

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

Atlantic Path 15, LLC

)

Docket No. ER08-\_\_\_\_-000

**PREPARED DIRECT TESTIMONY  
OF  
JAMES M. COYNE  
  
ON BEHALF OF  
ATLANTIC PATH 15, LLC**

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**SUMMARY**

Mr. Coyne presents evidence and provides a recommendation on behalf of Atlantic Path 15, LLC (“AP Path 15” or the “Company”), regarding AP Path 15’s appropriate rate of return for use in developing the Company’s transmission rates. Mr. Coyne’s recommendation of the appropriate cost of equity of 13.5 percent is based primarily on the Federal Energy Regulatory Commission’s (“FERC” or the “Commission”) preferred Discounted Cash Flow (“DCF”) approach, but also considers the rate of return granted when the project - an approximately 84-mile, 500-kilovolt transmission line built along the existing Path 15 transmission corridor in California (the “Path 15 Upgrade”) was first constructed, the benefits the Path 15 Upgrade has provided, incentives granted by the Commission for similar transmission investments, of which Path 15 was the first, and the business and economic environment for transmission investments. The recommended return on common equity (“ROE”) of 13.5 percent is within the zone of reasonableness, indicated by the results of the DCF analysis, and is appropriate for the Path 15 Upgrade, especially in light of the agreement approved by the Commission prior to the construction of the project.

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1 I. INTRODUCTION AND QUALIFICATIONS

2 Q. PLEASE STATE YOUR NAME, AFFILIATION, AND BUSINESS  
3 ADDRESS.

4 A. My name is James M. Coyne, and I am employed by Concentric Energy Advisors,  
5 Inc. (“CEA”) as a Senior Vice President. CEA is a management consulting and  
6 economic advisory firm, focused on the North American energy and water  
7 industries, based in Marlborough, Massachusetts. CEA specializes in transaction-  
8 related financial advisory services, energy market strategies, market assessments,  
9 regulatory and litigation support, energy commodity contracting and procurement,  
10 economic feasibility studies, and capital market analyses. My business address is  
11 293 Boston Post Road West, Suite 500, Marlborough, MA 01752.

12 Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

13 A. I am testifying on behalf of Atlantic Path 15, LLC, a Delaware limited liability  
14 company, which is a wholly owned subsidiary of Atlantic Holdings Path 15, LLC.

15 Q. PLEASE DESCRIBE YOUR EXPERIENCE IN THE ENERGY AND  
16 UTILITY INDUSTRIES.

17 A. I am among CEA’s professionals who provide expert testimony before federal  
18 and state agencies on matters pertaining to economics, finance, and public policy

1 in the energy industry. I regularly advise utilities, generating companies, public  
2 bodies and private equity investors on the purchase, sale and investment in utility  
3 related facilities. This work includes calculating the cost of capital for the  
4 purpose of investment evaluation, and providing expert testimony on matters  
5 pertaining to rate policy, valuation, capital costs, fuels and power markets. In  
6 addition, I work for utilities, independent developers and public bodies on issues  
7 pertaining to the management and development of power generation, distribution  
8 and transmission facilities.

9 Prior to joining CEA, I was Senior Managing Director in the Corporate  
10 Economics Practice for FTI/Lexecon, and Managing Director for Arthur  
11 Andersen's Energy & Utilities Corporate Finance Practice. In these positions, I  
12 provided expert testimony and advisory services on mergers, acquisitions,  
13 divestitures and capital markets to clients in the energy industry. In prior  
14 positions, I was Managing Director for Navigant Consulting, with responsibility  
15 for the firm's Financial Services practice, and Senior Economist for the  
16 Massachusetts Energy Facilities Siting Council, where I analyzed the supply plans  
17 and facilities proposals from the state's electric and gas utilities. I also served as  
18 the State's Energy Economist for the Maine Office of Energy Resources. I hold a  
19 B.S. in Business Administration from Georgetown University and a M.S. in  
20 Resource Economics from the University of New Hampshire. My educational  
21 and professional background is summarized more fully in Appendix A.

1 **Q. PLEASE DESCRIBE CEA’S ACTIVITIES IN ENERGY AND UTILITY**  
2 **ENGAGEMENTS.**

3 A. CEA provides financial and economic advisory services to a large number of  
4 energy and utility clients across North America. Our economic and market  
5 analysis services include utility ratemaking and regulatory advisory services;  
6 energy market assessments; market entry and exit analysis; and energy contract  
7 negotiations. Our financial advisory activities include buy and sell-side merger,  
8 acquisition and divestiture engagements; due diligence and valuation  
9 engagements, including the provision of fairness opinions; project and corporate  
10 finance services; and transaction support services.

11

12 **II. PURPOSE AND OVERVIEW OF TESTIMONY**

13 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

14 A. The purpose of my Direct Testimony is to present evidence and provide an  
15 independent analysis of a fair rate of return on equity (“ROE”) for the owners of  
16 AP Path 15. My Direct Testimony summarizes the data and methodologies used  
17 to establish my recommended cost of capital for AP Path 15. In addition, I will  
18 address the benefits of the Path 15 Upgrade. My analysis and recommendations  
19 are supported by the data presented in Exhibit Nos. ATL-6 to ATL-13.

20 **Q. PLEASE SUMMARIZE THE BASIS OF YOUR TESTIMONY.**

21 A. To prepare my testimony, I used information available from a variety of sources  
22 that would normally be relied upon by an expert in such matters. I am familiar  
23 with the financial, organizational and operational challenges associated with

1 investment in the WECC and CAISO through the normal course of the consulting  
2 services that I provide to energy companies serving those geographical locations.  
3 In addition, I have reviewed numerous related documents, including past  
4 regulatory orders and case proceedings, as well as recent Federal policy and  
5 FERC rulings, such as: the Energy Policy Act of 2005, Subtitle D – Transmission  
6 Rate Reform; FERC Order 679, Promoting Transmission Investment through  
7 Pricing Reform (including related Orders on Rehearing 679A and 679B); and the  
8 related FERC Notice of Public Rulemaking (“NOPR”), issued November 2005,  
9 on Promoting Transmission Investment through Pricing Reform. I have also  
10 submitted testimony in various state commission proceedings regarding the  
11 required rate of return on equity, and completed a recent study for the Ontario  
12 Energy Board on utility ROEs in Canada, the U.S., and Europe. I am currently  
13 conducting a similar study for the large electric distributors of Ontario. I have  
14 recently worked with WECC to facilitate the development of its five year strategic  
15 plan for the Reliability Organization, and with Hydro-Quebec on its transmission  
16 investment strategy. I also reviewed capital market reports and studies as it  
17 relates to investor perceptions and rate of return expectations for transmission  
18 investment. These sources in combination with my economics and utility  
19 regulatory background have given me a working knowledge of ROE issues  
20 affecting independent transmission owners in WECC and CAISO, and serve as  
21 the basis of my conclusions in these proceedings.

1 **Q. WHAT IS THE ROLE OF RETURN ON EQUITY WHEN SETTING**  
2 **RATES?**

3 A. The rate of return on common equity compensates shareholders for the use of  
4 their capital to finance the plant and equipment necessary to provide regulated  
5 utility services. Investors are only willing to commit capital if they can reliably  
6 expect to earn a return commensurate with returns available for competing  
7 investments of comparable risk. Utilities generally do not charge market based  
8 rates for transmission service and thus their returns are set, as here, through  
9 Commission administered cost-based rate proceedings. According to the guiding  
10 principles established by the Supreme Court's *Hope* and *Bluefield* decisions,  
11 returns set through these proceedings must be sufficient to attract new capital on  
12 reasonable terms and to maintain financial integrity.

13 **Q. WHAT FACTORS DID YOU CONSIDER AS THE BASIS OF YOUR**  
14 **RECOMMENDATION WITH RESPECT TO AP PATH 15'S ROE.**

15 A. In evaluating the appropriate ROE, my conclusions are predicated on several  
16 factors. First, the ROE recommendation must be subject to the tenets of *Hope* and  
17 *Bluefield*, requiring that the return be commensurate with returns available for  
18 competing investments of comparable risk. In this regard, one must consider the  
19 business risk associated with holding a single transmission asset versus a proxy  
20 group composed of diversified, vertically integrated electric utilities. Second, the  
21 recommended ROE must be sufficient to adequately reward investors for  
22 relinquishing operating responsibility for transmission assets by transferring such  
23 responsibility to an ISO or RTO, as well as promoting infrastructure investment

1 by operating as an independent transmission company. Third, the recommended  
2 ROE must honor the bargain that investors made with the FERC, by way of  
3 transmission incentives, for their investment in critical transmission infrastructure  
4 in accordance with the FERC and the Nation's stated policy goals. Fourth, I have  
5 considered the benefits that have been realized as a result of the Path 15 Upgrade.  
6 Path 15 received certain incentives, such as a 13.5% rate of return, as it moved  
7 forward in anticipation that, once constructed, the project would provide certain  
8 benefits. As such, as the Commission considers whether to continue that 13.5%  
9 ROE, it is appropriate to consider the benefits the project has provided and  
10 continues to provide in terms of increasing grid reliability, expanding access to  
11 critical generation throughout the state of California, and reducing congestion  
12 through the Path 15 Corridor. All of the above factors must be considered, not  
13 simply the formulaic outcome of the quantitative analyses, in order to arrive at a  
14 rate of return that is just and reasonable, not unduly discriminatory, and  
15 adequately rewards investors for their commitment to strengthening the  
16 transmission system in the United States.

17 **Q. WHAT IS YOUR CONCLUSION REGARDING THE APPROPRIATE**  
18 **COST OF CAPITAL FOR THE COMPANY?**

19 A. Based on my DCF modeling results, the original rate treatment and subsequent  
20 FERC rulings on transmission investments and the social and economic benefits  
21 derived from the construction of the Path 15 Upgrade, I recommend an ROE cost  
22 rate of 13.50 percent.

1 **Q. PLEASE PROVIDE A BRIEF OVERVIEW OF THE ANALYSIS THAT**  
2 **LED TO YOUR RECOMMENDATIONS.**

3 A. In order to determine the appropriate ROE, I have employed the Constant Growth  
4 form of the DCF model, consistent with Commission precedent regarding the  
5 calculation of ROE for electric utilities. My application of the DCF model and  
6 results are based on reputable third party growth and ROE projections, as well as  
7 market-based information on current annual dividends and recent stock prices. In  
8 applying and assessing the results of my DCF analysis, I considered certain costs  
9 and trends, capital market projections, the risks associated with holding a single  
10 transmission asset, and the benefits derived from the Path 15 Upgrade. As  
11 described in more detail later in my Direct Testimony, the results of those  
12 analyses indicate that an ROE of 13.50 percent is just and reasonable and within  
13 the zone of reasonableness.

14 **Q. HOW IS THE BALANCE OF YOUR DIRECT TESTIMONY**  
15 **ORGANIZED?**

16 A. My remaining Direct Testimony is organized into seven subsequent sections.  
17 Section III discusses the context for setting the ROE for AP Path 15. Section IV  
18 includes a discussion of the regulatory guidelines and financial considerations  
19 pertinent to cost of capital determinations, including a discussion of FERC  
20 precedent for such determinations. Section V discusses the criteria and approach  
21 for the selection of my proxy group of comparable companies. Section VI  
22 explains the data, methodologies and results of my analyses, and provides a  
23 review of the current business and operating risk environment surrounding the

1 Path 15 Upgrade. Section VII includes a discussion of considerations in  
2 determining the appropriate ROE, including the original incentives granted,  
3 FERC policies and precedents for transmission investment, and the benefits  
4 realized for the Path 15 Upgrade. Section VIII summarizes my results and  
5 conclusions.

6  
7 **III. CONTEXT FOR SETTING PATH 15'S RETURN ON EQUITY**

8 **Q. PLEASE DESCRIBE THE PATH 15 UPGRADE.**

9 A. The Path 15 Upgrade is an approximately 84-mile, 500-kilovolt transmission line  
10 built along the existing Path 15 transmission corridor in California to ameliorate a  
11 seriously constrained congestion point. The development of the Path 15 Upgrade  
12 parallels the difficulties experienced by the western energy markets, and its  
13 history is important for understanding the reason that the Path 15 Upgrade was  
14 originally constructed and granted rate incentives by the Commission.

15 **Q. WHO ARE THE STAKEHOLDERS OF RECORD IN THE PATH 15**  
16 **UPGRADE?**

17 A. The original stakeholders in the Path 15 Upgrade are Trans-Elect, Inc. ("TE"), the  
18 Western Area Power Administration ("WAPA"), and the Pacific Gas and Electric  
19 Company, ("PG&E"). These parties signed an agreement in 2002 to jointly  
20 construct the regulated transmission line and make related substation  
21 modifications along the Path 15 corridor in Central California. The Path 15  
22 transmission corridor encompassed two existing high voltage transmission lines  
23 that extended from southern California to northern California, facilitating the

1 movement of power from the Pacific Northwest to southern California in the  
2 summer and from generators in southern California to northern California in the  
3 winter. The Path 15 Upgrade consisted of an additional approximately eighty-four  
4 mile, 500-kilovolt transmission line along Path 15 which, with associated  
5 modifications to existing substations by PG&E, increased south to north  
6 transmission capacity by 38 percent, and north to south capacity by 86%.<sup>1</sup>  
7 Construction of the Path 15 Upgrade commenced in the third quarter of 2003, and  
8 commercial operation began ahead of schedule on December 22, 2004. On  
9 September 15, 2006 Atlantic Power Holdings, LLC indirectly acquired 100% of  
10 the equity interests in Trans-Elect NTD Holdings Path 15, LLC, the owner of  
11 Trans-Elect NTD Path 15, LLC. On September 21, 2006 Trans-Elect NTD  
12 Holdings Path 15, LLC and Trans-Elect NTD Path 15, LLC changed their names  
13 to Atlantic Holdings Path 15, LLC and Atlantic Path 15, LLC. Electric  
14 consumers in the West are also stakeholders as they derive the benefits of  
15 increased reliability and improved economic efficiency of the regional electric  
16 grid.

17 **Q. WHO OWNS THE PHYSICAL ASSETS OF THE PATH 15 UPGRADE?**

18 A. The WAPA owns the completed transmission line and PG&E owns the  
19 substations into which the line connects. In return for financing the construction  
20 of the Path 15 Upgrade, AP Path 15 received 72% of the transmission system  
21 rights on the Path 15 Upgrade, but does not own any interest in the physical

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<sup>1</sup> There was originally 3,950 MW of South to North capacity and the Upgrade added 1,500 to achieve 5,400 MW along the Path 15 corridor; and 1,275 MW of North to South capacity upgraded by 1,100 MW to 2,375 MW. See Trans-Elect NTD Path 15, LLC, Docket No. ER05-17-002, ORDER ON INITIAL DECISION, (Issued November 20, 2006).

1 assets. AP Path 15 assigned these rights to the California Independent System  
2 Operator (“CAISO”) in return for payments designed to recover the Federal  
3 Energy Regulatory Commission (“FERC”) approved revenue requirement. The  
4 WAPA maintains the Path 15 Upgrade line and receives periodic cash advances  
5 from AP Path 15 to pay for the expenses.

6 **Q. PLEASE DESCRIBE THE BUSINESS CLIMATE FOR TRANSMISSION**  
7 **INFRASTRUCTURE THAT PREVAILED AT THE TIME THE PATH 15**  
8 **UPGRADE WAS CONCEIVED.**

9 A. The FERC’s initiation of open access transmission in 1996 led to sweeping  
10 changes in the energy industry. In many states, this included a movement toward  
11 retail competition, often including the divestiture of generation plants by  
12 traditional electric utilities. As part of that effort, the Commission recognized the  
13 need for investment in transmission capacity and reliability organizations to  
14 support the demands of evolving competitive electricity markets, including the  
15 independent operation of transmission assets. Such changes occurred in  
16 California and included the formation of the California Independent System  
17 Operator Corporation (“CAISO”) in the late 1990s.

18 By late 2000, the problems in the California electricity market received  
19 worldwide attention as California’s major investor owned utilities (“IOUs”)  
20 experienced extreme financial pressure from spiking energy costs due to  
21 inadequate electric infrastructure, poor hydro generation conditions, natural gas  
22 pipeline interruptions and capacity constraints, coupled with strong economic  
23 growth and record high temperatures. As prices continued to rise, California

1 utilities had to purchase power at market rates but were unable to pass on price  
2 increases to their customers. This market environment created an energy crisis  
3 that ultimately led to the bankruptcy of one of California's largest utilities, PG&E;  
4 and a precarious financial situation for the other two investor owned utilities,  
5 SDG&E and SoCal Edison. The Path 15 corridor had long been identified as in  
6 need of an upgrade and the California energy crisis resulted in a renewed urgency  
7 to put in place the specific incentives that would attract the necessary financial  
8 investment to get the upgrade built.

9 **Q. WHY WAS THE PATH 15 CORRIDOR SPECIFICALLY TARGETED AS**  
10 **A SIGNIFICANT PROBLEM?**

11 A. The Path 15 corridor transmission constraint was identified as one of the leading  
12 causes of the 2000 and 2001 California energy crisis. Before the addition of the  
13 500-kV Path 15 Upgrade, Path 15 consisted of three 500-kV lines linking  
14 northern and southern California that narrowed to two lines for an approximately  
15 84-mile stretch through the Central Valley. While generation was available in  
16 southern California and the Desert Southwest, the transmission corridor's crucial  
17 lack of transfer capacity hampered efforts to move that power north, contributing  
18 to California's electricity crisis that led to soaring electricity bills for homes and  
19 businesses and rolling blackouts. The following excerpt from a press conference  
20 with Governor Gray Davis highlights the importance of the Path 15 Upgrade  
21 against the backdrop of lackluster interest in transmission investment by both  
22 utilities and the private sector that prevailed at that time:

23 *For example, for nearly two decades people have realized there is*  
24 *a problem with path 15. That's where three electrical lines are*

1                    *reduced to two lines. On both occasions where we had blackouts in*  
2                    *the Bay Area, there was enough electrons in Southern California.*  
3                    *But for the past two decades neither the utilities nor the private*  
4                    *sector had the interest to make the improvements to path 15 to*  
5                    *allow electrons to flow freely from the north to the south...It's in*  
6                    *the public interest to expand the capacity of path 15, as it is at path*  
7                    *26, path 66 and the Inter-tie between Southern California and*  
8                    *Arizona. So you can argue over why those transmission lines have*  
9                    *not been expanded, but the fact is they haven't.<sup>2</sup>*

10    **Q.    WAS THERE FURTHER ATTENTION DRAWN TO THE PATH 15**  
11                    **CORRIDOR AND REQUIRED UPGRADE AS A CRITICAL**  
12                    **TRANSMISSION PROJECT?**

13    A.    Yes. An energy policy group established by President George W. Bush released a  
14                    National Energy Policy (“Energy Policy”) that identified insufficient  
15                    infrastructure in the Path 15 corridor as a major cause of California’s energy crisis.  
16                    The Energy Policy labeled the Path 15 corridor a “crucial transmission  
17                    bottleneck,” and recommended that the President direct the Secretary of Energy to  
18                    authorize the WAPA to explore relieving the Path 15 bottleneck through  
19                    transmission expansion financed by nonfederal contributions, as indicated below:

20                    *Transmission constraints were also a primary factor in blackouts*  
21                    *in northern California, which imports power from both the*  
22                    *Northwest and southern California. When resources are not*  
23                    *available in the Northwest, electricity supply must come from*  
24                    *southern California’s Path 15 transmission route. Path 15 does*  
25                    *not have sufficient capacity to provide all of the power needed in*  
26                    *northern California.*

27  
28                    *Recommendation:*

29                    ★ The NEPD [National Energy Policy Development] Group  
30                    recommends that the President direct the Secretary of Energy to  
31                    authorize the Western Area Power Administration to explore

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<sup>2</sup> [www.Gray-Davis.com](http://www.Gray-Davis.com) digital library, Transcript of Press Conference Governor Gray Davis, February 16, 2001.

1 relieving the "Path 15" bottleneck through transmission expansion  
2 financed by nonfederal contributions.<sup>3</sup>

3 **Q. DID THE PRESIDENT DIRECT THE SECRETARY OF ENERGY TO**  
4 **AUTHORIZE WAPA TO EXPLORE RELIEVING THE PATH 15**  
5 **BOTTLENECK?**

6 **A.** It appears that he did. President Bush alluded to the Path 15 bottleneck in several  
7 speeches following the issuance of the Energy Policy by the National Energy  
8 Policy Development Group in May 2001, indicating that his office, in conjunction  
9 with the Secretary of Energy, was taking action on this critical initiative. Below  
10 is an illustrative quote from the President's speech at Camp Pendleton in  
11 California in May 2001.

12 Our nation needs to modernize its networks for moving  
13 energy from the power plant to the outlet on the wall.  
14 Again, you in California know that well. For almost 20  
15 years, it's been clear that what's called "Path 15," the stretch  
16 of transmission line connecting the power grids of Northern  
17 and Southern California, needed to be expanded and  
18 modernized. And now we're taking action to get the job  
19 done. ... Energy Secretary Spence Abraham is speeding  
20 approval of the necessary permits and easements. We're  
21 going to unplug the Path 15 bottleneck.<sup>4</sup>

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<sup>3</sup> See *Reliable, Affordable, and Environmentally Sound Energy for America's Future*, Report of the National Energy Policy Development Group, May 2001, at 114.

<sup>4</sup> See [www.whitehouse.gov](http://www.whitehouse.gov) - Remarks by the President at Camp Pendleton, California, Office of the Press Secretary, May 29, 2001.

1 **Q. WHAT ACTION WAS TAKEN BY THE SECRETARY OF ENERGY TO**  
2 **EXPLORE RELIEVING THE PATH 15 BOTTLENECK?**

3 A. Pursuant to the Presidential directive, in May 2001 Energy Secretary Spencer  
4 Abraham directed WAPA to determine if interest existed to finance and build a  
5 Path 15 upgrade and to initiate a public request for proposals (“RFP”) from non-  
6 federal entities to participate in the construction and ownership of the Path 15  
7 upgrade.

8 **Q. WHAT WERE THE RESULTS OF THE RFP PROCESS?**

9 A. The result was a public-private partnership among WAPA, Trans-Elect, Inc. and  
10 PG&E to build an approximately 84-mile, 500-kV line and modify substations at  
11 both ends of the new segment. The new line would reduce congestion and  
12 improve power exchanges between northern and southern California as well as  
13 improve the overall reliability of the nation’s electric transmission infrastructure,  
14 by adding roughly 1,500 MW of transmission capacity from southern to northern  
15 California, and 1,100 MW of transmission capacity from north to south.<sup>5</sup>

16 Those parties executed a letter agreement on April 25, 2002, defining the  
17 ownership of the Project and detailing the rights of the participants. As defined in  
18 these agreements, WAPA would own the transmission line and the land and  
19 would manage the project up to the commercial operation date, at which time  
20 project management would be turned over to a management committee; PG&E  
21 would own the modifications to its substations and the 230kV reinforcements  
22 (“substation”) and would have full responsibility for all aspects of the

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<sup>5</sup> See Trans-Elect NTD Path 15, LLC, Docket No. ER05-17-002, ORDER ON INITIAL DECISION, (Issued November 20, 2006).

1 development of the substations in accordance with the project schedule of the  
2 transmission line; and Trans-Elect would provide the funding for the development  
3 of the transmission line and the land acquisition. Each party received an initial  
4 allocation of transmission system rights (“TSRs”), based upon the ratio of the  
5 estimated cost of their respective contributions to the approximately \$250 million  
6 entire Project cost (this amount was 18% under the original \$306 million budget).  
7 This successful RFP process was highlighted by the DOE as an example of  
8 Federal leadership in addressing “bottlenecks affecting national interests and how  
9 these bottlenecks might be addressed through private investment”.<sup>6</sup>

10

11 **IV. REGULATORY GUIDELINES AND FINANCIAL CONSIDERATIONS**

12 **Q. PLEASE DESCRIBE THE GUIDING PRINCIPLES USED IN**  
13 **ESTABLISHING THE COST OF CAPITAL FOR A REGULATED**  
14 **UTILITY.**

15 A. The foundations of public utility regulation allow utilities to receive a fair rate of  
16 return sufficient to attract needed capital at reasonable rates. The basic tenets of  
17 this regulatory doctrine originate from a few bellwether decisions, notably  
18 *Bluefield Waterworks and Improvement Company v. Public Service Commission*  
19 *of West Virginia* (1923) (“Bluefield”), and *Federal Power Commission v. Hope*  
20 *Natural Gas Company* (1944) (“Hope”). In *Bluefield*, the Court provided:

21 *A public utility is entitled to such rates as will permit it to earn a*  
22 *return on the value of the property which it employs for the*  
23 *convenience of the public equal to that generally being made at the*  
24 *same time and in the same general part of the country on*

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<sup>6</sup> “National Transmission Grid Study,” US Department of Energy, May 2002, p. 21.

1                   *investments in other business undertakings which are attended by*  
2                   *corresponding risks and uncertainties;... The return should be*  
3                   *reasonably sufficient to assure confidence in the financial*  
4                   *soundness of the utility and should be adequate, under efficient*  
5                   *and economical management, to maintain and support its credit*  
6                   *and enable it to raise the money necessary for the proper*  
7                   *discharge of its public duties.*

8                   Later, in *Hope*, the Court established a standard for the return on equity that  
9                   remains the guiding principle for regulatory proceedings:

10                   ... [T]he return to the equity owner should be commensurate with  
11                   returns on investments in other enterprises having corresponding  
12                   risks. That return, moreover, should be sufficient to assure  
13                   confidence in the financial integrity of the enterprise, so as to  
14                   maintain its credit and to attract capital.

15                   **Q.     WHAT FUNDAMENTAL ECONOMIC PRINCIPLES SERVE AS THE**  
16                   **BASIS OF THE COST OF EQUITY CONCEPT?**

17                   A.     Unlike the cost of debt, the return required by common equity shareholders is not  
18                   readily observable in capital markets as there is no pre-specified amount that  
19                   equity investors are paid for their contribution of capital. However, return on  
20                   equity expectations are implied through the combination of market prices,  
21                   dividend yields and dividend growth expectations. Because investors are  
22                   assumed to be risk averse, it is likewise assumed that they will require a higher  
23                   return for a greater degree of risk. Given a market where risk free investments are  
24                   available, investors can be enticed to subject themselves to greater risk only for  
25                   the promise of a higher return than that of the risk free investment.

1 **Q. CAN THIS RISK AVERSE BEHAVIOR BY INVESTORS BE OBSERVED**  
2 **IN CAPITAL MARKETS?**

3 A. Yes. An example of risk-averse investor behavior and the resulting risk-return  
4 tradeoff can be observed in the bond market, where the risk free bonds pay  
5 investors a lower yield than a corporate bond since the latter carries some degree  
6 of default risk. As the default risk is increased, the bond yield increases  
7 correspondingly. This risk-return trade-off can also be observed by the varying  
8 returns afforded by various sources of capital with differing risk characteristics  
9 and priorities, *i.e.* secured debt, unsecured debt, preferred stock, and equity.  
10 Bondholders have a senior claim on the cash flows of the company and have  
11 recourse should the company default on its payments. Preferred stockholders  
12 claims are subordinate to bondholders but are superior to the claims of common  
13 equity holders. Common equity holders receive whatever cash is retained in  
14 earnings, after all other payments have been made, including those to bondholders  
15 and preferred stockholders. As a result, the rate of return that investors require  
16 from the utility's common stock is considerably higher than the yield on the  
17 utility's long-term debt or preferred stock, which have more certain and superior  
18 claims.

19 **Q. WHAT IS THE BASIS FOR YOUR RECOMMENDED ROE FOR AP**  
20 **PATH 15?**

21 A. In accordance with established Commission precedent, I have selected a proxy  
22 group of transmission-owning utilities that operate in the WECC region. I have  
23 reviewed the regulatory and operational conditions surrounding the financing of

1 the Path 15 Upgrade in California and the broader Western United States, as well  
2 as the conditions in the electric utility industry and the U.S. economy. Against  
3 this background, I have performed quantitative DCF analyses to estimate the cost  
4 of equity using the proxy group of transmission-owning utilities. I have assessed  
5 the risks of the Path 15 Upgrade that differentiate it from its peers, the proxy  
6 group; and have evaluated its eligibility for continued incentive rate treatment in  
7 the context of the ongoing benefits derived from the project.

8  
9 **V. USE OF PROXY GROUP COMPANIES**

10 **Q. WHY DID YOU USE A GROUP OF PROXY COMPANIES TO**  
11 **DETERMINE THE ROE FOR PATH 15'S ELECTRIC OPERATIONS?**

12 A. AP Path 15 is an independent transmission-only company without publicly traded  
13 common stock. Since ROE is a market-based concept, it is necessary to establish  
14 a group of publicly traded companies that are comparable to AP Path 15. The use  
15 of proxy groups, which is a generally accepted analytical technique to estimate  
16 the ROE for non- publicly traded utilities, also serves to moderate the effects of  
17 anomalous events associated with any single company. The *Bluefield* and *Hope*  
18 decisions provide, in part, that a fair rate of return is one that is commensurate to  
19 that earned by enterprises of comparable risk, such as those included in a carefully  
20 selected proxy group.

1 **Q. HOW DID YOU SELECT THE COMPANIES INCLUDED IN YOUR**  
2 **PROXY GROUP?**

3 A. I began with a listing of investor-owned utilities that are currently members of the  
4 Western Electric Reliability Council (“WECC”), where the Path 15 Upgrade is  
5 located. I then selected the proxy group according to the following criteria, which  
6 reflect financial and business risks. All of the companies retained in the proxy  
7 group:

- 8 1. Are currently paying cash dividends,
- 9 2. Are covered by at least two generally recognized utility industry equity  
10 analysts,
- 11 3. Are rated investment grade or had senior bond and/or corporate ratings  
12 between A+ and BBB- by S&P as of November 30, 2007,
- 13 4. Have both a Thomson Financial First Call growth rate and are covered  
14 by Value Line,
- 15 5. Have not announced a merger during the six-month period used to  
16 calculate the dividend yields for the purposes of the DCF analysis.

17 **Q. BASED ON THOSE CRITERIA, WHAT IS THE COMPOSITION OF**  
18 **YOUR PROXY GROUP?**

19 A. As shown on Exhibit No. ATL-6, my initial group was comprised of the  
20 seventeen investor owned utilities in WECC. After applying my selection criteria,  
21 I arrived at a final proxy group of nine companies. The final proxy group is listed  
22 below:

- 23 1. Black Hills Corp.
- 24 2. Edison International
- 25 3. IDACORP, Inc.
- 26 4. PG&E Corp.
- 27 5. Portland General Electric Co.
- 28 6. Pinnacle West Capital
- 29 7. PNM Resources
- 30 8. Sempra Energy
- 31 9. Xcel Energy Inc.

1 **Q. DO YOUR SCREENING CRITERIA RESULT IN A GROUP OF**  
2 **COMPANIES THAT INVESTORS WOULD VIEW AS COMPARABLE?**

3 A. Not entirely, the screening criteria set forth above yields a group of publicly  
4 traded electric companies with similar financial profiles and business operating  
5 environments. However, none of the above companies are pure transmission  
6 companies or are comprised of one singular asset, as is the case with AP Path 15.  
7 I have selected the above group to best align the financial, operational and  
8 geographical characteristics with those of AP Path 15. A proxy group of pure  
9 transmission companies, such as AP Path 15, unfortunately, does not exist. I am  
10 only aware of one pure transmission company that is publicly traded, ITC  
11 Holdings Corp (“ITC”). ITC does satisfy all but one of my proxy group screening  
12 criteria, with the exception that it operates in a different region. As ITC is the  
13 sole pure transmission company for which data is available, a geographic  
14 difference should not result in ITC being excluded from the analysis. As such I  
15 have included a DCF analysis for ITC to be considered among the results of my  
16 analyses.

17 **Q. ON WHAT BASIS DO YOU CONCLUDE THAT THE FINANCIAL**  
18 **CHARACTERISTICS OF THE PROXY GROUP COMPANIES ARE**  
19 **SIMILAR TO THAT OF AP PATH 15?**

20 A. The proxy group screening criteria requiring an investment grade credit rating  
21 ensures that the proxy group companies, like AP Path 15, are generally in sound  
22 financial condition. These ratings are assigned by independent ratings analysts  
23 and provide an evaluation of the likelihood that a company will be able to meet its

1 debt service requirements. Because ratings analysts take into account operational  
2 and financial risks in developing the credit rating, the ratings provide a broad  
3 measure of investment risk that are widely referenced by investors. Ratings of  
4 “investment grade” (S&P credit rating of BBB- or above and Moody’s credit  
5 rating of Baa3 and above) generally indicate sound financial condition; and any  
6 rating below investment grade is considered to be speculative and high risk.  
7 Moody’s Investor Service rated the senior secured debt of AP Path 15 Baa2,  
8 which exactly corresponds to the S&P credit rating of BBB. The proxy group  
9 companies’ S&P credit ratings range from BBB- to BBB+, the comparable  
10 Moody’s range would be Baa1 – Baa3, and thus are financially comparable to AP  
11 Path 15.

12 **Q. WHY HAVE YOU NOT SELECTED YOUR GROUP OF PROXY**  
13 **COMPANIES FROM CAISO MEMBERS, SIMILAR TO AP PATH 15,**  
14 **RATHER THAN COMPANIES OPERATING IN WECC?**

15 A. There are only three companies operating in the CAISO, SDG&E, SoCal Edison,  
16 and PG&E. A group of three companies does not provide a sufficiently robust  
17 analysis and its results are likely to be skewed by individual members of the  
18 group. I consider companies operating in the WECC region and the CAISO to be  
19 sufficiently comparable in terms of operating risks and transmission operations  
20 (all are members of WECC). As such, to provide a more meaningful analysis, I  
21 have selected the members of my proxy group from the WECC members list,  
22 which includes the three CAISO participants, in my proxy group.

1 **VI. DCF ANALYSIS**

2 **Q. PLEASE BRIEFLY DISCUSS ROE IN THE CONTEXT OF A**  
3 **REGULATED RATE OF RETURN.**

4 A. Regulated utilities rely primarily on common stock and long-term debt to finance  
5 their permanent property, plant and equipment. The allowed rate of return for a  
6 regulated utility is based on its weighted average cost of capital, where the costs  
7 of the individual sources of capital are weighted by their respective book values.  
8 As the cost of raising and retaining equity capital, ROE is a primary component of  
9 the weighted average cost of capital calculation.

10 **Q. HOW IS ROE DETERMINED?**

11 A. ROE is estimated by using one or more analytical techniques that use market data  
12 to quantify investor expectations regarding equity returns. The results of those  
13 analyses are then adjusted for factors that are not reflected in the results of proxy  
14 group analyses.

15 **Q. WHAT MODELS DID YOU USE IN YOUR ANALYSES?**

16 A. While there are several models used by both the financial and regulatory  
17 communities, consistent with Commission precedent, I have relied on the constant  
18 growth form of the DCF model. DCF models are widely used in regulatory  
19 proceedings and have sound theoretical bases.

20 **Q. PLEASE DESCRIBE THE DCF APPROACH.**

21 A. The DCF approach is based on the theory that a stock's price represents the  
22 present value of all future expected cash flows. In its simplest form, the DCF  
23 model expresses the ROE as the sum of the expected dividend yield and long-

1 term growth rate. The DCF approach estimates a firm's ROE as the rate that  
2 equates the discounted value of all future cash flows expected by investors with  
3 the value of its common stock. In its most common form, the DCF model is  
4 expressed as follows:

$$5 \quad k = \frac{D(1+g)}{P} + g$$

6 where "k" equals the required return, "D" is the current dividend, "g" is the  
7 expected growth rate, and "P" represents the subject company's stock price.

8  
9 **A. DIVIDEND YIELD**

10 **Q. HOW DID YOU DETERMINE THE DIVIDEND YIELD?**

11 A. In keeping with Commission precedent, I have used the most recent six-month  
12 average low and high dividend yields for the period June 1, 2007 through  
13 November 30, 2007.<sup>7</sup> This was the most currently available data as I prepared my  
14 testimony.

15 **Q. DID YOU ADJUST THE DIVIDEND YIELD TO ACCOUNT FOR**  
16 **PERIODIC GROWTH IN DIVIDENDS?**

17 A. Yes. Since utility companies tend to increase their quarterly dividends at different  
18 times throughout the year, it is reasonable to assume that such increases will be  
19 evenly distributed over calendar quarters. Given that assumption, it is reasonable  
20 to apply one-half of the expected annual dividend growth for the purposes of  
21 calculating the DCF model. This adjustment ensures that the expected dividend  
22 yield is representative of the coming 12-month period. Accordingly, the DCF

---

<sup>7</sup> Opinion No. 299, *Boston Edison Company*, 42 FERC ¶ 61,374 (1988), mimeo at 6.

1 estimates provided in Exhibit No. ATL-7 reflect one-half of the expected growth  
2 in the dividend yield component of the model.<sup>8</sup>

3  
4 **B. GROWTH ESTIMATES**

5 **Q. PLEASE DESCRIBE THE IMPORTANCE OF DIVIDEND GROWTH**  
6 **ESTIMATES IN APPLYING THE DCF MODEL.**

7 A. The DCF model assumes a single growth estimate in perpetuity. Accordingly, in  
8 order to reduce the long-term growth rate to a single measure, one must assume a  
9 constant payout ratio, and that earnings per share, dividends per share and book  
10 value per share will all grow at the same constant rate. Over the long run,  
11 however, dividend growth can only be sustained by earnings growth. As noted by  
12 Brigham and Houston in their text, *Fundamentals of Financial Management*:

13 Growth in dividends occurs primarily as a result of growth  
14 in *earnings per share* (EPS). Earnings growth, in turn,  
15 results from a number of factors, including (1) inflation, (2)  
16 the amount of earnings the company retains and invests,  
17 and (3) the rate of return the company earns on its equity  
18 (ROE).<sup>9</sup>

19 Consequently, it is important to focus on measures of long-term earnings growth  
20 from credible sources as an appropriate measure of long-term growth.

---

<sup>8</sup> The expected dividend yield is calculated as  $d_1 = d_0 (1 + \frac{1}{2} g)$ .

<sup>9</sup> Eugene F. Brigham and Joel F. Houston, *Fundamentals of Financial Management*, at 317 (Concise Fourth Edition, Thomson South-Western), [emphasis added].

1 **Q. WHAT SOURCES OF GROWTH HAVE YOU USED IN YOUR DCF**  
2 **ANALYSIS?**

3 A. I have used the consensus analyst five-year growth estimates in earnings per share  
4 published by Thomson First Call, accessible through Yahoo! Finance. In addition,  
5 I have computed estimates of sustainable growth using the company-specific,  
6 implicit components of growth published by Value Line. These include the  
7 retention ratio, average ROE, share growth and price-to-book (market-to-book)  
8 ratio.

9 **Q. WHY HAVE YOU EXCLUSIVELY USED NEAR-TERM GROWTH**  
10 **RATES IN YOUR DCF ANALYSIS?**

11 A. The Commission has expressed a preference for the use of near-term growth rates  
12 for the purpose of establishing the ROE for electric utilities. In Opinion No. 445,  
13 as well as *System Energy Resources, Inc.*, Opinion No. 446, 92 FERC ¶ 61,119,  
14 (2000), and *New York State Electric & Gas Corporation*, Opinion No. 447, 92  
15 FERC ¶ 61,169 (2000), the Commission rejected the use of long-term growth  
16 rates in a DCF analysis of electric utility companies. The Commission affirmed  
17 that approach in *Midwest Independent Transmission System Operator, Inc.*, 100  
18 FERC ¶ 61,292 (2002) (“MISO”); *Northern Indiana Public Service Company,*  
19 *Inc.*, Opinion No. 462, 100 FERC ¶ 61,394 (2002); and in *City of Vernon,*  
20 *California*, 111 FERC ¶ 61,092 (2005). Consistent with Commission precedent,  
21 therefore, I have included near-term analysts’ projected earnings growth rates, as  
22 well as an estimate of sustainable growth in my DCF models.

1 **Q. WHY DO YOU RELY ON FORECAST, AS OPPOSED TO HISTORICAL,**  
2 **GROWTH RATES AS THE BASIS FOR YOUR GROWTH RATE**  
3 **PROJECTIONS?**

4 A. The ROE is a forward-looking concept that focuses on investor expectations  
5 regarding future returns. The estimation of such returns, therefore, should be  
6 based on forward-looking or projected data. Indeed, substantial academic  
7 research has demonstrated the relationship between analysts' forecasts and  
8 investor expectations.<sup>10</sup>

9 **Q. WHY HAVE YOU RELIED ON THOMSON FIRST CALL GROWTH**  
10 **RATES, WHEN THE COMMISSION HAS PREVIOUSLY RELIED UPON**  
11 **I/B/E/S GROWTH RATES?**

12 A. Thomson First Call provides a consensus growth estimate that is accessible free of  
13 charge through the Yahoo! Finance website. These growth estimates are provided  
14 by Thomson Financial, through its Thomson First Call product. The I/B/E/S  
15 growth estimate is also provided by Thomson Financial but is only accessible  
16 through a costly subscription to Thomson's data services. In the past, I/B/E/S  
17 growth rates were accessible through Bloomberg terminals or through library  
18 resources, but today access is restricted to direct subscribers. Historically, when  
19 comparing the I/B/E/S consensus estimate and the Thomson First Call consensus,

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<sup>10</sup> See, Robert S. Harris, *Using Analysts' Growth Forecasts to Estimate Shareholder Required Rates of Return*, FINANCIAL MANAGEMENT (Spring 1986) at 59. In a review of literature regarding the extent to which analyst forecasts are reflected in stock prices, Harris noted: "...Vander Weide and Carleton recently compare consensus financial analyst forecasts of earnings growth to 41 different historical growth measures. They conclude that "there is overwhelming evidence that the consensus analysts' forecast of future growth is superior to historically-oriented growth measures in predicting the firm's stock price...consistent with the hypothesis that investors use analysts' forecasts, rather than historically-oriented growth calculations, in making stock buy and sell decisions."

1 I have noted that there were no discernible differences, a reasonable outcome  
2 given that the two estimates are derived from the same source, Thomson Financial.  
3 Thomson First Call estimates accessible through Yahoo! Finance are highly  
4 regarded and relied upon by investors in the financial markets; and in my  
5 experience can be used interchangeably with I/B/E/S consensus estimates.

6 **Q. PLEASE DESCRIBE YOUR CALCULATION OF THE SUSTAINABLE**  
7 **GROWTH RATES UTILIZING VALUE LINE DATA.**

8 A. The Value Line data are used to develop the sustainable growth rate, which is the  
9 growth rate supported by a company's retained earnings and the effect of new  
10 common stock issuances. The FERC adopted the use of the sustainable growth  
11 rate in its Generic Rate of Return rulemakings in the 1980's. My calculation of  
12 the sustainable growth rate is provided in Exhibit No. ATL-8. The sustainable  
13 growth rate is expressed as follows:

$$14 \quad g = br + sv$$

15 where "b" is the expected retention ratio, "r" is the expected earned ROE, "s" is  
16 the percentage of existing common equity expected to be issued to the public  
17 annually in the form of new common stock, and "v" is the share of earnings and  
18 dividends due to the sale of stock that accrues to the existing stockholders (i.e. "v"  
19 is an accretion or dilution factor that is produced by stock issuances at a market  
20 price different from book value).

21 The "br + sv" form of the Sustainable Growth estimate is meant to reflect growth  
22 from both internally generated funds (i.e., the "br" term) and from issuances of  
23 equity (i.e., the "sv" term). The first term, which is the product of the retention

1 ratio (i.e., “b”, or the portion of net income not paid in dividends) and the  
2 expected return on equity (i.e., “r”) represents the portion of net income that is  
3 “plowed back” into the Company as a means of funding growth. The “sv” term  
4 can be represented as:

$$5 \quad \left(\frac{m}{b} - 1\right) \times \text{Common Shares growth rate}$$

6 where:

$$7 \quad \frac{m}{b} = \text{the market to book ratio.}$$

8 In this form, the “sv” term reflects an element of growth as the product of (a) the  
9 growth in shares outstanding and (b) that portion of the market-to-book ratio that  
10 exceeds unity. Data obtained from Value Line was used to conduct these  
11 calculations. (Please see Exhibit No. ATL-9).

12 Since the retention ratio, “b,” is equal to one minus the payout ratio, I have  
13 calculated the payout ratios for the proxy companies based on projected dividends  
14 and earnings per share for the three most forward-looking estimates (*i.e.* 2007,  
15 2008, and the 2010-2012 forecasting horizon).<sup>11</sup> I then computed the average  
16 retention ratio for the proxy companies among those three estimates by  
17 subtracting the resulting average payout ratio from the number one. Similarly, in  
18 calculating the return on book value for the proxy companies, “r,” I divided  
19 projected earnings per share by the corresponding projections of net book value.  
20 Consistent with past Commission precedent, I have adjusted the year end return

---

<sup>11</sup> In *MISO*, the Commission noted that “[t]he judge found that using three estimates or a five-year estimation period provides a more adequate and reliable estimate of the sustainable growth rate to be used as the “br” element of the formula”. The Commission went on to affirm the judge’s use of three Value Line estimates stating that such use was appropriate and consistent with *SoCal*.

1 on book value to an average return on book value. In Southern California Edison,  
2 the Commission recognized that if the rate of return or “r” component of the  
3 sustainable growth rate is based on end of year book values, such as those  
4 reported by Value Line, it will understate actual returns because of growth in  
5 common equity over the year. Accordingly, consistent with the Commission’s  
6 findings and theory underlying this approach to estimating investor’s growth  
7 expectations, I have performed the required adjustment to the annual average  
8 return.<sup>12</sup> I then used those figures to calculate the average internal growth rate  
9 for the period.

10 **Q. HAVE YOU ALSO CALCULATED THE “S X V” EXTERNAL GROWTH**  
11 **RATE?**

12 A. Yes. Exhibit No. ATL-8 provides the external growth rate for each proxy  
13 company. Specifically, I used the Value Line estimates of common shares  
14 outstanding to calculate an annual growth rate in shares outstanding, and  
15 multiplied that figure by the company’s recent average price-to-book ratio. For  
16 the “v” term of external growth, I used the formula one minus the reciprocal of  
17 the recent average price-to-book ratio.

18 **Q. PLEASE SUMMARIZE YOUR APPLICATION OF THE CONSTANT**  
19 **GROWTH DCF MODEL.**

20 A. I calculated high and low DCF results using the DCF model for the proxy group  
21 of nine companies using the following inputs:

---

<sup>12</sup> The adjustment is as follows:  $2(1+G)/(2+G)$ , where G represents the geometric average growth in common equity over the 5 year period, covered by the three forward most estimates by Value Line. See SoCal Edison, Opinion No. 445, Issued July 26, 2000, at 18.

- 1                   1. I have used the six-month average of the monthly low and high  
2                   dividend yields for the period June 1, 2007 through November 30,  
3                   2007. This is the most current monthly data available to obtain a  
4                   perspective on market conditions as I prepare my testimony for the  
5                   term *P*;  
6                   2. The annualized dividend per share at the end of each preceding six  
7                   months; and  
8                   3. The high and low growth rates, using Thomson First Call company-  
9                   specific consensus earnings growth forecast and the calculated  
10                  sustainable growth rate based upon Value Line data for the term *g*.

11   **Q.   PLEASE EXPLAIN THE APPROACH BY WHICH YOU CALCULATED**  
12   **THE HIGH AND LOW DCF RESULTS.**

13   A.   I calculated the high DCF result using the maximum growth rate (*i.e.*, the  
14           maximum of the Thomson First Call and the sustainable growth rate), in  
15           combination with the high dividend yield for each of the proxy group companies.  
16           I used a corresponding approach to calculate the low DCF results. Exhibit No.  
17           ATL-7 shows the calculation of the low and high DCF returns for each of the  
18           proxy companies using the method prescribed by the Commission in *SoCal*<sup>13</sup> and  
19           used in all subsequent electric rate case decisions. The adjusted low and high  
20           dividend yields are added to the respective low and high growth rates to develop  
21           the range of required ROEs for each of the proxy companies. The lowest and  
22           highest DCF results for the proxy companies were then used to develop the  
23           reasonable range for the entire proxy group.

---

<sup>13</sup> See SoCal Edison, Opinion No. 445, Issued July 26, 2000.

1   **Q.   HAS THE COMMISSION RECOGNIZED THAT IT MAY BE**  
2       **NECESSARY TO REMOVE RESULTS FROM THE DCF ANALYSIS**  
3       **THAT FAIL TO MEET THE THRESHOLD FOR ECONOMIC LOGIC?**

4   A.   Yes. The Commission has a history of removing results that are too low to be  
5       credible, with respect to long term bond yields. In *Southern California Edison*,  
6       the Commission acknowledged that "... investors generally cannot be expected to  
7       purchase stock if debt, which has less risk than stock, yields essentially the same  
8       return...".<sup>14</sup> In that *SoCal* proceeding, the Commission eliminated ROE results  
9       that were 36 basis points above the long term debt rate. In a separate *Kern River*  
10      *Gas Transmission Company* proceeding, the Commission found that results that  
11      were 110 and 122 basis points above the average yield for public utility debt were  
12      too low to be credible.<sup>15</sup>

13      The average bond rating for the proxy group is BBB/Baa; according to Moody's  
14      the monthly yield on long-term Baa utility bonds averages approximately 6.4  
15      percent for the period June through November 2007.<sup>16</sup> In consideration of the  
16      Commission's previous practice with respect to results that defy economic logic,  
17      I have established a minimum threshold of 100 basis points over the average  
18      BBB/Baa utility bond yield. This serves to eliminate from consideration ROE  
19      results that do not satisfy the minimum tests of economic logic. As I indicated  
20      previously in Section IV of my testimony, in consideration of the risk-return

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<sup>14</sup> Ibid.

<sup>15</sup> See Kern River, Opinion No. 486, October 19, 2006.

<sup>16</sup> [www.MoodysEconomy.com](http://www.MoodysEconomy.com) monthly data series for long-term seasoned Baa utility bond yields through November 2007. To correspond to the averaging period used for the dividend yields, the average of the June through November monthly bond yields (6.44%) was used to perform the threshold test for economic logic.

1 tradeoff, it is inconceivable that investors would accept anything less than 100  
2 basis points over the long term bond yield to invest in common stock, the most  
3 subordinated of all securities. As such, my analyses are subject to a test of  
4 economic logic, with any results below 7.4 percent failing to meet that test.  
5 Subject to this economic logic threshold, I have eliminated three proxy group  
6 results that were below 7.4 percent. Those results were for IDACORP, 7.30%;  
7 Pinnacle West, 7.29%; and PNM Resources, 6.57%.

8 **Q. DID YOU PERFORM ANY OTHER DCF ANALYSES TO BE**  
9 **CONSIDERED BY THE COMMISSION IN DETERMINING THE**  
10 **APPROPRIATE ROE FOR AP PATH 15?**

11 A. Yes. I performed two additional DCF analyses. In my first, I developed a DCF  
12 analysis based upon those companies who were included in my original WECC  
13 proxy group, that also were RTO or ISO participants. This DCF analysis was  
14 subject to the same tests of economic logic that I performed on my original proxy  
15 group, which resulted in the elimination of one low DCF result that was below the  
16 credibility threshold of 7.4%.<sup>17</sup> I performed a similar analysis for ITC Holdings,  
17 Inc. and have included the results of that single company as worthy of the  
18 Commission's consideration as a reference point for a pure transmission company.  
19 The results of those DCF analyses can be found at Exhibit Nos. ATL-10 and  
20 ATL-11.

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<sup>17</sup> The low result for PNM was removed at 6.57% as illogical at only 17 basis points above the Baa utility bond yield.



1           **D.     CAPITAL STRUCTURE**

2   **Q.    IS CAPITAL STRUCTURE AN IMPORTANT CONSIDERATION IN**  
3   **ASSESSING RETURN ON EQUITY?**

4   A.    Yes, a higher debt ratio implies greater risk for equity holders as they have a  
5         subordinated claim on the firm's assets behind debt holders. In theory, the higher  
6         the debt ratio the greater the return that equity investors will require.

7   **Q.    WHAT COMMON EQUITY RATIO WILL AP PATH 15 USE TO**  
8   **ESTABLISH ITS OVERALL RATE OF RETURN?**

9   A.    AP Path 15's capitalization will use a common equity ratio of 48% in this filing.

10 **Q.    HOW DOES THIS COMPARE TO THE COMMON EQUITY RATIOS OF**  
11 **THE PROXY GROUP COMPANIES IN THIS FILING?**

12 A.    As shown in Exhibit No. ATL-12, the range of common equity ratios is from 28.5  
13         to 58.6 percent. The 50<sup>th</sup> percentile in the range is 47.8 percent. As such, the 48  
14         percent common equity ratio is comparable to the proxy group capital structures.

15

16           **E.     BUSINESS AND ECONOMIC ENVIRONMENT FOR TRANSMISSION**  
17           **INVESTMENT**

18 **Q.    PLEASE DESCRIBE THE CURRENT PROSPECTS FOR**  
19 **TRANSMISSION INVESTMENT?**

20 A.    Transmission line construction has generally been characterized by long lead  
21         times in siting, permitting, and construction, in addition to the regulatory  
22         uncertainty that has ensued as unregulated wholesale power markets continue to  
23         evolve. Up until recently, investors have shied away from the uncertainties and

1 risks associated with the construction of transmission assets in favor of the more  
2 immediate benefits of high-return merchant power plants. However, with the  
3 collapse of the power markets in 2001, a universal movement on the part of  
4 utilities to return to the basics of regulated services, the subsequent abundance of  
5 new generation, and the renewed commitment by the FERC to offer incentives to  
6 continue to improve the transmission grid, has resulted in renewed interest in  
7 transmission investment from utilities and independent transmission companies  
8 over the past several years.

9 **Q. WHAT ARE THE CHALLENGES THAT AN INVESTOR MUST**  
10 **CONSIDER BEFORE MAKING A COMMITMENT TO INVEST IN**  
11 **TRANSMISSION?**

12 A. The siting and permitting processes for constructing a transmission line can be  
13 formidable. For example, AEP's Jackson's Ferry Wyoming 90-mile, 765 kV  
14 transmission line took approximately 17 years from initial siting to completion. A  
15 transmission line can face substantial opposition from the communities affected  
16 and must obtain permit approvals at the local, state and federal levels. The  
17 opposition a project may receive from the affected communities may be steep.  
18 The following excerpt from a recent article provided by SNL Interactive,  
19 illustrates this point.

20 *Opposition to infrastructure projects such as electric transmission*  
21 *lines should be expected, but utilities and developers for*  
22 *transmission projects are finding opponents to be much more*  
23 *sophisticated than in the past, capable of causing expensive and*  
24 *time-consuming delays in their efforts to build new facilities.*<sup>18</sup>

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<sup>18</sup> SNL Interactive, *Transmission developers face stronger, better organized opposition*, Power – Operations and Strategy, (December 2007).

1 These factors increase the uncertainty that investors will actually achieve  
2 adequate returns. S&P identified this as one of the main obstacles to transmission  
3 construction:

4 *Many industry executives have indicated that transmission*  
5 *investment provides an inadequate return on capital, given the*  
6 *long lead times and the risks involved in siting and building a line.*  
7 <sup>19</sup>

8 However, S&P identified several items in the FERC's proposed incentives that  
9 would serve to address the earnings risk of long lead times.<sup>20</sup>

10 Furthermore, the value of transmission assets may be significantly influenced by  
11 the attractiveness of electric markets or the shifting of locales for significant  
12 sources of generation, as may result from the retirement of a significant  
13 generation asset. Transmission lines cannot be redeployed to connect to either  
14 alternative resources or markets. They are stationary and dependent on the  
15 availability of the electrical supply and market that they serve to link.

16 Overall, these uncertainties have increased the perception of risk associated with  
17 constructing and owning transmission assets that has served to keep investors on  
18 the side line. The regulatory unknowns, the long lead times of siting and  
19 constructing transmission lines, overlapping regulatory jurisdictions,  
20 technological initiatives that may render assets obsolete, all have combined to  
21 result in the necessity for FERC to aggressively promote transmission investment  
22 through policy initiatives that allow investors significant incentives for investment  
23 along with regulatory certainty.

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<sup>19</sup> Standard and Poor's, *Energy Policy Act of 2005 May Spark More Electric Transmission Investment In U.S.*, U.S. Utilities and Power Commentary, (November 2006).

<sup>20</sup> Ibid at 51.

1 **Q. WHAT ARE THE ONGOING RISKS TO THE TRANSMISSION**  
2 **OWNERS OF THE PATH 15 UPGRADE?**

3 A. The primary ongoing risk to Path 15 transmission owners is regulatory  
4 uncertainty. While some of the methodologies employed in determining an  
5 authorized rate of return are established in FERC precedent, the determination of  
6 certain aspects of the authorized return on equity are subject to the Commission's  
7 discretion. In particular, the Commission's continued review of ROE incentives  
8 for an existing independent transmission line, built with rate incentives is with  
9 very little direct precedent. Investors are carefully watching whether or not the  
10 FERC will allow the incentives that it previously authorized in rates for long  
11 enough to adequately compensate investors for the risk they assumed. In the case  
12 of AP Path 15, the Commission will review the ROE every 36 months. Finally,  
13 the recovery of certain costs incurred by transmission owners may be challenged  
14 by intervenors and the Commission and a reduction in ROE or non-recovery of  
15 costs may not compensate equity investors for all costs and risks incurred.

16 **Q. ARE THERE OTHER RISKS THAT ARE UNIQUE TO AP PATH 15?**

17 A. Yes. The owners of AP Path 15 are subject to holding a single asset that could be  
18 impacted by any of the above mentioned risk factors, with no alternative assets to  
19 lessen or mitigate the impact. Financial theorists have long recognized the  
20 benefits of diversifying a portfolio of assets. Assessing the risk of a single asset  
21 requires that we have some sense for the range of possible outcomes. In the case  
22 of holding one single asset, that range is indiscriminately large; and in light of the  
23 risks identified above and the impact they may have on the future returns of the

1 transmission asset, investors take on substantial risk by having no direct means to  
2 mitigate the earnings impact of the identified risks. Conversely, vertically  
3 integrated electric utilities have natural offsets in their business structure to  
4 mitigate the impact and thereby hedge many of the risks inherent in their business  
5 operations. This is a significant risk that differentiates AP Path 15 from utility  
6 proxy companies.

7 **Q. HAVE THESE RISKS BEEN RECOGNIZED BY THE FINANCIAL**  
8 **COMMUNITY?**

9 A. Yes. Moody's Investors Service noted several of these risks in a recent credit  
10 opinion on AP Path 15, LLC. Though, generally, Moody's regards AP Path 15 to  
11 be on stable ground given the supportive regulatory environment and strong  
12 performance of the transmission line; they also indicated that there was some  
13 "degree of regulatory risk" and that AP Path 15 differs from most independent  
14 transmission companies in that it is subject to "single asset concentration risk".  
15 Moody's has identified the following as possible events that could result in a  
16 downgrade:

17 *A downgrade is unlikely in the near term given the supportive*  
18 *FERC ruling that would continue the project's revenue*  
19 *requirement through subsequent rate cases. However, over the*  
20 *longer term, downward pressure on the rating could occur if the*  
21 *FERC were to change its policy towards the rate treatment of*  
22 *independently owned transmission companies that could*  
23 *significantly reduce the project's regulated revenue requirement.<sup>21</sup>*

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<sup>21</sup> Moody's Investors Service, Credit Opinion: Atlantic Holdings Path 15, LLC.

1 **Q. DO YOU PROPOSE RECOGNITION OF THESE ADDITIONAL RISKS**  
2 **RELATIVE TO THE PROXY GROUP?**

3 A. Yes. As indicated in Table 1, the midpoint for the only publicly traded  
4 transmission company, ITC Holdings, is over 500 basis points higher than that I  
5 computed for the vertically integrated electric utility proxy group. Because ITC  
6 Holdings lacks the diversification of the companies in the group, and instead  
7 operates solely in the risk intensive electric transmission industry, like AP Path 15;  
8 I suggest that the Commission consider the DCF results of ITC in determining the  
9 appropriate baseline ROE for AP Path 15. At a minimum, the risks associated  
10 with differing regulated business focuses plus the single asset concentration risk  
11 borne by AP Path 15, imply a DCF result towards the upper end of the range of  
12 reasonableness.

13

14 **VII. DETERMINATION OF THE APPROPRIATE ROE**

15 **Q. PLEASE EXPLAIN THE APPROACH BY WHICH YOU ARRIVED AT**  
16 **YOUR RECOMMENDED ROE FOR AP PATH 15.**

17 A. I begin with the range of reasonableness based upon the highest and lowest DCF  
18 results for the group of proxy group companies (including ITC). Please see the  
19 DCF results in Table 1 (above) and Exhibit No. ATL-7. These results provide  
20 both a baseline and a range for the analysis. I then consider three important  
21 factors in reaching my ultimate ROE recommendation:

- 22       ▪ The original rate treatment for AP Path 15  
23       ▪ FERC policies and precedents on transmission investments

1           ▪       The benefits of the Path 15 Upgrade

2           I will discuss each in turn.

3

4           **A.       ORIGINAL RATE TREATMENT FOR AP PATH 15**

5           **Q.       PLEASE DESCRIBE THE ORIGINAL INCENTIVE RATE TREATMENT**  
6           **AFFORDED TO AP PATH 15.**

7           A.       In the case of AP Path 15, the incentive ROE reflected the prevailing treatment  
8           afforded to new transmission investment at the time of the Path 15 Upgrade and  
9           was consistent with other transmission ROEs issued during that time. The  
10          “Removing Obstacles” order of March 2001, the prevailing guidance at that time,  
11          established a base ROE of 11.5%; and proposed a package of ROE incentives (in  
12          the form of ROE adders from 100 to 300 basis points) to foster the installation of  
13          critical infrastructure. These incentives were designed to ensure the timely  
14          completion of upgrades to the Western grid, such as the Path 15 Upgrade, needed  
15          to better use existing supply and to accommodate new supply.

16          The Path 15 Upgrade participants filed a Letter Agreement with the Commission  
17          in April 2002 setting forth the rate principles agreed to in order to recover the  
18          costs of the transmission upgrade. The rate treatments requested by Trans-Elect  
19          and agreed to by the participants included: (1) a 13.5% ROE for its portion of the  
20          project; (2) fixed rates at the initial rate level for the first three years of service; (3)  
21          a 30-year depreciable life for the project; and (4) use of a “target” capital structure  
22          of 50% debt and 50% equity. On June 12, 2002, the Commission accepted and  
23          approved the rate treatment outlined in the Letter Agreement. While the

1 Removing Obstacles Order had officially expired, the Commission relied on the  
2 principles established in that Order in determining the level of incentives  
3 warranted for the construction of the Path 15 Upgrade.<sup>22</sup>

4 In a subsequent settlement, Trans-Elect committed to file FERC rate cases not  
5 more than three years apart, commencing at the end of the three year rate  
6 moratorium authorized in the June 12 Order. For the rate case following the end  
7 of the rate moratorium (years 4 – 6), the rate case in which I am filing testimony,  
8 it was agreed that the AP Path 15 would not seek an ROE in excess of 13.5%.<sup>23</sup>

9 **Q. PLEASE SUMMARIZE THE CHRONOLOGY OF REGULATORY**  
10 **PROCEEDINGS LEADING UP TO THE CURRENT RATE**  
11 **PROCEEDINGS.**

12 A. AP Path 15 established its annual revenue requirement in a filing submitted to the  
13 FERC in October 2004 (Docket No. ER05-17-000). On November 20, 2006  
14 FERC issued an order finding that the proposed transmission revenue requirement  
15 was just and reasonable, with the exception of the computation method for  
16 Allowance for Funds Used During Construction (AFUDC) and the amount of  
17 working capital included in the rate base. This filing represents the first required  
18 filing to set rates, subsequent to the initial rate filing, and is subject to the  
19 stipulated agreement that AP Path 15 will not seek an ROE in excess of 13.5%.

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<sup>22</sup> See Western Area Power Administration, (Order Denying Rehearing) 100 FERC ¶61,331 at P 8.

<sup>23</sup> See Order Accepting Letter Agreement, 99 FERC ¶ 61,306.

1           **B.       FERC POLICIES AND PRECEDENTS ON TRANSMISSION INVESTMENTS**

2       **Q.       HAVE THERE BEEN RECENT DEVELOPMENTS THAT ADDRESS**  
3           **THE NEED TO STRENGTHEN TRANSMISSION INFRASTRUCTURE**  
4           **AND ENCOURAGE INVESTMENT?**

5       A.       Yes, there have been several developments. The Energy Policy Act of 2005  
6           renewed the federal government's commitment to expand the electric grid in the  
7           United States. The Act provided that not later than one year after the date of  
8           enactment, the Commission should establish by rule, incentive-based (including  
9           performance-based) rate treatments for the transmission of electric energy in  
10          interstate commerce by public utilities for the purpose of benefiting customers by  
11          ensuring reliability and reducing the cost of delivered power by reducing  
12          transmission congestion. The Act specified that rules should also provide a return  
13          on equity that would attract new investment in transmission facilities and that the  
14          Commission could grant incentives to each transmitting utility or electric utility  
15          that joins a transmission organization.

16      **Q.       DID THE COMMISSION ESTABLISH RULES TO IMPLEMENT THE**  
17          **PROVISIONS OF SECTION 219 OF THE ENERGY POLICY ACT OF**  
18          **2005?**

19      A.       Yes. Pursuant to the requirements of the Transmission Infrastructure Investment  
20          provisions in section 1241 of the Energy Policy Act of 2005, which added a new  
21          section 219 to the Federal Power Act, the Commission proposed to amend its  
22          regulations to establish incentive-based (including performance-based) rate  
23          treatments for the transmission of electric energy in interstate commerce by public

1 utilities. To this end, on November 18, 2005, the Commission issued a Notice of  
2 Proposed Rulemaking, Promoting Transmission Investment through Pricing  
3 Reform. These rules (discussed in detail later in this testimony) were largely  
4 adopted in FERC Order 679 in July 2006.

5 **Q. PLEASE SUMMARIZE INCENTIVES PROPOSED IN FERC ORDER 679.**

6 A. The rules describe the incentive-based rate treatments available for transmission  
7 infrastructure investments. The Commission encouraged incentive based rate  
8 proposals for all jurisdictional public utilities, including Transcos. Such proposals  
9 might include any or all of the following: (1) provide a rate of return on equity  
10 (ROE), within the zone of reasonableness, that is sufficient to attract new  
11 investment in transmission facilities; (2) recover 100 percent of prudently  
12 incurred transmission-related Construction Work in Progress (CWIP) in rate base;  
13 (3) recover prudently incurred pre-commercial operations costs by expensing  
14 these costs instead of capitalizing them; (4) adopt a hypothetical capital structure;  
15 (5) accelerate the recovery of depreciation expense; (6) recover all prudently-  
16 incurred development costs in cases where construction of facilities may  
17 subsequently be abandoned as a result of factors beyond the public utility's  
18 control; (7) provide deferred cost recovery; and (8) provide any other incentives  
19 approved by the Commission that are determined to be just and reasonable and  
20 not unduly discriminatory or preferential.

1 **Q. WHAT SHOWING MUST A UTILITY MAKE TO BE ELIGIBLE FOR**  
2 **INCENTIVES FOR TRANSMISSION INVESTMENT?**

3 A. The wording in Commission Order 679 establishes that any transmission project  
4 that ensures reliability or reduces the cost of delivered power by reducing  
5 congestion, regardless of where it is located on the nationwide transmission grid,  
6 is eligible for the above incentives.<sup>24</sup> However, each applicant must demonstrate  
7 that there is a nexus between the incentive sought and the investment being  
8 made.<sup>25</sup> The project must generally be discretionary and non-routine in nature as  
9 routine projects are often mandatory and may not qualify for incentives as they  
10 are generally adequately addressed through traditional ratemaking and there is  
11 high assurance of recovery of the related costs. Finally, it must be determined  
12 that any resulting rate treatment is not preferential or unduly discriminatory but  
13 rather is just and reasonable.

14 **Q. WHAT WOULD BE THE INVESTOR RESPONSE IF IT BECAME**  
15 **APPARENT THAT THE ROE PROVIDED TO ENCOURAGE**  
16 **INVESTMENT WAS ONLY TEMPORARY IN NATURE?**

17 A. As indicated earlier in this testimony, regulatory risk remains one of the main  
18 obstacles to the construction of new transmission. Investors are already wary of  
19 the risks inherent in the overlay of federal and state regulation, and are doubly  
20 sensitive to changes in regulatory initiatives. For these reasons, and the reasons  
21 mentioned earlier, investors approach transmission investment with extreme  
22 caution. With the risk and uncertainty in transmission investment, investors must

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<sup>24</sup> FERC Order 679 at ¶49.

<sup>25</sup> Ibid ¶26.

1 be able to rely on the proposition that the FERC will make good on its bargains  
2 and incentives will be in force long enough to provide the promised rewards to the  
3 investors. Anything less will diminish investors' confidence, resulting in a "Fool  
4 me once, shame on you. Fool me twice, shame on me" scenario; which ultimately  
5 would undermine the national goal of strengthening the transmission grid through  
6 independent investment.

7 **Q. ARE YOU SUGGESTING THAT PATH 15 SHOULD BE ELIGIBLE FOR**  
8 **679 INCENTIVES?**

9 A. No, but I am suggesting that the original rate treatment of Path 15 is consistent  
10 with Order 679 (as well as the Removing Obstacles Order). Now that such  
11 incentives are in place, it is evident by the wording in Order 679 that the  
12 Commission contemplated the requirement of investors, who make long-term  
13 investments in long-lived facilities, to be assured that a ratemaking proposal  
14 adopted prior to construction of those facilities will not later be altered in a  
15 manner that undermines the basis for the financing of those facilities.<sup>26</sup>

16 **Q. WHAT INCENTIVES ARE BEING SOUGHT BY AP PATH 15 IN THIS**  
17 **PROCEEDING?**

18 A. Though AP Path 15's initial ROE was the result of an agreement and individual  
19 incentives were not specifically identified, we do know that the Commission  
20 applied the principles of the Removing Obstacles Orders, which allowed a 200

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<sup>26</sup> Ibid ¶36. In addition, the Commission has made allowances to fix rates for specific time-frames in which their incentive-based proposals will not be "re-opened" in a manner incompatible with the original approvals. Beyond this initial time frame, to ensure that ratepayers are also adequately protected, the Commission has indicated that it will require any applicants seeking a fixed term for its plan to explain how ratepayers can be assured that such a plan is delivering the benefits that formed the basis for the Commission's initial approval of it.

1 basis point incentive to a base ROE of 11.5 percent, for construction of new  
2 transmission to arrive at Path 15's ROE of 13.5 percent.<sup>27</sup> This is corroborated  
3 by the fact that PGE, a transmission owner in the same Path 15 Upgrade, was  
4 granted a comparable 200 basis point incentive for new investment, that was its  
5 part of the Path 15 Upgrade, as an adder to its ROE.<sup>28</sup>

6 Today, in the context of FERC Order 679 and the Removing Obstacles Order, the  
7 Upgrade would have been eligible for full incentives, the 200 basis points  
8 originally granted for new transmission investment and 50 basis points for  
9 transferring operational control of the line to an ISO for a total of 250 basis points.  
10 AP Path 15 could be eligible for additional incentives for being an independent  
11 transmission company. In total AP Path 15, could conceivably seek at least 250  
12 basis points of incentives in these proceedings. However, considering the base  
13 level ROE represented by the three proxy groups, a midpoint of 13.13 percent; the  
14 addition of 250 basis points of ROE incentives result in an ROE well above the  
15 13.5 percent cap. Given that AP Path 15 cannot seek an ROE in excess of 13.5  
16 percent in these proceedings; AP Path 15 requests the ROE originally granted for  
17 the Upgrade of 13.5 percent.

18 **Q. HAS THE FERC GRANTED SIMILAR TRANSMISSION ROE**  
19 **INCENTIVES IN RECENT ORDERS?**

20 A. Yes, there have been several recent cases where the FERC has issued orders with  
21 explicit recognition of incentives for transmission investments. These orders and

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<sup>27</sup> See Order Accepting Letter Agreement, 99 FERC ¶61,306, issued June 12, 2002, at 3; and Order Denying Rehearing, 100 FERC ¶ 61,331, issued September 25, 2002.

<sup>28</sup> Ibid.

1 the incentives granted are summarized in Exhibit No. ATL-13, and show that the  
2 Commission has granted transmission related incentives as adders to ROE of the  
3 following magnitudes: 50 basis points for participation in an RTO, and incentives  
4 ranging from 50 – 200 basis points for new transmission investment that either  
5 relieves congestion or promotes reliability of the grid.

6 **Q. HAVE ANY OF THESE DECISIONS DIRECTLY RELATED TO THE**  
7 **PATH 15 UPGRADE ASSETS AND THE CONTINUATION OF**  
8 **INCENTIVES?**

9 A. Yes, the FERC has recently issued its Order in the PG&E Docket No. ER07-  
10 1213-000. As indicated earlier in this testimony, PG&E owns certain assets that  
11 are part of the Path 15 Upgrade and were subject of the same Letter Agreement  
12 adopting the original rate treatment by FERC. In this recent case, PG&E  
13 requested the following rate treatment for its Path 15 Upgrade assets:

14 *Q. Please describe the fourth adjustment to the network*  
15 *transmission revenue requirement.*

16  
17 *A. On June 12, 2002, the Commission issued its Order Accepting*  
18 *Letter Agreement approving a Letter Agreement between PG&E,*  
19 *Western and TransElect, Inc., 99 FERC ¶ 61,306 (2002). Included*  
20 *in the approved Letter Agreement are ratemaking principles,*  
21 *including PG&E's request for a reasonable rate of return on all*  
22 *Path 15 facilities plus a 200 basis-point incentive. Because the*  
23 *Path 15 Upgrade Project became operational on December 22,*  
24 *2004, it is appropriate for PG&E to include the 200 basis-point*  
25 *incentive for its investment in the Path 15 Upgrade Project in its*  
26 *revenue request here. PG&E has separately calculated the 200*  
27 *basis-point incentive and included it as the fourth adjustment to its*  
28 *network transmission revenue requirement.*<sup>29</sup>

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<sup>29</sup> FERC Docket ER07-1213-000, Pacific Gas and Electric Company, Exhibit PGE-2, p 13, filed July 30, 2007

1 In addition to the 200 basis point incentive for the Path 15 Upgrade, the company  
2 sought a 50 basis point incentive for participation in the CAISO.

3 *Q. Is PG&E requesting any incentives in this filing for PG&E's*  
4 *continued participation in the ISO?*

5 *A. Yes. The Commission has indicated that it will grant a higher*  
6 *rate of return on equity for entities that are members of ISOs and*  
7 *Regional Transmission Organizations (RTO) than the return on*  
8 *equity the Commission might otherwise allow if the entity is not in*  
9 *an ISO or RTO. [4] PG&E believes that such incentives are*  
10 *appropriate. In this filing PG&E requests that the Commission*  
11 *apply a 50-basis point incentive adder.<sup>30</sup>*

12 In its recent Order, the Commission made the following determinations regarding  
13 these proposed rate treatments:<sup>31</sup>

14 *However, consistent with previous Commission orders, the*  
15 *Commission summarily accepts the following components of*  
16 *PG&E's filing: (1) PG&E's request for a 50 basis-point incentive*  
17 *for participation in the CAISO; (2) PG&E's request for a 200*  
18 *basis-point ROE incentive and a ten-year depreciable life for*  
19 *PG&E's share of the Path 15 Upgrade Project;<sup>7</sup> (3) the allocation*  
20 *of costs to standby customers; and (4) PG&E's request for waiver*  
21 *of the obligation to provide the information in statement BC.*

22 *Consistent with our orders in SDG&E and AEP, we will grant up*  
23 *to 50 basis points of incentive ROE for participation in the CAISO,*  
24 *subject to suspension and the zone of reasonable returns*  
25 *determined at hearing. The Commission's decision to grant PG&E*  
26 *an incentive ROE for participation in the CAISO is consistent with*  
27 *the stated purpose of section 219 of the FPA as amended by the*  
28 *Energy Policy Act of 2005 and is intended to encourage PG&E's*  
29 *continued involvement in the CAISO.*

30 *Regarding Path 15 issues, the Commission will allow for the*  
31 *continued use of a 200 basis-point ROE adder and a ten-year*  
32 *depreciable life for PG&E's share of the Path 15 Upgrade Project,*  
33 *previously accepted. This acceptance applies to this instant filing*  
34 *only, and PG&E in future cases will be required to apply for and*

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<sup>30</sup> Ibid, Exhibit PGE-1, p. 13.

<sup>31</sup> FERC Docket ER07-1213-000, Order issued September 28, 2007, p. 5.

1                    *demonstrate the need for future continued application of any*  
2                    *investment incentives.*<sup>32</sup>

3                    FERC has therefore accepted a continuation of the original 200 basis point ROE  
4                    incentive for the Path 15 Upgrade and a 50 basis point incentive for CAISO  
5                    participation as being appropriate. These same incentives should be directly  
6                    applicable to AP Path 1, as co-participant of the Path 15 Upgrade and a member  
7                    of CAISO, as the Commission considers whether to allow continuation of the 13.5  
8                    percent rate of return on equity.

9  
10                    **C.        BENEFITS OF THE PATH 15 UPGRADE.**

11                    **Q.        WHY IS IT IMPORTANT TO CONSIDER THE BENEFITS OF THE**  
12                    **PATH 15 UPGRADE?**

13                    A.        In section 219(a) of the Federal Power Act, Congress directed the Commission to  
14                    establish incentive-based rate treatments to foster investment in transmission  
15                    facilities. Order 679 establishes these treatments, and sets standards with respect  
16                    to the requirements for obtaining incentive rates. While the Commission makes it  
17                    clear that there is no requirement for a cost-benefit analysis,<sup>33</sup> it has indicated that  
18                    incentive based rates will be authorized for those public utilities, including  
19                    Transcos, that invest “in new transmission capacity that reduces the cost of  
20                    delivered power by reducing congestion or promotes reliability, as demonstrated  
21                    in an application to the Commission.”<sup>34</sup>

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<sup>32</sup> FERC Docket ER07-1213-000, Order issued September 28, 2007, p. 5.

<sup>33</sup> Order 679 at ¶65.

<sup>34</sup> Ibid, ¶37.

1 **Q. IS IT NECESSARY THAT THE APPLICANT DEMONSTRATE THAT**  
2 **THE PROJECT PROVIDES THE BENEFITS OF BOTH RELIABILITY**  
3 **AND CONGESTION RELIEF IN ORDER TO RECEIVE INCENTIVE**  
4 **RATES?**

5 A. No. As stated in Order 679, “nowhere in Section 219 does the language say that  
6 the Commission may provide incentives only to applicants that propose to both  
7 improve reliability and reduce congestion. In fact, we believe that it would be  
8 contrary to the intent of the new provisions, taken together, to limit incentives in  
9 this way.”<sup>35</sup>

10 **Q. DOES THE PATH 15 UPGRADE PROVIDE THE BENEFITS OF BOTH**  
11 **RELIABILITY AND CONGESTION RELIEF?**

12 A. Yes. As I will demonstrate below, the Path 15 Upgrade provides a benefit to  
13 consumers by moving power from Southern to Northern California and vice  
14 versa, especially in drought years when hydroelectric resources in the Pacific  
15 Northwest are insufficient to supply Northern California markets. The Path 15  
16 Upgrade also contributes to the reliability of the Western Interconnect by adding  
17 to the diversity of resources capable of serving both Northern and Southern  
18 California.

19 **Q. WHY DOES A STRONG NORTH-SOUTH INTERCONNECTION**  
20 **PROVIDE SYSTEM BENEFITS?**

21 A. The Path 15 corridor as a whole is the primary interface between Northern and  
22 Southern California, and stretches for 90 miles through the center of the CAISO

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<sup>35</sup> Ibid, ¶41.

1 control area, interconnecting CAISO zone NP15 to CAISO zone ZP26. These  
2 two zones comprise the bulk of Pacific Gas & Electric's (PG&E's) service  
3 territory. Before the upgrade, the Path 15 interconnection was composed of two  
4 500kV, four 230kV and several 70kV lines, which had the capability of  
5 transferring 3,950MW from the South to the North, and 1,275MW from the North  
6 to the South.<sup>36</sup>

7 During the spring and summer runoff seasons, Northern California and the Pacific  
8 Northwest rely on relatively low cost locally-sited hydroelectric power to serve  
9 system load. During the dry season, and during periods of drought in the runoff  
10 seasons, a portion of the power that serves Northern California and the Pacific  
11 Northwest is generated in Southern California and delivered along Path 15.  
12 Beginning in the late 1980's, it was recognized that the South-to-North transfer  
13 capability along Path 15 sometimes reached its transfer capability during these  
14 peak times. This caused congestion to occur, resulting in higher prices.

15 A drought beginning in the fall of 1999 and extending through 2000 caused  
16 Southern California generation to be called upon in unprecedented amounts,  
17 creating a large amount of congestion across Path 15. In addition, certain  
18 generators fraudulently took advantage of the congestion between the North and  
19 South by over-scheduling their use of Path 15, further boosting prices. As a result,  
20 prices in California reached over \$1,000/MWh several times in 2000, and a series  
21 of rolling blackouts hit California during January 2001. In sum, congestion on  
22 Path 15 cost California consumers \$221.7 million from September 1, 1999 to

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<sup>36</sup> Source: CAISO, "Whitepaper on Path 15 and Path 26: Transmission Capabilities and Congestion Management," December 5, 2003, p. 1.

1 December 31, 2000.<sup>37</sup> Separately, the blackouts alone cost Californians \$5-\$25  
2 million per hour.<sup>38</sup> The benefits provided by the Path 15 Upgrade therefore  
3 include a substantial decrease in actual and potential congestion costs, along with  
4 a substantial increase in system reliability.

5 **Q. WERE THESE BENEFITS RECOGNIZED BY THE COMMISSION**  
6 **BEFORE THE PATH 15 UPGRADE WAS ESTABLISHED?**

7 A. Yes. The Commission recognized the substantial system benefits associated with  
8 the upgrade. These benefits were analyzed and described in two studies  
9 performed by the CAISO prior to filing with the Commission.

10 **Q. WHAT WERE THE BENEFITS IDENTIFIED IN THE 2001 CAISO**  
11 **STUDIES?**

12 A. The first study, entitled “Path 15 Expansion Economic Benefit Study: Phase II-  
13 Year 2005 Prospect” (the First CAISO Study) performed a forecast zonal dispatch  
14 of the CAISO control area in 2005, and compared outcomes for a scenario where  
15 the Path 15 Upgrade is included with a scenario where the status quo is  
16 maintained. Six different versions of the model were created in order to vary 1)  
17 the effects of new generation additions in NP15, SP15 and ZP26 and 2) drought  
18 and average-year hydrological conditions. Two economic outcomes were  
19 produced from these scenarios: “Redispatch Cost”, or the cost of congestion; and  
20 “Energy Cost to Load,” or the cost to the CAISO control area load based on  
21 marginal prices and dispatch at each zone.

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<sup>37</sup> WAPA, “Path 15 Upgrade Project,” p. 3.

<sup>38</sup> Source: “Upgrading California’s Electric Transmission System: Issues and Actions”, California Energy Commission, August 2003, p. 17.

1 **Q. WHAT WERE THE BENEFITS IDENTIFIED IN THE SECOND 2001**  
2 **CAISO STUDY?**

3 A. The second CAISO study, entitled “Potential Economic Benefits to California  
4 Load from Expanding Path 15 – Year 2005 Prospect” (the Second CAISO Study),  
5 analyzed the economic effects of the ability of suppliers in NP15 to exercise  
6 market power during the same 2005 forecast year, and otherwise using the same  
7 assumptions.

8 **Q. WHAT WERE THE MOST IMPORTANT ASSUMPTIONS IN EACH**  
9 **STUDY?**

10 A. In both of the studies, the assumptions with the greatest impact on the outcome  
11 were 1) whether hydrological conditions were assumed to be dry, normal or wet,  
12 and 2) the degree to which, by 2005, generation capacity growth in Northern  
13 California exceeds or falls below that in Southern California.

14 **Q. WHAT DO THESE STUDIES SUGGEST WITH RESPECT TO THE**  
15 **VALUE OF THE PATH 15 UPGRADE?**

16 A. The greatest value of the Path 15 Upgrade is produced when unusual conditions  
17 occur, while more modest values are produced under base case or expected value  
18 conditions. This suggests that the value of the Path 15 Upgrade is derived  
19 primarily from its ability to provide protection against unusual (but not  
20 extraordinary) events or conditions, such as those experienced during the 2000-01  
21 California Energy Crisis. As noted by the CAISO, “a significant portion of the  
22 economic value of a transmission upgrade is realized when unexpected or unusual  
23 situations occur. Such situations may include high load growth, high gas prices,

1 or wet or dry hydrological years. The ‘expected value’ of a transmission upgrade  
 2 should be based on both the usual or expected conditions as well as on the  
 3 unusual but plausible situations. A transmission investment can be viewed as a  
 4 type of insurance policy against extreme events. Providing the additional capacity  
 5 incurs a capital and operating cost, but the benefit is that the impact of extreme  
 6 events is reduced or eliminated.”<sup>39</sup>

7 **Q. HAVE THERE BEEN ANY RECENT STUDIES ON THE BENEFITS OF**  
 8 **THE PATH 15 UPGRADE?**

9 A. Yes. Mr. James Drzemiecki and Dr. Aleksandr Rudkevich, both Vice Presidents  
 10 of CRA International (“CRA”), have prepared recent analyses of the Path 15  
 11 benefits. I will refer to these collectively as the “CRA Benefits Study”. Mr.  
 12 Drzemiecki analyzed the benefits of Path 15 by comparing the supply and pricing  
 13 of Firm Transmission Rights (“FTRs”) on the Path 15 and related Path 26 corridor.  
 14 He also considered the value of increased property taxes from the completed  
 15 project. Dr. Rudkevich utilized a quantitative market modeling approach to  
 16 estimate the net savings to California’s electric consumers resulting from the  
 17 Upgrade. Using these methods, the CRA Benefits Study estimated the following  
 18 positive value of the Path 15 Upgrade over the 2005-2007 and 2008-2034 periods.

<b>Study</b>	<b>2005-2007</b>	<b>2008 - 2034</b>	<b>Total</b>
Drzemiecki	\$95.5 Million	\$240.0 Million	\$335.5 Million
Rudkevich	\$63.4 Million	\$309.7 Million	\$373.1 Million

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<sup>39</sup> CAISO, “Transmission Economic Assessment Methodology (TEAM)”, June 2004, p. ES-10.

1 **Q. WHAT DO YOU CONCLUDE FROM THESE STUDIES?**

2 A. I conclude that the Path 15 Upgrade provides congestion relief with a significant  
3 positive impact for California's electric consumers and additional benefits from  
4 increased property taxes. It should be noted that the Path 15 Upgrade also  
5 provides the additional benefit of improving the overall system reliability of the  
6 Western Interconnect. While these benefits are difficult to measure with precision,  
7 and would vary year-to-year based on California market conditions, these benefits  
8 are material and far greater than the continued incentive requested.

9 **Q. ARE THE INCENTIVES SOUGHT REASONABLE IN LIGHT OF THE**  
10 **BENEFITS OF THE PATH 15 UPGRADE AND THE RECENT**  
11 **COMMISSION INCENTIVES GRANTED?**

12 A. Yes they are. To put the benefits sought into perspective, if the Commission were  
13 to grant a 250 basis point incentive to Path 15, this would be equivalent to \$1.8  
14 million in annual revenue requirement after-tax, or \$3.0 pre-tax.<sup>40</sup> The studies  
15 cited above estimate Path 15 project benefits of \$21.1 - \$31.8 million per year  
16 over the 2005 - 2007 period, and continued benefits of \$8.9 - \$11.4 million per  
17 year over the next 27 years (discounted) under normal market conditions. These  
18 benefits are larger during drought or other periods of increased congestion in  
19 California requiring increased utilization of the Upgrade. AP Path 15 has met its  
20 evidentiary burden to show that the benefits of the project are ongoing and  
21 substantial in terms of promoting system reliability and reducing congestion. The  
22 benefits outweigh the requested incentives by a factor of three or more, and are in

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<sup>40</sup> This assumes a ratebase of \$152.0 million, an equity ratio of 47.6%, and a tax rate of 40.75%, per Exhibit ATL-3.

1 line with incentives that have recently been sought and approved in other FERC  
2 transmission proceedings.

3  
4 **VIII. SUMMARY AND CONCLUSIONS**

5 **Q. WHAT ARE YOUR CONCLUSIONS REGARDING A FAIR AND**  
6 **REASONABLE ROE FOR AP PATH 15?**

7 A. The DCF analysis presented herein establishes the range of reasonableness from  
8 7.63 percent to 18.62 percent. The question is where AP Path 15 should fall  
9 within this range. After consideration of the incentives originally promised the  
10 investors for the Path 15 Upgrade, and in consideration of the risks of AP Path 15  
11 relative to the risks of the proxy group, and taking into account the benefits  
12 derived from the Path 15 Upgrade, sufficient basis exists to set the ROE at the top  
13 of the range of reasonableness. However, since AP Path 15 has agreed to cap its  
14 ROE at 13.5 percent for this rate proceeding, this recommended ROE, though  
15 conservative, is appropriate for these proceedings. This rate falls within the range  
16 of reasonableness, bounded on the upper end by 18.62 percent; but regardless of  
17 which of the three proxy groups the Commission should deem most appropriate  
18 (WECC, WECC ITO/RSO, ITC), as indicated in Table 1, the recommended ROE  
19 falls within the individual ranges of reasonableness of all three groups. This ROE  
20 is sufficient to maintain investor interest in providing transmission services as  
21 well as compensate the company for the risks they have taken in constructing this  
22 crucial addition to the Western grids' transmission infrastructure.

1 This return on equity is appropriate as the Path 15 Upgrade has provided and  
2 continues to provide significant benefits to the CAISO system in the reduction of  
3 congestion costs and the overall improvement in system reliability. The Path 15  
4 Upgrade was highlighted as a critical need, after the California energy crisis,  
5 where it was determined that the inability to move adequate electricity from South  
6 to North along the Path 15 corridor in the severe drought conditions that existed in  
7 California was a significant contributor to the Crisis. It continues to provide those  
8 same benefits today and warrants an incentive for continuing to reinforce what  
9 had been established as a significant weakness in the Western grid. Further, AP  
10 Path 15 exists as an independent transmission company participating in an RTO,  
11 continuing to promote the efficient operation of the grid, and continuing to deliver  
12 the benefits that it was originally constructed to provide. As such, it is  
13 appropriate to request a renewal of the initial rate incentives granted to continue  
14 to reward the ongoing benefits of the project and the substantial risk the investors  
15 took to construct the line.

16 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

17 A. Yes, it does.



*Concentric Energy Advisors, Inc.*  
*Résumé of James M. Coyne*

**James M. Coyne**  
**Senior Vice President**

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Mr. Coyne is an industry expert who provides financial, regulatory, strategic and litigation support services to clients in the utilities industries. Drawing upon his industry and regulatory expertise, he regularly advises utilities, public agencies and investors on business strategies, investment evaluations, and matters pertaining to rate policy, capital costs, valuation, fuels and power markets. Prior to CEA, Mr. Coyne worked in senior consulting positions focused on North American utilities industries, in corporate planning, and in regulatory and policy positions in Maine and Massachusetts. He has authored numerous articles on the energy industry and provided testimony before jurisdictions in California, Connecticut, New Jersey, Maine, Texas, Vermont and Wisconsin.

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**REPRESENTATIVE PROJECT EXPERIENCE**

**Expert Testimony and Litigation Experience**

- Wisconsin Power and Light Company: Before the Public Service Commission of Wisconsin, on establishing ratemaking principles for the company's proposed wind and coal electric generation facility additions, providing expert testimony on the appropriate return on equity. (PSCW Docket Nos. 6680-CE-170 and 6680-CE-171, 2007)
- Aquarion Water Company: Before the Connecticut Department of Public Utility Control, providing expert testimony on establishing the appropriate return on equity for the Company's Connecticut operations. (DPUC Docket No. 07-05-19, 2007)
- Central Maine Power Company: Before the Maine Public Utilities Commission, providing expert testimony on the theoretical and analytical soundness of the Company's sales forecast for ratemaking purposes. (MPUC Docket No. 2007-215, 2007)
- Vermont Gas Systems, Inc.: Before the State of Vermont Public Board, on the company's petition for approval of an alternative regulation plan, provided expert testimony on models of incentive regulation and their relative benefits for VGS and its ratepayers. (VPSB Docket No. 7109, 2006)
- Texas New Mexico Power Company: Before the Public Utility Commission of Texas, on the approval of the company's stranded cost recovery associated with the auction of the company's generating assets. (PUC Docket No. 29206, 2004)
- TransCanada Corporation: Provided an independent expert valuation of a natural gas pipeline, filed with the American Arbitration Association. (AAA Case No. 50T 1810018804, 2004)
- Advised the Board of Directors of El Paso Corporation on settlement matters pertaining to western power and gas markets before FERC. (2003)
- Conectiv: Before the New Jersey Board of Public Utilities, on the approval of the proposed sale of Atlantic City Electric Company's fossil and nuclear generating assets. (NJBPU Docket No. EM00020106, 2000-2001)
- Bangor Hydro Electric Company: Before the Maine Public Utilities Commission, on the approval of the proposed sale of the company's hydroelectric and fossil generation assets. (MPUC Docket No. 98-820, 1998)

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- Maine Office of Energy Resources: Before the Maine Public Utilities Commission on behalf of the Maine Office of Energy on the establishment of avoided costs rates for generators under PURPA. (1981-1982)

**Regulatory Support Experience**

- Retained by Ontario's Coalition of Large Distributors (Enersource Hydro, Horizon Utilities, Hydro Ottawa, PowerStream, Toronto Hydro and Veridian Connections) to examine the cost of capital for Ontario's electric utilities in relation to those in other provinces and in the U.S. (2007)
- Retained by the Ontario Energy Board to analyze ROE awards for the past two years in Ontario, and compare against other jurisdictions in Canada, the US, UK, and select other European jurisdictions. Differences in awarded ROEs were examined for underlying factors, including ROE methodology, company size, business risks, tax issues, subsidiary vs. parent, and sources of capital. The analysis also addressed the question of whether Canadian utilities compete for capital on the same basis as U.S. utilities. (2007)
- Retained by the Nantucket Planning and Economic Development Commission to educate government officials and island residents on the wind industry, and provide analysis leading to constructive input to the Army Corps of Engineers and the Minerals Management Service on the siting of proposed wind projects. (2004-2007)
- Interim manager of Government and Regulatory affairs for Boston Generating, LLC. Coordinate activities and interventions before FERC, NE-ISO, state regulatory agencies, and local communities hosting Boston Generating power plants. (2004)
- Facilitated the development of an Alternative Regulation Plan with the Department of Public Service and Vermont Gas Systems providing research and advice leading to a rate proposal for the Vermont Public Service Board. (2004-2005)
- For an independent power company, perform market analysis and annual audits of its utility power contract. Services provided include verification of the contract price as a function of its index components, surveys of regional competitive energy suppliers, and analysis of regional spot prices for an independent benchmark. Meet with PUC staff to discuss and represent the company in its annual adjustment process, and report results to the company and its creditors. (2003-2004)

**Financial and Economic Advisory Experience**

- Lead regulatory and market due diligence advisor to Macquarie Securities in the \$7.4 billion acquisition of Puget Sound Energy. (2007)
- Retained by five Vermont electric utilities to study the comparative economics building the next generation of electric power generation within the state. Working with the utilities, the Vermont Department of Public Service, and the Electric Power Research Institute (EPRI), ten possible generation technologies were analyzed for their economic and environmental attributes. Costs were compared across technologies, and financial impacts including credit rating were examined. The report will be presented in public forums and before state agencies. (2007)
- Financial advisor to a major international corporation for investments in U.S. nuclear generating units. (2007)

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- Advisor to the City of Mesa, Arizona for the potential privatization of the City's electric utility. (2007)
- Independent Market Expert for a large Midwestern utility seeking a credit rating for its electric generation subsidiary. Providing a complete PJM and MISO market assessment and forward financial projections for the company's generation business including over 13,000 MW's of generating capacity. Financial projections are based on LMP price projections for the PJM-MISO interconnect, fuels prices, air emissions prices, and complete financial analysis of the business unit. Also provided support for discussions with the major credit rating agencies in conjunction with an investment bank and independent engineer. (2005-2006)
- Completed financial advisory services to a private equity consortium on the successful acquisition of a gas-fired power generating facility. The engagement included evaluation of all revenue streams, confirmation of investment economics under alternative market scenarios, and support for negotiations on key terms. (2005)
- Engaged by Goldman Sachs to assist with the financial and industry due diligence associated with the acquisition of Zilkha Renewable Energy, a wind energy company with over 20 projects under development. (2005-2006)
- Engaged by the State of Vermont to study of the feasibility of acquiring 550MW of hydroelectric generation facilities from USGen-New England. Completed a valuation of the assets, researched financing options with alternative tax-exempt and taxable structures, monitored the status of NEG's bankruptcy proceedings, researched comparable large-scale municipalizations, studied the potential in-state and out-of-state uses for the power, and tested the market for power sales to regional utilities. Facilitated discussions with companies for equity partnership, as well as for the purposes of providing power marketing and O&M services to the project. In addition to in-house consulting staff, compiled a team of legal, engineering and financing experts to deliver a comprehensive work product reflecting all aspects of the risks and benefits of purchasing this unique set of assets out of bankruptcy. (2003-2004)
- Evaluated a major utility's unregulated energy services business units and advised management on valuation and the potential market for the businesses. Developed offering materials and represented the company in negotiations with a potential buyer. (2001-2002)
- Lead advisor in the auction of Conectiv's \$875 million in fossil and nuclear electric generation assets to NRG, PSE&G, and Exelon. Provided expert testimony before the New Jersey Board of Public Utilities on the auction process and asset values. (1999-2002)
- Provided financial and market analysis to Provincial Auditor of Ontario in examination of the long-term lease arrangement for the Bruce nuclear facility between Ontario Hydro and British Energy. (2002)
- For a private equity firm, evaluated on investment in a manufacturer of electric generation equipment. Analyzed the company's sustainable technological advantage, interviewed major customers, assessed competitor positioning and provided market and revenue projections for the investment evaluation. (1999)
- Served as technical and market advisor for an investment consortium in the evaluation of an investment in five cogeneration plants. Analyzed fuel and off-take contracts, regulatory risk, plant operating procedures, and management personnel. Provided revenue and cost projections, supported bank discussions, and assisted bid negotiations. (1998)

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- Co-advisor to Sithe Energies in the auction of the company's North American assets to Reliant and Exelon, and the marketing of its assets in Australia and Asia. (1999-2000)
- Lead advisor in the electric restructuring, auction of generating assets, and long-term power contracting for Denton Municipal Electric. Conducted regular briefings for the City Council. (1999-2001)
- Co-advisor to Sierra Pacific Resources in the proposed auction of 3,000 MW of fossil generating assets. (1999-2000)
- Co-advisor to TXU in the proposed auction of 560 MW of fossil generating assets. (2000)
- Co-advisor to Boston Edison (NSTAR) in the auction of \$536 million in fossil generating assets to Sithe Energy. (1997-1998)
- Co-advisor to GPU in the auction of \$1.7 billion in fossil generating assets to Sithe Energy. (1997-1998)
- Lead advisor to Bangor Hydro Electric Company in the auction of \$90 million in hydroelectric, transmission, and fossil generating assets to PP&L Global. (1998-1999)

**Business Strategy Experience**

- Retained by a major Canadian electric company to study the cross-border transmission constraints into U.S. power markets and identify strategic options and transmission investments for expanding capacity and energy flows into these markets. (2007)
- Retained by the Western Electric Coordinating Council's (WECC) Board of Directors to facilitate the development of the WECC's five-year strategic plan. WECC is one of eight regional electric reliability organizations in North America, with 180 members across 14 states, and portions of Canada and Mexico. Leading the effort for CEA, the planning process entails interviewing key stakeholders, facilitating discussion within and across member groups, gathering and presenting research, and making recommendations to the Board on the Strategic Plan. (2007)
- Engaged by a Canadian based utility company to develop its business strategy for growth in the U.S. Working with senior management, providing both a "big picture" strategic assessment of driving forces and opportunities in distribution, transmission and generation, supported by more detailed evaluation of specific investment options for presentation and discussion with its Board. (2005-2007)
- Advisor to Cook Inlet Regional, Inc., an Alaskan Native corporation, for the purpose of developing wind energy projects within the State of Alaska. (2006)
- Advisor to Tamarack Energy, Inc., for the purpose of developing renewable energy projects in the Northeast U.S. (2006)
- Engaged by a major Japanese corporation to provide assistance with the strategic evaluation of its ability to enter the \$400 billion power and gas trading market. Management in Tokyo and New York required an independent assessment of the new and complex U.S. market for power and natural gas, and a determination of the company's ability to successfully compete. (2005-2006)
- Retained by an international power company to assist with evaluation of its corporate strategy and financial performance. Evaluated the company's corporate strategy using modern portfolio management tools to determine the inherent risk/reward trade-offs in the company's business portfolio. Analyzed core drivers of movements in the company's stock

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- price and assisted the management team with engaging the Board of Directors in a strategic evaluation of the company's electric business. (2004)
- Strategic advisor to a major Public Power Authority in its evaluation of alternative business strategies and organizational structure. Provided industry benchmarking and qualitative analysis of various public power models for the Authority and developed future industry scenarios. Collaborated with team of legal and banking advisors in examining restructuring options to maximize benefits to the Authority's stakeholders. (2004-2005)
  - Provided analysis for the FirstEnergy Board of Directors regarding the potential economic impact of the 2003 power outage. (2003)
  - Provided a strategic assessment of an eastern utility's electric generation and marketing business. The strategic assessment included: analysis of wholesale and retail electric markets in PJM, NE and NY markets, capacity, energy and ancillary service products, transmission and congestion, customers for wholesale products, competitors, short-term and long-term financial measures of viability, and factors for success. The engagement involved brainstorming sessions with the client team, research and analysis, and concluded with a report and evaluation of the company's strategic options and business prospects. (2003)
  - Developed a cost of capital and investment decision-making framework for the company's new business investments. (2002)
  - Strategic advisor to a Mid-Atlantic Utility in the development and implementation of the company's generation and marketing business. (1999-2000)
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## **PUBLICATIONS AND RESEARCH**

- Do Utilities Mergers Deliver? (with Prescott Hartshorne), Public Utilities Fortnightly, June 2006
  - Utility Strategy and Shareholder Return (with Prescott Hartshorne), Public Utilities Fortnightly, October 2004
  - "Winners and Losers in Restructuring: Assessing Electric and Gas Company Financial Performance" (with Prescott Hartshorne), white paper distributed to clients and press, August 2003
  - "The New Generation Business," commissioned by the Electric Power Research Institute (EPRI) and distributed to EPRI members to contribute to a series on the changes in the Power Industry, December 2001
  - Potential for Natural Gas in the United States, Volume V, Regulatory and Policy Issues (co-author), National Petroleum Council, December 1992
  - "Natural Gas Outlook," articles on U.S. natural gas markets, published quarterly in the Data Resources Energy Review and Natural Gas Review, 1984-1989
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## **SPEAKING ENGAGEMENTS**

- "Nuclear Power on the Verge of a New Era," moderator for a client event co-hosted by Sutherland Asbill & Brennan and Lexecon, Washington D.C., October 2005

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- “The Investment Implications of the Repeal of PUCHA,” Skadden Arps Client Conference, New York, NY, October 2005
- “Anatomy of the Deal,” First Annual Energy Transactions Conference, Newport, RI, May 2005
- “The Outlook for Wind Power,” Skadden Arps Annual Energy and Project Finance Seminar, Naples, FL, March 2005
- “Direction of U.S. M&A Activity for Utilities,” Energy and Mineral Law Foundation Conference, Sanibel Island, FL, February 2002
- “Outlook for U.S. Merger & Acquisition Activity,” Utility Mergers & Acquisitions Conference, San Antonio, TX, October 2001
- “Investor Perspectives on Emerging Energy Companies,” Panel Moderator at Energy Venture Conference, Boston, MA, June 2001
- “Electric Generation Asset Transactions: A Practical Guide,” workshop conducted at the 1999 Thai Electricity and Gas Investment Briefing, Bangkok, Thailand, July 1999
- “New Strategic Options for the Power Sector,” Electric Utility Business Environment Conference, Denver, CO, May 1999
- “Electric and Gas Industries: Moving Forward Together,” New England Gas Association Annual Meeting, November 1998
- “Marketing the Assets – Divestiture Models,” International Business Communications Conference, Washington D.C., July 1998
- “Opportunities and Challenges in the Electric Marketplace,” Electric Power Research Institute, July 1998
- “New Market Dynamics,” New England-Canada Business Council Annual Meeting, November 1996
- “Fuels Markets and Generation Choices,” Electric Power Research Institute Seminar, Charleston, SC, October 1989
- “Taking the Gas Business into the 1990s,” Inside FERC’s 9th Annual Natural Gas Conference, New Orleans, LA, March 1989
- “Contracting for Natural Gas in the 1990s,” DRI/McGraw-Hill Energy Conference, April 1988
- “Will Natural Gas Supplies Be Adequate?” International Association for Energy Economics, North America Meeting, Houston, TX, November 1988
- “The U.S. Natural Gas Outlook: Vulnerability to a Recession,” DRI/McGraw-Hill Energy Conference, March 1988
- “Issues Underlying the Long-Term Outlook for Natural Gas Markets,” International Association for Energy Economics’ International Conference, Calgary, Canada, July 1987
- “The Impacts of an Electric Generation Capacity Shortage,” International Association of Energy Economists’ North American Conference, Cambridge, MA, November 1986

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**PROFESSIONAL HISTORY****Concentric Energy Advisors, Inc. (2006 – Present)**

Senior Vice President

Vice President

*Concentric Energy Advisors, Inc.*  
*Résumé of James M. Coyne*

**FTI Consulting (Lexecon) (2002 – 2006)**  
Senior Managing Director – Energy Practice

**Arthur Andersen LLP (2000 – 2002)**  
Managing Director, Andersen Corporate Finance – Energy and Utilities

**Navigant Consulting, Inc. (1996 – 2000)**  
Managing Director, Financial Services Practice  
Senior Vice President, Strategy Practice

**TotalFinaElf (1990 – 1996)**  
Manager, Corporate Planning and Development  
Manager, Investor Relations  
Manager of Strategic Planning and Vice President, Natural Gas Division

**Arthur D. Little, Inc. (1989 – 1990)**  
Senior Consultant – International Energy Practice

**DRI/McGraw-Hill (1984 – 1989)**  
Director, North American Natural Gas Consulting  
Senior Economist, U.S. Electricity Service

**Massachusetts Energy Facilities Siting Council (1982 – 1984)**  
Senior Economist – Gas and Electric Utilities

**Maine Office of Energy Resources (1981 – 1982)**  
State Energy Economist

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**EDUCATION**

M.S., Resource Economics, University of New Hampshire, with Honors, 1981  
B.S., Business Administration and Economics, Georgetown University, Cum Laude, 1975

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**DESIGNATIONS AND AFFILIATIONS**

NASD General Securities Representative and Managing Principal (Series 7, 63 and 24 Certifications)  
American Petroleum Institute, CEO's Liaison to Management and Policy Committees  
National Petroleum Council, Regulatory and Policy Task Forces, co-authored NPC Study "Potential for Natural Gas in the United States"  
President, International Association for Energy Economics, Dallas Chapter  
Gas Research Institute, Economics Advisory Committee  
Georgetown University, Alumni Admissions Interviewer  
Outreach Commission, St. Anne's in the Fields Episcopal Church, Lincoln, MA

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PROXY GROUP SCREENING DATA

Company	Ticker	[1] S&P	[2] Dividends	[3] Covered by More than 1 Analyst	[4] ValueLine Beta	[5] Equity Ratio	[6] Total Miles of Transmission Lines	[7] Participates in an RTO	[8] RTO	[9] MERGER?
Aquila, Inc.	ILA	B+	NO	YES	---	56.3%	2,131	YES	MISO	YES
Avista Corp.	AVA	BB+	YES	YES	1.00	45.9%	2,155	YES	COLUMBIA GRID	NO
Black Hills Corp.	BKH	BBB-	YES	YES	1.10	57.8%	883	NO	NO	NO
Edison International	EIX	BBB-	YES	YES	1.05	47.4%	11,913	YES	CAISO	NO
El Paso Electric	EE	BBB	NO	YES	0.80	47.9%	1,738	NO	NO	NO
IDACORP, Inc.	IDA	BBB+	YES	YES	1.00	48.2%	4,629	NO	NO	NO
ITC Holdings Corp.	ITC	BBB	YES	YES	0.75	28.5%	8,100	YES	MISO	NO
PG&E Corp	PCG	BBB+	YES	YES	0.95	43.4%	18,640	YES	CAISO	NO
Portland General Electric Company	POR	BBB+	YES	YES	---	51.3%	1,108	NO	NO	NO
PNM Resources	PNM	BBB	YES	YES	0.95	42.3%	2,905	YES	ERCOT	NO
Pinnacle West Capital	PNW	BBB-	YES	YES	1.00	50.0%	5,755	NO	NO	NO
Puget Energy, Inc.	PSD	BBB-	YES	YES	0.80	40.0%	899	YES	COLUMBIA GRID	YES
Sempra Energy	SRE	BBB+	YES	YES	1.00	58.6%	1,879	YES	CAISO	NO
Sierra Pacific Res.	SRP	BB-	YES	YES	1.25	38.7%	4,508	NO	NO	NO
UniSource Energy	UNS	BB	YES	YES	0.70	27.2%	2,704	NO	NO	NO
Xcel Energy, Inc.	XEL	BBB+	YES	YES	1.05	44.0%	17,387	YES	MISO	NO

[1] Source: Standard & Poors

[2] Source: Yahoo! Finance

[3] Source: Yahoo! Finance

[4] Source: Value Line

[5] Source: Value Line

[6] Source: Company 10-K and/or FERC Form 1's.

[7] Source: Company 10-K, Company website, RTO/ISO member lists

[8] Source: Company 10-K, Company website, RTO/ISO member lists

[9] Source: Various News Sources

PROXY GROUP SCREENING RESULTS

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Investor Owned WECC Members	Shares are Publicly Traded	Covered by Value Line Investment Survey	Pays dividends	Covered by at least Two General Recognized Utility Industry Equity Analysts	Rated Investment Grade or Above	Yahoo First Call Growth Rate	Have Not Announced a Significant Transaction or Merger
Aquila Networks - WPC	ILA	✓	☒	☒	✓	☒	☒
Avista Corp.	AVA	✓	✓	✓	✓	☒	✓
El Paso Electric	EE	✓	✓	☒	✓	✓	✓
North Western Energy	NWEC	✓	☒	✓	✓	✓	✓
PacifiCorp	---	☒	☒	☒	✓	☒	✓
Puget Energy, Inc. - (Puget Sound Energy)	PSD	✓	✓	✓	✓	✓	☒
Sierra Pacific Resources - (Transmssion)	SRP	✓	✓	✓	☒	✓	✓
UniSource Energy - (Tucson Electric Power Company)	UNS	✓	✓	✓	☒	☒	✓
Black Hills Corp.	BKH	✓	✓	✓	✓	✓	✓
Edison International - (Southern California Edison Company)	EIX	✓	✓	✓	✓	✓	✓
IDACORP, Inc. - (Idaho Power Company)	IDA	✓	✓	✓	✓	✓	✓
PG&E Corp. - (Pacific Gas and Electric Company)	PCG	✓	✓	✓	✓	✓	✓
Portland General Electric Co.	POR	✓	✓	✓	✓	✓	✓
Pinnacle West Capital - (Arizona Public Service Co.)	PNW	✓	✓	✓	✓	✓	✓
PNM Resources - (Public Service Company of New Mexico)	PNM	✓	✓	✓	✓	✓	✓
Sempra Energy - (San Diego Gas & Electric Company)	SRE	✓	✓	✓	✓	✓	✓
Xcel Energy, Inc. - (Public Service Company of Colorado)	XEL	✓	✓	✓	✓	✓	✓

[1] Source: WECC website member list classified as "Investor-Owned"

[2] Source: Yahoo! Finance

[3] Source: Value Line Investment Survey

[4] Source: Yahoo! Finance

[5] Source: Yahoo! Finance

[6] Source: Standard and Poors website

[7] Source: Yahoo! Finance

[8] Source: Various News Sources

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	
Company	Average High Stock Price	Average Low Stock Price	Average Annual Dividend	Low Dividend Yield	High Dividend Yield	Low Expected Dividend Yield	High Expected Dividend Yield	Sustainable Growth	Yahoo First Call EPS Growth	Weighted Average Growth Rate	Low DCF ROE	High DCF ROE	Midpoint	
<b>WECC TRANSMISSION OWNERS</b>														
Black Hills Corp.	BKH	43.31	39.06	1.37	3.16%	3.50%	3.23%	3.63%	4.40%	7.00%	5.70%	7.63%	10.63%	9.13%
Edison International	EIX	58.40	52.60	1.16	1.99%	2.21%	2.06%	2.29%	7.32%	7.54%	7.43%	9.38%	9.83%	9.60%
IDACORP, Inc.	IDA	34.79	31.37	1.20	3.46%	3.83%	3.52%	3.94%	3.78%	6.00%	4.89%	7.30%	9.94%	8.62%
PG&E Corp.	PCG	48.50	43.72	1.44	2.97%	3.30%	3.06%	3.46%	6.01%	9.76%	7.89%	9.07%	13.22%	11.15%
Portland General Electric Co.	POR	28.81	26.18	0.94	3.26%	3.59%	3.35%	3.72%	5.36%	7.27%	6.32%	8.72%	10.99%	9.85%
Pinnacle West Capital	PNW	42.78	38.57	2.10	4.92%	5.45%	4.98%	5.61%	2.32%	5.73%	4.02%	7.29%	11.34%	9.31%
PNM Resources	PNM	26.69	23.10	0.92	3.47%	4.01%	3.52%	4.20%	3.04%	9.47%	6.26%	6.57%	13.67%	10.12%
Sempra Energy	SRE	61.22	55.01	1.24	2.03%	2.26%	2.10%	2.37%	9.38%	7.20%	8.29%	9.30%	11.75%	10.52%
Xcel Energy, Inc.	XEL	22.35	20.31	0.91	4.08%	4.49%	4.16%	4.62%	3.82%	6.00%	4.91%	7.97%	10.62%	9.30%

**Notes**

- [1] Source: Yahoo! Finance average of the high stock price observations for each of the six months ended November 30, 2007.
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- [8] Sustainable Growth Rate per Value Line Data calculated as (b\*r)+(s\*v), as shown on ATL - 03.
- [9] Equals Col. [4] + Col. [7]
- [10] Equals Average of [8] and [9]
- [11] Equals {Minimum of [8] and [9]} plus [6]
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- [15] Equals Min of [11]
- [16] Equals Midpoint of [11] and [12]

ZONE OF REASONABLENESS HIGH 13.67% [14]  
 ZONE OF REASONABLENESS LOW 6.57% [15]  
 ZONE OF REASONABLENESS MIDPOINT 10.12% [16]

		[ 1 ]	[ 2 ]	[ 3 ]	[ 4 ]	[ 5 ]	[ 6 ]	[ 7 ]	[ 8 ]	[ 9 ]	[ 10 ]	[ 11 ]	[ 12 ]	[ 13 ]
Company		Average High Stock Price	Average Low Stock Price	Average Annual Dividend	Low Dividend Yield	High Dividend Yield	Low Expected Dividend Yield	High Expected Dividend Yield	Sustainable Growth	Yahoo First Call EPS Growth	Weighted Average Growth Rate	Low DCF ROE	High DCF ROE	Midpoint
<b>WECC TRANSMISSION OWNERS</b>														
Black Hills Corp.	BKH	43.31	39.06	1.37	3.16%	3.50%	3.23%	3.63%	4.40%	7.00%	5.70%	7.63%	10.63%	9.13%
Edison International	EIX	58.40	52.60	1.16	1.99%	2.21%	2.06%	2.29%	7.32%	7.54%	7.43%	9.38%	9.83%	9.60%
IDACORP, Inc.	IDA	34.79	31.37	1.20	3.46%	3.83%	3.52%	3.94%	3.78%	6.00%	4.89%		9.94%	9.94%
PG&E Corp.	PCG	48.50	43.72	1.44	2.97%	3.30%	3.06%	3.46%	6.01%	9.76%	7.89%	9.07%	13.22%	11.15%
Portland General Electric Co.	POR	28.81	26.18	0.94	3.26%	3.59%	3.35%	3.72%	5.36%	7.27%	6.32%	8.72%	10.99%	9.85%
Pinnacle West Capital	PNW	42.78	38.57	2.10	4.92%	5.45%	4.98%	5.61%	2.32%	5.73%	4.02%		11.34%	11.34%
PNM Resources	PNM	26.69	23.10	0.92	3.47%	4.01%	3.52%	4.20%	3.04%	9.47%	6.26%		13.67%	13.67%
Sempra Energy	SRE	61.22	55.01	1.24	2.03%	2.26%	2.10%	2.37%	9.38%	7.20%	8.29%	9.30%	11.75%	10.52%
Xcel Energy, Inc.	XEL	22.35	20.31	0.91	4.08%	4.49%	4.16%	4.62%	3.82%	6.00%	4.91%	7.97%	10.62%	9.30%

**Notes**

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[8] Sustainable Growth Rate per Value Line Data calculated as (b\*r)+(s\*v), as shown on ATL - 03.

[9] Equals Col. [4] + Col. [7]

[10] Equals Average of [8] and [9]

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ZONE OF REASONABLENESS HIGH 13.67% [14]  
 ZONE OF REASONABLENESS LOW 7.63% [15]  
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**SUSTAINABLE GROWTH RATE COMPUTATION**

**EXHIBIT NO. ATL-8**

**Page 1 of 1**

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
Company	Ticker	Payout Ratio1	Payout Ratio2	Payout Ratio3	Average Retention Ratio	Value Line Return on Book Value 1	Value Line Return on Book Value 2	Value Line Return on Book Value 3	Average Return on Book Value	Equity 1	Equity 2	Equity 3	Growth in Equity	Adjustment Factor	Adjusted Average Return	B'R
Black Hills Corp.	BKH	53.33%	60.87%	55.27%	43.51%	9.81%	8.55%	9.02%	9.12%	984	1024	1178	3.66%	1.0180	9.29%	4.04%
Edison International	EIX	36.88%	38.18%	41.67%	61.09%	12.48%	11.91%	10.56%	11.65%	8363	9042	11135	5.89%	1.0286	11.98%	7.32%
IdaCorp Inc.	IDA	60.00%	55.81%	53.33%	43.62%	7.55%	7.75%	7.27%	7.52%	1179	1289	1470	4.52%	1.0221	7.69%	3.35%
ITC Holdings Corp.	ITC	70.63%	55.71%	34.62%	46.35%	12.26%	13.42%	18.18%	14.62%	555	700	975	11.93%	1.0563	15.44%	7.16%
PG&E Corp.	PCG	51.43%	53.79%	61.94%	44.28%	12.47%	12.08%	10.90%	11.82%	8466	9125	11037	5.45%	1.0265	12.13%	5.37%
Portland General Electric Co.	POR	39.57%	53.51%	57.78%	49.71%	11.24%	8.51%	9.09%	9.61%	1310	1363	1661	4.86%	1.0237	9.84%	4.89%
PNM Resources	PNM	65.00%	54.29%	54.87%	41.95%	6.18%	7.35%	7.40%	6.98%	1742	1893	2104	3.84%	1.0188	7.11%	2.98%
Pinnacle West	PNW	72.20%	72.46%	74.24%	27.03%	8.36%	8.44%	8.54%	8.44%	3541	3638	3891	1.91%	1.0094	8.52%	2.30%
Sempra Energy	SRE	30.24%	32.00%	28.00%	69.92%	13.16%	11.82%	11.49%	12.16%	8098	8909	11718	7.67%	1.0369	12.61%	8.81%
Xcel Energy	XEL	65.00%	63.33%	62.86%	36.27%	9.52%	9.80%	10.14%	9.82%	6246	6567	7473	3.65%	1.0179	10.00%	3.63%

  

		[16]	[17]	[18]	[19]	[20]	[21]
Company	Ticker	Common Shares Outstanding Growth Rate	Price to Book Ratio	S	V	S X V	Sustainable Growth
Black Hills Corp.	BKH	0.52%	1.6858	0.88%	40.68%	0.36%	4.40%
Edison International	EIX	0.00%	2.2339	0.00%	55.24%	0.00%	7.32%
IdaCorp Inc.	IDA	1.40%	1.3049	1.83%	23.37%	0.43%	3.78%
ITC Holdings Corp.	ITC	1.60%	3.8084	6.08%	73.74%	4.48%	11.64%
PG&E Corp.	PCG	0.56%	2.1492	1.20%	53.47%	0.64%	6.01%
Portland General Electric Co.	POR	1.40%	1.3368	1.87%	25.20%	0.47%	5.36%
PNM Resources	PNM	0.77%	1.0808	0.83%	7.48%	0.06%	3.04%
Pinnacle West	PNW	0.08%	1.1547	0.09%	13.40%	0.01%	2.32%
Sempra Energy	SRE	0.61%	1.9371	1.17%	48.38%	0.57%	9.38%
Xcel Energy	XEL	0.37%	1.5082	0.56%	33.69%	0.19%	3.82%

Source: All data from Value Line Investment Survey Issue dated November 9, 2007

- [1] = (2007 DPS/ 2007 EPS) (p. 2/2)
- [2] = (2008 DPS/ 2008 EPS) (p. 2/2)
- [3] = (2010-2012 DPS/ 2010-2012 EPS) (p. 2/2)
- [4] = (1 - Average ([1],[2] & [3]))
- [5] = (2007 EPS/ 2007 BVPS) (p. 2/2)
- [6] = (2008 EPS/ 2008 BVPS) (p. 2/2)
- [7] = (2010-2012 EPS/ 2010-2012 BVPS) (p. 2/2)
- [8] = (Average ([5],[6] & [7]))
- [9] = (2007 Equity Ratio \* 2007 Total Capital) (p.2/2)
- [10] = (2008 Equity Ratio \* 2008 Total Capital) (p.2/2)
- [11] = (2010-2012 Equity Ratio \* 2010-2012 Total Capital) (p.2/2)
- [12] = ((([11]/[9])^(1/5)) - 1)
- [13] = (2 \* (1 + [12]) / (2 + [12]))
- [14] = ([8] \* [13])
- [15] = ([14] \* [4])
- [16] = (((Common Shares 2010-2012/Common Shares 2007)^(1/5)) - 1) (p. 2/2)
- [17] = (Recent Market Price / 2007 BVPS) (p. 2/2)
- [18] = ([16] \* [17])
- [19] = (1 - (1 / [17]))
- [20] = ([18] \* [19])
- [21] = ([20] + [15])

## SUSTAINABLE GROWTH RATE INPUTS

Company	Ticker	earnings per share 2007	earnings per share 2008	earnings per share 2010-2012	Ticker	dividends per share 2007	dividends per share 2008	dividends per share 2010-2012	Ticker	book value per share 2007	book value per share 2008	book value per share 2010-2012
Black Hills Corp.	BKH	2.55	2.30	2.75	BKH	1.36	1.40	1.52	BKH	26.00	26.90	30.50
Edison International	EIX	3.20	3.30	3.60	EIX	1.18	1.26	1.50	EIX	25.65	27.70	34.10
IdaCorp Inc.	IDA	2.00	2.15	2.25	IDA	1.20	1.20	1.20	IDA	26.50	27.75	30.95
ITC Holdings Corp.	ITC	1.60	2.10	3.90	ITC	1.13	1.17	1.35	ITC	13.05	15.65	21.45
PG&E Corp.	PCG	2.80	2.90	3.10	PCG	1.44	1.56	1.92	PCG	22.45	24.00	28.45
Portland General Electric Co.	POR	2.35	1.85	2.25	POR	0.93	0.99	1.30	POR	20.90	21.75	24.75
PNM Resources	PNM	1.40	1.75	1.95	PNM	0.91	0.95	1.07	PNM	22.65	23.80	26.35
Pinnacle West	PNW	2.95	3.05	3.30	PNW	2.13	2.21	2.45	PNW	35.30	36.15	38.65
Sempra Energy	SRE	4.10	4.00	5.00	SRE	1.24	1.28	1.40	SRE	31.15	33.85	43.50
Xcel Energy	XEL	1.40	1.50	1.75	XEL	0.91	0.95	1.10	XEL	14.70	15.30	17.25

Company	Ticker	Common Shares 2007	Common Shares 2008	Common Shares 2010-2012	Ticker	equity ratio 2007	equity ratio 2008	equity ratio 2010-2012	Ticker	Total Capital 2007	Total Capital 2008	Total Capital 2010-2012	Ticker	Recent Price
Black Hills Corp.	BKH	37.75	38.00	38.75	BKH	62.5%	58.5%	62.0%	BKH	1,575	1,750	1,900	BKH	43.83
Edison International	EIX	326.00	326.00	326.00	EIX	45.5%	46.5%	49.0%	EIX	18,380	19,445	22,725	EIX	57.30
IdaCorp Inc.	IDA	44.30	46.30	47.50	IDA	52.5%	52.5%	50.0%	IDA	2,245	2,455	2,940	IDA	34.58
ITC Holdings Corp.	ITC	42.50	44.50	46.00	ITC	27.5%	31.3%	34.8%	ITC	2,020	2,235	2,800	ITC	49.70
PG&E Corp.	PCG	378.30	380.00	389.00	PCG	52.5%	52.5%	53.0%	PCG	16,125	17,380	20,825	PCG	48.25
Portland General Electric Co.	POR	62.50	62.50	67.00	POR	50.5%	47.0%	48.5%	POR	2,595	2,900	3,425	POR	27.94
PNM Resources	PNM	77.00	80.00	80.00	PNM	49.5%	50.0%	51.5%	PNM	3,520	3,785	4,085	PNM	24.48
Pinnacle West	PNW	100.40	100.50	100.80	PNW	51.5%	51.5%	51.0%	PNW	6,875	7,065	7,630	PNW	40.76
Sempra Energy	SRE	261.00	266.00	269.00	SRE	61.0%	60.5%	62.0%	SRE	13,275	14,725	18,900	SRE	60.34
Xcel Energy	XEL	427.00	429.00	435.00	XEL	47.5%	47.5%	47.0%	XEL	13,150	13,825	15,900	XEL	22.17

Source: All data from Value Line Investment Survey Issue dated November 9, 2007

		[ 1 ]	[ 2 ]	[ 3 ]	[ 4 ]	[ 5 ]	[ 6 ]	[ 7 ]	[ 8 ]	[ 9 ]	[ 10 ]	[ 11 ]	[ 12 ]	[ 13 ]
Company		Average High Stock Price	Average Low Stock Price	Average Annual Dividend	Low Dividend Yield	High Dividend Yield	Low Expected Dividend Yield	High Expected Dividend Yield	Sustainable Growth	Yahoo First Call EPS Growth	Weighted Average Growth Rate	Low DCF ROE	High DCF ROE	Midpoint
<b>WECC TRANSMISSION AND RTO PARTICIPANTS</b>														
Edison International	EIX	58.40	52.60	1.16	1.99%	2.21%	2.06%	2.29%	7.32%	7.54%	7.43%	9.38%	9.83%	9.60%
PG&E Corp.	PCG	48.50	43.72	1.44	2.97%	3.30%	3.06%	3.46%	6.01%	9.76%	7.89%	9.07%	13.22%	11.15%
PNM Resources	PNM	26.69	23.10	0.92	3.47%	4.01%	3.52%	4.20%	3.04%	9.47%	6.26%	6.57%	13.67%	10.12%
Sempra Energy	SRE	61.22	55.01	1.24	2.03%	2.26%	2.10%	2.37%	9.38%	7.20%	8.29%	9.30%	11.75%	10.52%
Xcel Energy, Inc.	XEL	22.35	20.31	0.91	4.08%	4.49%	4.16%	4.62%	3.82%	6.00%	4.91%	7.97%	10.62%	9.30%

Notes

- [1] Source: Yahoo! Finance average of the high stock price observations for each of the six months ended November 30, 2007.
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- [3] Source: Yahoo! Finance average of the low stock price observations for each of the six months ended November 30, 2007.
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- [9] Equals Col. [4] + Col. [7]
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<b>WECC TRANSMISSION AND RTO PARTICIPANTS</b>														
Edison International	EIX	58.40	52.60	1.16	1.99%	2.21%	2.06%	2.29%	7.32%	7.54%	7.43%	9.38%	9.83%	9.60%
PG&E Corp.	PCG	48.50	43.72	1.44	2.97%	3.30%	3.06%	3.46%	6.01%	9.76%	7.89%	9.07%	13.22%	11.15%
PNM Resources	PNM	26.69	23.10	0.92	3.47%	4.01%	3.52%	4.20%	3.04%	9.47%	6.26%		13.67%	13.67%
Sempra Energy	SRE	61.22	55.01	1.24	2.03%	2.26%	2.10%	2.37%	9.38%	7.20%	8.29%	9.30%	11.75%	10.52%
Xcel Energy, Inc.	XEL	22.35	20.31	0.91	4.08%	4.49%	4.16%	4.62%	3.82%	6.00%	4.91%	7.97%	10.62%	9.30%

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ZONE OF REASONABLENESS HIGH 13.67% [14]  
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FERC ONE-STEP DCF MODEL

EXHIBIT NO. ATL-11

Page 1 of 1

	[ 1 ]	[ 2 ]	[ 3 ]	[ 4 ]	[ 5 ]	[ 6 ]	[ 7 ]	[ 8 ]	[ 9 ]	[ 10 ]	[ 11 ]	[ 12 ]	[ 13 ]	
Company	Average High Stock Price	Average Low Stock Price	Average Annual Dividend	Low Dividend Yield	High Dividend Yield	Low Expected Dividend Yield	High Expected Dividend Yield	Sustainable Growth	Yahoo First Call EPS Growth	Weighted Average Growth Rate	Low DCF ROE	High DCF ROE	Midpoint	
<b>PURE TRANSMISSION COMPANY</b>														
ITC Holdings Corp.	ITC	50.55	44.71	1.14	2.28%	2.56%	2.41%	2.77%	11.64%	15.85%	13.74%	14.05%	18.62%	16.33%

Notes

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[11] Equals (Minimum of [8] and [9]) plus [6]

[12] Equals (Maximum of [8] and [9]) plus [7]

[13] Equals Average of [11] and [12]

[14] Equals Max of [12]

[15] Equals Min of [11]

[16] Equals Midpoint of [11] and [12]

ZONE OF REASONABLENESS HIGH 18.62% [14]  
 ZONE OF REASONABLENESS LOW 14.05% [15]  
 ZONE OF REASONABLENESS MIDPOINT 16.33% [16]

CAPITAL STRUCTURE

(in \$Millions)	Name	Ticker Symbol	Percentage Capitalization									
			Total Debt	Pref. Stock	Comm. Equity	Total Capitalization	Debt	Pref. Stock	Comm. Equity	Total Cap.	Equity Ratio Percentile	Source
<b>PROXY GROUP ELECTRIC UTILITIES</b>												
	Black Hills Corp.	BKH	\$ 706.2	\$ 0.0	\$ 967.6	\$ 1,673.7	42.2%	0.0%	57.8%	100.0%	89%	10-Q (9/30/07)
	Edison International	EIX	\$ 9,292.0	\$ 0.0	\$ 8,389.0	\$ 17,681.0	52.6%	0.0%	47.4%	100.0%	44%	10-Q (9/30/07)
	IDACORP, Inc.	IDA	\$ 1,298.5	\$ 0.0	\$ 1,208.1	\$ 2,506.6	51.8%	0.0%	48.2%	100.0%	56%	10-Q (9/30/07)
	ITC Holdings Corp.	ITC	\$ 1,401.7	\$ 0.0	\$ 558.1	\$ 1,959.8	71.5%	0.0%	28.5%	100.0%	0%	10-Q (9/30/07)
	PG&E Corp	PCG	\$10,937.0	\$ 0.0	\$ 8,398.0	\$ 19,335.0	56.6%	0.0%	43.4%	100.0%	22%	10-Q (9/30/07)
	Portland General Electric Company	POR	\$ 1,238.0	\$ 0.0	\$ 1,303.0	\$ 2,541.0	48.7%	0.0%	51.3%	100.0%	78%	10-Q (9/30/07)
	PNM Resources	PNM	\$ 2,331.2	\$ 0.0	\$ 1,706.7	\$ 4,037.9	57.7%	0.0%	42.3%	100.0%	11%	10-Q (9/30/07)
	Pinnacle West Capital	PNW	\$ 3,570.2	\$ 0.0	\$ 3,568.6	\$ 7,138.8	50.0%	0.0%	50.0%	100.0%	67%	10-Q (9/30/07)
	Sempra Energy	SRE	\$ 5,715.0	\$ 0.0	\$ 8,080.0	\$ 13,795.0	41.4%	0.0%	58.6%	100.0%	100%	10-Q (9/30/07)
	Xcel Energy, Inc.	XEL	\$ 7,980.0	\$ 0.0	\$ 6,266.5	\$ 14,246.5	56.0%	0.0%	44.0%	100.0%	33%	10-Q (9/30/07)
	Mean of Proxy Group						52.9%	0.0%	47.1%	100.0%	50.0%	

All figures reflected from each company's SEC Form 10-Q as of 9/30/2007.

in Basis Points

## INCENTIVES ACCEPTED BY THE COMMISSION

CASE	DOCKET	ORDER DATE	TRANSCO ?	NEW INVESTMENT ?	RTO	ROE INCENTIVES		TRANSMISSION INVESTMENT	COMMENTS
						TRANSCO	TRANSCO / RTO		
BG&E	ER07-576-000 ER07-576-001	7/24/2007	NO	YES	50	---	---	100	Transmission Investment Adder set for technical conference
Duquesne Light Company	ER06-1549-001 ER06-1549-000 ER06-1549-001	2/6/2007	NO	YES	50	---	---	100	Requested 150 bps ROE adder for new transmission investment. 100 bps was conditionally approved.
Trans-Allegheny Interstate Line Company (TrAILCo)	ER07-562-000 ER07-562-001	5/31/2007	NO	YES	50	---	---	170	Rates were accepted for filing in the Declaratory Order. Final tariff rates will be subject to hearing.
United Illuminating Company	ER07-653-000	5/22/2007	NO	YES	---	---	---	50	Requested 50 basis points for new technology adder on various aspects of the transmission project.
Banghor Hydro-Electric Company and NE ISO companies	ER04-714-001	10/31/2006	NO	YES	50	---	---	100	
AEP Transco	EL06-50-000	7/20/2006	YES	YES	---	---	---	200	AEP expressly did not request an incentive for being a Transco. AEP requested either 200 bps or that ROE be set at high end of the range. The Commission allowed the ROE to be set at the high end of the range to be determined in a future proceeding. Since AEP would have accepted either interchangeably, we assume 200 basis points is sufficient.
Allegheny Energy, Inc.	EL06-54-001	1/19/2007	NO	YES	---	---	---	200	Requested either a 200 bps ROE incentive for transmission investment or that the ROE be set at the high end of the range. Commission agreed to set the ROE in a Section 205 proceeding at the top of the zone of reasonableness. Since Allegheny would have accepted either interchangeably, we assume 200 basis points is sufficient.
Commonwealth Edison	EL07-41-000 ER07-583-000	6/5/2007	NO	YES	50	---	---	150	Com Ed requested a 150 bps adder for new transmission investment which was denied by the Commission as it was determined that Com Ed did not satisfy the nexus requirement (showing that the project was non-routine).
Pacific Gas and Electric Company	ER07-1213-000	9/28/2007	NO	NO	50	---	---	200	Request for Transmission Owner ROE (including Path 15 Project) by PG&E

Source: Respective FERC Commission Orders