attended with comparable risks and uncertainties."[37] It does not restrict consideration to other utilities. Similarly, the *Hope* case states:

> By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks.[38]

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

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

Q. DOES CONSIDERATION OF THE RESULTS FOR THE NON-UTILITY PROXY GROUP MAKE THE ESTIMATION OF THE COST OF EQUITY USING THE DCF MODEL MORE RELIABLE?

A. Yes. The estimates of growth from the DCF model depend on analysts' forecasts. It is possible for utility growth rates to be distorted by short-term trends in the industry or the industry falling into favor or disfavor by analysts. The result of

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

such distortions would be to bias the DCF estimates for utilities. For example, Value Line observed that near-term growth rates understate the longer-term expectations for gas utilities:

> Natural Gas Utility stocks have fallen near the bottom of our Industry spectrum for Timeliness. Accordingly, short-term investors would probably do best to find a group with better prospects over the coming six to 12 months. Longer-term, we expect these businesses to rebound. An improved economic environment, coupled with stronger pricing, should boost results across this sector over the coming years.[39]

Because the Non-Utility Proxy Group includes low risk companies from many industries, it diversifies away any distortion that may be caused by the ebb and flow of enthusiasm for a particular sector.

Q. WHAT CRITERIA DID YOU APPLY TO DEVELOP THE NON-UTILITY PROXY GROUP?

A. My comparable risk proxy group of non-utility firms was composed of those U.S. companies followed by Value Line that: (1) pay common dividends; (2) have a Safety Rank of "1"; (3) have a Financial Strength Rating of "B++" or greater; (4) have a beta of 0.75 or less; and, (5) have investment grade credit ratings from S&P.

[39] The Value Line Investment Survey at 445 (Mar. 12, 2010).

Q. DO THESE CRITERIA PROVIDE OBJECTIVE EVIDENCE TO EVALUATE INVESTORS' RISK PERCEPTIONS?

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

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

Value Line is perhaps the most widely available source of investment advisory information, its Safety Rank provides useful guidance regarding the risk perceptions of investors.

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

Q. HOW DO THE OVERALL RISKS OF YOUR PROXY GROUPS COMPARE?

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

TABLE WEA-2
COMPARISON OF RISK INDICATORS

	S&P	Value Line		
	Credit Rating	Safety Rank	Financial Strength	Beta
Utility Proxy Group	BBB	3	B++	0.74
Non-Utility Proxy Group	A	1	A+	0.66

Q. WHAT DO THESE COMPARISONS INDICATE REGARDING THE RISKS THAT INVESTORS ASSOCIATE WITH THE FIRMS IN YOUR PROXY GROUPS?

A. While Lone Star is not currently followed by the major rating agencies, a "BBB" rating is consistent with the average credit standing in the electric utility industry, and is equivalent to the rating assigned to the only publicly traded, pure-play electric transmission company, ITC Holdings, Inc. In addition, a triple-B credit rating is also consistent with the benchmarks targeted by other new entrant transmission providers, such as Trans-Allegheny Interstate Line, Inc. (currently rated "BBB-"). Similarly, the average Value Line risk indicators for the Utility Proxy Group are indicative of those for a triple-B rated electric utility, and reflect the risks of the average firm in the industry. These criteria reflect objective, published indicators that incorporate consideration of a broad spectrum of risks, including financial and business position, relative size, and exposure to company-specific factors. Taken together, these objective measures support my reference to the Utility Proxy Group as the basis for estimating the ROE range of reasonableness for Lone Star.

While the impact of differences in regulation is reflected in objective risk measures, my analyses conservatively focus on a lower-risk group of non-utility firms. The 35 companies that make up the Non-Utility Proxy Group are representative of the pinnacle of corporate America. These firms, which include household names such as AT&T, Coca-Cola, Colgate-Palmolive, Johnson &

Johnson, and Wal-Mart – to name a few – have long corporate histories, well-established track records, and exceedingly conservative risk profiles. Many of these companies pay dividends on a par with utilities, with the average dividend yield for the group approaching 3%. Moreover, because of their significance and name recognition, these companies receive intense scrutiny by the investment community, which increases confidence that published growth estimates are representative of the consensus expectations reflected in common stock prices.

C. Discounted Cash Flow Analyses

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

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

equity, that investors implicitly used in bidding the stock to that price. Notationally, the general form of the DCF model is as follows:

$$P_0 = \frac{D_1}{(1+k_e)^1} + \frac{D_2}{(1+k_e)^2} + \cdots + \frac{D_t}{(1+k_e)^t} + \frac{P_t}{(1+k_e)^t}$$

where: P_0 = Current price per share;
P_t = Expected future price per share in period t;
D_t = Expected dividend per share in period t;
k_e = Cost of equity.

That is, the cost of equity is the discount rate that will equate the current price of a share of stock with the present value of all expected cash flows from the stock.

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

A. Rather than developing annual estimates of cash flows into perpetuity, the DCF model can be simplified to a "constant growth" form:[40]

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

where: g = Investors' long-term growth expectations.

The cost of equity (k_e) can be isolated by rearranging terms within the equation:

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

[40] The constant growth DCF model is dependent on a number of strict assumptions, which in practice are never strictly met. These include a constant growth rate for both dividends and earnings; a stable dividend payout ratio; the discount rate exceeds the growth rate; a constant growth rate for book value and price; a constant earned rate of return on book value; no sales of stock at a price above or below book value; a constant price-earnings ratio; a constant discount rate (*i.e.*, no changes in risk or interest rate levels and a flat yield curve); and all of the above extend to infinity.

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

Q. WHAT FORM OF THE DCF MODEL DID YOU USE?

A. I applied the constant growth DCF model to estimate the cost of equity for Lone Star, which is the form of the model most commonly relied on to establish the cost of equity for traditional regulated utilities and the method most often referenced by regulators.

Q. HOW IS THE CONSTANT GROWTH FORM OF THE DCF MODEL TYPICALLY USED TO ESTIMATE THE COST OF EQUITY?

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

Q. HOW WAS THE DIVIDEND YIELD FOR THE UTILITY PROXY GROUP DETERMINED?

A. Estimates of dividends to be paid by each of these utilities over the next twelve months, obtained from Value Line, served as D_1. This annual dividend was then divided by the average stock price for the 30 days ended November 30, 2011 to arrive at the expected dividend yield for each utility. The expected dividends, stock prices, and resulting dividend yields for the firms in the utility proxy group are presented on page 1 of Exhibit WEA-3. As shown there, dividend yields for the firms in the Utility Proxy Group ranged from 1.9% to 5.6%.

Q. WHAT IS THE NEXT STEP IN APPLYING THE CONSTANT GROWTH DCF MODEL?

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

Q. ARE HISTORICAL GROWTH RATES LIKELY TO BE REPRESENTATIVE OF INVESTORS' EXPECTATIONS FOR ELECTRIC UTILITIES?

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

Q. DO THE GROWTH RATE PROJECTIONS OF SECURITY ANALYSTS CONSIDER HISTORICAL TRENDS?

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

Q. DID YOU CONSIDER EXPECTED DIVIDEND GROWTH RATES IN APPLYING THE DCF MODEL?

A. Yes. As noted earlier, the DCF model is predicated on the assumption that investors arrive at the price they are willing to pay for a particular common stock by discounting future cash flows at their required rate of return. Growth rates in dividends per share ("DPS") are frequently used as a basis to apply the constant growth DCF model, and my DCF analysis for the Utility Proxy Group incorporated the DPS growth projections published by Value Line. The projected DPS growth rates for each of the firms in the Utility Proxy Group are shown on page 2 of Exhibit WEA-3.

Q. ARE DPS GROWTH RATES LIKELY TO PROVIDE A MEANINGFUL GUIDE TO INVESTORS' GROWTH EXPECTATIONS FOR UTILITIES?

A. No. While the DCF model is technically concerned with growth in dividend cash flows, implementation of this DCF model is solely concerned with replicating the forward-looking evaluation of real-world investors. In the case of utilities, dividend growth rates are not likely to provide a meaningful guide to investors' current growth expectations. This is because utilities have significantly altered their dividend policies in response to more accentuated business risks in the industry.[41] As a result of this trend towards a more conservative payout ratio,

[41] For example, the payout ratio for electric utilities fell from approximately 80% historically to on the order of 60%. The Value Line Investment Survey (Sep. 15, 1995 at 161, Feb. 4, 2011 at 2237).

dividend growth in the utility industry has remained largely stagnant as utilities conserve financial resources to provide a hedge against heightened uncertainties.

Q. WHAT ARE INVESTORS MOST LIKELY TO CONSIDER IN DEVELOPING THEIR LONG-TERM GROWTH EXPECTATIONS?

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

Q. WHAT ARE SECURITY ANALYSTS CURRENTLY PROJECTING IN THE WAY OF GROWTH FOR THE FIRMS IN THE UTILITY PROXY GROUP?

A. The earnings growth projections for each of the firms in the Utility Proxy Group reported by Value Line, Thomson Reuters ("IBES"), and Zacks Investment Research ("Zacks") are displayed on page 2 of Exhibit WEA-3.[42]

Q. SOME ARGUE THAT ANALYSTS' ASSESSMENTS OF GROWTH RATES ARE BIASED. DO YOU BELIEVE THESE PROJECTIONS ARE INAPPROPRIATE FOR ESTIMATING INVESTORS' REQUIRED RETURN USING THE DCF MODEL?

A. No. In applying the DCF model to estimate the cost of common equity, the only relevant growth rate is the forward-looking expectations of investors that are captured in current stock prices. Investors, just like securities analysts and others in the investment community, do not know how the future will actually turn out. They can only make investment decisions based on their best estimate of what the future holds in the way of long-term growth for a particular stock, and securities prices are constantly adjusting to reflect their assessment of available information. Any claims that analysts' estimates are not relied upon by investors are illogical given the reality of a competitive market for investment advice. If financial analysts' forecasts do not add value to investors' decision making, then it is

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

irrational for investors to pay for these estimates. Similarly, those financial analysts who fail to provide reliable forecasts will lose out in competitive markets relative to those analysts whose forecasts investors find more credible. The reality that analyst estimates are routinely referenced in the financial media and in investment advisory publications (*e.g.,* Value Line) implies that investors use them as a basis for their expectations.

The continued success of investment services such as Thompson Reuters and Value Line, and the fact that projected growth rates from such sources are widely referenced, provides strong evidence that investors give considerable weight to analysts' earnings projections in forming their expectations for future growth. While the projections of securities analysts may be proven optimistic or pessimistic in hindsight, this is irrelevant in assessing the expected growth that investors have incorporated into current stock prices, and any bias in analysts' forecasts – whether pessimistic or optimistic – is similarly irrelevant if investors share the analysts' views. Earnings growth projections of security analysts provide the most frequently referenced guide to investors' views and are widely accepted in applying the DCF model. As explained in *New Regulatory Finance*:

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

correct is not an issue here, as long as they reflect widely held expectations.[43]

Q. HOW ELSE ARE INVESTORS' EXPECTATIONS OF FUTURE LONG-TERM GROWTH PROSPECTS OFTEN ESTIMATED WHEN APPLYING THE CONSTANT GROWTH DCF MODEL?

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

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

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

Q. WHAT IS THE PURPOSE OF THE "SV" TERM?

A. Under DCF theory, the "sv" factor is a component of the growth rate designed to capture the impact of issuing new common stock at a price above, or below, book value. When a company's stock price is greater than its book value per share, the per-share contribution in excess of book value associated with new stock issues will accrue to the current shareholders. This increase to the book value of existing shareholders leads to higher expected earnings and dividends, with the "sv" factor incorporating this additional growth component.

Q. WHAT GROWTH RATE DOES THE EARNINGS RETENTION METHOD SUGGEST FOR THE UTILITY PROXY GROUP?

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

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

Q. WHAT COST OF EQUITY ESTIMATES WERE IMPLIED FOR THE UTILITY PROXY GROUP USING THE DCF MODEL?

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

Q. IN EVALUATING THE RESULTS OF THE CONSTANT GROWTH DCF MODEL, IS IT APPROPRIATE TO ELIMINATE ESTIMATES THAT ARE EXTREME LOW OR HIGH OUTLIERS?

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

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

A. It is a basic economic principle that investors can be induced to hold more risky assets only if they expect to earn a return to compensate them for their risk bearing. As a result, the rate of return that investors require from a utility's common stock, the most junior and riskiest of its securities, must be considerably

higher than the yield offered by senior, long-term debt. Consistent with this principle, the DCF results must be adjusted to eliminate estimates that are determined to be extreme low outliers when compared against the yields available to investors from less risky utility bonds.

Q. WHAT DOES THIS TEST OF LOGIC IMPLY WITH RESPECT TO THE DCF RESULTS FOR THE UTILITY PROXY GROUP?

A. As noted earlier, the average S&P corporate credit rating for the Utility proxy Group is "BBB." Companies rated "BBB-", "BBB", and "BBB+" are all considered part of the triple-B rating category, with Moody's monthly yields on triple-B bonds averaging approximately 4.9% in November 2011.[44] It is inconceivable that investors are not requiring a substantially higher rate of return for holding common stock. Consistent with this principle, the DCF results for the Utility Proxy Group must be adjusted to eliminate estimates that are determined to be extreme low outliers when compared against the yields available to investors from less risky utility bonds.

Q. HAVE SIMILAR TESTS BEEN APPLIED BY REGULATORS?

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

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

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

> An adjustment to this data is appropriate in the case of PG&E's low-end return of 8.42 percent, which is comparable to the average Moody's "A" grade public utility bond yield of 8.06 percent, for October 1999. Because investors cannot be expected to purchase stock if debt, which has less risk than stock, yields essentially the same return, this low-end return cannot be considered reliable in this case.[45]

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

> [T]he 7.31 and 7.32 percent costs of equity for El Paso and Williams found by the ALJ are only 110 and 122 basis points above that average yield for public utility debt.[46]

The Commission upheld the opinion of Staff and the Administrative Law Judge that cost of equity estimates for these two proxy group companies "were too low to be credible."[47]

The practice of eliminating low-end outliers has been affirmed in numerous FERC proceedings,[48] and in its April 15, 2010 decision in *SoCal Edison*, FERC affirmed that, "it is reasonable to exclude any company whose low-end ROE fails to exceed the average bond yield by about 100 basis points or more."[49]

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

Q. WHAT ELSE SHOULD BE CONSIDERED IN EVALUATING DCF ESTIMATES AT THE LOW END OF THE RANGE?

A. As indicated earlier, while corporate bond yields have declined substantially as the worst of the financial crisis has abated, it is generally expected that long-term interest rates will rise as the recession ends and the economy returns to a more normal pattern of growth. As shown in Table WEA-3 below, forecasts of IHS Global Insight and the EIA imply an average triple-B bond yield of approximately 6.8 over the period 2012-2015:

TABLE WEA-3
IMPLIED UTILITY BOND YIELDS

	2012-15
Projected AA Utility Yield	
IHS Global Insight (a)	5.37%
EIA (b)	6.57%
Average	5.97%
Current BBB - AA Yield Spread (c)	0.83%
Implied Triple-B Utility Yield	**6.80%**

(a) IHS Global Insight, *U.S. Economic Outlook* at 25 (Dec. 2011).
(b) Energy Information Administration, *Annual Energy Outlook 2011* (Apr. 26, 2011).
(c) Based on monthly average bond yields for the six-month period June - November 2011.

The increase in debt yields anticipated by IHS Global Insight and EIA is also supported by the widely-referenced Blue Chip Financial Forecasts, which projects that yields on corporate bonds will climb more than 100 basis points through the period 2013-2017.[50]

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

Q. WHAT DOES THIS TEST OF LOGIC IMPLY WITH RESPECT TO THE DCF ESTIMATES BASED ON PROJECTED GROWTH IN DPS?

A. As highlighted on page 3 of Exhibit WEA-3, eleven of the individual DCF estimates based on Value Line's projected DPS growth rates ranged from 1.8% to 6.6%. In light of the risk-return tradeoff principle and the test applied in *SoCal Edison*, it is inconceivable that investors are not requiring a substantially higher rate of return for holding common stock, which is the riskiest of a utility's securities. As a result, consistent with the test of economic logic applied by FERC and the upward trend expected for utility bond yields, these values provide little guidance as to the returns investors require from utility common stocks and should be excluded.

Q. DID YOU APPLY SIMILAR TESTS OF ECONOMIC LOGIC TO THE DCF ESTIMATES BASED ON EPS AND BR+SV GROWTH PROJECTIONS?

A. Yes. I applied the same approach to evaluate low-end DCF cost of equity estimates produced using projected EPS and br+sv growth rates, with illogical estimates being highlighted on page 3 of Exhibit WEA-3.

Q. DO YOU ALSO RECOMMEND EXCLUDING ESTIMATES AT THE HIGH END OF THE RANGE OF DCF RESULTS?

A. Yes. The upper end of the cost of common equity range produced by the DCF analysis presented on page 3 of Exhibit WEA-3 was set by cost of equity

estimates of 19.9%, 18.3%, and 17.0%. When compared with the balance of the remaining estimates, these values are implausible and should be excluded in evaluating the results of the DCF model for the Utility Proxy Group. This is also consistent with the precedent adopted by FERC, which has established that estimates found to be "extreme outliers" should be disregarded in interpreting the results of the DCF model.[51]

Q. IS THERE ANY JUSTIFICATION TO ELIMINATE OTHER HIGH-END DCF VALUES FOR THE UTILITY PROXY GROUP?

A. No. While certain high-end DCF values may exceed expectations for most electric utilities, the ten remaining low-end estimates that fall below 7.5% are assuredly far below investors' required rate of return. Taken together and considered along with the balance of the DCF estimates, these values provide a reasonable basis on which to evaluate investors' required rate of return.

Q. WHAT COST OF COMMON EQUITY ESTIMATES ARE IMPLIED BY YOUR DCF RESULTS FOR THE UTILITY PROXY GROUP?

A. As shown on Exhibit WEA-3 and summarized in Table WEA-4, below, after eliminating illogical low and high-end values, application of the constant growth DCF model resulted in cost of common equity estimates ranging from 9.4% to 10.7%:

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

TABLE WEA-4
DCF RESULTS –UTILITY PROXY GROUP

Growth Rate	Average Cost of Equity
DPS	9.4%
EPS	
Value Line	10.7%
IBES	9.7%
Zacks	10.0%
br+sv	9.5%

Q. WHAT WERE THE RESULTS OF YOUR DCF ANALYSIS FOR THE NON-UTILITY PROXY GROUP?

A. I applied the DCF model to the Non-Utility Proxy Group in exactly the same manner described earlier for the proxy group of utilities. The results of my DCF analysis for the Non-Utility Proxy Group are presented in Exhibit WEA-5, with the sustainable, "br+sv" growth rates being developed on Exhibit WEA-6. As shown on Exhibit WEA-5 and summarized in Table WEA-5, below, after eliminating illogical low- and high-end values, application of the constant growth DCF model resulted in cost of common equity estimates ranging from 10.6% to 12.0%:

TABLE WEA-5
DCF RESULTS – NON-UTILITY PROXY GROUP

Growth Rate	Average Cost of Equity
DPS	10.6%
EPS	
Value Line	11.7%
IBES	11.7%
Zacks	12.0%
br+sv	11.8%

Q. DO THE HIGHER DCF ESTIMATES FOR THE NON-UTILITY PROXY GROUP DEMONSTRATE THAT THE RISKS OF THESE COMPANIES ARE GREATER THAN LONE STAR?

A. No. While we are accustomed to associating higher risk with higher returns, DCF estimates of investors' required rate of return do not always produce that result. Performing the DCF calculations for the Non-Utility Proxy Group produced ROE estimates that are higher than the DCF estimates for the Utility Proxy Group, even though the risks that investors associate with the group of non-utility firms – as measured by S&P's credit ratings and Value Line's Safety Rank, Financial Strength, and Beta – are lower than the risks investors associate with the Utility Proxy Group. The actual cost of equity is unobservable, and DCF estimates may depart from these values because investors' expectations may not be captured by the inputs to the ROE model, particularly the assumed growth rate. Nevertheless, regulators have relied upon DCF calculations for years in evaluating a fair ROE. The divergence between the DCF estimates for the Utility and Non-Utility Proxy Groups suggests that both should be considered to ensure a balanced end-result.

D. <u>Capital Asset Pricing Model</u>

Q. PLEASE DESCRIBE THE CAPM.

A. The CAPM is generally considered to be the most widely referenced method for estimating the cost of equity both among academicians and professional practitioners, with the pioneering researchers of this method receiving the Nobel Prize in 1990. The CAPM is a theory of market equilibrium that measures risk

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

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

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

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

Q. HOW DID YOU APPLY THE CAPM TO ESTIMATE THE COST OF EQUITY?

A. Application of the CAPM to the Utility Proxy Group based on a forward-looking estimate for investors' required rate of return from common stocks is presented on Exhibit WEA-7. In order to capture the expectations of today's investors in current capital markets, the expected market rate of return was estimated by conducting a DCF analysis on the dividend paying firms in the S&P 500 Composite Index.

The dividend yield for each firm was obtained from Value Line, and the growth rate was equal to the consensus earnings growth projections for each firm published by IBES, with each firm's dividend yield and growth rate being weighted by its proportionate share of total market value. Based on the weighted average of the projections for the 370 individual firms, current estimates imply an average growth rate over the next five years of 11.0%. Combining this average growth rate with a year-ahead dividend yield of 2.5% results in a current cost of common equity estimate for the market as a whole (R_m) of approximately 13.5%. Subtracting a 3.0% risk-free rate based on the average yield on 30-year Treasury bonds produced a market equity risk premium of 10.5%.

Q. WHAT WAS THE SOURCE OF THE BETA VALUES YOU USED TO APPLY THE CAPM?

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

> Value Line is the largest and most widely circulated independent investment advisory service, and influences the expectations of a large number of institutional and individual investors. ... Value Line betas are computed on a theoretically sound basis using a broadly based market index, and they are adjusted for the regression tendency of betas to converge to 1.00.[52]

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

Q. WHAT ELSE SHOULD BE CONSIDERED IN APPLYING THE CAPM?

A. As explained by *Morningstar*:

> One of the most remarkable discoveries of modern finance is that of a relationship between firm size and return. The relationship cuts across the entire size spectrum but is most evident among smaller companies, which have higher returns on average than larger ones.[53]

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

According to the CAPM, the expected return on a security should consist of the riskless rate, plus a premium to compensate for the systematic risk of the particular security. The degree of systematic risk is represented by the beta coefficient. The need for the size adjustment arises because differences in investors' required rates of return that are related to firm size are not fully captured by beta. To account for this, Morningstar has developed size premiums that need to be added to the theoretical CAPM cost of equity estimates to account for the level of a firm's market capitalization in determining the CAPM cost of equity.[54] Accordingly, my CAPM analyses incorporated an adjustment to recognize the impact of size distinctions, as measured by the average market capitalization for the respective proxy groups.

[53] *Morningstar*, "Ibbotson SBBI 2011 Valuation Yearbook," at p. 83 (footnote omitted).
[54] *Id.* at Table 7-5.

Q. WHAT COST OF EQUITY ESTIMATE WAS INDICATED FOR THE UTILITY PROXY GROUP BASED ON THIS FORWARD-LOOKING APPLICATION OF THE CAPM?

A. The average market capitalization of the Utility Proxy Group is $8.0 billion. Based on data from *Morningstar*, this means that the theoretical CAPM cost of equity estimate must be increased by 81 basis points to account for the industry group's relative size. As shown on page 1 of Exhibit WEA-7, adjusting the 10.8% theoretical CAPM result to incorporate this size adjustment results in an average indicated cost of common equity of 11.6%.

Q. IS IT APPROPRIATE TO CONSIDER ANTICIPATED CAPITAL MARKET CHANGES IN APPLYING THE CAPM?

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

Q. WHAT COST OF EQUITY WAS PRODUCED BY THE CAPM AFTER INCORPORATING FORECASTED BOND YIELDS?

A. As shown on page 2 of Exhibit WEA-7, incorporating a forecasted yield for 2012-2015 resulted in a theoretical CAPM estimate of approximately 11.2% for the Utility Proxy Group, and implied a cost of equity of 12.0% after accounting for the impact of firm size.

Q. SHOULD THE CAPM APPROACH BE APPLIED USING HISTORICAL RATES OF RETURN?

A. No. The CAPM cost of common equity estimate is calibrated from investors' required risk premium between Treasury bonds and common stocks. In response to heightened uncertainties, investors have repeatedly sought a safe haven in U.S. government bonds and this "flight to safety" has pushed Treasury yields significantly lower while yield spreads for corporate debt have widened. This distortion not only impacts the absolute level of the CAPM cost of equity estimate, but it affects estimated risk premiums. Economic logic would suggest that investors' required risk premium for common stocks over Treasury bonds has also increased.

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

it is today. This incongruity between investors' current expectations and historical risk premiums is particularly relevant during periods of heightened uncertainty and rapidly changing capital market conditions, such as those experienced recently.[55]

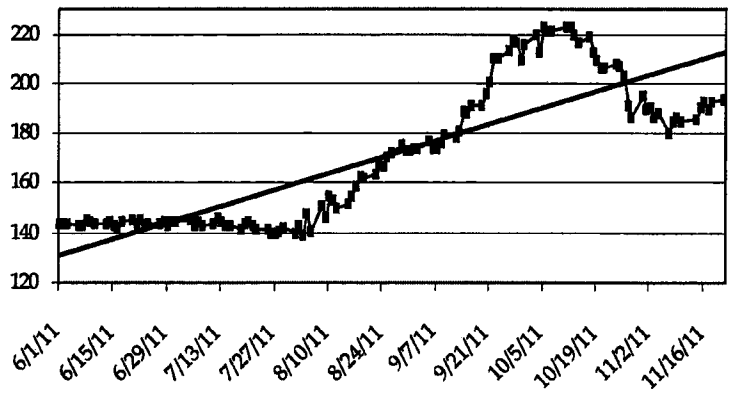
Q. HAS THE FEDERAL RESERVE CONTINUED TO PURSUE A POLICY OF ACTIVELY MANAGING LONG-TERM GOVERNMENT BOND YIELDS?

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

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

[55] FERC has previously rejected CAPM methodologies based on historical data because whatever historical relationships existed between debt and equity securities may no longer hold. *See Orange & Rockland Utils., Inc.*, 40 F.E.R.C. P63,053, at pp. 65,208 -09 (1987), aff'd, Opinion No. 314, 44 F.E.R.C. P61,253 at 65,208.

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



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

> Standard & Poor's U.S. speculative-grade composite spread, which measures the extra yield above U.S. Treasury bonds that investors demand to hold the bonds of riskier companies, widened by 63% to 781 basis points (bps) from April 18, 2011, to Sept. 30, 2011. This sharp expansion reflected the bond market's increasing aversion to credit risk in an uncertain and riskier environment. ... During periods of stress, correlations frequently increase among risky asset classes such as the relationship between the return on speculative-grade bonds and the return from equities.[56]

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

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

by investors, further undermine any reliance on historical studies to apply the CAPM.

E. Risk Premium Approach

Q. BRIEFLY DESCRIBE THE RISK PREMIUM METHOD.

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

Q. HOW DID YOU IMPLEMENT THE RISK PREMIUM METHOD?

A. I based my estimates of equity risk premiums for electric utilities on surveys of previously authorized rates of return on common equity. Authorized returns presumably reflect regulatory commissions' best estimates of the cost of equity, however determined, at the time they issued their final order. Such returns should represent a balanced and impartial outcome that considers the need to maintain a utility's financial integrity and ability to attract capital. Moreover, allowed returns are an important consideration for investors and have the potential to influence

other observable investment parameters, including credit ratings and borrowing costs. Thus, this data provides a logical and frequently referenced basis for estimating equity risk premiums for regulated utilities.

Q. HOW DID YOU IMPLEMENT THE RISK PREMIUM APPROACH USING SURVEYS OF ALLOWED RATES OF RETURN?

A. Surveys of previously authorized rates of return on common equity are frequently referenced as the basis for estimating equity risk premiums. The rates of return on common equity authorized utilities by regulatory commissions across the U.S. are compiled by Regulatory Research Associates and published in its *Regulatory Focus* report. In Exhibit WEA-8, the average yield on public utility bonds is subtracted from the average allowed rate of return on common equity for electric utilities to calculate equity risk premiums for each year between 1974 and 2010. Over this 37-year period, these equity risk premiums for electric utilities averaged 3.36%, and the yield on public utility bonds averaged 9.01%.

Q. IS THERE ANY CAPITAL MARKET RELATIONSHIPS THAT MUST BE CONSIDERED WHEN IMPLEMENTING THE RISK PREMIUM METHOD?

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

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

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

Q. WHAT COST OF EQUITY IS IMPLIED BY SURVEYS OF ALLOWED RATES OF RETURN ON EQUITY?

A. Based on the regression output between the interest rates and equity risk premiums displayed on page 4 of Exhibit WEA-8, the equity risk premium for electric utilities increased approximately 41 basis points for each percentage point drop in the yield on average public utility bonds. As illustrated on page 1 of Exhibit WEA-8, with the yield on average public utility bonds in November 2011 being 4.37%, this implied a current equity risk premium of 5.26% for electric utilities. Adding this equity risk premium to the yield on triple-B utility bonds of 4.93% produces a current cost of equity of approximately 10.2%.

Q. WHAT COST OF EQUITY WAS PRODUCED BY THE RISK PREMIUM APPROACH AFTER INCORPORATING FORECASTED BOND YIELDS?

A. As shown on page 2 of Exhibit WEA-8, incorporating a forecasted yield for 2012-2015 and adjusting for changes in interest rates since the study period implied an equity risk premium of 4.45% for electric utilities. Adding this equity risk premium to the average implied yield on triple-B public utility bonds for 2012-2015 of 6.80% resulted in an implied cost of equity of approximately 11.3%.

F. Expected Earnings Approach

Q. WHAT OTHER BENCHMARKS DID YOU DEVELOP TO EVALUATE THE ROE FOR LONE STAR?

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

Q. WHAT ECONOMIC PREMISE UNDERLIES THE EXPECTED EARNINGS APPROACH?

A. The simple, but powerful concept underlying the expected earnings approach is that investors compare each investment alternative with the next best opportunity. If the utility is unable to offer a return similar to that available from other opportunities of comparable risk, investors will become unwilling to supply the capital on reasonable terms. For existing investors, denying the utility an opportunity to earn what is available from other similar risk alternatives prevents them from earning their opportunity cost of capital. In this situation the government is effectively taking the value of investors' capital without adequate compensation.

Q. HOW IS THE COMPARISON OF OPPORTUNITY COSTS TYPICALLY IMPLEMENTED?

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

apples" comparison. My application of the expected earnings approach was focused exclusively on forward-looking projections, not historical data.

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

Q. WHAT RATES OF RETURN ON EQUITY ARE INDICATED FOR ELECTRIC UTILITIES BASED ON THE EXPECTED EARNINGS APPROACH?

A. Value Line reports that its analysts anticipate an average rate of return on common equity for the electric utility industry of 10.5% over its forecast horizon.[57]

[57] The Value Line Investment Survey at 137 (Nov. 25, 2011).

Meanwhile, for the firms in the Utility Proxy Group specifically, the returns on common equity projected by Value Line over its forecast horizon are shown on Exhibit WEA-9. Consistent with the rationale underlying the development of the br+sv growth rates, these year-end values were converted to average returns using the same adjustment factor discussed earlier and developed on Exhibit WEA-4. As shown on Exhibit WEA-9, Value Line's projections for the Utility Proxy Group suggest an average ROE of 10.7% after eliminating outliers.

G. Flotation Costs

Q. WHAT OTHER CONSIDERATIONS ARE RELEVANT IN DETERMINING THE ROE FOR LONE STAR?

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

Q. IS THERE AN ESTABLISHED MECHANISM FOR A UTILITY TO RECOGNIZE EQUITY ISSUANCE COSTS?

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

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

A. While there are a number of ways in which a flotation cost adjustment can be calculated, one of the most common methods used to account for flotation costs in

regulatory proceedings is to apply an average flotation-cost percentage to a utility's dividend yield. Based on a review of the finance literature, New Regulatory Finance concluded:

> The flotation cost allowance requires an estimated adjustment to the return on equity of approximately 5% to 10%, depending on the size and risk of the issue.[58]

Alternatively, a study of data from Morgan Stanley regarding issuance costs associated with utility common stock issuances suggests an average flotation cost percentage of 3.6%.[59]

Issuance costs are a legitimate consideration in setting the ROE for a utility, and applying these expense percentages to a representative dividend yield for a utility of 4.5% implies a flotation cost adjustment on the order of 15 to 45 basis points.

VI. ROE RECOMMENDATION

Q. WHY IS IT IMPORTANT TO ALLOW LONE STAR AN ADEQUATE ROE?

A. Given the social and economic importance of the utility industry, it is essential to maintain reliable and cost effective service to all consumers. While it is customers that ultimately realize the benefits of increased investment in transmission infrastructure, a utility's ability to fulfill its mandate can be

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

compromised if it lacks the necessary financial wherewithal or is unable to earn a return sufficient to attract capital.

Q. PLEASE SUMMARIZE THE RESULTS OF YOUR ANALYSES.

A. The cost of equity estimates produced by the analyses described in my testimony are summarized in Table WEA-4, below:

TABLE WEA-4
SUMMARY OF COST OF EQUITY ESTIMATES

DCF	Utility	Non-Utility
Dividend Growth	9.4%	10.6%
Earnings Growth		
Value Line	10.7%	11.7%
IBES	9.7%	11.7%
Zacks	10.0%	12.0%
br + sv	9.5%	11.8%
CAPM - Current Bond Yield		
Unadjusted	10.8%	
Size Adjusted	11.6%	
CAPM - Projected Bond Yield		
Unadjusted	11.2%	
Size Adjusted	12.0%	
Utility Risk Premium		
Current Bond Yields	10.2%	
Projected Bond Yields	11.3%	
Expected Earnings		
Value Line 2014-16	10.5%	
Utility Proxy Group	10.7%	

Based on my assessment of the relative strengths and weaknesses inherent in each method, and conservatively giving less emphasis to the upper- and lower-most boundaries of the range of results, I concluded that the cost of common equity indicated by my analyses is in the 10.4% to 11.4% range. After incorporating a minimal adjustment for flotation costs of 15 basis points to my "bare bones" cost

of equity range, I concluded that my analyses indicate a fair ROE in the 10.55% to 11.55% range.

Q. GIVEN THE RESULTS OF YOUR EVALUATION, WHAT IS YOUR CONCLUSION REGARDING A FAIR ROE FOR LONE STAR?

A. Based on my assessment of the relative strengths and weaknesses inherent in the alternative results, it is my opinion that an 11.0% ROE is reasonable and conservative for Lone Star.

Apart from the results of these quantitative methods, it is crucial to recognize the importance of maintaining a strong financial position so that Lone Star remains prepared to respond to unforeseen events that may materialize in the future – an imperative which is reinforced by recent capital market conditions. My conclusions are supported by the fact that current cost of capital estimates are likely to understate investors' requirements at the time the outcome of this proceeding becomes effective and beyond. Coupled with the need to provide an ROE that supports Lone Star's credit standing while funding substantial investments in utility infrastructure, these considerations indicate that an 11.0% ROE is reasonable and appropriate.

Q. IN EVALUATING A FAIR ROE, IS IT APPROPRIATE TO CONSIDER THE SPECIFIC EXPOSURES FACED BY LONE STAR?

A. Yes. The challenges posed by an increasingly complex marketplace heighten the uncertainties associated with transmission operations while requiring the commitment of significant new capital investment to maintain and enhance service capabilities. As discussed earlier and in the testimony of Lone Star's witnesses, the Company will face complexities and risks that distinguish this project from routine transmission investments. Lone Star's mission is to support the operation and development of a broad-based transmission system, strengthen the network and enhance flexibility, and thereby facilitate access to renewable resources, continued reliability, and an effective wholesale power market.

While new backbone transmission infrastructure, such as the CREZ transmission project, can act as a catalyst for effective power markets, utilities must be provided adequate incentives to overcome obstacles to investment and compete for capital with other opportunities of similar risk. Given the societal benefits of effective grid operations, and the significant new investment in transmission infrastructure that is generally deemed necessary to meet economic and reliability needs, an ROE for Lone Star's investment in the CREZ transmission project at the midpoint of my reasonable range is conservative.

VII. CAPITAL STRUCTURE

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

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

Q. WHAT CAPITAL STRUCTURE IS LONE STAR PROPOSING?

A. As summarized in the testimony of Mr. Portales, Lone Star is proposing a capital structure composed of 52% common equity and 48% debt.

Q. HOW DOES THIS COMPARE WITH COMMON EQUITY RATIOS MAINTAINED BY THE PROXY GROUP?

A. As shown on Exhibit WEA-10, common equity ratios for the individual firms in the Utility Proxy Group ranged from a low of 25.3% to a high of 53.4% at year-end 2010, with the average being 45.1%. Meanwhile, Value Line's three-to-five year forecast indicates an average common equity ratio of 48.4% for the Utility Proxy Group, with the individual equity ratios ranging from 31.5% to 58.0%.

Q. WHAT CAPITALIZATION RATIOS DO OTHER ELECTRIC UTILITY OPERATING COMPANIES MAINTAIN?

A. Exhibit WEA-11 displays capital structure data at year-end 2010 for the group of electric utility operating companies owned by the firms in the Utility Proxy Group used to estimate the cost of equity. As shown there, common equity ratios for these electric utilities ranged from 26.5% to 62.9% and averaged 50.7%.

Q. WHAT OTHER BENCHMARKS ARE RELEVANT IN ASSESSING LONE STAR'S CAPITAL STRUCTURE?

A. To be able to raise capital, companies must pay returns that are competitive at the current market prices of their securities, not the embedded book value of the mix of stocks and bonds. As a result, the market value capitalization for the firms in the Utility Proxy Group also serves as a benchmark in evaluating Lone Star's capital structure.

As shown on Exhibit WEA-12, at year-end 2010, the market value capitalization for the firms in the Utility Proxy Group implied an average common equity ratio of 53.6%, or 54.6% based on Value Line's projections for its 2014-16 forecast horizon.

Q. WHAT IMPLICATION DOES THE INCREASING RISK OF THE INDUSTRY HAVE FOR THE CAPITAL STRUCTURES MAINTAINED BY UTILITIES?

A. A more conservative financial profile, in the form of a higher common equity ratio, is consistent with increasing uncertainties and the need to maintain the continuous access to capital that is required to fund operations and necessary system investment, even during times of adverse capital market conditions. Moody's has repeatedly warned investors of the risks associated with debt leverage and fixed obligations and advised utilities not to squander the opportunity to strengthen the balance sheet as a buffer against future uncertainties.[60] As Moody's concluded:

> From a credit perspective, we believe a strong balance sheet coupled with abundant sources of liquidity represents one of the best defenses against business and operating risk and potential negative ratings actions.[61]

Similarly, S&P noted that, "we generally consider a debt to capital level of 50% or greater to be aggressive or highly leveraged for utilities."[62] Fitch affirmed that it expects regulated utilities to employ "a judicious mix of debt and equity to finance high levels of planned investments."[63] More recently, Moody's affirmed

[60] Moody's Investors Service, "Storm Clouds Gathering on the Horizon for the North American Electric Utility Sector," *Special Comment* (Aug. 2007); "U.S. Electric Utility Sector," *Industry Outlook* (Jan. 2008).
[61] Moody's Investors Service, "U.S. Electric Utilities Face Challenges Beyond Near-Term," *Industry Outlook* (Jan. 2010).
[62] Standard & Poor's Corporation, "Ratings Roundup: U.S. Electric Utility Sector Maintained Strong Credit Quality In A Gloomy 2009," *RatingsDirect* (Jan. 26, 2010).
[63] Fitch Ratings Ltd., "U.S. Utilities, Power, and Gas 2010 Outlook," *Global Power North America Special Report* (Dec. 4, 2009).

that it expects regulated utilities to strengthen their balance sheets in order "to prepare for more challenging business conditions."[64]

These concerns are magnified for a new entrant transmission provider such as Lone Star. As S&P noted, "Juggling construction costs and delays can require companies to have strong enough balance sheets and sufficient liquidity to withstand start-up periods."[65] Similarly, in approving a capital structure consisting of 60% common equity in *Green Power Express*,[66] FERC noted the importance of maintaining access to capital, especially for a utility with no operating history. As FERC concluded:

> Green Power will operate as a start-up, independent transmission company and will have no revenues beyond those received from operation of the Project. Moreover, given the estimated cost of its Project, Green Power will need to raise significant levels of new debt and equity. Maintenance of an investment grade credit rating during financing will allow Green Power to access a broader base of investors and ultimately obtain financing at a reasonable cost, which should lower the overall cost of capital.[67]

Q. WHAT DID YOU CONCLUDE REGARDING THE REASONABLENESS OF LONE STAR'S REQUESTED CAPITAL STRUCTURE?

A. Based on my evaluation, I concluded that the 52% common equity ratio requested by Lone Star represents a reasonable mix of capital sources from which to

[64] Moody's Investors Service, "U.S. Electric Utilities: Uncertain Times Ahead; Strengthening Balance Sheets Now Would Protect Credit," *Special Comment* (Oct. 28, 2010).
[65] Standard & Poor's Corporation, "Federal Policies Are Buoying Transmission Spending For U.S. Electric Utilities," *RatingsXpress* (May 10, 2011).
[66] *Green Power Express LP*, 127 FERC ¶ 61,031 (2009).
[67] *Id.* at P 74.

calculate the Company's overall rate of return. Although this common equity ratio is higher than the historical and projected averages maintained by the Utility Proxy Group, it falls within the range of capitalizations maintained by these utilities, and is consistent with the trend towards the lower financial leverage expected for the industry. A 52% equity ratio is also in line with the capitalizations maintained by electric utility operating companies, and falls below the average capitalization for the Utility Proxy Group based on market values.

Also, while industry averages provide one benchmark for comparison, Lone Star's capitalization should reflect the special risks and challenges inherent in constructing this significant new transmission infrastructure, including the scope of the project and its specific exposures and needs to access the capital markets. Each firm must select its capitalization based on the risks and prospects it faces, as well as its specific needs to access the capital markets. A public utility with an obligation to serve must maintain ready access to capital under reasonable terms so that it can meet the service requirements of its customers. The need for access becomes even more important when the company has capital requirements over a period of years, and financing must be continuously available, even during unfavorable capital market conditions.

Finally, Lone Star's capital structure will provide it with financial flexibility. Financial flexibility plays a crucial role in ensuring the wherewithal to meet the needs of customers, and utilities with higher leverage may be foreclosed from

additional borrowing, especially during times of stress. The reasonableness of the Company's capital structure is reinforced by the ongoing uncertainties associated with the electric power industry, 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.

Q. WHAT WOULD BE THE IMPLICATIONS OF ADOPTING A CAPITAL STRUCTURE WITH A LOWER COMMON EQUITY RATIO?

A. Adopting a capital structure with a common equity ratio below the 52% requested by Lone Star would imply greater leverage and higher financial risks for investors. As discussed earlier, my recommended 11.0% ROE for Lone Star is a conservative estimate of investors' required rate of return that considers the risks and exposures faced by the Company, along with a requested capital structure that reflects these realities. Because a downward adjustment to Lone Star's requested equity ratio would imply an increase in financial risk, it would also warrant an ROE above the middle of my 10.55% to 11.55% ROE range.

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

A. Yes, it does.

STATE OF TEXAS §
§
COUNTY OF TRAVIS §

AFFIDAVIT OF WILLIAM E. AVERA

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

1. "My name is William E. Avera. 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 President of FINCAP, Inc.

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.

William E. Avera

SUBSCRIBED AND SWORN TO BEFORE ME by the said William E. Avera this 19th day of December, 2011.

Notary Public, State of Texas

ADRIEN MCKENZIE
Notary Public
STATE OF TEXAS
My Comm. Exp. Jan. 10, 2015