Utilities currently involved in merger/acquisition activities must be excluded from the

13   study as should those that have in the past been involved in such activities because market

14   prices and, hence, dividend yields may well be distorted. Those that have cut dividends

15   need to be eliminated to avoid distortion in historical growth parameters. DCF analysis of

16   the utilities that remain after applying the six selection criteria offer a better opportunity to

17   produce far more accurate estimates of the cost of equity capital for the regulated

18   operations of Avista Utilities.

19   **Q.**   **Why didn't you select Avista Corporation for DCF analysis purposes?**

20   A.   Avista Corporation was not selected because it failed to meet four of the six selection

21   criteria set out earlier. These are:

22   1)   the dividend payout ratio was not 70% to 90% in 1999;

23   2)   the current dividend yield was not in excess of 7.0%;

1 | 3) | the company did not cut its dividend over the 1989-1999 period (Avista cut its

2 | | dividend in December, 1998); and

3 | 4) | the company's non-regulated business revenues in 1999 account for about 30% of

4 | | total revenues or less (Avista's non-regulated operations accounts for 86% of its

5 | | total revenues).

6 **Q.** **Can you produce additional evidence as to why your group of five companies is**

7 **comparable to the jurisdictional electric and gas operations of Avista Utilities?**

8 A. Yes. As shown on Exhibit _____ (RJL-2), Schedule 1, the average electric/gas revenue mix

9 of the group of five is comparable to Avista Utilities. The average Standard & Poor's and

10 Moody's bond rating for the group is also similar to Avista's.

11 **Q.** **Is the group of five companies that you have selected for study more risk comparable**

12 **to the regulated operations of Avista than the group Dr. Avera selected?**

13 A. Yes. To see that this is the case, consider the dividend yields, earned returns on equity,

14 allowed returns on equity and market to book ratios of my group and Dr. Avera's group.

15 This is presented in Table B below.

16 <div align="center">TABLE B</div>

17
18
19
20
21
22
23

	3/31/00 Dividend Yield	Allowed ROE	Earned 1999 ROE	3/31/00 Market To Book Ratio
Lurito Group	7.70%	11.4%	11.3%	1.15
Avera Group	6.74%	11.7%	13.9%	1.53

24 As can be seen, Dr. Avera's group of 12 utilities, while having similar allowed

25 rates of return on their regulated operations, have far higher earned returns on equity. This

26 shows that Dr. Avera's group of utilities is considerably farther down the road of having

1   unregulated segments providing significant contributions to earnings than is my group.

2   This is also reflected in the dividend yields of the two groups. Dr. Avera's group has a

3   6.74% dividend yield at March 31, 2000, whereas my group's dividend yield is 7.70%.

4   This shows that Dr. Avera's group has higher earnings per share growth expectations than

5   my group due to the existence of unregulated operations. The more speculative nature of

6   Dr. Avera's group clearly shows up in its market to book ratio; 1.53 recently. My group's

7   market to book ratio is far lower; 1.15. In this context, it should be noted that four of the

8   12 companies in Dr. Avera's group currently have market to book ratios of nearly 1.5 or

9   higher. All this confirms the fact that the group of utilities I have chosen to study is more

10   stable and is easier for the analyst to estimate future dividend growth; it also shows that my

11   group is more comparable to the regulated operations of Avista Utilities than Dr. Avera's

12   group.

13   **Q.**   **I noticed in your discussion of the traditional DCF model that you intend to use a**

14   **single-stage as opposed to a multi-stage model. Why is this the case?**

15   A.   Prior to the start of the "new era" in the electric/gas utility industry, most companies

16   displayed reasonably low and stable historical dividends, earnings and book value per

17   share growth rates. This permitted investors to reasonably anticipate that these trends

18   would continue into the long-run future. The advent of the problems many utilities faced

19   with nuclear generating plants and, especially, the advent of industry restructuring

20   merger/acquisition activity and the introduction of competition at both the wholesale and

21   retail level of the electric/gas industry, created serious problems concerning how investor

22   expectations as to future dividend growth could be measured. Multi-stage DCF models

23   were introduced in an attempt to recognize that many utilities' future dividend growth

1   experience would likely diverge from past experience. However, it is crucial to note that

2   the mere introduction of a multi-stage DCF model doesn't *ipso facto* solve the problem of

3   cost of equity estimation because it has nothing to do with making the task of accurately

4   estimating investors' future dividend growth expectations any easier. In my opinion, the

5   answer to the current cost of equity estimation problem is not to guess about future growth

6   expectations but rather to avoid having to guess. As will be discussed in greater detail later

7   in this testimony, in my opinion Dr. Avera chooses to guess; I choose to avoid having to

8   guess. And, as already discussed, the analyst can avoid having to guess by selecting

9   electric and electric/gas utilities that have sufficiently stable pasts and futures so as to

10   permit the analyst within the context of a single-stage DCF approach to make reliable cost

11   of equity estimates. This is precisely what the selection process I propose to use in this

12   case is designed to accomplish.

13   **Q.   Would you now discuss your application of the traditional DCF formulation to the**

14   **five utilities you selected for analysis?**

15   A.   The first step is to compute the dividend yield for each of the five companies for the six

16   months ended March, 2000. A six-month period was selected to avoid spot market

17   conditions. The monthly dividends per share, closing monthly stock prices, and dividend

18   yields for each of the five companies are shown on Exhibit _____ (RJL-2), Schedule 2. The

19   average dividend yield for each member of the group of five over the six-month period is

20   presented on Exhibit ____ (RJL-2), Schedule 3. As shown there, the average dividend yield

21   for the group of five companies under study is 7.43%.

22

1   **Q.   What is the next step?**

2   A.   The next step is to determine what investors can reasonably expect the long-term future

3   dividend growth rate for each of the five utilities will be. To assist in the process of

4   determining what this growth expectation is for each of the five utilities under analysis, the

5   following evidence was adduced.

6   1)   five-year and 10-year historical earnings per share, dividends per share and book

7   value per share growth rates; these are shown on Exhibit _____ (RJL-2), Schedule

8   4;

9   2)   recent earned and allowed rates of return on common equity capital, recent

10   retention ratios, and recent growth rates from retained earnings; these financial

11   parameters appear on Exhibit _____ (RJL-2), Schedule 5; and

12   3)   Value Line projections of earnings per share, dividends per share and book value

13   per share growth rates, Standard & Poor's (S&P's) projections of earnings per

14   share growth, Zack's Investment Research's (Zack's) projection of earnings per

15   share growth rates, and IBES earnings per share projections; these are shown on

16   Exhibit _____ (RJL-2), Schedule 6.

17   **Q.   Please discuss how you analyzed the information shown on Exhibit _____ (RJL-2),**

18   **Schedules 4, 5 and 6, to arrive at what rational investors can reasonably expect by**

19   **way of future dividend per share growth for your group of five electric and**

20   **electric/gas utilities.**

21   A.   The first thing to note on Exhibit _____ (RJL-2), Schedule 5, is that the average earned

22   return on common equity in 1999 for the group of five utilities is just slightly below the

23   group's average allowed rate of return. This is a desirable state of affairs from the

1   analyst's point of view because it indicates that current growth rates from retained earnings

2   are likely to be highly reliable estimators of investors' future dividend growth expectations.

3   As shown on Exhibit _____ (RJL-2), Schedule 5, the average growth rate from retained

4   earnings averaged 2.5% for the group in 1999. The historical growth rates in earnings per

5   share, dividends per share and book value per share averaged just 0.8% over the last five

6   years and 1.5% over the last 10 years. These historical growth rates are lower than the

7   very recent growth rates from retained earnings because, for the most part in the early

8   1990s, retention ratios were lower and stable and earned returns on equity were lower and

9   quite stable. This produced low growth rates. However, as Exhibit _____ (RJL-2),

10   Schedule 5, shows, both earned returns and retention ratios have increased in recent years

11   permitting growth rates to improve. Because, as mentioned earlier, earned returns and

12   allowed returns were virtually identical in 1999, recent growth rates from retained earnings

13   provide reliable estimates of what investors can reasonably expect by way of future

14   dividend growth for the group of five companies under study.

15   Exhibit _____ (RJL-2), Schedule 6, presents estimates of future earnings per share

16   growth for each of the group of five comparable utilities; the average of Value Line's,

17   S&P's, Zack's, and IBES's earnings per share growth rates is 2.7%. While these growth

18   rates are characterized by their publishers as five-year estimates, they can be viewed as

19   reasonable estimates of long-term growth rates because they comport with current and

20   stable growth rates from retained earnings.

21   In sum, it has been shown that the recent 2.5% growth from retained earnings for

22   the group of five utilities constitutes a reasonable estimate of long-term dividend growth;

1		the 2.7% average earnings per share growth rate projection is also a reasonable guide to
2		long-run growth and it provides support to the 2.5% growth estimate.
3	**Q.**	**What cost of common equity capital is produced by your application of the**
4		**traditional DCF approach?**
5	A.	It will be recalled that the dividend yield for the group of five electric and electric/gas
6		utilities selected for study was 7.43%. As shown, the future dividend growth rate that
7		rational investors can expect is 2.5% to 2.7%. Hence, the cost of equity capital produced
8		by adding the dividend yield to these growth rates is 9.93% to 10.13%. However, the
9		dividend yield portion of these costs of equity capital estimates needs to be increased to
10		reflect a half-year's growth in dividends per share. After making the necessary
11		computations to accomplish this, the resulting cost of equity estimate is 10.02% to 10.23%.
12		The average of these estimates is 10.13%. Based on all this, it is my opinion that the cost
13		of equity capital to apply to the Washington regulated electric and gas operations of Avista
14		Utilities is 10.15%.
15	**Q.**	**Is there any other evidence that supports your opinion that the cost of equity capital**
16		**for Avista Utilities is 10.15%?**
17	A.	Yes. Under DCF theory, as the investors' expected return on equity rises above their
18		required rate of return on equity (cost of equity), the market to book ratio rises above 1.0.
19		It will be recalled that at the present time the allowed rate of return on equity and the
20		earned return on equity for the group of five utilities I studied are virtually identical and are
21		in the 11.3% area. As also indicated, this 11.3% measures what the investors' expected
22		return on equity is. What this in turn means is that if the current market to book ratio for
23		the group is above 1.0, then it is a reasonable presumption that the investors' required rate

1   of return (cost of equity) is less than 11.3%. Table C below shows the recent market to

2   book ratio for the group of five utilities under analysis:

3   TABLE C
4
5   March 31, 2000
6   Company   Market To Book Ratio
7
8   CH Energy Group   1.05
9   Hawaiian Electric Industries   1.21
10   RGS Energy Group   0.99
11   United Illuminating Company   1.20
12   WPS Resources Corp.   1.30
13
14   Average: 1.15
15
16
17   An alternative formulation of the DCF model provides that
18

19    $$\frac{M}{B} = \frac{rp}{k-g},$$ where M/B is the market to book ratio, r is the expected return on equity,

20   p is the expected payout ratio, k is the cost of equity capital, and g is the expected

21   growth rate in dividends per share.

22   It has already been shown that the market to book ratio is 1.15, that the

23   investors' expected return on equity is 11.3%, that the expected future growth in

24   dividends per share is 2.6% (the average of 2.5% and 2.7%), and that the expected

25   payout ratio is .7699 (1 - 2.60/11.3). Using these values, the equation above can be

26   solved for k, the investors' cost of equity capital. The value for k is 10.17%, which is

27   in the middle of the 10.02% to 10.23% range discussed earlier. This is further

28   evidence that the cost of equity capital is 10.15% as already shown.

1	Q.	**I noticed that two of the five utilities you selected for study are in the process of**
2		**opening their retail operations to competition from others and that they have**
3		**formed unregulated subsidiaries to compete in this same marketplace. Do these**
4		**facts lead you to change your opinion as to the cost of equity capital that you have**
5		**found to be 10.15%?**
6	A.	Not at all. Indeed, I performed a DCF analysis with CH Energy and RGS Energy
7		Group excluded from the study. In that case, the dividend yield of the remaining three
8		utilities is 7.45%. Their average growth from retained earnings in 1999 was 2.2%.
9		Their allowed rate of return was 11.7% and they earned 11.5% in 1999. Their average
10		earnings per share projection by the four investment services was 3.4%. However,
11		their 3.4% average was dominated by a Value Line earnings per share projection for
12		WPS Resources of 8.0%, which was well out of line with the other three forecasts.
13		Excluding the 8.0% observation, the average was 2.9%. Based on a dividend yield
14		markup equal to one-half of the average growth rate of 2.55%, the cost of equity was
15		found to be 10.09%. This is well in line with the 10.15% I found based on a study of
16		all five members of the comparable group. In my view, these results confirm that
17		10.15% is a reasonable view of the cost of equity capital.
18	Q.	**Didn't Dr. Avera also study CH Energy and RGS Energy?**
19	A.	Yes, he did.
20	Q.	**What cost of equity did he find for these two companies?**
21	A.	He found a 10.3% cost of equity for CH Energy and 11.5% for RGS Energy; the
22		average is 10.9%. Two things stand out. First, the 10.3% cost of equity Dr. Avera
23		found for CH Energy was the lowest for his group of 12; the 11.5% he found for RGS

1		Energy was just slightly above the 11.3% group average. Second, as will be discussed
2		in detail later, Dr. Avera's assumed 7% earnings per share growth rate that he chose to
3		use for every one of his 12 utilities beyond 2008 is too high. Had he used a 5.5%
4		growth rate, which is supportable based on long-term historical experience, his cost of
5		equity for the two companies would have averaged about 10.0%, which is in line with
6		my results. This is further evidence that these two companies can be viewed as being
7		of comparable risk to the regulated operations of Avista Utilities.
8	Q.	**Did you perform an alternative DCF study for the group of three, excluding CH**
9		**Energy Group and RGS Energy Group?**
10	A.	Yes, I did.
11	Q.	**What were the results of that study?**
12	A.	The results produced a 10.0% cost of equity capital which, again, is very close to the
13		10.15% already found appropriate.
14	Q.	**If the Washington regulated electric and gas operations of Avista Utilities earned**
15		**10.15% on its common equity capital, what market-to-book ratio would result?**
16	A.	Were the common stock of Avista Utilities traded in the market then, as a matter of
17		DCF theory, it would have a market-to-book ratio of 1.0, if it earned 10.15% on its
18		common equity capital. This would also be close to what would be an appropriate
19		level of equity earnings if Avista Utilities did not have need for an equity capital
20		infusion in the near-term future. If it had such a need then the rate of equity earnings
21		would have to be higher than this 10.15% so that Avista Corporation could sell
22		additional common stock at net proceeds no less than book value per share.

1   **Q.**   **What is an appropriate return on equity to allow in this case, given the 10.15%**

2   **cost of equity you find appropriate?**

3   A.   The threshold question is, does Avista Utilities need to obtain additional common

4   equity capital in the near-term future via the sale of additional common stock by

5   Avista Corporation? According to Avista Corporation's 1999 10-K Report, Avista

6   Utilities will generate sufficient funds internally through 2002 to preclude the need for

7   external financing. However, it is necessary to allow Avista Utilities to recover in

8   rates an amount sufficient to allow Avista Corporation to recoup sunk financing costs

9   related to past common stock sales. In my opinion, a 4% financing cost allowance is

10   appropriate for this purpose. What this means, of course, is that Avista Utilities

11   should be allowed to earn a return on equity sufficiently above its cost of equity capital

12   to permit Avista Corporation to maintain a 1.04 market to book ratio and, therefore, to

13   recoup its sunk financing costs.

14   **Q.**   **Have you made a study to determine what rate earned on common equity would**

15   **produce a market-to-book ratio of 1.04 for Avista Corporation's common stock if**

16   **all of its earnings were accounted for by Avista Utilities' jurisdictional electric**

17   **and gas operations?**

18   A.   Yes, I have. That study presented on Exhibit _____ (RJL-2), Schedule 7, shows that a

19   10.4% return on equity would be sufficient to produce a market-to-book ratio of 1.04.

20   Hence, in my opinion, a 10.4% return on equity is fair and reasonable to use to set

21   regulated electric and gas rates in this case.

22

| 1 | | **F.** | **CAPITAL STRUCTURE** |

2 **Q.** **What capital structure does Avista propose be used to set rates in this case?**

3 A. Dr. Avera proposes that a hypothetical capital structure containing 47% long-term debt,

4 6% preferred stock, and 47% common equity capital be used for this purpose.

5 **Q.** **In your opinion, is this a reasonable capital structure to use for regulatory purposes**

6 **in this case?**

7 A. No, because it contains too much common equity capital; therefore, it is uneconomical.

8 **Q.** **What constitutes a reasonable capital structure to use to set regulated electric and**

9 **gas rates?**

10 A. Avista Corporation's capital structure at December 31, 1999 would have contained 38.7%

11 long-term debt, 8.6% short-term debt, 9.5% preferred stock, and 43.2% common equity

12 capital had it, at that point in time, converted all of its convertible preferred stock into

13 common stock. I am advised that since the end of 1999 such conversion has taken place.

14 In my opinion, Avista Corporation's year-end 1999 capital structure with the preferred

15 conversion taken into account has somewhat too much common equity capital, given the

16 relatively low risk of Avista Utilities' electric and gas operations. In view of this, I

17 recommend that a capital structure containing 40.0% long-term debt, 8.5% short-term debt,

18 9.5% preferred stock, and 42.0% common equity capital be used to set rates in this case.

19 **Q.** **What was the common equity ratio at year-end 1999 for your group of five utilities?**

20 A. As Table D below shows, the average capital structure for the group contained 44.4%

21 common equity capital at year-end 1999. Hence, the common equity ratio I recommend be

22 used in this case, while somewhat lower, is still well in line with the average of the group

23 of five.

		TABLE D	

Company	Year-End 1999 Common Equity Ratio
CH Energy Group	50.4%
Hawaiian Electric Industries	41.2
RGS Energy Group	45.1
United Illuminating Company	44.6
WPS Resources Corp.	40.8
Average:	44.4%

Q. What pre-tax interest coverage would be produced under your capital structure recommendation?

A. As will be discussed later, the capital structure and cost rates of debt, preferred and common equity capital produce an 8.82% overall rate of return. The pre-tax coverage of all interest obligations is 3.15x.

Q. Given your recommendation that a 48.5% total debt to total capital ratio be used to set rates and given that the pre-tax coverage of total interest implicit in your 8.82% overall rate of return recommendation is 3.15x, what bond rating could be expected based on Standard & Poor's guidelines?

A. According to Standard & Poor's, total debt ratio and pre-tax interest coverage requirements needed to achieve various bond ratings depend, among other things, on the business risk faced by the utility. Standard & Poor's notes that lower risk activities include things such as gas distribution and electric transmission, whereas higher risk activities include things such as energy trading and marketing. The rating agency created 10 business risk classes, with 1 being the lowest.

1   In my opinion, Avista Utilities' regulated electric and gas operations are clearly in

2   the below-average risk classes. The fact that many of Avista Corporation's businesses are

3   clearly in the higher risk classes is of no significance for the task at hand which is to set

4   fair and reasonable rates for regulated electric and gas operations.

5   If the risk of these operations is put in risk class 3 to 4, the Standard & Poor's

6   guidelines for a BBB rating as far as total debt ratio is concerned is in the 55% area,

7   whereas it is in the 48% area for an A rating. Hence, the capital structure I recommend,

8   which contains 48.5% total debt capital, is just slightly higher than what an A rating

9   requires. As far as pre-tax interest coverage is concerned, the Standard & Poor's

10   guidelines at risk level 3 to 4 is about 2.5x for a BBB rating and 3.4x for an A rating. My

11   capital structure and overall rate of return recommendation would produce a 3.15x pre-tax

12   coverage, which is between what is needed for a BBB and A rating. In view of the fact

13   that Avista Corporation's debt is rated BBB+ by Standard & Poor's and A3 by Moody's, it

14   is clear that my recommendation would permit its ratings to be maintained.

15   Q.   **Doesn't Standard & Poor's also provide rating guidelines based on funds from**

16   **operations interest coverage and the funds from operations to total debt ratio?**

17   A.   Yes.

18   Q.   **What values for these rating parameters are implicit in your overall cost of**

19   **capital recommendation and how do those values relate to Standard & Poor's**

20   **bond ratings?**

21   A.   My overall cost of capital recommendation of 8.82% implies a 4.5x funds from operations

22   interest coverage. As mentioned earlier, Avista Utilities' jurisdictional operations are in

23   the class 3 to 4 risk category. The average funds from operations interest coverage to

1		obtain an A rating is 3.8x, according to S&P. The average for a BBB rating in this risk
2		class is 2.9x. Clearly the 4.5x coverage implicit in my proposed overall cost of capital is
3		solidly in the A rating category.
4		The funds from operations to total debt ratio implicit in my 8.82% overall cost of
5		capital proposal is 28.8%. The Standard & Poor's guideline is 25.3% for an A rating at
6		risk class 3 to 4. Therefore, the 28.8% ratio implicit in my overall cost of capital
7		recommendation is above what is needed for an A rating.
8	Q.	**Have you reviewed Dr. Avera's testimony before the Idaho Public Utilities**
9		**Commission in Case No. WWP-E-98-11?**
10	A.	Yes, I have.
11	Q.	**What total debt ratio and pre-tax interest coverage did Dr. Avera's capital structure**
12		**and overall rate of return recommendations imply?**
13	A.	He recommended a 51.99% total debt ratio and, implicitly, a 3.01x pre-tax interest
14		coverage.
15	Q.	**How do these financial parameters compare with what you are recommending in this**
16		**case?**
17	A.	My recommendations in this case are more favorable to the company than Dr. Avera's
18		were in the Idaho case. I am recommending a lower total debt ratio, 48.5%, in this case
19		than the 51.99% Dr. Avera recommended in the Idaho case. My implicit pre-tax interest
20		coverage recommendation of 3.15x in this case is far higher than the 3.01x Dr. Avera
21		implicitly recommended in the Idaho case.
22		

1	Q.	**Compare your common equity ratio recommendations.**
2	A.	Dr. Avera recommended a 37.42% common equity ratio in his Idaho testimony; I
3		recommend a 42.0% common equity ratio in this case.

<p align="center">G.   <u>FAIR RATE OF RETURN</u></p>

5	Q.	**Having developed the cost rates of long-term debt, short-term debt, preferred**
6		**stock and common equity capital and the appropriate capital structure to use to**
7		**set rates in this case, what was the final step in your determination of the overall**
8		**cost of capital and fair rate of return for the Washington regulated electric and**
9		**gas operations of Avista Utilities?**
10	A.	As shown on Exhibit _____ (RJL-2), Schedule 8, in my opinion a capital structure
11		consisting of 40.0% long-term debt, 8.5% short-term debt, 9.5% preferred stock, and
12		42.0% common equity capital should be used to set rates. Combining this capital structure
13		and the cost rates of capital developed earlier produces an overall cost of capital of 8.82%.
14		In my opinion then, an 8.82% overall cost of capital constitutes a fair overall rate of return
15		to use to set electric and gas rates in this case.

<p align="center">H.   <u>COST OF EQUITY/KETTLE FALLS MARKUPS</u></p>

17	Q.	**Are you aware that the company, via the testimony of Mr. Dukich, has requested a**
18		**25 basis point markup to the 12.0% return on equity recommended by Dr. Avera to**
19		**reward it for its innovative management and strategic initiatives?**
20	A.	Yes, I am.
21	Q.	**Do you believe it is appropriate for the Commission to acquiesce to the company's**
22		**proposal in this regard?**

Testimony of Richard J. Lurito, Ph.D.

Exhibit T-_____ (RJL-T)

1   A.   No, I don't.

2   Q.   **Why have you come to this conclusion?**

3   A.   It is interesting to recall Mr. Dukich's testimony to the effect that the 25 basis point

4   markup is needed ". . . in order to recognize and reward the Company for its innovative

5   management and strategic initiatives." (Exhibit T-46, p. 2) The fact is that the Company is

6   an irrelevant player in this whole matter. There are only three players at issue: consumers,

7   existing investors, and management. If the Commission allows the 25 basis point markup,

8   it is clear who pays: consumers. However, who benefits depends on whether the dollars

9   related to the markup are given to existing investors, to management, or some combination

10   of the two. It clearly makes no sense to transfer wealth from consumers to existing

11   stockholders because, as Dr. Avera tells us, a 12.0% return on equity fully compensates

12   investors for the risk they face in investing in Avista. Moreover, if existing stockholders

13   deem themselves the beneficiaries of the company's innovative management and strategic

14   initiatives then they can pay to reward management. In any event, were the 25 basis point

15   increase in the return on equity fully passed through to the bottom line, the only

16   beneficiaries would be existing stockholders who would enjoy a one-time windfall via a

17   higher stock price. New investors would not benefit because they would simply pay a

18   higher price for the stock without receiving a return higher than their required rate of return

19   on their investment.

20   In view of all this, it is clear that the only possible rationale for allowing the

21   markup is to accomplish a transfer of wealth from consumers to management. This would

22   be appropriate if the Commission believes that management is not currently being

23   appropriately compensated for the efforts it is making on consumers' behalfs. Interestingly

1   enough, Mr. Dukich presented no evidence at all that this is the case; he simply implicitly

2   asserted that this is the case. Even if it were agreed that the litany of published studies Mr.

3   Dukich cited in his testimony that highly ranked the company's management is accurate

4   and even if the litany of management accomplishments he cited is accurate, they tell us

5   nothing about whether or not the company's management is currently being fairly

6   compensated for its efforts. Only complex studies of the market for management talent

7   can provide evidence on this issue. The Commission should not act on the company's

8   markup proposal without solid evidence that in a competitive market for management

9   talent the company's management would receive higher compensation than it currently

10   receives. Moreover, if it were true that the company's management has been and is being

11   paid less than what the competitive labor market would dictate, then we should have seen a

12   flight of management talent out of Avista Utilities. Mr. Dukich has presented no evidence

13   in this regard.

14 Q. **With respect to the last point you made, Mr. Dukich indicated that without rewards**

15   **such as the markup he recommends, or penalties when appropriate, there is not**

16   **sufficient differentiation in rate setting between a well-managed and an adequately-**

17   **managed utility. Would you comment?**

18 A. Mr. Dukich apparently has not considered how labor markets work. If management talent

19   is not appreciated in utility X, as measured by its level of compensation, utility Y can bid

20   for this talent. In other words, in competitive labor markets in the long run, management

21   talent will receive appropriate compensation. This Commission should not substitute its

22   judgment for that of the markets' unless it is provided with sufficient market information

23   that shows that Avista Utilities' management is not being appropriately compensated for

1		its innovations and initiatives. This is especially true since the company's proposed 25
2		basis point cost of equity markup would cost ratepayers $1.28 million (TR 355).
3	**Q.**	**Mr. Dukich also recommends that the company be allowed a higher return on its**
4		**investment in the Kettle Falls generating station. Do you agree with his position?**
5	A.	No, I don't, and for reasons already provided. If the Commission permits such a higher
6		return on investment, it would be sanctioning a transfer of wealth from consumers to
7		existing investors. This is the case because a higher allowed return on investment, if
8		earned, would, all else the same, cause Avista Corporation's stock price to rise. This
9		would create a one-time windfall to existing investors. Mr. Dukich does not tell us why
10		consumers should be asked to pay $406,000 more in rates to reward such investors for the
11		benefits related to the Kettle Falls generating station. (Ex. T-46, p. 10) Needless to say,
12		these investors had little, if anything, to do with its success. And even if they did, Dr.
13		Avera has told us his opinion of what they require by way of return on investment to invest
14		in Avista. No more need be provided.

<center>

I.   COMMENTS ON TESTIMONY OF DR. WILLIAM AVERA

</center>

16	**Q.**	**Have you reviewed the testimony, exhibits, and cross-examination of Dr. William**
17		**Avera, the company's rate of return witness in this case?**
18	A.	Yes, I have.
19	**Q.**	**What rate of return on equity did Dr. Avera recommend?**
20	A.	He recommended a 12.0% return on equity.
21	**Q.**	**What methods did Dr. Avera use to arrive at his opinion in this regard?**
22	A.	Dr. Avera applied a multi-stage DCF method and an equity risk premium approach.
23		

1   **Q.   Please discuss Dr. Avera's DCF approach.**

2   A.   Dr. Avera's first step was to select a group of utilities each of which met four criteria:

3   1)   it had gas utility operations;

4   2)   it was rated A by Moody's or S&P;

5   3)   its utility revenues were equal to at least 80% of total revenues; and

6   4)   it was not involved in a major merger or acquisition.

7   This produced a group of 12 companies (Ex. T-101, p. 26). Then Dr. Avera made several

8   critical assumptions.

9   1)   that investors expect all the utilities under study to have a fully deregulated and a

10   fully competitive generation segment by 2008;

11   2)   that investors expect the distribution and transmission segment of all the utilities

12   studied to remain regulated;

13   3)   that investors expect the deregulated generation segment of all of the utilities

14   studied to produce a 10.4% per year earnings per share growth <u>forever</u> beyond

15   2008;

16   4)   that investors expect the regulated segment of all of the utilities selected to

17   produce a 3.5% per year earnings per share growth <u>forever</u> beyond 2008;

18   5)   that investors believe that all of the utilities studied have 50% of their investment

19   in generation (the competitive segment) and 50% in distribution/transmission plant

20   (the regulated segment);

21   6)   that investors expect earnings per share for all of the utilities selected to grow at

22   7% per year forever beyond 2008 (50% of 10.4% + 50% of 3.5% = 6.95% (7%

23   rounded);

1   7)   that investors expect that by 2008 and forever thereafter all of the utilities studied

2   would have a 60% payout ratio; and

3   8)   that investors rely solely on Value Line's near-term projections for dividends per

4   share and earnings per share levels and growth.

5   Dr. Avera then solved by iteration an equation for the cost of equity capital for each of the

6   12 utilities. The average of the 12 cost of equity estimates is 11.3%; the high value is

7   12.2% and the low value is 10.3%. By giving little weight to the high and low cost of

8   equity estimates, Dr. Avera concluded that the cost of equity is in the range of 10.9% to

9   11.9%. (Ex. T-101, p. B-7)

10   **Q.   Would you comment on Dr. Avera's multi-stage DCF approach in this case?**

11   A.   Perhaps the best way to do this is to examine the basis and reasonableness of his

12   assumptions. In order to meet his assumption that by 2008 all of the 12 companies he

13   studied would have a 60% payout ratio, Dr. Avera was forced to assume that half of his

14   selected utilities would have to cut their dividend over the next eight years. In my opinion

15   this is extremely unlikely. Dr. Avera's 60% payout ratio assumption along with his

16   assumption that all 12 of his selected utilities will enjoy a 7% per year earnings per share

17   growth beyond 2008 means that *in equilibrium* each of these utilities must earn 17.5% on

18   common equity capital forever. This, in turn, implies that generating assets would have to

19   be earning at a 20%+ return on equity in equilibrium over the long-run. Over the last 25

20   years the average return on equity for all manufacturing corporations in the United States

21   was only 12.8%; a 20%+ return on equity for the competitive segment is simply too high.

22   The Commission should note that Dr. Avera's sole source for the 60% payout ratio

23   that he says every one of his 12 utilities will adopt in 2008 and beyond is a person named

Testimony of Richard J. Lurito, Ph.D.   Exhibit T-____ (RJL-T)
                                                         Page 35

1   Leonard Hyman who wrote an article entitled "Fearless Forecast: Electric Utilities in

2   2007." (Ex. T-101, p. B-6) One must assume that each of the managements of the 12

3   utilities Dr. Avera studied not only read the article but adopted it as corporate policy.

4   More importantly, one must assume that investors read the article and are investing their

5   money today in the common stock of each of the 12 utilities Dr. Avera studied because

6   they agree with Mr. Hyman's conclusions. Dr. Avera provided no evidence that this is the

7   case.

8   The Commission is well aware that today utilities have very different payout ratios.

9   The same is true for Dr. Avera's group of 12. For example, according to Dr. Avera, Alliant

10   Energy, Puget, and Sempra will have 85%, 94%, and 87% payout ratios this year.

11   Connectiv, PECO Energy, and Sierra will have 46%, 28%, and 51% payout ratios this

12   year. All of these six utilities will have to radically change their payout policies and

13   significantly lower or raise their current payout ratios in order to meet Dr. Avera's 60%

14   constraint by 2008.

15   Q.   **Would you now comment on the reasonableness of Dr. Avera's assumption that**

16   **beyond 2008 every one of the 12 utilities he studied will enjoy a 7% per year earnings**

17   **per share growth rate?**

18   A.   In order to answer this question, it is first necessary to set out the further assumptions Dr.

19   Avera made upon which the 7% growth rate assumption depends. The first assumption

20   that it rests on is that investors believe that generating assets account for at least one-half of

21   electric utilities' total assets. (Ex. T-101, p. B-5) Dr. Avera admitted that he has made no

22   study of investors' beliefs in this regard. (TR 693) Rather, Dr. Avera simply relied on two

23   studies that commented on this issue. It is interesting to note that one of the authors

1   indicated that generation accounts for about 59% of the book value of IOU assets while the

2   other said it was about 50%. Dr. Avera chose to rely on the 50% figure. What investors

3   really believe was never studied.

4   The second and most significant assumption underlying the 7% earnings per share

5   growth rate is that the competitive generation segment of each of the 12 utilities will enjoy

6   forever beyond 2008 the average of what IBES and Value Line project for earnings per

7   share growth for the S&P 500 companies and the Industrial Composite group of 875

8   companies over the next five years. Those growth rates were 13.3% and 7.5%,

9   respectively; the average is 10.4%. (Ex. T-101, p. B-4) It is well known that our economy

10   is still in a very rapid growth mode with rapid earnings per share increases. There is no

11   basis whatsoever for the assumption that Dr. Avera is making that this rapid growth rate

12   will continue forever beyond 2008.

13   In this context it is interesting to note that if Dr. Avera had used the lower end of

14   the 7.5% to 13.3% range, his long-term earnings per share growth rate would have been

15   5.5%, not 7%. Had Dr. Avera used a 5.5% earnings per share growth rate beyond 2008 for

16   his 12 utilities, his average cost of equity result would have been 10.2% which is right in

17   line with my study results.

18   It is even more interesting to note that if Dr. Avera had used the 7.5% long-run

19   historical growth rate in earnings per share for the S&P 500 group of companies, as the

20   proxy for the generation segment's growth rate, his DCF results would also have been in

21   line with my results.

22   The final assumption Dr. Avera made to arrive at the 7% earnings per share growth

23   rate is that the average of S&P's 13.5% and Value Lines' 7.5%, or 10.4%, somehow

1   produces the right answer. Frankly, the averaging of two numbers that purport to measure

2   the same thing, which are 77% apart, is a very suspect procedure.

3   The use of a 10.4% long-term earnings per share growth rate for the generation

4   segment for each of the utilities Dr. Avera studied is erroneous for a logical reason. Even

5   if we assume, along with Dr. Avera, that the long-term earnings per share growth rate for

6   the competitive sector of our economy is 10.4% in no way means that each and every firm

7   in that sector will grow at 10.4% per year. This is true because as individual firms mature,

8   their growth rates slow down. Younger firms typically have faster growth rates. What this

9   means, of course, is that it is improper to apply the average earnings per share growth rate

10   for a large group of companies to a single firm over its lifetime. This is exactly what Dr.

11   Avera has done. The fact is that the electric/gas industry is already a mature industry.

12   Even Dr. Avera agreed that there is no reason to believe that in the future Kwh or Mcf

13   sales will grow at a faster rate than experienced in the past. Over a recent 15-year period

14   Kwh sales per customer grew at just .6% per year, while gas consumption per customer

15   actually fell 4.5% per year. What this means, of course, is that earnings per share growth

16   can only come from higher unit prices and/or lower unit costs. If the market for generation

17   is competitive, as Dr. Avera asserts it will be, there is no reason to expect that prices in the

18   long-run will rise sufficiently fast to permit rapidly rising returns on equity that go beyond

19   what competitive markets produce.

20   However, there could very well be declining unit costs as deregulation/competition

21   proceeds in the generation segment owing to the abandonment of inefficient plant, the

22   refurbishing of existing plant, and the introduction of more efficient plant. This will lead

23   to lower heat rates and a lower cost fuel mix of generating plant. However, here again

Testimony of Richard J. Lurito, Ph.D.   Exhibit T-____ (RJL-T)

1	there are limits as to how long this process can proceed and, therefore, there are limits to
2	earnings per share growth due to these factors. Again it is seen that there is no reason to
3	believe that rational investors can expect 10.4% per year earnings per share growth out of
4	the generation sector <u>forever</u> beyond 2008.

5 **Q.** **Please summarize your views of Dr. Avera's multi-stage DCF cost of equity results.**

6 A. As I said earlier in my testimony, Dr. Avera chooses to apply a multi-stage DCF model

7 that demands that he guess what investors are expecting by way of earnings per share

8 growth beyond 2008 in both the regulated and unregulated segments of the utilities he

9 selected for analysis. To make that guess he had to make a myriad of critical assumptions

10 most of which, as shown, are insupportable. More supportable assumptions produce cost

11 of equity estimates in line with the results of my DCF study.

12 Finally, it should be noted that even Dr. Avera allowed that his multi-stage DCF

13 model is based on a number of assumptions regarding investor expectations and beliefs,

14 and changing any one of them will impact his estimates of the cost of equity capital.

15 (Ex. T-101, p. B-7) I certainly agree with that.

16 **Q.** **Is there market evidence that Dr. Avera's 10.9% to 11.9% DCF cost of equity result**

17 **for his group of 12 utilities is overstated?**

18 A. Yes, there is. As already seen, in 1999 Dr. Avera's 12 utilities enjoyed a 13.9% return on

19 equity capital. Their payout ratio was 72%. At March 31, 2000, Dr. Avera's group of 12

20 utilities had a 1.53 market to book ratio. As shown earlier, an alternative form of the DCF

21 model is

$$\frac{M}{B} = \frac{pr}{k-g}.$$

22

1	By substituting the values outlined above and the recent market to book ratio, this equation

2	can be solved for k, the cost of equity.

3	Therefore:

4
$$1.53 = \frac{(.139)(.72)}{k - (.139)(.28)}; k = 10.4\%.$$

5	In other words, the current market indicates that the cost of equity for Dr. Avera's group of

6	12 utilities is 10.4%, not the 11.4% he says it is. (The 11.4% is the average of Dr. Avera's

7	10.9% to 11.9% finding based on his multi-stage DCF model. (Ex. T-101, p. 51)

8	**Q.**	**You mentioned earlier that Dr. Avera also implemented an equity risk premium**

9	**approach to estimate the cost of equity in this case. Please discuss his application of**

10	**this approach.**

11	A.	Because Dr. Avera relied on so many different equity risk premium studies, it is best to

12	consider them one at a time. The first two studies he relied on were done by Carleton,

13	Chambers and Lakonishok (CC&L) and covered the 1971-1980 and 1972-1980 periods.

14	(Ex. T-101, p. C-6) The authors applied a mechanistic DCF approach to measure the cost

15	of equity in that they relied on the 10-year historical growth in dividends per share as the

16	estimate of future dividend growth. Dr. Avera reported that the two equity risk premiums

17	found by CC&L in today's terms are 5.32% and 4.30%. (Ibid., p. C-14)

18	**Q.**	**Please comment on the results of the CC&L studies.**

19	A.	In the first place, Dr. Avera saw fit not to rely on the mechanistic DCF approach that

20	CC&L took for purposes of his DCF study in this case. He undoubtedly is aware of the

1   fact that had he relied on such an approach, his cost of equity estimate would have been

2   only 6.7%!

3   In the second place, the 1971-1980 and 1972-1980 periods are so old and so short

4   that any risk premium based on them are dubious at best. To see that this is the case, it is

5   only necessary to refer to another of Dr. Avera's risk premium studies. On Table 3 of

6   Appendix C (Ex. 102), Dr. Avera sets out a risk premium study over the 1945-1998

7   period, where the risk premium is based on the difference between the realized rates of

8   return for the S&P Electric group and the realized returns on A rated public utility bonds.

9   Over the very same periods that CC&L studied, that is, the 1971-1980 and 1972-1980

10   periods, Dr. Avera's study on Table 3 produces a _negative_ equity risk premium. As seen,

11   CC&L's studies produced _positive_ risk premiums of 4.30% and 5.32%. It will be left to

12   others to decide whether the CC&L studies or the realized rate of return study should be

13   ignored; or both.

14   **Q.   What other risk premium studies did Dr. Avera rely on?**

15   A.   Another group of three authors, Brigham, Shome and Vinson (BS&V), published equity

16   risk premium studies covering the 1966-1984 and the 1980-1984 periods. These authors

17   relied on a mechanistic DCF model in which the future divided growth was estimated

18   using security analyst forecasts for the electrics in the Dow Jones Utility Average.

19   (Ex. T-101, p. C-8) These studies produced equity risk premiums in today's terms of

20   3.79% and 6.97%.

21   **Q.   Please comment on the results of the BS&V study.**

22   A.   The first thing to do is to exclude the 6.97% risk premium because it is based on just five

23   years. Next, it should be noted that even though both of these estimates have been

1		corrected by Dr. Avera to apply to today's economic environment, they are <u>84%</u> apart.
2		This does not inspire confidence. Over the 1966-1984 period Dr. Avera's realized rate of
3		return study produced an equity risk premium of 1.36%. As seen, BS&V found a 3.79%
4		risk premium for the same period. Since Dr. Avera apparently believes that the 3.79%
5		equity risk premium is a valid estimate based on the BS&V study, it would seem only fair
6		to conclude that the 1.36% equity risk premium over the 1966-1984 period from his
7		Appendix C, Table 3 study is equally valid. Use of the 1.36% equity risk premium
8		produces a 9.23% cost of equity on Dr. Avera's own ground (7.87% + 1.36%). The
9		average of the two risk premiums is 2.58% and produces a 10.44% cost of equity estimate.
10		This estimate is very close to the 10.15% cost of equity I find appropriate. Finally, it
11		should be noted that Dr. Avera chose not to apply the BS&V mechanistic DCF approach
12		to cost of equity capital estimation in his own DCF study. Despite this fact, he chose to
13		rely on the equity risk premium produced by this very same mechanistic approach.
14	**Q.**	**What was the next study Dr. Avera relied on?**
15	A.	The next study was done by Robert Harris. This study covered a mere three years, 1982-
16		1984. Harris found a 4.81% equity risk premium which, when adjusted for interest rate
17		changes from the 1982-1984 period to the time Dr. Avera prepared his study, produced a
18		whopping 7.78% risk premium. Such a result is simply insupportable as the President's
19		Council of Economic Advisors stated. (Ex. 104)
20	**Q.**	**What was the next study Dr. Avera cited?**
21	A.	The next study was a survey of institutional investors made by Charles Benore. Mr.
22		Benore asked these investors what equity premium over AA rated utility bonds they
23		required to be willing to invest in the common stock of electric utilities. This study, which

1		covered an 11-year period from 1975 through 1985, produced a 5.00% equity risk
2		premium adjusted to the current market environment. (Ex. T-101, p. C-11)
3	**Q.**	**Do you have any comments regarding the Benore study?**
4	A.	This study was conducted during a hyper-inflationary period when electric utilities were
5		heavily involved in risky nuclear plant construction. The inflation rate today is in the
6		3.0%; it averaged 7.2% per year over the 1975-1985 period. Needless to say, Avista
7		Utilities is not building nuclear plants. Dr. Avera's Appendix C, Table 3, study produces a
8		7.77% equity risk premium over the same 1975-1985 period, adjusted to today's interest
9		rate environment. The 7.77% risk premium is 55% more than Mr. Benore's over the same
10		period of time. This shows what a biased period of time Mr. Benore studied; it also shows
11		how volatile the equity risk premium is as between studies and it shows why Mr. Benore's
12		5.00% equity risk premium should be rejected.
13	**Q.**	**Didn't Dr. Avera do a study of the equity risk premium based on authorized rates of**
14		**return for electric utilities and utility bond yields over the 1974-1998 period?**
15	A.	Yes, he did. On Ex. 102, Appendix C, Table 2, Dr. Avera presents this study. It indicates
16		that the equity risk premium over the 1974-1998 period is 3.04% which, when adjusted to
17		current interest rates, produces a 4.12% risk premium.
18	**Q.**	**Would you comment on this study?**
19	A.	As is well known, public utility commissions typically include in their allowed returns on
20		equity a markup above the investors' required rate of return on equity (cost of equity).
21		This markup is designed to permit the utility to recover sunk common stock financing
22		costs as well as to permit protection against market pressure and market drop phenomena.

1	Indeed, in this rate case both Dr. Avera and I recommend a 25 basis points markup above
2	the cost of equity to allow for the recovery of sunk financing costs alone.
3	The Commission is aware of the fact that in the past at least another 25 to 50 basis
4	points were added to the cost of equity to account for market pressure and market drop
5	risks. Hence, it is reasonable to posit that the 3.04% equity risk premium Dr. Avera found
6	in his allowed return on equity study overstates the true risk premium by 50 to 75 basis
7	points. Hence, the risk premium based on allowed rates of return is likely to be in the
8	2.29% to 2.54% area (3.04% - .25% to .50%). When this equity risk premium range is
9	marked up by 1.08% to account for the interest rate change, the result is 3.37% to 3.62%.
10	When this equity risk premium range is added to the 7.87% bond yield that Dr. Avera
11	used, an 11.24% to 11.49% cost of equity is produced.
12	That such a cost of equity still overstates the true cost of equity can be seen from
13	the study I made which compares the market to book ratio to the earned and allowed rates
14	of return for the group of five utilities I analyzed. It will be recalled that the five utilities I
15	studied enjoyed just an 11.3% return on equity last year and had a 1.15 market to book
16	ratio at March 31, 2000. This is direct market evidence that even an 11.24% to 11.49%
17	cost of equity is too high. If the cost of equity were 11.24% to 11.49%, then the book to
18	book ratio should be only 1.0. That it is 1.15 shows that the cost of equity is well below
19	that range. The 11.99% cost of equity (7.87% + 4.12%) based on Dr. Avera's study of
20	allowed returns on equity is even farther out of line with market realities.

21 **Q.** **Dr. Avera did two studies of the equity risk premium based on historical realized**

22 **rates of return on stocks and bonds. Would you discuss these studies?**

1   A.   The first study Dr. Avera made was based on the historical realized rates of return for the

2   S&P 500 and for a selected group of "small company" stocks. Over the 1926-1998 period

3   the realized rates of return on these groups of stocks were 5.9% and 7.5%, respectively,

4   above the realized rate of return on long-term government bonds. The average spread is

5   6.7% and was relied on by Dr. Avera. Under CAPM theory, if this risk premium is

6   multiplied by the beta ratio for the stock or group of stocks the analyst is interested in, an

7   equity risk premium for the stock or group of stocks is produced. In the case at hand, the

8   beta for Dr. Avera's group of 12 utilities is .54. Hence, the risk premium for that group is

9   3.62% (6.7% x .54). Dr. Avera then added this 3.62% risk premium to the long-term

10   government bond yield of 6.42% that prevailed in September, 1999. This produced a cost

11   of equity of 10.04%. (Ex. T-101, p. C-13) The equity risk premium related to A rated

12   utility bonds was 2.11% (10.04% - 7.93%).

13   While the 2.11% equity risk premium and the 10.04% cost of equity is consistent

14   with the results of my DCF analysis, I place little confidence in it. In my view, the analyst

15   can manipulate the results of such equity risk premium studies simply by choosing

16   different time periods. This is precisely the problem with Dr. Avera's second equity risk

17   premium study based on historical realized rates of return on electric utility common stock.

18   **Q.   Could you be more specific?**

19   A.   Yes. Dr. Avera, in his second study, computed the arithmetic mean and geometric mean

20   realized rate of return for the group of electric utilities included in the S&P 500 composite

21   group over the 1946-1998 period. Those two statistics were 10.99% and 9.94%. (Ex. 101,

22   Appendix C, Table 3) Dr. Avera then computed the arithmetic and geometric mean

23   realized rate of return on A rated public utility bonds over the same time period. This

1		produced means of 6.29% and 5.91%. By subtracting the average return on electric utility
2		stocks from the bond rates of return produced a 4.37% equity risk premium. Dr. Avera did
3		not make any adjustments to this 4.37% to account for interest rate changes.
4	**Q.**	**Is this 4.37% a reliable estimate of the equity risk premium?**
5	A.	No. I performed a study identical in methodology to Dr. Avera's, except I chose to analyze
6		the 1960-1998 period, instead of the 1946-1998 period Dr. Avera relied on. My study
7		produced a 2.41% equity risk premium which, when added to Dr. Avera's 7.93% A rated
8		bond yield, produces a 10.34% cost of equity capital. Again, while this result certainly
9		supports my DCF cost of equity estimate and contradicts Dr. Avera's, little comfort should
10		be taken from that reality. This is the case because equity risk premiums based on
11		historical realized rates of return are inherently unstable as they change radically as the
12		period of time analyzed changes.
13	**Q.**	**What conclusions did Dr. Avera arrive at based on his equity risk premium**
14		**analyses?**
15	A.	He concluded, based on all his studies, that the equity risk premium ranges from 4.0% to
16		5.0%. By adding this risk premium range to the 7.93% bond yield, he arrived at an 11.9%
17		to 12.9% cost of equity estimate. (Ex. T-101, p. 53)
18	**Q.**	**Do you have any final comments concerning Dr. Avera's conclusion as to the cost of**
19		**equity based on his risk premium studies?**
20	A.	Dr. Avera's conclusion is flawed for the many reasons I have already discussed. To
21		summarize, they are:
22		1. Some studies he relied on covered too short a time period to have any credibility.
23		

1	2.	Some studies were based on mechanistic applications of the DCF model that Dr.
2		Avera himself chose not to rely on in this case; therefore, the risk premiums from
3		such studies can be given little weight.
4	3.	Some studies produced radically different equity risk premium results depending
5		on the time period selected.
6	4.	Some studies were made over an anomalous period of economic history that has
7		no relationship to today's environment.
8	5.	The equity risk premium results over the same time period varied markedly from
9		study to study.

10 **Q.** **Why didn't you perform an equity risk premium study?**

11 A. As seen, I could have chosen long time periods which produce equity risk premiums and

12 costs of equity estimates that appear to support the results of my DCF study. To have done

13 so would simply have been disingenuous because, in my opinion, this approach to the cost

14 of equity is fundamentally flawed. I think my comments on Dr. Avera's risk premium

15 studies show why this is the case.

16 **Q.** **Does this conclude your testimony?**

17 A. Yes.