respect to final rates, a different capital structure may also result in less favorable pricing and terms. Any increases in pricing due to the changes in the capital structure would need to be reflected in Lone Star's rates.

V. AFFILIATE CHARGES FOR TREASURY DEPARTMENT

Q. CAN YOU PLEASE DESCRIBE THE SERVICES THAT THE NEXTERA ENERGY TREASURY DEPARTMENT PROVIDED TO LONE STAR DURING THE COMPANY'S INITIAL DEVELOPMENT?

A. Certainly. As described below, during the Company's start-up phase, the Treasury Department provided the following services to Lone Star:

- Assistance with Lone Star's CCN Docket, including preparatory work related to CCN testimony and hearings and attending CCN hearings;
- Assistance with Lone Star's NOCR Docket, including preparing testimony; and
- Execution of the Construction Bank Loan, including but not limited to preparation and distribution of an RFP, analyzing proposals and discussing and negotiating terms and definitive documentation with potential Lenders.

Please refer to the direct testimony of Lone Star witness Cheryl Dietrich for a description of how these costs were managed and controlled.

Q. WILL THE TREASURY DEPARTMENT PROVIDE ANY OTHER SERVICES TO LONE STAR DURING THE COMPANY'S OPERATIONAL PHASE?

A. Yes, it will. The Treasury Department will also assist with the ongoing monitoring and administration of financings (including the Construction Bank

Loan) for the Company during its operational phase, as well as secure funding for the Company through negotiation of new financings. All of the services referenced above are absolutely critical to the ongoing operations of Lone Star. The projected costs for the above services to be provided to Lone Star are $[155,489] and $[91,540] for the interim and final rate periods, respectively.

Q. HAVE INDIVIDUALS FROM THE TREASURY DEPARTMENT PROVIDED ANY OTHER SERVICES TO LONE STAR TO DATE?

A. Yes. Certain individuals, including myself, have and will continue to assist with the preparation and filing of schedules, workpapers and testimony in this rate case. As such, those costs are reflected in the Company's rate case expense request. For a more detailed description of the Company's rate case expense request, please refer to the direct testimony of Lone Star witness Michael Warren. In addition, the Treasury Department has and will continue to provide ongoing shared services to Lone Star during both its initial start-up and operational phases. These services include: maintaining bank accounts in the name of the Company, managing cash on behalf of the Company, making investments of funds and disbursements as directed by the Company, as well as any other treasury functions required to manage the finances of the Company. More details regarding how these corporate shared services are allocated can be found in the direct testimony of Ms. Dietrich.

Q. WERE ANY OF THESE SERVICES DUPLICATED BY LONE STAR OR ANY OTHER AFFILIATE?

A. No, these were unique services and were not duplicated by any other affiliate or Lone Star.

Q. PLEASE EXPLAIN WHY THE SERVICES PROVIDED BY THE TREASURY DEPARTMENT DURING THE INITIAL PHASE OF LONE STAR'S DEVELOPMENT WERE REASONABLE AND NECESSARY.

A. Utilizing the Treasury Department afforded Lone Star access to experienced professionals who have extensive experience negotiating financings for NextEra Energy companies on favorable rates and terms. The Treasury Department generated proceeds from financing activities of approximately $4.3 billion in 2010 alone, continuing a long track record of success. By utilizing this experience, and the relationships with banks afforded through the many transactions executed by the Treasury team, Lone Star was and is well-positioned to secure attractive financing. Moreover, had Lone Star not been able to access the experienced professionals in NextEra Energy's Treasury Department, it would have needed to hire additional staff or obtain the same services from a third-party at a higher cost.

VI. CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. The cost of debt and capital structure requested by Lone Star in this case are reasonable. The Commission should approve a long-term cost of debt of 4.794% for interim rates, a cost of debt of 6.106% for final rates, and a capital structure of 48% debt and 52% equity for use in calculating both interim and final rates.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

STATE OF FLORIDA §
§
COUNTY OF PALM BEACH §

AFFIDAVIT OF ALDO E. PORTALES

BEFORE ME, the undersigned authority, on this day personally appeared Aldo Portales, who, having been placed under oath by me, did depose as follows:

1. "My name is Aldo E. Portales. I am of sound mind and capable of making this affidavit. The facts stated herein are true and correct based upon my personal knowledge. My current position is Assistant Treasurer for Lone Star Transmission, LLC.

2. I have prepared the foregoing direct testimony and the attached exhibits offered by me are true and correct to the best of my knowledge."

Further affiant sayeth not.

Aldo E. Portales

SUBSCRIBED AND SWORN TO BEFORE ME by the said Aldo Portales this 19th day of December, 2011.

RITA M. ELLMAN
MY COMMISSION # DD 862118
EXPIRES: June 17, 2013
Bonded Thru Notary Public Underwriters

Notary Public, State of Florida

PUC DOCKET NO. 40020

APPLICATION OF LONE STAR TRANSMISSION, LLC FOR AUTHORITY TO ESTABLISH INTERIM AND FINAL RATES AND TARIFFS	§ § § § §	BEFORE THE PUBLIC UTILITY COMMISSION OF TEXAS

DIRECT TESTIMONY

OF

WILLIAM E. AVERA

ON BEHALF OF

LONE STAR TRANSMISSION, LLC

January 9, 2012

INDEX TO THE DIRECT TESTIMONY OF

WILLIAM E. AVERA, WITNESS FOR

LONE STAR TRANSMISSION, LLC

LIST OF EXHIBITS

LIST OF SPONSORED/CO-SPONSORED SCHEDULES (INTERIM AND FINAL)

SCHEDULE II-C-1	Rate of Return Calculations
SCHEDULE C-2.1	Weighted Average Cost of Capital

EXECUTIVE SUMMARY OF WILLIAM E. AVERA

My direct testimony establishes that a return on equity ("ROE") of 11% is reasonable and necessary for Lone Star Transmission, LLC ("Lone Star" or the "Company"), in order for the Company to maintain access to capital and adequately compensate its equity investors. Approval of an ROE that supports a strong financial position will enhance Lone Star's ability to provide reliable and cost effective service to Texas customers by allowing the Company to attract the capital necessary for construction, operations and continued investment in its transmission infrastructure. My testimony addresses a variety of factors that affect investors' required rate of return and support my recommended 11% ROE. My testimony:

- addresses the operations and finances of Lone Star, as well as conditions in the capital markets and the general economy that affect Lone Star;
- examines the relationship between ROE and the ability to attract capital for Lone Star for continued investment in Texas;
- considers the specific risk exposures faced by Lone Star as a new-entrant transmission provider that is constructing a large project under an aggressive timetable and utilizing advanced technology;
- explains in detail how I developed capital market estimates of the cost of equity, including the various analyses I conducted to estimate the cost of equity; and
- discusses my independent analysis that confirms the reasonableness of Lone Star's proposed capital structure, sponsored by Lone Star witness Aldo Portales.

Together with the materials supporting my testimony, the evidence demonstrates that the Public Utility Commission of Texas ("Commission") should adopt an 11% ROE for Lone Star. Coupled with the need to provide an ROE that supports Lone Star's

financial integrity and flexibility while funding substantial investments in utility infrastructure, my testimony indicates that an 11% ROE is reasonable and appropriate.

DIRECT TESTIMONY OF WILLIAM E. AVERA

I. POSITION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, POSITION, AND BUSINESS ADDRESS.

A. My name is William E. Avera. I am the President of FINCAP, Inc., a firm providing financial, economic, and policy consulting services to business and government. My business address is 3907 Red River, Austin, Texas 78751.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of Lone Star.

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

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

In 1977, I joined the staff of the Commission as Director of the Economic Research Division. During my tenure at the Commission, I managed a division

responsible for financial analysis, cost allocation and rate design, economic and financial research, and data processing systems, and I testified in cases on a variety of financial and economic issues. Since leaving the Commission in 1979, I have been engaged as a consultant. I have participated in a wide range of assignments involving utility-related matters on behalf of utilities, industrial customers, municipalities, and regulatory commissions.

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

I have served as Lecturer in the Finance Department at the University of Texas at Austin and taught in the evening graduate program at St. Edward's University for twenty years. In addition, I have lectured on economic and regulatory topics in programs sponsored by universities and industry groups. I have taught in hundreds of educational programs for financial analysts in programs sponsored by the Association for Investment Management and Research, the Financial Analysts Review, and local financial analysts societies. These programs have been presented in Asia, Europe, and North America, including the Financial Analysts Seminar at Northwestern University. I hold the Chartered Financial Analyst (CFA®) designation and have served as Vice President for Membership of the

Financial Management Association. I have also served on the Board of Directors of the North Carolina Society of Financial Analysts. I was elected Vice Chairman of the National Association of Regulatory Utility Commissioners ("NARUC") Subcommittee on Economics and appointed to NARUC's Technical Subcommittee on the National Energy Act. I have also served as an officer of various other professional organizations and societies. A resume containing the details of my experience and qualifications is attached as Exhibit WEA-1.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY COMMISSIONS?

A. Yes. I have previously testified before the Federal Energy Regulatory Commission ("FERC"), as well as the Federal Communications Commission, the Surface Transportation Board (and its predecessor, the Interstate Commerce Commission), the Canadian Radio-Television and Telecommunications Commission, and regulatory agencies, courts, and legislative committees in over 40 states.

II. PURPOSE AND OVERVIEW OF DIRECT TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. As described more fully in the direct testimony of Lone Star witness Michael Grable, Lone Star has been granted authority to construct, operate, and maintain a portion of the Competitive Renewable Energy Zones ("CREZ") transmission plan, which is designed to increase access to renewable resources within the

boundaries of the Electric Reliability Council of Texas ("ERCOT"). The purpose of my testimony is to present to the Commission my independent analysis of a fair rate of return on equity for the electric transmission operations of Lone Star. In addition, I conducted an independent analysis to determine the reasonableness of Lone Star's proposed capital structure, which is sponsored by Mr. Portales.

Q. ARE YOU SPONSORING ANY EXHIBITS OR SCHEDULES AS PART OF YOUR DIRECT TESTIMONY?

A. Yes. I am sponsoring the exhibits and schedules listed in the table of contents.

Q. WERE THESE EXHIBITS PREPARED BY YOU OR UNDER YOUR DIRECT SUPERVISION?

A. Yes, they were.

Q. PLEASE SUMMARIZE THE INFORMATION AND MATERIALS YOU RELIED ON TO SUPPORT THE OPINIONS AND CONCLUSIONS CONTAINED IN YOUR TESTIMONY.

A. To prepare my testimony, I used information from a variety of sources that would normally be relied upon by a person in my capacity. In connection with the present filing, I considered and relied upon corporate disclosures and other published information relating to Lone Star. I also reviewed information relating generally to current capital market conditions and specifically to current investor perceptions, requirements, and expectations for the Company. These sources,

coupled with my experience in the fields of finance and utility regulation, have given me a working knowledge of the issues relevant to investors' required return for Lone Star, and they form the basis of my analyses and conclusions.

Q. WHAT IS THE PRACTICAL TEST OF THE REASONABLENESS OF THE ROE USED IN SETTING A UTILITY'S RATES?

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

Q. HOW DID YOU GO ABOUT EVALUATING A FAIR ROE FOR LONE STAR?

A. I first reviewed the operations and finances of Lone Star and the general conditions in the electric utility industry and the capital markets. With this as a

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

background, I conducted various well-accepted quantitative analyses to estimate the current cost of equity, including alternative applications of the discounted cash flow ("DCF") model, the Capital Asset Pricing Model ("CAPM"), an equity risk premium approach based on allowed rates of return for electric utilities, as well as reference to expected earned rates of return for electric utilities. Based on the cost of equity estimates indicated by my analyses, the Company's ROE was evaluated taking into account the specific risks, exposures, and potential challenges for its electric utility operations in Texas, as well as flotation costs, all of which are properly considered in setting a fair rate of return on equity.

Q. WHAT ARE YOUR FINDINGS REGARDING A FAIR ROE FOR LONE STAR?

A. Based on the results of my analyses and the economic requirements necessary to support continuous access to capital, I recommend an ROE of 11.0% for Lone Star. The bases for my conclusion are summarized below:

- In order to reflect the risks and prospects associated with Lone Star's transmission operations, my analyses focused on a proxy group of other electric utilities. Consistent with the fact that utilities must compete for capital with firms outside their own industry, I also referenced a proxy group of comparable risk companies in the non-utility sector of the economy;

- Because investors' required return on equity is unobservable and no single method should be viewed in isolation, I applied the DCF, CAPM, and risk premium methods, as well as the expected earnings approach, to estimate a fair ROE for Lone Star;

- Based on the results of these analyses, and giving less weight to extremes at the high and low ends of the range, I concluded that the cost of equity for the proxy groups of utilities and non-utility companies is in the 10.4% to 11.4% range, or 10.55% to 11.55% after

incorporating a 15 basis-point adjustment to account for the impact of common equity flotation costs;

- My recommended 11% ROE falls in the middle of my proxy group range and is conservative for Lone Star because:
    - The CREZ transmission project presents substantial risks and challenges due to its complexity, large scale, and the aggressive timetable for completion;
    - Lone Star is a new entrant transmission provider with no established credit rating or history of debt repayment or earnings;
    - The financial integrity and flexibility of the Company will be instrumental in meeting the substantial capital requirements necessary to fund the CREZ transmission project and funding ongoing operations; and
    - Lone Star's implementation of various advanced transmission technologies should be recognized since it is consistent with state and federal policies.

The reasonableness of an 11.0% ROE for Lone Star is also supported by the need to provide an ROE that allows the Company to compete with incentive returns available from grid expansion projects in other reliability organizations nationwide.

Q. WHAT OTHER EVIDENCE DID YOU CONSIDER IN EVALUATING YOUR ROE RECOMMENDATION IN THIS CASE?

A. My recommendation was reinforced by the following findings:

- Sensitivity to financial market and regulatory uncertainties has increased dramatically and investors recognize that constructive regulation is a key ingredient in supporting utility credit standing and financial integrity;
- The potential for turmoil in the domestic and global financial markets and continued economic uncertainties exacerbate the risks faced by utilities

and their investors and are a legitimate consideration in evaluating a fair ROE for Lone Star;

- Long-term capital costs are widely expected to increase through the construction phase of the CREZ transmission project and beyond, and;
- Providing Lone Star with the opportunity to earn a return that reflects these realities is an essential ingredient to support the Company's financial position, which ultimately benefits customers by helping to ensure reliable service at lower long-run costs.

Q. WHAT IS YOUR CONCLUSION AS TO THE REASONABLENESS OF LONE STAR'S CAPITAL STRUCTURE?

A. I endorse the capital structure proposed by Lone Star, which is consistent with the financial challenges faced by Lone Star as a new-entrant transmission provider, and the importance of supporting expedited completion of the CREZ transmission project and continued system investment, even during times of adverse industry or market conditions.

III. FUNDAMENTAL ANALYSES

Q. WHAT IS THE PURPOSE OF THIS SECTION?

A. As a predicate to the quantitative analyses that I address later in this testimony, this section briefly reviews the operations and finances of Lone Star, as well as conditions in the capital markets and the general economy.

A. **Lone Star Transmission, LLC**

Q. PLEASE BRIEFLY DESCRIBE THE CREZ TRANSMISSION PROJECT.

A. In accordance with the Renewable Energy Program ("REP") established by the Texas Legislature, the Commission created five geographic zones in West Texas and the Texas Panhandle targeted for the development of new wind-generation plants. The goals of the CREZ process are to facilitate the development of wind generating capacity and integrate this capacity from the designated zones into the broader transmission grid. In 2008, the Commission approved a multi-billion dollar transmission grid improvement program that would add approximately 2,300 miles of transmission lines capable of delivering approximately 18,500 megawatts ("MW") of wind power from the CREZ zones to the Dallas/Fort Worth area and other population centers in Texas. The CREZ transmission plan has a scheduled completion date at the close of 2013.

Q. PLEASE BRIEFLY DESCRIBE LONE STAR.

A. Lone Star, which is an indirect, wholly-owned subsidiary of NextEra Energy, Inc. ("NextEra Energy"), was established to license, finance, construct, operate and maintain a portion of the transmission projects approved by the Commission under the CREZ transmission plan. In 2010, the Commission approved Lone Star's certificate of convenience and necessity, which both established Lone Star as a regulated transmission provider in Texas and granted approval to begin construction of Lone Star's CREZ project.

Lone Star's portion of the CREZ transmission project includes constructing and operating approximately 320 miles of 345 kV transmission lines in Texas. Lone Star is subject to the jurisdiction of the Commission over a wide range of business activities, including, among others, rates charged to customers and certain aspects of siting, construction and operation of transmission systems. Lone Star has commenced right-of-way acquisition and construction activities on its CREZ project and expects the transmission line to be placed in service by 2013.

Q. PLEASE DESCRIBE NEXTERA ENERGY.

A. NextEra Energy is a leading energy company with nearly 43,000 MW of generating capacity, and approximately 15,000 employees in 28 states and Canada. Headquartered in Juno Beach, Florida, NextEra Energy's principal subsidiaries are NextEra Energy Resources, LLC, which together with its affiliated entities is the largest generator in North America of renewable energy from the wind and the sun, and Florida Power & Light Company, which serves approximately 4.5 million customer accounts in Florida and is one of the largest rate-regulated electric utilities in the country. Through its subsidiaries, NextEra Energy collectively operates the third largest U.S. nuclear power generation fleet.

Q. WILL LONE STAR BE REQUIRED TO RAISE ADDITIONAL CAPITAL IN ORDER TO FINANCE THE CONSTRUCTION AND OPERATION OF THE CREZ TRANSMISSION PROJECT?

A. Most definitely. Lone Star's portion of the CREZ transmission project represents a set of transmission enhancements of major scope and cost, with the Company's investment in the CREZ transmission project expected to be approximately $800 million.

Q. WHERE WILL LONE STAR OBTAIN THE CAPITAL USED TO FINANCE ITS INVESTMENT IN THE CREZ TRANSMISSION PROJECT?

A. Lone Star will be capitalized through equity contributions from its parent, NextEra Energy, as well as retained earnings generated from net income. Lone Star does not currently issue long-term bonds in its own name, but the Company has negotiated interim project debt financing through a credit agreement with a consortium of international lenders. As discussed in the testimony of Mr. Portales, this credit agreement will be superseded by permanent long-term debt financing when the CREZ transmission project is placed in service.

B. Impact of Capital Market Conditions

Q. WHAT ARE THE IMPLICATIONS OF RECENT CAPITAL MARKET CONDITIONS ON THE COST OF CAPITAL?

A. As Value Line recently recognized, "It has been a turbulent year for the financial markets, to say the least."[3] Investors have faced a myriad of challenges and uncertainties, including the threat of a U.S. government default and political brinksmanship over raising the federal debt ceiling. The sovereign debt crisis in Europe has also dealt a harsh blow to investor confidence, and concerns over potential exposure to a Euro-zone default has again undermined confidence in the financial and banking sector. Meanwhile, speculation that the economy is poised on the brink of a "double-dip" recession has increased, with unemployment remaining stubbornly high, anemic consumer confidence, and continued weakness plaguing the real estate sector.

Investors have had to confront ongoing fluctuations in share prices and stress in the credit markets.[4] In response, capital has repeatedly fled to the safety of U.S. Treasury bonds, and stock prices have experienced renewed volatility. As the *Wall Street Journal* noted in August 2011:

> Stocks spiraled downward Thursday as investors buckled under the strain of the global economic slowdown and the failure of policy makers to stabilize financial markets. ... The nervousness among investors is being reflected in an extraordinary rally in U.S. Treasury bonds, regarded as a safe haven for investors in time of

[3] The Value Line Investment Survey at 541 (Dec. 9, 2011).
[4] *See, e.g.*, Gongloff, Mark, "Stock Rebound Is a Crisis Flashback – Late Surge Recalls Market's Volatility at Peak of Credit Difficulties; Unusual Correlations," *Wall Street Journal* at B1 (Feb. 6, 2010).

> turmoil. ... The Dow's decline was its biggest point drop since the market was plunging amid a crisis of confidence in banks in late 2008. On Thursday, the focus shifted to world governments, which are laboring under mountains of debt and have diminished ability to prop up the financial system.[5]

The dramatic rise in the price of gold and other commodities also attests to investors' heightened concerns over prospective challenges and risks, including the overhanging threat of inflation, a double-dip recession, and renewed economic turmoil. With respect to electric utilities, Moody's noted the dangers to credit availability associated with exposure to European banks,[6] and concluded:

> Over the past few months, we have been reminded that global financial markets, which are still receiving extraordinary intervention benefits by sovereign governments, are exposed to turmoil. Access to the capital markets could therefore become intermittent, even for safer, more defensive sectors like the power industry.[7]

Uncertainties surrounding economic and capital market conditions heighten the risks faced by utilities. Even for a transmission provider in Texas, international capital market turmoil can impose additional uncertainties. For example, because of concerns that the London Interbank Offered Rate ("LIBOR") may not reflect market borrowing costs,[8] the credit agreement governing Lone Star's construction financing allows the lender to convert to an alternative interest rate benchmark in the event of market disruptions. Capital market disruptions have serious

[5] Lauricella, Tom, "Stocks Nose-Dive Amid Global Fears – Weak Outlook, Government Debt Worries Drive Dow's Biggest Point Drop Since '08," *Wall Street Journal* at A1 (Aug. 5, 2011).
[6] Moody's Investors Service, "Electric Utilities Stable But Face Increasing Regulatory Uncertainty," *Industry Outlook* (Jul. 22, 2010).
[7] Moody's Investors Service, "Regulation Provides Stability As Risks Mount," *Industry Outlook* (Jan. 19, 2011).
[8] *See, e.g.,* Gignarella, Vincent, "Libor or Lie-bor? Benchmark Belies European Bank Stress," *The Wall Street Journal* (Nov. 1, 2011).

implications for utilities and their customers, and the potential for continuing upheaval imparts ongoing uncertainties, especially considering Lone Star's plans to replace its interim credit agreement with long-term financing in 2013.

Q. HOW DO INTEREST RATES ON LONG-TERM BONDS COMPARE WITH THOSE PROJECTED FOR THE NEXT FEW YEARS?

A. Table WEA-1 below compares current interest rates on 30-year Treasury bonds, triple-A rated corporate bonds, and double-A rated utility bonds with near-term projections from The Value Line Investment Survey ("Value Line"), IHS Global Insight, Blue Chip Financial Forecasts ("Blue Chip"), Standard & Poor's Corporation ("S&P"), and the Energy Information Administration ("EIA"):

TABLE WEA-1 - INTEREST RATE TRENDS

	Current (a)	2012	2013	2014	2015
30-Yr. Treasury					
Value Line (b)	3.6%	3.9%	4.1%	4.5%	5.0%
IHS Global Insight (c)	3.6%	3.3%	3.8%	4.5%	5.1%
Blue Chip (d)	3.6%	3.7%	4.2%	4.8%	5.3%
AAA Corporate					
Value Line (b)	4.4%	4.6%	4.7%	5.2%	5.7%
IHS Global Insight (c)	4.4%	4.2%	4.5%	5.1%	6.0%
Blue Chip (d)	4.4%	4.3%	4.7%	5.4%	5.8%
S&P (e)	4.4%	4.2%	4.5%	5.1%	6.0%
AA Utility					
IHS Global Insight (c)	4.5%	4.4%	4.9%	5.6%	6.5%
EIA (f)	4.5%	5.5%	6.4%	7.0%	7.4%

(a) Based on monthly average bond yields for the six-month period Jun. - Nov. 2011 reported at www.credittrends.moodys.com and http://www.federalreserve.gov/releases /h15/data.htm.
(b) The Value Line Investment Survey, Forecast for the U.S. Economy (Nov. 25, 2011).
(c) IHS Global Insight, *U.S. Economic Outlook* at 25 (Dec. 2011).
(d) *Blue Chip Financial Forecasts,* Vol. 30, No. 12 (Dec. 1, 2011).
(e) Standard & Poor's Corporation, "U.S. Economic Forecast: Too Big To Bail," *RatingsDirect* (Nov. 16, 2011).
(f) Energy Information Administration, *Annual Energy Outlook 2011* (April 26, 2011).

As evidenced above, there is a clear consensus that the cost of permanent capital will be higher in the 2012-2015 timeframe than it is currently. As a result, current cost of capital estimates are conservative, because they are likely to understate investors' requirements at the time the rates set in this proceeding become effective.

Q. WHAT DO THESE EVENTS IMPLY WITH RESPECT TO THE ROE FOR LONE STAR?

A. No one knows the future of our complex global economy. We do, however, know that the financial crisis had been building for a long time and that few predicted that the economy would fall as rapidly as it did, or that corporate bond yields would fluctuate as dramatically as they have. While conditions in the economy and capital markets appear to have stabilized somewhat since 2009, investors continue to react swiftly and negatively to any signs of trouble in the financial system or economy. And the fact remains that the electric utility industry requires significant new capital investment. Given the importance of reliable utility service, it would be unwise to ignore investors' increased sensitivity to risk and future capital market trends in evaluating a fair ROE in this case.

Q. DOES THE PROSPECT FOR CONTINUED TURMOIL IN CAPITAL MARKETS ALSO INFLUENCE THE APPROPRIATE CAPITAL STRUCTURE FOR LONE STAR?

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

> **Capital Markets Freeze:** Significant tightening or loss of capital markets and bank access would have a deleterious affect on sector creditworthiness in the face of high capex budgets.[9]

As a result, the Company's capital structure must maintain an equity "cushion" that preserves the flexibility necessary to maintain continuous access to capital even during times of unfavorable market conditions.

IV. RISKS FOR LONE STAR AND TEXAS GRID EXPANSION

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

A. As a predicate to my capital market analyses, this section examines the relationship between ROE and the ability to attract capital for Lone Star and future grid investment in Texas. In addition, I discuss the specific risks and exposures faced by Lone Star and other factors properly considered in determining a fair rate of return, including the reasonableness of the Company's requested capital structure.

[9] Fitch Ratings Ltd., "2012 Outlook: Utilities, Power, and Gas," *Outlook Report* (Dec. 5, 2011).

A. **Lone Star and the Texas Grid Must Compete for Capital**

Q. HAS THE NEED TO PROMOTE INVESTMENT IN ELECTRIC TRANSMISSION INFRASTRUCTURE BEEN WELL DOCUMENTED?

A. Yes. The U.S. transmission grid was not designed to accommodate a restructured, competitive electric power industry, and its function has transformed from one of delivering local generation to local distribution to the movement of electric power over long distances in support of wholesale competition and development of renewable resources. To accommodate the scale of power transfers required to fulfill these goals, transmission owners have been directed to literally redesign and dramatically expand the transmission grid. S&P noted that, "integrating power from renewables presents new problems because these resources occur typically (and logically) in remote locations. This means spending billions of dollars to transmit the power, often over very long distances to population centers."[10]

Q. HAVE THE DANGERS OF INADEQUATE INVESTMENT IN THE TEXAS TRANSMISSION GRID BEEN RECOGNIZED?

A. Yes. In response to sweeping market and regulatory changes in the electric power industry, the Texas Legislature appointed the SIC to examine the implications of connecting ERCOT to the national transmission grid. This committee, on which I served as Co-Chairman, evaluated the impact of open-access transmission on the

[10] Standard & Poor's Corporation, "Tracking Investments In New U.S. Electric Transmission Infrastructure," *RatingsDirect* (Jun. 2, 2011).

adequacy of existing facilities and conducted a thorough study of the implications associated with synchronous interconnection. One of the SIC's key findings was that, even without imposing additional stability problems associated with a broader, interconnected grid, "the ERCOT system is already only marginally secure against voltage collapse."[11] More recently, significant development of wind generation has highlighted concerns over the impact on the costs associated with grid congestion and stability, which has increased due to limited transfer capabilities to the broader market.

Q. HAVE ENERGY POLICIES IN TEXAS BEEN SUCCESSFUL IN FOSTERING THE DEVELOPMENT OF AN EFFICIENT POWER MARKET?

A. Yes. Beginning with the passage of Senate Bill 7 in 1999, which restructured a significant portion of the state's electric power industry and allowed transmission service providers to provide services throughout the ERCOT grid, Texas has focused on providing electric customers with economical service through core principles designed to harness the power of competition. Policies aimed at promoting sound economic decisions by strengthening the marketplace for electric power and removing artificial barriers to competition and private investment have resulted in the establishment of a strong, competitive electric industry that is responsive to market signals.

[11] *Report to the 76th Texas Legislature, Feasibility Investigation for AC Interconnection between ERCOT and SPP/SERC* at p. ES-16 (Jan. 1999).

In addition, Texas has taken proactive steps to encourage the deployment of renewable resources, which has produced the most rapid investment in wind generation in the nation. The CREZ transmission project represents one facet of the Commission's response to the public mandate embodied in the REP. Consistent with the state's overall energy policy, the CREZ program has been successful in furthering public goals by soliciting investment in electric transmission infrastructure by private companies.

Q. HAS THE INVESTMENT COMMUNITY RECOGNIZED THAT LARGE CAPITAL PROJECTS, SUCH AS THE CREZ TRANSMISSION PLAN, ALSO IMPOSE SIGNIFICANT FINANCIAL PRESSURES?

A. Yes. Investors are well aware of the financial and regulatory pressures that utilities face, both in terms of rising costs and the need to undertake significant capital investments. As Moody's observed:

> [W]e also see the sector's overall business risk and operating risks increasing, owing primarily to rising costs associated with upgrading and expanding the nation's trillion dollar electric infrastructure.[12]

As noted earlier, investors anticipate that Lone Star will undertake significant electric utility capital expenditures to build and operate the CREZ transmission project. While enhancing the infrastructure necessary to meet the energy needs of customers is certainly desirable, the magnitude of the associated capital

[12] Moody's Investors Service, "Regulation Provides Stability As Risks Mount," *Industry Outlook* (Jan. 19, 2011).

expenditures imposes additional financial responsibilities on the Company that are heightened during times of capital market turmoil.

Q. WHAT ROLE DOES REGULATION PLAY IN ENSURING ACCESS TO CAPITAL FOR LONE STAR?

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

The major rating agencies have warned of exposure to uncertainties associated with political and regulatory developments, especially in view of current financial and operating pressures in the utility industry. Investors understand just how swiftly unforeseen circumstances can lead to deterioration in a utility's financial condition, and stakeholders have discovered firsthand how difficult and complex it can be to remedy the situation after the fact. Investors' increased reticence to supply additional capital during times of crisis highlights the need for regulatory decisions that preserve a utility's financial flexibility and recognize the importance of allowing an adequate ROE.

Q. IS THERE EVIDENCE THAT THESE UNCERTAINTIES CAN IMPACT INVESTORS' WILLINGNESS TO SUPPLY CAPITAL?

A. Yes. As early as 2003, the *Wall Street Journal* cited the debilitating impact of an "unsteady regulatory environment" and the "chaotic combination of regulated and deregulated markets," in explaining inhibitions to increased investment in the electric utility system.[13] Similarly, S&P recognized continued concerns over the need to overcome obstacles to investment in transmission infrastructure and provide clarity in the regulatory framework:

> Like motherhood and apple pie, everybody favors pouring dollars into the transmission grid to improve reliability and provide a stronger platform for developing the wholesale electricity market, but there is considerably less consensus around how to encourage that investment (or [at] least not discourage it) and how to provide reasonable certainty concerning recovery.[14]

Q. WHAT IS THE LINK BETWEEN THE ROE AND GREATER INVESTMENT IN TRANSMISSION INFRASTRUCTURE?

A. Under the competitive market paradigm that serves as the foundation for investment choices in the Texas power market, investors' expected ROE is the key economic signal that allocates scarce capital among competing opportunities. As the Commission has recognized:

> The wholesale market is a competitive market, in which most of the owners and developers of generation facilities respond to their

[13] Smith, Rebecca, "Overloaded Circuits: Blackout Signals Major Weakness in U.S. Power Grid," *The Wall Street Journal* (Aug. 18, 2003).
[14] Standard & Poor's Corporation, "Capital Spending On Electric Transmission Is On The Upswing Around The World," *RatingsDirect* (Aug. 7, 2006).

> perception of the market opportunities and risks, and deploy capital accordingly.[15]

In contrast to planning and investment decisions over generation facilities, which for the most part are determined by competitive market forces, electric transmission remains regulated by the Commission. As a result, the allowed ROE becomes a primary lynchpin in determining the flow of investment capital. Apart from the impact that economic and market turmoil can have on the availability of capital, transmission facilities must compete with alternative uses and the additional funding necessary to expand the grid in Texas will only be allocated if investors anticipate an opportunity to earn a return that is sufficient to compensate for the associated risks.

Q. HAS THIS LINK BEEN RECOGNIZED BY STAKEHOLDERS AND THE INVESTMENT COMMUNITY?

A. Yes. Early on, the Department of Energy noted the importance of regulatory policies in supporting economic rewards that stimulate investment in new transmission:

> The economic rewards from improving the transmission system must be greater than the rewards from maintaining the status quo or decreasing the system's ability to reliably support fair and efficient competitive wholesale markets. ...The key to spurring new transmission investment lies in ensuring that the rewards offered by this system of regulation are commensurate with the

[15] Public Utility Commission of Texas, *Report to the 82nd Texas Legislature, Scope of Competition in Electric Markets in Texas* (Jan. 2011).

> risks of undertaking these investments and finding innovative approaches to align costs and benefits.[16]

Similarly, former Commission and FERC Chairman Pat Wood, who was a forceful proponent for replacing government-centered energy regulation with competition in Texas, confirmed the need to achieve the benefits of grid enhancement by providing greater certainty to investors and encouraging the flow of private capital for investment in transmission infrastructure:

> While coordinated regional planning and dispatch are sensible steps to take, we still need to attract capital to transmission investment. I understand that there is significant interest in this industry already; however, to the extent the Commission needs to adopt rate incentives for transmission or other investment to alleviate congestion on the grid, including new transmission technologies, we should do so.[17]

Consistent with this view, S&P noted that, "single-digit returns on transmission assets will not induce the deployment of capital."[18] S&P has pointed out the direct link between incentive-based rates and investment in transmission infrastructure, especially in light of the significant roadblocks to new transmission projects, including inadequate returns on capital.[19] Value Line succinctly outlined the nexus between investors' expectations for allowed returns and increased investment in the transmission system:

> The domestic transmission & distribution system is showing its age and is in need of an upgrade. Several utilities now have large

[16] U.S. Department of Energy, *National Transmission Grid Study* (May 2002).
[17] *Testimony of Pat Wood, III, Chairman, Federal Energy Regulatory Commission, Before the Committee on Energy and Commerce, United States House of Representatives* (Sep. 3, 2003).
[18] Standard & Poor's, "Breaches in U.S. Electric Transmission System are Likely for Summer 2000," *Utilities & Perspectives*, p.2 (Jun. 26, 2000).
[19] Standard & Poor's Corporation, "Energy Policy Act Of 2005 May Spark More Electric Transmission Investment In U.S.," *RatingsDirect* (Mar. 30, 2006).

> T&D projects under way. An adequate national upgrade will not occur unless state and federal regulators show an inclination to allow adequate returns on investment. Indeed, rate of returns granted by the states *do* appear to be edging upward. Federal allowed rates likely will move gradually higher as well.[20]

Q. WHAT ARE THE BENEFITS TO TEXAS CUSTOMERS FROM SUPPORTING PRIVATE INVESTMENT TO ENHANCE THE SCOPE OF REGIONAL TRANSMISSION INFRASTRUCTURE?

A. Consistent with the goals of the Texas Legislature, enhancements to an independently operated transmission grid will provide the benefits of improved reliability, greater access to renewable resources, and support effective competition in the market for electricity. Given the demands now being placed on the transmission system, it is crucial that transmission providers within ERCOT – including Lone Star – be able to attract the economic resources necessary to meet these goals. In short, while Texas' policy of promoting private investment in transmission infrastructure can act as a catalyst for developing renewables and promoting the benefits of competitive electricity markets, transmission providers such as Lone Star must be allowed to earn a return that provides adequate incentives.

[20] The Value Line Investment Survey (Mar. 3, 2006) at 155.

Q. HAVE OTHER REGULATORS RECOGNIZED THE NEED FOR INCENTIVES TO SUPPORT INVESTMENT IN TRANSMISSION INFRASTRUCTURE?

A. Yes. To address the requirements of Section 219 of the Energy Policy Act of 2005, FERC established incentive-based rate treatments to achieve greater grid reliability and lower-cost electric power for customers by encouraging increased infrastructure investment.[21] FERC's *Order Nos. 679* and *679-A* recognize the legislative mandate to promote capital investment in light of the substantial challenges faced by utilities in constructing new transmission projects. In response to this mandate, FERC provides utilities with the opportunity to seek various incentive rate treatments.

Q. WHAT INCENTIVES DID FERC ESTABLISH?

A. In addition to authorizing incentives for utilities that participate in regional transmission organizations, FERC also established a number of incentives intended to directly encourage construction of new transmission infrastructure. These include an incentive-based ROE for investments in new transmission facilities and advanced technologies, the ability to include 100% of transmission-related CWIP in rates, potential recovery of pre-commercial and pre-construction costs and abandoned plant costs when abandonment of the project is beyond the

[21] Order No. 679, 116 FERC ¶ 61,057 (2006); Order No. 679-A, 117 FERC ¶ 61,327 (2006).

utility's control, as well as the possibility of employing a hypothetical capital structure and accelerated depreciation.

FERC has noted that transmission projects must compete for capital, and that an incentive ROE provides an effective tool to foster new investments that increase grid reliability, reduce congestion, promote deployment of advanced technologies, and advance environmental policy objectives. *Order No. 679* concluded that:

> [T]he Commission will approve an ROE at the upper end of the zone of reasonableness for new infrastructure investments that meet the requirements of section 219 as discussed elsewhere in this Final Rule.[22]

Moreover, while FERC noted that an ROE at the upper end of the reasonable range would not be justified in all cases, it also concluded that:

> In some instances, where the risks or challenges faced by a new investment are substantial, we may grant an ROE at the top end of the zone of reasonableness.[23]

Q. HAVE THESE POLICIES PROVEN SUCCESSFUL?

A. Yes. S&P observed that, despite the problems and uncertainties associated with transmission operations, investment has been "encouraged by financial incentives offered by [FERC]."[24] More recently, S&P noted that "more than $75 billion of electric transmission projects are in various stages of planning as companies gravitate toward the [FERC]'s constructive regulatory policies, including

[22] Order No. 679 at PP 91, 92.
[23] Order No. 679-A at P 67.
[24] Standard & Poor's Corporation, "Capital Spending On Electric Transmission Is On The Upswing Around The World," *RatingsDirect* (Aug. 7, 2007).

incentive returns on equity."[25] The corollary is that, absent a commitment to follow through on expectations for meaningful incentives, the flow of capital will diminish.

Q. WHAT ARE THE IMPLICATIONS OF THIS FERC POLICY FOR GRID INVESTMENT IN TEXAS?

A. As noted earlier, investors commit capital only if they expect to earn a return on their investment commensurate with returns available from alternative investments with comparable risks. If the utility is unable to offer a return similar to that available from other opportunities, investors will become unwilling to supply the capital on reasonable terms. In evaluating an investment in the transmission sector of the electric power industry, investors will naturally seek to maximize their expected rate of return for a given level of risk.

As a result, reference to the allowed rates of return for other jurisdictional transmission facilities also provides a useful guideline that can be used to evaluate a comparable and sufficient ROE that meets the regulatory end-result test. While ROEs approved in other jurisdictions certainly do not limit the Commission's authority with respect to its findings in this case, there would be a disincentive to

[25] Standard & Poor's Corporation, "Industry Report Card," *RatingsDirect* (Sep. 29, 2010). In May 2011, S&P reaffirmed that transmission providers "plan to spend more than $75 billion over the next several years." Standard & Poor's Corporation, "Federal Policies Are Buoying Transmission Spending For U.S. Electric Utilities," *RatingsXpress* (May 10, 2011).

invest in Lone Star, and future grid enhancement projects in Texas, if these utility assets were prevented from earning a comparable ROE. As S&P concluded:

> Generally, FERC's authorized ROEs are considerably higher than returns state regulators offer. These ROEs also tend to be more achievable due to FERC's other constructive rate-making policies, most significantly, forward-looking rate years, rate adjustments necessary to achieve authorized returns, accelerated depreciation, the use of hypothetical capital structures, full forward construction-work-in-progress in rate base, and full recovery of prudently incurred costs if a project gets cancelled.[26]

With respect to ROEs for FERC-jurisdictional transmission assets, S&P informed investors that, "Recently approved ROEs for transmission range between 12% and 14%."[27]

Q. IS LONE STAR REQUESTING AN INCENTIVE RETURN IN THIS CASE?

A. No. Nevertheless, Lone Star must be granted an ROE that is sufficient to compete with other opportunities. Texas has established the most successful competitive electric power market in North America. With the implementation of the CREZ program, the Commission has extended this success to attract an enormous commitment of private capital to expand the transmission grid and secure access to renewable wind generation. Now that these commitments have been made, the Commission should be wary of imposing through regulation an ROE that is not sufficient to meet the requirements of competitive capital markets.

[26] Standard & Poor's Corporation, "Tracking Investments In New U.S. Electric Transmission Infrastructure," *RatingsDirect* (Jun. 2, 2011).
[27] *Id.*

Competition for capital is intense, and Texas transmission providers such as Lone Star must be granted the opportunity to earn an ROE comparable to contemporaneous returns available from alternative investments if they are to maintain their financial flexibility and attract the capital necessary to enhance the state's transmission grid. The 2008 Texas State Energy Plan ("Energy Plan") concluded:

> The PUC should intensify and resolve any legal or regulatory issues that prevent the development of merchant transmission investments that could provide additional privately funded transmission.[28]

It is crucial that the allowed return be sufficient to encourage the flow of capital into transmission investments vital to the development of efficient, competitive markets for electricity. S&P recently observed that, "About 70% of total grid investment has gone to the Eastern Interconnection, 25% to the Western Interconnection, and 5% to ERCOT."[29] An inadequate ROE for Lone Star would send the wrong signal to investors, who clearly have investment opportunities beyond the borders of Texas.

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

A. Yes. Establishing an ROE and capital structure that is sufficient to maintain Lone Star's ability to attract capital, even under duress, is consistent with the economic

[28] *Governor's Competitive Council*, "2008 Texas State Energy Plan," at p. 8 (July 2008).
[29] Standard & Poor's Corporation, "Tracking Investments In New U.S. Electric Transmission Infrastructure," *RatingsDirect* (Jun. 2, 2011).

requirements embodied in the Supreme Court's *Hope* and *Bluefield* decisions, but it is also in customers' best interests. Ultimately, it is customers and the service area economy that enjoy the benefits that come from ensuring that the utility has the financial wherewithal to take whatever actions are required to ensure a reliable energy supply that includes access to renewable resources. By the same token, customers also bear a significant burden when the ability of the utility to attract capital is impaired.

B. Other Uncertainties Faced by Lone Star

Q. WHAT OTHER FACTORS SHOULD BE CONSIDERED IN ESTABLISHING AN ROE FOR LONE STAR?

A. Unlike established companies in the electric utility industry, Lone Star is a new entrant transmission provider. While benefiting from its association with NextEra Energy, Lone Star lacks an established credit rating and has no history of debt repayment or earnings. This situation contrasts with that of an established utility, which can raise capital based on its existing plant and established operational and credit history. FERC recognized this distinction in *Trans Bay Cable LLC:*

> We disagree that Trans Bay faces risks similar to those that an established, investor-owned utility faces. We find that the CPUC ignores the development, financing and construction risk that Trans Bay, as a new and independent entity, also bears prior to the commercial operation of the Project. Furthermore, we find that this risk borne by a start-up is greater than that of an ongoing, investor-owned utility.[30]

[30] *Trans Bay Cable, LLC,* 112 FERC ¶61,095 at P 25 (2005).

From the standpoint of investors and lenders, the lack of an operational history and related financial benchmarks places greater scrutiny on forecasts of the businesses' cash flow. In a rate-regulated service such as electric transmission, investors recognize that future cash flows are heavily dependent on the overall allowed return on investment. As S&P observed:

> Uncertainty about future cost recovery and associated rates of return can make it difficult to assess the strength and stability of a transmission line's future cash flows for energy companies interested in transmission expansion projects.[31]

This heightens the importance of setting an ROE for Lone Star that supports financial metrics consistent with an investment grade credit standing and its status as a start-up entity.

The scope of Lone Star's transmission project and the aggressive timetable for completion should also be considered in evaluating the Company's ROE. Lone Star's portion of the CREZ transmission project is clearly not a routine or typical utility transmission enhancement. As noted earlier, it will entail a total investment of some $800 million and require construction of approximately 320 miles of new 345 kV transmission lines. This infrastructure expansion will be almost entirely greenfield construction, and managing land acquisition, procurement, and construction within the projected project timeline poses significant challenges.

[31] Standard & Poor's Corporation, "What's In The Way Of Expanding Electric Transmission In The PJM Interconnection?" *RatingsDirect* (Jun. 3, 2011).

Q. WHAT OTHER CONSIDERATIONS DISTINGUISH LONE STAR FROM MORE CONVENTIONAL TRANSMISSION EXPANSION PROJECTS?

A. As discussed in the direct testimony of Lone Star witness Daniel Mayers, Lone Star plans to make use of various advanced transmission technologies in the construction of its portion of the CREZ transmission plan. These technologies include high capacity concrete poles, advanced insulator design, and various design features and components required to achieve the capacity rating required by the Commission.

Q. HAS THE NEED FOR REGULATORY POLICIES THAT SUPPORT INVESTMENT IN NEW TECHNOLOGIES BEEN RECOGNIZED IN TEXAS?

A. Yes. The Energy Plan recognized that, despite the fact that Texas has adopted innovative policies designed to encourage investment in transmission infrastructure, the traditional rate regulation paradigm creates a drag on the development and implementation of technological advancements and may slow investment in new technologies.[32] The Energy Plan observed that, "in traditional ratemaking, incentives for utilities to invest in these technologies may not exist," and noted that while new technologies can permit more efficient use of the transmission grid, regulatory lag and uncertainty over cost recovery can thwart their implementation.[33] The Energy Plan recommended that the state take action

[32] *2008 Texas State Energy Plan*, Governor's Competitiveness Council (July 2008).
[33] *Id.* at 48.

to, "develop and promote advanced transmission and distribution technologies and incent investment in the research and development of such technologies."[34]

Q. IS THIS CONSISTENT WITH POLICIES AT THE FEDERAL LEVEL?

A. Yes. As noted earlier, FERC provides utilities with the opportunity to seek various incentive rate treatments, including an ROE-based incentive for the use of advanced technologies.[35]

Q. WHAT ARE THE IMPLICATIONS OF THESE FACTORS FOR LONE STAR'S ROE?

A. As documented in the testimony of Lone Star's other witnesses, the scope, technical complexity, land acquisition and construction schedule of the CREZ transmission project presents substantial challenges. Considered along with the project's substantial capital requirements and Lone Star's position as a new-entrant transmission provider, maintaining the financial integrity and flexibility of the Company will be instrumental in attracting the capital necessary to fund the CREZ transmission project in an effective manner. In order to attract capital, Lone Star must be provided an ROE that recognizes these exposures and is sufficient to compete with returns available from other projects of similar risk.

[34] *Id.* at 50.
[35] *See, e.g., Northeast Utilities Service Co.*, 124 FERC ¶ 61,044 at P 83 (2008), granting a 50 basis point ROE advanced technologies adder for the costs of underground 345 kV XLPE cable.

V. CAPITAL MARKET ESTIMATES

Q. WHAT IS THE PURPOSE OF THIS SECTION?

A. In this section, I develop capital market estimates of the cost of equity. First, I address the concept of the cost of equity, along with the risk-return tradeoff principle fundamental to capital markets. Next, I describe the DCF, CAPM, and risk premium analyses conducted to estimate the cost of equity for benchmark groups of comparable risk firms and evaluate expected earned rates of return for utilities. Finally, I examine the issue of flotation costs, which are properly considered in evaluating a fair ROE.

A. Economic Standards

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

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

Q. WHAT FUNDAMENTAL ECONOMIC PRINCIPLE UNDERLIES THE COST OF EQUITY CONCEPT?

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

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

$$k_i = R_f + RP_i$$

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

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

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

A. Yes. The risk-return tradeoff can be readily documented in segments of the capital markets where required rates of return can be directly inferred from market data and where generally accepted measures of risk exist. Bond yields, for

example, reflect investors' expected rates of return, and bond ratings measure the risk of individual bond issues. Comparing the observed yields on government securities, which are considered free of default risk, to the yields on bonds of various rating categories demonstrates that the risk-return tradeoff does, in fact, exist.

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

A. It is generally accepted that the risk-return tradeoff evidenced with long-term debt extends to all assets. Documenting the risk-return tradeoff for assets other than fixed income securities, however, is complicated by two factors. First, there is no standard measure of risk applicable to all assets. Second, for most assets – including common stock – required rates of return cannot be directly observed. Yet, there is every reason to believe that investors exhibit risk aversion in deciding whether or not to hold common stocks and other assets, just as when choosing among fixed-income securities.

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

A. No. The risk-return tradeoff principle applies not only to investments in different firms, but also to different securities issued by the same firm. The securities issued by a utility vary considerably in risk because they have different

characteristics and priorities. Long-term debt secured by a mortgage on property is senior among all capital in its claim on a utility's net revenues and is, therefore, the least risky.[36] Following bonds are other debt instruments also holding contractual claims on the utility's net revenues, such as subordinated debentures. The last investors in line are common shareholders. They receive only the net revenues, if any, remaining after all other claimants have been paid. As a result, the rate of return that investors require from a utility's common stock, the most junior and riskiest of its securities, must be considerably higher than the yield offered by the utility's senior, long-term debt.

Q. WHAT DOES THE ABOVE DISCUSSION IMPLY WITH RESPECT TO ESTIMATING THE COST OF EQUITY FOR A UTILITY?

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

[36] That being said, even secured long-term debt is effectively "junior" to long-term cost commitments necessary to operate the underlying business such as power agreements, fuel contracts and certain leases. The magnitude of these non-debt obligations can affect the cost of all forms of capital, including equity.

Q. DID YOU RELY ON A SINGLE METHOD TO ESTIMATE THE COST OF EQUITY FOR LONE STAR?

A. No. In my opinion, no single method or model should be relied on by itself to determine a utility's cost of common equity because no single approach can be regarded as definitive. Therefore, I applied both the DCF and CAPM methods to estimate the cost of common equity, and considered the results of the risk premium and expected earnings approaches. In my opinion, comparing estimates produced by one method with those produced by other approaches ensures that the estimates of the cost of common equity pass fundamental tests of reasonableness and economic logic.

B. Comparable Risk Proxy Groups

Q. HOW DID YOU IMPLEMENT THESE QUANTITATIVE METHODS TO ESTIMATE THE COST OF COMMON EQUITY FOR LONE STAR?

A. Application of the DCF model and other quantitative methods to estimate the cost of common equity requires observable capital market data, such as stock prices. Moreover, even for a firm with publicly traded stock, the cost of common equity can only be estimated. As a result, applying quantitative models using observable market data only produces an estimate that inherently includes some degree of observation error. Thus, the accepted approach to increase confidence in the results is to apply the DCF model and other quantitative methods to a proxy group of publicly traded companies that investors regard as risk-comparable.

Q. WHAT SPECIFIC PROXY GROUP OF UTILITIES DID YOU RELY ON FOR YOUR ANALYSIS?

A. In order to reflect the risks and prospects associated with Lone Star's jurisdictional utility operations, my DCF analyses focused on a reference group of other utilities composed of those companies classified by Value Line as electric utilities with: (1) an S&P corporate credit rating of "BBB-" to "BBB+"; (2) a Value Line Safety Rank of "2", or "3"; (3) a Value Line Financial Strength Rating of "B" to "A"; and (4) a market capitalization of approximately $1.8 billion or greater. In addition, I eliminated four utilities that otherwise would have been in the proxy group, but are not appropriate for inclusion because they are currently involved in a major merger or acquisition. These criteria resulted in a proxy group composed of twenty-six companies, which I will refer to as the "Utility Proxy Group."

Q. WHAT OTHER PROXY GROUP DID YOU CONSIDER IN EVALUATING A FAIR ROE FOR LONE STAR?

A. Under the regulatory standards established by *Hope* and *Bluefield*, the salient criterion in establishing a meaningful benchmark to evaluate a fair ROE is relative risk, not the particular business activity or degree of regulation. With regulation taking the place of competitive market forces, required returns for utilities should be in line with those of non-utility firms of comparable risk operating under the constraints of free competition. Consistent with this accepted regulatory standard, I also applied the DCF model to a reference group of low-risk risk companies in

the non-utility sectors of the economy. I refer to this group as the "Non-Utility Proxy Group."

Q. DO UTILITIES HAVE TO COMPETE WITH NON-REGULATED FIRMS FOR CAPITAL?

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

Q. IS IT CONSISTENT WITH THE *BLUEFIELD* AND *HOPE* CASES TO CONSIDER REQUIRED RETURNS FOR NON-UTILITY COMPANIES?

A. Yes. Returns in the competitive sector of the economy form the very underpinning for utility ROEs because regulation purports to serve as a substitute for the actions of competitive markets. The Supreme Court has recognized that it is the degree of risk, not the nature of the business, which is relevant in evaluating an allowed ROE for a utility. The *Bluefield* case refers to "business undertakings