DAVID J. MEYER
VICE PRESIDENT AND CHIEF COUNSEL OF
REGULATORY & GOVERNMENTAL AFFAIRS
AVISTA CORPORATION
P.O. BOX 3727
1411 EAST MISSION AVENUE
SPOKANE, WASHINGTON 99220-3727
TELEPHONE: (509) 495-4316
FACSIMILE: (509) 495-8851

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF AVISTA CORPORATION FOR THE AUTHORITY TO INCREASE ITS RATES AND CHARGES FOR ELECTRIC AND NATURAL GAS SERVICE TO ELECTRIC AND NATURAL GAS CUSTOMERS IN THE STATE OF IDAHO	CASE NO. AVU-E-12-08 CASE NO. AVU-G-12-07 DIRECT TESTIMONY OF WILLIAM E. AVERA

FOR AVISTA CORPORATION

(ELECTRIC AND NATURAL GAS)

DIRECT TESTIMONY OF WILLIAM E. AVERA

TABLE OF CONTENTS

Exhibit No. 3

I. INTRODUCTION

Q. Please state your name and business address.

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

Q. In what capacity are you employed?

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

Q. Please describe your educational background and professional experience.

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

A. Overview

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

A. The purpose of my testimony is to present to the Idaho Public Utility Commission (the "Commission" or "IPUC") my independent evaluation of the fair rate of return on equity ("ROE") for the jurisdictional electric and gas utility operations of Avista Corp. ("Avista" or "the Company"). In addition, I also examined the

reasonableness of Avista's capital structure, considering both the specific risks faced by the Company and other industry guidelines.

Q. Please summarize the information and materials you relied on to support the opinions and conclusions contained in your testimony.

A. To prepare my testimony, I used information from a variety of sources that would normally be relied upon by a person in my capacity. I am familiar with the organization, finances, and operations of Avista from my participation in prior proceedings before the IPUC, the Washington Utilities and Transportation Commission, and the Public Utility Commission of Oregon. In connection with the present filing, I considered and relied upon corporate disclosures, publicly available financial reports and filings, and other published information relating to Avista. I also reviewed information relating generally to current capital market conditions and specifically to current investor perceptions, requirements, and expectations for Avista's utility operations. These sources, coupled with my experience in the fields of finance and utility regulation, have given

me a working knowledge of the issues relevant to investors' required return for Avista, and they form the basis of my analyses and conclusions.

Q. What is the role of the rate of return on common equity in setting a utility's rates?

A. The ROE serves to compensate common equity investors for the use of their capital to finance the plant and equipment necessary to provide utility service. Investors commit capital only if they expect to earn a return on their investment commensurate with returns available from alternative investments with comparable risks. To be consistent with sound regulatory economics and the standards set forth by the U.S. Supreme Court in the *Bluefield*[1] and *Hope*[2] cases, a utility's allowed ROE should be sufficient to: 1) fairly compensate the utility's investors, 2) enable the utility to offer a return adequate to attract new capital on reasonable terms, and 3) maintain the utility's financial integrity.

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

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

A. I first reviewed the operations and finances of Avista and industry-specific risks and capital market uncertainties perceived by investors. With this as a background, I conducted various well-accepted quantitative analyses to estimate the current cost of equity, including alternative applications of the discounted cash flow ("DCF") model and the Capital Asset Pricing Model ("CAPM"), an equity risk premium approach based on allowed rates of return, as well as reference to expected earned rates of return for utilities. Based on the cost of equity estimates indicated by my analyses, the Company's ROE was evaluated taking into account the specific risks and potential challenges for Avista's utility operations in Idaho, as well as other factors (*e.g.*, flotation costs) that are properly considered in setting a fair ROE for the Company.

B. Summary of Conclusions

Q. What are your findings regarding the 10.9 percent ROE requested by Avista?

A. Based on the results of my analyses and the economic requirements necessary to support continuous

access to capital under reasonable terms, I determined that 10.9 percent is a fair and reasonable estimate of investors' required ROE for Avista. The bases for my conclusion are summarized below:

- In order to reflect the risks and prospects associated with Avista's jurisdictional utility operations, my analyses focused on a proxy group of other utilities with comparable investment risks. Consistent with the fact that utilities must compete for capital with firms outside their own industry, I also referenced a proxy group of low-risk companies in the non-utility sector of the economy;
- Because investors' required return on equity is unobservable and no single method should be viewed in isolation, I applied the DCF, CAPM, and risk premium methods, as well as the expected earnings approach, to estimate a fair ROE for Avista;
- Based on the results of these analyses, and giving less weight to extremes at the high and low ends of the range, I concluded that the cost of equity for the proxy group of utilities is in the **10.0 percent to 11.4 percent** range, or **10.2 percent to 11.6 percent** after incorporating an adjustment to account for the impact of common equity flotation costs; and,
- As reflected in the testimony of Company witness Mr. Thies, Avista is requesting a fair ROE of 10.9 percent, which is equal to the midpoint of my recommended range. Considering capital market expectations, the exposures faced by Avista, and the economic requirements necessary to maintain financial integrity and support additional capital investment even under adverse circumstances, it is my opinion that 10.9 percent represents a fair and reasonable ROE for Avista.

Q. What other evidence did you consider in evaluating your ROE recommendation in this case?

A. My recommendation is reinforced by the following findings:

- The reasonableness of a 10.9 percent ROE for Avista is supported by the need to consider the challenges to the Company's credit standing:
  - The pressure of funding significant capital expenditures of $1.2 billion in the next five years, given that the Company's current rate base is $2.2 billion, coupled with increased operating risks, heighten the uncertainties associated with Avista;
  - Because of Avista's reliance on hydroelectric generation and increasing dependence on natural gas fueled capacity, the Company is exposed to relatively greater risks of power cost volatility, even with the power cost adjustment ("PCA"); and,
  - My conclusion that a 10.9 percent ROE for Avista is a reasonable estimate of investors' required return is also reinforced by the greater uncertainties associated with Avista's relatively small size and the fact that current cost of capital estimates are likely to understate investors' requirements at the time the outcome of this proceeding becomes effective and beyond.
- Sensitivity to financial market and regulatory uncertainties has increased dramatically and investors recognize that constructive regulation is a key ingredient in supporting utility credit standing and financial integrity; and,
- Providing Avista with the opportunity to earn a return that reflects these realities is an essential ingredient to support the Company's financial position, which ultimately benefits

customers by ensuring reliable service at lower long-run costs.

- Continued support for Avista's financial integrity, including a reasonable ROE, is imperative to ensure that the Company has the capability to maintain an investment grade rating while confronting potential challenges associated with funding infrastructure development necessary to meet the needs of its customers.

Q. What is your conclusion as to the reasonableness of the Company's capital structure?

A. Based on my evaluation, I concluded that a common equity ratio of 50.0 percent represents a reasonable basis from which to calculate Avista's overall rate of return. This conclusion was based on the following findings:

- Avista's requested capitalization is consistent with the Company's need to maintain its credit standing and financial flexibility as it seeks to raise additional capital to fund significant system investments and meet the requirements of its service territory;

- Avista's proposed common equity ratio is entirely consistent with the 49.0 percent and 50.1 percent average common equity ratios for the proxy utilities, based on year-end 2011 data and near-term expectations, respectively; and,

- The requested capitalization reflects the importance of an adequate equity layer to accommodate Avista's operating risks and the pressures of funding significant capital investments. This is reinforced by the need to consider the impact of uncertain capital market conditions, as well as off-balance sheet

commitments such as purchased power agreements, which carry with them some level of imputed debt.

II. RISKS OF AVISTA

Q. What is the purpose of this section?

A. As a predicate to my capital market analyses, this section examines the investment risks that investors consider in evaluating their required rate of return for Avista.

A. Operating Risks

Q. How does Avista's generating resource mix affect investors' risk perceptions?

A. Because over 40 percent of Avista's total energy requirements are provided by hydroelectric facilities, the Company is exposed to a level of uncertainty not faced by most utilities. While hydropower confers advantages in terms of fuel cost savings and diversity, reduced hydroelectric generation due to below-average water conditions forces Avista to rely more heavily on wholesale power markets or more costly thermal generating capacity to meet its resource needs. As Standard & Poor's Corporation ("S&P") has observed:

> A reduction in hydro generation typically increases an electric utility's costs by requiring it to buy replacement power or run more expensive generation to serve customer

> loads. Low hydro generation can also reduce utilities' opportunity to make off-system sales. At the same time, low hydro years increase regional wholesale power prices, creating potentially a double impact – companies have to buy more power than under normal conditions, paying higher prices.[3]

Investors recognize that volatile energy markets, unpredictable stream flows, and Avista's reliance on wholesale purchases to meet a significant portion of its resource needs can expose the Company to the risk of reduced cash flows and unrecovered power supply costs. S&P noted that Avista, along with Idaho Power Company, "face the most substantial risks despite their PCAs and cost-update mechanisms,"[4] and concluded that Avista's "chief risks are the electric utility's exposure to replacement power costs (particularly in low water years)."[5] Similarly, Moody's Investors Service ("Moody's") concluded, "Avista's high dependency on hydro resources (approximately 50% of its production comes from hydro fueled electric generation resources) is viewed as a supply concentration risk (which also lends to the potential for metric volatility, especially since hydro

[3] Standard & Poor's Corporation, "Pacific Northwest Hydrology And Its Impact On Investor-Owned Utilities' Credit Quality," *RatingsDirect* (Jan. 28, 2008).
[4] *Id*.
[5] Standard & Poor's Corporation, "Summary: Avista Corp," *RatingsDirect* (Jan. 26, 2012).

levels, due to weather, is a factor outside of management's control."[6]

Additionally, Avista has become increasingly reliant on natural gas fired generating capacity to meet base-load needs. Given the significant price fluctuations experienced in energy markets discussed subsequently, increasing reliance on natural gas heightens Avista's exposure to fuel cost volatility.

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

A. Yes. Avista will require capital investment to meet customer growth, provide for necessary maintenance, and fund new investment in electric generation, transmission and distribution facilities. Utility capital additions are expected to total approximately $1.2 billion through 2016. This represents a substantial investment given Avista's current rate base of $2.2 billion.

Continued support for Avista's financial integrity and flexibility will be instrumental in attracting the capital necessary to fund these projects in an effective manner. Avista's reliance on purchased power to meet

[6] Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Research* (Mar. 17, 2011).

shortfalls in hydroelectric generation magnifies the importance of strengthening financial flexibility, which is essential to guarantee access to the cash resources and interim financing required to cover inadequate operating cash flows, as well as fund required investments in the utility system.

Q. Is the potential for energy market volatility an ongoing concern for investors?

A. Yes. In recent years utilities and their customers have had to contend with dramatic fluctuations in fuel costs due to ongoing price volatility in the spot markets, and investors recognize the potential for further turmoil in energy markets. In times of extreme volatility, utilities can quickly find themselves in a significant under-recovery position with respect to power costs, which can severely stress liquidity.

While current expectations for significantly lower wholesale power prices reflect weaker fundamentals affecting current load and fuel prices, investors recognize the potential that such trends could quickly reverse. For example, recurring political crises in the Middle East have led to sharp increases in petroleum

prices. Moody's concluded that utilities remain exposed to fluctuations in energy prices, observing, "This view, that commodity prices remain low, could easily be proved incorrect, due to the evidence of historical volatility."[7] Fitch observed that market conditions will likely result in higher natural gas prices, and noted the utility industry's potential exposure to future price shocks.[8]

Q. What other financial pressures impact investors' risk assessment of Avista?

A. Investors are aware of the financial and regulatory pressures faced by utilities associated with rising costs and the need to undertake significant capital investments. S&P noted that cost increases and capital projects, along with uncertain load growth, were a significant challenge to the utility industry.[9] As Moody's observed:

> [W]e also see the sector's overall business risk and operating risks increasing, owing primarily to rising costs associated with upgrading and

[7] Moody's Investors Service, "U.S. Electric Utilities: Uncertain Times Ahead; Strengthening Balance Sheets Now Would Protect Credit," *Special Comment* (Oct. 28, 2010).
[8] Fitch Ratings Ltd., 2012 Outlook: Utilities, Power, and Gas," *Outlook Report* (Dec. 5, 2011).
[9] Standard & Poor's Corporation, "Industry Economic And Ratings Outlook," *RatingsDirect* (Feb. 2, 2010).

> expanding the nation's trillion dollar electric infrastructure.[10]

While enhancing the infrastructure necessary to meet the energy needs of customers is certainly desirable, the magnitude of the associated capital expenditures imposes additional financial responsibilities that are heightened during times of capital market turmoil. As S&P recently noted:

> To fund future capital spending, companies will need access to external capital markets for incremental funding beyond their internally generated cash – and maintaining solid credit quality will help them do so in a cost-effective and timely manner. … With the anticipated rise in capital spending needs, maintaining access to both the debt and equity markets, at favorable terms, will be crucial for these companies.[11]

As noted earlier, the Company's plans include electric utility capital expenditures of approximately $1.2 billion million through 2016, and Moody's has noted that Avista's primary challenge is related to cost recovery of increasing capital investment.[12] Investors are aware of the challenges posed by rising costs and

[10] Moody's Investors Service, "Regulation Provides Stability As Risks Mount," *Industry Outlook* (Jan. 19, 2011).
[11] Standard & Poor's Corporation, "U.S. Utilities' Capital Spending Is Rising, And Cost Recovery Is Vital," *RatingsDirect* (May 14, 2012).
[12] Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Research* (Mar. 20, 2012).

burdensome capital expenditure requirements, especially in light of ongoing capital market and economic uncertainties.

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

A. Investors also recognize that utilities are confronting increased environmental pressures that could impose significant uncertainties and costs. Moody's noted that, "the sector is exposed to increasingly stringent environmental mandates."[13] While the momentum for carbon emissions legislation has slowed, expectations for eventual regulations continue to pose uncertainty. Fitch recently noted that it, "expects the thrust of the EPA's agenda will continue to challenge the creditworthiness of issuers in the utility and power sector."[14]

Q. Would investors consider Avista's relative size in their assessment of the Company's risks and prospects?

A. Yes. A firm's relative size has important implications for investors in their evaluation of alternative investments, and it is well established that

[13] Moody's Investors Service, "Regulation Provides Stability As Risks Mount," *Industry Outlook* (Jan. 19, 2011).
[14] Fitch Ratings Ltd., New EPA Rules: Ready or Not," *Special Report* (Mar. 1, 2012).

smaller firms are more risky than larger firms. With a market capitalization of approximately $1.6 billion, Avista is one of the smallest publicly traded utility companies followed by The Value Line Investment Survey ("Value Line"), which have an average capitalization of approximately $9.3 billion.[15]

The magnitude of the size disparity between Avista and other firms in the utility industry has important practical implications with respect to the risks faced by investors. All else being equal, it is well accepted that smaller firms are more risky than their larger counterparts, due in part to their relative lack of diversification and lower financial resiliency.[16] These greater risks imply a higher required rate of return, and there is ample empirical evidence that investors in smaller firms realize higher rates of return than in larger firms.[17] Common sense and accepted financial doctrine hold that investors require higher returns from

[15] www.valueline.com (retrieved Jul. 17, 2012).
[16] It is well established in the financial literature that smaller firms are more risky than larger firms. *See, e.g.*, Eugene F. Fama and Kenneth R. French, "The Cross-Section of Expected Stock Returns", *The Journal of Finance* (June 1992); George E. Pinches, J. Clay Singleton, and Ali Jahankhani, "Fixed Coverage as a Determinant of Electric Utility Bond Ratings", *Financial Management* (Summer 1978).
[17] See for example Rolf W. Banz, "The Relationship Between Return and Market Value of Common Stocks", *Journal of Financial Economics* (September 1981) at 16.

smaller companies, and unless that compensation is provided in the rate of return allowed for a utility, the legal tests embodied in the *Hope* and *Bluefield* cases cannot be met.

B. Impact of Capital Market Conditions

Q. What are the implications of recent capital market conditions?

A. As Value Line recently recognized, "It has been a turbulent year for the financial markets, to say the least."[18] Investors have faced a myriad of challenges and uncertainties, including political brinkmanship over raising the federal debt ceiling and S&P's subsequent downgrade of its U.S. sovereign debt rating. The sovereign debt crisis in Europe has also dealt a harsh blow to investor confidence, and concerns over potential exposure to a Euro-zone default continue to undermine confidence in the financial and banking sector.[19] Meanwhile, speculation that the economy remains exposed to a potential "double-dip" recession persists, with unemployment remaining stubbornly high, lackluster

[18] The Value Line Investment Survey at 541 (Dec. 9, 2011).
[19] *See, e.g.,* Standard & Poor's Corporation, "U.S. Risks To The Forecast: Choppy Seas," *RatingsDirect* (Dec. 21, 2011).

consumer confidence, rising petroleum prices, and continued weakness plaguing the real estate sector.

Investors have had to confront ongoing fluctuations in share prices and stress in the credit markets,[20] and in response have repeatedly fled to the safety of U.S. Treasury bonds. As Fidelity Investments recently reported to investors:

> It's been quite a year, one of violent mood swings but little overall direction. We seem to be in a time warp where everything happens faster and faster. Everything seems to be correlated. There are very few places to hide, and even those places don't feel like good options anymore.[21]

Fidelity Investments concluded that, "2012 will offer more of the same, with significant ups and downs driven by three major factors: Europe, China, and the U.S."[22]

The dramatic rise in the price of gold also attests to investors' heightened concerns over prospective challenges and risks, including the overhanging threat of inflation and renewed economic turmoil. Fidelity Investments noted that, "The sovereign debt crisis in the

---

[20] *See, e.g.*, Gongloff, Mark, "Stock Rebound Is a Crisis Flashback – Late Surge Recalls Market's Volatility at Peak of Credit Difficulties; Unusual Correlations," *Wall Street Journal* at B1 (Feb. 6, 2010); Lauricella, Tom, "Stocks Nose-Dive Amid Global Fears – Weak Outlook, Government Debt Worries Drive Dow's Biggest Point Drop Since '08," *Wall Street Journal* at A1 (Aug. 5, 2011).
[21] Fidelity Investments, "2012 markets: Expect ups and downs," *Fidelity Viewpoints* (Dec. 21, 2011).
[22] *Id.*

Eurozone remains at the epicenter of the financial markets."[23] With respect to utilities, Moody's noted the dangers to credit availability associated with exposure to European banks,[24] and concluded:

> Over the past few months, we have been reminded that global financial markets, which are still receiving extraordinary intervention benefits by sovereign governments, are exposed to turmoil. Access to the capital markets could therefore become intermittent, even for safer, more defensive sectors like the power industry.[25]

Uncertainties surrounding economic and capital market conditions heighten the risks faced by utilities, which, as described earlier, face a variety of operating and financial challenges.

Q. How do interest rates on long-term bonds compare with those projected for the next few years?

A. Table WEA-1 below compares current interest rates on 30-year Treasury bonds, triple-A rated corporate bonds, and double-A rated utility bonds with near-term projections from the Value Line, IHS Global Insight, Blue

---

[23] *Id.*
[24] Moody's Investors Service, "Electric Utilities Stable But Face Increasing Regulatory Uncertainty," *Industry Outlook* (Jul. 22, 2010).
[25] Moody's Investors Service, "Regulation Provides Stability As Risks Mount," *Industry Outlook* (Jan. 19, 2011).

Chip Financial Forecasts ("Blue Chip"), and the Energy Information Administration ("EIA"):

TABLE WEA-1
INTEREST RATE TRENDS

	Current (a)	2013	2014	2015	2016	2017
30-Yr. Treasury						
Value Line (b)	2.9%	3.7%	4.0%	4.6%	5.0%	--
IHS Global Insight (c)	2.9%	3.7%	4.1%	4.6%	5.4%	5.5%
Blue Chip (d)	2.9%	3.7%	4.2%	4.9%	5.3%	5.5%
AAA Corporate						
Value Line (b)	3.7%	4.4%	4.7%	5.5%	6.0%	
IHS Global Insight (c)	3.7%	4.4%	4.7%	5.5%	6.2%	6.3%
Blue Chip (d)	3.7%	4.4%	4.9%	5.6%	6.0%	6.2%
S&P (e)	3.7%	4.0%	4.7%	5.5%		
AA Utility						
IHS Global Insight (c)	3.9%	4.8%	5.2%	6.0%	6.7%	6.9%
EIA (f)	3.9%	5.0%	5.8%	6.7%	7.0%	7.1%

(a) Based on monthly average bond yields for the six-month period Mar. 2012 - Aug. 2012 reported at www.credittrends.moodys.com and http://www.federalreserve.gov/releases
(b) Value Line Investment Survey, Forecast for the U.S. Economy (Aug. 24, 2012)
(c) IHS Global Insight, *U.S. Economic Outlook* at 19 (May 2012)
(d) *Blue Chip Financial Forecasts,* Vol. 31, No. 6 (Jun. 1, 2012)
(e) Standard & Poor's Corporation, "U.S. Economic Forecast: Keeping The Ball In Play," *RatingsDirect* (Aug. 17, 2012)
(f) Energy Information Administration, *Annual Energy Outlook 2012* (Jun. 25, 2012)

As evidenced above, there is a clear consensus that the cost of long-term capital will be higher through 2016 than it is currently. As a result, current cost of capital estimates are likely to understate investors' requirements at the time the outcome of this proceeding becomes effective and beyond.

Q. What do these events imply with respect to the ROE for Avista?

A. While conditions in the economy and capital markets appear to have stabilized – at least for the moment – no one knows the future of our complex global economy. Investors continue to react swiftly and negatively to any signs of future trouble in the financial system or economy, and this climate has important implication with respect to the fair ROE for Avista. The fact remains that the electric utility industry requires significant new capital investment. Given the importance of reliable electric utility service, it would be unwise to ignore investors' increased sensitivity to risk and future capital market trends in evaluating a fair ROE in this case.

Q. Does the prospect for continued turmoil in capital markets also influence the appropriate capital structure for Avista?

A. Yes. Financial flexibility plays a crucial role in ensuring the wherewithal to meet funding needs, and utilities with higher financial leverage may be foreclosed from additional borrowing, especially during times of stress. Fitch highlighted this exposure:

> **Capital Markets Freeze:** Significant tightening or loss of capital markets and bank access would have a deleterious affect on sector creditworthiness in the face of high capex budgets.[26]

As a result, the Company's capital structure must maintain a capital structure at an appropriate level in order to maintain continuous access to capital even during times of unfavorable market conditions.

C. Support For Avista's Credit Standing

Q. What credit ratings have been assigned to Avista?

A. S&P has assigned Avista a corporate credit rating of "BBB", while Moody's has set Avista's Issuer Rating at "Baa2".[27]

Q. What are the implications for Avista, given the potential for further dislocations in the capital markets?

A. Continued support for Avista's financial integrity and credit standing is imperative to ensure the Company's capability to confront potential challenges. Fitch observed that when credit market conditions are unsettled, "'flight to quality' is selective within the

[26] Fitch Ratings Ltd., "2012 Outlook: Utilities, Power, and Gas," *Outlook Report* (Dec. 5, 2011).
[27] Moody's Investor Services, "Rating Action: Moody's Upgrades Avista's Ratings to Baa2," *Global Credit Research* (Mar. 2011).

[utility] sector, favoring companies at higher rating levels."[28] As Avista has experienced, the negative impact of declining credit quality on a utility's capital costs and financial flexibility becomes more pronounced as debt ratings move down the scale from investment to non-investment grade. As the Chairman of the New York State Public Service Commission noted in his role as spokesman for the National Association of Regulatory Utility Commissioners:

> While there is a large difference between A and BBB, there is an even brighter line between Investment Grade (BBB-/Baa3 bond ratings by S&P/Moody's, and higher) and non-Investment Grade (Junk) (BB+/Ba1 and lower). The cost of issuing non-investment grade debt, assuming the market is receptive to it, has in some cases been hundreds of basis points over the yield on investment grade securities. To me this suggests that you do not want to be rated at the lower end of the BBB range because an unexpected shock could move you outside the investment grade range.[29]

The pressures of significant capital expenditure requirements reinforce the importance of supporting continued improvement in Avista's credit standing. Investors understand from past experience in the utility

[28] Fitch Ratings Ltd., "U.S. Utilities, Power, and Gas 2010 Outlook," *Global Power North America Special Report* (Dec. 4, 2009).
[29] Brown, George, "Credit and Capital Issues Affecting the Electric Power Industry," *Federal Energy Regulatory Commission Technical Conference* (Jan. 13, 2009).

industry that large capital needs can lead to significant deterioration in financial integrity that can constrain access to capital, especially during times of unfavorable capital market conditions. Considering the uncertain state of financial markets, competition with other investment alternatives, and investors' sensitivity to the potential for market volatility, greater credit strength is a key ingredient in maintaining access to capital at reasonable cost.

As Mr. Thies confirms in his testimony, continued regulatory support will be a key driver in Avista's financial health, which serves as a critical backstop in the event of a recurring capital market crisis or other operating challenges, such as poor hydro conditions or increased capital outlays.

Q. What role does regulation play in ensuring that Avista has access to capital under reasonable terms and on a sustainable basis?

A. The major rating agencies have warned of exposure to uncertainties associated with political and regulatory developments. Investors recognize that constructive regulation is a key ingredient in supporting utility credit ratings and financial integrity,

particularly during times of adverse conditions. With respect to Avista specifically, the major bond rating agencies have explicitly cited the potential that adverse regulatory rulings could compromise the Company's credit standing, with Moody's concluding that, "Avista's ratings could be negatively impacted if the level of regulatory support wanes."[30] S&P observed that management of Avista's regulatory relationships "is a crucial tenet" underpinning the Company's risk profile.[31]

Further strengthening Avista's financial integrity is imperative to ensure that the Company has the capability to maintain an investment grade rating while confronting large capital expenditures and other potential challenges.

Q. Do customers benefit by enhancing the utility's financial flexibility?

A. Yes. While providing an ROE that is sufficient to maintain Avista's ability to attract capital, even in times of financial and market stress, is consistent with the economic requirements embodied in the U.S. Supreme Court's *Hope* and *Bluefield* decisions, it is also in

[30] Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Research* (Mar. 30, 2012).
[31] Standard & Poor's Corporation, "Avista Corp.," *RatingsDirect* (Jul. 19, 2012).

customers' best interests. Customers and the service area economy enjoy the benefits that come from ensuring that the utility has the financial wherewithal to take whatever actions are required to ensure reliable service.

D. Capital Structure

Q. Is an evaluation of the capital structure maintained by a utility relevant in assessing its return on equity?

A. Yes. Other things equal, a higher debt ratio, or lower common equity ratio, translates into increased financial risk for all investors. A greater amount of debt means more investors have a senior claim on available cash flow, thereby reducing the certainty that each will receive his contractual payments. This increases the risks to which lenders are exposed, and they require correspondingly higher rates of interest. From common shareholders' standpoint, a higher debt ratio means that there are proportionately more investors ahead of them, thereby increasing the uncertainty as to the amount of cash flow, if any, that will remain.

Q. What common equity ratio is implicit in Avista's requested capital structure?

A. Avista's capital structure is presented in the testimony of Mr. Thies. As summarized in his testimony, the pro-forma common equity ratio used to compute Avista's overall rate of return is 50.0 percent in this filing.

Q. What was the average capitalization maintained by the Utility Proxy Group?

A. As shown on Schedule 3, for the firms in the Utility Proxy Group, common equity ratios at December 31, 2011 ranged between 32.5 percent and 60.9 percent and averaged 49.0 percent.

Q. What capitalization is representative for the proxy group of utilities going forward?

A. As shown on Schedule 3, Value Line expects an average common equity ratio for the proxy group of utilities of 50.1 percent for its three-to-five year forecast horizon, with the individual common equity ratios ranging from 35.0 percent to 60.0 percent.

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

A. The 50.0 percent common equity ratio requested by Avista is entirely consistent with the range of equity ratios maintained by the firms in the Utility Proxy Group and is in-line with the 49.0 percent and 50.1 percent average equity ratios at year-end 2011 and based on Value Line's near-term expectations, respectively.

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

A. As discussed earlier, utilities are facing energy market volatility, rising cost structures, the need to finance significant capital investment plans, uncertainties over accommodating economic and financial market uncertainties, and ongoing regulatory risks. Taken together, these considerations warrant a stronger balance sheet to deal with an increasingly uncertain environment. A more conservative financial profile, in the form of a higher common equity ratio, is consistent with increasing uncertainties and the need to maintain the continuous access to capital under reasonable terms that is required

to fund operations and necessary system investment, including times of adverse capital market conditions.

Moody's has repeatedly warned investors of the risks associated with debt leverage and fixed obligations and advised utilities not to squander the opportunity to strengthen the balance sheet against future uncertainties.[32] More recently, Moody's affirmed that it expects regulated utilities to strengthen their balance sheets in order "to prepare for more challenging business conditions."[33] Similarly, S&P noted that, "we generally consider a debt to capital level of 50% or greater to be aggressive or highly leveraged for utilities."[34] Fitch affirmed that equity issuances are needed if regulated utilities are to maintain a balanced capital mix.[35]

Q. What other factors do investors consider in their assessment of a company's capital structure?

A. Depending on their specific attributes, contractual agreements or other obligations that require

[32] Moody's Investors Service, "Storm Clouds Gathering on the Horizon for the North American Electric Utility Sector," *Special Comment* (Aug. 2007); "U.S. Electric Utility Sector," *Industry Outlook* (Jan. 2008); "U.S. Electric Utilities Face Challenges Beyond Near-Term," *Industry Outlook* (Jan. 2010).
[33] Moody's Investors Service, "U.S. Electric Utilities: Uncertain Times Ahead; Strengthening Balance Sheets Now Would Protect Credit," *Special Comment* (Oct. 28, 2010).
[34] Standard & Poor's Corporation, "Ratings Roundup: U.S. Electric Utility Sector Maintained Strong Credit Quality In A Gloomy 2009," *RatingsDirect* (Jan. 26, 2010).
[35] Fitch Ratings Ltd., "2012 Outlook: Utilities, Power, and Gas," *Outlook Report* (Dec. 5, 2011).

the utility to make specified payments may be treated as debt in evaluating Avista's financial risk. Power purchase agreements ("PPAs") and leases typically obligate the utility to make specified minimum contractual payments akin to those associated with traditional debt financing and investors consider a portion of these commitments as debt in evaluating total financial risks. Because investors consider the debt impact of such fixed obligations in assessing a utility's financial position, they imply greater risk and reduced financial flexibility. In order to offset the debt equivalent associated with off-balance sheet obligations, the utility must rebalance its capital structure by increasing its common equity in order to restore its effective capitalization ratios to previous levels. The capital structure ratios presented earlier do not include imputed debt associated with power purchase agreements or the impact of other off-balance sheet obligations.

These commitments have been repeatedly cited by major bond rating agencies in connection with assessments of

utility financial risks.[36] For example, S&P reported that it adjusts Avista's capitalization to include approximately $148.0 million in imputed debt from PPAs, leases, and postretirement benefit obligations.[37] Unless Avista takes action to offset this additional financial risk by maintaining a higher equity ratio, the resulting leverage will weaken the Company's creditworthiness, implying a higher required rate of return to compensate investors for the greater risks.[38]

Q. What did you conclude with respect to the Company's capital structure?

A. Based on my evaluation, I concluded that Avista's requested capital structure represents a reasonable mix of capital sources from which to calculate the Company's overall rate of return. While industry averages provide one benchmark for comparison, each firm

---

[36] *See, e.g.*, Standard & Poor's Corporation, "Standard & Poor's Methodology For Imputing Debt For U.S. Utilities' Power Purchase Agreements," *RatingsDirect* (May 7, 2007); Standard & Poor's Corporation, "Implications Of Operating Leases On Analysis Of U.S. Electric Utilities," *RatingsDirect* (Jan. 15, 2008); Standard & Poor's Corporation, "Top 10 Investor Questions: U.S. Regulated Electric Utilities," *RatingsDirect* (Jan. 22, 2010).

[37] Standard & Poor's Corporation, "Avista Corp., Balance Sheet 12-31-2011, Global Credit Portal (August 31, 2012). Similarly, Moody's noted that imputed debt may cause a deterioration in Avista's financial performance. Moody's Investors Service, "Credit Opinion: Avista Corp.," Global Credit Research (Mar. 17, 2011).

[38] Apart from the immediate impact that the fixed obligation of purchased power costs has on the utility's financial risk, higher fixed charges also reduce ongoing financial flexibility, and the utility may face other uncertainties, such as potential replacement power costs in the event of supply disruption.

must select its capitalization based on the risks and prospects it faces, as well its specific needs to access the capital markets. A public utility with an obligation to serve must maintain ready access to capital under reasonable terms so that it can meet the service requirements of its customers. Financial flexibility plays a crucial role in ensuring the wherewithal to meet the needs of customers, and utilities with higher leverage may be foreclosed from additional borrowing, especially during times of stress.

Avista's capital structure is consistent with industry benchmarks and reflects the challenges posed by its resource mix, the burden of significant capital spending requirements, and the Company's ongoing efforts to strengthen its credit standing and support access to capital on reasonable terms. Moody's observed that its ratings for Avista anticipate "a balanced mix of debt and equity."[39] The need for access becomes even more important when the company has capital requirements over a period of years, and financing must be continuously available, even during unfavorable capital market conditions.

[39] Moody's Investors Service, "Credit Opinion: Avista Corp.," *Global Credit Research* (Mar. 30, 2012).

III. CAPITAL MARKET ESTIMATES

Q. What is the purpose of this section?

A. This section presents capital market estimates of the cost of equity. The details of my quantitative analyses are contained in Schedule 2, with the results being summarized below.

A. Overview

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

A. The return on common equity is the cost of inducing and retaining investment in the utility's physical plant and assets. This investment is necessary to finance the asset base needed to provide utility service. Investors will commit money to a particular investment only if they expect it to produce a return commensurate with those from other investments with comparable risks. Moreover, the return on common equity is integral in achieving the sound regulatory objectives of rates that are sufficient to: 1) fairly compensate capital investment in the utility, 2) enable the utility to offer a return adequate to attract new capital on reasonable terms, and 3) maintain the utility's financial integrity. These standards should allow the utility to

fulfill its obligation to provide reliable service while meeting the needs of customers through necessary system replacement and expansion, but they can only be met if the utility has a reasonable opportunity to actually earn its allowed ROE.

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

A. No. In my opinion, no single method or model should be relied upon to determine a utility's cost of equity because no single approach can be regarded as wholly reliable. Therefore, I used the DCF, CAPM, and risk premium methods to estimate the cost of common equity. In addition, I also evaluated a fair ROE using a comparable earnings approach based on investors' current expectations in the capital markets. In my opinion, comparing estimates produced by one method with those produced by other approaches ensures that the estimates of the cost of equity pass fundamental tests of reasonableness and economic logic.

Q. Are you aware that the IPUC has traditionally relied primarily on the DCF and comparable earnings methods?

A. Yes, although the Commission has also evidenced a willingness to weigh alternatives in evaluating an allowed ROE. For example, while noting that it had not focused on the CAPM for determining the cost of equity, the IPUC recognized in Order No. 29505 that "methods to evaluate a common equity rate of return are imperfect predictors" and emphasized "that by evaluating all the methods presented in this case and using each as a check on the other," the Commission had avoided the pitfalls associated with reliance on a single method.[40]

Q. What was your conclusion regarding a fair ROE for the proxy companies?

A. Based on the results of my quantitative analyses, and my assessment of the relative strengths and weaknesses inherent in each method, I concluded that the cost of equity for the proxy companies is in the 10.0 percent to 11.4 percent range, or 10.2 percent to 11.6

[40] Order No. 29505 at 38 (emphasis added).

percent after including a minimum adjustment for flotation costs.

B. Results of Quantitative Analyses

Q. What specific proxy group of utilities did you rely on for your analysis?

A. In estimating the cost of equity, the DCF model is typically applied to publicly traded firms engaged in similar business activities or with comparable investment risks. As described in detail in Schedule 2, I applied the DCF model to a utility proxy group composed of those dividend-paying companies included by Value Line in its Electric Utilities Industry groups with: (1) S&P corporate credit ratings of "BBB-" to "BBB+," (2) a Value Line Safety Rank of "2" or "3", and (3) a Value Line Financial Strength Rating of "B+" or higher.[41] I refer to this group of 29 comparable-risk firms as the "Utility Proxy Group."

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

A. Under the regulatory standards established by *Hope* and *Bluefield*, the salient criterion in establishing

[41] In addition, I excluded two utilities that otherwise would have been in the proxy group, but are not appropriate for inclusion because they are currently involved in a major acquisition.

a meaningful benchmark to evaluate a fair ROE is relative risk, not the particular business activity or degree of regulation. With regulation taking the place of competitive market forces, required returns for utilities should be in line with those of non-utility firms of comparable risk operating under the constraints of free competition. Consistent with this accepted regulatory standard, I also applied the DCF model to a reference group of low-risk companies in the non-utility sectors of the economy. I refer to this group as the "Non-Utility Proxy Group".

Q. Do utilities have to compete with non-regulated firms for capital?

A. Yes. The cost of capital is an opportunity cost based on the returns that investors could realize by putting their money in other alternatives. Clearly, the total capital invested in utility stocks is only the tip of the iceberg of total common stock investment, and there are a plethora of other enterprises available to investors beyond those in the utility industry. Utilities must compete for capital, not just against firms in their own industry, but with other investment opportunities of comparable risk. Indeed, modern portfolio theory is built

on the assumption that rational investors will hold a diverse portfolio of stocks, not just companies in a single industry.

Q. Is it consistent with the *Bluefield* and *Hope* cases to consider required returns for non-utility companies?

A. Yes. Returns in the competitive sector of the economy form the very underpinning for utility ROEs because regulation purports to serve as a substitute for the actions of competitive markets. The Supreme Court has recognized that it is the degree of risk, not the nature of the business, which is relevant in evaluating an allowed ROE for a utility. The *Bluefield* case refers to "business undertakings attended with comparable risks and uncertainties." [42] It does not restrict consideration to other utilities. Similarly, the *Hope* case states:

> By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks.[43]

As in the *Bluefield* decision, there is nothing to restrict "other enterprises" solely to the utility industry.

---

[42] *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923).
[43] *Federal Power Comm'n v. Hope Natural Gas Co.* (320 U.S. 391, 1944).

Indeed, in teaching regulatory policy I usually observe that in the early applications of the comparable earnings approach, utilities were explicitly eliminated due to a concern about circularity. In other words, soon after the *Hope* decision regulatory commissions did not want to get involved in circular logic by looking to the returns of utilities that were established by the same or similar regulatory commissions in the same geographic region. To avoid circularity, regulators looked only to the returns of non-utility companies.

Q. Does consideration of the results for the Non-Utility Proxy Group make the estimation of the cost of equity using the DCF model more reliable?

A. Yes. The estimates of growth from the DCF model depend on analysts' forecasts. It is possible for utility growth rates to be distorted by short-term trends in the industry or the industry falling into favor or disfavor by analysts. The result of such distortions would be to bias the DCF estimates for utilities. Because the Non-Utility Proxy Group includes low risk companies from many industries, it diversifies away any distortion that may be caused by the ebb and flow of enthusiasm for a particular sector.

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

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

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

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

TABLE WEA-2
COMPARISON OF RISK INDICATORS

	S&P	Value Line		
	Credit Rating	Safety Rank	Financial Strength	Beta
Utility Group	BBB	2	B++	0.74
Non-Utility Proxy Group	A	1	A+	0.58
Avista	BBB	2	A	0.70

Q. Do these comparisons indicate that investors would view the firms in your proxy groups as risk-comparable to the Company?

A. Yes. Considered together, a comparison of these objective measures, which consider of a broad spectrum of risks, including financial and business position, and exposure to firm-specific factors, indicates that investors would likely conclude that the overall investment risks for Avista are generally comparable to those of the firms in the Utility Proxy Group.

With respect to the Non-Utility Proxy Group, its average credit ratings, Safety Rank, Financial Strength Rating, and beta all suggest less risk than for Avista. The indicators of investment risk considered in my analysis provide a sound, objective, and consistent basis to evaluate relative risks across companies and industry sectors. These measures incorporate a broad spectrum of risks, including financial and business position, the impact of regulation, relative size, and exposure to company specific factors, and they apply equally to regulated and unregulated firms. Indeed, the core idea of modern portfolio theory is that investors will diversify their holdings across multiple firms and industry groups,

so that the risk of a stock is directly proportional to its beta, not the extent of competition or the freedom to set prices.

While the impact of differences in regulation is reflected in objective risk measures, my analyses conservatively focus on a lower-risk group of non-utility firms. The 13 companies that make up the Non-Utility Proxy Group are representative of the pinnacle of corporate America. These firms, which include household names such as Coca-Cola, Colgate-Palmolive, Proctor & Gamble, and Wal-Mart, have long corporate histories, well-established track records, and exceedingly conservative risk profiles.[44] The companies in my Non-Utility Proxy Group have a stable track record of dividend payments, with the average dividend yield for the group approaching 3 percent. Moreover, because of their significance and name recognition, these companies receive intense scrutiny by the investment community, which increases confidence that published growth estimates are representative of the consensus expectations reflected in common stock prices.

[44] In addition to the risk measures shown in Table WEA-2, the firms in the Non-Utility Proxy Group have virtually no financial leverage, with an average market value capitalization of approximately 90 percent common equity.

Q. What cost of equity is implied by your DCF results for the Utility Proxy Group?

A. My application of the DCF model, which is discussed in greater detail in Schedule 2, considered three alternative measures of expected earnings growth, as well as the sustainable growth rate based on the relationship between expected retained earnings and earned rates of return ("br+sv"). As shown on Schedule 4 and summarized below in Table WEA-3, after eliminating illogical values, application of the constant growth DCF model resulted in the following cost of equity estimates:

TABLE WEA-3
DCF RESULTS – UTILITY PROXY GROUP

	Cost of Equity	
Growth Rate	**Average**	**Midpoint**
Value Line	9.7%	10.7%
IBES	9.5%	11.0%
Zacks	9.4%	9.8%
br + sv	8.9%	10.2%

Q. What were the results of your DCF analysis for the Non-Utility Proxy Group?

A. As shown on Schedule 6, I applied the DCF model to the non-utility companies in exactly the same manner described earlier for the Utility Proxy Group. As

summarized below in Table WEA-4, after eliminating illogical values, application of the constant growth DCF model resulted in the following cost of equity estimates:

TABLE WEA-4
DCF RESULTS – NON-UTILITY GROUP

	Cost of Equity	
Growth Rate	**Average**	**Midpoint**
Value Line	11.5%	10.7%
IBES	10.8%	10.4%
Zacks	11.1%	10.3%
br + sv	12.8%	15.9%

Q. How can you reconcile these DCF results for the Non-Utility Proxy Group against the significantly lower estimates produced for your comparable-risk group of utilities?

A. First, it is important to be clear that the higher DCF results for the Non-Utility Proxy Group cannot be attributed to risk differences. As I documented earlier, the risks that investors associate with the group of non-utility firms - as measured by S&P's credit ratings and Value Line's Safety Rank, Financial Strength, and Beta – are lower than the risks investors associate with the Utility Group. The objective evidence provided by these observable risk measures rules out a conclusion that the

higher non-utility DCF estimates are associated with higher investment risk.

Rather, the divergence between the DCF results for these two groups of utility and non-utility firms can be attributed to the fact that DCF estimates invariably depart from the returns that investors actually require because their expectations may not be captured by the inputs to the model, particularly the assumed growth rate. Because the actual cost of equity is unobservable, and DCF results inherently incorporate a degree of error, the cost of equity estimates for the Non-Utility Proxy group provide an important benchmark in evaluating a fair ROE for Avista. There is no basis to conclude that DCF results for a group of utilities would be inherently more reliable than those for firms in the competitive sector, and the divergence between the DCF estimates for the Utility and Non-Utility Proxy Groups suggests that both should be considered to ensure a balanced end-result.

Q. How did you apply the CAPM to estimate the cost of equity?

A. Like the DCF model, the CAPM is an *ex-ante,* or forward-looking model based on expectations of the future.

As a result, in order to produce a meaningful estimate of investors' required rate of return, the CAPM is best applied using estimates that reflect the expectations of actual investors in the market, not with backward-looking, historical data. Accordingly, I applied the CAPM to the Utility Proxy Group based on a forward-looking estimate for investors' required rate of return from common stocks. Because this forward-looking application of the CAPM looks directly at investors' expectations in the capital markets, it provides a more meaningful guide to the expected rate of return required to implement the CAPM.

Empirical research indicates that the CAPM does not fully account for observed differences in rates of return attributable to firm size. The need for an adjustment to account for relative market capitalization arises because differences in investors' required rates of return that are related to firm size are not fully captured by beta. Accordingly, my CAPM analyses incorporated an adjustment to recognize the impact of size distinctions, as developed by Morningstar.

Q. What cost of equity was indicated by the CAPM approach?

A. As shown on page 1 of Schedule 8, my forward-looking application of the CAPM model indicated an ROE of 10.3 percent for the utility proxy group. Adjusting the 10.3 percent theoretical CAPM result to incorporate the size adjustment results in an indicated cost of common equity of 11.2 percent.

Q. Did you also apply the CAPM using forecasted bond yields?

A. Yes. As discussed earlier, there is widespread consensus that interest rates will increase materially as the economy continues to strengthen. Accordingly, in addition to the use of current bond yields, I also applied the CAPM based on the forecasted long-term Treasury bond yields developed based on projections published by Value Line, IHS Global Insight and Blue Chip. As shown on page 2 of Schedule 8, incorporating a forecasted Treasury bond yield for 2013-2017 implied a cost of equity of approximately 10.8 percent for the Utility Proxy Group, or 11.7 percent after adjusting for the impact of relative size.

Q. How did you implement the risk premium method?

A. I based my estimates of equity risk premiums for electric utilities on surveys of previously authorized rates of return on common equity, which are frequently referenced as the basis for estimating equity risk premiums. My application of the risk premium method also considered the inverse relationship between equity risk premiums and interest rates, which suggests that when interest rate levels are relatively high, equity risk premiums narrow, and when interest rates are relatively low, equity risk premiums widen.

Q. What cost of equity was indicated by the risk premium approach?

A. As shown on page 1 of Schedule 9, adding an adjusted risk premium of 5.36 percent to the current average yield on triple-B utility bonds of 4.88 percent resulted in an implied cost of equity of approximately 10.2 percent. As shown on page 2 of Schedule 9, incorporating a forecasted yield for 2013-2017 and adjusting for changes in interest rates since the study period implied a cost of equity of approximately 11.6 percent.

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

A. As I noted earlier, I also evaluated the cost of equity using the expected earnings approach. Reference to rates of return available from alternative investments of comparable risk can provide an important benchmark in assessing the return necessary to assure confidence in the financial integrity of a firm and its ability to attract capital. This expected earnings approach is consistent with the economic underpinnings for a fair rate of return established by the U.S. Supreme Court. Moreover, it avoids the complexities and limitations of capital market methods and instead focuses on the returns earned on book equity, which are readily available to investors.

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

A. Value Line reports that its analysts anticipate an average rate of return on common equity for the electric utility industry of 10.5 percent over its 2015-2017 forecast horizon.[45] As shown on Schedule 10, Value

[45] The Value Line Investment Survey at 138 (Aug. 24, 2012).

Line's projections for the utility proxy group suggested an average ROE of 10.1 percent.

C. Flotation Costs

Q. What other considerations are relevant in setting the return on equity for a utility?

A. The common equity used to finance the investment in utility assets is provided from either the sale of stock in the capital markets or from retained earnings not paid out as dividends. When equity is raised through the sale of common stock, there are costs associated with "floating" the new equity securities. These flotation costs include services such as legal, accounting, and printing, as well as the fees and discounts paid to compensate brokers for selling the stock to the public.

Q. Is there an established mechanism for a utility to recognize equity issuance costs?

A. No. While debt flotation costs are recorded on the books of the utility, amortized over the life of the issue, and thus increase the effective cost of debt capital, there is no similar accounting treatment to ensure that equity flotation costs are recorded and ultimately recognized. No rate of return is authorized on

flotation costs necessarily incurred to obtain a portion of the equity capital used to finance plant. In other words, equity flotation costs are not included in a utility's rate base because neither that portion of the gross proceeds from the sale of common stock used to pay flotation costs is available to invest in plant and equipment, nor are flotation costs capitalized as an intangible asset. Unless some provision is made to recognize these issuance costs, a utility's revenue requirements will not fully reflect all of the costs incurred for the use of investors' funds. Because there is no accounting convention to accumulate the flotation costs associated with equity issues, they must be accounted for indirectly, with an upward adjustment to the cost of equity being the most logical mechanism.

Q. What is the magnitude of the adjustment to the "bare bones" cost of equity to account for issuance costs?

A. While there are a number of ways in which a flotation cost adjustment can be calculated, one of the most common methods used to account for flotation costs in regulatory proceedings is to apply an average flotation-cost percentage to a utility's dividend yield. Based on a

review of the finance literature, *New Regulatory Finance* concluded:

> The flotation cost allowance requires an estimated adjustment to the return on equity of approximately 5% to 10%, depending on the size and risk of the issue.[46]

Alternatively, a study of data from Morgan Stanley regarding issuance costs associated with utility common stock issuances suggests an average flotation cost percentage of 3.6 percent.[47]

Issuance costs are a legitimate consideration in setting the ROE for a utility, and applying these expense percentages to the average dividend yield for the Utility Proxy Group of 4.3 percent implies a flotation cost adjustment on the order of 16 to 43 basis points.

Q. Has the IPUC Staff previously considered flotation costs in estimating a fair ROE?

A. Yes. For example, in Case No. IPC-E-08-10, IPUC Staff witness Terri Carlock noted that she had adjusted

[46] Roger A. Morin, "New Regulatory Finance," *Public Utilities Reports, Inc.* at 323 (2006).
[47] Application of Yankee Gas Services Company for a Rate Increase, DPUC Docket No. 04-06-01, Direct Testimony of George J. Eckenroth (Jul. 2, 2004) at Exhibit GJE-11.1. Updating the results presented by Mr. Eckenroth through April 2005 also resulted in an average flotation cost percentage of 3.6 percent.

her DCF analysis to incorporate an allowance for flotation costs.[48]

IV. RETURN ON EQUITY RECOMMENDATION

Q. What did you conclude with respect to the cost of equity implied by your analyses for the proxy groups?

A. The cost of equity estimates implied by my quantitative analyses are summarized in Table WEA-5, below:

TABLE WEA-5
SUMMARY OF QUANTITATIVE RESULTS

	Utility		Non-Utility	
DCF	**Average**	**Midpoint**	**Average**	**Midpoint**
Value Line	9.7%	10.7%	11.5%	10.7%
IBES	9.5%	11.0%	10.8%	10.4%
Zacks	9.4%	9.8%	11.1%	10.3%
br + sv	8.9%	10.2%	12.8%	15.9%
CAPM - Current Bond Yield				
Unadjusted	10.3%	10.2%		
Size Adjusted	11.2%	10.9%		
CAPM - Projected Bond Yield				
Unadjusted	10.8%	10.6%		
Size Adjusted	11.7%	11.3%		
Utility Risk Premium				
Current Bond Yields	10.2%			
Projected Bond Yields	11.6%			
Expected Earnings	10.1%	10.2%		

[48] Case No. IPC-E-08-10, *Direct Testimony of Terri Carlock* at 12-13 (Oct. 24, 2008).

Q. Based on the results for the Utility Proxy Group, what is your conclusion regarding a fair ROE range?

A. Considering the relative strengths and weaknesses inherent in each method, and conservatively giving less emphasis to the upper- and lower-most boundaries of the range of results for the Utility Proxy Group, I concluded that the cost of common equity is in the 10.0 percent to 11.4 percent range. After incorporating a minimal adjustment for flotation costs of 20 basis points to my "bare bones" cost of equity range, I concluded that my analyses indicate a fair ROE in the 10.2 percent to 11.6 percent range, with a midpoint of 10.9 percent.

Q. How were the DCF estimates for the Non-Utility Proxy Group considered in arriving at your recommended ROE range?

A. As discussed earlier in my testimony, DCF estimates for the Non-Utility Proxy Group provide a useful benchmark because investors evaluate the required rate of return from utility investments against other opportunities available in the capital markets. The purpose of regulation is to serve as a substitute for the

actions of competitive markets, and expected returns for non-utility companies form the basis for the regulatory standards underlying a fair ROE.

The DCF results for the Non-Utility Proxy Group were considerably higher than those implied for the proxy group of utilities, even though objective evidence demonstrates that the investment risks of the unregulated companies are lower. Moreover, there is no basis to conclude that DCF results for a group of utilities would be inherently more reliable than those for firms in the competitive sector. In fact, considering the prominence of the 13 non-utility companies, the diversification afforded by considering multiple industries, and the scrutiny that analysts' afford to these paragons of American industry, the DCF results for the Non-Utility Proxy Group provide compelling evidence that suggests a downward bias in the utility DCF results. I considered this downward bias in evaluating my recommended ROE range from within the results produced for the Utility Proxy Group.

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

A. Because the Company's requested 10.9 percent ROE falls at the midpoint of my recommended range it represents a reasonable estimate of investors' required return that is adequate to compensate investors, while maintaining Avista's financial integrity and ability to attract capital on reasonable terms.

Apart from the results of the quantitative methods summarized above, it is crucial to recognize the importance of supporting the Company's financial position so that Avista remains prepared to respond to unforeseen events that may materialize in the future. Recent challenges in the economic and financial market environment highlight the imperative of maintaining the Company's financial strength in attracting the capital needed to secure reliable service at a lower cost for customers. The reasonableness of the Company's requested ROE is reinforced by the operating risks associated with Avista's reliance on hydroelectric generation, the higher uncertainties associated with Avista's relatively small size, and the fact that current cost of capital estimates

are likely to understate investors' requirements at the time the outcome of this proceeding becomes effective and beyond.

Q. Does this conclude your pre-filed direct testimony?

A. Yes.

DAVID J. MEYER
VICE PRESIDENT AND CHIEF COUNSEL FOR
REGULATORY & GOVERNMENTAL AFFAIRS
AVISTA CORPORATION
P.O. BOX 3727
1411 EAST MISSION AVENUE
SPOKANE, WASHINGTON 99220-3727
TELEPHONE: (509) 495-4316
FACSIMILE: (509) 495-8851
DAVID.MEYER@AVISTACORP.COM

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF AVISTA CORPORATION FOR THE AUTHORITY TO INCREASE ITS RATES AND CHARGES FOR ELECTRIC AND NATURAL GAS SERVICE TO ELECTRIC AND NATURAL GAS CUSTOMERS IN THE STATE OF IDAHO	CASE NO. AVU-E-12-08 CASE NO. AVU-G-12-07 EXHIBIT NO. 3 WILLIAM E. AVERA

FOR AVISTA CORPORATION

(ELECTRIC AND NATURAL GAS)

EXHIBIT 3, SCHEDULE 1

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

FINCAP, INC.
Financial Concepts and Applications
Economic and Financial Counsel

3907 Red River
Austin, Texas 78751
(512) 458–4644
FAX (512) 458–4768
fincap@texas.net

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; A*ppointed 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)

EXHIBIT 3, SCHEDULE 2

DESCRIPTION OF QUANTITATIVE ANALYSES

Q. What is the purpose of this schedule?

A. Exhibit 3, Schedule 2 presents capital market estimates of the cost of equity. First, I examine the concept of the cost of equity, along with the risk-return tradeoff principle fundamental to capital markets. Next, I describe DCF, CAPM, risk premium, and expected earnings analyses conducted to estimate the cost of equity for reference groups of comparable risk firms.

A. Overview

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

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

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

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

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

$$k_i = R_f + RP_i$$

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

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

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

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

B. Comparable Risk Proxy Groups

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

A. Application of the DCF model and other quantitative methods to estimate the cost of equity requires observable capital market data, such as stock prices. Moreover, even for a firm with publicly traded stock, the cost of equity can only be estimated. As a result, applying quantitative models using observable market data only produces an estimate that inherently

includes some degree of observation error. Thus, the accepted approach to increase confidence in the results is to apply the DCF model and other quantitative methods to a proxy group of publicly traded companies that investors regard as risk comparable.

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

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

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

A. Under the regulatory standards established by *Hope* and *Bluefield*, the salient criterion in establishing a meaningful benchmark to evaluate a fair ROE is relative

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

risk, not the particular business activity or degree of regulation. With regulation taking the place of competitive market forces, required returns for utilities should be in line with those of non-utility firms of comparable risk operating under the constraints of free competition. Consistent with this accepted regulatory standard, I also applied the DCF model to a reference group of low-risk companies in the non-utility sectors of the economy. I refer to this group as the "Non-Utility Proxy Group".

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

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

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

A. Yes. Credit ratings are assigned by independent rating agencies for the purpose of providing investors with a broad assessment of the creditworthiness of a firm.

Ratings generally extend from triple-A (the highest) to D (in default). Other symbols (*e.g.*, "A+") are used to show relative standing within a category. Because the rating agencies' evaluation includes virtually all of the factors normally considered important in assessing a firm's relative credit standing, corporate credit ratings provide a broad, objective measure of overall investment risk that is readily available to investors. Although the credit rating agencies are not immune to criticism, their rankings and analyses are widely cited in the investment community and referenced by investors. Investment restrictions tied to credit ratings continue to influence capital flows, and credit ratings are also frequently used as a primary risk indicator in establishing proxy groups to estimate the cost of common equity.

While credit ratings provide the most widely referenced benchmark for investment risks, other quality rankings published by investment advisory services also provide relative assessments of risks that are considered by investors in forming their expectations for common stocks. Value Line's primary risk indicator is its Safety Rank, which ranges from "1" (Safest) to "5" (Riskiest). This overall risk measure is intended to capture the total

risk of a stock, and incorporates elements of stock price stability and financial strength. Given that Value Line is perhaps the most widely available source of investment advisory information, its Safety Rank provides useful guidance regarding the risk perceptions of investors.

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

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

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

TABLE WEA-2
COMPARISON OF RISK INDICATORS

	S&P Credit Rating	Value Line Safety Rank	Value Line Financial Strength	Value Line Beta
Utility Group	BBB	2	B++	0.74
Non-Utility Proxy Group	A	1	A+	0.58
Avista	BBB	2	A	0.70

Q. What does this comparison indicate regarding investors' assessment of the relative risks of your proxy groups?

A. Considered together, a comparison of these objective measures, which consider of a broad spectrum of risks, including financial and business position, and exposure to firm-specific factors, indicates that investors would likely conclude that the overall investment risks for Avista are generally comparable to those of the firms in the Utility Proxy Group.

With respect to the Non-Utility Proxy Group, its average credit ratings, Safety Rank, Financial Strength Rating, and beta suggest less risk than for Avista. While the impact of differences in regulation is reflected in objective risk measures, my analyses conservatively focus on a lower-risk group of non-utility firms.

C. Discounted Cash Flow Analyses

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

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

Q. What market valuation process underlies DCF models?

A. DCF models assume that the price of a share of common stock is equal to the present value of the expected cash flows (i.e., future dividends and stock price) that will be received while holding the stock, discounted at investors' required rate of return. That is, the cost of equity is the discount rate that equates the current price of a share of stock with the present value of all expected cash flows from the stock.

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

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

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

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

[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.

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

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

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

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

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

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

A. Estimates of dividends to be paid by each of these utilities over the next twelve months, obtained from Value Line, served as D_1. This annual dividend was then divided by the corresponding stock price for each utility to arrive at the expected dividend yield. The expected dividends, stock prices, and resulting dividend yields for the firms in the Utility Proxy Group are presented on page 1 of Exhibit 3, Schedule 4.

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

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

matters in applying the DCF model is the value that investors expect.

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

A. No. If past trends in earnings, dividends, and book value are to be representative of investors' expectations for the future, then the historical conditions giving rise to these growth rates should be expected to continue. That is clearly not the case for utilities, where structural and industry changes have led to declining growth in dividends, earnings pressure, and, in many cases, significant write-offs. While these conditions serve to depress historical growth measures, they are not representative of long-term expectations for the utility industry or the expectations that investors have incorporated into current market prices. As a result, historical growth measures for utilities do not currently meet the requirements of the DCF model.

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

A. Yes. Professional security analysts study historical trends extensively in developing their projections of future earnings. Hence, to the extent

there is any useful information in historical patterns, that information is incorporated into analysts' growth forecasts.

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

A. While the DCF model is technically concerned with growth in dividend cash flows, implementation of this DCF model is solely concerned with replicating the forward-looking evaluation of real-world investors. In the case of utilities, dividend growth rates are not likely to provide a meaningful guide to investors' current growth expectations. This is because utilities have significantly altered their dividend policies in response to more accentuated business risks in the industry.[3] As a result of this trend towards a more conservative payout ratio, dividend growth in the utility industry has remained largely stagnant as utilities conserve financial resources to provide a hedge against heightened uncertainties.

As payout ratios for firms in the utility industry trended downward, investors' focus has increasingly

[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, Aug. 24, 2012 at 138).

shifted from dividends to earnings as a measure of long-term growth. Future trends in earnings per share ("EPS"), which provide the source for future dividends and ultimately support share prices, play a pivotal role in determining investors' long-term growth expectations. The importance of earnings in evaluating investors' expectations and requirements is well accepted in the investment community, and surveys of analytical techniques relied on by professional analysts indicate that growth in earnings is far more influential that trends in dividends per share ("DPS"). Apart from Value Line, investment advisory services do not generally publish comprehensive DPS growth projections, and this scarcity of dividend growth rates relative to the abundance of earnings forecasts attests to their relative influence. The fact that securities analysts focus on EPS growth, and that dividend growth rates are not routinely published, indicates that projected EPS growth rates are likely to provide a superior indicator of the future long-term growth expected by investors.

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

A. The projected EPS growth rates for each of the firms in the Utility Proxy Group reported by Value Line, Thomson Reuters ("IBES"), and Zacks Investment Research ("Zacks")are displayed on page 2 of Exhibit 3, Schedule4.[4]

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

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

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

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

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

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

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

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

A. In constant growth theory, growth in book equity will be equal to the product of the earnings retention

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

ratio (one minus the dividend payout ratio) and the earned rate of return on book equity. Furthermore, if the earned rate of return and the payout ratio are constant over time, growth in earnings and dividends will be equal to growth in book value. Despite the fact that these conditions are seldom, if ever, met in practice, this "sustainable growth" approach may provide a rough guide for evaluating a firm's growth prospects and is frequently proposed in regulatory proceedings.

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

Q. What is the purpose of the "sv" term?

A. Under DCF theory, the "sv" factor is a component of the growth rate designed to capture the impact of issuing new common stock at a price above, or below, book value. When a company's stock price is greater than its

book value per share, the per-share contribution in excess of book value associated with new stock issues will accrue to the current shareholders. This increase to the book value of existing shareholders leads to higher expected earnings and dividends, with the "sv" factor incorporating this additional growth component.

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

A. The sustainable, "br+sv" growth rates for each firm in the Utility Proxy Group are summarized on page 2 of Exhibit 3, Schedule 4, with the underlying details being presented on Exhibit 3, Schedule 5. For each firm, the expected retention ratio (b) was calculated based on Value Line's projected dividends and earnings per share. Likewise, each firm's expected earned rate of return (r) was computed by dividing projected earnings per share by projected net book value. Because Value Line reports end-of-year book values, an adjustment was incorporated to compute an average rate of return over the year, consistent with the theory underlying this approach to estimating investors' growth expectations. Meanwhile, the percent of common equity expected to be issued annually as new common stock (s) was equal to the product of the

projected market-to-book ratio and growth in common shares outstanding, while the equity accretion rate (v) was computed as 1 minus the inverse of the projected market-to-book ratio.

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

A. After combining the dividend yields and respective growth projections for each utility, the resulting cost of equity estimates are shown on page 3 of Exhibit 3, Schedule 4.

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

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

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

A. It is a basic economic principle that investors can be induced to hold more risky assets only if they expect to earn a return to compensate them for their risk

bearing. As a result, the rate of return that investors require from a utility's common stock, the most junior and riskiest of its securities, must be considerably higher than the yield offered by senior, long-term debt. Consistent with this principle, the DCF results must be adjusted to eliminate estimates that are determined to be extreme low outliers when compared against the yields available to investors from less risky utility bonds.

Q. Have similar tests been applied by regulators?

A. Yes. FERC has noted that adjustments are justified where applications of the DCF approach produce illogical results. FERC evaluates DCF results against observable yields on long-term public utility debt and has recognized that it is appropriate to eliminate estimates that do not sufficiently exceed this threshold. In a 2002 opinion establishing its current precedent for determining ROEs for electric utilities, for example, FERC noted:

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

same return, this low-end return cannot be considered reliable in this case.[6]

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

> [T]he 7.31 and 7.32 percent costs of equity for El Paso and Williams found by the ALJ are only 110 and 122 basis points above that average yield for public utility debt. [7]

The Commission upheld the opinion of Staff and the Administrative Law Judge that cost of equity estimates for these two proxy group companies "were too low to be credible." [8]

The practice of eliminating low-end outliers has been affirmed in numerous FERC proceedings,[9] and in its April 15, 2010 decision in *SoCal Edison*, FERC affirmed that, "it is reasonable to exclude any company whose low-end ROE fails to exceed the average bond yield by about 100 basis points or more."[10]

Q. What benchmarks did you consider in evaluating the DCF results for the Utility Proxy Group?

A. As noted earlier, the average S&P corporate credit rating for the Utility proxy Group is "BBB", the

[6] *Southern California Edison Company*, 92 FERC ¶ 61,070 at p. 22 (2000).
[7] *Kern River Gas Transmission Company*, Opinion No. 486, 117 FERC ¶ 61,077 at P 140 & n. 227 (2006).
[8] *Id.*
[9] *See, e.g., Virginia Electric Power Co.*, 123 FERC ¶ 61,098 at P 64 (2008).
[10] *Southern California Edison Co.,* 131 FERC ¶ 61,020 at P 55 (2010) ("*SoCal Edison*").

same as for Avista. Companies rated "BBB-", "BBB", and "BBB+" are all considered part of the triple-B rating category, with Moody's monthly yields on triple-B bonds averaging approximately 4.9 percent in August 2012.[11] It is inconceivable that investors are not requiring a substantially higher rate of return for holding common stock.

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

A. While corporate bond yields have declined substantially as the worst of the financial crisis has abated, it is generally expected that long-term interest rates will rise as the economy returns to a more normal pattern of growth. As shown in Table 2 below, forecasts of IHS Global Insight and the EIA imply an average triple-B bond yield of approximately 7.2 percent over the period 2013-2017:

[11] Moody's Investors Service, www.credittrends.com.

TABLE 2
IMPLIED BBB BOND YIELD

	2013-17
Projected AA Utility Yield	
IHS Global Insight (a)	5.92%
EIA (b)	6.33%
Average	6.13%
Current BBB - AA Yield Spread (c)	1.11%
Implied Triple-B Utility Yield	**7.24%**

(a) IHS Global Insight, U.S. Economic Outlook at 19 (May 2012)
(b) Energy Information Administration, Annual Energy Outlook 2012 (Jun. 25, 2012)
(c) Based on monthly average bond yields from Moody's Investors Service for the six-month period Mar. 2012 - Aug. 2012

The increase in debt yields anticipated by IHS Global Insight and EIA is also supported by the widely-referenced Blue Chip Financial Forecasts, which projects that yields on corporate bonds will climb approximately 180 basis points through the period 2012 through 2014-18.[12]

Q. What does this test of logic imply with respect to the DCF estimates for the Utility Proxy Group?

A. As highlighted on page 3 of Exhibit 3, Schedule 4, twenty of the individual DCF estimates ranged from -4.0 percent to 6.7 percent. In light of the risk-return

[12] *Blue Chip Financial Forecasts*, Vol. 31, No. 6 (Jun. 1, 2012).

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

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

A. Yes. The upper end of the cost of common equity range produced by the DCF analysis presented on page 3 of Exhibit 3, Schedule 4 was set by a cost of equity estimates of 29.1 percent. When compared with the balance of the remaining estimates, this value is clearly implausible and should be excluded in evaluating the results of the DCF model for the Utility Proxy Group. This is also consistent with the precedent adopted by FERC, which has established that estimates found to be

"extreme outliers" should be disregarded in interpreting the results of the DCF model.[13]

Q. What cost of equity is implied by your DCF results for the Utility Proxy Group?

A. As shown on page 3 of Exhibit 3, Schedule 4 and summarized in Table 3, below, after eliminating illogical low- and high-end values, application of the constant growth DCF model resulted in the following cost of common equity estimates:

TABLE 3
DCF RESULTS – UTILITY PROXY GROUP

	Cost of Equity	
Growth Rate	**Average**	**Midpoint**
Value Line	9.7%	10.7%
IBES	9.5%	11.0%
Zacks	9.4%	9.8%
br + sv	8.9%	10.2%

Q. What were the results of your DCF analysis for the Non-Utility Proxy Group?

A. I applied the DCF model to the Non-Utility Proxy Group in exactly the same manner described earlier for the Utility Proxy Group. The results of my DCF analysis for the Non-Utility Proxy Group are presented in Exhibit 3, Schedule 6, with the sustainable, "br+sv" growth rates

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

being developed on Exhibit 3, Schedule 7. As shown on page 3 of Exhibit 3, Schedule 6 and summarized in Table 4, below, after eliminating illogical low- and high-end values, application of the constant growth DCF model resulted in the following cost of common equity estimates:

TABLE 4
DCF RESULTS – NON-UTILITY PROXY GROUP

	Cost of Equity	
Growth Rate	**Average**	**Midpoint**
Value Line	11.5%	10.7%
IBES	10.8%	10.4%
Zacks	11.1%	10.3%
br + sv	12.8%	15.9%

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

Q. How can you reconcile these DCF results for the Non-Utility Proxy Group against the significantly lower estimates produced for your comparable-risk group of utilities?

A. First, it is important to be clear that the higher DCF results for the Non-Utility Proxy Group cannot

be attributed to risk differences. As I documented earlier, the risks that investors associate with the group of non-utility firms - as measured by S&P's credit ratings and Value Line's Safety Rank, Financial Strength, and Beta – are lower than the risks investors associate with the Utility Proxy Group. The objective evidence provided by these observable risk measures rules out a conclusion that the higher non-utility DCF estimates are associated with higher investment risk.

Rather, the divergence between the DCF results for these groups of utility and non-utility firms can be attributed to the fact that DCF estimates invariably depart from the returns that investors actually require because their expectations may not be captured by the inputs to the model, particularly the assumed growth rate. Because the actual cost of equity is unobservable, and DCF results inherently incorporate a degree of error, the cost of equity estimates for the Non-Utility Group provide an important benchmark in evaluating a fair ROE for Avista. There is no basis to conclude that DCF results for a group of utilities would be inherently more reliable than those for firms in the competitive sector, and the divergence between the DCF estimates for the Utility and Non-Utility

Proxy Groups suggests that both should be considered to ensure a balanced end-result.

D. Capital Asset Pricing Model

Q. Please describe the CAPM.

A. The CAPM is a theory of market equilibrium that measures risk using the beta coefficient. Assuming investors are fully diversified, the relevant risk of an individual asset (*e.g.*, common stock) is its volatility relative to the market as a whole, with beta reflecting the tendency of a stock's price to follow changes in the market. The CAPM is mathematically expressed as:

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

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

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

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

A. Application of the CAPM to the Utility Proxy Group based on a forward-looking estimate for investors' required rate of return from common stocks is presented on Exhibit 3, Schedule 8. In order to capture the expectations of today's investors in current capital markets, the expected market rate of return was estimated by conducting a DCF analysis on the dividend paying firms in the S&P 500.

The dividend yield for each firm was obtained from Value Line, and the growth rate was equal to the consensus earnings growth projection for each firm published by IBES, with each firm's dividend yield and growth rate being weighted by its proportionate share of total market value. Based on the weighted average of the projections for the 384 individual firms, current estimates imply an average growth rate over the next five years of 10.3 percent. Combining this average growth rate with a year-ahead dividend yield of 2.6 percent results in a current cost of common equity estimate for the market as a whole (R_m) of approximately 12.9 percent. Subtracting a 2.9 percent risk-free rate based on the average yield on

30-year Treasury bonds produced a market equity risk premium of 10.0 percent.

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

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

> Value Line is the largest and most widely circulated independent investment advisory service, and influences the expectations of a large number of institutional and individual investors. … Value Line betas are computed on a theoretically sound basis using a broadly based market index, and they are adjusted for the regression tendency of betas to converge to 1.00.[14]

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

A. As explained by *Morningstar*:

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

Because empirical research indicates that the CAPM does not fully account for observed differences in rates of

[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).

return attributable to firm size, a modification is required to account for this size effect.

According to the CAPM, the expected return on a security should consist of the riskless rate, plus a premium to compensate for the systematic risk of the particular security. The degree of systematic risk is represented by the beta coefficient. The need for the size adjustment arises because differences in investors' required rates of return that are related to firm size are not fully captured by beta. To account for this, Morningstar has developed size premiums that need to be added to the theoretical CAPM cost of equity estimates to account for the level of a firm's market capitalization in determining the CAPM cost of equity.[16] These premiums correspond to the size deciles of publicly traded common stocks, and range from a premium of 6.1% for a company in the first decile (market capitalization less than $207 million), to a reduction of 38 basis points for firms in the tenth decile (market capitalization between $15.5 billion and $354.4 billion). Accordingly, my CAPM analyses incorporated an adjustment to recognize the impact of size distinctions by market capitalization that

[16] *Id.* at Table C-1.

the beta value does not otherwise capture, but which is acknowledged by empirical research.

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

A. As shown on page 1 of Exhibit 3, Schedule 8, application of the forward-looking CAPM approach resulted in an average unadjusted ROE estimate of 10.3 percent, with a midpoint cost of equity estimate of 10.2 percent. After adjusting for the impact of firm size, the CAPM approach implied an average cost of equity of 11.2 percent, with a midpoint cost of equity estimate of 10.9 percent.

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

A. Yes. As discussed earlier, there is widespread consensus that interest rates will increase materially as the economy continues to strengthen. As a result, current bond yields are likely to understate capital market requirements at the time the outcome of this proceeding becomes effective. Accordingly, in addition to the use of current bond yields, I also applied the CAPM using a forecasted long-term Treasury bond yield developed based

on projections published by Value Line, IHS Global Insight and Blue Chip.

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

A. As shown on page 2 of Exhibit 3, Schedule 8, incorporating a forecasted Treasury bond yield for 2013-2017 implied a cost of equity of approximately 10.8 percent for the Utility Proxy Group, or 11.7 percent after adjusting for the impact of relative size. The midpoints of the respective ranges were 10.6 percent and 11.3 percent.

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

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

haven in U.S. government bonds and this "flight to safety" has pushed Treasury yields significantly lower while yield spreads for corporate debt have widened. This distortion not only impacts the absolute level of the CAPM cost of equity estimate, but it affects estimated risk premiums. Economic logic would suggest that investors' required risk premium for common stocks over Treasury bonds has also increased.

Meanwhile, backward-looking approaches incorrectly assume that investors' assessment of the required risk premium between Treasury bonds and common stocks is constant, and equal to some historical average. At no time in recent history has the fallacy of this assumption been demonstrated more concretely. As the Staff of the Florida Public Service Commission concluded:

> [R]ecognizing the impact the Federal Government's unprecedented intervention in the capital markets has had on the yields on long-term Treasury bonds, staff believes models that relate the investor-required return on equity to the yield on government securities, such as the CAPM approach, produce less reliable estimates of the ROE at this time.[17]

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

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

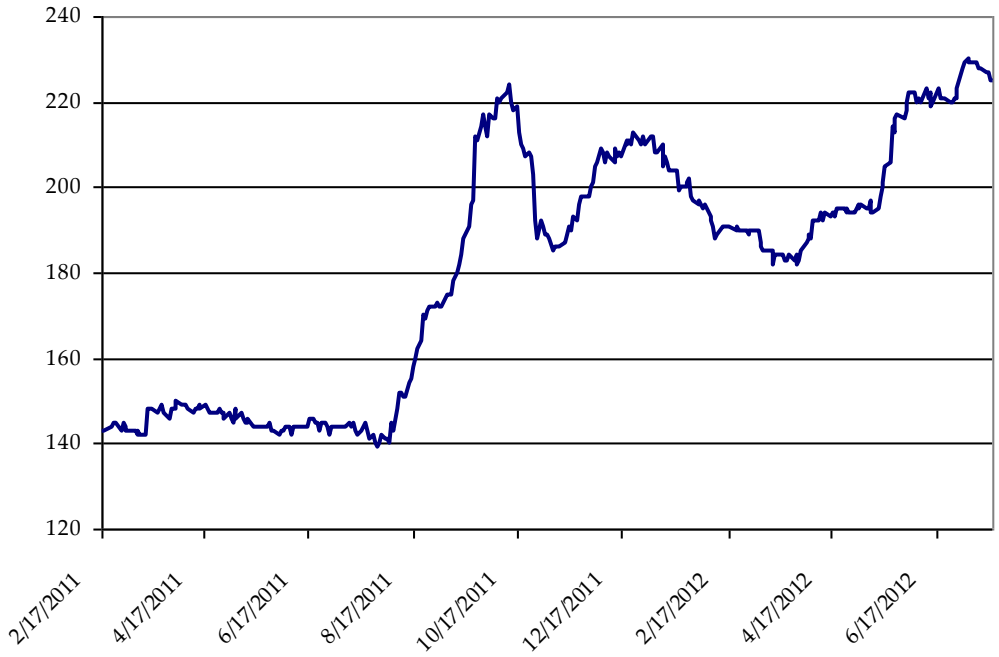
A. Yes. In September 2011, the Federal Reserve announced "Operation Twist", involving the exchange of short-term Treasury instruments for longer-term government bonds, in an effort to put downward pressure on long-term interest rates. In addition, the Federal Reserve has repeatedly implemented "quantitative easing," which involves the central bank's purchase of long-term financial assets on the secondary market, in order to affect a reduction in long-term borrowing costs.

Q. Are these conditions continuing to impact risk premiums?

A. Yes. The incongruity between investors' current expectations and historical risk premiums is particularly relevant during periods of heightened uncertainty and rapidly changing capital market conditions, such as those experienced recently. The ongoing potential for renewed turmoil in the capital markets has been seen repeatedly, with common stock prices exhibiting the dramatic volatility that is indicative of heightened sensitivity to risk. The Federal Reserve's policies, coupled with the global "flight to safety" in the face of rising political,

economic, and capital market uncertainties, has led to a dramatic increase in risk premiums, as illustrated by the spreads between triple-B utility bond yields and 30-year Treasuries shown in Figure WEA-1, below:

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



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

> During periods of stress, correlations frequently increase among risky asset classes such as the relationship between the return on

speculative-grade bonds and the return from equities.[18]

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

E. Risk Premium Approach

Q. Briefly describe the risk premium method.

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

[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).

unlike DCF models, which indirectly impute the cost of equity, risk premium methods directly estimate investors' required rate of return by adding an equity risk premium to observable bond yields.

Q. How did you implement the risk premium method?

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

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

A. Surveys of previously authorized rates of return on common equity are frequently referenced as the basis for estimating equity risk premiums. The rates of return on common equity authorized utilities by regulatory commissions across the U.S. are compiled by Regulatory Research Associates and published in its *Regulatory Focus* report. In Exhibit 3, Schedule 9, the average yield on public utility bonds is subtracted from the average allowed rate of return on common equity for electric utilities to calculate equity risk premiums for each year between 1974 and 2011. Over this 38-year period, these equity risk premiums for electric utilities averaged 3.41 percent, and the yield on public utility bonds averaged 8.91 percent.

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

A. Yes. There is considerable evidence that the magnitude of equity risk premiums is not constant and that equity risk premiums tend to move inversely with interest rates. In other words, when interest rate levels are relatively high, equity risk premiums narrow, and when

interest rates are relatively low, equity risk premiums widen. The implication of this inverse relationship is that the cost of equity does not move as much as, or in lockstep with, interest rates. Accordingly, for a 1 percent increase or decrease in interest rates, the cost of equity may only rise or fall, say, 50 basis points. Therefore, when implementing the risk premium method, adjustments may be required to incorporate this inverse relationship if current interest rate levels have changed since the equity risk premiums were estimated.

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

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

A. Based on the regression output between the interest rates and equity risk premiums displayed on page 4 of Exhibit 3, Schedule 9, the equity risk premium for electric utilities increased approximately 41 basis points

for each percentage point drop in the yield on average public utility bonds. As illustrated on page 1 of Exhibit 3, Schedule 9, with the yield on average public utility bonds in August 2012 being 4.18 percent, this implied a current equity risk premium of 5.36 percent for electric utilities. Adding this equity risk premium to the yield on triple-B utility bonds of 4.88 percent produces a current cost of equity of approximately 10.2 percent.

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

A. As shown on page 2 of Exhibit 3, Schedule 9, incorporating a forecasted yield for 2013-2017 and adjusting for changes in interest rates since the study period implied an equity risk premium of 4.36 percent for electric utilities. Adding this equity risk premium to the average implied yield on triple-B public utility bonds for 2013-2017 of 7.24 percent resulted in an implied cost of equity of approximately 11.6 percent.

F. Expected Earnings Approach

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

A. As I noted earlier, I also evaluated the ROE using the comparable earnings method. Reference to rates

of return available from alternative investments of comparable risk can provide an important benchmark in assessing the return necessary to assure confidence in the financial integrity of a firm and its ability to attract capital. This comparable earnings approach is consistent with the economic underpinnings for a fair rate of return established by the Supreme Court in *Hope* and *Bluefield.* Moreover, it avoids the complexities and limitations of capital market methods and instead focuses on expected earned returns on book equity, which are more readily available to investors.

Q. What economic premise underlies the expected earnings approach?

A. The simple, but powerful concept underlying the expected earnings approach is that investors compare each investment alternative with the next best opportunity. If the utility is unable to offer a return similar to that available from other opportunities of comparable risk, investors will become unwilling to supply the capital on reasonable terms. For existing investors, denying the utility an opportunity to earn what is available from other similar risk alternatives prevents them from earning their opportunity cost of capital. In this situation the

government is effectively taking the value of investors' capital without adequate compensation. The expected earnings approach is consistent with the economic rationale underpinning established regulatory standards, which specifies a methodology to determine an ROE benchmark based on earned rates of return for a peer group of other regional utilities.

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

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

Moreover, regulators do not set the returns that investors earn in the capital markets – they can only establish the allowed return on the value of a utility's investment, as reflected on its accounting records. As a result, the expected earnings approach provides a direct guide to ensure that the allowed ROE is similar to what other utilities of comparable risk will earn on invested capital. This opportunity cost test does not require theoretical models to indirectly infer investors' perceptions from stock prices or other market data. As long as the proxy companies are similar in risk, their expected earned returns on invested capital provide a direct benchmark for investors' opportunity costs that is independent of fluctuating stock prices, market-to-book ratios, debates over DCF growth rates, or the limitations inherent in any theoretical model of investor behavior.

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

A. Value Line reports that its analysts anticipate an average rate of return on common equity for the

electric utility industry of 10.5 percent over its forecast horizon.[19]

For the firms in the Utility Proxy Group specifically, the returns on common equity projected by Value Line over its forecast horizon are shown on Exhibit 3, Schedule 10. Consistent with the rationale underlying the development of the br+sv growth rates, these year-end values were converted to average returns using the same adjustment factor discussed earlier and developed on Exhibit 3, Schedule 5. As shown on Exhibit 3, Schedule 10, Value Line's projections for the utility proxy group suggested an average ROE of 10.1 percent.

G. Summary of Quantitative Results

Q. Please summarize the results of your quantitative analyses.

A. The cost of equity estimates implied by my quantitative analyses are summarized in Table 5 below:

[19] The Value Line Investment Survey at 138 (Aug. 24, 2012).

TABLE 5
SUMMARY OF QUANTITATIVE RESULTS

	Utility		Non-Utility	
DCF	**Average**	**Midpoint**	**Average**	**Midpoint**
Value Line	9.7%	10.7%	11.5%	10.7%
IBES	9.5%	11.0%	10.8%	10.4%
Zacks	9.4%	9.8%	11.1%	10.3%
br + sv	8.9%	10.2%	12.8%	15.9%
CAPM - Current Bond Yield				
Unadjusted	10.3%	10.2%		
Size Adjusted	11.2%	10.9%		
CAPM - Projected Bond Yield				
Unadjusted	10.8%	10.6%		
Size Adjusted	11.7%	11.3%		
Utility Risk Premium				
Current Bond Yields	10.2%			
Projected Bond Yields	11.6%			
Expected Earnings	10.1%	10.2%		

CAPITAL STRUCTURE **Schedule 3**

UTILITY PROXY GROUP

		At Fiscal Year-End 2011 (a)			Value Line Projected (b)		
	Company	Debt	Preferred	Common Equity	Debt	Other	Common Equity
1	ALLETE	44.4%	0.0%	55.6%	40.0%	0.0%	60.0%
2	Alliant Energy	45.7%	3.5%	50.9%	47.0%	2.5%	50.5%
3	Ameren Corp.	45.9%	0.0%	54.1%	45.0%	1.0%	54.0%
4	American Elec Pwr	49.7%	0.0%	50.3%	48.5%	0.0%	51.5%
5	Avista Corp.	48.7%	2.1%	49.1%	52.0%	0.0%	48.0%
6	Black Hills Corp.	39.1%	0.0%	60.9%	50.5%	0.0%	49.5%
7	CenterPoint Energy	67.5%	0.0%	32.5%	65.0%	0.0%	35.0%
8	DTE Energy Co.	50.6%	0.0%	49.4%	50.0%	0.0%	50.0%
9	Edison International	55.4%	4.1%	40.5%	56.0%	4.0%	40.0%
10	El Paso Electric	52.8%	0.0%	47.2%	56.5%	0.0%	43.5%
11	Empire District Elec	50.0%	0.0%	50.0%	49.5%	0.0%	50.5%
12	Exelon Corp.	46.6%	0.3%	53.1%	47.0%	0.5%	52.5%
13	FirstEnergy Corp.	56.6%	0.0%	43.4%	55.0%	0.0%	45.0%
14	Great Plains Energy	54.2%	0.6%	45.2%	47.5%	0.5%	52.0%
15	Hawaiian Elec.	46.1%	1.2%	52.7%	45.0%	1.0%	54.0%
16	IDACORP, Inc.	47.3%	0.0%	52.7%	46.5%	0.0%	53.5%
17	NorthWestern Corp.	51.4%	0.0%	48.6%	49.0%	0.0%	51.0%
18	OGE Energy Corp.	49.3%	0.0%	50.7%	50.0%	0.0%	50.0%
19	Otter Tail Corp.	44.7%	1.5%	53.8%	41.5%	1.0%	57.5%
20	PG&E Corp.	48.9%	1.0%	50.1%	48.5%	0.5%	51.0%
21	Pinnacle West Capital	46.3%	0.0%	53.7%	42.5%	0.0%	57.5%
22	Portland General Elec.	51.0%	0.0%	49.0%	45.5%	0.0%	54.5%
23	PPL Corp.	61.9%	0.0%	38.1%	49.0%	0.0%	51.0%
24	Pub Sv Enterprise Grp	40.9%	0.0%	59.1%	44.0%	0.0%	56.0%
25	SCANA Corp.	54.5%	0.0%	45.5%	53.0%	0.0%	47.0%
26	Sempra Energy	50.4%	0.1%	49.5%	51.5%	0.5%	48.0%
27	TECO Energy	57.3%	0.0%	42.7%	55.5%	0.0%	44.5%
28	UIL Holdings	58.8%	0.0%	41.2%	54.0%	0.0%	46.0%
29	Westar Energy	49.7%	0.4%	49.9%	50.0%	0.0%	50.0%
	Average	**50.5%**	**0.5%**	**49.0%**	**49.5%**	**0.4%**	**50.1%**

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

(b) The Value Line Investment Survey (Jun. 22, Aug. 3, & Aug. 24, 2012).

DIVIDEND YIELD

	Company	(a) Price	(b) Dividends	Yield
1	ALLETE	$ 41.42	$ 1.86	4.5%
2	Alliant Energy	$ 46.35	$ 1.85	4.0%
3	Ameren Corp.	$ 33.96	$ 1.63	4.8%
4	American Elec Pwr	$ 42.44	$ 1.92	4.5%
5	Avista Corp.	$ 26.89	$ 1.19	4.4%
6	Black Hills Corp.	$ 31.66	$ 1.49	4.7%
7	CenterPoint Energy	$ 20.78	$ 0.82	3.9%
8	DTE Energy Co.	$ 53.91	$ 2.48	4.6%
9	Edison International	$ 45.18	$ 1.32	2.9%
10	El Paso Electric	$ 33.53	$ 1.02	3.0%
11	Empire District Elec	$ 21.46	$ 1.00	4.7%
12	Exelon Corp.	$ 38.31	$ 2.10	5.5%
13	FirstEnergy Corp.	$ 47.93	$ 2.20	4.6%
14	Great Plains Energy	$ 22.02	$ 0.87	4.0%
15	Hawaiian Elec.	$ 28.10	$ 1.24	4.4%
16	IDACORP, Inc.	$ 42.45	$ 1.32	3.1%
17	NorthWestern Corp.	$ 36.59	$ 1.50	4.1%
18	OGE Energy Corp.	$ 53.89	$ 1.62	3.0%
19	Otter Tail Corp.	$ 23.30	$ 1.19	5.1%
20	PG&E Corp.	$ 44.94	$ 1.82	4.0%
21	Pinnacle West Capital	$ 53.18	$ 2.16	4.1%
22	Portland General Elec.	$ 27.29	$ 1.09	4.0%
23	PPL Corp.	$ 29.10	$ 1.46	5.0%
24	Pub Sv Enterprise Grp	$ 32.68	$ 1.44	4.4%
25	SCANA Corp.	$ 48.63	$ 2.01	4.1%
26	Sempra Energy	$ 69.22	$ 2.45	3.5%
27	TECO Energy	$ 17.94	$ 0.90	5.0%
28	UIL Holdings	$ 36.62	$ 1.73	4.7%
29	Westar Energy	$ 30.20	$ 1.33	4.4%
	Average			**4.2%**

(a) Average of closing prices for 30 trading days ended Aug. 24, 2012
(b) The Value Line Investment Survey, Summary & Index (Aug. 24, 2012)

GROWTH RATES

		(a)	(b)	(c)	(d)
		Earnings Growth			br+sv
	Company	V Line	IBES	Zacks	Growth
1	ALLETE	6.5%	5.0%	5.0%	4.1%
2	Alliant Energy	6.0%	6.3%	6.2%	4.5%
3	Ameren Corp.	-1.0%	-4.1%	0.0%	2.2%
4	American Elec Pwr	4.5%	3.4%	3.6%	4.6%
5	Avista Corp.	5.5%	4.0%	4.7%	3.9%
6	Black Hills Corp.	7.0%	6.0%	6.0%	3.0%
7	CenterPoint Energy	4.0%	5.1%	5.7%	4.4%
8	DTE Energy Co.	4.0%	4.6%	4.9%	3.9%
9	Edison International	1.0%	-0.9%	3.7%	5.1%
10	El Paso Electric	3.5%	3.7%	1.1%	4.6%
11	Empire District Elec	6.0%	10.2%	NA	3.1%
12	Exelon Corp.	-2.0%	-9.5%	4.9%	7.9%
13	FirstEnergy Corp.	5.0%	2.5%	1.0%	3.7%
14	Great Plains Energy	5.5%	5.3%	7.8%	2.5%
15	Hawaiian Elec.	9.0%	8.6%	6.7%	4.9%
16	IDACORP, Inc.	2.0%	4.0%	5.0%	3.9%
17	NorthWestern Corp.	5.0%	7.5%	5.0%	4.5%
18	OGE Energy Corp.	6.0%	5.4%	5.7%	6.9%
19	Otter Tail Corp.	24.0%	5.0%	5.0%	4.3%
20	PG&E Corp.	4.5%	0.0%	2.6%	5.2%
21	Pinnacle West Capital	5.0%	5.9%	5.9%	3.7%
22	Portland General Elec.	5.5%	3.6%	4.1%	3.9%
23	PPL Corp.	6.5%	-8.2%	NA	7.1%
24	Pub Sv Enterprise Grp	-0.5%	2.0%	2.0%	5.7%
25	SCANA Corp.	4.0%	4.8%	4.4%	4.9%
26	Sempra Energy	4.5%	7.0%	4.3%	6.1%
27	TECO Energy	6.5%	2.7%	3.3%	5.4%
28	UIL Holdings	4.0%	4.1%	4.5%	2.9%
29	Westar Energy	6.5%	4.8%	6.1%	3.5%

(a) The Value Line Investment Survey (Jun. 22, Aug. 3, & Aug. 24, 2012).
(b) www.finance.yahoo.com (Retrieved Sep. 11, 2012).
(c) www.zacks.com (retrieved Sep. 11, 2012).
(d) See Schedule 5.

DCF COST OF EQUITY ESTIMATES

		(a)	(a)	(a)	(a)
		Earnings Growth			br+sv
	Company	V Line	IBES	Zacks	Growth
1	ALLETE	11.0%	9.5%	9.5%	8.6%
2	Alliant Energy	10.0%	10.3%	10.2%	8.4%
3	Ameren Corp.	3.8%	0.8%	4.8%	7.0%
4	American Elec Pwr	9.0%	7.9%	8.1%	9.1%
5	Avista Corp.	9.9%	8.4%	9.1%	8.3%
6	Black Hills Corp.	11.7%	10.7%	10.7%	7.7%
7	CenterPoint Energy	7.9%	9.0%	9.6%	8.4%
8	DTE Energy Co.	8.6%	9.2%	9.5%	8.5%
9	Edison International	3.9%	2.0%	6.6%	8.1%
10	El Paso Electric	6.5%	6.7%	4.1%	7.6%
11	Empire District Elec	10.7%	14.9%	NA	7.8%
12	Exelon Corp.	3.5%	-4.0%	10.4%	13.4%
13	FirstEnergy Corp.	9.6%	7.1%	5.6%	8.3%
14	Great Plains Energy	9.5%	9.2%	11.8%	6.5%
15	Hawaiian Elec.	13.4%	13.0%	11.1%	9.3%
16	IDACORP, Inc.	5.1%	7.1%	8.1%	7.0%
17	NorthWestern Corp.	9.1%	11.6%	9.1%	8.6%
18	OGE Energy Corp.	9.0%	8.4%	8.7%	9.9%
19	Otter Tail Corp.	29.1%	10.1%	10.1%	9.5%
20	PG&E Corp.	8.5%	4.1%	6.6%	9.3%
21	Pinnacle West Capital	9.1%	9.9%	10.0%	7.8%
22	Portland General Elec.	9.5%	7.6%	8.1%	7.9%
23	PPL Corp.	11.5%	-3.2%	NA	12.1%
24	Pub Sv Enterprise Grp	3.9%	6.4%	6.4%	10.1%
25	SCANA Corp.	8.1%	8.9%	8.5%	9.0%
26	Sempra Energy	8.0%	10.5%	7.8%	9.6%
27	TECO Energy	11.5%	7.7%	8.3%	10.5%
28	UIL Holdings	8.7%	8.8%	9.2%	7.7%
	Average (b)	**9.7%**	**9.5%**	**9.4%**	**8.9%**
	Midpoint (c)	**10.7%**	**11.0%**	**9.8%**	**10.2%**

(a) Sum of dividend yield (Schedule 4, p. 1) and respective growth rate (Schedule 4, p. 2)
(b) Excludes highlighted figures.
(c) Average of low and high values.

DCF MODEL - UTILITY PROXY GROUP

Schedule 5
Page 1 of 2

BR+SV GROWTH RATE

		(a)	(a)	(a)			(b)	(c)		(d)	(e)		
		----------	2016	----------			Adjustment			--------- "sv" Factor --------			
	Company	EPS	DPS	BVPS	b	r	Factor	Adjusted r	br	s	v	sv	br + sv
1	ALLETE	$3.25	$2.00	$34.50	38.5%	9.4%	1.0257	9.7%	3.7%	0.0191	0.1882	0.36%	**4.1%**
2	Alliant Energy	$3.50	$2.20	$32.35	37.1%	10.8%	1.0222	11.1%	4.1%	0.0123	0.2811	0.34%	**4.5%**
3	Ameren Corp.	$2.50	$1.80	$34.00	28.0%	7.4%	1.0094	7.4%	2.1%	0.0111	0.0933	0.10%	**2.2%**
4	American Elec Pwr	$3.75	$2.15	$37.50	42.7%	10.0%	1.0243	10.2%	4.4%	0.0086	0.2105	0.18%	**4.6%**
5	Avista Corp.	$2.25	$1.40	$24.00	37.8%	9.4%	1.0227	9.6%	3.6%	0.0150	0.2000	0.30%	**3.9%**
6	Black Hills Corp.	$2.50	$1.60	$31.00	36.0%	8.1%	1.0145	8.2%	2.9%	0.0051	0.0462	0.02%	**3.0%**
7	CenterPoint Energy	$1.40	$0.90	$12.00	35.7%	11.7%	1.0219	11.9%	4.3%	0.0039	0.4000	0.15%	**4.4%**
8	DTE Energy Co.	$4.50	$2.75	$49.25	38.9%	9.1%	1.0244	9.4%	3.6%	0.0158	0.1435	0.23%	**3.9%**
9	Edison International	$3.50	$1.55	$38.75	55.7%	9.0%	1.0228	9.2%	5.1%	-	0.1389	0.00%	**5.1%**
10	El Paso Electric	$2.50	$1.30	$23.75	48.0%	10.5%	1.0172	10.7%	5.1%	(0.0158)	0.3667	-0.58%	**4.6%**
11	Empire District Elec	$1.75	$1.20	$18.50	31.4%	9.5%	1.0151	9.6%	3.0%	0.0071	0.1591	0.11%	**3.1%**
12	Exelon Corp.	$3.50	$2.10	$28.75	40.0%	12.2%	1.0497	12.8%	5.1%	0.0717	0.3947	2.83%	**7.9%**
13	FirstEnergy Corp.	$3.75	$2.40	$37.00	36.0%	10.1%	1.0153	10.3%	3.7%	-	0.2952	0.00%	**3.7%**
14	Great Plains Energy	$1.75	$1.10	$23.75	37.1%	7.4%	1.0209	7.5%	2.8%	0.0221	(0.1310)	-0.29%	**2.5%**
15	Hawaiian Elec.	$2.00	$1.40	$20.25	30.0%	9.9%	1.0478	10.3%	3.1%	0.0666	0.2636	1.75%	**4.9%**
16	IDACORP, Inc.	$3.40	$1.90	$40.90	44.1%	8.3%	1.0281	8.5%	3.8%	0.0131	0.0911	0.12%	**3.9%**
17	NorthWestern Corp.	$3.00	$1.80	$29.75	40.0%	10.1%	1.0278	10.4%	4.1%	0.0151	0.2067	0.31%	**4.5%**
18	OGE Energy Corp.	$4.25	$1.90	$37.00	55.3%	11.5%	1.0376	11.9%	6.6%	0.0087	0.3273	0.28%	**6.9%**
19	Otter Tail Corp.	$1.85	$1.30	$19.05	29.7%	9.7%	1.0335	10.0%	3.0%	0.0444	0.3073	1.36%	**4.3%**
20	PG&E Corp.	$3.75	$2.00	$36.25	46.7%	10.3%	1.0267	10.6%	5.0%	0.0134	0.1944	0.26%	**5.2%**
21	Pinnacle West Capital	$3.75	$2.45	$41.00	34.7%	9.1%	1.0239	9.4%	3.2%	0.0210	0.2190	0.46%	**3.7%**
22	Portland General Elec.	$2.25	$1.25	$26.25	44.4%	8.6%	1.0200	8.7%	3.9%	0.0032	0.0455	0.01%	**3.9%**
23	PPL Corp.	$3.00	$1.70	$25.50	43.3%	11.8%	1.0492	12.3%	5.3%	0.0550	0.3200	1.76%	**7.1%**
24	Pub Sv Enterprise Grp	$3.00	$1.55	$26.25	48.3%	11.4%	1.0253	11.7%	5.7%	0.0000	0.3438	0.00%	**5.7%**
25	SCANA Corp.	$3.75	$2.15	$39.75	42.7%	9.4%	1.0457	9.9%	4.2%	0.0428	0.1632	0.70%	**4.9%**
26	Sempra Energy	$5.75	$2.80	$51.50	51.3%	11.2%	1.0248	11.4%	5.9%	0.0073	0.3133	0.23%	**6.1%**
27	TECO Energy	$1.65	$1.00	$13.00	39.4%	12.7%	1.0247	13.0%	5.1%	0.0079	0.3953	0.31%	**5.4%**
28	UIL Holdings	$2.45	$1.73	$25.50	29.4%	9.6%	1.0163	9.8%	2.9%	0.0022	0.3625	0.08%	**2.9%**
29	Westar Energy	$2.40	$1.48	$28.15	38.3%	8.5%	1.0320	8.8%	3.4%	0.0153	0.0617	0.09%	**3.5%**

Exhibit No. 3
Case Nos. AVU-E-12-08 AVU-G-12-07
W. Avera, Avista
Schedule 5, p. 1 of 2

BR+SV GROWTH RATE

		(a)	(a)	(f)	(a)	(a)	(f)	(g)	(a)	(a)		(h)	(a)	(a)	(g)
		---------- 2011 ----------			---------- 2016 ----------			Chg	-------- 2016 Price --------				---- Common Shares ----		
	Company	Eq Ratio	Tot Cap	Com Eq	Eq Ratio	Tot Cap	Com Eq	Equity	High	Low	Avg.	M/B	2011	2016	Growth
1	ALLETE	55.7%	$1,937	$1,079	60.0%	$2,325	$1,395	5.3%	$50.00	$35.00	$42.50	1.232	37.50	40.50	1.55%
2	Alliant Energy	50.9%	$5,921	$3,014	50.5%	$7,455	$3,765	4.5%	$50.00	$40.00	$45.00	1.391	111.02	116.00	0.88%
3	Ameren Corp.	53.7%	$14,738	$7,914	54.0%	$16,100	$8,694	1.9%	$45.00	$30.00	$37.50	1.103	242.60	255.00	1.00%
4	American Elec Pwr	49.3%	$29,747	$14,665	51.5%	$36,300	$18,695	5.0%	$55.00	$40.00	$47.50	1.267	483.42	500.00	0.68%
5	Avista Corp.	48.6%	$2,440	$1,186	48.0%	$3,100	$1,488	4.6%	$35.00	$25.00	$30.00	1.250	58.42	62.00	1.20%
6	Black Hills Corp.	48.6%	$2,490	$1,210	49.5%	$2,825	$1,398	2.9%	$40.00	$25.00	$32.50	1.048	43.92	45.00	0.49%
7	CenterPoint Energy	32.8%	$12,863	$4,219	35.0%	$15,000	$5,250	4.5%	$25.00	$15.00	$20.00	1.667	426.03	431.00	0.23%
8	DTE Energy Co.	49.4%	$14,196	$7,013	50.0%	$17,900	$8,950	5.0%	$70.00	$45.00	$57.50	1.168	169.25	181.00	1.35%
9	Edison International	40.6%	$24,773	$10,058	40.0%	$31,600	$12,640	4.7%	$55.00	$35.00	$45.00	1.161	325.81	325.81	0.00%
10	El Paso Electric	48.2%	$1,577	$760	43.5%	$2,075	$903	3.5%	$45.00	$30.00	$37.50	1.579	39.96	38.00	-1.00%
11	Empire District Elec	50.1%	$1,386	$694	50.5%	$1,600	$808	3.1%	$25.00	$19.00	$22.00	1.189	41.98	43.25	0.60%
12	Exelon Corp.	54.0%	$26,661	$14,397	52.5%	$45,100	$23,678	10.5%	$55.00	$40.00	$47.50	1.652	663.00	820.00	4.34%
13	FirstEnergy Corp.	45.8%	$28,996	$13,280	45.0%	$34,400	$15,480	3.1%	$60.00	$45.00	$52.50	1.419	418.22	418.22	0.00%
14	Great Plains Energy	51.6%	$5,741	$2,962	52.0%	$7,025	$3,653	4.3%	$25.00	$17.00	$21.00	0.884	136.14	154.00	2.50%
15	Hawaiian Elec.	53.9%	$2,841	$1,531	54.0%	$4,575	$2,471	10.0%	$35.00	$20.00	$27.50	1.358	96.04	122.00	4.90%
16	IDACORP, Inc.	54.4%	$3,045	$1,657	53.5%	$4,100	$2,194	5.8%	$55.00	$35.00	$45.00	1.100	49.95	53.00	1.19%
17	NorthWestern Corp.	47.8%	$1,797	$859	51.0%	$2,225	$1,135	5.7%	$45.00	$30.00	$37.50	1.261	36.28	38.50	1.19%
18	OGE Energy Corp.	48.4%	$5,300	$2,565	50.0%	$7,475	$3,738	7.8%	$65.00	$45.00	$55.00	1.486	98.10	101.00	0.58%
19	Otter Tail Corp.	54.0%	$1,059	$572	57.5%	$1,390	$799	6.9%	$35.00	$20.00	$27.50	1.444	36.10	42.00	3.07%
20	PG&E Corp.	50.2%	$24,119	$12,108	51.0%	$31,000	$15,810	5.5%	$55.00	$35.00	$45.00	1.241	412.26	435.00	1.08%
21	Pinnacle West Capital	55.9%	$6,841	$3,824	57.5%	$8,450	$4,859	4.9%	$60.00	$45.00	$52.50	1.280	109.25	118.50	1.64%
22	Portland General Elec.	50.4%	$3,298	$1,662	54.5%	$3,725	$2,030	4.1%	$30.00	$25.00	$27.50	1.048	75.36	76.50	0.30%
23	PPL Corp.	37.2%	$29,071	$10,814	51.0%	$34,700	$17,697	10.4%	$45.00	$30.00	$37.50	1.471	578.41	695.00	3.74%
24	Pub Sv Enterprise Grp	57.9%	$17,731	$10,266	56.0%	$23,600	$13,216	5.2%	$45.00	$35.00	$40.00	1.524	505.95	506.00	0.00%
25	SCANA Corp.	45.7%	$8,511	$3,890	47.0%	$13,075	$6,145	9.6%	$55.00	$40.00	$47.50	1.195	130.00	155.00	3.58%
26	Sempra Energy	49.2%	$20,015	$9,847	48.0%	$26,300	$12,624	5.1%	$85.00	$65.00	$75.00	1.456	239.93	246.00	0.50%
27	TECO Energy	45.8%	$4,954	$2,269	44.5%	$6,525	$2,904	5.1%	$25.00	$18.00	$21.50	1.654	215.80	221.00	0.48%
28	UIL Holdings	41.4%	$2,643	$1,094	46.0%	$2,800	$1,288	3.3%	$45.00	$35.00	$40.00	1.569	50.65	51.00	0.14%
29	Westar Energy	50.0%	$5,531	$2,766	50.0%	$7,620	$3,810	6.6%	$35.00	$25.00	$30.00	1.066	125.70	135.00	1.44%

(a) The Value Line Investment Survey (Jun. 22, Aug. 3, & Aug. 24, 2012).
(b) Computed using the formula 2*(1+5-Yr. Change in Equity)/(2+5 Yr. Change in Equity).
(c) Product of average year-end "r" for 2016 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 2016 BVPS.

DIVIDEND YIELD

	Company	(a) Price	(b) Dividends	Yield
1	Abbott Labs.	$ 63.32	$ 2.04	3.2%
2	Bard (C.R.)	$ 103.68	$ 0.80	0.8%
3	Church & Dwight	$ 55.01	$ 0.96	1.7%
4	Coca-Cola Co.	$ 76.26	$ 2.04	2.7%
5	Colgate-Palmolive	$ 101.85	$ 2.63	2.6%
6	Gen'l Mills	$ 38.44	$ 1.32	3.4%
7	Kellogg	$ 48.92	$ 1.75	3.6%
8	Kimberly-Clark	$ 82.70	$ 2.96	3.6%
9	McCormick & Co.	$ 58.66	$ 1.28	2.2%
10	McDonald's Corp.	$ 89.13	$ 2.80	3.1%
11	PepsiCo, Inc.	$ 69.32	$ 2.16	3.1%
12	Procter & Gamble	$ 61.86	$ 2.25	3.6%
13	Wal-Mart Stores	$ 69.21	$ 1.59	2.3%
	Average			**2.8%**

(a) Average of closing prices for 30 trading days ended Jul. 17, 2012.
(b) The Value Line Investment Survey, Summary & Index(Jul. 20, 2012).

GROWTH RATES

		(a)	(b)	(c)	(d)
		Earnings Growth			**br+sv**
	Company	**V Line**	**IBES**	**Zacks**	**Growth**
1	Abbott Labs.	10.0%	8.6%	7.3%	18.2%
2	Bard (C.R.)	7.5%	8.3%	9.8%	19.6%
3	Church & Dwight	11.0%	11.4%	11.5%	10.4%
4	Coca-Cola Co.	8.5%	7.8%	7.8%	5.2%
5	Colgate-Palmolive	9.5%	8.5%	8.7%	7.2%
6	Gen'l Mills	8.0%	6.8%	7.7%	10.4%
7	Kellogg	7.5%	7.2%	8.1%	20.4%
8	Kimberly-Clark	8.5%	8.3%	7.0%	13.1%
9	McCormick & Co.	9.0%	8.4%	8.9%	15.1%
10	McDonald's Corp.	8.5%	9.8%	9.9%	9.9%
11	PepsiCo, Inc.	9.5%	4.5%	4.2%	9.2%
12	Procter & Gamble	8.0%	6.6%	7.4%	6.3%
13	Wal-Mart Stores	7.5%	8.3%	9.7%	9.5%

(a) The Value Line Investment Survey (retrieved Jul. 17, 2012).
(b) www.finance.yahoo.com (retrieved Jul. 17, 2012).
(c) www.zacks.com (retrieved Jul. 17, 2012).
(d) See Schedule 7.

DCF COST OF EQUITY ESTIMATES

		(a)	(a)	(a)	(a)
		Earnings Growth			**br+sv**
	Company	**V Line**	**IBES**	**Zacks**	**Growth**
1	Abbott Labs.	13.2%	11.8%	10.5%	21.4%
2	Bard (C.R.)	8.3%	9.1%	10.6%	20.4%
3	Church & Dwight	12.7%	13.1%	13.2%	12.1%
4	Coca-Cola Co.	11.2%	10.5%	10.5%	7.8%
5	Colgate-Palmolive	12.1%	11.1%	11.3%	9.7%
6	Gen'l Mills	11.4%	10.2%	11.1%	13.8%
7	Kellogg	11.1%	10.8%	11.7%	23.9%
8	Kimberly-Clark	12.1%	11.9%	10.6%	16.7%
9	McCormick & Co.	11.2%	10.5%	11.1%	17.3%
10	McDonald's Corp.	11.6%	12.9%	13.0%	13.0%
11	PepsiCo, Inc.	12.6%	7.6%	7.3%	12.4%
12	Procter & Gamble	11.6%	10.2%	11.0%	10.0%
13	Wal-Mart Stores	9.8%	10.6%	12.0%	11.8%
	Average (b)	**11.5%**	**10.8%**	**11.1%**	**12.8%**
	Midpoint (c)	**10.7%**	**10.4%**	**10.3%**	**15.9%**

(a) Sum of dividend yield (Schedule 6, p. 1) and respective growth rate (Schedule 6, p. 2).
(b) Excludes highlighted figures.
(c) Average of low and high values.

DCF MODEL - NON-UTILITY GROUP

Schedule 7
Page 1 of 2

BR+SV GROWTH RATE

		(a)	(a)	(a)			(b)	(c)		(d)	(e)		
		---------- 2016 ----------					Adjust.			--------- "sv" Factor --------			
	Company	EPS	DPS	BVPS	b	r	Factor	Adj. r	br	s	v	sv	br + sv
1	Abbott Labs.	$6.50	$2.40	$22.25	63.1%	29.2%	1.0345	30.2%	19.1%	(0.0114)	0.7718	-0.88%	**18.2%**
2	Bard (C.R.)	$8.75	$0.94	$34.75	89.3%	25.2%	1.0444	26.3%	23.5%	(0.0498)	0.7794	-3.88%	**19.6%**
3	Church & Dwight	$3.75	$1.00	$25.20	73.3%	14.9%	1.0525	15.7%	11.5%	(0.0187)	0.5968	-1.12%	**10.4%**
4	Coca-Cola Co.	$5.65	$2.76	$21.20	51.2%	26.7%	1.0317	27.5%	14.1%	(0.1085)	0.8196	-8.89%	**5.2%**
5	Colgate-Palmolive	$7.80	$3.50	$11.20	55.1%	69.6%	1.0682	74.4%	41.0%	(0.3648)	0.9277	-33.85%	**7.2%**
6	Gen'l Mills	$3.55	$1.60	$15.25	54.9%	23.3%	1.0381	24.2%	13.3%	(0.0398)	0.7227	-2.88%	**10.4%**
7	Kellogg	$5.00	$2.15	$9.05	57.0%	55.2%	1.0528	58.2%	33.2%	(0.1438)	0.8903	-12.80%	**20.4%**
8	Kimberly-Clark	$7.00	$3.50	$19.30	50.0%	36.3%	1.0319	37.4%	18.7%	(0.0691)	0.8070	-5.58%	**13.1%**
9	McCormick & Co.	$4.35	$1.80	$21.70	58.6%	20.0%	1.0621	21.3%	12.5%	0.0354	0.7520	2.66%	**15.1%**
10	McDonald's Corp.	$7.50	$3.75	$18.40	50.0%	40.8%	1.0167	41.4%	20.7%	(0.1280)	0.8467	-10.84%	**9.9%**
11	PepsiCo, Inc.	$5.40	$2.46	$24.25	54.4%	22.3%	1.0543	23.5%	12.8%	(0.0457)	0.7744	-3.54%	**9.2%**
12	Procter & Gamble	$5.95	$3.00	$34.40	49.6%	17.3%	1.0275	17.8%	8.8%	(0.0379)	0.6560	-2.49%	**6.3%**
13	Wal-Mart Stores	$6.30	$2.00	$31.50	68.3%	20.0%	1.0281	20.6%	14.0%	(0.0715)	0.6400	-4.58%	**9.5%**

BR+SV GROWTH RATE

		(a)	(a)	(f)	(a)	(a)		(g)	(a)	(a)	(f)
		---- Common Equity ----			---------- 2016 Price ---------				----- Common Shares -----		
	Company	2011	2016	Chg.	High	Low	Avg.	M/B	2011	2016	Growth
1	Abbott Labs.	$24,440	$34,500	7.1%	$105.00	$90.00	$97.50	4.382	1,570.40	1,550.00	-0.26%
2	Bard (C.R.)	$1,782	$2,780	9.3%	$175.00	$140.00	$157.50	4.532	84.54	80.00	-1.10%
3	Church & Dwight	$2,041	$3,450	11.1%	$70.00	$55.00	$62.50	2.480	142.29	137.00	-0.75%
4	Coca-Cola Co.	$31,635	$43,450	6.6%	$130.00	$105.00	$117.50	5.542	2,263.00	2,050.00	-1.96%
5	Colgate-Palmolive	$2,375	$4,700	14.6%	$170.00	$140.00	$155.00	13.839	480.02	420.00	-2.64%
6	Gen'l Mills	$6,366	$9,315	7.9%	$60.00	$50.00	$55.00	3.607	644.80	610.00	-1.10%
7	Kellogg	$1,760	$2,985	11.1%	$90.00	$75.00	$82.50	9.116	357.30	330.00	-1.58%
8	Kimberly-Clark	$5,249	$7,225	6.6%	$110.00	$90.00	$100.00	5.181	395.70	370.00	-1.33%
9	McCormick & Co.	$1,619	$3,015	13.2%	$95.00	$80.00	$87.50	4.032	133.05	139.00	0.88%
10	McDonald's Corp.	$14,390	$17,000	3.4%	$130.00	$110.00	$120.00	6.522	1,021.40	925.00	-1.96%
11	PepsiCo, Inc.	$20,899	$35,985	11.5%	$120.00	$95.00	$107.50	4.433	1,564.00	1,485.00	-1.03%
12	Procter & Gamble	$68,001	$89,500	5.6%	$110.00	$90.00	$100.00	2.907	2,765.70	2,590.00	-1.30%
13	Wal-Mart Stores	$71,315	$94,500	5.8%	$95.00	$80.00	$87.50	2.778	3,418.00	3,000.00	-2.58%

(a) The Value Line Investment Survey (retrieved Jul. 17, 2012).
(b) Computed using the formula 2*(1+5-Yr. Change in Equity)/(2+5 Yr. Change in Equity).
(c) Product of year-end "r" for 2016 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 2016 BVPS.

CAPM - UTILITY PROXY GROUP

Schedule 8
Page 1 of 2

CURRENT BOND YIELDS

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
		Market Return (R_m)								
	Company	Div Yield	Proj. Growth	Cost of Equity	Risk-Free Rate	Risk Premium	Beta	Unadjusted K_e	Size Adjustment	Implied Cost of Equity
1	ALLETE	2.6%	10.3%	12.9%	2.9%	10.0%	0.70	9.9%	1.75%	11.7%
2	Alliant Energy	2.6%	10.3%	12.9%	2.9%	10.0%	0.75	10.4%	0.94%	11.3%
3	Ameren Corp.	2.6%	10.3%	12.9%	2.9%	10.0%	0.80	10.9%	0.78%	11.7%
4	American Elec Pwr	2.6%	10.3%	12.9%	2.9%	10.0%	0.70	9.9%	-0.38%	9.5%
5	Avista Corp.	2.6%	10.3%	12.9%	2.9%	10.0%	0.70	9.9%	1.75%	11.7%
6	Black Hills Corp.	2.6%	10.3%	12.9%	2.9%	10.0%	0.85	11.4%	1.75%	13.2%
7	CenterPoint Energy	2.6%	10.3%	12.9%	2.9%	10.0%	0.80	10.9%	0.78%	11.7%
8	DTE Energy Co.	2.6%	10.3%	12.9%	2.9%	10.0%	0.75	10.4%	0.78%	11.2%
9	Edison International	2.6%	10.3%	12.9%	2.9%	10.0%	0.80	10.9%	0.78%	11.7%
10	El Paso Electric	2.6%	10.3%	12.9%	2.9%	10.0%	0.75	10.4%	1.75%	12.2%
11	Empire District Elec	2.6%	10.3%	12.9%	2.9%	10.0%	0.70	9.9%	1.77%	11.7%
12	Exelon Corp.	2.6%	10.3%	12.9%	2.9%	10.0%	0.80	10.9%	-0.38%	10.5%
13	FirstEnergy Corp.	2.6%	10.3%	12.9%	2.9%	10.0%	0.80	10.9%	-0.38%	10.5%
14	Great Plains Energy	2.6%	10.3%	12.9%	2.9%	10.0%	0.75	10.4%	1.17%	11.6%
15	Hawaiian Elec.	2.6%	10.3%	12.9%	2.9%	10.0%	0.70	9.9%	1.17%	11.1%
16	IDACORP, Inc.	2.6%	10.3%	12.9%	2.9%	10.0%	0.70	9.9%	1.74%	11.6%
17	NorthWestern Corp.	2.6%	10.3%	12.9%	2.9%	10.0%	0.70	9.9%	1.75%	11.7%
18	OGE Energy Corp.	2.6%	10.3%	12.9%	2.9%	10.0%	0.80	10.9%	0.94%	11.8%
19	Otter Tail Corp.	2.6%	10.3%	12.9%	2.9%	10.0%	0.90	11.9%	1.77%	13.7%
20	PG&E Corp.	2.6%	10.3%	12.9%	2.9%	10.0%	0.55	8.4%	-0.38%	8.0%
21	Pinnacle West Capital	2.6%	10.3%	12.9%	2.9%	10.0%	0.70	9.9%	0.94%	10.8%
22	Portland General Elec.	2.6%	10.3%	12.9%	2.9%	10.0%	0.75	10.4%	1.74%	12.1%
23	PPL Corp.	2.6%	10.3%	12.9%	2.9%	10.0%	0.65	9.4%	-0.38%	9.0%
24	Pub Sv Enterprise Grp	2.6%	10.3%	12.9%	2.9%	10.0%	0.75	10.4%	-0.38%	10.0%
25	SCANA Corp.	2.6%	10.3%	12.9%	2.9%	10.0%	0.65	9.4%	0.94%	10.3%
26	Sempra Energy	2.6%	10.3%	12.9%	2.9%	10.0%	0.80	10.9%	-0.38%	10.5%
27	TECO Energy	2.6%	10.3%	12.9%	2.9%	10.0%	0.85	11.4%	0.94%	12.3%
28	UIL Holdings	2.6%	10.3%	12.9%	2.9%	10.0%	0.70	9.9%	1.74%	11.6%
29	Westar Energy	2.6%	10.3%	12.9%	2.9%	10.0%	0.75	10.4%	0.94%	11.3%
	Average							**10.3%**		**11.2%**
	Range							**8.4% -- 11.9%**		**8.0% -- 13.7%**
	Midpoint							**10.2%**		**10.9%**

(a) Weighted average dividend yield for the dividend paying firms in the S&P 500 from www.valueline.com (Retreived Jul. 26, 2012)
(b) Weighted average of IBES earnings growth rates for the dividend paying firms in the S&P 500 from http://finance.yahoo.com (retrieved Jul. 26, 2012).
(c) (a) + (b).
(d) Six-month average yield on 30-year Treasury bonds for Mar. 2012 - Aug. 2012 from the Federal Reserve Board at http://www.federalreserve.gov/releases/h15/data/htm.
(e) (c) - (d).
(f) The Value Line Investment Survey (Jun. 22, Aug. 3, & Aug. 24, 2012)
(g) (d) + (e) x (f)
(h) *Morningstar* , "2012 Ibbotson SBBI Valuation Yearbook," at Appendix C, Table C-1 (2012).
(i) (g) + (h).

PROJECTED BOND YIELDS

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
		Market Return (R_m)			2013-17					
	Company	Div Yield	Proj. Growth	Cost of Equity	Risk-Free Rate	Risk Premium	Beta	Unadjusted K_e	Size Adjustment	Implied Cost of Equity
1	ALLETE	2.6%	10.3%	12.9%	4.6%	8.3%	0.70	10.4%	1.75%	12.2%
2	Alliant Energy	2.6%	10.3%	12.9%	4.6%	8.3%	0.75	10.8%	0.94%	11.8%
3	Ameren Corp.	2.6%	10.3%	12.9%	4.6%	8.3%	0.80	11.2%	0.78%	12.0%
4	American Elec Pwr	2.6%	10.3%	12.9%	4.6%	8.3%	0.70	10.4%	-0.38%	10.0%
5	Avista Corp.	2.6%	10.3%	12.9%	4.6%	8.3%	0.70	10.4%	1.75%	12.2%
6	Black Hills Corp.	2.6%	10.3%	12.9%	4.6%	8.3%	0.85	11.7%	1.75%	13.4%
7	CenterPoint Energy	2.6%	10.3%	12.9%	4.6%	8.3%	0.80	11.2%	0.78%	12.0%
8	DTE Energy Co.	2.6%	10.3%	12.9%	4.6%	8.3%	0.75	10.8%	0.78%	11.6%
9	Edison International	2.6%	10.3%	12.9%	4.6%	8.3%	0.80	11.2%	0.78%	12.0%
10	El Paso Electric	2.6%	10.3%	12.9%	4.6%	8.3%	0.75	10.8%	1.75%	12.6%
11	Empire District Elec	2.6%	10.3%	12.9%	4.6%	8.3%	0.70	10.4%	1.77%	12.2%
12	Exelon Corp.	2.6%	10.3%	12.9%	4.6%	8.3%	0.80	11.2%	-0.38%	10.9%
13	FirstEnergy Corp.	2.6%	10.3%	12.9%	4.6%	8.3%	0.80	11.2%	-0.38%	10.9%
14	Great Plains Energy	2.6%	10.3%	12.9%	4.6%	8.3%	0.75	10.8%	1.17%	12.0%
15	Hawaiian Elec.	2.6%	10.3%	12.9%	4.6%	8.3%	0.70	10.4%	1.17%	11.6%
16	IDACORP, Inc.	2.6%	10.3%	12.9%	4.6%	8.3%	0.70	10.4%	1.74%	12.2%
17	NorthWestern Corp.	2.6%	10.3%	12.9%	4.6%	8.3%	0.70	10.4%	1.75%	12.2%
18	OGE Energy Corp.	2.6%	10.3%	12.9%	4.6%	8.3%	0.80	11.2%	0.94%	12.2%
19	Otter Tail Corp.	2.6%	10.3%	12.9%	4.6%	8.3%	0.90	12.1%	1.77%	13.8%
20	PG&E Corp.	2.6%	10.3%	12.9%	4.6%	8.3%	0.55	9.2%	-0.38%	8.8%
21	Pinnacle West Capital	2.6%	10.3%	12.9%	4.6%	8.3%	0.70	10.4%	0.94%	11.4%
22	Portland General Elec.	2.6%	10.3%	12.9%	4.6%	8.3%	0.75	10.8%	1.74%	12.6%
23	PPL Corp.	2.6%	10.3%	12.9%	4.6%	8.3%	0.65	10.0%	-0.38%	9.6%
24	Pub Sv Enterprise Grp	2.6%	10.3%	12.9%	4.6%	8.3%	0.75	10.8%	-0.38%	10.4%
25	SCANA Corp.	2.6%	10.3%	12.9%	4.6%	8.3%	0.65	10.0%	0.94%	10.9%
26	Sempra Energy	2.6%	10.3%	12.9%	4.6%	8.3%	0.80	11.2%	-0.38%	10.9%
27	TECO Energy	2.6%	10.3%	12.9%	4.6%	8.3%	0.85	11.7%	0.94%	12.6%
28	UIL Holdings	2.6%	10.3%	12.9%	4.6%	8.3%	0.70	10.4%	1.74%	12.2%
29	Westar Energy	2.6%	10.3%	12.9%	4.6%	8.3%	0.75	10.8%	0.94%	11.8%
	Average							**10.8%**		**11.7%**
	Range							**9.2%** -- **12.1%**		**8.8%** -- **13.8%**
	Midpoint							**10.6%**		**11.3%**

(a) Weighted average dividend yield for the dividend paying firms in the S&P 500 from www.valueline.com (Retreived Jul. 26, 2012

(b) Weighted average of IBES earnings growth rates for the dividend paying firms in the S&P 500 from http://finance.yahoo.com (retrieved Jul. 26, 2012).

(c) (a) + (b).

(d) Average projected 30-year Treasury bond yield for 2013-2017 based on data from the Value Line Investment Survey, Forecast for the U.S. Economy (Aug. 24, 2012); IHS Global Insight, U.S. Economic Outlook at 19 (May 2012); & Blue Chip Financial Forecasts, Vol. 31, No. 6 (Jun. 1, 2012).

(e) (c) - (d).

(f) The Value Line Investment Survey (Jun. 22, Aug. 3, & Aug. 24, 2012)

(g) (d) + (e) x (f)

(h) *Morningstar* , "2012 Ibbotson SBBI Valuation Yearbook," at Appendix C, Table C-1 (2012).

(i) (g) + (h).

ELECTRIC UTILITY RISK PREMIUM **Schedule 9**

CURRENT BOND YIELDS

Current Equity Risk Premium

(a)	Avg. Yield over Study Period	8.91%
(b)	Aug. 2012 Average Utility Bond Yield	4.18%
	Change in Bond Yield	-4.73%
(c)	Risk Premium/Interest Rate Relationship	-0.4114
	Adjustment to Average Risk Premium	1.95%
(a)	Average Risk Premium over Study Period	3.41%
	Adjusted Risk Premium	**5.36%**

Implied Cost of Equity

(b)	Aug. 2012 BBB Utility Bond Yield	4.88%
	Adjusted Equity Risk Premium	5.36%
	Risk Premium Cost of Equity	**10.24%**

(a) Schedule 9, page 3.
(b) Moody's Investors Service, www.creditrends.com.
(c) Schedule 9, page 4.

PROJECTED BOND YIELDS

Current Equity Risk Premium

(a)	Avg. Yield over Study Period	8.91%
(b)	Projected Average Utility Bond Yield	6.60%
	Change in Bond Yield	-2.31%
(c)	Risk Premium/Interest Rate Relationship	-0.4114
	Adjustment to Average Risk Premium	0.95%
(a)	Average Risk Premium over Study Period	3.41%
	Adjusted Risk Premium	**4.36%**

Implied Cost of Equity

(b)	Projected BBB Utility Bond Yield	7.24%
	Adjusted Equity Risk Premium	4.36%
	Risk Premium Cost of Equity	**11.60%**

(a) Schedule 9, page 3.
(b) Based on data from IHS Global Insight, U.S. Economic Outlook at 19 (May 2012); Energy Information Administration, Annual Energy Outlook 2012 (Jun. 25, 2012); & Moody's Investors Service at www.credittrends.com.
(c) Schedule 9, page 4.

AUTHORIZED RETURNS

Year	(a) Allowed ROE	(b) Average Utility Bond Yield	Risk Premium
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	10.22%	5.13%	5.09%
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

Regression Statistics	
Multiple R	0.9062018
R Square	0.8212016
Adjusted R Square	0.816235
Standard Error	0.005182
Observations	38

ANOVA

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

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
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

EXPECTED EARNINGS APPROACH **Schedule 10**

Page 1 of 1

UTILITY PROXY GROUP

	Company	(a) Expected Return on Common Equity	(b) Adjustment Factor	(c) Adjusted Return on Common Equity
1	ALLETE	9.5%	1.025678	9.7%
2	Alliant Energy	10.5%	1.022242	10.7%
3	Ameren Corp.	7.0%	1.009396	7.1%
4	American Elec Pwr	10.0%	1.02427	10.2%
5	Avista Corp.	9.0%	1.022698	9.2%
6	Black Hills Corp.	8.0%	1.014469	8.1%
7	CenterPoint Energy	11.5%	1.021858	11.8%
8	DTE Energy Co.	9.5%	1.024386	9.7%
9	Edison International	9.0%	1.022847	9.2%
10	El Paso Electric	11.0%	1.017201	11.2%
11	Empire District Elec	9.0%	1.015138	9.1%
12	Exelon Corp.	12.5%	1.04971	13.1%
13	FirstEnergy Corp.	10.0%	1.015327	10.2%
14	Great Plains Energy	7.5%	1.02095	7.7%
15	Hawaiian Elec.	10.0%	1.047783	10.5%
16	IDACORP, Inc.	8.5%	1.028066	8.7%
17	NorthWestern Corp.	10.0%	1.027831	10.3%
18	OGE Energy Corp.	11.5%	1.037613	11.9%
19	Otter Tail Corp.	10.0%	1.033484	10.3%
20	PG&E Corp.	10.5%	1.026673	10.8%
21	Pinnacle West Capital	9.0%	1.023942	9.2%
22	Portland General Elec.	8.5%	1.019993	8.7%
23	PPL Corp.	11.5%	1.049212	12.1%
24	Pub Sv Enterprise Grp	11.0%	1.025251	11.3%
25	SCANA Corp.	9.5%	1.045707	9.9%
26	Sempra Energy	11.0%	1.024834	11.3%
27	TECO Energy	13.0%	1.024662	13.3%
28	UIL Holdings	9.5%	1.016316	9.7%
29	Westar Energy	8.5%	1.03203	8.8%
	Average (d)			**10.1%**
	Midpoint (e)			**10.2%**

(a) The Value Line Investment Survey (Jun. 22, Aug. 3, & Aug. 24, 2012).

(b) Adjustment to convert year-end return to an average rate of return from Schedule 5.

(c) (a) x (b).

(d) Excludes highlighted figures.

(e) Average of low and high values.

Exhibit No. 3
Case Nos. AVU-E-12-08 AVU-G-12-07
W. Avera, Avista
Schedule 10, p. 1 of 1