

TABLE OF CONTENTS

<u>Exhibit No</u>	<u>Title</u>	<u>Page</u>
AVA-400	DIRECT TESTIMONY OF WILLIAM E. AVERA	
I.	INTRODUCTION AND EXPERIENCE.....	3
	A. Qualifications.....	3
	B. Overview.....	5
	C. Summary and Conclusions.....	7
	D. Avista Corporation.....	8
	E. Electric Power Industry.....	10
	F. Impact of Capital Market Conditions.....	20
II.	CAPITAL MARKET ESTIMATES.....	23
	A. Cost of Equity Concept.....	23
	B. Proxy Group.....	26
	C. DCF Model.....	32
	D. Evaluation of DCF Results.....	36
III.	RETURN ON EQUITY FOR AVISTA.....	42
	A. Implications for Financial Integrity.....	42
	B. Capital Structure.....	47
	C. ROE Recommendation.....	51

Exhibits to Direct Testimony

<u>Exhibit No.</u>	<u>Description</u>
AVA-401	Qualifications of William E. Avera
AVA-402	Risk Measures – Electric Utility Proxy Group
AVA-403	FERC DCF Model – Electric Utility Proxy Group
AVA-404	“br + sv” Growth Rate – Electric Utility Proxy Group
AVA-405	FERC DCF Model – WECC Proxy Group
AVA-406	“br + sv” Growth Rate – WECC Proxy Group
AVA-407	Capital Structure – Electric Utility Proxy Group
AVA-408	Proxy Group Criteria
AVA-409	Interpreting DCF Results

I. INTRODUCTION AND EXPERIENCE

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

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

3 **Q. IN WHAT CAPACITY ARE YOU EMPLOYED?**

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

A. Qualifications

6 **Q. WHAT ARE YOUR QUALIFICATIONS?**

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

16 In 1977, I joined the staff of the Public Utility Commission of Texas (“PUCT”) as
17 Director of the Economic Research Division. During my tenure at the PUCT, I managed
18 a division responsible for financial analysis, cost allocation and rate design, economic
19 and financial research, and data processing systems, and I testified in cases on a variety
20 of financial and economic issues. Since leaving the PUCT in 1979, I have been engaged
21 as a consultant. I have participated in a wide range of assignments involving utility-
22 related matters on behalf of utilities, industrial customers, municipalities, and regulatory
23 commissions. I have previously testified before the Federal Energy Regulatory

1 Commission (“FERC” or the “Commission”), as well as the Federal Communications
2 Commission (“FCC”), the Surface Transportation Board (and its predecessor, the
3 Interstate Commerce Commission), the Canadian Radio-Television and
4 Telecommunications Commission, and regulatory agencies, courts, and legislative
5 committees in over 40 states.

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

11 I have served as Lecturer in the Finance Department at the University of Texas at
12 Austin and taught in the evening graduate program at St. Edward’s University for twenty
13 years. In addition, I have lectured on economic and regulatory topics in programs
14 sponsored by universities and industry groups. I have taught in hundreds of educational
15 programs for financial analysts in programs sponsored by the Association for Investment
16 Management and Research, the Financial Analysts Review, and local financial analysts
17 societies. These programs have been presented in Asia, Europe, and North America,
18 including the Financial Analysts Seminar at Northwestern University. I hold the
19 Chartered Financial Analyst (CFA[®]) designation and have served as Vice President for
20 Membership of the Financial Management Association. I have also served on the Board
21 of Directors of the North Carolina Society of Financial Analysts. I was elected Vice
22 Chairman of the National Association of Regulatory Commissioners (“NARUC”)
23 Subcommittee on Economics and appointed to NARUC’s Technical Subcommittee on
24 the National Energy Act. I have also served as an officer of various other professional

1 organizations and societies. A resume containing the details of my experience and
2 qualifications is attached as Exhibit AVA-401.

B. Overview

3 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

4 A. Avista Corporation (“Avista” or “the Company”) is requesting a 10.9 percent base return
5 on equity (“ROE”) in this case. The purpose of my testimony is to demonstrate that this
6 requested ROE is reasonable. My evaluation considered FERC’s established precedent
7 and policy objectives, corporate and financial information of Avista, industry conditions
8 and fundamentals, independent estimates of the ROE for a benchmark group of electric
9 utilities, as well as the particular exposures confronting the Company.

10 **Q. PLEASE SUMMARIZE THE BASIS OF YOUR KNOWLEDGE AND**
11 **CONCLUSIONS CONCERNING THE ISSUES TO WHICH YOU ARE**
12 **TESTIFYING IN THIS CASE.**

13 A. To prepare my testimony, I used information from a variety of sources that would
14 normally be relied upon by a person in my capacity. In connection with the present
15 filing, I considered and relied upon corporate disclosures and other published information
16 relating to Avista. In addition, I am familiar with FERC policy generally and have
17 submitted testimony in numerous proceedings at the Commission dealing with required
18 rates of return for electric utilities.¹ I also reviewed information relating generally to
19 capital markets and specifically to investor perceptions, requirements, and expectations
20 for regulated utilities in a restructured wholesale electric power market. These sources,

¹ See, e.g., Docket No. ER00-3316-000 on behalf of American Transmission Company, LLC, Docket No. ER02-485-000 involving the Midwest Independent Transmission System Operator, Inc. (“Midwest ISO”), Docket No. ER04-157-000 on behalf of the transmission-owning members of the ISO New England, Inc., Docket No. ER07-562-000 on behalf of Trans-Allegheny Interstate Line Company, Docket No. ER08-386-000 on behalf of Potomac-Appalachian Transmission Highline, LLC, Docket No. EL08-31-000 on behalf of Westar Energy, Inc., and Docket No. ER08-686-000 on behalf of Pepco Holdings, Inc.

1 coupled with my experience in the fields of finance and utility regulation, have given me
2 a working knowledge of ROE issues affecting Avista and are the basis of my conclusions.

3 **Q. WHAT IS THE ROLE OF THE RETURN ON EQUITY IN SETTING A**
4 **UTILITY'S RATES?**

5 A. The rate of return on common equity compensates shareholders for the use of their capital
6 to finance the plant and equipment necessary to provide utility service. Investors commit
7 capital only if they expect to earn a return on their investment commensurate with returns
8 available from alternative investments with comparable risks. To be consistent with
9 sound regulatory economics and the standards set forth by the Supreme Court in the
10 *Bluefield*² and *Hope*³ cases, a utility's allowed return on common equity should be
11 sufficient to: (1) fairly compensate capital invested in the utility, (2) enable the utility to
12 offer a return adequate to attract new capital on reasonable terms, and (3) maintain the
13 utility's financial integrity.

14 **Q. HOW DID YOU GO ABOUT DETERMINING THE ROE RANGE OF**
15 **REASONABLENESS FOR AVISTA?**

16 A. I first reviewed the operations and finances of Avista, as well as the general conditions in
17 the electric utility industry. With this background, I examined current capital market
18 conditions and conducted quantitative analyses to estimate the current cost of equity.
19 Specifically, I relied on the Discounted Cash Flow ("DCF") methodology currently
20 prescribed by this Commission and applied to a proxy group of electric utilities.

² *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923).

³ *Fed. Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

C. Summary and Conclusions

1 **Q. BASED ON YOUR EVALUATION, WHAT DID YOU CONCLUDE REGARDING**
2 **THE ROE REQUESTED BY AVISTA?**

3 A. Based on my analyses and evaluation, it is my conclusion that the 10.9 percent base ROE
4 requested by Avista is reasonable and in fact conservative in light of current capital
5 market requirements and should be approved. This ROE falls well within the zone of
6 reasonableness produced by applying the Commission's DCF approach to a proxy group
7 of electric utilities, and is below both the midpoint and median of the proxy group DCF
8 results.⁴

9 In evaluating the ROE for jurisdictional transmission operations, it is important to
10 consider the uncertainties associated with Avista and the challenges it faces in raising
11 capital for investment – including a renewed focus on regulatory uncertainties. In
12 addition, the allowed ROE for Avista must reflect the need to provide returns that are
13 sufficient to meet the established policy goal of promoting capital investment in utility
14 infrastructure, while recognizing investors' renewed focus on the associated risks.
15 Moreover, recent turmoil in the domestic and global financial markets and ongoing
16 economic uncertainties have exacerbated the risks faced by utilities and their investors.
17 In turn, the need for supportive regulation and an adequate ROE may never have been
18 greater. Taken together, these considerations confirm the reasonableness of my
19 recommended range and support Avista's requested ROE of 10.9 percent.

⁴ As discussed subsequently in my testimony, the DCF zone of reasonableness for a group of western utilities also support the reasonableness of Avista's requested ROE.

D. Avista Corporation

1 **Q. BRIEFLY DESCRIBE THE OPERATIONS AND FINANCES OF AVISTA.**

2 A. Headquartered in Spokane, Washington, Avista is engaged primarily in the procurement,
3 transmission, and distribution of electric energy and the distribution of natural gas, as
4 well as other energy-related businesses. The Avista Utilities operating division is
5 comprised of state-regulated utility activities, including retail electric distribution,
6 transmission and energy generation services and retail natural gas distribution service. In
7 addition to providing electric and natural gas utility service within a 26,000 square mile
8 area of eastern Washington and northern Idaho, Avista's utility segment also provides gas
9 distribution service in 4,000 square miles of northeast and southwest Oregon.

10 During 2008, Avista's energy deliveries totaled 11.0 million megawatt hours
11 ("MWh"). Sales to residential customers comprised 41.5 percent of retail sales, with 35.4
12 percent to commercial, 22.8 percent to industrial end-users, and 0.3 percent attributable to
13 other. Avista also supplies firm wholesale power service to various utilities and large
14 customers under sales contracts. Avista is interconnected with electric power systems in
15 the Western Electricity Coordinating Council ("WECC"), which includes 14 Western
16 states, Alberta and British Columbia, Canada, and parts of Mexico. In addition to its
17 thermal baseload and peaking units, Avista's existing generating units include eight
18 hydroelectric generating stations located in Idaho, Montana, and Washington with a
19 combined capacity of approximately 960 megawatts ("MW"). The electrical output of
20 these hydro plants, which has a significant impact on total energy costs, is dependent on
21 streamflows. At year-end 2008, Avista had total assets of \$3.6 billion, with total
22 operating revenues amounting to approximately \$1.6 billion.

23 Avista's retail electric operations are subject to the jurisdiction of the Washington
24 Utilities and Transportation Commission and the Idaho Public Utilities Commission, with
25 the interstate jurisdiction regulated by FERC. Additionally, Avista's hydroelectric

1 facilities are subject to licensing under the Federal Power Act, which is administered by
2 FERC. Relicensing is not automatic under federal law, and Avista must demonstrate that
3 it has operated its facilities in the public interest, which includes adequately addressing
4 environmental concerns.

5 **Q. WHAT CREDIT RATINGS HAVE BEEN ASSIGNED TO AVISTA?**

6 A. Avista is currently assigned a corporate credit rating of “BBB-” by Standard & Poor’s
7 Corporation (“S&P”), while Moody’s Investors Service (“Moody’s”) has assigned the
8 Company an issuer credit of “Baa3”. Fitch Ratings, Ltd. (“Fitch”) upgraded its issuer
9 default rating for Avista one notch to “BBB-” on May 19, 2009.⁵ The ratings assigned to
10 Avista represent the lowest rung on the ladder of the investment grade scale and any
11 deterioration in Avista’s credit standing would result in speculative, or “junk” bond
12 ratings.⁶

13 **Q. DOES AVISTA ANTICIPATE THE NEED TO ACCESS THE CAPITAL**
14 **MARKETS GOING FORWARD?**

15 A. Yes. Avista will require capital investment to meet customer growth, provide for
16 necessary maintenance and replacements of its utility systems, as well as fund new
17 investment in electric generation, transmission and distribution facilities. As discussed in
18 the testimony of Mr. Mark Thies, planned capital expenditures for 2010-2011 total
19 approximately \$420 million for Avista’s electric utility operations alone. This represents
20 a substantial capital commitment given that Avista’s investment in ratebase totals
21 approximately \$2.0 billion.

⁵ Fitch Ratings, Ltd, “Fitch Upgrades Avista Corp.’s IDR to ‘BBB-; Outlook Stable,” *Press Release* (May 19, 2009).

⁶ The Commission has recognized that a triple-B rating is a “minimum investment rating for an electric utility.” *Duquesne*, 118 FERC ¶ 61,087 at P 53.

1 Continued support for Avista's financial integrity and flexibility will be
2 instrumental in attracting the capital necessary to fund these projects in an effective
3 manner. Avista's reliance on purchased power to meet shortfalls in hydroelectric
4 generation magnifies the importance of strengthening financial flexibility, which is
5 essential to guarantee access to the cash resources and interim financing required to cover
6 inadequate operating cash flows, as well as fund required investments in the utility
7 system.

E. Electric Power Industry

8 **Q. WHAT GENERAL CONDITIONS HAVE CHARACTERIZED THE ELECTRIC**
9 **POWER INDUSTRY?**

10 A. Since the 1990s, the industry has experienced significant structural change resulting from
11 market forces and regulatory initiatives. At least initially, this process was largely driven
12 by regulatory reforms at the federal level. The Energy Policy Act of 1992 greatly
13 increased prospective competition for the production and sale of power at the wholesale
14 level, with FERC being a proponent of actions designed to foster greater competition in
15 markets for wholesale power supply.

16 In April 1996, the Commission adopted *Order No. 888*,⁷ which mandated open
17 access to the wholesale transmission facilities of jurisdictional electric utilities. The
18 Commission later addressed improvements to the transmission system, including the
19 establishment of Transmission Organizations, such as Regional Transmission

⁷ Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Order No. 888, 1991-1996 FERC Stats. & Regs., Regs. Preambles ¶ 31,036 (1996), order on reh'g, Order No. 888-A, 1996-2000 FERC Stats. & Regs., Regs. Preambles ¶ 31,048, order on reh'g, Order No. 888-B, 81 FERC ¶ 61,248 (1997), reh'g denied, Order No. 888-C, 82 FERC ¶ 61,046 (1998), aff'd in part and remanded in part sub nom. *Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

1 Organizations (“RTO”) and Independent System Operators (“ISO”), and has continued to
2 pursue the goal of creating “seamless” wholesale power markets that facilitate
3 transactions across transmission grid boundaries, among other objectives. In response to
4 the passage of the Energy Policy Act of 2005 (“EPAAct”), FERC also issued its *Order*
5 *Nos. 679 and 679-A*,⁸ establishing incentive-based rate treatments to promote
6 participation in Transmission Organizations and greater capital investment in electric
7 utility infrastructure.

8 **Q. HOW HAVE INVESTORS’ RISK PERCEPTIONS FOR THE UTILITY**
9 **INDUSTRY EVOLVED?**

10 A. Implementation of structural change and related events caused investors to rethink their
11 assessment of the relative risks associated with the utility industry. As S&P observed:

12 Credit markets are tight. Liquidity is constrained. And construction,
13 labor, and material costs are soaring. As if that weren’t enough, the U.S.
14 electric utility sector also faces aging infrastructure, declining capacity
15 margins, and increasing environmental compliance requirements.⁹ [

16 The past decade witnessed steady erosion in credit quality throughout the electric
17 power industry, both as a result of revised perceptions of the risks in the industry and the
18 weakened finances of industry participants themselves. S&P recently reported that the
19 majority of the companies in the utility sector now fall in the triple-B rating category.¹⁰

20 Similarly, Fitch Ratings Ltd. (“Fitch”) concluded that the short- and long-term outlook

⁸ Promoting Transmission Investment through Pricing Reform, 116 FERC ¶ 61,057 (2006) (“*Order No. 679*”); 117 FERC ¶ 61,327 (2006) (“*Order No. 679-A*”).

⁹ Standard & Poor’s Corporation, “Recovery Mechanisms Help Smooth Electric Utility Cash Flow And Support Ratings,” *RatingsDirect* (Mar. 9, 2009).

¹⁰ Standard & Poor’s Corporation, “Industry Report Card: U.S. Electric Utility Sector’s Liquidity Remains Adequate In Third Quarter 2009,” (Sep. 21, 2009).

1 for investor-owned electric utilities is negative,¹¹ while Moody's observed, "Material
2 negative bias appears to be developing over the intermediate and longer term due to
3 rapidly rising business and operating risks."¹²

4 **Q. IS THE POTENTIAL FOR ENERGY MARKET VOLATILITY AN ONGOING**
5 **CONCERN FOR INVESTORS?**

6 A. Yes. In recent years, utilities and their customers have had to contend with dramatic
7 fluctuations in energy costs due to ongoing price volatility in the spot markets and
8 investors recognize the prospect of further turmoil in energy markets. Moody's has
9 warned investors of ongoing exposure to "extremely volatile" energy commodity costs,
10 including purchased power prices, which are heavily influenced by fuel costs,¹³ and Fitch
11 noted that rapidly rising energy costs created vulnerability in the utility industry.¹⁴

12 For example, utilities and customers have had to contend with dramatic
13 fluctuations in gas costs due to ongoing price volatility in the spot markets. Moody's
14 concluded that natural gas "remains highly volatile," and warned that such price
15 fluctuations "could have a significant impact on a utility's liquidity profile."¹⁵ Similarly,
16 while coal has historically provided relative stability with respect to fuel costs, the
17 Energy Information Administration ("EIA"), a statistical agency of the U.S. Department
18 of Energy ("DOE"), reported that prices for Central and Northern Appalachia coal spiked
19 from approximately \$45 per ton in June 2007 to over \$140 per ton in September 2008,

¹¹ Fitch Ratings, Ltd., "U.S. Utilities, Power and Gas 2009 Outlook," *Global Power North America Special Report* (Dec. 22, 2008).

¹² Moody's Investors Service, "U.S. Electric Utility Sector," *Industry Outlook* (Jan. 2008).

¹³ Moody's Investors Service, "Storm Clouds Gathering on the Horizon for the North American Electric Utility Sector," *Special Comment* at 6 (Aug. 2007).

¹⁴ Fitch Ratings Ltd., "Staying Afloat: Downstream Liquidity in the Energy and Power Sectors," *Oil & Gas / Global Power Special Report* (June 16, 2008).

¹⁵ Moody's Investors Service, "Carbon Risks Becoming More Imminent for U.S. Electric Utility Sector," *Special Comment* (March 2009).

1 before falling back into the \$40 to \$50 range in September 2009.¹⁶

2 While expectations for significantly lower power prices reflect weaker
3 fundamentals affecting current load and fuel prices, investors recognize the potential that
4 such trends could quickly reverse. Indeed, Fitch highlighted the challenges that such
5 dramatic fluctuations in commodity prices can have for utilities and their investors and
6 recently noted that “uncertainty regarding fuel prices, in particular natural gas costs, has
7 made planning for the future even more problematic.”¹⁷ The rapid rise in electricity costs
8 that can result from higher wholesale energy prices has heightened investor concerns over
9 the implications for regulatory uncertainty. S&P noted that, while timely cost recovery
10 was paramount to maintaining credit quality in the electric utility sector, an “environment
11 of rising customer tariffs, coupled with a sluggish economy, portend a difficult regulatory
12 environment in coming years.”¹⁸

13 **Q. WHAT OTHER FINANCIAL PRESSURES IMPACT INVESTORS’ RISK**
14 **ASSESSMENT OF ELECTRIC UTILITIES?**

15 A. Investors are aware of the financial and regulatory pressures faced by utilities associated
16 with rising costs and the need to undertake significant capital investments. As Moody’s
17 observed:

18 [P]ressures are building. Utilities are facing rising operating costs and
19 infrastructure investment needs that are prompting them to seek more-
20 frequent requests for rate relief. Meanwhile, as energy (and other
21 commodity) costs rise, so does the risk of a consumer backlash over

¹⁶ Energy Information Administration, *Coal News and Markets* (Jun. 20 & Sep. 26, 2008, Oct. 13, 2009).

¹⁷ Fitch Ratings, Ltd., “Electric Utility Capital Spending: The Show Will Go On,” *Global Power U.S. and Canada Special Report* (Oct. 14, 2009).

¹⁸ Standard & Poor’s Corporation, “Top 10 U.S. Electric Utility Credit Issues For 2008 And Beyond,” *RatingsDirect* (Jan. 28, 2008).

1 electric rates that could prompt legislative intervention or a more
2 contentious atmosphere between utilities and their regulators.¹⁹

3 Similarly, S&P noted that “heavy construction programs”, along with rising operating
4 and maintenance costs and volatile fuel costs, were a significant challenge to the utility
5 industry.²⁰ Fitch recently echoed this assessment, concluding:

6 Continued access to capital at reasonable rates in 2009 remains uncertain
7 at a time when many utility holding groups have historically high capital
8 investment programs and will require ongoing access to reasonably priced
9 capital in order to fund new investment and refinance maturing debt.²¹

10 As noted earlier, investors anticipate that Avista will undertake significant electric
11 utility capital expenditures. S&P noted the pressures associated with financing Avista’s
12 infrastructure investment, concluding:

13 For a utility of its size, Avista has a large capital program and will need to
14 rely on external financing at a time when credit markets continue to be in
15 turmoil.²²

16 Investors are aware of the challenges posed by rising costs and burdensome capital
17 expenditure requirements, especially in light of Avista’s relatively weak credit standing
18 and recent capital market uncertainties.

¹⁹ Moody’s Investors Service, “U.S. Investor-Owned Electric Utilities: Six-Month Industry Update,” *Industry Outlook* (July 2008).

²⁰ Standard & Poor’s Corporation, “Ratings Roundup: Utility Sector Experienced Equal Number Of Upgrades And Downgrades During Second Quarter Of 2008,” *RatingsDirect* (Jul. 22, 2008).

²¹ Fitch Ratings Ltd., “U.S. Utilities, Power and Gas 2009 Outlook,” *Global Power North America Special Report* (Dec. 22, 2008).

²² Standard & Poor’s Corporation, “Avista Corp.’s \$200 Million, 364-Day Credit Facility Addresses Liquidity Constraints,” *RatingsDirect* (Dec. 1, 2008).

1 **Q. ARE ENVIRONMENTAL CONSIDERATIONS ALSO AFFECTING INVESTORS’**
2 **EVALUATION OF ELECTRIC UTILITIES?**

3 A. Yes. Utilities are confronting increased environmental pressures that have imposed
4 significant uncertainties and costs. In 2007 S&P cited environmental mandates, including
5 emissions, conservation, and renewable resources as one of the top ten credit issues
6 facing U.S. utilities.²³ Similarly, Moody’s noted that “the prospect for new
7 environmental emission legislation – particularly concerning carbon dioxide – represents
8 the biggest emerging issue for electric utilities”,²⁴ while Fitch observed that “the
9 structure, timing and implementation is still uncertain.”²⁵ S&P recently emphasized that
10 because of uncertainty over the details and timing of future limits on CO₂ emissions, “it is
11 important to reiterate that existing ratings in the U.S. power sector do not currently reflect
12 carbon risks.”²⁶

13 **Q. HAVE INVESTORS RECOGNIZED THAT ELECTRIC UTILITIES FACE**
14 **ADDITIONAL RISKS BECAUSE OF THE IMPACT OF INDUSTRY**
15 **RESTRUCTURING ON TRANSMISSION OPERATIONS?**

16 A. Yes. Transmission operations have become increasingly complex and investors have
17 recognized that difficulties in obtaining permits and uncertainty over the adequacy of
18 allowed rates of return have contributed to heightened risk and fueled concerns regarding
19 the adequacy of investment in the transmission sector of the electric power industry.

20 At the same time, the development of competitive wholesale power markets has

²³ Standard & Poor’s Corporation, “Top Ten Credit Issues Facing U.S. Utilities,” *RatingsDirect* (Jan. 29, 2007).

²⁴ Moody’s Investors Service, “U.S. Investor-Owned Electric Utilities,” *Industry Outlook* (Jan. 2009).

²⁵ Fitch Ratings, Ltd., “U.S. Utilities, Power and Gas 2009 Outlook,” *Global Power North America Special Report* (Dec. 22, 2008).

²⁶ *Id.*

1 resulted in increased demand for transmission resources. Concerns regarding the need to
2 encourage further investment in the transmission sector were exemplified by the
3 Commission's observations in *Order No. 679*:

4 [I]nvestment in transmission facilities in real dollar terms declined
5 significantly between 1975 and 1998. Although the amount of investment
6 has increased somewhat in the past few years, data for the most recent year
7 available, 2003, shows investment levels still below the 1975 level in real
8 dollars. This decline in transmission investment in real dollars has occurred
9 while the electric load using the nation's grid more than doubled. Further,
10 the record shows that the growth rate in transmission mileage since 1999 is
11 not sufficient to meet the expected 50 percent growth in consumer demand
12 for electricity over the next two decades.²⁷

13 The challenges posed by an increasingly complex marketplace heighten the
14 uncertainties associated with transmission operations while requiring the commitment of
15 significant new capital investment to maintain and enhance service capabilities. Early on,
16 the DOE noted the importance of regulatory policies in supporting economic rewards that
17 stimulate investment in new transmission:

18 The economic rewards from improving the transmission system must be
19 greater than the rewards from maintaining the status quo or decreasing the
20 system's ability to reliably support fair and efficient competitive wholesale
21 markets. ...The key to spurring new transmission investment lies in
22 ensuring that the rewards offered by this system of regulation are
23 commensurate with the risks of undertaking these investments and finding
24 innovative approaches to align costs and benefits.²⁸

25 **Q. CAN YOU DESCRIBE MORE FULLY THE REGULATORY RISKS THAT**
26 **INVESTORS ASSOCIATE WITH TRANSMISSION OPERATIONS?**

27 A. Yes. First, investors understand that there is always the potential that regulators will
28 prevent the recovery of the full costs associated with new investment in transmission.
29 They remember the amount of money that was disallowed by regulators through

²⁷ *Order No. 679* at P 10 (footnote omitted).

²⁸ United States Department of Energy, *National Transmission Grid Study* (May 2002) at 24-25, 30.

1 after-the-fact reviews in connection with the construction of generating projects in the
2 1980s and 1990s, and factor into their expectations the possibility of future cost
3 disallowances. There is no evidence that this exposure has ended with restructuring, and
4 investors have no reason to believe that regulators and intervenors will be less vigorous in
5 pursuing potential disallowances with respect to transmission than they have been in the
6 past with respect to generation projects. As Moody's observed:

7 [T]here are concerns arising from the sector's sizeable infrastructure
8 investment plans in the face of an environment of steadily rising operating
9 costs. Combined, these costs and investments can create a continuous need
10 for regulatory rate relief, which in turn can increase the likelihood for
11 political and/or regulatory intervention.²⁹

12 Similarly, S&P concluded, "Any potential for after-the-fact prudence reviews and cost
13 disallowances would stop transmission investment in its tracks by raising risks past the
14 balance with the returns offered by such investments."³⁰

15 Second, investors in transmission take into account the possibility that future
16 regulators might deem long-lived transmission assets to be obsolete because of
17 technological change or competition from alternatives. For example, if distributed
18 generation were to become a major new source of supply, it may reduce the need for
19 existing transmission assets. Thus, investors perceive a long-term risk in the potential for
20 stranded costs associated with transmission.

21 Third, investors recognize that there are federal-state jurisdictional issues
22 involving transmission, and that even if the Commission permits the costs of transmission
23 to be recovered through FERC rates, there is no assurance that utilities will be able to

²⁹ Moody's Investors Service, "Storm Clouds Gathering on the Horizon for the North American Electric Utility Sector," *Special Comment* (Aug. 2007).

³⁰ Standard & Poor's Corporation, "Capital Spending On Electric Transmission Is On The Upswing Around The World," *RatingsDirect* (Aug. 7, 2007).

1 obtain full and timely recovery of these costs from retail customers, which is where the
2 majority of the money must come from to repay Avista. Investors believe that operating
3 a capital intensive business in a regulatory “no-man’s land” created by multiple
4 jurisdictions means higher risk; a consideration that is not lost on potential investors.

5 Finally, investors recognize that utilities incur substantial up front costs to design
6 transmission projects and then obtain siting approvals for them, and that regulators or
7 customer groups may try to deny recovery of the associated costs if the projects are
8 unable to obtain the required approvals. The investment community understands that
9 regulation can lead to a significant lag between the time an investment is made and when
10 the costs are reflected in rates and these up front capital costs may be tied up without
11 earning an actual return for several years before the outcome of siting issues are decided.

12 **Q. HAVE THESE UNCERTAINTIES IMPACTED INVESTORS’ WILLINGNESS TO**
13 **SUPPLY CAPITAL?**

14 A. Yes. As early as 2003, the *Wall Street Journal* cited the debilitating impact of an
15 “unsteady regulatory environment” and the “chaotic combination of regulated and
16 deregulated markets” in explaining inhibitions to increased investment in the electric
17 utility system.³¹

18 Similarly, S&P recognized continued concerns over the need to overcome
19 obstacles to investment in transmission infrastructure and provide clarity in the regulatory
20 framework:

21 Like motherhood and apple pie, everybody favors pouring dollars into the
22 transmission grid to improve reliability and provide a stronger platform for
23 developing the wholesale electricity market, but there is considerably less

³¹ Smith, Rebecca, “Overloaded Circuits Blackout Signals Major Weakness in U.S. Power Grid,” The Wall Street Journal (Aug. 18, 2003).

1 consensus around how to encourage that investment (or least not discourage
2 it) and how to provide reasonable certainty concerning recovery.³²

3 Even when capital is available, transmission facilities must compete with alternative uses
4 and the additional funding necessary to meet the Commission's policy goals will only be
5 allocated if investors anticipate an opportunity to earn a return that is sufficient to
6 compensate for the associated risks. Continued concerns over the need to overcome these
7 uncertainties and promote greater investment in transmission infrastructure led to the
8 Commission's *Order No. 679*, which represents another evolution in the Commission's
9 efforts to expand transmission capacity.

10 **Q. HAS FERC RECOGNIZED THE NEED FOR NEW INCENTIVES FOR**
11 **INVESTMENT IN TRANSMISSION INFRASTRUCTURE?**

12 A. Yes. To address the requirements of Section 219 of the EPAct, *Order Nos. 679 and 679-A*
13 establish incentive-based rate treatments to achieve greater grid reliability and lower-cost
14 electric power for customers by encouraging membership in Transmission Organizations
15 and increased infrastructure investment. The Commission's rulings recognize the
16 legislative mandate to promote participation in Transmission Organizations as a platform
17 for capital investment, in light of the substantial challenges faced by utilities in
18 constructing new transmission projects. In response to this mandate, and after
19 considering stakeholder comments, FERC provides utilities with the opportunity to seek
20 various incentive rate treatments.

21 **Q. WHAT INCENTIVES DID THE COMMISSION ESTABLISH?**

22 A. *Order Nos. 679 and 679-A* affirmed the Commission's policy of authorizing incentive-
23 based rate treatment for utilities that join and/or continue to be a member of an RTO or

³² Standard & Poor's Corporation, "Capital Spending On Electric Transmission Is On The Upswing Around The World," *RatingsDirect* (Aug. 7, 2006).

1 other Commission-approved transmission organization. FERC concluded that providing
2 incentives to each utility that joins a Transmission Organization is consistent with the
3 mandate under the EPAct to ensure reliability and reduce the cost of delivered power:

4 We consider an inducement for utilities to join, and remain in, Transmission
5 Organizations to be entirely consistent with those purposes. The consumer
6 benefits, including reliability and cost benefits, provided by Transmission
7 Organizations are well documented, and the best way to ensure those
8 benefits are spread to as many consumers as possible is to provide an
9 incentive that is widely available to member utilities of Transmission
10 Organizations and is effective for the entire duration of a utility's
11 membership in the Transmission Organization.³³

12 In addition to authorizing incentives for utilities that participate in RTOs, the
13 Commission also established a number of incentives intended to directly encourage
14 construction of new transmission infrastructure. These include an incentive-based ROE
15 for investments in new transmission facilities, the ability to include 100 percent of
16 transmission-related Construction Work in Progress ("CWIP") in rates, potential recovery
17 of pre-commercial and pre-construction costs and abandoned plant costs that are beyond
18 the utility's control, as well as the possibility of employing a hypothetical capital
19 structure and accelerated depreciation.

F. Impact of Capital Market Conditions

20 **Q. WHAT ARE THE IMPLICATIONS OF RECENT CAPITAL MARKET**
21 **CONDITIONS?**

22 A. The financial and real estate crisis that accelerated during the third quarter of 2008 led to
23 unprecedented price fluctuations in the capital markets as investors dramatically revised
24 their risk perceptions and required returns. As a result of investors' trepidation to commit

³³ *Order No. 679-A* at P 86 (footnotes omitted).

1 capital, stock prices declined sharply while the yields on corporate bonds experienced a
2 dramatic increase.

3 With respect to utilities specifically, as of September 30, 2009, the Dow Jones
4 Utility Average stock index remained almost 30 percent below the level in June 2008.
5 This sell-off in common stocks and sharp fluctuations in utility bond yields reflect the
6 fact that the utility industry was not immune to the impact of financial market turmoil and
7 the ongoing economic downturn. As the Edison Electric Institute (“EEI”) noted in a
8 letter to congressional representatives as the financial crisis intensified, capital market
9 uncertainties have serious implications for utilities and their customers:

10 In the wake of the continuing upheaval on Wall Street, capital markets are
11 all but immobilized, and short-term borrowing costs to utilities have already
12 increased substantially. If the financial crisis is not resolved quickly,
13 financial pressures on utilities will intensify sharply, resulting in higher
14 costs to our customers and, ultimately, could compromise service
15 reliability.³⁴

16 Similarly, an October 1, 2008, *Wall Street Journal* report confirmed that utilities had
17 been forced to delay borrowing or pursue more costly alternatives to raise funds.³⁵

18 An October 2008 report on the implications of credit market upheaval for utilities
19 noted that even high-quality companies “now have to pay an unusually high risk
20 premium over Treasuries.”³⁶ S&P concluded in a December 2008 review of the electric
21 utility industry that, “the abnormally low interest rate environment of the 2000’s ... is a
22 distant memory.”³⁷ Meanwhile, a Managing Director with Fitch Ratings, Ltd. (“Fitch”)

³⁴ *Letter to House of Representatives*, Thomas R. Kuhn, President, Edison Electric Institute (Sep. 24, 2008).

³⁵ Smith, Rebecca, “Corporate News: Utilities’ Plans Hit by Credit Markets,” *Wall Street Journal* at B4 (Oct. 1, 2008).

³⁶ *Rudden’s Energy Strategy Report* (Oct. 1, 2008).

³⁷ Standard & Poor’s Corporation, “Industry Report Card: U.S. Electric Utility Credit Quality Remains Strong Amid Continuing Economic Downturn,” *RatingsDirect* (Dec. 19, 2008).

1 observed that, “significantly higher regulated returns will be required to attract equity
2 capital.”³⁸ In December 2008, Fitch confirmed “sharp repricing of and aversion to risk in
3 the investment community,” and noted that the disruptions in financial markets and the
4 fundamental shift in investors’ risk perceptions has increased the cost of capital for
5 utilities:

6 While credit is available to investment-grade issuers in the utilities, power
7 and gas sectors, it is more expensive, particularly when viewed against the
8 easy money environment which prevailed for most of this decade.³⁹

9 Fitch recently concluded, “While utilities maintained relatively good market access
10 during the credit crisis, the cost of capital is higher than prior to the credit crisis, and bank
11 credit remains relatively tight.”⁴⁰

12 **Q. WHAT DO THESE EVENTS IMPLY WITH RESPECT TO THE ROE FOR**
13 **AVISTA?**

14 A. No one knows the future of our complex global economy. We know that the financial
15 crisis had been building for a long time and few predicted that the economy would fall as
16 rapidly as it has, or that corporate bond yields would fluctuate as dramatically as they did.
17 While conditions in the economy and capital markets appear to have stabilized, investors
18 are apt to react swiftly and negatively to any future signs of trouble in the financial
19 system or economy. Given the importance of reliable electric power for customers and
20 the economy, it would be unwise to ignore investors’ increased sensitivity to risk in
21 evaluating Avista’s ROE.

³⁸ Fitch Ratings Ltd., “EEI 2008 Wrap-Up: Cost of Capital Rising,” *Global Power North America Special Report* (Nov. 17, 2008).

³⁹ Fitch Ratings Ltd., “U.S. Utilities, Power and Gas 2009 Outlook,” *Global Power North America Special Report* (Dec. 22, 2008).

⁴⁰ Fitch Ratings Ltd., “Electric Utility Capital Spending: The Show Will Go On,” *Global Power U.S. and Canada Special Report* (Oct. 14, 2009).

II. CAPITAL MARKET ESTIMATES

1 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?**

2 A. In this section, I develop estimates of the cost of equity for a proxy group of electric
3 utilities. First, I address the concept of the cost of equity, along with the risk-return
4 tradeoff principle fundamental to capital markets. Next, I describe the specific DCF
5 analyses I conducted to estimate the current cost of equity for the proxy group of electric
6 utilities.

A. Cost of Equity Concept

7 **Q. WHAT ROLE DOES THE RETURN ON COMMON EQUITY PLAY IN A**
8 **UTILITY'S RATES?**

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

15 **Q. WHAT FUNDAMENTAL ECONOMIC PRINCIPLE UNDERLIES THIS COST**
16 **OF EQUITY CONCEPT?**

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

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

$$3 \qquad k_i = R_f + RP_i$$

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

6 Thus, the required rate of return for a particular asset is a function of: (1) the yield on
7 risk-free assets and (2) the asset's relative risk, with investors demanding
8 correspondingly larger risk premiums for bearing greater risk.

9 **Q. IS THERE EVIDENCE THAT THE RISK-RETURN TRADEOFF PRINCIPLE**
10 **ACTUALLY OPERATES IN THE CAPITAL MARKETS?**

11 A. Yes. The risk-return tradeoff can be readily documented in segments of the capital
12 markets where required rates of return can be directly inferred from market data and
13 where generally accepted measures of risk exist. Bond yields, for example, reflect
14 investors' expected rates of return, and bond ratings measure the risk of individual bond
15 issues. The observed yields on government securities, which are considered free of
16 default risk, and bonds of various rating categories demonstrate that the risk-return
17 tradeoff does, in fact, exist in the capital markets.

18 **Q. DOES THE RISK-RETURN TRADEOFF OBSERVED WITH FIXED INCOME**
19 **SECURITIES EXTEND TO COMMON STOCKS AND OTHER ASSETS?**

20 A. It is generally accepted that the risk-return tradeoff evidenced with long-term debt
21 extends to all assets. Documenting the risk-return tradeoff for assets other than fixed
22 income securities, however, is complicated by two factors. First, there is no standard
23 measure of risk applicable to all assets. Second, for most assets – including common
24 stock – required rates of return cannot be directly observed. Yet there is every reason to

1 believe that investors exhibit risk aversion in deciding whether or not to hold common
2 stocks and other assets, just as when choosing among fixed-income securities.

3 **Q. IS THIS RISK-RETURN TRADEOFF LIMITED TO DIFFERENCES BETWEEN**
4 **FIRMS?**

5 A. No. The risk-return tradeoff principle applies not only to investments in different firms,
6 but also to different securities issued by the same firm. The securities issued by a utility
7 vary considerably in risk because they have different characteristics and priorities. Long-
8 term debt secured by a mortgage on property is senior among all capital in its claim on a
9 utility's net revenues and is, therefore, the least risky. Following first mortgage bonds are
10 other debt instruments also holding contractual claims on the utility's net revenues, such
11 as subordinated debentures. The last investors in line are common shareholders. They
12 receive only the net revenues, if any, that remain after all other claimants have been paid.
13 As a result, the rate of return that investors require from a utility's common stock, the
14 most junior and riskiest of its securities, must be considerably higher than the yield
15 offered by the utility's senior, long-term debt.

16 **Q. WHAT DOES THE ABOVE DISCUSSION IMPLY WITH RESPECT TO**
17 **ESTIMATING THE COST OF EQUITY?**

18 A. Although the cost of equity cannot be observed directly, it is a function of the returns
19 available from other investment alternatives and the risks to which the equity capital is
20 exposed. Because it is unobservable, the cost of equity for a particular utility must be
21 estimated by analyzing information about capital market conditions generally, assessing
22 the relative risks of the company specifically, and employing various quantitative
23 methods that focus on investors' required rates of return. These various quantitative
24 methods typically attempt to infer investors' required rates of return from stock prices,
25 interest rates, or other capital market data.

1 **Q. WHAT METHOD DID YOU USE TO EVALUATE THE COST OF EQUITY FOR**
2 **AVISTA?**

3 A. Consistent with FERC precedent, my recommendations are based on the results of the
4 Commission's one-step DCF methodology for electric utilities.⁴¹

B. Proxy Group

5 **Q. HOW DID YOU IMPLEMENT THE DCF METHOD TO ESTIMATE THE COST**
6 **OF COMMON EQUITY FOR AVISTA?**

7 A. Application of the DCF model to estimate the cost of equity requires observable capital
8 market data, such as stock prices. Even for a firm with publicly traded stock, however,
9 the cost of equity can only be estimated. As a result, applying quantitative models using
10 observable market data only produces a result that inherently includes some degree of
11 observation error. Thus, the accepted approach to increase confidence in the results is to
12 apply the DCF model to a proxy group of publicly traded companies that investors regard
13 as risk comparable. The results of the analysis on the sample of companies are relied
14 upon to establish a range of reasonableness for the cost of equity for the specific
15 company at issue.

16 **Q. WHAT SPECIFIC PROXY GROUP DID YOU RELY ON FOR YOUR ANALYSIS?**

17 A. In order to reflect the risks and prospects associated with Avista's jurisdictional utility
18 operations, my DCF analyses focused on a reference group of other utilities composed of
19 those companies included by The Value Line Investment Survey ("Value Line") in its
20 Electric Utilities Industry groups with: (1) S&P corporate credit ratings between "BBB-"

⁴¹ See, e.g., *Bangor Hydro-Elec. Co.*, 117 FERC ¶ 61,129 (2006) ("*Bangor Hydro*"); *Midwest Indep. Transmission Sys. Operator, Inc.*, 100 FERC ¶ 61,292 (2002) ("*Midwest ISO*"), *reh'g denied*, 102 FERC ¶ 61,143 (2003), *modified on other grounds sub nom. Pub. Serv. Comm'n v. FERC*, 397 F.3d 1004 (D.C. Cir. 2005); *S. Calif. Edison Co.*, 92 FERC ¶ 61,070 (2000) ("*Southern California Edison*"), *reh'g denied*, 108 FERC 61,085 (2004).

1 and “BBB”; (2) a Value Line Safety Rank of “2” or “3”; (3) a Value Line Financial
2 Strength Rating of “B” to “B++”, and (4) published data from Value Line and IBES.⁴² In
3 addition, I excluded three firms because they did not pay or are expected to cut common
4 dividend payments or are in the process of a major divestiture. These criteria resulted in
5 a proxy group composed of 19 companies, which I will refer to as the “Electric Utility
6 Proxy Group.”

7 **Q. DO THESE CRITERIA PROVIDE OBJECTIVE EVIDENCE THAT INVESTORS**
8 **WOULD VIEW THE FIRMS IN THE ELECTRIC UTILITY PROXY GROUP AS**
9 **RISK-COMPARABLE TO AVISTA?**

10 A. Yes. Credit ratings are assigned by independent rating agencies to provide investors with
11 a broad assessment of the creditworthiness of a firm. Because the rating agencies’
12 evaluation includes virtually all of the factors normally considered important in assessing
13 a firm’s relative credit standing, corporate credit ratings provide a broad, objective
14 measure of overall investment risk that is readily available to investors. Widely cited in
15 the investment community and referenced by investors, credit ratings are also frequently
16 used as a primary risk indicator in establishing proxy groups to estimate the cost of
17 equity. My bond rating criteria reflects the same “comparable risk band” adopted by the
18 Commission, interpreted as one “notch” higher or lower than the corporate credit ratings
19 of the utility at issue and within the investment grade ratings scale.⁴³

20 While credit ratings provide the most widely referenced benchmark for
21 investment risks, other quality rankings published by investment advisory services also

⁴² Formerly I/B/E/S International, Inc., IBES growth rates are now compiled and published by Thomson Reuters.

⁴³ See, e.g., *Potomac-Appalachian Transmission Highline, L.L.C.*, 122 FERC ¶ 61,188 at PP 98 & 99 (2008).

1 provide relative assessments of risks that are considered by investors in forming their
2 expectations for common stocks. Value Line's primary risk indicator is its Safety Rank,
3 which ranges from "1" (Safest) to "5" (Riskiest). This overall risk measure is intended to
4 capture the total risk of a stock, and incorporates elements of stock price stability and
5 financial strength. Given that Value Line is perhaps the most widely available source of
6 investment advisory information, its Safety Rank provides useful guidance regarding the
7 risk perceptions of investors.

8 The Financial Strength Rating is designed as a guide to overall financial strength
9 and creditworthiness, with the key inputs including financial leverage, business volatility
10 measures, and company size. Value Line's Financial Strength Ratings range from "A++"
11 (strongest) down to "C" (weakest) in nine steps.

12 As discussed earlier, Avista is rated "BBB-" by S&P. As shown on Exhibit
13 AVA-402, the average rating for the utilities in the Electric Utility Proxy Group is one
14 notch higher at "BBB". Meanwhile, Value Line has assigned Avista Corporation a
15 Safety Rank of "3" and a Financial Strength Rating of "B+", which are equivalent to the
16 averages for the proxy group companies. Based on my screening criteria, which reflect
17 objective, published indicators that incorporate consideration of a broad spectrum of
18 risks, including financial and business position, relative size, and exposure to company
19 specific factors, investors are likely to regard this group as having risks and prospects
20 comparable to Avista.

1 **Q. ARE THE PROXY GROUP FIRMS ALL CONSIDERED TO BE UTILITIES BY**
2 **THE INVESTMENT COMMUNITY?**

3 A. Yes. As shown on Exhibit AVA-402, Value Line, S&P, and Thomson Reuters class all of
4 the proxy group firms as utilities.⁴⁴ All of the firms included in the Electric Utility Proxy
5 Group were selected from Value Line’s Electric Utility industry groups and S&P
6 considers the proxy firms to be within either its “Electric Utilities” or “Multi-Utilities”
7 subgroups, which indicates that certain of these companies operate across more than one
8 regulated sector (*e.g.*, natural gas distribution). Meanwhile, Thomson Reuters considers
9 the majority of the proxy group firms to operate in its “Electricity” subgroup, with two
10 companies designated as being within the “Multiutilities” category. Considered together,
11 this evidence demonstrates that investors regard the proxy group firms as being
12 predominantly within the electric utility industry.

13 **Q. WHAT OTHER CONSIDERATIONS SUPPORT THE USE OF THIS PROXY**
14 **GROUP IN EVALUATING THE ROE FOR AVISTA?**

15 A. Estimating the cost of equity using any method is a stochastic process and the potential
16 for misleading findings increases as the proxy group is narrowed. Developing a broad-
17 based proxy group of comparable-risk electric utilities insulates against unreliable results.
18 The cost of equity is inherently unobservable and can only be inferred indirectly by
19 reference to available capital market data. Any form of analysis that depends on
20 estimates, such as the growth parameter of the DCF model, is subject to measurement
21 error. This potential for error is magnified when the analysis is restricted to a single

⁴⁴ As indicated earlier, Thomson Reuters compiles and publishes the IBES growth forecasts utilized in the Commission’s DCF model.

1 method, such as the DCF.⁴⁵ To the extent that the data used to apply the DCF model does
2 not capture the expectations that investors have incorporated into current stock prices, the
3 resulting cost of equity estimates will be biased and unreliable.

4 Although the Commission has on occasion accepted proxy groups as small as four
5 companies, FERC has generally recognized that a constrained proxy group “may not be
6 representative of industry conditions.”⁴⁶ The Electric Utility Proxy Group addresses the
7 problems associated with a limited sample by providing a greater number of data points
8 for the comparable-risk utilities. The Electric Utility Proxy Group will provide a large
9 enough sample that the Commission can be assured that it is representative of industry
10 conditions and investor expectations and requirements for Avista. The Company will
11 compete with utilities throughout the country for the same limited pool of capital in order
12 to finance infrastructure investment. Avista should be permitted to offer comparable
13 returns to potential investors of equity capital as are available elsewhere in the country.

14 **Q. IS THE APPROACH YOU USED TO DEFINE THE ELECTRIC UTILITY**
15 **PROXY GROUP CONSISTENT WITH FERC PRECEDENT?**

16 A. Yes. The ultimate goal of assembling a proxy group for purposes of performing the DCF
17 analysis is to calculate a return for the utility in question that is analogous to returns on
18 comparable investments with a similar risk profile.⁴⁷ As such, for decades the
19 Commission has assembled proxy groups by measuring and assessing various utilities

⁴⁵ In contrast to FERC’s practice of focusing on DCF results, regulators have customarily considered alternative approaches in determining allowed returns, which can increase confidence that range of reasonableness is reliable and does not include implied costs of equity that are the result of spurious observations included in the data.

⁴⁶ *Enbridge Pipelines (KPC)*, 100 FERC ¶ 61,260 at P 237 (2002) (citing *Transcontinental Gas Pipe Line Corp.*, 60 FERC ¶ 63,001, at 65,041, *aff’d in part, rev’d in part*, 60 FERC ¶ 61,246, at 61,826 (1992), *rev’d and remanded*, *North Carolina Utilities v. FERC*, 42 F.3d 659 (1994), Order on Rehearing, *Transco*, 71 FERC ¶ 61,305, at 62,195 (1995)).

⁴⁷ *See, e.g., Southern California Edison Co.*, Opinion. No. 445, 92 FERC ¶ 61,070 at 61,266 (2000).

1 against objective screening criteria, such as credit ratings, without regard to geographic
2 location.⁴⁸ For example, in *Southern California Edison*, which established the
3 Commission’s current DCF approach for electric utilities, the Commission included
4 Constellation Energy and Duke Energy in a proxy group designed to capture the risks of a
5 California-based utility.⁴⁹ The Commission has also confirmed that a utility should not
6 be eliminated from a proxy group “solely because of geographic or climatic
7 differences.”⁵⁰ Use of the Electric Utility Proxy Group to determine the ROE for Avista
8 is therefore fully justified and consistent with the Commission’s longstanding approach
9 and precedent.

10 **Q. HAS THE COMMISSION ALSO CONSIDERED GEOGRAPHICAL LOCATION**
11 **WHEN ESTABLISHING PROXY GROUPS?**

12 A. Yes. In cases involving services provided under Open Access Transmission Tariffs within
13 the context of well-integrated and coordinated market operations conducted by
14 Transmission Organizations, the Commission has accepted proxy groups composed of
15 transmission-owning members of adjacent RTOs or ISOs.⁵¹

⁴⁸ See, e.g., *N. Ind. Pub. Serv. Co.*, 79 FERC ¶ 63,009 at 65,120 (1997) (describing Staff’s comparable group selection criteria), *aff’d in relevant part*, 101 FERC ¶ 61,394 at P 38 (2002) (affirming use of Staff’s comparable group); *New York State Elec. & Gas Co.*, 85 FERC ¶ 63,002 at 65,030, 65,034 (1998), *aff’d in relevant part*, 92 FERC ¶ 61,169 at 61,592 n.42 (2000) (affirming zone of reasonableness for comparable group selected by Judge); *Southern California Edison Co.*, 92 FERC at 61,264-65; *Consumers Energy Co.*, 64 FERC ¶ 63,029 at 65,133, 65,138 (1993), *aff’d in relevant part*, 85 FERC ¶ 61,100 at 61,361 (1998); *Boston Edison Co.*, 66 FERC ¶ 63,013 at 65,079, 65,084 (1994), *aff’d in relevant part*, 77 FERC ¶ 61,272 at 62,171-72 (1996); *Jersey Central Power & Light Co.*, 60 FERC ¶ 63,012 at 65,106, 65,109 (1992), *aff’d in relevant part*, 77 FERC ¶ 61,001 at 61,008-09 (1996).

⁴⁹ 92 FERC ¶ 61,070 (2000).

⁵⁰ *Consumers Energy Co.*, 98 FERC ¶ 61,333 at 62,412 (2002).

⁵¹ See, e.g., *Bangor Hydro*, 117 FERC ¶ 61,129 (2006), *Potomac-Appalachian Transmission Highline, LLC (“PATH”)*, 122 FERC ¶ 61,188 (2008); *Virginia Electric Power Co. (“VEPCo”)*, 123 FERC ¶ 61,098 (2008).

1 **Q. DID YOU ALSO EVALUATE DCF RESULTS USING A GEOGRAPHICALLY-**
2 **BASED PROXY GROUP?**

3 A. As explained in Exhibit AVA-408, there is currently little economic or financial basis that
4 would support reliance on a geographically based proxy group to evaluate the ROE for
5 Avista in this case. Nevertheless, as discussed subsequently I also examined the results
6 of the Commission's DCF model applied to a group of utilities within the footprint of the
7 WECC, which I refer to as the "RTO Proxy Group".

C. DCF Model

8 **Q. HOW IS THE DCF MODEL USED TO ESTIMATE THE COST OF EQUITY?**

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

20 **Q. WHAT MARKET VALUATION PROCESS UNDERLIES DCF MODELS?**

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

1 **Q. WHAT FORM OF THE DCF MODEL IS CUSTOMARILY USED TO ESTIMATE**
2 **THE COST OF EQUITY IN RATE CASES?**

3 A. Rather than developing annual estimates of cash flows into perpetuity, after making
4 certain assumptions, the DCF model can be simplified to a “constant growth” form:

5
$$P_0 = \frac{D_1}{k_e - g}$$

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

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

11
$$k_e = \frac{D_1}{P_0} + g$$

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

16 **Q. HOW DID YOU CALCULATE THE DIVIDEND YIELD COMPONENT OF THE**
17 **DCF MODEL FOR THE ELECTRIC UTILITY PROXY GROUP?**

18 A. Following Commission policy, average low and high indicated dividend yields were
19 calculated for each electric utility during the six months April through September 2009.
20 As indicated on Exhibit AVA-403, these six-month average low and high historical
21 dividend yields were also increased by one-half of the low and high growth rates
22 discussed subsequently ($1 + 0.5g$) to convert them to adjusted dividend yields.

1 **Q. WHAT GROWTH RATES ARE USED IN THE COMMISSION'S ONE-STEP DCF**
2 **METHOD FOR ELECTRIC UTILITIES?**

3 A. The one-step DCF method for electric utilities adopted by the Commission employs two
4 growth rates for each firm. The first growth rate is a “sustainable” growth rate calculated
5 by the following formula:

6
$$g = br + sv$$

7 where: b = expected retention ratio;
8 r = expected earned rate of return;
9 s = percent of common equity expected to be issued
10 annually as new common stock;
11 v = equity accretion ratio.

12 The second growth rate is the IBES consensus 5-year earnings growth forecast. These
13 two growth rates are combined with the adjusted dividend yields to develop a cost of
14 equity range for each company.

15 **Q. HOW DID YOU CALCULATE THE SUSTAINABLE GROWTH RATE FOR THE**
16 **FIRMS IN THE ELECTRIC UTILITY PROXY GROUP?**

17 A. For each electric utility, the expected retention ratio (b) was calculated based on projected
18 dividends and earnings per share from Value Line for 2009, 2010, and their 2012-2014
19 forecast horizon. Consistent with the Commission’s DCF method, each firm's expected
20 earned rate of return (r) was based on Value Line’s end-of-year forecasts.⁵² In *Southern*
21 *California Edison*, the Commission correctly recognized that if the rate of return, or “r”
22 component of the br+sv growth rate, is based on end-of-year book values, such as those
23 reported by Value Line, it will understate actual returns because of growth in common
24 equity over the year.⁵³ Accordingly, consistent with the Commission’s findings and the

⁵² *Bangor Hydro Order on Rehearing*, 122 FERC ¶ 61,265 at P 22 (2008).

⁵³ *Southern California Edison* at 61,263 and fn. 38.

1 theory underlying this approach to estimating investors' growth expectations, an
2 adjustment was incorporated to compute an average rate of return.⁵⁴ Finally, the percent
3 of common equity expected to be issued annually as new common stock (s) was equal to
4 the product of the projected market-to-book ratio and growth in common shares
5 outstanding over Value Line's forecast horizon, while the equity accretion rate (v) was
6 computed as 1 minus the inverse of the projected market-to-book ratio. The calculation
7 of the sustainable growth rate for each electric utility is shown on Exhibit AVA-404.

8 **Q. WHAT ARE INVESTMENT ANALYSTS' PROJECTED GROWTH RATES FOR**
9 **THE COMPANIES IN THE ELECTRIC UTILITY PROXY GROUP?**

10 A. The five-year IBES earnings growth forecasts for each electric utility in the proxy group
11 are shown in column (d) on Exhibit AVA-403.

12 **Q. WHAT WERE THE RESULTS OF APPLYING THE COMMISSION'S ONE-STEP**
13 **DCF APPROACH TO THE PROXY GROUP OF ELECTRIC UTILITIES?**

14 A. As shown on Exhibit AVA-403, application of the Commission's DCF model to the
15 Electric Utility Proxy Group resulted in current cost of equity estimates ranging from 6.8
16 percent to 19.6 percent.

⁵⁴ Use of an average return in developing the sustainable growth rate is well supported. See, e.g., Morin, Roger A., "Regulatory Finance: Utilities' Cost of Capital," Public Utilities Reports, Inc. (1994), which discusses the need to adjust Value Line's end-of-year data, consistent with the Commission's findings in *Southern California Edison*. The Commission affirmed the need for this adjustment to "r" in *Bangor Hydro Order on Rehearing*, 122 FERC ¶ 61,265 (2008).

D. Evaluation of DCF Results

1 **Q. IN EVALUATING THE RESULTS OF THE CONSTANT GROWTH DCF**
2 **MODEL, IS IT APPROPRIATE TO ELIMINATE COST OF EQUITY**
3 **ESTIMATES THAT ARE EXTREME OUTLIERS?**

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

8 **Q. HOW DID YOU EVALUATE DCF ESTIMATES AT THE LOW END OF THE**
9 **RANGE?**

10 A. It is a basic economic principle that investors can be induced to hold more risky assets
11 only if they expect to earn a return to compensate them for their risk bearing. As a result,
12 the rate of return that investors require from a utility's common stock, the most junior and
13 riskiest of its securities, must be considerably higher than the yield offered by senior,
14 long-term debt. Consistent with this principle, the DCF range for the Electric Utility
15 Proxy Group must be adjusted to eliminate cost of equity estimates that are determined to
16 be extreme low outliers when compared against the yields available to investors from less
17 risky utility bonds.

18 **Q. HAS THE COMMISSION RECOGNIZED THAT IT IS APPROPRIATE TO**
19 **ELIMINATE COST OF EQUITY ESTIMATES THAT FAIL TO MEET**
20 **THRESHOLD TESTS OF ECONOMIC LOGIC?**

21 A. Yes. In *Southern California Edison* the Commission noted that adjustments to the zone
22 of reasonableness are justified where applications of its preferred DCF approach produce
23 illogical results:

24 An adjustment to this data is appropriate in the case of PG&E's low-end
25 return of 8.42 percent, which is comparable to the average Moody's "A"

1 grade public utility bond yield of 8.06 percent, for October 1999. Because
2 investors cannot be expected to purchase stock if debt, which has less risk
3 than stock, yields essentially the same return, this low-end return cannot
4 be considered reliable in this case.⁵⁵

5 Similarly, the practice of eliminating low-end outliers was affirmed in *PATH* and
6 *VEPCo*,⁵⁶ and in its February 2008 decision in *Atlantic Path 15*, the Commission
7 disregarded a low-end cost of equity estimate of 7.29 percent.⁵⁷ More recently, in its
8 March 27, 2009 decision in *Pioneer*, FERC concluded that it would exclude low-end
9 ROEs “within about 100 basis points above the cost of debt.”⁵⁸

10 **Q. WHAT IS THE APPROPRIATE BOND YIELD BENCHMARK TO EVALUATE**
11 **LOW-END DCF RESULTS FOR THE ELECTRIC UTILITY PROXY GROUP?**

12 A. As noted earlier, the S&P corporate credit rating associated with the firms in the Electric
13 Utility Proxy Group range from “BBB-” to “BBB”. Companies rated “BBB-”, “BBB”,
14 and “BBB+” are all considered part of the triple-B rating category, with Moody’s
15 monthly yields on triple-B utility bonds averaging approximately 7.1 percent over the
16 six-month period ending September 2009.⁵⁹ As highlighted on Exhibit AVA-403, five
17 cost of equity estimates for the firms in the Electric Utility Proxy Group exceeded this
18 threshold by 100 basis points or less. In light of the risk-return tradeoff principle and the
19 test applied in *Pioneer*, it is inconceivable that investors are not requiring substantially
20 higher rates of return for holding common stock, which is the riskiest of a utility’s
21 securities. As a result, these values provide little guidance as to the returns investors
22 require from the common stock of an electric utility.

⁵⁵ *Southern California Edison* at 61,266 (footnote omitted).

⁵⁶ *PATH* at P 98; *VEPCo* at P 64.

⁵⁷ *Atlantic Path 15*, 122 FERC ¶ 61,135 at P 20 (2008); *Prepared Direct Testimony of James M. Coyne*, Exhibit No. ATL-7.

⁵⁸ *Pioneer Transmission, LLC*, 126 FERC ¶ 61,281 at P 94 (2009) (“*Pioneer*”).

⁵⁹ Moody’s Investors Service, www.credittrends.com.

1 **Q. DO YOU BELIEVE THAT THE CURRENT YIELD TO MATURITY FOR**
2 **OUTSTANDING BOND ISSUES SPECIFIC TO EACH UTILITY SHOULD**
3 **SERVE AS THE BASIS FOR APPLYING THIS TEST OF REASONABLENESS?**

4 A. No. As in *Pioneer*, the Commission has not customarily referenced company-specific
5 debt issues but instead employs an average yield on long-term utility bonds of
6 corresponding risk – and for good reason. As explained earlier, because common equity
7 is a perpetual asset, investors are concerned with expectations for the firm’s long-term
8 risks and prospects. This does not mean that every investor will buy and hold a particular
9 common stock forever. Rather, it recognizes that even an investor with a relatively short
10 holding period will consider the long-term because of its influence on the price that he or
11 she ultimately receives from the stock when it is sold. In order to mirror this long-term
12 horizon in evaluating the reasonableness of DCF cost of equity estimates, the appropriate
13 comparison is with long-term debt instruments.

14 Meanwhile, the yield for the embedded debt issues of a specific utility will
15 typically reflect a ladder of shorter-term maturities, which does not match the long-term
16 horizon relevant to an evaluation of common equity returns. In addition to different
17 terms to maturity, using yields on company-specific bonds as a benchmark is fraught with
18 other problems. The yield to maturity on any particular bond is influenced by specific
19 attributes of the securities, such as coupon rate, call provisions or convertibility, and size
20 of the issue. Indeed, the Financial Analysis Branch of the Commission previously noted
21 some of these problems in a 1992 study:

22 Determining the bond cost has proven more difficult, however. Ideally, all
23 utilities would have a bond: with identical terms and conditions; maturing
24 in 30 years ... and bear a coupon similar to the market rate, thus

1 accurately reflecting the debt cost of the company. For most companies
2 bonds with identical terms were not available.⁶⁰

3 Because of these attributes, the yields for company-specific debt issues do not
4 provide a reliable basis on which to evaluate the results of the Commission's DCF model.
5 These measurement problems are avoided by using average yields for risk-comparable
6 long-term utility bonds, such as the Moody's yield averages routinely referenced by the
7 Commission Staff.⁶¹

8 **Q. DO YOU ALSO RECOMMEND EXCLUDING COST OF EQUITY ESTIMATES**
9 **AT THE HIGH END OF THE RANGE OF REASONABLENESS?**

10 A. Yes. In a November 2004 Order in *Bangor Hydro*, the Commission determined that a
11 cost of equity estimate at the high end of the range of reasonableness might also be
12 excluded if it is determined to be an extreme outlier.⁶² Specifically, the Commission
13 found that a 17.7 percent cost of equity estimate for PPL was "extreme" and that
14 including this result would "skew the results."⁶³ While expressing concern regarding the
15 sustainability of the underlying 13.3 percent growth estimate for PPL, the Commission
16 retained other cost of equity estimates based on even higher growth rates.⁶⁴

17 As noted earlier, the upper end of the cost of equity range produced by the DCF
18 analysis presented in Exhibit AVA-403 was based on a cost of equity estimate of 19.6

⁶⁰ Financial Analysis Branch, *Risk Premium Study* (Aug. 4, 1992) at 3.

⁶¹ See, e.g., *Idaho Power Co.*, Docket No. ER06-787-002, *Prepared Answering Testimony of Commission Staff Witness Edward Alvarez III*, Exhibit No. S-11, at 15 (filed Jan. 24, 2007).

⁶² *Order Accepting Partial Settlement, Subject to Conditions; Accepting in Part, Compliance Filings; and Granting in Part, and Denying, in Part, Requests for Rehearing*, 109 FERC ¶ 61,147 (2004) ("*RTO Rehearing Order*") at P 205.

⁶³ *Id.*

⁶⁴ The DCF analysis that served as the basis for the *RTO Rehearing Order* contained a br+sv growth rate for Exelon Corporation ("Exelon") of 13.6 percent. Nevertheless, the Commission elected to retain Exelon in the proxy group and made no mention of this growth rate figure in its findings.

1 percent. Accordingly, this high-end cost of equity estimate is clearly an extreme outlier
2 and is properly excluded under the rationale adopted by the Commission in *Bangor*
3 *Hydro*.

4 **Q. WOULD THESE CRITERIA JUSTIFY ELIMINATING OTHER HIGH-END DCF**
5 **VALUES FROM YOUR DCF RANGE?**

6 A. No. As shown on Exhibit AVA-403, the high-end DCF estimate for PPL was 17.5
7 percent, which falls below the threshold adopted by the Commission in *Bangor Hydro*.
8 Similarly, the 12.5 percent growth rate underlying this cost of equity estimate is also less
9 than the 13.3 percent benchmark that has been used by the Commission to evaluate
10 values at the high end of the DCF range.⁶⁵ Moreover, the rationale for excluding outliers
11 adopted by the Commission in its *RTO Rehearing Order* focused foremost on the
12 magnitude of high-end cost of equity estimates relative to the balance of the proxy group
13 results. The 17.5 percent upper end of my DCF range is not an “extreme outlier” when
14 compared with the balance of the proxy group estimates, with the 16.9 percent high-end
15 DCF cost of equity estimate for Cleco Corporation falling within 60 basis points of this
16 result.⁶⁶ A 17.5 percent cost of equity estimate may exceed expectations for most electric
17 utilities, just as the 8.6 percent low-end estimate is assuredly far below investors’ required
18 rate of return. Taken together, however, these values provide a reasonable basis on which
19 to frame the DCF range under the guidelines of the Commission’s DCF approach.
20 Accordingly, this high-end cost of equity estimate is properly included under the rationale
21 adopted by the Commission.

⁶⁵ See, e.g., *PATH* at P 100.

⁶⁶ This 16.9 percent value is equivalent to the upper-end of the DCF range approved by the Commission for Tallgrass Transmission, LLC and Prairie Wind Transmission, LLC. *Tallgrass Transmission, LLC & Prairie Wind Transmission, LLC*, 125 FERC ¶ 61,248 (2008) at P 78.

1 **Q. WHAT ROE RANGE DO YOUR DCF RESULTS IMPLY FOR THE ELECTRIC**
2 **UTILITY PROXY GROUP?**

3 A. Eliminating the individual low- and high-end outliers shaded on Exhibit AVA-403
4 resulted in an adjusted range of reasonableness for the Electric Utility Proxy Group
5 ranging from 8.6 percent to 17.5 percent, with a midpoint of 13.1 percent. As discussed
6 in Exhibit AVA-409, I do not support or recommend reliance on the median to evaluate
7 the ROE for Avista. Nevertheless, as indicated on Exhibit AVA-403, if the median is
8 based on the average of the high and low estimates for those proxy group firms with no
9 extreme outliers, as was the case in *VEPCo*, the result is 11.5 percent.

10 **Q. WHAT DCF RESULTS WOULD BE IMPLIED USING A GEOGRAPHICALLY-**
11 **BASED PROXY GROUP OF WESTERN UTILITIES?**

12 A. As discussed in Exhibit AVA-408, there is currently no economic or financial basis that
13 would support reliance on a geographically based proxy group of WECC utilities to
14 determine the ROE for Avista in this case. Moreover, in addition to the fact that there is
15 no clear link between investors' risk perceptions and membership in a regional reliability
16 organization, there are considerable practical constraints that limit the usefulness of a
17 proxy group based solely on WECC membership.

18 Of the publicly-traded members of the WECC, only five firms have S&P
19 corporate credit ratings that fall within the Commission's comparable risk band for
20 Avista,⁶⁷ Further, of the ten separate cost of equity estimates for these firms shown in
21 Exhibit AVA-405,⁶⁸ four fall below the threshold of reasonableness implied by the

⁶⁷ Of the fifteen publicly-traded member firms, one was a diversified conglomerate, three lacked the information necessary to apply the Commission's DCF model, and seven had S&P credit ratings outside the comparable risk band for Avista.

⁶⁸ The "br+sv" growth rates for this group of WECC utilities are displayed in Exhibit AVA-406.

1 Commission's decision in *Pioneer*. As discussed earlier, because of the inherent
2 limitations of the DCF method, confidence in the ability of the analysis to reflect
3 investors' requirements is decreased as the size of the proxy group is constrained and the
4 number of meaningful DCF estimates is reduced.⁶⁹ After excluding extreme outliers,
5 application of the Commission's DCF approach to this group of WECC utilities results in
6 an ROE range of reasonableness of 8.6 percent to 14.0 percent, with a midpoint of 11.3
7 percent. However, because of the limitations discussed above these results should be
8 given no weight, with the ROE range of reasonableness for the Electric Utility Proxy
9 Group providing a far superior guide to investors' requirements.

III. RETURN ON EQUITY FOR AVISTA

10 Q. WHAT IS THE PURPOSE OF THIS SECTION?

11 A. This section presents my conclusions regarding an ROE range of reasonableness for
12 Avista. It examines other factors properly considered in determining a fair rate of return,
13 including the relationship between ROE and preservation of a utility's financial integrity
14 and the ability to attract capital.

A. Implications for Financial Integrity

15 Q. WHY IS IT IMPORTANT TO ALLOW AVISTA AN ADEQUATE ROE?

16 A. Given the social and economic importance of the utility industry, it is essential to
17 maintain reliable and economical service to all consumers. While Avista remains
18 committed to deliver reliable service, a utility's ability to fulfill its mandate can be
19 compromised if it lacks the necessary financial wherewithal or is unable to earn a return
20 sufficient to attract capital.

⁶⁹ If companies with illogical DCF results are eliminated from consideration, this results in a WECC proxy group limited to only two firms.

1 As documented earlier, the major rating agencies have warned of exposure to
2 uncertainties associated with political and regulatory developments, especially in view of
3 current financial and operating pressures in the utility industry. Investors understand just
4 how swiftly unforeseen circumstances can lead to deterioration in a utility's financial
5 condition, and stakeholders have discovered first hand how difficult and complex it can
6 be to remedy the situation after the fact. Investors' increased reticence to supply
7 additional capital during times of crisis highlights the necessity of preserving the
8 flexibility necessary to attract capital even during periods of adverse capital market
9 conditions. Considered along with the specific risks faced by Avista that the Commission
10 has already recognized, these considerations heighten the importance of allowing an
11 adequate ROE.

12 **Q. WHAT ROLE DOES REGULATION PLAY IN ENSURING ACCESS TO**
13 **CAPITAL FOR AVISTA?**

14 A. Considering investors' heightened awareness of the risks associated with the utility
15 industry and the damage that results when a utility's financial flexibility is compromised,
16 supportive regulation remains crucial to the Company's access to capital. Investors
17 recognize that regulation has its own risks, and that constructive regulation is a key
18 ingredient in supporting utility credit ratings and financial integrity, particularly during
19 times of adverse conditions. Fitch noted that:

20 Regulatory risk remains a recurring theme for this year's outlook, as the
21 pressure of a weak economic backdrop could result in political push-back to
22 rate increase requests.⁷⁰

23 The report went on to conclude, "Fitch is concerned that the recent rapid escalation in the

⁷⁰ Fitch Ratings Ltd., "U.S. Utilities, Power and Gas 2009 Outlook," *Global Power North America Special Report* (Dec. 22, 2008).

1 cost of capital will not be reflected on a timely basis in utility rates.”⁷¹

2 Moody’s has also emphasized the need for regulatory support “in an era of
3 broadly rising costs,” noting that as cost pressures have escalated for electric utilities, so
4 too has the importance of timely recovery through the regulatory process and the risks
5 associated with regulatory lag.⁷² S&P concluded “the quality of regulation is at the
6 forefront of our analysis of utility creditworthiness.”⁷³

7 **Q. DO THE EXPOSURES SPECIFIC TO AVISTA HIGHLIGHT THE NEED FOR**
8 **ONGOING SUPPORT OF THE COMPANY’S FINANCIAL STRENGTH AND**
9 **ABILITY TO ATTRACT CAPITAL?**

10 A. Yes. Because close to one-half of Avista’s total energy requirements are provided by
11 hydroelectric facilities, the Company is exposed to a level of uncertainty not faced by
12 most utilities. While hydropower confers advantages in terms of fuel cost savings and
13 diversity, reduced hydroelectric generation due to below-average water conditions forces
14 Avista to rely more heavily on wholesale power markets or more costly thermal
15 generating capacity to meet its resource needs. As S&P has observed:

16 A reduction in hydro generation typically increases an electric utility’s
17 costs by requiring it to buy replacement power or run more expensive
18 generation to serve customer loads. Low hydro generation can also reduce
19 utilities’ opportunity to make off-system sales. At the same time, low
20 hydro years increase regional wholesale power prices, creating potentially
21 a double impact – companies have to buy more power than under normal
22 conditions, paying higher prices.⁷⁴

⁷¹ *Id.*

⁷² Moody’s Investors Service, “Regulatory Pressures Increase For U.S. Electric Utilities,” *Special Comment* (March 2007).

⁷³ Standard & Poor’s Corporation, “Assessing U.S. Utility Regulatory Environments,” *RatingsDirect* (Nov. 7, 2008).

⁷⁴ Standard & Poor’s Corporation, “Pacific Northwest Hydrology And Its Impact On Investor-Owned Utilities’ Credit Quality,” *RatingsDirect* (Jan. 28, 2008).

1 Investors recognize that volatile energy markets, unpredictable stream flows, and
2 Avista's reliance on wholesale purchases to meet a significant portion of its resource
3 needs can expose the Company to the risk of reduced cash flows and unrecovered power
4 supply costs. S&P concluded that Avista's "key utility risk going forward is its exposure
5 to high-cost replacement power, particularly in low water years,"⁷⁵ and concluded that
6 Avista, along with Idaho Power Company, "face the most substantial risks despite their
7 [power cost adjustment clauses] and cost-update mechanisms."⁷⁶ Similarly, Fitch
8 concluded, "The potential negative cash flow impact from a prolonged period of below
9 normal hydro conditions and high natural gas prices are primary sources of concern" for
10 Avista's investors.⁷⁷

11 **Q. WOULD INVESTORS CONSIDER AVISTA'S RELATIVE SIZE IN THEIR**
12 **ASSESSMENT OF THE COMPANY'S RISKS AND PROSPECTS?**

13 A. Yes. A firm's relative size has important implications for investors in their evaluation of
14 alternative investments, and it is well established that smaller firms are more risky than
15 larger firms. With a market capitalization of approximately \$1.1 billion, Avista is one of
16 the smallest publicly traded electric utilities followed by Value Line, which have an
17 average capitalization of approximately \$6.7 billion.⁷⁸

18 The magnitude of the size disparity between Avista and other firms in the utility
19 industry has important practical implications with respect to the risks faced by investors.
20 All else being equal, it is well accepted that smaller firms are more risky than their larger

⁷⁵ Standard & Poor's Corporation, "Avista Corp.'s Corporate Credit Rating Raised One Notch To 'BBB-';" *RatingsDirect* (Feb. 7, 2008).

⁷⁶ Standard & Poor's Corporation, "Pacific Northwest Hydrology And Its Impact On Investor-Owned Utilities' Credit Quality," *RatingsDirect* (Jan. 28, 2008).

⁷⁷ Fitch Ratings, Ltd., "Fitch Affirms Avista Corp.'s IDR at 'BB+'; Outlook Positive," *Press Release* (Feb. 6, 2008).

⁷⁸ www.valueline.com (Retrieved Oct. 23, 2009).

1 counterparts, due in part to their relative lack of diversification and lower financial
2 resiliency.⁷⁹ These greater risks imply a higher required rate of return, and there is ample
3 empirical evidence that investors in smaller firms realize higher rates of return than in
4 larger firms.⁸⁰ Common sense and accepted financial doctrine hold that investors require
5 higher returns from smaller companies, and unless that compensation is provided in the
6 rate of return allowed for a utility, the legal tests embodied in the *Hope* and *Bluefield*
7 cases cannot be met.

8 **Q. DO CUSTOMERS BENEFIT BY ENHANCING THE UTILITY'S FINANCIAL**
9 **FLEXIBILITY?**

10 A. Yes. Providing an ROE that is sufficient to compensate investors and maintain Avista's
11 ability to attract capital, even under duress, is consistent with the economic requirements
12 embodied in the Supreme Court's *Hope* and *Bluefield* decisions, but it is also in
13 customers' best interests. Ultimately, it is customers and the service area economy that
14 enjoy the benefits that come from ensuring that regional utilities have the financial
15 wherewithal to take whatever actions are required to ensure a reliable energy supply. By
16 the same token, customers also bear a significant burden when the ability to attract capital
17 for system enhancements is impaired and service quality is compromised.

⁷⁹ 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).

⁸⁰ See for example Rolf W. Banz, "The Relationship Between Return and Market Value of Common Stocks", *Journal of Financial Economics* (September 1981) at 16.

B. Capital Structure

1 **Q. IS AN EVALUATION OF THE CAPITAL STRUCTURE MAINTAINED BY A**
2 **UTILITY RELEVANT IN ASSESSING ITS ROE?**

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

11 **Q. WHAT COMMON EQUITY RATIO WILL BE USED TO ESTABLISH THE**
12 **COMPANY'S OVERALL RATE OF RETURN?**

13 A. Avista's capitalization reflects a common equity ratio of 50.27 percent in this filing,
14 which is based on the Company's actual capital structure.

15 **Q. HOW DOES THIS COMPARE WITH COMMON EQUITY RATIOS**
16 **MAINTAINED BY THE PROXY GROUP OF OTHER ELECTRIC UTILITIES?**

17 A. As shown on Exhibit AVA-407, common equity ratios for the individual firms in the
18 Electric Utility Proxy Group ranged from a low of 26.5 percent to a high of 51.8 percent
19 at year-end 2008, with the average being 43.9 percent.

20 **Q. WHAT CAPITALIZATION IS REPRESENTATIVE FOR THE ELECTRIC**
21 **UTILITY PROXY GROUP GOING FORWARD?**

22 A. As shown on Exhibit AVA-407, Value Line expects an average common equity ratio for
23 the Electric Utility Proxy Group of 47.1 percent for its three-to-five year forecast horizon,
24 with the individual values ranging from 31.5 percent to 57.5 percent.

1 **Q. WHAT IMPLICATION DOES THE INCREASING RISK OF THE UTILITY**
2 **INDUSTRY HAVE FOR THE CAPITAL STRUCTURES MAINTAINED BY**
3 **UTILITIES?**

4 A. As discussed earlier, utilities are facing energy market volatility, rising cost structures, the
5 need to finance significant capital investment plans, uncertainties over accommodating
6 future environmental mandates, and ongoing regulatory risks. Coupled with the recent
7 turmoil in capital markets, these considerations warrant a stronger balance sheet to deal
8 with an increasingly uncertain environment. A more conservative financial profile, in the
9 form of a higher common equity ratio, is consistent with increasing uncertainties and the
10 need to maintain the continuous access to capital that is required to fund operations and
11 necessary system investment, even during times of adverse capital market conditions.

12 Moody's has warned investors of the risks associated with debt leverage and fixed
13 obligations and advised utilities not to squander the opportunity to strengthen the balance
14 sheet as a buffer against future uncertainties.⁸¹ Moody's noted that, "maintaining
15 unfettered access to capital markets will be crucial," and cited the importance of
16 forestalling future downgrades by bolstering utility balance sheets.⁸² As Moody's
17 concluded:

18 Our concerns are clearly growing, but we believe utilities have adequate
19 time to adjust and revise their corporate finance policies and strengthen
20 balance sheets, thereby improving their ability to manage volatility and
21 address uncertainty.⁸³

22 Moody's affirmed that because of its significant investment plans, the utility industry

⁸¹ 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).

⁸² Moody's Investors Service, "U.S. Investor-Owned Electric Utilities," *Industry Outlook* (Jan. 2009).

⁸³ *Id.*

1 “will need to attract a significant amount of new equity capital in order to maintain
2 existing ratings.”⁸⁴

3 **Q. WHAT OTHER FACTORS DO INVESTORS CONSIDER IN THEIR**
4 **ASSESSMENT OF CAPITAL STRUCTURE?**

5 A. In evaluating Avista’s capital structure, it is also important to consider that, depending on
6 their specific attributes, contractual agreements that obligate a utility to make specified
7 payments may be treated as debt in assessing financial risk. For example, a portion of the
8 Company’s power requirements are currently obtained through long-term purchased
9 power contracts. Power Purchase Agreements (“PPA”) typically obligate the utility to
10 make specified minimum contractual payments. As a result, when a utility enters into a
11 PPA, the fixed charges associated with the contract increase the utility’s financial risk in
12 the same way that long-term debt and other financial obligations increase financial
13 leverage. Such fixed payments are akin to those associated with traditional debt
14 financing and investors consider a portion of these commitments as debt in evaluating
15 total financial risks. Because bond ratings agencies and investors consider the debt
16 impact of such fixed obligations in assessing a utility’s financial position, they imply
17 greater risk and reduced financial flexibility. In order to offset the debt equivalent
18 associated with off-balance sheet obligations, the utility must rebalance its capital
19 structure by increasing its common equity in order to restore its effective capitalization
20 ratios to previous levels.

21 Reflecting the longstanding perception of investors that the fixed obligations
22 associated with off-balance sheet obligations diminish a utility’s creditworthiness and
23 financial flexibility, the implications of these commitments have been repeatedly cited by

⁸⁴ Moody’s Investors Service, “U.S. Investor-Owned Electric Utilities: Six-Month Industry Update,”
Industry Outlook (July 2008).

1 major bond rating agencies in connection with assessments of utility financial risks. For
2 example, in explaining its evaluation of the credit implications of off-balance sheet
3 obligations, S&P affirmed its position that such agreements give rise to “debt
4 equivalents” and that the increased financial risk must be considered in evaluating a
5 utility’s credit risks.⁸⁵ Unless the Company takes action to offset this additional financial
6 risk by maintaining a higher equity ratio, the resulting leverage will weaken Avista’s
7 creditworthiness, implying a higher required rate of return to compensate investors for
8 the greater risks.⁸⁶

9 **Q. WHAT DOES THIS EVIDENCE SUGGEST WITH RESPECT TO AVISTA’S**
10 **PROPOSED CAPITAL STRUCTURE?**

11 A. Consistent with Commission precedent and policy, Avista proposes to utilize its actual
12 capital structure, which reflects a common equity ratio of 50.27 percent. Based on my
13 evaluation, I concluded that this represents a reasonable mix of capital sources from
14 which to calculate Avista’s overall rate of return. A capital structure consisting of 50.27
15 percent common equity is within the range of capitalizations maintained by the Electric
16 Utility Proxy Group. Moreover, while industry averages provide one benchmark for
17 comparison, each firm must select its capitalization based on the risks and prospects it
18 faces, as well as its specific needs to access the capital markets. Financial flexibility
19 plays a crucial role in ensuring the wherewithal to meet the needs of customers, and
20 utilities with higher leverage may be foreclosed from additional borrowing, especially
21 during times of stress. Considering the greater risk associated with Company’s “BBB-”

⁸⁵ Standard & Poor’s Corporation, “Standard & Poor’s Methodology For Imputing Debt For U.S. Utilities’ Power Purchase Agreements,” *RatingsDirect* (May 7, 2007).

⁸⁶ Apart from the immediate impact that the fixed obligation of purchased power costs has on the utility’s financial risk, higher fixed charges also reduce ongoing financial flexibility, and the utility may face other uncertainties, such as potential replacement power costs in the event of supply disruption.

1 credit rating and relative size also supports my conclusion that Avista's proposed
2 capitalization is reasonable. A public utility with an obligation to serve must maintain
3 ready access to capital under reasonable terms so that it can meet the service
4 requirements of its customers. The need for access becomes even more important when
5 the company has capital requirements over a period of years, and financing must be
6 continuously available, even during unfavorable capital market conditions.

C. ROE Recommendation

7 **Q. WHAT IS YOUR CONCLUSION REGARDING A REASONABLE ROE FOR**
8 **AVISTA?**

9 A. Based on the adjusted range of reasonableness produced by applying the Commission's
10 DCF approach to the proxy group of electric utilities, I recommend an ROE range of
11 reasonableness of 8.6 percent to 17.5 percent, with the midpoint of this range being
12 13.1 percent. After eliminating proxy firms with extreme low- and high-end outliers, the
13 median of the remaining DCF cost of equity estimates for the Electric Utility Proxy
14 Group is 11.5 percent. While my testimony demonstrates that the midpoint represents a
15 superior measure of central tendency, Avista proposes to adopt an ROE of 10.9 percent,
16 which falls below both the midpoint and the median.

17 Given the importance of supporting the financial capability of Avista as it seeks to
18 adequately recover its costs and maintain its credit standing while undertaking the capital
19 investment necessary to develop and enhance transmission infrastructure, I conclude that
20 Avista's requested ROE of 10.9 percent is reasonable and conservative and should be
21 approved. Moreover, in the history of the Federal Power Act, there has not been a time
22 when the domestic and global financial markets have experienced as much turmoil and
23 uncertainty. The investment risks faced by utilities and their investors have only been
24 exacerbated in this uncertain environment. In turn, the need for supportive regulation and
25 an adequate ROE may never have been greater.

1 **Q. WOULD ELIMINATING THE 17.5 PERCENT ESTIMATE AT THE TOP END OF**
2 **THE ROE RANGE LEAD TO A DRAMATIC CHANGE IN YOUR**
3 **CONCLUSIONS?**

4 A. No. While the 17.5 percent DCF estimate for PPL should not be considered an “extreme
5 outlier” under the criteria previously adopted by the Commission, excluding this estimate
6 would not alter my conclusions. In the case of the Electric Utility Proxy Group, the
7 implied ROE range would be 8.6 percent to 16.9 percent, with Avista’s requested ROE of
8 10.9 percent falling below both the 12.8 percent midpoint and the 11.2 percent median.
9 Similarly, while practical constraints rule out any reliance on a proxy group of WECC
10 utilities, Avista’s ROE request nevertheless falls within the 8.6 percent to 14.0 percent
11 range of DCF estimates under this approach, and below the 11.3 percent midpoint.

12 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY IN THIS CASE?**

13 A. Yes, it does.

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Avista Corporation

)

Docket No. ER10-__-000

COUNTY OF TRAVIS

)

STATE OF TEXAS

)

AFFIDAVIT OF WILLIAM E. AVERA

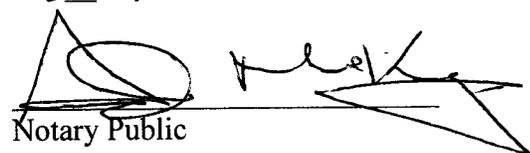
I, William E. Avera, being duly sworn, depose and say that the statements contained in the Prepared Direct Testimony of William E. Avera on behalf of Avista Corporation submitted in this proceeding are true and correct to the best of my knowledge, information and belief.

Signed this 29th day of October, 2009.



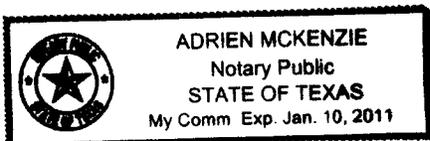
William E. Avera

Subscribed and sworn to before me
this 29th day of October, 2009.



Notary Public

My commission expires:



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 (over 150 entities valued), estimation of damages, statistical and industry studies. Provide strategy advice and educational services in public and private sectors, and serve as expert witness before regulatory agencies, legislative committees, arbitration panels, and courts.

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

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

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

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

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

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

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

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

Education

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

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

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

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

Active in extracurricular activities, president of the Barkley Forum (debate team), Emory Religious Association, and Delta Tau Delta chapter. Individual awards and team championships at national collegiate debate tournaments.

Professional Associations

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

Teaching in Executive Education Programs

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

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

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

Expert Witness Testimony

Testified in almost 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, 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 (88 depositions given) regarding damages, valuation, antitrust liability, fiduciary duties, and other economic and financial issues.

Board Positions and Other Professional Activities

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

Public Service Commission of New Mexico on cogeneration policy; Evaluator of Energy Research Grant Proposals for Texas Higher Education Coordinating Board.

Community Activities

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

Military

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

Bibliography

Monographs

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

"Definition of Industry Ethics and Development of a Code" and "Applying Ethics in the Real World," in *Good Ethics: The Essential Element of a Firm's Success*, Association for Investment Management and Research (1994)

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

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

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

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

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

Articles

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

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

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

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

- "Production Capacity Allocation: Conversion, CWIP, and One-Armed Economics," *Proceedings of the NARUC Biennial Regulatory Information Conference* (1978)
- "Some Thoughts on the Rate of Return to Public Utility Companies," with Bruce H. Fairchild in *Proceedings of the NARUC Biennial Regulatory Information Conference* (1978)
- "A New Capital Budgeting Measure: The Integration of Time, Liquidity, and Uncertainty," with David Cordell in *Proceedings of the Southwestern Finance Association* (1977)
- "Usefulness of Current Values to Investors and Creditors," in *Inflation Accounting/Indexing and Stock Behavior* (1977)
- "Consumer Expectations and the Economy," *Texas Business Review* (Nov. 1976)
- "Portfolio Performance Evaluation and Long-run Capital Growth," with Henry A. Latané in *Proceedings of the Eastern Finance Association* (1973)
- Book reviews in *Journal of Finance* and *Financial Review*. Abstracts for *CFA Digest*. Articles in *Carolina Financial Times*.

Selected Papers and Presentations

- "Estimating Utility Cost of Equity in Financial Turmoil", SNL EXNET 15th Annual FERC Briefing, Washington, D.C. (Mar. 5, 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)

ELECTRIC UTILITY PROXY GROUP

Exhibit AVA-402

Page 1 of 1

RISK MEASURES

	Company	SYM	(a)	(b)		Industry Classification					
			S&P	Value Line		Value Line (b)		S&P (c)		IBES (d)	
			Credit Rating	Safety Rank	Financial Strength	Sector	Sub-Industry	Sector	Sub-Industry	Sector	Sub-Industry
1	Allegheny Energy	AYE	BBB-	3	B++	Electric Utility	East	Utilities	Electric Utilities	Utilities	Electricity
2	Ameren Corp.	AEE	BBB-	3	B++	Electric Utility	Central	Utilities	Multi-Utilities	Utilities	Gas, Water, & Mul Util / Multiutilitie
3	American Elec Pwr	AEP	BBB	3	B++	Electric Utility	Central	Utilities	Electric Utilities	Utilities	Electricity
4	Avista Corp.	AVA	BBB-	3	B+	Electric Utility	West	Utilities	Multi-Utilities	Utilities	Gas, Water, & Mul Util / Multiutilitie
5	Cleco Corp.	CNL	BBB	3	B+	Electric Utility	Central	Utilities	Electric Utilities	Utilities	Electricity
6	CMS Energy	CMS	BBB-	3	B	Electric Utility	Central	Utilities	Multi-Utilities	Utilities	Electricity
7	DTE Energy Co.	DTE	BBB	3	B+	Electric Utility	Central	Utilities	Multi-Utilities	Utilities	Electricity
8	Edison International	EIX	BBB-	3	B++	Electric Utility	West	Utilities	Electric Utilities	Utilities	Electricity
9	Great Plains Energy	GXP	BBB	3	B+	Electric Utility	Central	Utilities	Electric Utilities	Utilities	Electricity
10	IDACORP, Inc.	IDA	BBB	3	B+	Electric Utility	West	Utilities	Electric Utilities	Utilities	Electricity
11	ITC Holdings Corp.	ITC	BBB	3	B	Electric Utility	Central	Utilities	Electric Utilities	Utilities	Electricity
12	Northeast Utilities	NU	BBB	3	B+	Electric Utility	East	Utilities	Electric Utilities	Utilities	Electricity
13	Pepco Holdings	POM	BBB	3	B	Electric Utility	East	Utilities	Electric Utilities	Utilities	Electricity
14	Pinnacle West Capital	PNW	BBB-	3	B+	Electric Utility	West	Utilities	Electric Utilities	Utilities	Electricity
15	PPL Corp.	PPL	BBB	3	B++	Electric Utility	East	Utilities	Electric Utilities	Utilities	Electricity
16	P S Enterprise Group	PEG	BBB	3	B++	Electric Utility	East	Utilities	Multi-Utilities	Utilities	Electricity
17	TECO Energy	TE	BBB	3	B	Electric Utility	East	Utilities	Multi-Utilities	Utilities	Electricity
18	UIL Holdings	UIL	(e) BBB-	2	B++	Electric Utility	East	Utilities	Electric Utilities	Utilities	Electricity
19	Westar Energy	WR	BBB-	2	B++	Electric Utility	Central	Utilities	Electric Utilities	Utilities	Electricity
	Average		BBB	3	B+						

(a) www.standardandpoors.com (retrieved Oct. 14, 2009)

(b) The Value Line Investment Survey (Aug. 7, Aug. 28, & Sep. 25, 2009)

(c) Standard and Poor's Corporation, *Stock Report* (retrieved from www.fidelity.com Sep. 28, 2009)(d) *Thompson Reuters Company Report* (Oct. 14, 2009).

(e) Based on equivalent Baa3 Issuer Rating from Moody's Investors Service

FERC DCF MODEL

Company	(a)		(b)		(c)	(d)	(e)		(f)
	<u>6 Mo.Div. Yield</u>		<u>Adjusted Div. Yield</u>		<u>Growth Rates</u>		<u>Implied Cost of Equity</u>		
	Low	High	Low	High	br + sv	IBES	Low	High	
1 Allegheny Energy	2.2%	2.5%	2.3%	2.7%	10.2%	9.0%	11.3%	--	12.9%
2 Ameren Corp.	6.0%	6.6%	6.1%	6.7%	3.5%	3.0%	9.1%	--	10.2%
3 American Elec Pwr	5.5%	6.0%	5.6%	6.2%	5.9%	3.8%	9.4%	--	12.1%
4 Avista Corp.	4.5%	5.0%	4.6%	5.3%	3.5%	8.7%	8.1%	--	14.0%
5 Cleco Corp.	3.8%	4.2%	3.9%	4.4%	5.6%	12.5%	9.5%	--	16.9%
6 CMS Energy	3.9%	4.3%	4.0%	4.4%	6.2%	6.3%	10.2%	--	10.7%
7 DTE Energy Co.	6.3%	6.9%	6.3%	7.0%	3.4%	1.5%	7.8%	--	10.4%
8 Edison International	3.8%	4.2%	3.9%	4.3%	6.3%	3.0%	6.9%	--	10.6%
9 Great Plains Energy	5.0%	5.7%	5.1%	5.7%	1.7%	2.0%	6.8%	--	7.7%
10 IDACORP, Inc.	4.5%	4.9%	4.6%	5.0%	4.1%	5.0%	8.6%	--	10.0%
11 ITC Holdings	2.6%	2.9%	2.7%	3.1%	7.3%	16.5%	10.0%	--	19.6%
12 Northeast Utilities	4.1%	4.5%	4.2%	4.7%	6.5%	8.5%	10.7%	--	13.2%
13 Pepco Holdings	7.7%	8.6%	7.8%	8.8%	1.9%	5.5%	9.7%	--	14.3%
14 Pinnacle West Capital	6.8%	7.4%	6.8%	7.6%	2.0%	5.5%	8.8%	--	13.1%
15 PPL Corp.	4.2%	4.7%	4.3%	5.0%	6.1%	12.5%	10.5%	--	17.5%
16 P S Enterprise Group	4.0%	4.4%	4.1%	4.6%	9.3%	5.3%	9.4%	--	14.0%
17 TECO Energy	6.2%	7.0%	6.3%	7.3%	3.7%	8.4%	10.0%	--	15.7%
18 UIL Holdings	6.9%	7.7%	7.0%	7.9%	3.2%	4.4%	10.2%	--	12.3%
19 Westar Energy	6.1%	6.7%	6.2%	6.8%	2.8%	3.3%	9.0%	--	10.1%
Range of Reasonableness							6.8%	--	19.6%
Adjusted Range of Reasonableness (g)							8.6%	--	17.5%
Midpoint							13.1%		
Median							11.5%		

(a) Six-month average dividend yield for April - September 2009.

(b) Six-month dividend yield adjusted for one-half years' growth.

(c) Exhibit AVA-404.

(d) Long-term IBES growth forecast from *Thompson Reuters Company Report* (Oct. 14, 2009).

(e) Sum of low growth rate and corresponding adjusted dividend yield.

(f) Sum of high growth rate and corresponding adjusted dividend yield.

(g) Excludes highlighted values.

ELECTRIC UTILITY PROXY GROUP

Exhibit AVA-404

Page 1 of 3

BR + SV GROWTH RATE

	(a)	(a)	(b)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Company	2012-14 Market Price			Earnings Per Share			Dividends Per Share			Return on Equity ("r")		
	High	Low	Avg.	2009	2010	2012-14	2009	2010	2012-14	2009	2010	2012-14
1 Allegheny Energy	\$70.00	\$45.00	\$57.50	\$2.40	\$2.55	\$3.40	\$0.60	\$0.80	\$1.20	13.0%	13.0%	13.0%
2 Ameren Corp.	\$45.00	\$30.00	\$37.50	\$2.85	\$2.55	\$3.00	\$1.54	\$1.54	\$1.70	8.0%	7.5%	8.0%
3 American Elec Pwr	\$50.00	\$35.00	\$42.50	\$2.90	\$3.00	\$3.50	\$1.64	\$1.66	\$1.90	10.0%	10.5%	11.0%
4 Avista Corp.	\$30.00	\$19.00	\$24.50	\$1.50	\$1.60	\$1.75	\$0.78	\$0.90	\$1.20	8.0%	8.0%	8.0%
5 Cleco Corp.	\$40.00	\$25.00	\$32.50	\$1.70	\$2.00	\$2.50	\$0.90	\$1.00	\$1.60	9.5%	10.5%	11.5%
6 CMS Energy	\$19.00	\$13.00	\$16.00	\$1.25	\$1.35	\$1.50	\$0.50	\$0.60	\$0.80	11.0%	11.5%	10.5%
7 DTE Energy Co.	\$60.00	\$40.00	\$50.00	\$3.00	\$3.25	\$4.00	\$2.12	\$2.12	\$2.50	8.0%	8.5%	9.5%
8 Edison International	\$60.00	\$40.00	\$50.00	\$2.85	\$3.10	\$4.25	\$1.25	\$1.28	\$1.50	9.5%	10.0%	11.0%
9 Great Plains Energy	\$25.00	\$15.00	\$20.00	\$1.20	\$1.40	\$1.60	\$0.83	\$0.83	\$1.10	5.5%	6.5%	7.0%
10 IDACORP, Inc.	\$40.00	\$35.00	\$37.50	\$2.40	\$2.50	\$2.75	\$1.20	\$1.20	\$1.40	8.0%	7.5%	7.5%
11 ITC Holdings	\$80.00	\$55.00	\$67.50	\$2.40	\$2.50	\$3.25	\$1.25	\$1.31	\$1.50	12.5%	12.0%	13.0%
12 Northeast Utilities	\$40.00	\$25.00	\$32.50	\$1.85	\$1.95	\$2.25	\$0.95	\$1.00	\$1.15	9.0%	9.5%	8.5%
13 Pepco Holdings	\$25.00	\$17.00	\$21.00	\$1.20	\$1.50	\$1.80	\$1.08	\$1.08	\$1.08	6.5%	8.0%	8.0%
14 Pinnacle West Capital	\$50.00	\$30.00	\$40.00	\$2.30	\$2.80	\$3.25	\$2.10	\$2.10	\$2.20	7.0%	8.0%	9.0%
15 PPL Corp.	\$55.00	\$35.00	\$45.00	\$1.50	\$3.20	\$3.75	\$1.38	\$1.60	\$1.90	11.0%	21.5%	19.5%
16 P S Enterprise Group	\$55.00	\$35.00	\$45.00	\$3.00	\$3.25	\$3.75	\$1.33	\$1.40	\$1.70	17.5%	17.5%	16.0%
17 TECO Energy	\$20.00	\$14.00	\$17.00	\$1.05	\$1.15	\$1.40	\$0.80	\$0.80	\$0.90	11.0%	11.5%	12.0%
18 UIL Holdings	\$35.00	\$25.00	\$30.00	\$1.90	\$2.00	\$2.25	\$1.73	\$1.73	\$1.73	10.0%	10.0%	10.5%
19 Westar Energy	\$30.00	\$25.00	\$27.50	\$1.70	\$1.85	\$2.20	\$1.19	\$1.24	\$1.40	8.0%	8.5%	8.0%

ELECTRIC UTILITY PROXY GROUP

Exhibit AVA-404

Page 2 of 3

BR + SV GROWTH RATE

Company	(c)	(c)	(c)	(d)	(d)	(a)	(a)	(e)	(a)	(a)	(e)	(f)	(g)	(h)
	Retention Ratio "b"			Average		2008			2012-14			Adjusted "r"		
	2008	2009	2011-13	b	r	Total Capital	Equity Ratio	Common Equity	Total Capital	Equity Ratio	Common Equity	Chg in Equity	Adj. Factor	Adj. r
1 Allegheny Energy	75.0%	68.6%	64.7%	69.4%	13.0%	\$6,967	40.9%	\$2,849	\$9,300	49.5%	\$4,604	10.1%	1.0479	13.6%
2 Ameren Corp.	46.0%	39.6%	43.3%	43.0%	7.8%	\$13,712	50.8%	\$6,966	\$17,300	54.0%	\$9,342	6.0%	1.0293	8.1%
3 American Elec Pwr	43.4%	44.7%	45.7%	44.6%	10.5%	\$26,290	40.7%	\$10,700	\$34,300	48.0%	\$16,464	9.0%	1.0431	11.0%
4 Avista Corp.	48.0%	43.8%	31.4%	41.1%	8.0%	\$1,920	51.9%	\$996	\$2,475	50.0%	\$1,238	4.4%	1.0217	8.2%
5 Cleco Corp.	47.1%	50.0%	36.0%	44.4%	10.5%	\$2,168	48.9%	\$1,060	\$2,675	52.5%	\$1,404	5.8%	1.0281	10.8%
6 CMS Energy	60.0%	55.6%	46.7%	54.1%	11.0%	\$8,993	27.4%	\$2,464	\$10,900	31.5%	\$3,434	6.9%	1.0332	11.4%
7 DTE Energy Co.	29.3%	34.8%	37.5%	33.9%	8.7%	\$13,736	43.6%	\$5,989	\$16,600	44.5%	\$7,387	4.3%	1.0210	8.8%
8 Edison International	56.1%	58.7%	64.7%	59.9%	10.2%	\$21,374	44.5%	\$9,511	\$27,700	45.5%	\$12,604	5.8%	1.0281	10.5%
9 Great Plains Energy	30.8%	40.7%	31.3%	34.3%	6.3%	\$5,146	49.6%	\$2,553	\$7,225	48.0%	\$3,468	6.3%	1.0306	6.5%
10 IDACORP, Inc.	50.0%	52.0%	49.1%	50.4%	7.7%	\$2,486	52.4%	\$1,303	\$3,675	51.0%	\$1,874	7.5%	1.0364	7.9%
11 ITC Holdings	47.9%	47.6%	53.8%	49.8%	12.5%	\$3,177	29.2%	\$928	\$4,050	33.0%	\$1,337	7.6%	1.0365	13.0%
12 Northeast Utilities	48.6%	48.7%	48.9%	48.8%	9.0%	\$7,926	38.1%	\$3,020	\$11,925	44.0%	\$5,247	11.7%	1.0552	9.5%
13 Pepco Holdings	10.0%	28.0%	40.0%	26.0%	7.5%	\$9,568	43.8%	\$4,191	\$11,700	48.5%	\$5,675	6.2%	1.0303	7.7%
14 Pinnacle West Capital	8.7%	25.0%	32.3%	22.0%	8.0%	\$6,478	53.2%	\$3,446	\$8,175	50.0%	\$4,088	3.5%	1.0171	8.1%
15 PPL Corp.	8.0%	50.0%	49.3%	35.8%	17.3%	\$12,529	40.5%	\$5,074	\$15,900	46.0%	\$7,314	7.6%	1.0365	18.0%
16 P S Enterprise Group	55.7%	56.9%	54.7%	55.8%	17.0%	\$15,856	49.0%	\$7,769	\$20,900	57.5%	\$12,018	9.1%	1.0436	17.7%
17 TECO Energy	23.8%	30.4%	35.7%	30.0%	11.5%	\$5,214	38.5%	\$2,008	\$6,175	41.5%	\$2,563	5.0%	1.0244	11.8%
18 UIL Holdings	8.9%	13.5%	23.1%	15.2%	10.2%	\$1,024	46.4%	\$475	\$1,400	48.0%	\$672	7.2%	1.0347	10.5%
19 Westar Energy	30.0%	33.0%	36.4%	33.1%	8.2%	\$4,400	49.7%	\$2,187	\$5,920	52.5%	\$3,108	7.3%	1.0351	8.5%

BR + SV GROWTH RATE

Company	(a)	(a)	(f)	(a)	(i)	(j)	(k)	(l)	(m)
	Common Shares			2012-14 BVPS	M/B Ratio	"sv" Factor			Average br + sv
	2008	2012-14	Change			s	v	sv	
1 Allegheny Energy	169.36	175.00	0.66%	\$26.30	2.19	0.0144	0.5426	0.78%	10.2%
2 Ameren Corp.	212.30	252.00	3.49%	\$37.25	1.01	0.0351	0.0067	0.02%	3.5%
3 American Elec Pwr	406.07	490.00	3.83%	\$33.50	1.27	0.0486	0.2118	1.03%	5.9%
4 Avista Corp.	54.49	58.00	1.26%	\$21.25	1.15	0.0145	0.1327	0.19%	3.5%
5 Cleco Corp.	60.04	65.00	1.60%	\$21.75	1.49	0.0239	0.3308	0.79%	5.6%
6 CMS Energy	226.41	237.00	0.92%	\$14.50	1.10	0.0101	0.0938	0.10%	6.2%
7 DTE Energy Co.	163.02	178.00	1.77%	\$41.25	1.21	0.0215	0.1750	0.38%	3.4%
8 Edison International	325.81	325.81	0.00%	\$38.50	1.30	-	0.2300	0.00%	6.3%
9 Great Plains Energy	119.26	157.00	5.65%	\$22.25	0.90	0.0508	(0.1125)	-0.57%	1.7%
10 IDACORP, Inc.	46.92	52.00	2.08%	\$36.00	1.04	0.0216	0.0400	0.09%	4.1%
11 ITC Holdings	49.65	52.00	0.93%	\$36.00	1.88	0.0174	0.4667	0.81%	7.3%
12 Northeast Utilities	155.83	210.00	6.15%	\$25.00	1.30	0.0799	0.2308	1.84%	6.5%
13 Pepco Holdings	218.91	265.00	3.90%	\$21.50	0.98	0.0380	(0.0238)	-0.09%	1.9%
14 Pinnacle West Capital	100.89	112.00	2.11%	\$36.50	1.10	0.0231	0.0875	0.20%	2.0%
15 PPL Corp.	374.58	370.00	-0.25%	\$19.75	2.28	(0.0056)	0.5611	-0.31%	6.1%
16 P S Enterprise Group	506.02	490.00	-0.64%	\$24.25	1.86	(0.0119)	0.4611	-0.55%	9.3%
17 TECO Energy	212.90	218.00	0.47%	\$11.75	1.45	0.0069	0.3088	0.21%	3.7%
18 UIL Holdings	25.17	30.80	4.12%	\$21.75	1.38	0.0568	0.2750	1.56%	3.2%
19 Westar Energy	108.31	114.00	1.03%	\$27.20	1.01	0.0104	0.0109	0.01%	2.8%

(a) The Value Line Investment Survey (Aug. 7, Aug. 28, & Sep. 25, 2009).

(b) Average of High and Low expected market prices

(c) Computed at (EPS - DPS) / EPS.

(d) Average of values for 2009, 2010, and 2012-14.

(e) Product of total capital and equity ratio

(f) Five-year rate of change.

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

(h) Product of average year-end "r" for 2009, 2010, and 2012-14 and Adjustment Factor.

(i) Average of High and Low expected market prices divided by 2012-14 BVPS

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

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

(l) Product of "s" and "v".

(m) Product of average "b" and adjusted "r", plus "sv".

FERC DCF MODEL

Company	(a) <u>6 Mo.Div. Yield</u>		(b) <u>Adjusted Div. Yield</u>		(c) (d) <u>Growth Rates</u>		(e) (f) <u>Implied Cost of Equity</u>	
	Low	High	Low	High	br + sv	IBES	Low	High
1 Avista Corp.	4.5%	5.0%	4.6%	5.3%	3.5%	8.7%	8.1%	-- 14.0%
2 Edison International	3.8%	4.2%	3.9%	4.3%	6.3%	3.0%	6.9%	-- 10.6%
3 Great Plains Energy	5.0%	5.7%	5.1%	5.7%	1.7%	2.0%	6.8%	-- 7.7%
4 IDACORP, Inc.	4.5%	4.9%	4.6%	5.0%	4.1%	5.0%	8.6%	-- 10.0%
5 Pinnacle West Capital	6.8%	7.4%	6.8%	7.6%	2.0%	5.5%	8.8%	-- 13.1%
Range of Reasonableness							6.8%	-- 14.0%
Adjusted Range of Reasonableness (g)							8.6%	-- 14.0%
Midpoint							11.3%	

- (a) Six-month average dividend yield for April - September 2009.
- (b) Six-month dividend yield adjusted for one-half years' growth.
- (c) Exhibit TBC-406.
- (d) Long-term IBES growth forecast from *Thompson Reuters Company Report* (Sep. 25, 2009).
- (e) Sum of low growth rate and corresponding adjusted dividend yield.
- (f) Sum of high growth rate and corresponding adjusted dividend yield.
- (g) Excludes highlighted values.

WECC PROXY GROUP

BR + SV GROWTH RATE

	(a)	(a)	(b)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
	<u>2012-14 Market Price</u>			<u>Earnings Per Share</u>			<u>Dividends Per Share</u>			<u>Return on Equity ("r")</u>		
<u>Company</u>	<u>High</u>	<u>Low</u>	<u>Avg.</u>	<u>2009</u>	<u>2010</u>	<u>2012-14</u>	<u>2009</u>	<u>2010</u>	<u>2012-14</u>	<u>2009</u>	<u>2010</u>	<u>2012-14</u>
1 Avista Corp.	\$30.00	\$19.00	\$24.50	\$1.50	\$1.60	\$1.75	\$0.78	\$0.90	\$1.20	8.0%	8.0%	8.0%
2 Edison International	\$60.00	\$40.00	\$50.00	\$2.85	\$3.10	\$4.25	\$1.25	\$1.28	\$1.50	9.5%	10.0%	11.0%
3 Great Plains Energy	\$25.00	\$15.00	\$20.00	\$1.20	\$1.40	\$1.60	\$0.83	\$0.83	\$1.10	5.5%	6.5%	7.0%
4 IDACORP, Inc.	\$40.00	\$35.00	\$37.50	\$2.40	\$2.50	\$2.75	\$1.20	\$1.20	\$1.40	8.0%	7.5%	7.5%
5 Pinnacle West Capital	\$50.00	\$30.00	\$40.00	\$2.30	\$2.80	\$3.25	\$2.10	\$2.10	\$2.20	7.0%	8.0%	9.0%

BR + SV GROWTH RATE

Company	(c)	(c)	(c)	(d)	(d)	(a)	(a)	(e)	(a)	(a)	(e)	(f)	(g)	(h)
	Retention Ratio "b"			Average		2008			2012-14			Adjusted "r"		
	<u>2008</u>	<u>2009</u>	<u>2011-13</u>	<u>b</u>	<u>r</u>	<u>Total Capital</u>	<u>Equity Ratio</u>	<u>Common Equity</u>	<u>Total Capital</u>	<u>Equity Ratio</u>	<u>Common Equity</u>	<u>Chg in Equity</u>	<u>Adj. Factor</u>	<u>Adj. r</u>
1 Avista Corp.	48.0%	43.8%	31.4%	41.1%	8.0%	\$1,920	51.9%	\$996	\$2,475	50.0%	\$1,238	4.4%	1.0217	8.2%
2 Edison International	56.1%	58.7%	64.7%	59.9%	10.2%	\$21,374	44.5%	\$9,511	\$27,700	45.5%	\$12,604	5.8%	1.0281	10.5%
3 Great Plains Energy	30.8%	40.7%	31.3%	34.3%	6.3%	\$5,146	49.6%	\$2,553	\$7,225	48.0%	\$3,468	6.3%	1.0306	6.5%
4 IDACORP, Inc.	50.0%	52.0%	49.1%	50.4%	7.7%	\$2,486	52.4%	\$1,303	\$3,675	51.0%	\$1,874	7.5%	1.0364	7.9%
5 Pinnacle West Capital	8.7%	25.0%	32.3%	22.0%	8.0%	\$6,478	53.2%	\$3,446	\$8,175	50.0%	\$4,088	3.5%	1.0171	8.1%

BR + SV GROWTH RATE

Company	(a)	(a)	(f)	(a)	(i)	(j)	(k)	(l)	(m)
	Common Shares			2012-14 BVPS	M/B Ratio	"sv" Factor			Average br + sv
	2008	2012-14	Change			s	v	sv	
1 Avista Corp.	54.49	58.00	1.26%	\$21.25	1.15	0.0145	0.1327	0.19%	3.5%
2 Edison International	325.81	325.81	0.00%	\$38.50	1.30	-	0.2300	0.00%	6.3%
3 Great Plains Energy	119.26	157.00	5.65%	\$22.25	0.90	0.0508	(0.1125)	-0.57%	1.7%
4 IDACORP, Inc.	46.92	52.00	2.08%	\$36.00	1.04	0.0216	0.0400	0.09%	4.1%
5 Pinnacle West Capital	100.89	112.00	2.11%	\$36.50	1.10	0.0231	0.0875	0.20%	2.0%

(a) The Value Line Investment Survey (Aug. 7, Aug. 28, & Sep. 25, 2009).

(b) Average of High and Low expected market prices.

(c) Computed at (EPS - DPS) / EPS.

(d) Average of values for 2009, 2010, and 2012-14.

(e) Product of total capital and equity ratio.

(f) Five-year rate of change.

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

(h) Product of average year-end "r" for 2009, 2010, and 2012-14 and Adjustment Factor.

(i) Average of High and Low expected market prices divided by 2012-14 BVPS.

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

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

(l) Product of "s" and "v".

(m) Product of average "b" and adjusted "r", plus "sv".

CAPITAL STRUCTURE

Company	At December 31, 2008 (a)			Value Line Projected 2012-14 (b)		
	Long-term Debt	Preferred	Common Equity	Long-term Debt	Other	Common Equity
1 Allegheny Energy	59.6%	0.0%	40.4%	50.5%	0.0%	49.5%
2 Ameren Corp.	49.1%	1.4%	49.5%	44.5%	1.5%	54.0%
3 American Elec Pwr	59.8%	0.2%	40.0%	52.0%	0.0%	48.0%
4 Avista Corp.	42.7%	5.9%	51.5%	50.0%	0.0%	50.0%
5 Cleco Corp.	52.5%	0.0%	47.5%	47.5%	0.0%	52.5%
6 CMS Energy	70.4%	3.1%	26.5%	66.0%	2.5%	31.5%
7 DTE Energy Co.	51.9%	2.2%	45.9%	55.5%	0.0%	44.5%
8 Edison International	51.0%	4.2%	44.9%	51.5%	3.0%	45.5%
9 Great Plains Energy	50.4%	0.7%	48.9%	51.5%	0.5%	48.0%
10 IDACORP, Inc.	49.4%	0.0%	50.6%	49.0%	0.0%	51.0%
11 ITC Holdings	70.8%	0.0%	29.2%	67.0%	0.0%	33.0%
12 Northeast Utilities	57.0%	1.6%	41.4%	55.0%	1.0%	44.0%
13 Pepco Holdings	54.1%	0.0%	45.9%	51.5%	0.0%	48.5%
14 Pinnacle West Capital	48.2%	0.0%	51.8%	50.0%	0.0%	50.0%
15 PPL Corp.	51.8%	8.8%	39.4%	52.0%	2.0%	46.0%
16 P S Enterprise Group	49.4%	0.5%	50.1%	42.5%	0.0%	57.5%
17 TECO Energy	61.6%	0.0%	38.4%	58.5%	0.0%	41.5%
18 UIL Holdings	56.0%	0.0%	44.0%	52.0%	0.0%	48.0%
19 Westar Energy	51.4%	0.5%	48.1%	47.5%	0.0%	52.5%
Average	54.6%	1.5%	43.9%	52.3%	0.6%	47.1%

(a) Company 2008 Form 10-K Reports available at <http://www.sec.gov/edgar/searchedgar/companysearch.html>.

(b) The Value Line Investment Survey (Aug. 7, Aug. 28, & Sep. 25, 2009).

EXHIBIT AVA-408

EVALUATION OF PROXY GROUP CRITERIA

1 Q. WHAT IS THE PURPOSE OF THIS EXHIBIT?

2 A. The exhibit explains why geographical location should not be relied on to identify a
3 comparable risk proxy group in this case and provides additional support for reliance on
4 the Electric Utility Proxy Group.

5 Q. HAS THE COMMISSION PREVIOUSLY CONSIDERED GEOGRAPHICAL
6 LOCATION WHEN ESTABLISHING PROXY GROUPS?

7 A. Yes. While there is no general policy requiring that proxy companies be chosen from
8 within the same geographic or reliability region, the Commission has recognized that
9 geography can serve as a proxy for comparable risk under certain specific circumstances.
10 Consideration of membership in a regional Transmission Organization as a proxy group
11 criterion arose where the Commission has established a single ROE that was to be
12 implemented across the entire ISO or RTO, as was the case in *Midwest ISO*.¹
13 Subsequently, in cases involving services provided under Open Access Transmission
14 Tariffs within the context of well-integrated and coordinated market operations conducted
15 by Transmission Organizations, the Commission has accepted proxy groups composed of
16 transmission-owning members of adjacent RTOs or ISOs.² In other words, in the specific
17 case where participating utilities face comparable risks due to a high degree of similarity
18 in market and regulatory circumstances, including operating within the scope of well-
19 integrated, FERC-approved Transmission Organizations, geography has been accepted as
20 a valid proxy for risks in the context of establishing rates for transmission services.

¹ *Midwest ISO*, 100 FERC ¶ 61,292 (2002); *Bangor Hydro*, 117 FERC ¶ 61,129 (2006).

² See, e.g., *Bangor Hydro*, 117 FERC ¶ 61,129 (2006), Potomac-Appalachian Transmission Highline, LLC (“PATH”), 122 FERC ¶ 61,188 (2008); *Virginia Electric Power Co.* (“VEPCo”), 123 FERC ¶ 61,098 (2008).

1 More recently, the *Atlantic Path 15* decision premised its ROE findings on DCF
2 results for the applicant’s proposed proxy group of companies within the footprint of the
3 Western Electricity Coordinating Council (“WECC”).³ The *Atlantic Path 15* decision
4 reasoned that adopting a region-wide proxy group, modified through application of
5 additional risk-based screens, “will provide a significant measure of regulatory certainty”
6 and “improve the Commission’s ability to decide cases quickly for entities seeking
7 financing of necessary infrastructure.”⁴ The decision also suggested that the use of such
8 proxy group might “simplify rate proceedings and reduce litigation costs.”⁵

9 **Q. DO YOU BELIEVE THAT GEOGRAPHICAL LOCATION SHOULD BE USED**
10 **TO DETERMINE THE PROXY GROUP FOR AVISTA IN THIS PROCEEDING?**

11 A. No. Again, the principal determinant in assessing the propriety of a potential proxy group
12 member must be its comparability insofar as it relates to risk. Geographic proximity or
13 participation in a common regional reliability network does not necessarily demonstrate
14 comparable risk, since there can be significant disparities in regulation, market
15 circumstances, and other important characteristics within regional boundaries. The
16 *Atlantic Path 15* decision observed that WECC utilities are electrically integrated and that
17 being located in the same geographic market is a relevant factor to consider in
18 determining whether companies face similar risks.⁶ However, there are many other
19 factors driving the risks of Avista other than being electrically integrated and operating in
20 the same geographic area as other western utilities.

21 In contrast to other instances where the Commission has approved a proxy group
22 composed of transmission-owning members of adjacent, highly integrated RTOs or ISOs,

³ *Atlantic Path 15*, 122 FERC ¶ 61,135 at P 19 (2008).

⁴ *Atlantic Path 15* at P 23.

⁵ *Id.*

⁶ *Atlantic Path 15* at PP 25-26; *Hearing Order* at P 25.

1 the majority of the WECC utilities, including Avista, do not even participate in a FERC-
2 approved Transmission Organization. Moreover, there are dramatic differences in the
3 regulatory circumstances and operating environment that distinguish Avista from others
4 located within the broad footprint of the WECC. Thus, while certain WECC members
5 may be found to be comparable in investment risk to Avista based on objective criteria
6 such as bond ratings, geography does not represent a compelling proxy for risks in this
7 case. And while taking actions to reduce regulatory uncertainty and lag are generally
8 desirable goals, they cannot be achieved by imposing a geographically based proxy group
9 where there is no clear link between location and similarity in the minds of investors.
10 Moreover, use of a proxy group based on clear, objective risk criteria such as those used
11 to define the Electric Utility Proxy Group, are just as straightforward and provide the
12 same measure of regulatory certainty.

13 **Q. WHAT OTHER PITFALLS ARE ASSOCIATED WITH RESTRICTING THE**
14 **PROXY GROUP TO UTILITIES WITHIN A SINGLE RELIABILITY REGION?**

15 A. Following its legislative mandate, the Commission has recognized the benefits to
16 customers of encouraging investment in transmission infrastructure in order to support
17 wholesale electric power markets. This evolution in regulatory policy has most recently
18 culminated in *Order Nos. 679* and *679-A* that affirm the importance of encouraging
19 transmission investment and RTO membership, in part through the ability to seek
20 incentive rate treatments. But in implementing its rulemaking, the Commission should
21 resist applying its ROE policies in a manner that could discourage transmission owners in
22 certain regions of the country from entering voluntarily into long-term arrangements for
23 transmission operation that comply with Commission policy or undertaking the capital
24 investment necessary to further wholesale competition.

25 Considering the imprecision of DCF results, artificially restricting the proxy
26 group to the geographical boundaries of a single reliability region, such as the WECC,

1 poses just such a risk. Balkanizing the process of proxy group selection based solely on
2 membership within a single Transmission Organization or regional footprint can increase
3 the potential for disparate ROE findings that are entirely unrelated to meaningful
4 differences in investment risk. Such a distortion of the Commission's ROE policies
5 could result in significant deviations in allowed ROEs for utilities that otherwise operate
6 under similar circumstances and in adjacent Transmission Organizations. In turn, this
7 would lead to garbled signals that would stimulate capital investment in one region while
8 artificially stifling grid expansion in another.

9 The Commission should apply its ROE policies in an equitable and even-handed
10 manner. Developing a proxy group for Avista that employs objective criteria to identify
11 utilities of comparable risk helps to avoid regional discriminations with no underlying
12 economic justification and provides greater assurance that the resulting ROEs will further
13 the policy goals of this Commission and the Congress. The breadth of the Electric Utility
14 Proxy Group helps to ensure that the resulting DCF range reflects the risks and
15 requirements of investors. As a result, the zone of reasonableness for the Electric Utility
16 Proxy Group provides a reasonable basis to establish the allowed ROE for Avista.

17 **Q. ARE YOU SUGGESTING ANY LIMITATION ON THE COMMISSION'S**
18 **ABILITY TO REFERENCE GEOGRAPHY IN EVALUATING A PROXY**
19 **GROUP?**

20 **A.** No. In those instances where the circumstances are such that there is a clear link between
21 geographical location and key operational characteristics that help to define risks in the
22 minds of investors, Transmission Organization membership can continue to serve as a
23 valid criteria in defining proxy companies. But while membership in adjacent regional
24 Transmission Organizations facing similar market circumstances can be a valid proxy for
25 risks in the context of establishing rates for transmission services, it is not a panacea.

1 **Q. WHEN DEFINING A PROXY GROUP, DO YOU BELIEVE THAT THE**
2 **COMPOSITION OF A UTILITY’S REVENUES SERVES AS A MEANINGFUL**
3 **BASIS TO ASSESS RELATIVE INVESTMENT RISK?**

4 A. No. Under the regulatory standards established by *Hope* and *Bluefield*, the salient
5 criterion in establishing a meaningful proxy group to estimate investors’ required return is
6 relative risk, not the source of the revenue stream. Due to differences in business
7 segment definition and reporting between utilities, it is often impossible to accurately
8 apportion financial measures, such as total revenues, between utility segments (*e.g.*,
9 distribution, transmission, or generation) or regulated and non-regulated sources. As a
10 result, even if one were to ignore the fact that there is no clear link between the source of
11 a utility’s revenues and investors’ risk perceptions, it is generally not possible to
12 accurately apply revenue-based criteria.

13 Moreover, the Commission on multiple occasions has rejected the notion that
14 relative participation in non-transmission operations is a meaningful criterion in
15 identifying a proxy group. In adopting my recommended proxy group in *Midwest ISO*,
16 for example, the Commission concluded, “[w]e are unpersuaded...that transmission
17 investments are less risky than the other investments of the Midwest ISO TO proxy
18 companies.”⁷ Similarly, in *Bangor Hydro*, the Commission specifically rejected
19 arguments that PPL “should be excluded from the proxy group given the risk factors
20 associated with its unregulated, non-utility business operations.”⁸ More recently, in
21 response to attempts to restrict a proxy group to companies based on sources of revenue,
22 the Commission concluded that:

⁷ *Midwest ISO*, 100 FERC ¶ 61,292 at P 12 (2002).

⁸ *Bangor Hydro*. at PP 17, 26.

1 This is inconsistent with Commission precedent in which we have rejected
2 proposals to restrict proxy groups based on narrow company attributes.⁹

3 Indeed, as discussed above, reference to objective indicators of investment risk
4 demonstrates that the investment risks of the companies included in the Electric Utility
5 Proxy Group are comparable.

⁹ *Pepco Holdings, Inc.*, 124 FERC ¶ 61,176 (2008) (“*Pepco*”) at P 118 (footnote omitted).

EXHIBIT AVA-409

INTERPRETING DCF RESULTS

1 **Q. WHAT IS THE PURPOSE OF THIS EXHIBIT?**

2 A. This exhibit supports maintaining proxy companies where one DCF estimate is
3 determined to be an outlier and discusses the merits of relying on the midpoint in
4 establishing an ROE from within the reasonable range for electric utilities. In addition,
5 this exhibit also examines the need to consider flotation costs associated with raising
6 equity capital, which provides additional support for my conclusions regarding the
7 reasonableness of Avista's requested ROE.

8 **Q. DO YOU BELIEVE IT IS APPROPRIATE TO EXCLUDE A COMPANY FROM**
9 **THE PROXY GROUP IF ONE DCF ESTIMATE IS ILLOGICAL?**

10 A. No. I do not believe that it is necessary or appropriate to remove a company from the
11 proxy group altogether when just one of its DCF values fails the test of logic. Because
12 there is no infallible method for assessing what the growth rate is precisely, it is
13 customary to consider alternative growth estimates, with the IBES and sustainable,
14 "br+sv" growth rates being two widely referenced proxies for investors' expectations.
15 Reliance on these alternative growth sources is analogous to the logic underlying the use
16 of a proxy group to estimate the cost of equity – the cost of equity is inherently
17 unobservable and cannot be precisely estimated. Evaluating both IBES and sustainable
18 growth rates recognizes the importance of examining alternative sources and approaches
19 to estimate investors' growth expectations in order to reduce error and enhance
20 confidence in the reliability of the DCF results. An illogical cost of equity estimate does
21 not imply that the underlying company is not of comparable risk or otherwise unsuitable.
22 The problem is not with the company, but with the particular DCF estimate. In other
23 words, the particular application of the model to a specific set of data produces an
24 illogical and therefore unreliable result.

1 The two estimated growth rates relied on by the Commission – IBES and Value
2 Line “br+sv” – are entirely distinct sources and employ alternative approaches to measure
3 investors’ growth expectations. The fact that one growth rate estimate may produce a
4 cost of equity that fails tests of economic logic says nothing about the veracity of the
5 second, independent value. As the Commission noted in *Pepco*:

6 [I]t is unclear how the Maryland Commission is aggrieved by the exclusion
7 of one low-end result of a single proxy company, but retaining the high end
8 result of that same company, and how, in this case, that would result in a
9 skewed ROE.¹

10 In fact, it was the recognition that estimates can and do vary prompted the Commission to
11 consider alternative growth measures in applying the DCF model. Each cost of equity
12 estimate is evaluated for reasonableness on a stand-alone basis and there is no
13 requirement for a symmetrical elimination of equal numbers of estimates at the high and
14 low end. For example, the simple fact that a 5.0 percent cost of equity estimate is
15 patently illogical when evaluated against observable yields on long-term utility debt says
16 nothing whatsoever with respect to a high-end value of 10.9 percent for the same
17 company derived using different input data. Similarly, there would be no reason to
18 eliminate a low-end DCF estimate of 9.0 percent simply because the high-end estimate
19 for the same utility is considered to be an extreme outlier. While considering alternative
20 growth rates helps to reduce the potential for skewed results by providing additional
21 information regarding investors’ expectations, once illogical values are eliminated there
22 is no evidence to suggest that retaining all valid DCF estimates would somehow impose
23 bias on the results. Indeed, the canons of statistical reasoning dictate that no data should
24 be discarded unless it is found to be suspect on objective grounds.

¹ *Pepco* at P 126.

1 Moreover, the fact that a single growth estimate may produce an illogical cost of
2 equity estimate does not indicate some “flaw” associated with the specific utility that
3 would justify excluding it from the proxy group. Rather, it only serves to illustrate that
4 growth rates and the resulting cost of equity values are imperfect estimates of investors’
5 required return. In fact, there is no clear precedent for excluding a company from the
6 proxy group if either its high- or low-end value is found to be illogical. In *Southern*
7 *California Edison*, which established the Commission’s DCF approach for electric
8 utilities, the Commission eliminated the low-end return for one of the firms in the proxy
9 group, while retaining the high-end value.² More recently, in *Atlantic Path 15*, the
10 Commission determined an ROE range of reasonableness where the upper-end boundary
11 was established using a high-end value for a utility whose low-end DCF estimate had
12 been excluded.³ Similarly, in *Startrans IO, L.L.C.*, issued one month after the *PATH*
13 decision, the Commission once again determined the ROE using a proxy group in which
14 the low-end result for a utility was excluded but the high-end result was included.⁴

15 **Q. DOES THE COMMISSION’S DECISION IN *BANGOR HYDRO* SUPPORT THE**
16 **ELIMINATION OF COMPANIES FROM THE PROXY GROUP IF ONE DCF**
17 **ESTIMATE IS FOUND TO BE ILLOGICAL?**

18 A. No. While a similar issue was raised in *Bangor Hydro*, in that proceeding the
19 Connecticut Department of Public Utility Control and other parties to the case argued that
20 UIL Corporation’s high-end estimate should be substituted for a low-end value that had
21 been rejected as illogical, in order to establish the bottom of the zone of reasonableness.

² *Southern California Edison* at 61,266

³ *Atlantic Path 15*, 122 FERC ¶ 61,135 P 20 (2008); *Prepared Direct Testimony of James M. Coyne*, Exhibit No. ATL-7 at 2.

⁴ 122 FERC ¶ 61,306 at P 26 (2008).

1 The Presiding Judge and the Commission both rejected this approach as counter to the
2 Commission's accepted DCF method. As the Commission concluded:

3 We agree with the presiding judge that having excluded UIL's low-end
4 ROE, it would have been improper to then use UIL's high-end ROE to
5 establish the low-end ROE for the proxy group.⁵

6 This logic does not require that both the low- and high-end estimates must be excluded if
7 one is found to be illogical, only that they cannot be substituted for one another.
8 Moreover, as the Presiding Judge noted, "Commission precedent, as established in *SCE*,
9 allows the exclusion of the low-end ROE result itself while retaining the other results for
10 the relevant company from the proxy group."⁶

11 **Q. WHY DID YOU REFERENCE THE MIDPOINT OF THE DCF RANGE IN**
12 **EVALUATING YOUR DCF RESULTS?**

13 A. The Commission has been consistent in using the midpoint of the zone of reasonableness
14 as the basis for allowed ROEs for electric utilities. This long-held policy is reflected in
15 *Bangor Hydro*, *Midwest ISO*, *Southern California Edison*, and in a plethora of previous
16 electric cases. For example, in *Consumers Energy* the Commission reversed an initial
17 decision in which the Presiding Judge had relied on the median of the zone of
18 reasonableness, rather than the midpoint. The Commission concluded that:

19 The precedent on which the judge and Staff rely in this instance was
20 developed in the context of setting the rate of return for gas pipelines. In
21 this case, there has been no reason provided to depart from our precedent in
22 Opinion Nos. 445 and 446, setting the return at the midpoint of the zone of
23 reasonableness.⁷

⁵ Bangor Hydro at P 54.

⁶ *Bangor Hydro Electric Co., et al.*, 111 FERC ¶ 63,048 at P 24 (2005).

⁷ *Consumers Energy Co.*, 98 FERC ¶ 61,333 at 62,416 (2002).

1 The Commission followed the same approach in *Consumers Energy Co.*⁸ and *Utah*
2 *Power & Light Co.*,⁹ finding the midpoint to be the appropriate return for an electric
3 utility. In certain recent decisions, however, the Commission relied on the median rather
4 than the midpoint.¹⁰

5 **Q. WHAT RATIONAL DID THE VEPCO AND GOLDEN SPREAD CASES USE IN**
6 **ADOPTING THE MEDIAN?**

7 A. The only reasoning proffered in these cases for reliance on the median was 1) using the
8 median “lessens the impact of any single proxy company whose ROE is atypically high
9 or low,” and 2) the median has the advantage of “taking into account more of the
10 companies in the proxy group.”¹¹

11 **Q. IN YOUR OPINION, DO THESE ARGUMENTS REPRESENT A REASONED**
12 **BASIS FOR ABANDONING THE COMMISSION’S LONG-STANDING**
13 **RELIANCE ON THE MIDPOINT IN DETERMINING THE ROE FOR**
14 **ELECTRIC UTILITIES IN THE PRESENT CASE?**

15 A. No. The median is simply a single number with the characteristic that it divides a set of
16 observed values in two equal halves, so that half of the values are below it, and half are
17 above. While it is true that the median is not affected by the magnitude of extreme
18 outliers, the value of this property is eroded by the fact that such outlying values have
19 been expressly excluded from my analysis in arriving at the zone of reasonableness under
20 the DCF approach. In others words, eliminating illogical low- and high-end DCF
21 estimates when evaluating the results of the Commission’s DCF approach also negates

⁸ 85 FERC ¶ 61,100 (1998).

⁹ 44 FERC ¶ 61,166 (1988).

¹⁰ See, e.g., *Virginia Electric Power Co.* (“VEPCo”), 123 FERC ¶ 61,098 (2008); *Golden Spread Elec. Cooperative, Inc., et al.*, 123 FERC ¶ 61,047 (2008) (“*Golden Spread*”).

¹¹ *Golden Spread* at P 64.

1 the primary rationale advanced for reliance on the median. Indeed, considering the
2 refinements in the Commission's practice of evaluating extreme DCF results since
3 *Southern California Edison*, there is even less to support reference to the median in my
4 analysis than there may have been in previous cases, when the Commission's practice of
5 relying on the midpoint was established.

6 The median actually considers less information about the distribution of
7 reasonable DCF results for the proxy group than does the midpoint. The median is
8 simply the observation with an equal number of data values above and below. For odd-
9 numbered samples, the median relies on only a **single number**, *e.g.*, the sixth number in
10 an eleven-number set. If the number of estimates is an even number, then the median is
11 the arithmetic average of the two numbers falling in the middle. Thus, if there were
12 twelve estimates, then the median would in fact be the average of the sixth and seventh
13 estimates arrayed from highest to lowest. As such, the median doesn't expressly "take
14 into account" any information regarding the individual DCF estimates for the proxy
15 companies that are above or below the single number (or average of two single numbers)
16 that fall in the middle of the distribution.

17 While arguments against the midpoint frequently hinge on the contention that this
18 value relies on only the top and bottom numbers in the range and ignores the rest, this
19 argument is incorrect. As the D.C. Circuit has held, "[t]he midpoint doesn't 'completely
20 disregard the middle three numbers'; the highest and lowest numbers achieve their status
21 by reference to all five numbers."¹² In fact, the median could be more readily criticized
22 for under-weighting the results of the proxy group analysis, since it ignores the range of
23 reasonable returns entirely. As the D.C. Circuit observed in approving the use of the
24 midpoint for setting the ROE for the Midwest ISO:

¹² 254 F.3d 289, 298 (D.C. Cir. 2001).

1 [P]etitioners [arguing in support of the median] are correct in noting that all
2 measures of central tendency ‘consider’ the entire proxy group range, in the
3 sense that all are influenced – at least indirectly – by each data point in the
4 range. But only the midpoint *emphasizes* that range, as it is equally placed
5 between the top and bottom values.¹³

6 The purpose of the Commission’s DCF analysis is to produce a zone of reasonableness
7 and the midpoint provides a better representation of a single ROE applicable to this range
8 than does the median, which ignores the boundaries of the range entirely. Consider this
9 example of a five-estimate sample to illustrate the point made by the D.C. Circuit. The
10 estimates are 8.0, 8.1, 8.2, 15.0, and 15.1 percent. The median is 8.2 percent, while the
11 range is 8.0 percent to 15.1 percent, with a midpoint of 11.55 percent. The median of 8.2
12 percent does not reflect the range of values nor does it include information about the 15.0
13 and 15.1 percent values that define the upper end of the range.

14 Moreover, it is important to recognize that the paramount consideration that must
15 be reflected in the choice of a point estimate is the need to ensure that the end result
16 meets the capital attraction standards mandated by the Supreme Court and that the
17 requirements of the EPAAct are fulfilled. This determination is not a quest to define a
18 statistical representation of central tendency; rather, it challenges the Commission with a
19 determination of a single measure that produces the most just and reasonable ROE. In
20 past decisions, the Commission has consistently determined that the midpoint of the
21 range of reasonableness for the proxy group provides the best starting point for this just
22 and reasonable value, both for stand-alone utilities and for members of a Transmission
23 Organization. The ROE zone of reasonableness for the Electric Utility Proxy Group
24 excludes extreme outliers and is adequately balanced and there is no new evidence that
25 would justify a departure from the Commission’s long-standing precedent to rely on the
26 midpoint of the range in this proceeding.

¹³ 397 F.3d 1004, 1010 (D.C. Cir. 2005) (emphasis in original, citation omitted).

1 **Q. DOES IT MAKE SENSE TO DISTINGUISH BETWEEN FILINGS INVOLVING**
2 **INDIVIDUAL UTILITIES AND MULTIPLE TRANSMISSION OWNERS WHEN**
3 **EVALUATING CENTRAL TENDENCY?**

4 A. No. As noted above, the outcome of the Commission's DCF approach is a zone of
5 reasonableness that reflects investors' required rate of return for a proxy group that is
6 comparable in risk to the applicant, irrespective of whether the filing concerns a stand-
7 alone utility or multiple transmission-owning members of an RTO. In each case the
8 object of the analysis is to obtain a reasonable and reliable range of the unobservable cost
9 of equity based on objective estimates that contain unknown errors. Given the
10 importance of the zone of reasonableness in framing the ROE under the Commission's
11 precedent for electric utilities, the midpoint is more relevant in establishing a central
12 point estimate that expressly considers this range. By relying on the midpoint of the DCF
13 range, which best reflects the zone of reasonableness, the resulting ROE will better
14 reflect required returns for similarly situated utilities of comparable risk.

15 Moreover, establishing different measures of central tendency based on whether
16 the party is a single utility or a joint filing made up of multiple transmission owners
17 creates the potential different ROEs for the same utility, depending on the nature of the
18 filing. Such a perverse economic outcome has no logical relationship to changes in
19 underlying capital market conditions or investors' risk perceptions or requirements.
20 Moreover, such an outcome directly contradicts the Commission's well-articulated policy
21 goals of reducing regulatory impediments to investment in utility infrastructure and
22 encouraging new capital investment. The instability of the proxy group median inserts
23 regulatory uncertainty into the determination of the ROE that makes it more difficult to
24 negotiate settlements and increases risk for investors.

1 **Q. WHAT OTHER CONSIDERATIONS ARE RELEVANT IN EVALUATING THE**
2 **ROE FOR A UTILITY?**

3 A. The common equity used to finance the investment in utility assets is provided from
4 either the sale of stock in the capital markets or from retained earnings not paid out as
5 dividends. When equity is raised through the sale of common stock, there are costs
6 associated with "floating" the new equity securities. These flotation costs include
7 services such as legal, accounting, and printing, as well as the fees and discounts paid to
8 compensate brokers for selling the stock to the public. Also, some argue that the "market
9 pressure" from the additional supply of common stock and other market factors may
10 further reduce the amount of funds a utility nets when it issues common equity.

11 Equity flotation costs are not included in a utility's rate base because neither that
12 portion of the gross proceeds from the sale of common stock used to pay flotation costs is
13 available to invest in plant and equipment, nor are flotation costs capitalized as an
14 intangible asset. Unless some provision is made to recognize these issuance costs, a
15 utility's revenue requirements will not fully reflect all of the costs incurred for the use of
16 investors' funds, with the need for a flotation cost adjustment having been documented in
17 the financial literature.¹⁴

18 **Q. WHAT IS THE MAGNITUDE OF THE ADJUSTMENT TO THE "BARE BONES"**
19 **COST OF COMMON EQUITY TO ACCOUNT FOR ISSUANCE COSTS?**

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

¹⁴ See, e.g., Brigham, E.F., Aberwald, D.A., and Gapenski, L.C., "Common Equity Flotation Costs and Rate Making," *Public Utilities Fortnightly* (May, 2, 1985); Morin, Roger A., "Regulatory Finance: Utilities' Cost of Capital," *Public Utilities Reports* (1994) at 175.

1 dividend yield. A review of the finance literature and other studies of issuance costs
2 prepared by the investment community suggest an average flotation cost percentage in
3 the range of 3.6 percent to 10 percent.¹⁵ Applying these expense percentages to a
4 representative dividend yield for a utility of 5.4 percent implies a flotation cost
5 adjustment on the order of 19 to 54 basis points. While my DCF zone of
6 recommendation does not include an adjustment for flotation costs, this is a legitimate
7 factor that supports the reasonableness of the ROE requested by Avista in this case.

¹⁵ See, e.g., Morin, Roger A., “Regulatory Finance: Utilities’ Cost of Capital,” Public Utilities Reports (1994) at 166; *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.