

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-12 _____

DOCKET NO. UG-12 _____

EXHIBIT NO. ____ (WEA-2)

WILLIAM E. AVERA

REPRESENTING AVISTA CORPORATION

EXHIBIT NO.__(WEA-2)

QUALIFICATIONS OF WILLIAM E. AVERA

Q. What is the purpose of this exhibit?

A. This exhibit describes my background and experience and contains the details of my qualifications.

Q. Please describe your qualifications and experience.

A. I received a B.A. degree with a major in economics from Emory University. After serving in the U.S. Navy, I entered the doctoral program in economics at the University of North Carolina at Chapel Hill. Upon receiving my Ph.D., I joined the faculty at the University of North Carolina and taught finance in the Graduate School of Business. I subsequently accepted a position at the University of Texas at Austin where I taught courses in financial management and investment analysis. I then went to work for International Paper Company in New York City as Manager of Financial Education, a position in which I had responsibility for all corporate education programs in finance, accounting, and economics.

In 1977, I joined the staff of the Public Utility Commission of Texas ("PUCT") as Director of the Economic Research Division. During my tenure at the PUCT, I managed a division responsible for financial analysis, cost

allocation and rate design, economic and financial research, and data processing systems, and I testified in cases on a variety of financial and economic issues. Since leaving the PUCT, I have been engaged as a consultant. I have participated in a wide range of assignments involving utility-related matters on behalf of utilities, industrial customers, municipalities, and regulatory commissions. I have previously testified before the Federal Energy Regulatory Commission ("FERC"), as well as the Federal Communications Commission, the Surface Transportation Board (and its predecessor, the Interstate Commerce Commission), the Canadian Radio-Television and Telecommunications Commission, and regulatory agencies, courts, and legislative committees in over 40 states.

In 1995, I was appointed by the PUCT to the Synchronous Interconnection Committee to advise the Texas legislature on the costs and benefits of connecting Texas to the national electric transmission grid. In addition, I served as an outside director of Georgia System Operations Corporation, the system operator for electric cooperatives in Georgia.

I have served as Lecturer in the Finance Department at the University of Texas at Austin and taught in the evening graduate program at St. Edward's University for twenty years. In addition, I have lectured on economic and regulatory topics in programs sponsored by universities and

industry groups. I have taught in hundreds of educational programs for financial analysts in programs sponsored by the Association for Investment Management and Research, the Financial Analysts Review, and local financial analysts societies. These programs have been presented in Asia, Europe, and North America, including the Financial Analysts Seminar at Northwestern University. I hold the Chartered Financial Analyst (CFA®) designation and have served as Vice President for Membership of the Financial Management Association. I have also served on the Board of Directors of the North Carolina Society of Financial Analysts. I was elected Vice Chairman of the National Association of Regulatory Commissioners (“NARUC”) Subcommittee on Economics and appointed to NARUC’s Technical Subcommittee on the National Energy Act. I have also served as an officer of various other professional organizations and societies. A resume containing the details of my experience and qualifications is attached.

WILLIAM E. AVERA

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 Financial Concepts and Applications
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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 (almost 200 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 for evening program at St. Edward's University in Austin from January 1979 through 1998.

Expert Witness Testimony

Testified in over 300 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, Iowa, Kansas, Kentucky, Maryland, Michigan, Missouri, Nevada, New Mexico, Montana, Nebraska, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

Testified in 42 cases before federal and state courts, arbitration panels, and alternative dispute tribunals (89 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 of Directors, 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 (SEAL) 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

"Economic Perspective on Water Marketing in Texas," 2009 Water Law Institute, The University of Texas School of Law, Austin, TX (Dec. 2009).

"Estimating Utility Cost of Equity in Financial Turmoil," SNL EXNET 15th Annual FERC Briefing, Washington, D.C. (Mar. 2009)

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

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-12 _____

DOCKET NO. UG-12 _____

EXHIBIT NO. ____ (WEA-3)

WILLIAM E. AVERA

REPRESENTING AVISTA CORPORATION

EXHIBIT NO.__(WEA-3)

DESCRIPTION OF QUANTITATIVE ANALYSES

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

2 A. Exhibit No.__(WEA-3) presents capital market estimates of the
3 cost of equity. First, I examine the concept of the cost of equity, along with the
4 risk-return tradeoff principle fundamental to capital markets. Next, I describe
5 DCF, CAPM, risk premium, and expected earnings analyses conducted to
6 estimate the cost of equity for reference groups of comparable risk firms.

A. Overview

7 **Q. What role does the rate of return on common equity play in a**
8 **utility's rates?**

9 A. The return on common equity is the cost of inducing and
10 retaining investment in the utility's physical plant and assets. This investment
11 is necessary to finance the asset base needed to provide utility service.
12 Competition for investor funds is intense and investors are free to invest their
13 funds wherever they choose. They will commit money to a particular
14 investment only if they expect it to produce a return commensurate with those
15 from other investments with comparable risks.

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

3 A. The fundamental economic principle underlying the cost of equity
4 concept is the notion that investors are risk averse. In capital markets where
5 relatively risk-free assets are available (*e.g.*, U.S. Treasury securities), investors
6 can be induced to hold riskier assets only if they are offered a premium, or
7 additional return, above the rate of return on a risk-free asset. Since all assets
8 compete with each other for investor funds, riskier assets must yield a higher
9 expected rate of return than safer assets to induce investors to hold them.

10 Given this risk-return tradeoff, the required rate of return (k) from an
11 asset (i) can be generally expressed as:

$$12 \qquad k_i = R_f + RP_i$$

13 where: R_f = Risk-free rate of return, and
14 RP_i = Risk premium required to hold riskier asset i .

15 Thus, the required rate of return for a particular asset at any point in time is a
16 function of: 1) the yield on risk-free assets, and 2) its relative risk, with investors
17 demanding correspondingly larger risk premiums for assets bearing greater
18 risk.

1 **Q. Is the cost of equity observable in the capital markets?**

2 A. No. Unlike debt capital, there is no contractually guaranteed
3 return on common equity capital since shareholders are the residual owners of
4 the utility. Because it is unobservable, the cost of equity for a particular utility
5 must be estimated by analyzing information about capital market conditions
6 generally, assessing the relative risks of the company specifically, and
7 employing various quantitative methods that focus on investors' current
8 required rates of return. These various quantitative methods typically attempt
9 to infer investors' required rates of return from stock prices, interest rates, or
10 other capital market data.

B. Comparable Risk Proxy Groups

11 **Q. How did you implement these quantitative methods to estimate**
12 **the cost of common equity for Avista?**

13 A. Application of the DCF model and other quantitative methods to
14 estimate the cost of equity requires observable capital market data, such as
15 stock prices. Moreover, even for a firm with publicly traded stock, the cost of
16 equity can only be estimated. As a result, applying quantitative models using
17 observable market data only produces an estimate that inherently includes
18 some degree of observation error. Thus, the accepted approach to increase

1 confidence in the results is to apply the DCF model and other quantitative
2 methods to a proxy group of publicly traded companies that investors regard as
3 risk comparable.

4 **Q. What specific proxy group did you rely on for your analysis?**

5 A. In order to reflect the risks and prospects associated with Avista's
6 jurisdictional utility operations, my DCF analyses focused on a reference group
7 of other utilities composed of those companies included by The Value Line
8 Investment Survey ("Value Line") in its Electric Utilities Industry groups with:
9 (1) S&P corporate credit ratings of "BBB-" to "BBB+," (2) a Value Line Safety
10 Rank of "2" or "3", and (3) a Value Line Financial Strength Rating of "B+" or
11 higher.¹ I refer to this group as the "Utility Proxy Group."

12 **Q. What other proxy group did you consider in evaluating a fair**
13 **ROE for Avista?**

14 A. Under the regulatory standards established by *Hope* and *Bluefield*,
15 the salient criterion in establishing a meaningful benchmark to evaluate a fair
16 ROE is relative risk, not the particular business activity or degree of regulation.
17 With regulation taking the place of competitive market forces, required returns

¹ In addition, I excluded six utilities that otherwise would have been in the proxy group, but are not appropriate for inclusion because they are currently involved in a major merger or acquisition.

1 for utilities should be in line with those of non-utility firms of comparable risk
2 operating under the constraints of free competition. Consistent with this
3 accepted regulatory standard, I also applied the DCF model to a reference
4 group of low-risk companies in the non-utility sectors of the economy. I refer to
5 this group as the "Non-Utility Proxy Group".

6 **Q. What criteria did you apply to develop the Non-Utility Proxy**
7 **Group?**

8 A. My comparable risk proxy group of non-utility firms was
9 composed of those U.S. companies followed by Value Line that: (1) pay
10 common dividends; (2) have a Safety Rank of "1"; (3) have a Financial Strength
11 Rating of "B++" or greater; (4) have a beta of 0.60 or less; and, (5) have
12 investment grade credit ratings from S&P.

13 **Q. Do these criteria provide objective evidence to evaluate**
14 **investors' risk perceptions?**

15 A. Yes. Credit ratings are assigned by independent rating agencies
16 for the purpose of providing investors with a broad assessment of the
17 creditworthiness of a firm. Ratings generally extend from triple-A (the highest)
18 to D (in default). Other symbols (*e.g.*, "A+") are used to show relative standing

1 within a category. Because the rating agencies' evaluation includes virtually all
2 of the factors normally considered important in assessing a firm's relative credit
3 standing, corporate credit ratings provide a broad, objective measure of overall
4 investment risk that is readily available to investors. Although the credit rating
5 agencies are not immune to criticism, their rankings and analyses are widely
6 cited in the investment community and referenced by investors. Investment
7 restrictions tied to credit ratings continue to influence capital flows, and credit
8 ratings are also frequently used as a primary risk indicator in establishing
9 proxy groups to estimate the cost of common equity.

10 While credit ratings provide the most widely referenced benchmark for
11 investment risks, other quality rankings published by investment advisory
12 services also provide relative assessments of risks that are considered by
13 investors in forming their expectations for common stocks. Value Line's
14 primary risk indicator is its Safety Rank, which ranges from "1" (Safest) to "5"
15 (Riskiest). This overall risk measure is intended to capture the total risk of a
16 stock, and incorporates elements of stock price stability and financial strength.
17 Given that Value Line is perhaps the most widely available source of

1 investment advisory information, its Safety Rank provides useful guidance
2 regarding the risk perceptions of investors.

3 The Financial Strength Rating is designed as a guide to overall financial
4 strength and creditworthiness, with the key inputs including financial leverage,
5 business volatility measures, and company size. Value Line's Financial Strength
6 Ratings range from "A++" (strongest) down to "C" (weakest) in nine steps.
7 Finally, Value Line's beta measures the volatility of a security's price relative to
8 the market as a whole. A stock that tends to respond less to market movements
9 has a beta less than 1.00, while stocks that tend to move more than the market
10 have betas greater than 1.00.

11 **Q. How do the overall risks of your proxy groups compare with**
12 **Avista?**

13 A. Table WEA-2 compares the Utility Proxy Group with the Non-
14 Utility Proxy Group and Avista across four key indicators of investment risk:

1
2

TABLE WEA-2
COMPARISON OF RISK INDICATORS

	S&P Credit <u>Rating</u>	Value Line		
		Safety <u>Rank</u>	Financial <u>Strength</u>	<u>Beta</u>
Utility Group	BBB	2	B++	0.75
Non-Utility Proxy Group	A	1	A+	0.58
Avista	BBB	2	B++	0.70

3

Q. What does this comparison indicate regarding investors'

4

assessment of the relative risks of your proxy groups?

5

A. Yes. Considered together, a comparison of these objective

6

measures, which consider of a broad spectrum of risks, including financial and

7

business position, and exposure to firm-specific factors, indicates that investors

8

would likely conclude that the overall investment risks for Avista are generally

9

comparable to those of the firms in the Utility Proxy Group.

10

With respect to the Non-Utility Proxy Group, its average credit ratings,

11

Safety Rank, Financial Strength Rating, and beta suggest less risk than for

12

Avista. While the impact of differences in regulation is reflected in objective

13

risk measures, my analyses conservatively focus on a lower-risk group of non-

14

utility firms.

C. Discounted Cash Flow Analyses

1 **Q. How are DCF models used to estimate the cost of equity?**

2 A. DCF models attempt to replicate the market valuation process that
3 sets the price investors are willing to pay for a share of a company's stock. The
4 model rests on the assumption that investors evaluate the risks and expected
5 rates of return from all securities in the capital markets. Given these
6 expectations, the price of each stock is adjusted by the market until investors
7 are adequately compensated for the risks they bear. Therefore, we can look to
8 the market to determine what investors believe a share of common stock is
9 worth. By estimating the cash flows investors expect to receive from the stock
10 in the way of future dividends and capital gains, we can calculate their required
11 rate of return. In other words, the cash flows that investors expect from a stock
12 are estimated, and given its current market price, we can "back-into" the
13 discount rate, or cost of equity, that investors implicitly used in bidding the
14 stock to that price.

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

16 A. DCF models assume that the price of a share of common stock is
17 equal to the present value of the expected cash flows (i.e., future dividends and
18 stock price) that will be received while holding the stock, discounted at

1 investors' required rate of return. That is, the cost of equity is the discount rate
2 that equates the current price of a share of stock with the present value of all
3 expected cash flows from the stock.

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

6 A. Rather than developing annual estimates of cash flows into
7 perpetuity, the DCF model can be simplified to a "constant growth" form:²

8
$$P_0 = \frac{D_1}{k_e - g}$$

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

14 The cost of equity (K_e) can be isolated by rearranging terms:

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

² The constant growth DCF model is dependent on a number of 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 This constant growth form of the DCF model recognizes that the rate of return
2 to stockholders consists of two parts: 1) dividend yield (D_1/P_0), and 2) growth
3 (g). In other words, investors expect to receive a portion of their total return in
4 the form of current dividends and the remainder through price appreciation.

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

6 A. The first step in implementing the constant growth DCF model is
7 to determine the expected dividend yield (D_1/P_0) for the firm in question. This
8 is usually calculated based on an estimate of dividends to be paid in the coming
9 year divided by the current price of the stock. The second, and more
10 controversial, step is to estimate investors' long-term growth expectations (g)
11 for the firm. The final step is to sum the firm's dividend yield and estimated
12 growth rate to arrive at an estimate of its cost of equity.

13 **Q. How was the dividend yield for the Utility Proxy Group**
14 **determined?**

15 A. Estimates of dividends to be paid by each of these utilities over
16 the next twelve months, obtained from Value Line, served as D_1 . This annual
17 dividend was then divided by the corresponding stock price for each utility to
18 arrive at the expected dividend yield. The expected dividends, stock prices,

1 and resulting dividend yields for the firms in the Utility Proxy Group are
2 presented on page 1 of Exhibit No.__(WEA-5).

3 **Q. What is the next step in applying the constant growth DCF**
4 **model?**

5 A. The next step is to evaluate long-term growth expectations, or “g”,
6 for the firm in question. In constant growth DCF theory, earnings, dividends,
7 book value, and market price are all assumed to grow in lockstep, and the
8 growth horizon of the DCF model is infinite. But implementation of the DCF
9 model is more than just a theoretical exercise; it is an attempt to replicate the
10 mechanism investors used to arrive at observable stock prices. A wide variety
11 of techniques can be used to derive growth rates, but the only “g” that matters
12 in applying the DCF model is the value that investors expect.

13 **Q. Are historical growth rates likely to be representative of**
14 **investors’ expectations for utilities?**

15 A. No. If past trends in earnings, dividends, and book value are to
16 be representative of investors’ expectations for the future, then the historical
17 conditions giving rise to these growth rates should be expected to continue.
18 That is clearly not the case for utilities, where structural and industry changes
19 have led to declining growth in dividends, earnings pressure, and, in many

1 cases, significant write-offs. While these conditions serve to depress historical
2 growth measures, they are not representative of long-term expectations for the
3 utility industry or the expectations that investors have incorporated into current
4 market prices. As a result, historical growth measures for utilities do not
5 currently meet the requirements of the DCF model.

6 **Q. Do the growth rate projections of security analysts nonetheless**
7 **consider historical trends?**

8 A. Yes. Professional security analysts study historical trends
9 extensively in developing their projections of future earnings. Hence, to the
10 extent there is any useful information in historical patterns, that information is
11 incorporated into analysts' growth forecasts.

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

14 A. While the DCF model is technically concerned with growth in
15 dividend cash flows, implementation of this DCF model is solely concerned
16 with replicating the forward-looking evaluation of real-world investors. In the
17 case of utilities, dividend growth rates are not likely to provide a meaningful
18 guide to investors' current growth expectations. This is because utilities have
19 significantly altered their dividend policies in response to more accentuated

1 business risks in the industry.³ As a result of this trend towards a more
2 conservative payout ratio, dividend growth in the utility industry has remained
3 largely stagnant as utilities conserve financial resources to provide a hedge
4 against heightened uncertainties.

5 As payout ratios for firms in the utility industry trended downward,
6 investors' focus has increasingly shifted from dividends to earnings as a
7 measure of long-term growth. Future trends in earnings per share ("EPS"),
8 which provide the source for future dividends and ultimately support share
9 prices, play a pivotal role in determining investors' long-term growth
10 expectations. The importance of earnings in evaluating investors' expectations
11 and requirements is well accepted in the investment community, and surveys of
12 analytical techniques relied on by professional analysts indicate that growth in
13 earnings is far more influential than trends in dividends per share ("DPS").
14 Apart from Value Line, investment advisory services do not generally publish
15 comprehensive DPS growth projections, and this scarcity of dividend growth
16 rates relative to the abundance of earnings forecasts attests to their relative
17 influence. The fact that securities analysts focus on EPS growth, and that

³ 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, Feb. 24, 2012 at 136).

1 dividend growth rates are not routinely published, indicates that projected EPS
2 growth rates are likely to provide a superior indicator of the future long-term
3 growth expected by investors.

4 **Q. What are security analysts currently projecting in the way of**
5 **growth for the firms in the Utility Proxy Group?**

6 A. The projected EPS growth rates for each of the firms in the Utility
7 Proxy Group reported by Value Line, Thomson Reuters (“IBES”), and Zacks
8 Investment Research (“Zacks”) are displayed on page 2 of Exhibit
9 No.__(WEA-5).⁴

10 **Q. Some argue that analysts’ assessments of growth rates are**
11 **biased. Do you believe these projections are inappropriate for estimating**
12 **investors’ required return using the DCF model?**

13 A. No. In applying the DCF model to estimate the cost of common
14 equity, the only relevant growth rate is the forward-looking expectations of
15 investors that are captured in current stock prices. Investors, just like securities
16 analysts and others in the investment community, do not know how the future
17 will actually turn out. They can only make investment decisions based on their
18 best estimate of what the future holds in the way of long-term growth for a

⁴ Formerly I/B/E/S International, Inc., IBES growth rates are now compiled and published by Thomson Reuters.

1 particular stock, and securities prices are constantly adjusting to reflect their
2 assessment of available information.

3 Any claims that analysts' estimates are not relied upon by investors are
4 illogical given the reality of a competitive market for investment advice. The
5 market for investment advice is intensely competitive, and securities analysts
6 are personally and professionally motivated to provide the most accurate
7 assessment possible of future growth trends. If financial analysts' forecasts do
8 not add value to investors' decision making, then it is irrational for investors to
9 pay for these estimates. Those financial analysts who fail to provide reliable
10 forecasts will lose out in competitive markets relative to those analysts whose
11 forecasts investors find more credible. The reality that analyst estimates are
12 routinely referenced in the financial media and in investment advisory
13 publications (e.g., Value Line) implies that investors use them as a basis for their
14 expectations.

15 The continued success of investment services such as Thomson Reuters
16 and Value Line, and the fact that projected growth rates from such sources are
17 widely referenced, provides strong evidence that investors give considerable
18 weight to analysts' earnings projections in forming their expectations for future

1 growth. While the projections of securities analysts may be proven optimistic
2 or pessimistic in hindsight, this is irrelevant in assessing the expected growth
3 that investors have incorporated into current stock prices, and any bias in
4 analysts' forecasts – whether pessimistic or optimistic – is irrelevant if investors
5 share analysts' views. Earnings growth projections of security analysts provide
6 the most frequently referenced guide to investors' views and are widely
7 accepted in applying the DCF model. As explained in *New Regulatory Finance*:

8 Because of the dominance of institutional investors and their
9 influence on individual investors, analysts' forecasts of long-run
10 growth rates provide a sound basis for estimating required
11 returns. Financial analysts exert a strong influence on the
12 expectations of many investors who do not possess the resources
13 to make their own forecasts, that is, they are a cause of g [growth].
14 The accuracy of these forecasts in the sense of whether they turn
15 out to be correct is not an issue here, as long as they reflect widely
16 held expectations.⁵

17 **Q. How else are investors' expectations of future long-term growth**
18 **prospects often estimated for use in the constant growth DCF model?**

19 A. In constant growth theory, growth in book equity will be equal to
20 the product of the earnings retention ratio (one minus the dividend payout
21 ratio) and the earned rate of return on book equity. Furthermore, if the earned
22 rate of return and the payout ratio are constant over time, growth in earnings

⁵ Morin, Roger A., "New Regulatory Finance," *Public Utilities Reports, Inc.* at 298 (2006) (emphasis added).

1 and dividends will be equal to growth in book value. Despite the fact that these
2 conditions are seldom, if ever, met in practice, this “sustainable growth”
3 approach may provide a rough guide for evaluating a firm’s growth prospects
4 and is frequently proposed in regulatory proceedings.

5 Accordingly, while I believe that analysts’ EPS growth forecasts provide
6 a superior and more direct guide to investors’ expectations, I have included the
7 “sustainable growth” approach for completeness. The sustainable growth rate
8 is calculated by the formula, $g = br + sv$, where “b” is the expected retention ratio,
9 “r” is the expected earned return on equity, “s” is the percent of common equity
10 expected to be issued annually as new common stock, and “v” is the equity
11 accretion rate.

12 **Q. What is the purpose of the “sv” term?**

13 A. Under DCF theory, the “sv” factor is a component of the growth
14 rate designed to capture the impact of issuing new common stock at a price
15 above, or below, book value. When a company’s stock price is greater than its
16 book value per share, the per-share contribution in excess of book value
17 associated with new stock issues will accrue to the current shareholders. This
18 increase to the book value of existing shareholders leads to higher expected

1 earnings and dividends, with the “sv” factor incorporating this additional
2 growth component.

3 **Q. What growth rate does the earnings retention method suggest**
4 **for the Utility Proxy Group?**

5 A. The sustainable, “br+sv” growth rates for each firm in the Utility
6 Proxy Group are summarized on page 2 of Exhibit No.__(WEA-5), with the
7 underlying details being presented on Exhibit No.__(WEA-6). For each firm,
8 the expected retention ratio (b) was calculated based on Value Line’s projected
9 dividends and earnings per share. Likewise, each firm’s expected earned rate of
10 return (r) was computed by dividing projected earnings per share by projected
11 net book value. Because Value Line reports end-of-year book values, an
12 adjustment was incorporated to compute an average rate of return over the
13 year, consistent with the theory underlying this approach to estimating
14 investors’ growth expectations. Meanwhile, the percent of common equity
15 expected to be issued annually as new common stock (s) was equal to the
16 product of the projected market-to-book ratio and growth in common shares
17 outstanding, while the equity accretion rate (v) was computed as 1 minus the
18 inverse of the projected market-to-book ratio.

1 **Q. What cost of equity estimates were implied for the Utility Proxy**
2 **Group using the DCF model?**

3 A. After combining the dividend yields and respective growth
4 projections for each utility, the resulting cost of equity estimates are shown on
5 page 3 of Exhibit No.__(WEA-5).

6 **Q. In evaluating the results of the constant growth DCF model, is it**
7 **appropriate to eliminate estimates that are extreme outliers?**

8 A. Yes. In applying quantitative methods to estimate the cost of
9 equity, it is essential that the resulting values pass fundamental tests of
10 reasonableness and economic logic. Accordingly, DCF estimates that are
11 implausibly low or high should be eliminated when evaluating the results of
12 this method.

13 **Q. How did you evaluate DCF estimates at the low end of the**
14 **range?**

15 A. It is a basic economic principle that investors can be induced to
16 hold more risky assets only if they expect to earn a return to compensate them
17 for their risk bearing. As a result, the rate of return that investors require from
18 a utility's common stock, the most junior and riskiest of its securities, must be
19 considerably higher than the yield offered by senior, long-term debt.

1 Consistent with this principle, the DCF results must be adjusted to eliminate
2 estimates that are determined to be extreme low outliers when compared
3 against the yields available to investors from less risky utility bonds.

4 **Q. What does this test of logic imply with respect to the DCF**
5 **results for the Utility Proxy Group?**

6 A. As noted earlier, the average S&P corporate credit rating for the
7 Utility proxy Group is “BBB”, the same as for Avista. Companies rated “BBB-”,
8 “BBB”, and “BBB+” are all considered part of the triple-B rating category, with
9 Moody’s monthly yields on triple-B bonds averaging approximately 5.0 percent
10 in February 2012.⁶ It is inconceivable that investors are not requiring a
11 substantially higher rate of return for holding common stock. Consistent with
12 this principle, the DCF results for the Utility Proxy Group must be adjusted to
13 eliminate estimates that are determined to be extreme low outliers when
14 compared against the yields available to investors from less risky utility bonds.

15 **Q. Have similar tests been applied by regulators?**

16 A. Yes. FERC has noted that adjustments are justified where
17 applications of the DCF approach produce illogical results. FERC evaluates
18 DCF results against observable yields on long-term public utility debt and has

⁶ Moody’s Investors Service, www.credittrends.com.

1 recognized that it is appropriate to eliminate estimates that do not sufficiently
2 exceed this threshold. In a 2002 opinion establishing its current precedent for
3 determining ROEs for electric utilities, for example, FERC noted:

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

11 Similarly, in its August 2006 decision in *Kern River Gas Transmission Company*,
12 FERC noted that:

13 [T]he 7.31 and 7.32 percent costs of equity for El Paso and
14 Williams found by the ALJ are only 110 and 122 basis points
15 above that average yield for public utility debt.⁸

16 The Commission upheld the opinion of Staff and the Administrative Law Judge
17 that cost of equity estimates for these two proxy group companies "were too
18 low to be credible."⁹

19 The practice of eliminating low-end outliers has been affirmed in
20 numerous FERC proceedings,¹⁰ and in its April 15, 2010 decision in *SoCal*

⁷ *Southern California Edison Company*, 92 FERC ¶ 61,070 at p. 22 (2000).

⁸ *Kern River Gas Transmission Company*, Opinion No. 486, 117 FERC ¶ 61,077 at P 140 & n. 227 (2006).

⁹ *Id.*

¹⁰ *See, e.g., Virginia Electric Power Co.*, 123 FERC ¶ 61,098 at P 64 (2008).

1 *Edison*, FERC affirmed that, “it is reasonable to exclude any company whose
2 low-end ROE fails to exceed the average bond yield by about 100 basis points or
3 more.”¹¹

4 **Q. What else should be considered in evaluating DCF estimates at**
5 **the low end of the range?**

6 A. As indicated earlier, while corporate bond yields have declined
7 substantially as the worst of the financial crisis has abated, it is generally
8 expected that long-term interest rates will rise as the recession ends and the
9 economy returns to a more normal pattern of growth. As shown in Table 2
10 below, forecasts of IHS Global Insight and the EIA imply an average triple-B
11 bond yield of approximately 6.7 percent over the period 2012-2016:

¹¹ *Southern California Edison Co.*, 131 FERC ¶ 61,020 at P 55 (2010) (“*SoCal Edison*”).

1
2

TABLE 2
IMPLIED BBB BOND YIELD

	<u>2012-16</u>
Projected AA Utility Yield	
IHS Global Insight (a)	5.65%
EIA (b)	<u>5.80%</u>
Average	5.72%
Current BBB - AA Yield Spread (c)	<u>1.00%</u>
Implied Triple-B Utility Yield	6.72%

(a) IHS Global Insight, *U.S. Economic Outlook* at 25 (Dec. 2011).

(b) Energy Information Administration, *Annual Energy Outlook 2012, Early Release* (Jan. 23, 2012).

(c) Based on monthly average bond yields for the six-month period Sep. 2011 - Feb. 2012 reported at

www.credittrends.moody.com .

The increase in debt

3

4

yields anticipated by IHS Global Insight and EIA is also supported by the

5

widely-referenced Blue Chip Financial Forecasts, which projects that yields on

6

corporate bonds will climb more than 100 basis points through the period 2013-

7

2017.¹²

8

Q. What does this test of logic imply with respect to the DCF

9

estimates for the Utility Proxy Group?

10

A. As highlighted on page 3 of Exhibit No.__(WEA-5), sixteen of the

11

individual DCF estimates ranged from 1.2% to 6.9%. In light of the risk-return

¹² *Blue Chip Financial Forecasts*, Vol. 30, No. 12 (Dec. 1, 2011).

1 tradeoff principle and the test applied in *SoCal Edison*, it is inconceivable that
2 investors are not requiring a substantially higher rate of return for holding
3 common stock, which is the riskiest of a utility's securities. As a result,
4 consistent with the test of economic logic applied by FERC and the upward
5 trend expected for utility bond yields, these values provide little guidance as to
6 the returns investors require from utility common stocks and should be
7 excluded.

8 **Q. Do you also recommend excluding estimates at the high end of**
9 **the range of DCF results?**

10 A. Yes. The upper end of the cost of common equity range produced
11 by the DCF analysis presented on page 3 of Exhibit No.__(WEA-5) was set by a
12 cost of equity estimates of 18.4 percent. When compared with the balance of the
13 remaining estimates, this value is clearly implausible and should be excluded in
14 evaluating the results of the DCF model for the Utility Proxy Group. This is
15 also consistent with the precedent adopted by FERC, which has established that
16 estimates found to be "extreme outliers" should be disregarded in interpreting
17 the results of the DCF model.¹³

¹³ See, e.g., *ISO New England, Inc.*, 109 FERC ¶ 61,147 at P 205 (2004).

1 low- and high-end values, application of the constant growth DCF model
 2 resulted in cost of common equity estimates ranging from 10.9 percent to 13.2
 3 percent:

4 **TABLE 4**
 5 **DCF RESULTS – NON-UTILITY PROXY GROUP**

	<u>Cost of Equity</u>	
<u>Growth Rate</u>	<u>Average</u>	<u>Midpoint</u>
Value Line	12.2%	12.6%
IBES	10.9%	10.9%
Zacks	11.7%	12.2%
br + sv	13.2%	12.1%

6
 7 As discussed earlier, reference to the Non-Utility Proxy Group is consistent
 8 with established regulatory principles. Required returns for utilities should be
 9 in line with those of non-utility firms of comparable risk operating under the
 10 constraints of free competition.

D. Capital Asset Pricing Model

11 **Q. Please describe the CAPM.**

12 **A.** The CAPM is a theory of market equilibrium that measures risk
 13 using the beta coefficient. Assuming investors are fully diversified, the relevant
 14 risk of an individual asset (*e.g.*, common stock) is its volatility relative to the

1 market as a whole, with beta reflecting the tendency of a stock's price to follow
2 changes in the market. The CAPM is mathematically expressed as:

$$3 \quad R_j = R_f + \beta_j(R_m - R_f)$$

4 where: R_j = required rate of return for stock j;
5 R_f = risk-free rate;
6 R_m = expected return on the market portfolio; and,
7 β_j = beta, or systematic risk, for stock j.

8 Like the DCF model, the CAPM is an *ex-ante*, or forward-looking model based
9 on expectations of the future. As a result, in order to produce a meaningful
10 estimate of investors' required rate of return, the CAPM must be applied using
11 estimates that reflect the expectations of actual investors in the market, not with
12 backward-looking, historical data.

13 **Q. How did you apply the CAPM to estimate the cost of common**
14 **equity?**

15 A. Application of the CAPM to the Utility Proxy Group based on a
16 forward-looking estimate for investors' required rate of return from common
17 stocks is presented on Exhibit No.__(WEA-9). In order to capture the
18 expectations of today's investors in current capital markets, the expected market
19 rate of return was estimated by conducting a DCF analysis on the dividend
20 paying firms in the S&P 500.

1 The dividend yield for each firm was obtained from Value Line, and the
2 growth rate was equal to the consensus earnings growth projection for each
3 firm published by IBES, with each firm's dividend yield and growth rate being
4 weighted by its proportionate share of total market value. Based on the
5 weighted average of the projections for the 373 individual firms, current
6 estimates imply an average growth rate over the next five years of 10.9%.
7 Combining this average growth rate with a year-ahead dividend yield of 2.6%
8 results in a current cost of common equity estimate for the market as a whole
9 (R_m) of approximately 13.5%. Subtracting a 3.1% risk-free rate based on the
10 average yield on 30-year Treasury bonds produced a market equity risk
11 premium of 10.4%.

12 **Q. What was the source of the beta values you used to apply the**
13 **CAPM?**

14 A. I relied on the beta values reported by Value Line, which in my
15 experience is the most widely referenced source for beta in regulatory
16 proceedings. As noted in *New Regulatory Finance*:

17 Value Line is the largest and most widely circulated independent
18 investment advisory service, and influences the expectations of a
19 large number of institutional and individual investors. ... Value
20 Line betas are computed on a theoretically sound basis using a

1 broadly based market index, and they are adjusted for the
2 regression tendency of betas to converge to 1.00.¹⁴

3 **Q. What else should be considered in applying the CAPM?**

4 A. As explained by *Morningstar*:

5 One of the most remarkable discoveries of modern finance is that
6 of a relationship between firm size and return. The relationship
7 cuts across the entire size spectrum but is most evident among
8 smaller companies, which have higher returns on average than
9 larger ones.¹⁵

10 Because empirical research indicates that the CAPM does not fully account for
11 observed differences in rates of return attributable to firm size, a modification is
12 required to account for this size effect.

13 According to the CAPM, the expected return on a security should consist
14 of the riskless rate, plus a premium to compensate for the systematic risk of the
15 particular security. The degree of systematic risk is represented by the beta
16 coefficient. The need for the size adjustment arises because differences in
17 investors' required rates of return that are related to firm size are not fully
18 captured by beta. To account for this, Morningstar has developed size
19 premiums that need to be added to the theoretical CAPM cost of equity
20 estimates to account for the level of a firm's market capitalization in

¹⁴ Morin, Roger A., "New Regulatory Finance," *Public Utilities Reports* at 71 (2006).

¹⁵ *Morningstar*, "Ibbotson SBBI 2010 Valuation Yearbook," at p. 85 (footnote omitted).

1 determining the CAPM cost of equity.¹⁶ Accordingly, my CAPM analyses
2 incorporated an adjustment to recognize the impact of size distinctions, as
3 measured by the average market capitalization for the respective proxy groups.

4 **Q. What cost of equity estimate was indicated for the Utility Proxy**
5 **Group based on this forward-looking application of the CAPM?**

6 A. The average market capitalization of the Utility Proxy Group is
7 \$6.9 billion. Based on data from *Morningstar*, this means that the theoretical
8 CAPM cost of equity estimate must be increased by 94 basis points to account
9 for the industry group's relative size. As shown on page 1 of Exhibit
10 No.__(WEA-9), adjusting the 10.9 percent theoretical CAPM result to
11 incorporate this size adjustment results in an average indicated cost of common
12 equity of approximately 11.8 percent.

13 **Q. Is it appropriate to consider anticipated capital market changes**
14 **in applying the CAPM?**

15 A. Yes. As discussed earlier, there is widespread consensus that
16 interest rates will increase materially as the economy continues to strengthen.
17 As a result, current bond yields are likely to understate capital market
18 requirements at the time the outcome of this proceeding becomes effective.

¹⁶ *Id.* at Table C-1.

1 Accordingly, in addition to the use of current bond yields, I also applied the
2 CAPM based on the forecasted long-term Treasury bond yields developed
3 based on projections published by Value Line, IHS Global Insight and Blue
4 Chip.

5 **Q. What cost of equity was produced by the CAPM after**
6 **incorporating forecasted bond yields?**

7 A. As shown on page 2 of Exhibit No.__(WEA-9), incorporating a
8 forecasted Treasury bond yield for 2012-2016 implied a cost of equity of
9 approximately 11.2% for the Utility Proxy Group, or 12.1% after adjusting for
10 the impact of relative size.

11 **Q. Should the CAPM approach be applied using historical rates of**
12 **return?**

13 A. No. While investors undoubtedly consider historical information
14 as one facet in their evaluation of future expectations, the cost of capital is a
15 forward-looking concept. Because the CAPM is focused solely on the
16 perceptions of today's capital market investors, it should not be applied using
17 historical rates of return. The CAPM cost of common equity estimate is
18 calibrated from investors' required risk premium between Treasury bonds and
19 common stocks. In response to heightened uncertainties, investors have

1 repeatedly sought a safe haven in U.S. government bonds and this “flight to
2 safety” has pushed Treasury yields significantly lower while yield spreads for
3 corporate debt have widened. This distortion not only impacts the absolute
4 level of the CAPM cost of equity estimate, but it affects estimated risk
5 premiums. Economic logic would suggest that investors’ required risk
6 premium for common stocks over Treasury bonds has also increased.

7 Meanwhile, backward-looking approaches incorrectly assume that
8 investors’ assessment of the required risk premium between Treasury bonds
9 and common stocks is constant, and equal to some historical average. At no
10 time in recent history has the fallacy of this assumption been demonstrated
11 more concretely than it is today. This incongruity between investors’ current
12 expectations and historical risk premiums is particularly relevant during
13 periods of heightened uncertainty and rapidly changing capital market
14 conditions, such as those experienced recently. As the Staff of the Florida Public
15 Service Commission concluded:

16 [R]ecognizing the impact the Federal Government’s
17 unprecedented intervention in the capital markets has had on the
18 yields on long-term Treasury bonds, staff believes models that
19 relate the investor-required return on equity to the yield on

1 government securities, such as the CAPM approach, produce less
2 reliable estimates of the ROE at this time.¹⁷

3 **Q. Has the Federal Reserve continued to pursue a policy of actively**
4 **managing long-term government bond yields?**

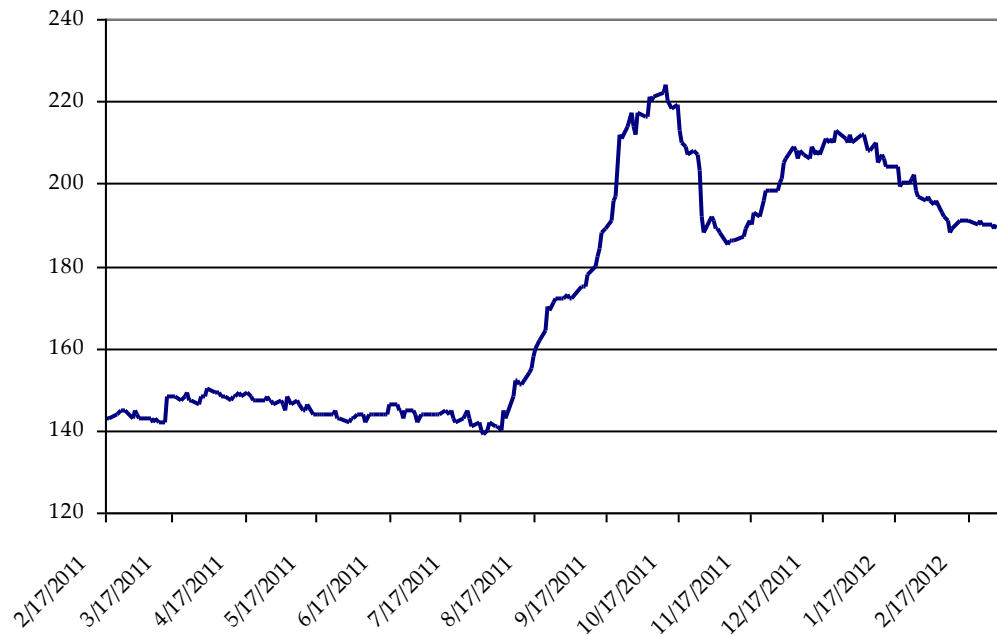
5 A. Yes. In September 2011, the Federal Reserve announced
6 “Operation Twist”, involving the exchange of short-term Treasury instruments
7 for longer-term government bonds, in an effort to put downward pressure on
8 long-term interest rates. The ongoing potential for renewed turmoil in the
9 capital markets has certainly come to a head in recent months, with common
10 stock prices exhibiting the dramatic volatility that is indicative of heightened
11 sensitivity to risk.

12 Nowhere has this been more evident than in the market for Treasury
13 bonds, with yields being pushed significantly lower due to a global “flight to
14 safety” in the face of rising political, economic, and capital market risks. In
15 turn, this has led to a dramatic increase in risk premiums, as illustrated by the
16 spreads between triple-B utility bond yields and 30-year Treasuries shown in
17 Figure WEA-1, below:

¹⁷ *Staff Recommendation for Docket No. 080677-E1 - Petition for increase in rates by Florida Power & Light Company*, at p. 280 (Dec. 23, 2009).

1
2

FIGURE WEA-1
YIELD SPREAD (BP) BBB UTILITY – 30-YR. TREASURY



3 This increase in the yield spread indicates that the additional
4 compensation investors demand to take on higher risks has increased. As S&P
5 observed:

6 Standard & Poor's U.S. speculative-grade composite spread,
7 which measures the extra yield above U.S. Treasury bonds that
8 investors demand to hold the bonds of riskier companies,
9 widened by 63% to 781 basis points (bps) from April 18, 2011, to
10 Sept. 30, 2011. This sharp expansion reflected the bond market's
11 increasing aversion to credit risk in an uncertain and riskier
12 environment. ... During periods of stress, correlations frequently
13 increase among risky asset classes such as the relationship

1 between the return on speculative-grade bonds and the return
2 from equities.¹⁸

3 Equity risk premiums cannot be observed directly, but because common
4 stock investors are the last in line with respect to their claim on a utility's cash
5 flows, higher yield spreads imply an even steeper increase in the additional
6 return required from an investment in common equity. In short, heightened
7 capital market and economic uncertainties, and the increase in risk premiums
8 demanded by investors, further undermine any reliance on historical studies to
9 apply the CAPM.

E. Risk Premium Approach

10 **Q. Briefly describe the risk premium method.**

11 A. The risk premium method of estimating investors' required rate of
12 return extends to common stocks the risk-return tradeoff observed with bonds.
13 The cost of equity is estimated by first determining the additional return
14 investors require to forgo the relative safety of bonds and to bear the greater
15 risks associated with common stock, and by then adding this equity risk
16 premium to the current yield on bonds. Like the DCF model, the risk premium
17 method is capital market oriented. However, unlike DCF models, which

¹⁸ Standard & Poor's Corporation, "Recent Expansion In Credit Spreads Shows Bond Market Stress, But Less Severe Than During The Financial Crisis," *RatingsDirect* (Oct. 11, 2011).

1 indirectly impute the cost of equity, risk premium methods directly estimate
2 investors' required rate of return by adding an equity risk premium to
3 observable bond yields.

4 **Q. How did you implement the risk premium method?**

5 A. I based my estimates of equity risk premiums for electric utilities
6 on surveys of previously authorized rates of return on common equity.
7 Authorized returns presumably reflect regulatory commissions' best estimates
8 of the cost of equity, however determined, at the time they issued their final
9 order. Such returns should represent a balanced and impartial outcome that
10 considers the need to maintain a utility's financial integrity and ability to attract
11 capital. Moreover, allowed returns are an important consideration for investors
12 and have the potential to influence other observable investment parameters,
13 including credit ratings and borrowing costs. Thus, this data provides a logical
14 and frequently referenced basis for estimating equity risk premiums for
15 regulated utilities.

16 **Q. How did you implement the risk premium approach using**
17 **surveys of allowed rates of return?**

18 A. Surveys of previously authorized rates of return on common
19 equity are frequently referenced as the basis for estimating equity risk

1 premiums. The rates of return on common equity authorized utilities by
2 regulatory commissions across the U.S. are compiled by Regulatory Research
3 Associates and published in its *Regulatory Focus* report. In Exhibit
4 No.__(WEA-10), the average yield on public utility bonds is subtracted from
5 the average allowed rate of return on common equity for electric utilities to
6 calculate equity risk premiums for each year between 1974 and 2011. Over this
7 38-year period, these equity risk premiums for electric utilities averaged 3.41
8 percent, and the yield on public utility bonds averaged 8.91 percent.

9 **Q. Is there any capital market relationship that must be considered**
10 **when implementing the risk premium method?**

11 A. Yes. There is considerable evidence that the magnitude of equity
12 risk premiums is not constant and that equity risk premiums tend to move
13 inversely with interest rates. In other words, when interest rate levels are
14 relatively high, equity risk premiums narrow, and when interest rates are
15 relatively low, equity risk premiums widen. The implication of this inverse
16 relationship is that the cost of equity does not move as much as, or in lockstep
17 with, interest rates. Accordingly, for a 1 percent increase or decrease in interest
18 rates, the cost of equity may only rise or fall, say, 50 basis points. Therefore,
19 when implementing the risk premium method, adjustments may be required to

1 incorporate this inverse relationship if current interest rate levels have changed
2 since the equity risk premiums were estimated.

3 Finally, it is important to recognize that the historical focus of the risk
4 premium studies almost certainly ensures that they fail to fully capture the
5 significantly greater risks that investors now associate with providing electric
6 utility service. As a result, they are likely to understate the cost of equity for a
7 firm operating in today's electric power industry.

8 **Q. What cost of equity is implied by surveys of allowed rates of**
9 **return on equity?**

10 A. Based on the regression output between the interest rates and
11 equity risk premiums displayed on page 4 of Exhibit No.__(WEA-10), the
12 equity risk premium for electric utilities increased approximately 41 basis
13 points for each percentage point drop in the yield on average public utility
14 bonds. As illustrated on page 1 of Exhibit No.__(WEA-10), with the yield on
15 average public utility bonds in February 2012 being 4.47 percent, this implied a
16 current equity risk premium of 5.24 percent for electric utilities. Adding this
17 equity risk premium to the yield on triple-B utility bonds of 5.02 percent
18 produces a current cost of equity of approximately 10.3 percent.

1 **Q. What cost of equity was produced by the risk premium**
2 **approach after incorporating forecasted bond yields?**

3 A. As shown on page 2 of Exhibit No.__(WEA-10), incorporating a
4 forecasted yield for 2012-2016 and adjusting for changes in interest rates since
5 the study period implied an equity risk premium of 4.54 percent for electric
6 utilities. Adding this equity risk premium to the average implied yield on
7 triple-B public utility bonds for 2012-2010 of 6.72 percent resulted in an implied
8 cost of equity of approximately 11.3 percent.

F. Expected Earnings Approach

9 **Q. What other analyses did you conduct to estimate the cost of**
10 **equity?**

11 A. As I noted earlier, I also evaluated the ROE using the comparable
12 earnings method. Reference to rates of return available from alternative
13 investments of comparable risk can provide an important benchmark in
14 assessing the return necessary to assure confidence in the financial integrity of a
15 firm and its ability to attract capital. This comparable earnings approach is
16 consistent with the economic underpinnings for a fair rate of return established
17 by the Supreme Court in *Hope* and *Bluefield*. Moreover, it avoids the
18 complexities and limitations of capital market methods and instead focuses on

1 expected earned returns on book equity, which are more readily available to
2 investors.

3 **Q. What economic premise underlies the expected earnings**
4 **approach?**

5 A. The simple, but powerful concept underlying the expected
6 earnings approach is that investors compare each investment alternative with
7 the next best opportunity. If the utility is unable to offer a return similar to that
8 available from other opportunities of comparable risk, investors will become
9 unwilling to supply the capital on reasonable terms. For existing investors,
10 denying the utility an opportunity to earn what is available from other similar
11 risk alternatives prevents them from earning their opportunity cost of capital.
12 In this situation the government is effectively taking the value of investors'
13 capital without adequate compensation. The expected earnings approach is
14 consistent with the economic rationale underpinning established regulatory
15 standards, which specifies a methodology to determine an ROE benchmark
16 based on earned rates of return for a peer group of other regional utilities.

1 **Q. How is the comparison of opportunity costs typically**
2 **implemented?**

3 A. The traditional comparable earnings test identifies a group of
4 companies that are believed to be comparable in risk to the utility. The actual
5 earnings of those companies on the book value of their investment are then
6 compared to the allowed return of the utility. While the traditional comparable
7 earnings test is implemented using historical data taken from the accounting
8 records, it is also common to use projections of returns on book investment,
9 such as those published by recognized investment advisory publications (*e.g.*,
10 Value Line). Because these returns on book value equity are analogous to the
11 allowed return on a utility's rate base, this measure of opportunity costs results
12 in a direct, "apples to apples" comparison.

13 Moreover, regulators do not set the returns that investors earn in the
14 capital markets – they can only establish the allowed return on the value of a
15 utility's investment, as reflected on its accounting records. As a result, the
16 expected earnings approach provides a direct guide to ensure that the allowed
17 ROE is similar to what other utilities of comparable risk will earn on invested
18 capital. This opportunity cost test does not require theoretical models to
19 indirectly infer investors' perceptions from stock prices or other market data.

1 As long as the proxy companies are similar in risk, their expected earned
2 returns on invested capital provide a direct benchmark for investors'
3 opportunity costs that is independent of fluctuating stock prices, market-to-
4 book ratios, debates over DCF growth rates, or the limitations inherent in any
5 theoretical model of investor behavior.

6 **Q. What rates of return on equity are indicated for electric utilities**
7 **based on the expected earnings approach?**

8 A. Value Line reports that its analysts anticipate an average rate of
9 return on common equity for the electric and gas utility industries of 10.5
10 percent over its forecast horizon.¹⁹

11 For the firms in the Utility Proxy Group specifically, the returns on
12 common equity projected by Value Line over its forecast horizon are shown on
13 Exhibit No.__(WEA-11). Consistent with the rationale underlying the
14 development of the br+sv growth rates, these year-end values were converted to
15 average returns using the same adjustment factor discussed earlier and
16 developed on Exhibit No.__(WEA-6). As shown on Exhibit No.__(WEA-11),
17 Value Line's projections for the utility proxy group suggested an average ROE
18 of 10.0 percent.

¹⁹ The Value Line Investment Survey at 2236 (Feb. 3, 2012) and 541 (Dec. 9, 2011).

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-12 _____

DOCKET NO. UG-12 _____

EXHIBIT NO. ____ (WEA-4)

WILLIAM E. AVERA

REPRESENTING AVISTA CORPORATION

UTILITY GROUP

	Company	At Fiscal Year-End 2010 (a)			Value Line Projected (b)		
		Debt	Preferred	Common Equity	Debt	Other	Common Equity
1	ALLETE	44.4%	0.0%	55.6%	41.5%	0.0%	58.5%
2	Alliant Energy	46.3%	4.2%	49.5%	45.5%	3.0%	51.5%
3	Ameren Corp.	47.1%	0.0%	52.9%	46.0%	1.0%	53.0%
4	American Elec Pwr	55.1%	0.2%	44.7%	49.0%	0.0%	51.0%
5	Avista Corp.	47.4%	2.2%	50.4%	52.0%	0.0%	48.0%
6	Black Hills Corp.	52.0%	0.0%	48.0%	50.5%	0.0%	49.5%
7	Cleco Corp.	51.7%	0.0%	48.2%	42.0%	0.0%	58.0%
8	DTE Energy Co.	49.9%	2.1%	48.0%	52.0%	0.0%	48.0%
9	Edison International	51.9%	3.8%	44.3%	52.5%	4.0%	43.5%
10	El Paso Electric	51.3%	0.0%	48.7%	56.0%	0.0%	44.0%
11	FirstEnergy Corp.	62.3%	0.0%	37.7%	54.5%	0.0%	45.5%
12	Great Plains Energy	54.0%	0.6%	45.4%	50.5%	1.0%	48.5%
13	Hawaiian Elec.	47.3%	1.2%	51.5%	44.5%	1.0%	54.5%
14	IDACORP, Inc.	51.2%	0.0%	48.8%	46.5%	0.0%	53.5%
15	OGE Energy Corp.	49.6%	0.0%	50.4%	50.5%	0.0%	49.5%
16	Otter Tail Corp.	40.2%	1.4%	58.3%	40.0%	1.0%	59.0%
17	PG&E Corp.	50.4%	1.1%	48.5%	46.5%	1.0%	52.5%
18	Pinnacle West Capital	49.3%	0.0%	50.7%	46.0%	0.0%	54.0%
19	Portland General Elec.	53.1%	0.0%	46.9%	52.0%	0.0%	48.0%
20	PPL Corp.	59.9%	0.0%	40.1%	52.0%	0.5%	47.5%
21	Pub Sv Enterprise Grp	48.1%	0.0%	51.9%	45.0%	0.0%	55.0%
22	SCANA Corp.	54.8%	0.0%	45.2%	52.0%	0.0%	48.0%
23	Sempra Energy	50.2%	0.5%	49.2%	48.5%	0.0%	51.5%
24	TECO Energy	59.4%	0.0%	40.6%	55.5%	0.0%	44.5%
25	UIL Holdings	60.7%	0.0%	39.2%	57.0%	0.0%	43.0%
26	Westar Energy	54.3%	0.4%	45.3%	53.0%	0.0%	47.0%
	Average	51.6%	0.7%	47.7%	49.3%	0.5%	50.3%

(a) Company Form 10-K and Annual Reports.

(b) The Value Line Investment Survey (Dec. 23, 2011, Feb. 3 & Feb. 24, 2012).

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-12 _____

DOCKET NO. UG-12 _____

EXHIBIT NO. ____ (WEA-5)

WILLIAM E. AVERA

REPRESENTING AVISTA CORPORATION

DIVIDEND YIELD

		(a)	(b)	
	<u>Company</u>	<u>Price</u>	<u>Dividends</u>	<u>Yield</u>
1	ALLETE	\$ 41.49	\$ 1.84	4.4%
2	Alliant Energy	\$ 42.92	\$ 1.80	4.2%
3	Ameren Corp.	\$ 31.73	\$ 1.62	5.1%
4	American Elec Pwr	\$ 40.04	\$ 1.90	4.7%
5	Avista Corp.	\$ 25.44	\$ 1.18	4.6%
6	Black Hills Corp.	\$ 34.20	\$ 1.48	4.3%
7	Cleco Corp.	\$ 38.64	\$ 1.25	3.2%
8	DTE Energy Co.	\$ 53.78	\$ 2.42	4.5%
9	Edison International	\$ 40.93	\$ 1.31	3.2%
10	El Paso Electric	\$ 34.06	\$ 1.08	3.2%
11	FirstEnergy Corp.	\$ 42.72	\$ 2.20	5.1%
12	Great Plains Energy	\$ 20.87	\$ 0.86	4.1%
13	Hawaiian Elec.	\$ 25.81	\$ 1.24	4.8%
14	IDACORP, Inc.	\$ 41.80	\$ 1.32	3.2%
15	OGE Energy Corp.	\$ 53.72	\$ 1.59	3.0%
16	Otter Tail Corp.	\$ 22.03	\$ 1.19	5.4%
17	PG&E Corp.	\$ 41.33	\$ 1.82	4.4%
18	Pinnacle West Capital	\$ 47.67	\$ 2.10	4.4%
19	Portland General Elec.	\$ 24.99	\$ 1.08	4.3%
20	PPL Corp.	\$ 27.98	\$ 1.44	5.1%
21	Pub Sv Enterprise Grp	\$ 30.62	\$ 1.37	4.5%
22	SCANA Corp.	\$ 44.95	\$ 1.98	4.4%
23	Sempra Energy	\$ 57.27	\$ 2.08	3.6%
24	TECO Energy	\$ 18.16	\$ 0.89	4.9%
25	UIL Holdings	\$ 34.86	\$ 1.73	5.0%
26	Westar Energy	\$ 28.34	\$ 1.31	4.6%
	Average			4.3%

(a) Average of closing prices for 30 trading days ended Feb. 24, 2012.

(b) The Value Line Investment Survey, Summary & Index (Feb. 24, 2012).

GROWTH RATES

	<u>Company</u>	(a)	(b)	(c)	(d)
		<u>Earnings Growth</u>			<u>br+sv</u>
		<u>V Line</u>	<u>IBES</u>	<u>Zacks</u>	<u>Growth</u>
1	ALLETE	6.0%	5.0%	5.0%	4.6%
2	Alliant Energy	7.0%	4.8%	6.0%	5.6%
3	Ameren Corp.	-2.0%	-3.9%	4.0%	2.1%
4	American Elec Pwr	4.5%	3.8%	4.3%	4.8%
5	Avista Corp.	4.5%	4.0%	4.7%	3.1%
6	Black Hills Corp.	8.5%	6.0%	5.0%	2.6%
7	Cleco Corp.	6.0%	3.0%	NA	4.2%
8	DTE Energy Co.	4.5%	4.1%	4.2%	3.6%
9	Edison International	0.5%	3.0%	5.0%	5.1%
10	El Paso Electric	7.5%	3.7%	4.3%	4.6%
11	FirstEnergy Corp.	0.5%	1.4%	1.0%	4.0%
12	Great Plains Energy	6.0%	4.1%	7.0%	2.4%
13	Hawaiian Elec.	11.0%	11.4%	6.5%	4.7%
14	IDACORP, Inc.	4.0%	4.0%	5.0%	3.7%
15	OGE Energy Corp.	6.5%	7.7%	5.9%	7.0%
16	Otter Tail Corp.	13.0%	5.0%	5.0%	1.2%
17	PG&E Corp.	5.0%	2.3%	4.3%	5.9%
18	Pinnacle West Capital	6.0%	5.5%	5.3%	3.3%
19	Portland General Elec.	7.5%	5.3%	5.0%	4.2%
20	PPL Corp.	5.0%	4.6%	NA	5.9%
21	Pub Sv Enterprise Grp	0.0%	2.8%	2.0%	6.0%
22	SCANA Corp.	3.5%	4.2%	4.0%	5.2%
23	Sempra Energy	4.5%	7.6%	7.0%	6.5%
24	TECO Energy	9.0%	4.2%	3.7%	5.3%
25	UIL Holdings	3.0%	4.1%	4.0%	2.5%
26	Westar Energy	8.5%	4.2%	6.1%	4.7%

(a) The Value Line Investment Survey (Dec. 23, 2011, Feb. 3 & Feb. 24, 2012).

(b) www.finance.yahoo.com (retrieved Feb. 28, 2012).

(c) www.zacks.com (retrieved Feb. 28, 2012).

(d) See Exhibit No.__(WEA-6).

DCF COST OF EQUITY ESTIMATES

	<u>Company</u>	(a)	(a)	(a)	(a)
		<u>Earnings Growth</u>			<u>br+sv</u>
		<u>V Line</u>	<u>IBES</u>	<u>Zacks</u>	<u>Growth</u>
1	ALLETE	10.4%	9.4%	9.4%	9.0%
2	Alliant Energy	11.2%	8.9%	10.2%	9.8%
3	Ameren Corp.	3.1%	1.2%	9.1%	7.2%
4	American Elec Pwr	9.2%	8.5%	9.0%	9.5%
5	Avista Corp.	9.1%	8.6%	9.3%	7.8%
6	Black Hills Corp.	12.8%	10.3%	9.3%	6.9%
7	Cleco Corp.	9.2%	6.2%	NMF	7.4%
8	DTE Energy Co.	9.0%	8.5%	8.7%	8.1%
9	Edison International	3.7%	6.2%	8.2%	8.3%
10	El Paso Electric	10.7%	6.9%	7.5%	7.8%
11	FirstEnergy Corp.	5.6%	6.5%	6.1%	9.1%
12	Great Plains Energy	10.1%	8.2%	11.1%	6.6%
13	Hawaiian Elec.	15.8%	16.2%	11.3%	9.5%
14	IDACORP, Inc.	7.2%	7.2%	8.2%	6.9%
15	OGE Energy Corp.	9.5%	10.6%	8.9%	10.0%
16	Otter Tail Corp.	18.4%	10.4%	10.4%	6.6%
17	PG&E Corp.	9.4%	6.7%	8.7%	10.4%
18	Pinnacle West Capital	10.4%	9.9%	9.7%	7.8%
19	Portland General Elec.	11.8%	9.6%	9.3%	8.5%
20	PPL Corp.	10.1%	9.7%	NMF	11.0%
21	Pub Sv Enterprise Grp	4.5%	7.2%	6.5%	10.5%
22	SCANA Corp.	7.9%	8.6%	8.4%	9.6%
23	Sempra Energy	8.1%	11.2%	10.6%	10.1%
24	TECO Energy	13.9%	9.1%	8.6%	10.2%
25	UIL Holdings	8.0%	9.1%	9.0%	7.4%
26	Westar Energy	13.1%	8.9%	10.7%	9.3%
	Average (b)	10.3%	9.5%	9.4%	9.0%

(a) Sum of dividend yield (page 1) and respective growth rate (page 2).

(b) Excludes highlighted figures.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-12 _____

DOCKET NO. UG-12 _____

EXHIBIT NO. ____ (WEA-6)

WILLIAM E. AVERA

REPRESENTING AVISTA CORPORATION

BR+SV GROWTH RATE

	(a)					(b)		(c)	(d)			(e)	
	----- 2015 -----			<u>b</u>	<u>r</u>	<u>Factor</u>	<u>Adjusted r</u>	<u>br</u>	----- "sv" Factor -----			<u>br + sv</u>	
<u>Company</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>						<u>s</u>	<u>v</u>	<u>sv</u>		
1 ALLETE	\$3.25	\$1.95	\$32.75	40.0%	9.9%	1.0361	10.3%	4.1%	0.0274	0.1813	0.50%	4.6%	
2 Alliant Energy	\$3.60	\$2.10	\$30.15	41.7%	11.9%	1.0192	12.2%	5.1%	0.0143	0.3653	0.52%	5.6%	
3 Ameren Corp.	\$2.50	\$1.75	\$35.50	30.0%	7.0%	1.0153	7.2%	2.1%	0.0117	(0.0143)	-0.02%	2.1%	
4 American Elec Pwr	\$3.75	\$2.10	\$36.75	44.0%	10.2%	1.0301	10.5%	4.6%	0.0096	0.1833	0.18%	4.8%	
5 Avista Corp.	\$2.00	\$1.40	\$22.75	30.0%	8.8%	1.0213	9.0%	2.7%	0.0174	0.2417	0.42%	3.1%	
6 Black Hills Corp.	\$2.25	\$1.55	\$30.25	31.1%	7.4%	1.0213	7.6%	2.4%	0.0297	0.0692	0.21%	2.6%	
7 Cleco Corp.	\$2.75	\$1.60	\$28.25	41.8%	9.7%	1.0269	10.0%	4.2%	0.0007	0.1929	0.01%	4.2%	
8 DTE Energy Co.	\$4.25	\$2.70	\$46.75	36.5%	9.1%	1.0199	9.3%	3.4%	0.0094	0.1870	0.18%	3.6%	
9 Edison International	\$3.50	\$1.45	\$41.50	58.6%	8.4%	1.0243	8.6%	5.1%	-	0.0235	0.00%	5.1%	
10 El Paso Electric	\$2.75	\$1.30	\$24.50	52.7%	11.2%	1.0143	11.4%	6.0%	(0.0367)	0.3875	-1.42%	4.6%	
11 FirstEnergy Corp.	\$3.75	\$2.30	\$37.25	38.7%	10.1%	1.0156	10.2%	4.0%	-	0.2158	0.00%	4.0%	
12 Great Plains Energy	\$1.75	\$1.10	\$23.75	37.1%	7.4%	1.0234	7.5%	2.8%	0.0233	(0.1585)	-0.37%	2.4%	
13 Hawaiian Elec.	\$2.00	\$1.30	\$19.00	35.0%	10.5%	1.0346	10.9%	3.8%	0.0392	0.2245	0.88%	4.7%	
14 IDACORP, Inc.	\$3.25	\$1.80	\$40.50	44.6%	8.0%	1.0300	8.3%	3.7%	0.0067	0.0471	0.03%	3.7%	
15 OGE Energy Corp.	\$4.00	\$1.80	\$33.75	55.0%	11.9%	1.0382	12.3%	6.8%	0.0076	0.3571	0.27%	7.0%	
16 Otter Tail Corp.	\$1.50	\$1.30	\$20.25	13.3%	7.4%	1.0296	7.6%	1.0%	0.0332	0.0581	0.19%	1.2%	
17 PG&E Corp.	\$4.00	\$2.00	\$36.75	50.0%	10.9%	1.0324	11.2%	5.6%	0.0179	0.1833	0.33%	5.9%	
18 Pinnacle West Capital	\$3.50	\$2.30	\$39.25	34.3%	8.9%	1.0272	9.2%	3.1%	0.0270	0.0765	0.21%	3.3%	
19 Portland General Elec.	\$2.25	\$1.20	\$25.75	46.7%	8.7%	1.0211	8.9%	4.2%	0.0030	(0.0300)	-0.01%	4.2%	
20 PPL Corp.	\$2.75	\$1.70	\$24.75	38.2%	11.1%	1.0426	11.6%	4.4%	0.0431	0.3400	1.47%	5.9%	
21 Pub Sv Enterprise Grp	\$3.00	\$1.45	\$26.50	51.7%	11.3%	1.0274	11.6%	6.0%	-	0.2429	0.00%	6.0%	
22 SCANA Corp.	\$3.75	\$2.15	\$39.00	42.7%	9.6%	1.0468	10.1%	4.3%	0.0516	0.1789	0.92%	5.2%	
23 Sempra Energy	\$5.75	\$2.50	\$53.00	56.5%	10.8%	1.0372	11.3%	6.4%	0.0060	0.2429	0.15%	6.5%	
24 TECO Energy	\$1.75	\$1.10	\$13.25	37.1%	13.2%	1.0250	13.5%	5.0%	0.0076	0.3977	0.30%	5.3%	
25 UIL Holdings	\$2.40	\$1.73	\$27.50	27.9%	8.7%	1.0139	8.8%	2.5%	-	0.3125	0.00%	2.5%	
26 Westar Energy	\$2.40	\$1.44	\$24.20	40.0%	9.9%	1.0255	10.2%	4.1%	0.0333	0.1933	0.64%	4.7%	

BR+SV GROWTH RATE

	(a)	(a)	(f)	(a)	(a)	(f)	(g)	(a)	(a)		(h)	(a)	(a)	(g)
	----- 2010 -----			----- 2015 -----			Chg	----- 2015 Price -----				---- Common Shares ----		
<u>Company</u>	<u>Eq Ratio</u>	<u>Tot Cap</u>	<u>Com Eq</u>	<u>Eq Ratio</u>	<u>Tot Cap</u>	<u>Com Eq</u>	<u>Equity</u>	<u>High</u>	<u>Low</u>	<u>Avg.</u>	<u>M/B</u>	<u>2010</u>	<u>2015</u>	<u>Growth</u>
1 ALLETE	55.8%	\$1,625	\$907	58.5%	\$2,225	\$1,302	7.5%	\$45.00	\$35.00	\$40.00	1.221	35.80	40.00	2.24%
2 Alliant Energy	49.5%	\$5,841	\$2,891	51.5%	\$6,805	\$3,505	3.9%	\$55.00	\$40.00	\$47.50	1.575	110.89	116.00	0.91%
3 Ameren Corp.	50.9%	\$15,185	\$7,729	53.0%	\$17,000	\$9,010	3.1%	\$40.00	\$30.00	\$35.00	0.986	240.40	255.00	1.19%
4 American Elec Pwr	46.7%	\$29,184	\$13,629	51.0%	\$36,100	\$18,411	6.2%	\$55.00	\$35.00	\$45.00	1.224	480.81	500.00	0.79%
5 Avista Corp.	48.4%	\$2,325	\$1,125	48.0%	\$2,900	\$1,392	4.3%	\$35.00	\$25.00	\$30.00	1.319	57.12	61.00	1.32%
6 Black Hills Corp.	48.1%	\$2,286	\$1,100	49.5%	\$2,750	\$1,361	4.4%	\$40.00	\$25.00	\$32.50	1.074	39.27	45.00	2.76%
7 Cleco Corp.	48.5%	\$2,718	\$1,318	58.0%	\$2,975	\$1,726	5.5%	\$40.00	\$30.00	\$35.00	1.239	60.53	60.70	0.06%
8 DTE Energy Co.	48.7%	\$13,811	\$6,726	48.0%	\$17,100	\$8,208	4.1%	\$70.00	\$45.00	\$57.50	1.230	169.43	176.00	0.76%
9 Edison International	44.3%	\$23,861	\$10,570	43.5%	\$31,000	\$13,485	5.0%	\$50.00	\$35.00	\$42.50	1.024	325.81	325.81	0.00%
10 El Paso Electric	48.8%	\$1,660	\$810	44.0%	\$2,125	\$935	2.9%	\$45.00	\$35.00	\$40.00	1.633	42.57	38.00	-2.25%
11 FirstEnergy Corp.	46.5%	\$28,975	\$13,473	45.5%	\$34,600	\$15,743	3.2%	\$55.00	\$40.00	\$47.50	1.275	418.22	418.22	0.00%
12 Great Plains Energy	49.2%	\$5,868	\$2,887	48.5%	\$7,525	\$3,650	4.8%	\$25.00	\$16.00	\$20.50	0.863	135.71	155.00	2.69%
13 Hawaiian Elec.	54.3%	\$2,733	\$1,484	54.5%	\$3,850	\$2,098	7.2%	\$30.00	\$19.00	\$24.50	1.289	94.69	110.00	3.04%
14 IDACORP, Inc.	50.7%	\$3,020	\$1,531	53.5%	\$3,865	\$2,068	6.2%	\$50.00	\$35.00	\$42.50	1.049	49.41	51.00	0.64%
15 OGE Energy Corp.	49.2%	\$4,653	\$2,289	49.5%	\$6,775	\$3,354	7.9%	\$60.00	\$45.00	\$52.50	1.556	97.60	100.00	0.49%
16 Otter Tail Corp.	59.2%	\$1,067	\$632	59.0%	\$1,440	\$850	6.1%	\$25.00	\$18.00	\$21.50	1.062	36.00	42.00	3.13%
17 PG&E Corp.	49.3%	\$22,863	\$11,271	52.5%	\$29,700	\$15,593	6.7%	\$55.00	\$35.00	\$45.00	1.224	395.23	425.00	1.46%
18 Pinnacle West Capital	54.7%	\$6,729	\$3,681	54.0%	\$8,950	\$4,833	5.6%	\$50.00	\$35.00	\$42.50	1.083	108.77	123.00	2.49%
19 Portland General Elec.	47.0%	\$3,390	\$1,593	48.0%	\$4,100	\$1,968	4.3%	\$30.00	\$20.00	\$25.00	0.971	75.32	76.50	0.31%
20 PPL Corp.	37.1%	\$29,018	\$10,766	47.5%	\$34,700	\$16,483	8.9%	\$45.00	\$30.00	\$37.50	1.515	578.00	665.00	2.84%
21 Pub Sv Enterprise Grp	55.5%	\$18,375	\$10,198	55.0%	\$24,400	\$13,420	5.6%	\$40.00	\$30.00	\$35.00	1.321	505.90	505.90	0.00%
22 SCANA Corp.	45.7%	\$8,511	\$3,890	48.0%	\$12,950	\$6,216	9.8%	\$55.00	\$40.00	\$47.50	1.218	130.00	160.00	4.24%
23 Sempra Energy	49.6%	\$18,186	\$9,020	51.5%	\$25,400	\$13,081	7.7%	\$80.00	\$60.00	\$70.00	1.321	240.45	246.00	0.46%
24 TECO Energy	45.8%	\$4,954	\$2,269	44.5%	\$6,550	\$2,915	5.1%	\$25.00	\$19.00	\$22.00	1.660	216.00	221.00	0.46%
25 UIL Holdings	42.0%	\$2,850	\$1,197	43.0%	\$3,200	\$1,376	2.8%	\$45.00	\$35.00	\$40.00	1.455	50.00	50.00	0.00%
26 Westar Energy	46.4%	\$5,181	\$2,404	47.0%	\$6,600	\$3,102	5.2%	\$35.00	\$25.00	\$30.00	1.240	112.13	128.00	2.68%

- (a) The Value Line Investment Survey (Dec. 23, 2011, Feb. 3 & Feb. 24, 2012).
- (b) Computed using the formula $2 * (1 + 5\text{-Yr. Change in Equity}) / (2 + 5 \text{ Yr. Change in Equity})$.
- (c) Product of average year-end "r" for 2015 and Adjustment Factor.
- (d) Product of change in common shares outstanding and M/B Ratio.
- (e) Computed as $1 - B/M$ Ratio.
- (f) Product of total capital and equity ratio.
- (g) Five-year rate of change.
- (h) Average of High and Low expected market prices divided by 2015 BVPS.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-12 _____

DOCKET NO. UG-12 _____

EXHIBIT NO. ____ (WEA-7)

WILLIAM E. AVERA

REPRESENTING AVISTA CORPORATION

DCF MODEL

Exhibit No.__(WEA-7)

Page 1 of 1

NON-UTILITY GROUP

	(a)	(a)	(b)	(c)	(d)	(e)	(e)	(e)	(e)
	Dividend	EPS				EPS			
<u>Company</u>	<u>Yield</u>	<u>V Line</u>	<u>IBES</u>	<u>Zacks</u>	<u>br+sv</u>	<u>V Line</u>	<u>IBES</u>	<u>Zacks</u>	<u>br+sv</u>
1 Abbott Labs.	3.55%	8.5%	9.3%	8.0%	18.2%	12.1%	12.8%	11.6%	21.8%
2 Bard (C.R.)	0.88%	8.5%	10.5%	10.9%	20.3%	9.4%	11.4%	11.8%	21.1%
3 Church & Dwight	1.53%	10.5%	11.4%	11.8%	12.5%	12.0%	12.9%	13.3%	14.0%
4 Coca-Cola	2.74%	10.0%	8.0%	8.0%	10.3%	12.7%	10.7%	10.7%	13.1%
5 Colgate-Palmolive	2.67%	10.5%	9.0%	8.8%	6.3%	13.2%	11.6%	11.5%	9.0%
6 Gen'l Mills	3.18%	8.5%	7.9%	8.0%	9.0%	11.7%	11.1%	11.2%	12.2%
7 Hormel Foods	1.94%	10.0%	9.5%	9.3%	10.0%	11.9%	11.4%	11.2%	11.9%
8 Kellogg	3.12%	8.5%	8.8%	9.0%	14.4%	11.6%	12.0%	12.1%	17.5%
9 Kimberly-Clark	3.94%	7.0%	5.8%	6.7%	12.4%	10.9%	9.7%	10.6%	16.3%
10 McCormick & Co.	2.26%	14.5%	8.4%	9.0%	20.5%	16.8%	10.6%	11.3%	22.8%
11 PepsiCo, Inc.	3.32%	9.5%	8.9%	8.0%	11.3%	12.8%	12.2%	11.3%	14.7%
12 Procter & Gamble	3.22%	10.0%	8.8%	9.0%	5.9%	13.2%	12.0%	12.2%	9.1%
13 Wal-Mart Stores	2.53%	8.5%	9.0%	12.6%	7.4%	11.0%	11.5%	15.1%	9.9%
Average (f)						12.3%	11.5%	11.8%	12.2%

(a) www.valueline.com (retrieved Nov. 2, 2011).

(b) www.finance.yahoo.com (retrieved Nov. 3, 2011).

(c) www.zacks.com (retrieved Nov. 7, 2011).

(d) See Exhibit No.__(WEA-8).

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

(f) Excludes highlighted figures.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-12 _____

DOCKET NO. UG-12 _____

EXHIBIT NO. ____ (WEA-8)

WILLIAM E. AVERA

REPRESENTING AVISTA CORPORATION

BR+SV GROWTH RATE

Exhibit No.__(WEA-8)

Page 1 of 2

NON-UTILITY GROUP

	(a)	(a)	(a)			(b)	(c)		(d)	(e)		
	----- 2015 -----					Adjust.			----- "sv" Factor -----			
<u>Company</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	<u>b</u>	<u>r</u>	<u>Factor</u>	<u>Adj. r</u>	<u>br</u>	<u>s</u>	<u>v</u>	<u>sv</u>	<u>br + sv</u>
1 Abbott Labs.	\$6.00	\$2.20	\$20.50	63.3%	29.3%	1.0341	30.3%	19.2%	(0.0120)	0.7842	-0.94%	18.2%
2 Bard (C.R.)	\$8.25	\$0.90	\$38.85	89.1%	21.2%	1.0703	22.7%	20.2%	0.0003	0.7410	0.02%	20.3%
3 Church & Dwight	\$3.10	\$0.72	\$19.70	76.8%	15.7%	1.0403	16.4%	12.6%	(0.0015)	0.6248	-0.09%	12.5%
4 Coca-Cola	\$5.60	\$2.80	\$20.45	50.0%	27.4%	1.0372	28.4%	14.2%	(0.0469)	0.8260	-3.87%	10.3%
5 Colgate-Palmolive	\$7.50	\$3.20	\$11.20	57.3%	67.0%	1.0588	70.9%	40.7%	(0.3710)	0.9253	-34.33%	6.3%
6 Gen'l Mills	\$3.40	\$1.60	\$14.30	52.9%	23.8%	1.0481	24.9%	13.2%	(0.0561)	0.7400	-4.15%	9.0%
7 Hormel Foods	\$2.25	\$0.80	\$15.10	64.4%	14.9%	1.0508	15.7%	10.1%	(0.0019)	0.6225	-0.12%	10.0%
8 Kellogg	\$5.20	\$2.15	\$9.90	58.7%	52.5%	1.0400	54.6%	32.0%	(0.1998)	0.8835	-17.65%	14.4%
9 Kimberly-Clark	\$6.60	\$3.00	\$20.00	54.5%	33.0%	1.0236	33.8%	18.4%	(0.0769)	0.7895	-6.07%	12.4%
10 McCormick & Co.	\$5.30	\$1.44	\$23.20	72.8%	22.8%	1.0783	24.6%	17.9%	0.0328	0.7790	2.56%	20.5%
11 PepsiCo, Inc.	\$6.20	\$2.34	\$26.75	62.3%	23.2%	1.0621	24.6%	15.3%	(0.0509)	0.7816	-3.98%	11.3%
12 Procter & Gamble	\$5.95	\$3.00	\$32.85	49.6%	18.1%	1.0334	18.7%	9.3%	(0.0507)	0.6715	-3.40%	5.9%
13 Wal-Mart Stores	\$6.00	\$2.20	\$24.20	63.3%	24.8%	1.0025	24.9%	15.7%	(0.1210)	0.6877	-8.32%	7.4%

NON-UTILITY GROUP

	(a)	(a)	(f)	(a)	(a)		(g)	(a)	(a)	(f)
	---- Common Equity ----			----- 2015 Price -----				----- Common Shares -----		
<u>Company</u>	<u>2010</u>	<u>2015</u>	<u>Chg.</u>	<u>High</u>	<u>Low</u>	<u>Avg.</u>	<u>M/B</u>	<u>2010</u>	<u>2015</u>	<u>Growth</u>
1 Abbott Labs.	\$22,388	\$31,500	7.1%	\$100.00	\$90.00	\$95.00	4.634	1,555.00	1,535.00	-0.26%
2 Bard (C.R.)	\$1,632	\$3,300	15.1%	\$165.00	\$135.00	\$150.00	3.861	84.97	85.00	0.01%
3 Church & Dwight	\$1,871	\$2,800	8.4%	\$60.00	\$45.00	\$52.50	2.665	142.40	142.00	-0.06%
4 Coca-Cola	\$31,003	\$45,000	7.7%	\$130.00	\$105.00	\$117.50	5.746	2,292.00	2,200.00	-0.82%
5 Colgate-Palmolive	\$2,675	\$4,820	12.5%	\$165.00	\$135.00	\$150.00	13.393	494.85	430.00	-2.77%
6 Gen'l Mills	\$5,403	\$8,740	10.1%	\$60.00	\$50.00	\$55.00	3.846	656.50	610.00	-1.46%
7 Hormel Foods	\$2,407	\$4,000	10.7%	\$45.00	\$35.00	\$40.00	2.649	265.96	265.00	-0.07%
8 Kellogg	\$2,158	\$3,220	8.3%	\$95.00	\$75.00	\$85.00	8.586	365.60	325.00	-2.33%
9 Kimberly-Clark	\$5,917	\$7,490	4.8%	\$105.00	\$85.00	\$95.00	4.750	406.90	375.00	-1.62%
10 McCormick & Co.	\$1,463	\$3,205	17.0%	\$115.00	\$95.00	\$105.00	4.526	133.10	138.00	0.73%
11 PepsiCo, Inc.	\$21,476	\$40,000	13.2%	\$135.00	\$110.00	\$122.50	4.579	1,581.00	1,495.00	-1.11%
12 Procter & Gamble	\$61,439	\$85,775	6.9%	\$110.00	\$90.00	\$100.00	3.044	2,838.50	2,610.00	-1.66%
13 Wal-Mart Stores	\$68,542	\$70,245	0.5%	\$85.00	\$70.00	\$77.50	3.202	3,516.00	2,900.00	-3.78%

(a) www.valueline.com (retrieved Nov. 2, 2011).

(b) Computed using the formula $2 \times (1 + 5\text{-Yr. Change in Equity}) / (2 + 5 \text{ Yr. Change in Equity})$.

(c) Product of year-end "r" for 2015 and Adjustment Factor.

(d) Product of change in common shares outstanding and M/B Ratio.

(e) Computed as $1 - B/M$ Ratio.

(f) Five-year rate of change.

(g) Average of High and Low expected market prices divided by 2015 BVPS.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-12 _____

DOCKET NO. UG-12 _____

EXHIBIT NO. ____ (WEA-9)

WILLIAM E. AVERA

REPRESENTING AVISTA CORPORATION

UTILITY GROUPMarket Rate of Return

Dividend Yield (a)	2.6%	
Growth Rate (b)	<u>10.9%</u>	
Market Return (c)		13.5%

Less: Risk-Free Rate (d)

Long-term Treasury Bond Yield		<u>3.0%</u>
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<u>Market Risk Premium (e)</u>		10.5%
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<u>Utility Proxy Group Beta (f)</u>		<u>0.75</u>
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<u>Risk Premium (g)</u>		7.8%
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Plus: Risk-free Rate (d)

Long-term Treasury Bond Yield		<u>3.0%</u>
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Unadjusted CAPM (h)		10.8%
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Size Adjustment (i)		<u>0.94%</u>
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Implied Cost of Equity (j)		<u><u>11.8%</u></u>
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- (a) Weighted average dividend yield for the dividend paying firms in the S&P 500 from www.valueline.com (retrieved Jan. 21, 2012).
- (b) Weighted average of IBES earnings growth rates for the dividend paying firms in the S&P 500 (retrieved Jan. 23, 2012).
- (c) (a) + (b)
- (d) Average yield on 30-year Treasury bonds for Jan. 2012 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 Jan. 31, 2012).
- (g) (e) x (f).
- (h) (d) + (g).
- (i) *Morningstar*, "2012 Ibbotson SBBI Valuation Yearbook," at Appendix C, Table C-1 (2012).
- (j) (h) + (i).

UTILITY GROUPMarket Rate of Return

Dividend Yield (a)	2.6%	
Growth Rate (b)	<u>10.9%</u>	
Market Return (c)		13.5%
<u>Less: Risk-Free Rate (d)</u>		
Projected Long-term Treasury Bond Yield		<u>4.4%</u>
<u>Market Risk Premium (e)</u>		9.1%
<u>Utility Proxy Group Beta (f)</u>		<u>0.75</u>
<u>Risk Premium (g)</u>		6.8%
<u>Plus: Risk-free Rate (d)</u>		
Projected Long-term Treasury Bond Yield		<u>4.4%</u>
Unadjusted CAPM (h)		11.2%
Size Adjustment (i)		<u>0.94%</u>
Implied Cost of Equity (j)		<u><u>12.1%</u></u>

- (a) Weighted average dividend yield for the dividend paying firms in the S&P 500 from www.valueline.com (retrieved Jan. 21, 2012).
- (b) Weighted average of IBES earnings growth rates for the dividend paying firms in the S&P 500 (retrieved Jan. 23, 2012).
- (c) (a) + (b)
- (d) Average projected 30-year Treasury bond yield for 2012-2016 based on data from the Value Line Investment Survey, *Forecast for the U.S. Economy* (Nov. 25, 2011), IHS Global Insight, *U.S. Economic Outlook* at 25 (Dec. 2011), Blue Chip Financial Forecasts, Vol. 30, No. 12 (Dec. 1, 2011).
- (e) (c) - (d).
- (f) www.valueline.com (retrieved Jan. 31, 2012).
- (g) (e) x (f).
- (h) (d) + (g).
- (i) *Morningstar*, "2012 Ibbotson S&P Valuation Yearbook," at Appendix C, Table C-1 (2012).
- (j) (h) + (i).

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-12 _____

DOCKET NO. UG-12 _____

EXHIBIT NO. ____ (WEA-10)

WILLIAM E. AVERA

REPRESENTING AVISTA CORPORATION

CURRENT BOND YIELDSCurrent Equity Risk Premium

(a) Avg. Yield over Study Period	8.91%
(b) Jan. 2012 Average Utility Bond Yield	<u>4.48%</u>
Change in Bond Yield	-4.43%
(c) Risk Premium/Interest Rate Relationship	<u>-0.4114</u>
Adjustment to Average Risk Premium	1.82%
(a) Average Risk Premium over Study Period	<u>3.41%</u>
Adjusted Risk Premium	5.23%

Implied Cost of Equity

(b) Jan. 2012 BBB Utility Bond Yield	5.06%
Adjusted Equity Risk Premium	<u>5.23%</u>
Risk Premium Cost of Equity	10.29%

- (a) Exhibit No.__(WEA-10), page 3.
(b) Moody's Investors Service, www.creditrends.com.
(c) Exhibit No.__(WEA-10), page 4.

PROJECTED BOND YIELDS

Current Equity Risk Premium

(a) Avg. Yield over Study Period	8.91%
(b) Projected Average Utility Bond Yield	<u>6.14%</u>
Change in Bond Yield	-2.77%
(c) Risk Premium/Interest Rate Relationship	<u>-0.4114</u>
Adjustment to Average Risk Premium	1.14%
(a) Average Risk Premium over Study Period	<u>3.41%</u>
Adjusted Risk Premium	4.55%

Implied Cost of Equity

(b) Projected BBB Utility Bond Yield	6.69%
Adjusted Equity Risk Premium	<u>4.55%</u>
Risk Premium Cost of Equity	11.24%

- (a) Exhibit No.__(WEA-10), page 3.
- (b) Projected yields on utility bonds for 2012-16 based on data from IHS Global Insight, *U.S. Economic Outlook* at 25 (Dec. 2011), Energy Information Administration, *Annual Energy Outlook 2012 Early Release* (Jan. 23, 2012), and Moody's Investors Service at www.credittrends.com.
- (c) Exhibit No.__(WEA-10), page 4.

AUTHORIZED RETURNS

Year	(a)	(b)	Risk Premium
	Allowed ROE	Average Utility Bond Yield	
1974	13.10%	9.27%	3.83%
1975	13.20%	9.88%	3.32%
1976	13.10%	9.17%	3.93%
1977	13.30%	8.58%	4.72%
1978	13.20%	9.22%	3.98%
1979	13.50%	10.39%	3.11%
1980	14.23%	13.15%	1.08%
1981	15.22%	15.62%	-0.40%
1982	15.78%	15.33%	0.45%
1983	15.36%	13.31%	2.05%
1984	15.32%	14.03%	1.29%
1985	15.20%	12.29%	2.91%
1986	13.93%	9.46%	4.47%
1987	12.99%	9.98%	3.01%
1988	12.79%	10.45%	2.34%
1989	12.97%	9.66%	3.31%
1990	12.70%	9.76%	2.94%
1991	12.55%	9.21%	3.34%
1992	12.09%	8.57%	3.52%
1993	11.41%	7.56%	3.85%
1994	11.34%	8.30%	3.04%
1995	11.55%	7.91%	3.64%
1996	11.39%	7.74%	3.65%
1997	11.40%	7.63%	3.77%
1998	11.66%	7.00%	4.66%
1999	10.77%	7.55%	3.22%
2000	11.43%	8.09%	3.34%
2001	11.09%	7.72%	3.37%
2002	11.16%	7.53%	3.63%
2003	10.97%	6.61%	4.36%
2004	10.75%	6.20%	4.55%
2005	10.54%	5.67%	4.87%
2006	10.36%	6.08%	4.28%
2007	10.36%	6.11%	4.25%
2008	10.46%	6.65%	3.81%
2009	10.48%	6.28%	4.20%
2010	10.34%	5.56%	4.78%
2011	<u>10.22%</u>	<u>5.13%</u>	<u>5.09%</u>
Average	12.32%	8.91%	3.41%

(a) Major Rate Case Decisions, Regulatory Focus, Regulatory Research Associates; *UtilityScope Regulatory Service*, Argus.

(b) Moody's Investors Service.

REGRESSION RESULTS

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.9062018
R Square	0.8212016
Adjusted R Square	0.816235
Standard Error	0.005182
Observations	38

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.004439957	0.00444	165.3441	5.054E-15
Residual	36	0.000966702	2.69E-05		
Total	37	0.005406659			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.0707625	0.00297293	23.80226	1.28E-23	0.06473308	0.07679183	0.064733085	0.07679183
X Variable 1	-0.4114494	0.031997942	-12.8586	5.05E-15	-0.47634415	-0.34655465	-0.476344147	-0.346554648

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-12 _____

DOCKET NO. UG-12 _____

EXHIBIT NO. ____ (WEA-11)

WILLIAM E. AVERA

REPRESENTING AVISTA CORPORATION

UTILITY GROUP

	(a)	(b)	(c)
<u>Company</u>	<u>Expected Return on Common Equity</u>	<u>Adjustment Factor</u>	<u>Adjusted Return on Common Equity</u>
1 ALLETE	9.5%	1.036116	9.8%
2 Alliant Energy	12.0%	1.019234	12.2%
3 Ameren Corp.	7.0%	1.015332	7.1%
4 American Elec Pwr	10.5%	1.030066	10.8%
5 Avista Corp.	9.0%	1.021253	9.2%
6 Black Hills Corp.	7.5%	1.021332	7.7%
7 Cleco Corp.	9.5%	1.02692	9.8%
8 DTE Energy Co.	9.0%	1.019911	9.2%
9 Edison International	8.5%	1.024347	8.7%
10 El Paso Electric	11.5%	1.014334	11.7%
11 FirstEnergy Corp.	10.0%	1.015567	10.2%
12 Great Plains Energy	8.0%	1.023441	8.2%
13 Hawaiian Elec.	10.5%	1.034625	10.9%
14 IDACORP, Inc.	8.0%	1.030024	8.2%
15 OGE Energy Corp.	12.0%	1.038173	12.5%
16 Otter Tail Corp.	7.0%	1.029604	7.2%
17 PG&E Corp.	11.0%	1.03244	11.4%
18 Pinnacle West Capital	9.0%	1.027227	9.2%
19 Portland General Elec.	9.0%	1.021118	9.2%
20 PPL Corp.	11.0%	1.042568	11.5%
21 Pub Sv Enterprise Grp	11.5%	1.027447	11.8%
22 SCANA Corp.	9.5%	1.04685	9.9%
23 Sempra Energy	11.0%	1.037152	11.4%
24 TECO Energy	13.0%	1.025044	13.3%
25 UIL Holdings	8.5%	1.013935	8.6%
26 Westar Energy	10.0%	1.02549	10.3%
Average (d)			10.0%

(a) The Value Line Investment Survey (Dec. 23, 2011, Feb. 3 & Feb. 24, 2012).

(b) Adjustment to convert year-end return to an average rate of return from Exhibit No. ___(WEA-6).

(c) (a) x (b).

(d) Excludes highlighted figures.