DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE LEGAL OPERATIONS AGENCY

July 12, 2013

USAF Utility Law Field Support Center
139 Barnes Drive
Tyndall AFB FL 32403

Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 130040-EI; Pre-Filed Direct Testimony and Exhibits

Pursuant to Order No. PSC-130040-EI, on behalf of the Federal Executive Agencies, I am enclosing for filing in the above docket an original and 15 copies of the following witnesses' pre-filed direct testimony and exhibit:

Mike Gorman

Please let me know if you have any questions or concerns regarding these documents.

Sincerely,

GREGORY J. FIKE, Lt Col, USAF
Chief

Attachment: cc Counsel for Parties of Record

COM 5
AFD 1
APA 1
ECO 6
ENG
GCL 1
IDM
TEL
CLK 1-Ct Rep

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and foregoing copy of THE FEDERAL EXECUTIVE AGENCIES' DIRECT TESTIMONY AND EXHIBITS FOR WITNESS MIKE GORMAN has been furnished by electronic mail to all the parties referenced below on this 12th day of July, 2013. An additional hard copy was also provided to the following individuals: J.R. Kelly/P. Christensen and Paula K. Brown.

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By: s/*Gregory J. Fike*
Gregory J. Fike, Lt Col, USAF

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition for Rate Increase by Tampa Electric Company	))))	**Docket No. 130040-EI**

Direct Testimony and Exhibits of

Michael P. Gorman

On behalf of

Federal Executive Agencies

July 15, 2013

BRUBAKER & ASSOCIATES, INC.

Project 9773

Table of Contents to the Direct Testimony of Michael P. Gorman

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition for Rate Increase by Tampa Electric Company	**Docket No. 130040-EI**

Direct Testimony of Michael P. Gorman

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q WHAT IS YOUR OCCUPATION?

A I am a consultant in the field of public utility regulation and a Managing Principal of Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A This information is included in Appendix A to my testimony.

Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A I am appearing in this proceeding on behalf of the Federal Executive Agencies ("FEA").

Q ARE YOU SPONSORING ANY EXHIBITS IN CONNECTION WITH THIS TESTIMONY?

A Yes. I am sponsoring Exhibit MPG-2 through Exhibit MPG-22.

Q WHAT IS THE SUBJECT OF YOUR DIRECT TESTIMONY?

A In my testimony I make several recommendations concerning Tampa Electric Company's ("Tampa Electric" or "Company") rate filing in this proceeding. These recommendations include the following:

1. I recommend a fair overall rate of return and return on common equity used to set Tampa Electric's revenue requirement in this proceeding.
2. I recommend an adjustment to the residential sales revenue at current rates.

SUMMARY

Q PLEASE SUMMARIZE YOUR RATE OF RETURN RECOMMENDATIONS.

A I recommend the Florida Public Service Commission (the "Commission") award Tampa Electric a return on common equity of 9.25%, and an overall rate of return of 5.65%. Exhibit MPG-1.

My recommended overall rate of return also reflects a revised synchronization of rate base and capital structure used to develop the overall rate of return. The Company's proposed capital structure allocates rate base pro forma additions across all capital components, both investor capital and ratepayer-supplied capital, in proportion to their mix of the overall capital. In my proposed capital structure, I allocate all customer-supplied capital to the capital structure used to develop rates and allocate the pro forma rate base adjustments

across only investor capital components. This revised allocation provides a direct allocation of customer-supplied capital to the development of Tampa Electric's cost of providing utility service to those same customers. In significant contrast, the Company's proposal retains a portion of customer-supplied zero-cost capital components for benefit of its investors, rather than passing the full benefits of zero-cost customer-supplied capital to development of the overall rate of return in this proceeding.

Q WILL YOUR OVERALL RATE OF RETURN SUPPORT TAMPA ELECTRIC'S CURRENT FINANCIAL INTEGRITY AND INVESTMENT GRADE BOND RATING?

A Yes. My recommended return on equity and proposed capital structure will provide Tampa Electric with an opportunity to realize cash flow financial coverages and balance sheet strength that conservatively support Tampa Electric's current bond rating. Consequently, my recommended return on equity represents fair compensation for Tampa Electric's investment risk, and it will preserve the Company's financial integrity and credit standing.

Q WILL YOU RESPOND TO TAMPA ELECTRIC WITNESS MR. ROBERT HEVERT'S RECOMMENDED OVERALL RATE OF RETURN IN THIS PROCEEDING?

A Yes. I will also respond to Mr. Hevert's proposed return on equity of 11.25%. For the reasons discussed below, Mr. Hevert's recommended return on equity is excessive and should be rejected.

Q HOW DID YOU ESTIMATE TAMPA ELECTRIC'S CURRENT MARKET COST OF EQUITY?

A I performed analyses using three Discounted Cash Flow ("DCF") models, a Risk Premium study, and a Capital Asset Pricing Model ("CAPM"). These analyses used a proxy group of publicly traded companies that have investment risk similar to Tampa Electric. Based on the results from these assessments, I estimate Tampa Electric's current market cost of equity to be 9.25%.

Q WHAT IS THE IMPACT ON TAMPA ELECTRIC'S REVENUE REQUIREMENT BASED ON YOUR RECOMMENDED RETURN ON EQUITY?

A The Florida revenue requirement impact of my recommended 9.25% return on equity is $75.5 million.

Q PLEASE SUMMARIZE YOUR PROPOSED ADJUSTMENT TO RESIDENTIAL SALES REVENUE AT CURRENT RATES.

A I am proposing an increase in residential sales revenue at current rates of $12.5 million. This adjustment reflects my assessment that Tampa Electric has understated the amount of sales for the 2014 test year for an increased number of residential customers.

RATE OF RETURN

Q HOW DOES YOUR RECOMMENDED RETURN ON EQUITY COMPARE TO TAMPA ELECTRIC'S LAST AUTHORIZED RETURN ON EQUITY?

A On April 30, 2009, the Commission issued its final order in Docket No. 080317-EI general rate case, which included a return on equity of 11.25%.[1]

My recommended return on equity is lower in this case than the return on equity authorized in Tampa Electric's last rate case in April 2009. My recommended return on equity is lower in this case because capital market costs today are much lower than they were in 2009 when Tampa Electric's last rate of return was approved.

Q PLEASE DESCRIBE THE DECLINE IN CAPITAL MARKET COSTS SINCE TAMPA ELECTRIC'S LAST RATE CASE.

A The decline in capital market costs is illustrated by a comparison of bond yields in this case and the last case, and is evident from cost of capital estimates in this case versus the last case. In Table 1, I show the change in utility bond yields.

[1]Docket No. 080317-EI, Order No. PSC-09-0283-FOF-EL, April 30, 2009 at 48.

TABLE 1

Capital Costs – Tampa Electric Rate Cases

Description	Current Case*	Docket No. 080317-EI	Yield Change
"A" Rated Utility Bond Yields	4.19%	6.44%	(2.25%)
"Baa" Rated Utility Bond Yields	4.69%	7.97%	(3.28%)
13-Week Period Ending	06/21/2013	04/30/2009	

Source:

*Exhibit MPG-14, page 1.

Tampa Electric's current Standard & Poor's ("S&P") and Moody's bond ratings are "BBB+" and "A3," respectively. As shown in the table above, the current market cost of debt for "A" (by S&P) and "Baa" (by Moody's) rated utility bond yields has significantly decreased in this case relative to Tampa Electric's last rate case. The current "A" and "Baa" rated utility bond yields are approximately 200 and 300 percentage points lower, respectively, now than they were in Tampa Electric's last rate case.

The material decline in utility bond yields is observable market evidence that capital market costs today are significantly lower than they were during the time of Tampa Electric's last rate case. My recommended return on equity reflects this material decline to capital market costs for relatively low risk regulated electric utility companies like Tampa Electric.

Electric Utility Industry Market Outlook

Q PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.

A I begin my estimate of a fair return on equity for Tampa Electric by reviewing the market's assessment of electric utility industry investment risk, credit standing, and stock price performance in general. I used this information to get a sense of the market's perception of the risk characteristics of electric utility investments in general, which is then used to produce a refined estimate of the market's return requirement for assuming investment risk similar to Tampa Electric's utility operations.

Based on the assessments described below, I find the credit rating outlook of the industry to be strong and supportive of the industry's financial integrity, and electric utilities' stocks have exhibited strong price performance over the last several years.

Further, the electric utility industry in general is in a large capital expenditure portion of its cycle, which is creating significant demands for external capital in order to support large capital improvement programs. Credit rating agencies and market participants have embraced the utilities' need for significant amounts of external capital by meeting the capital market demands of electric utilities at near historical low capital market costs. All of this supports my belief that Tampa Electric should have sufficient access to capital to support its major capital program, and relatively moderate capital costs are currently available and expected to be available for the next several years.

Based on this review of credit outlooks and stock price performance, I conclude that the market continues to embrace the electric utility industry as a

safe-haven investment, and views utility equity and debt investments as low-risk securities.

Q PLEASE DESCRIBE ELECTRIC UTILITIES' CREDIT RATING OUTLOOK.

A Electric utilities' credit rating outlook has improved over the recent past and is stable. S&P recently provided an assessment of the credit rating of U.S. electric utilities. S&P's commentary included the following:

> **Effect on ratings**
>
> Notwithstanding the slow economic recovery, credit quality in the domestic utility industry has continued a long shift to greater stability, and even modest improvement in some cases, especially as many companies re-emphasize their core competencies.
>
> * * *
>
> **Industry Ratings Outlook**
>
> **Good access to funding expected to continue**
>
> Liquidity is adequate for most utilities and investor appetite for utility debt remains healthy, with deals continuing to be oversubscribed at very attractive rates. The amount of medium- to long-term debt and hybrid securities issued through the three months ended March 31, 2013 was about $8.7 billion. Credit fundamentals indicate that most, if not all, utilities should continue to have ample access to funding sources and credit. The relative certainty of financial performance provided by the regulatory framework under which utilities operate, their effective monopoly position, long-lived assets, and the financing necessary to fund

these assets are all factors that make the utility sector attractive to investors. These elements have also helped utilities more effectively manage their rate-relief needs and mitigate the effect of sizable rate increases on customers.[2]

Similarly, Fitch states:

> **Rating Outlook**
>
> **Flat Growth Base Case:** Fitch Ratings expects overall stable ratings for issuers within the U.S. Power and Gas Utility sector in 2013 despite modest deterioration in operating environment.
>
> * * *
>
> **Stable Regulation but Authorized ROEs Trending Down**
>
> Fitch expects the downward pressure on authorized ROEs for regulated utilities to persist in tandem with falling interest rates in the economy. Lower ROEs are also associated with features increasingly common in tariff structures that minimize cash flow volatility. Many state regulators are awarding lower ROEs as an offset to awarding special tariff mechanisms such as revenue decoupling, forward test year, rate-adjustment trackers[,] etc.
>
> * * *
>
> **Strong Liquidity Conditions to Prevail**
>
> Fitch expects the power and gas utility sectors to continue to enjoy strong capital market access. Low interest rates due to

[2] *Standard & Poor's Ratings Direct*: "Industry Report Card: Stable-To-Modestly Improved Industry Outlook Supports Ratings For U.S. Regulated Electric, Gas, And Water Utilities," April 19, 2013 at 3-4 and 6-7, emphasis added.

accommodative monetary policies by the Fed continue to bring down the cost of debt for companies, which represents a significant expense item for the capital-intensive utility sector. Since 2006, interest expense has declined almost 150 bps for the typical utility holding company as financing costs for new debt issuance is at historic lows and these companies have unprecedented access to the capital and bank markets.[3]

The Edison Electric Institute ("EEI") also opined as follows:

Steady Industry Fundamentals

Indeed, broad global macroeconomic forces have been the principle [sic] driver of utility stock returns in recent years, relative to other market sectors. Investors now take mostly as a given the industry's reasonably strong business fundamentals. Utilities are undertaking sizeable and wide-ranging capital investment programs that include distribution network upgrades, Smart Grid investments, a significant boost in the pace of transmission investment, rising emissions-related capex driven by the need to comply with EPA regulations, and generation investments in select power markets.

* * *

Credit analysts are generally positive on the industry's ability to finance an aggressive pace of investment, noting that while it is now cash flow negative on an annual operating basis, its balance

[3] *FitchRatings*: "2013 Outlook: Utilities, Power, and Gas," December 7, 2012 at 1, 6-7 and 10, emphasis added.

sheets are generally strong and utilities have access to a diverse range of funding sources. The industry weathered the storm of the 2008/2009 financial crisis by postponing optional capex projects and finding cost savings where possible without jeopardizing service quality. Today's economic backdrop is much improved from that period, and with interest rates at multi-decade lows and investors of all types hungry for yield, the capital markets are wide open for most economic sectors, including utilities. The execution risk inherent in managing large, complex construction projects in a way that addresses the interests of both shareholders and regulators seems far more pronounced than financing risk.[4]

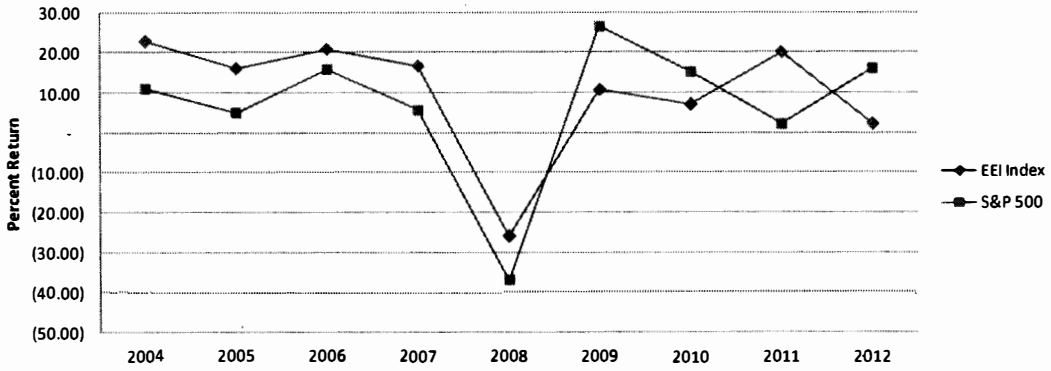
Q PLEASE DESCRIBE ELECTRIC UTILITY STOCK PRICE PERFORMANCE OVER THE LAST SEVERAL YEARS.

A As shown in the graph below, the EEI has recorded electric utility stock price performance compared to the market. The EEI data shows that its Electric Utility Index has outperformed the market in downturns and trailed the market during recovery. This supports my conclusion that utility stock investments are regarded by market participants as a moderate to low-risk investment.

[4] *EEI Q3 2012 Financial Update* "Stock Performance" at 5, emphasis added.

FIGURE 1

Index Comparison



Source: EEI Q4 2012 Stock Performance Financial Update, at Page 1.

EEI describes electric utility stock price/valuation as sustainable:

> **Mixed Valuation Signals**
>
> The broad market's gains during Q3 along with the EEI Index's flat performance removed some of the richness to utility share valuations that several analysts noted at the end of Q2. Indeed, the magnitude of underperformance for the first nine months of 2012 is similar to that which occurred during the same period of 2009, after markets bottomed and then recovered from the losses produced by the financial crisis. As the market recovery continued in 2010, with 14% to 17% gains, the staid utility sector's 7% return could not keep pace. Yet when 2011 produced worries of economic slowdown, the worsening of the European debt crisis and the summer's woefully memorable deficit gridlock and S&P downgrade of U.S. Treasury debt in August — along with sharply falling

> interest rates — the EEI Index powered forward with a 20% return against single-digit gains across the broader markets.
>
> With the industry business models now set on regulated or mostly regulated structures, and with slow growth in earnings and dividends as the main appeal for investors, such periodic reversals of fortune, driven by changing economic prospects and investor sentiments, seem likely to continue. Interest rates are now at multi-decade lows and while analysts still cite utility price/earnings ratios as above average, 4% dividend yields give utility shares considerable price support relative to the lower yields available from bonds.[5]

Q WHAT ARE THE IMPORTANT TAKEAWAY POINTS FROM THIS ASSESSMENT OF ELECTRIC UTILITY INDUSTRY CREDIT AND INVESTMENT RISK OUTLOOKS?

A Credit rating agencies consider the electric utility industry to be stable and believe investors will continue to provide an abundance of capital to support utilities' large capital programs and at moderate capital costs. All of this supports the continued belief that electric utility investments are generally regarded as safe-haven or low-risk investments, and the market embraces low-risk investments – like utility investments. The demand for low-risk investments will provide funding for electric utilities in general.

[5] *Id.* at 6, emphasis added.

Tampa Electric Investment Risk

Q PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF THE INVESTMENT RISK OF TAMPA ELECTRIC.

A The market assessment of Tampa Electric's investment risk is best described by credit rating analysts' reports. Tampa Electric's current corporate bond ratings from S&P and Moody's are "BBB+" and "A3," respectively. Both rating agencies have a Stable outlook for Tampa Electric.[6]

Specifically, S&P states the following:

> **Rationale**
>
> Standard & Poor's Ratings Services bases its ratings on Tampa Electric Co. on the consolidated credit profile of parent company TECO Energy Inc. The ratings reflect the company's commitment to its credit quality after shedding some of its unregulated businesses, restoring its balance sheet, and focusing on better financial performance through regulatory initiatives and cost controls amid a difficult economy. The company's business profile is "excellent" and its financial risk profile is "significant". (See "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," published on May 27, 2009, on RatingsDirect.)
>
> TECO's business strategy centers on the operations of its high-quality electric and gas utilities in historically high-growth areas of Florida. The utilities effectively manage regulatory risk. Continued exposure to elevated business

[6]Callahan Direct at 15.

risk in ventures outside of Florida, including coal-mining operations in Appalachia and electric generation overseas, detracts from credit quality. The utilities exhibit excellent credit characteristics: relatively healthy service territories, supportive regulation, and stable cash flow and earnings.

* * *

We view the company's regulatory risk as low. The electric utility supplies a large proportion of energy from its own portfolio of power plants, which is evenly divided between coal and gas-fired.[7]

Similarly, Moody's states:

SUMMARY RATING RATIONALE

TEC's A3 unsecured rating reflects its stable and supportive regulatory framework and strong financial credit metrics. The rating incorporates a view that the financial credit metrics will soften in 2013, before rate relief expected in early 2014.[8]

[7] *Standard & Poor's RatingsDirect*: "Summary: Tampa Electric Co.," December 13, 2012 at 1-2, provided by Tampa Electric in response to OPC's Fourth Request for PODs, POD No. 26, Bates Nos. 294-295.

[8] *Moody's Investors Service Credit Opinion*: "Tampa Electric Company," May 6, 2013, provided by Tampa Electric in response to OPC's Fourth Request for PODs, POD No. 26, Bates Nos. 303-304, emphasis added.

Fitch states:

> Key Rating Drivers
>
> Ratings Affirmed and Stable: Fitch Ratings affirmed the ratings of Tampa Electric Company (Tampa Electric) and its parent, TECO Energy, Inc. (TECO, issuer default rating [IDR] 'BBB') on March 23, 2012.
>
> * * *
>
> Strong Utility Operations: Tampa Electric's stand-alone financial and operational performance has been strong and supports the ratings. The utility has effectively managed operations and maintenance costs throughout the recession while continuing to safely operate the system. Financial results have been consistent, and benefited from both the cost savings efforts and the recent base rate increases.
>
> * * *
>
> Parent Ratings Linkage: Tampa Electric's ratings are linked to that of its parent, TECO, whose credit profile includes greater leverage and higher business risk.[9]

[9] *FitchRatings Corporates*: "Tampa Electric Company," April 16, 2012, provided by Tampa Electric in response to OPC's Fourth Request for PODs, POD No. 26, Bates No. 255.

Tampa Electric's Proposed Capital Structure

Q WHAT CAPITAL STRUCTURE IS THE COMPANY REQUESTING TO USE TO DEVELOP ITS OVERALL RATE OF RETURN FOR ELECTRIC OPERATIONS IN THIS PROCEEDING?

A Tampa Electric's December 2014 forecasted regulatory capital structure, as supported by Tampa Electric witness Ms. Sandra W. Callahan, is shown below in Table 2.

TABLE 2

Tampa Electric's Proposed Capital Structure

Description	Regulatory Capital Structure (1)	Investors' Capital Structure (2)
Long-Term Debt	35.15%	45.08%
Customer Deposits	2.60%	—
Common Equity	42.26%	54.19%
Short-Term Debt	0.57%	0.73%
Deferred Income Tax	19.24%	—
Investment Tax Credit	0.18%	—
Total Capital Structure	100.00%	100.00%

Source: MFR Schedule D-1a.

Q IS TAMPA ELECTRIC'S PROPOSED CAPITAL STRUCTURE REASONABLE?

A No. Tampa Electric's proposed capital structure misallocates customer-supplied capital in the development of the overall rate of return for jurisdictional operations. In reconciling its jurisdictional rate base with its jurisdictional capital structure, Tampa Electric allocates pro forma rate base adjustments to the capital

structure by spreading these adjustments equally over both investor-supplied capital and customer-supplied capital.

Customer-supplied capital includes deferred taxes and customer deposits. Deferred taxes are a zero-cost capital component, and customer deposits have a relatively low interest rate as prescribed by the Commission. These low-cost customer-supplied capital components should be used exclusively to fund jurisdictional rate base. If they are not, then a portion of the customer-supplied low-cost capital components will be used to benefit investors rather than exclusively jurisdictional customers.

Q HOW DO YOU PROPOSE TO ADJUST THE COMPANY'S PROPOSED CAPITAL STRUCTURE?

A The Company develops its proposed capital structure on its Schedule D-1a, page 1. On that schedule under column 6, the Company proposes to spread its pro rata adjustments equally over investor capital and customer-supplied capital. I recommend to modify this spread of pro rata adjustments to only investor-supplied capital. All customer-supplied capital should be fully allocated to jurisdictional cost of service to ensure customers get full benefit of the low-cost capital they provide the Company.

I developed this revised capital structure on my Exhibit MPG-1. As shown on this exhibit, this revised capital structure mix produces a common equity ratio of total capital of 40.35%. In comparison, the Company's proposed capital structure produces a common equity ratio of 42.26%. Again, the difference in capital structures reflects my recommendation to allocate 100% of the customer-supplied low-cost capital to jurisdictional cost of service.

Q WHY SHOULD CUSTOMERS RECEIVE THE FULL BENEFIT OF CUSTOMER-SUPPLIED CAPITAL?

A Customers should receive the full benefit of customer-supplied capital because this is actual cash proceeds provided to the Company from customers that have been retained by the Company to fund its invested cost of utility operations.

Accumulated deferred income taxes reflect the Company's collection of income tax expense, from customers that temporarily exceeds its current income tax liability.

As the Company's income tax liability comes due over time, the deferred tax collections will ultimately be paid to government taxing authorities. In the interim, the Company is permitted to retain the prepaid tax accruals as zero-cost capital which is used to fund plant and equipment.

Since customers provide the deferred tax proceeds, customers should receive a full benefit of the cost savings.

Customer deposits are also funds available to the Company to support its investment in utility plant and equipment. These funds do have a prescribed interest rate which is included in Tampa Electric's cost of service. Since customers provide this capital, and actually provide a return on the capital by recovery of customer deposit expense in Tampa Electric's cost of service, these funds should be fully reflected as a source of capital available to support Tampa Electric's invested capital cost.

Q WHAT IS YOUR PROPOSED CAPITAL STRUCTURE IN THIS PROCEEDING?

A My proposed capital structure is shown below in Table 3.

TABLE 3

Proposed Capital Structure

Description	Percent of Total Capital
Long-Term Debt	33.78%
Customer Deposits	2.99%
Common Equity	40.35%
Short-Term Debt	0.55%
Deferred Income Tax	22.12%
Investment Tax Credit	0.21%
Total Capital Structure	100.00%

Source: Exhibit MPG-1, page 1.

Q WILL YOUR PROPOSED CAPITAL STRUCTURE SUPPORT TAMPA ELECTRIC'S FINANCIAL INTEGRITY AND CREDIT RATING?

A Yes. As I will discuss later in my testimony, my proposed capital structure is consistent with Tampa Electric's current credit rating and will support Tampa Electric's financial integrity.

RETURN ON EQUITY

Q PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF COMMON EQUITY."

A A utility's cost of common equity is the return investors require on an investment in the utility. Investors expect to achieve their return requirement from receiving dividends and stock price appreciation.

Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED UTILITY'S COST OF COMMON EQUITY.

A In general, determining a fair cost of common equity for a regulated utility has been framed by two hallmark decisions of the U.S. Supreme Court: Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n of W. Va., 262 U.S. 679 (1923) and Fed. Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944).

These decisions identify the general standards to be considered in establishing the cost of common equity for a public utility. Those general standards provide that the authorized return should: (1) be sufficient to maintain financial integrity; (2) attract capital under reasonable terms; and (3) be commensurate with returns investors could earn by investing in other enterprises of comparable risk.

Q PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE TAMPA ELECTRIC'S COST OF COMMON EQUITY.

A I have used several models based on financial theory to estimate Tampa Electric's cost of common equity. These models are: (1) a constant growth Discounted Cash Flow ("DCF") model using consensus analysts' growth rate projections; (2) a constant growth DCF using sustainable growth rate estimates; (3) a multi-stage growth DCF model; (4) a Risk Premium model; and (5) a Capital Asset Pricing Model ("CAPM"). I have applied these models to a group of publicly traded utilities that I have determined share investment risk similar to Tampa Electric's.

Risk Proxy Group

Q HOW DID YOU SELECT A UTILITY PROXY GROUP SIMILAR IN INVESTMENT RISK TO TAMPA ELECTRIC TO ESTIMATE ITS CURRENT MARKET COST OF EQUITY?

A I relied on the same utility proxy group used by Tampa Electric's witness Mr. Hevert to estimate Tampa Electric's return on equity.

Q PLEASE DESCRIBE WHY YOU BELIEVE YOUR PROXY GROUP IS REASONABLY COMPARABLE IN INVESTMENT RISK TO TAMPA ELECTRIC.

A The proxy group is shown in Exhibit MPG-2. This proxy group has an average corporate credit rating from S&P of "BBB," which is similar to S&P's corporate credit rating for Tampa Electric of "BBB+." The proxy group's corporate credit rating from Moody's of "Baa2" is also comparable to Tampa Electric's corporate credit rating from Moody's of "A3." The comparable bond rating indicates that the proxy group has reasonably comparable investment risk to Tampa Electric.

The proxy group has an average common equity ratio of 49.0% (including short-term debt) from SNL Financial ("SNL") and 51.9% (excluding short-term debt) from *The Value Line Investment Survey* ("*Value Line*") in 2012. The proxy group's common equity ratio is significantly lower than the 54.2% common equity ratio proposed by the Company.

I also compared Tampa Electric's business risk to the business risk of the proxy group based on S&P's ranking methodology. Tampa Electric has an S&P business risk profile of "Excellent," which is identical to the S&P business risk profile of the proxy group. The S&P business risk profile score indicates that

Tampa Electric's business risk is comparable to that of the proxy group.[10]

Based on these proxy group selection criteria, I believe that my proxy group reasonably approximates the investment risk of Tampa Electric, and can be used to estimate a fair return on equity for Tampa Electric.

Discounted Cash Flow Model

Q PLEASE DESCRIBE THE DCF MODEL.

A The DCF model posits that a stock price is valued by summing the present value of expected future cash flows discounted at the investor's required rate of return or cost of capital. This model is expressed mathematically as follows:

$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} \ldots . \frac{D_\infty}{(1+K)^\infty} \quad \text{where} \qquad \text{(Equation 1)}$$

P_0 = Current stock price

D = Dividends in periods 1 - ∞

K = Investor's required return

This model can be rearranged in order to estimate the discount rate or investor-required return, "K." If it is reasonable to assume that earnings and dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

[13] S&P ranks the business risk of a utility company as part of its corporate credit rating review. S&P considers total investment risk in assigning bond ratings to issuers, including utility companies. In analyzing total investment risk, S&P considers both the business risk and the financial risk of a corporate entity, including a utility company. S&P's business risk profile score is based on a six-notch credit rating starting with "Vulnerable" (highest risk) to "Excellent" (lowest risk). The business risk of most utility companies falls within the lowest risk category, "Excellent," or the category one notch lower (more risk), "Strong." *Standard & Poor's RatingsDirect:* "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

$K = D_1/P_0 + G$ (Equation 2)

K = Investor's required return

D_1 = Dividend in first year

P_0 = Current stock price

G = Expected constant dividend growth rate

Equation 2 is referred to as the annual "constant growth" DCF model.

Q PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.

A As shown in Equation 2 above, the DCF model requires a current stock price, expected dividend, and expected growth rate in dividends.

Q WHAT STOCK PRICE HAVE YOU RELIED ON IN YOUR CONSTANT GROWTH DCF MODEL?

A I relied on the average of the weekly high and low stock prices of the utilities in the proxy group over a 13-week period ending on June 21, 2013. An average stock price is less susceptible to market price variations than a spot price. Therefore, an average stock price is less susceptible to aberrant market price movements, which may not be reflective of the stock's long-term value.

A 13-week average stock price reflects a period that is still short enough to contain data that reasonably reflect current market expectations, but the period is not so short as to be susceptible to market price variations that may not reflect the stock's long-term value. In my judgment, a 13-week average stock price is a reasonable balance between the need to reflect current market expectations and the need to capture sufficient data to smooth out aberrant market movements.

Q WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?

A I used the most recently paid quarterly dividend, as reported in *Value Line*.[11] This dividend was annualized (multiplied by 4) and adjusted for next year's growth to produce the D_1 factor for use in Equation 2 above.

Q WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR CONSTANT GROWTH DCF MODEL?

A There are several methods that can be used to estimate the expected growth in dividends. However, regardless of the method, for purposes of determining the market-required return on common equity, one must attempt to estimate investors' consensus about what the dividend or earnings growth rate will be, and not what an individual investor or analyst may use to make individual investment decisions.

As predictors of future returns, security analysts' growth estimates have been shown to be more accurate than growth rates derived from historical data.[12] That is, assuming the market generally makes rational investment decisions, analysts' growth projections are more likely to influence observable stock prices than growth rates derived only from historical data.

For my constant growth DCF analysis, I have relied on a consensus, or mean, of professional security analysts' earnings growth estimates as a proxy for investor consensus dividend growth rate expectations. I used the average of analysts' growth rate estimates from three sources: Zacks, SNL, and Reuters.

[11] *The Value Line Investment Survey*, May 3, May 24, and June 21, 2013.
[12] *See, e.g.,* David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

All such projections were available on June 24, 2013, and all were reported online.

Each consensus growth rate projection is based on a survey of security analysts. There is no clear evidence whether a particular analyst is most influential on general market investors. Therefore, a single analyst's projection does not as reliably predict consensus investor outlooks as does a consensus of market analysts' projections. The consensus estimate is a simple arithmetic average, or mean, of surveyed analysts' earnings growth forecasts. A simple average of the growth forecasts gives equal weight to all surveyed analysts' projections. Therefore, a simple average, or arithmetic mean, of analyst forecasts is a good proxy for market consensus expectations.

Q WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT GROWTH DCF MODEL?

A The growth rates I used in my DCF analysis are shown in Exhibit MPG-3. The average growth rate for my proxy group is 5.22%.

Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?

A As shown in Exhibit MPG-4, the average and median constant growth DCF returns for my proxy group are 9.16% and 9.40%, respectively.

Q DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR CONSTANT GROWTH DCF ANALYSIS?

A Yes. The constant growth DCF analysis was based on a proxy group average growth rate of 5.22%. This growth rate is higher than the projected long-term

GDP growth rate of 4.9% as reflected in *The Blue Chip Financial Forecasts*. Because this short-term growth rate exceeds the long-term growth outlook for the U.S. economy, I believe the growth rate of the constant growth DCF analysis is not sustainable over the long term.

Therefore, I believe my constant growth DCF analysis, using consensus analysts' growth projections produces overstated results. Therefore, I have developed additional DCF studies to enhance the information available to accurately estimate Tampa Electric's current market cost of common equity.

Sustainable Growth DCF

Q. PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE LONG-TERM GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF MODEL.

A. A sustainable growth rate is based on the percentage of the utility's earnings that is retained and reinvested in utility plant and equipment. These reinvested earnings increase the earnings base (rate base). Earnings grow when plant funded by reinvested earnings is put into service, and the utility is allowed to earn its authorized return on such additional rate base investment.

The internal growth methodology is tied to the percentage of earnings retained in the company and not paid out as dividends. The earnings retention ratio is 1 minus the dividend payout ratio. As the payout ratio declines, the earnings retention ratio increases. An increased earnings retention ratio will fuel stronger growth because the business funds more investments with retained earnings. The payout ratios of the proxy group are shown in my Exhibit MPG-5. These dividend payout ratios and earnings retention ratios then can be used to develop a sustainable long-term earnings retention growth rate. A sustainable

long-term earnings retention ratio will help gauge whether analysts' current three- to five-year growth rate projections can be sustained over an indefinite period of time.

The data used to estimate the long-term sustainable growth rate is based on the Company's current market to book ratio and on *Value Line's* three- to five-year projections of earnings, dividends, earned returns on book equity, and stock issuances.

As shown in Exhibit MPG-6, page 1, the average sustainable growth rate for the proxy group using this internal growth rate model is 4.39%.

Q WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE LONG-TERM GROWTH RATES?

A A DCF estimate based on these sustainable growth rates is developed in Exhibit MPG-7. As shown there, a sustainable growth DCF analysis produces proxy group average and median DCF results of 8.30 and 8.14%, respectively.

Multi-Stage Growth DCF Model

Q HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?

A Yes. My first constant growth DCF is based on consensus analysts' growth rate projections, so it is a reasonable reflection of rational investment expectations over the next three to five years. The limitation on the constant growth DCF model is that it cannot reflect a rational expectation that a period of high/low short-term growth can be followed by a change in growth to a rate that is more reflective of long-term sustainable growth. Hence, I performed a multi-stage growth DCF analysis to reflect this outlook of changing growth expectations.

Q WHEN DO YOU BELIEVE SHORT-TERM GROWTH RATES CHANGE OVER TIME?

A Analyst projected growth rates over the next three to five years will change as utility earnings growth outlooks change. Utility companies typically go through cycles in making investments in their systems. When utility companies are making large investments, their rate base grows rapidly, which accelerates their earnings growth. Once a major construction cycle is completed or levels off, growth in the utility rate base slows, and its earnings slow from an abnormally high three- to five-year growth rate period to a lower sustainable growth rate.

As major construction cycles extend over longer periods of time, even with an accelerated construction program, the growth rate of the utility will slow simply because it is adding to a larger rate base, and the utility has limited human and capital resources available to expand its construction program. Hence, the three- to five-year growth rate projection should be used as a long-term sustainable growth rate but not without making a reasonable informed judgment to determine whether it considers the current market environment, the industry, and whether the three- to five-year growth outlook is sustainable.

Q IS THE USE OF A MULTI-STAGE DCF MODEL SUPPORTED IN ACADEMIC AND INDUSTRY LITERATURE?

A Yes. In his book *New Regulatory Finance*, Dr. Roger Morin states the following:

> Dividends need not be, and probably are not, constant from period to period. Moreover, there are circumstances where the standard DCF model cannot be used to assess investor return requirements. For example, if a utility company is in the process

of altering its dividend payout policy and dividends are not expected to grow at the same rate as earnings during the transition period, the standard DCF model is inapplicable. This is because the expected growth in stock price has to be different from that of dividends, earnings, and book value if the market price is to converge toward book value.

* * *

A Non-Constant Growth DCF model is appropriate whenever the growth rate is expected to change, and the only way to produce a change in the forecast payout ratio is by introducing an intermediate growth rate that is different from the long-term growth rate, as in the previous example.[13]

Q PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.

A The multi-stage growth DCF model reflects the possibility of non-constant growth for a company over time. The multi-stage growth DCF model reflects three growth periods: (1) a short-term growth period, which consists of the first five years; (2) a transition period, which consists of the next five years (6 through 10); and (3) a long-term growth period, starting in year 11 through perpetuity.

For the short-term growth period, I relied on the consensus analysts' growth projections described above in relationship to my constant growth DCF model. For the transition period, the growth rates were reduced or increased by an equal factor, which reflects the difference between the analysts' growth rates and the United States Gross Domestic Product ("U.S. GDP") growth rate. For

[13] *New Regulatory Finance*, Roger A. Morin, PhD, 2006 Public Utilities Reports, Inc., Vienna, Virginia, pp. 264 and 267.

the long-term growth period, I assumed each company's growth would converge to the maximum sustainable growth rate for a utility company as proxied by the consensus analysts' projected growth for the U.S. GDP of 4.9%.

Q WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR THE MAXIMUM SUSTAINABLE GROWTH RATE FOR A UTILITY?

A Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the overall economy. Utilities' earnings/dividend growth is created by increased utility investment or rate base. Such investment, in turn, is driven by service area economic growth and demand for utility service. In other words, utilities invest in plant to meet sales demand growth, and sales growth, in turn, is tied to economic growth in their service areas. The Energy Information Administration ("EIA") has observed that utility sales growth is less than U.S. GDP growth, as shown in Exhibit MPG-8. Utility sales growth has lagged behind GDP growth for more than a decade. As a result, nominal GDP growth is a very conservative, albeit overstated, proxy for electric utility sales growth, rate base growth, and earnings growth. Therefore, GDP growth is a conservative proxy for the highest sustainable long-term growth rate of a utility.

Q IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT GROW AT A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?

A Yes. This concept is supported in both published analyst literature and academic work. Specifically, in a textbook entitled "Fundamentals of Financial Management," published by Eugene Brigham and Joel F. Houston, the authors

state as follows:

> The constant growth model is most appropriate for mature companies with a stable history of growth and stable future expectations. Expected growth rates vary somewhat among companies, but dividends for mature firms are often expected to grow in the future at about the same rate as nominal gross domestic product (real GDP plus inflation).[14]

Q HOW DID YOU DETERMINE A SUSTAINABLE LONG-TERM GROWTH RATE THAT REFLECTS THE CONSENSUS OF THE MARKET?

A I relied on the consensus analysts' projections of long-term GDP growth. *The Blue Chip Financial Forecasts* publishes consensus economists' GDP growth projections twice a year. These consensus analysts' GDP growth outlooks are the best available measure of the market's assessment of long-term GDP growth. These analyst projections reflect all current outlooks for GDP, as reflected in analyst projections, and are likely the most influential on investors' expectations of future growth outlooks. The consensus economists' published GDP growth rate outlook is 5.0% to 4.8% over the next 10 years.[15]

Therefore, I propose to use the consensus economists' projected 5- and 10-year average GDP consensus growth rates of 5.0% and 4.8%, respectively, as published by *Blue Chip Financial Forecasts,* as an estimate of long-term sustainable growth. *Blue Chip Financial Forecasts'* projections provide real GDP

[14] *Fundamentals of Financial Management*, Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298.
[15] *Blue Chip Financial Forecasts*, June 1, 2013 at 14.

growth projections of 2.8% and 2.5%, and GDP inflation of 2.1% and 2.2%[16] over the 5-year and 10-year projection periods, respectively. This consensus GDP growth forecast represents the most likely views of market participants because it is based on published consensus economist projections.

Q DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP GROWTH?

A Yes, and these sources corroborate my consensus analysts' projections. The U.S. EIA in its *Annual Energy Outlook* projects real GDP out until 2040. In its *2013 Annual Report*, the EIA projects real GDP through 2040 to be in the range of 2.0% to 2.9%, with a midpoint or reference case of 2.5%.[17]

Also, the Congressional Budget Office ("CBO") makes long-term economic projections. The CBO is projecting real GDP growth of 2.6% to 2.2% during the next 5 and 10 years, respectively, with GDP price inflation of 2.0%.[18] The CBO's real GDP projections are higher than the consensus, but its GDP inflation is lower than the consensus economists.

The real GDP and nominal GDP growth projections made by the U.S. EIA and those made by the CBO support the use of the consensus analyst 5-year and 10-year projected GDP growth outlooks as a reasonable market assessment of long-term prospective GDP growth.

[16] GDP growth is the product of real and inflation GDP growth.
[17] *DOE/EIA Annual Energy Outlook 2013 With Projections to 2040*, April 2013 at 56.
[18] *CBO: The Budget and Economic Outlook: Fiscal Years 2013 to 2023*, February 2013 at 64.

Q WHAT STOCK PRICE, DIVIDEND, AND GROWTH RATES DID YOU USE IN YOUR MULTI-STAGE GROWTH DCF ANALYSIS?

A I relied on the same 13-week stock price and the most recent quarterly dividend payment data discussed above. For stage one growth, I used the consensus analysts' growth rate projections discussed above in my constant growth DCF model. The transition period begins in year 6 and ends in year 10. For the long-term sustainable growth rate starting in year 11, I used 4.9%, the average of the consensus economists' 5-year and 10-year projected nominal GDP growth rates.

Q WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF MODEL?

A As shown in Exhibit MPG-9, the average and median DCF returns on equity for my proxy group are both 8.89%.

Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.

A The results from my DCF analyses are summarized in Table 4 below:

TABLE 4

Summary of DCF Results

Description	Proxy Average/Median
Constant Growth DCF Model (Analysts' Growth)	9.16%/9.40%
Constant Growth DCF Model (Sustainable Growth)	8.30%/8.14%
Multi-Stage Growth DCF Model	8.89%/8.89%

I conclude that a reasonable DCF return for Tampa Electric in this case is conservatively 9.15%. I primarily relied on my constant growth DCF model and multi-stage growth DCF model in this case because I believe these models reflect the expectation of accelerated growth in the near term, followed by the contraction of growth to a long-term sustainable level. My constant growth study based on analysts' growth rate estimates suggests a return on equity in the range of 9.16% to 9.40%. For my multi-stage growth model, a return of approximately 8.89% or 8.90% rounded, is appropriate. The range for these two models is 8.90% to 9.40%, with a midpoint of 9.15%. This return estimate largely reflects my constant growth and multi-stage DCF analyses.

Risk Premium Model

Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.

A This model is based on the principle that investors require a higher return to assume greater risk. Common equity investments have greater risk than bonds because bonds have more security of payment in bankruptcy proceedings than common equity and the coupon payments on bonds represent contractual obligations. In contrast, companies are not required to pay dividends or guarantee returns on common equity investments. Therefore, common equity securities are considered to be more risky than bond securities.

This risk premium model is based on two estimates of an equity risk premium. First, I estimated the difference between the required return on utility common equity investments and U.S. Treasury bonds. The difference between the required return on common equity and the Treasury bond yield is the risk premium. I estimated the risk premium on an annual basis for each year over the

period 1986 through 2012. The common equity required returns were based on regulatory commission-authorized returns for electric utility companies. Authorized returns are typically based on expert witnesses' estimates of the contemporary investor-required return.

The second equity risk premium estimate is based on the difference between regulatory commission-authorized returns on common equity and contemporary "A" rated utility bond yields. I selected the period 1986 through 2012 because public utility stocks consistently traded at a premium to book value during that period. This is illustrated in Exhibit MPG-10, which shows that the market to book ratio since 1986 for the electric utility industry was consistently above 1.0. Over this period, regulatory authorized returns were sufficient to support market prices that at least exceeded book value. This is an indication that regulatory authorized returns on common equity supported a utility's ability to issue additional common stock without diluting existing shares. It further demonstrates that utilities were able to access equity markets without a detrimental impact on current shareholders.

Based on this analysis, as shown in Exhibit MPG-11, the average indicated equity risk premium over U.S. Treasury bond yields has been 5.30%. Of the 27 observations, 21 indicated risk premiums fall in the range of 4.41% to 6.18%. Since the risk premium can vary depending upon market conditions and changing investor risk perceptions, I believe using an estimated range of risk premiums provides the best method to measure the current return on common equity using this methodology.

As shown in Exhibit MPG-12, the average indicated equity risk premium over contemporary Moody's utility bond yields was 3.89% over the period 1986

through 2012. The indicated equity risk premium estimates based on this analysis primarily fall in the range of 3.03% to 4.88% over this time period.

Q DO YOU BELIEVE THAT THESE EQUITY RISK PREMIUM ESTIMATES ARE BASED ON A TIME PERIOD THAT IS TOO LONG OR TOO SHORT TO DRAW ACCURATE CONCLUSIONS CONCERNING CONTEMPORARY MARKET CONDITIONS?

A No. Contemporary market conditions can change dramatically during the period that rates determined in this proceeding will be in effect. A relatively long period of time where stock valuations reflect premiums to book value is an indication that the authorized returns on equity and the corresponding equity risk premiums were supportive of investors' return expectations and provided utilities access to the equity markets under reasonable terms and conditions. Further, this time period is long enough to smooth abnormal market movement that might distort equity risk premiums. While market conditions and risk premiums do vary over time, this historical time period is a reasonable period to estimate contemporary risk premiums.

The time period I use in this risk premium study is a generally accepted period to develop a risk premium study using "expectational" data. Conversely, studies have recommended that use of "actual achieved return data" should be based on very long historical time periods. The studies find that achieved returns over short time periods may not reflect investors' expected returns due to unexpected and abnormal stock price performance. However, these short-term abnormal actual returns would be smoothed over time and the achieved actual returns over long time periods would approximate investors' expected returns.

Therefore, it is reasonable to assume that averages of annual achieved returns over long time periods will generally converge on the investors' expected returns.

My risk premium study is based on expectational data, not actual returns, and, thus, need not encompass very long time periods.

Q BASED ON HISTORICAL DATA, WHAT RISK PREMIUM HAVE YOU USED TO ESTIMATE TAMPA ELECTRIC'S COST OF COMMON EQUITY IN THIS PROCEEDING?

A The equity risk premium should reflect the relative market perception of risk in the utility industry today. I have gauged investor perceptions in utility risk today in Exhibit MPG-13. On that schedule, I show the yield spread between utility bonds and Treasury bonds over the last 33 years. As shown in this schedule, the 2011 utility bond yield spreads over Treasury bonds for "A" rated and "Baa" rated utility bonds are 1.13% and 1.65%, respectively. The utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utility bonds for 2012 are 1.21% and 1.91%, respectively. The current average "A" and "Baa" rated utility bond yield spreads over Treasury bond yields are now lower than the 33-year average spreads of 1.56% and 1.98%, respectively.

A current 13-week average "A" rated utility bond yield of 4.19%, when compared to the current Treasury bond yield of 3.12% as shown in Exhibit MPG-14, page 1 implies a yield spread of around 1.00%. This current utility bond yield spread is lower than the 33-year average spread for "A" utility bonds of 1.56%. Similarly, the current spread for the "Baa" utility yields of 1.57% is lower than the 33-year average spread of 1.98%.

These utility bond yield spreads are clear evidence that the market considers the utility industry to be a relatively low-risk investment and demonstrates that utilities continue to have strong access to capital.

Q HOW DID YOU ESTIMATE TAMPA ELECTRIC'S COST OF COMMON EQUITY WITH THIS RISK PREMIUM MODEL?

A I added a projected long-term Treasury bond yield to my estimated equity risk premium over Treasury yields. The 13-week average 30-year Treasury bond yield, ending June 21, 2013 was 3.12%, as shown in Exhibit MPG-14, page 1. *Blue Chip Financial Forecasts* projects the 30-year Treasury bond yield to be 3.70%, and a 10-year Treasury bond yield to be 2.50%.[19] Using the projected 30-year bond yield of 3.70%, and a Treasury bond risk premium of 4.41% to 6.18%, as developed above, produces an estimated common equity return in the range of 8.11% (3.70% + 4.41%) to 9.88% (3.70% + 6.18%). Based on the large risk premium in the market yield spreads, I recommend giving 75% weight to my high-end risk premium and 25% weight to my low risk premium estimate. This produces an equity risk premium estimate of 9.44%.[20] I believe this is appropriate given the unusually large yield spreads between Treasury bond and utility bond yields.

I next added my equity risk premium over utility bond yields to a current 13-week average yield on "Baa" rated utility bonds for the period ending June 21, 2013 of 4.69%. Adding the utility equity risk premium of 3.03% to 4.88%, as developed above, to a "Baa" rated bond yield of 4.69%, produces a cost of equity in the range of 7.72% (4.69% + 3.03%) to 9.57% (4.69% + 4.88%). Again,

[19] *Blue Chip Financial Forecasts*, June 1, 2013 at 2.
[20] 75% x 9.88% + 25% x 8.11% = 9.44%.

recognizing the unusually wide Treasury to utility bond yield spreads, I recommend a risk premium return on equity of 9.11%.[21]

My risk premium analyses produce a return estimate in the range of 9.11% to 9.44%, with a midpoint of 9.28%, rounded to 9.30%.

Capital Asset Pricing Model ("CAPM")

Q PLEASE DESCRIBE THE CAPM.

A The CAPM method of analysis is based upon the theory that the market-required rate of return for a security is equal to the risk-free rate, plus a risk premium associated with the specific security. This relationship between risk and return can be expressed mathematically as follows:

$R_i = R_f + B_i \times (R_m - R_f)$ where:

R_i = Required return for stock i

R_f = Risk-free rate

R_m = Expected return for the market portfolio

B_i = Beta - Measure of the risk for stock

The stock-specific risk term in the above equation is beta. Beta represents the investment risk that cannot be diversified away when the security is held in a diversified portfolio. When stocks are held in a diversified portfolio, firm-specific risks can be eliminated by balancing the portfolio with securities that react in the opposite direction to firm-specific risk factors (e.g., business cycle, competition, product mix, and production limitations).

The risks that cannot be eliminated when held in a diversified portfolio are non-diversifiable risks. Non-diversifiable risks are related to the market in

[21] 75% x 9.57% + 25% x 7.72% = 9.11%.

general and are referred to as systematic risks. Risks that can be eliminated by diversification are regarded as non-systematic risks. In a broad sense, systematic risks are market risks, and non-systematic risks are business risks. The CAPM theory suggests that the market will not compensate investors for assuming risks that can be diversified away. Therefore, the only risk that investors will be compensated for are systematic or non-diversifiable risks. The beta is a measure of the systematic or non-diversifiable risks.

Q PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.

A The CAPM requires an estimate of the market risk-free rate, the company's beta, and the market risk premium.

Q WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?

A As previously noted, *Blue Chip Financial Forecasts*' projected 30-year Treasury bond yield is 3.70%.[22] The current 30-year Treasury bond yield is 3.12%, as shown in Exhibit MPG-14, page 1. I used *Blue Chip Financial Forecasts*' projected 30-year Treasury bond yield of 3.70% for my CAPM analysis.

Q WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN ESTIMATE OF THE RISK-FREE RATE?

A Treasury securities are backed by the full faith and credit of the United States government, so long-term Treasury bonds are considered to have negligible credit risk. Also, long-term Treasury bonds have an investment horizon similar to

[22] *Blue Chip Financial Forecasts*, June 1, 2013 at 2.

that of common stock. As a result, investor-anticipated long-run inflation expectations are reflected in both common-stock required returns and long-term bond yields. Therefore, the nominal risk-free rate (or expected inflation rate and real risk-free rate) included in a long-term bond yield is a reasonable estimate of the nominal risk-free rate included in common stock returns.

Treasury bond yields, however, do include risk premiums related to unanticipated future inflation and interest rates. A Treasury bond yield is not a risk-free rate. Risk premiums related to unanticipated inflation and interest rates are systematic or market risks. Consequently, for companies with betas less than 1.0, using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis can produce an overstated estimate of the CAPM return.

Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?

A As shown in Exhibit MPG-15, the proxy group average *Value Line* beta estimate is 0.73.

Q HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?

A I derived two market risk premium estimates, a forward-looking estimate and one based on a long-term historical average.

The forward-looking estimate was derived by estimating the expected return on the market (as represented by the S&P 500) and subtracting the risk-free rate from this estimate. I estimated the expected return on the S&P 500 by adding an expected inflation rate to the long-term historical arithmetic average real return on the market. The real return on the market represents the achieved return above the rate of inflation.

Morningstar's *Stocks, Bonds, Bills and Inflation 2013 Classic Yearbook* estimates the historical arithmetic average real market return over the period 1926 to 2012 as 8.7%.[23] A current consensus analysts' inflation projection, as measured by the Consumer Price Index, is 2.3%.[24] Using these estimates, the expected market return is 11.20%.[25] The market risk premium then is the difference between the 11.20% expected market return, and my 3.70% risk-free rate estimate, or approximately 7.50%.

The historical estimate of the market risk premium was also estimated by Morningstar in *Stocks, Bonds, Bills and Inflation 2013 Classic Yearbook*. Over the period 1926 through 2012, Morningstar's study estimated that the arithmetic average of the achieved total return on the S&P 500 was 11.8%,[26] and the total return on long-term Treasury bonds was 6.1%.[27] The indicated market risk premium is 5.7% (11.8% - 6.1% = 5.7%). The average of my market risk premium estimates is 6.6% (7.5% to 5.7%).

Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO THAT ESTIMATED BY MORNINGSTAR?

A Morningstar's analysis indicates that a market risk premium falls somewhere in the range of 6.0% to 6.7%. My market risk premium falls in the range of 5.7% to 7.5%. My average market risk premium of 6.6% is at the high end of Morningstar's range.

[23] *Morningstar, Inc., Ibbotson SBBI 2013 Classic Yearbook*; Market Results for Stocks, Bonds, Bills, and Inflation 1926-2012 at 88.
[24] *Blue Chip Financial Forecasts*, June 1, 2013 at 2.
[25] { [(1 + 0.087) * (1 + 0.023)] – 1 } * 100.
[26] *Morningstar, Inc. Ibbotson SBBI 2013 Classic Yearbook* at 87.
[27] *Id.*

Morningstar estimates a forward-looking market risk premium based on actual achieved data from the historical period of 1926 through 2012. Using this data, Morningstar estimates a market risk premium derived from the total return on large company stocks (S&P 500), less the income return on Treasury bonds. The total return includes capital appreciation, dividend or coupon reinvestment returns, and annual yields received from coupons and/or dividend payments. The income return, in contrast, only reflects the income return received from dividend payments or coupon yields. Morningstar argues that the income return is the only true risk-free rate associated with Treasury bonds and is the best approximation of a truly risk-free rate.[28] I disagree with this assessment from Morningstar, because it does not reflect a true investment option available to the marketplace and therefore does not produce a legitimate estimate of the expected premium of investing in the stock market versus that of Treasury bonds. Nevertheless, I will use Morningstar's conclusion to show the reasonableness of my market risk premium estimates.

Morningstar's range is based on several methodologies. First, Morningstar estimates a market risk premium of 6.7% based on the difference between the total market return on common stocks (S&P 500) less the income return on Treasury bond investments. Second, Morningstar found that if the New York Stock Exchange (the "NYSE") was used as the market index rather than the S&P 500, that the market risk premium would be 6.5%, not 6.7%. Third, if only the two deciles of the largest companies included in the NYSE were considered,

[28] *Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook: Market Results for Stocks, Bonds, Bills, and Inflation 1926-2012* at 55.

the market risk premium would be 6.0%.[29]

Finally, Morningstar found that the 6.7% market risk premium based on the S&P 500 was influenced by an abnormal expansion of price-to-earnings ("P/E") ratios relative to earnings and dividend growth during the period 1980 through 2001. Morningstar believes this abnormal P/E expansion is not sustainable.[30] Therefore, Morningstar adjusted this market risk premium estimate to normalize the growth in the P/E ratio to be more in line with the growth in dividends and earnings. Based on this alternative methodology, Morningstar published a long-horizon supply-side market risk premium of 6.0%.[31]

Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?

A As shown in Exhibit MPG-16, based on Morningstar's market risk premium of 6.7%, a risk-free rate of 3.70%, and a beta of 0.73, my CAPM analysis produces a return of 8.60%.

Return on Equity Summary

Q BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO YOU RECOMMEND FOR TAMPA ELECTRIC?

A Based on my analyses, I estimate Tampa Electric's current market cost of equity to be 9.25%.

[29] Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. *Id.* at 54.

[30] *Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook: Market Results for Stocks, Bonds, Bills, and Inflation 1926-2012* at 54.

[31] *Id.*

TABLE 5

Return on Common Equity Summary

Description	Results
DCF	9.15%
Risk Premium	9.30%
CAPM	8.60%

My recommended return on common equity is 9.25%. My recommended return on equity is in the range of 9.15% to 9.30% and is supported by the results of my DCF studies and my risk premium studies. My recommended return of 9.25% is based on the approximate midpoint of my DCF return estimate, 9.15%, and risk premium result, 9.30%.

I am placing minimal weight on the results of my CAPM study because of my concerns about the risk-free rate and market risk premium outlined in this study.

Financial Integrity

Q WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN INVESTMENT GRADE BOND RATING FOR TAMPA ELECTRIC?

A Yes. I have reached this conclusion by comparing the key credit rating financial ratios for Tampa Electric, at my proposed return on equity and capital structure, to S&P's benchmark financial ratios using S&P's new credit metric ranges.

Q PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT METRIC METHODOLOGY.

A S&P publishes a matrix of financial ratios that correspond to its assessment of the business risk of the utility company and related bond rating. On May 27, 2009, S&P expanded its matrix criteria[32] by including additional business and financial risk categories. Based on S&P's most recent credit matrix, the business risk profile categories are "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and "Vulnerable." Most electric utilities have a business risk profile of "Excellent" or "Strong." The financial risk profile categories are "Minimal," "Modest," "Intermediate," "Significant," "Aggressive," and "Highly Leveraged." Most of the electric utilities have a financial risk profile of "Aggressive." Tampa Electric has an "Excellent" business risk profile and a "Significant" financial risk profile.

Q PLEASE DESCRIBE S&P'S USE OF THE FINANCIAL BENCHMARK RATIOS IN ITS CREDIT RATING REVIEW.

A S&P evaluates a utility's credit rating based on an assessment of its financial and business risks. A combination of financial and business risks equates to the overall assessment of Tampa Electric's total credit risk exposure. S&P publishes a matrix of financial ratios that defines the level of financial risk as a function of the level of business risk.

S&P publishes ranges for three primary financial ratios that it uses as guidance in its credit review for utility companies. The three primary financial ratio benchmarks it relies on in its credit rating process include: (1) Total Debt to

[32] S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect*: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

Total Capital; (2) Debt to Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA"); and (3) Funds From Operations ("FFO") to Total Debt.[33]

Q HOW DID YOU APPLY S&P'S FINANCIAL RATIOS TO TEST THE REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?

A I calculated each of S&P's financial ratios based on Tampa Electric's cost of service for its Florida jurisdictional electric operations. While S&P would normally look at total consolidated Tampa Electric financial ratios in its credit review process, my investigation in this proceeding is not the same as S&P's. I am attempting to judge the reasonableness of my proposed cost of capital for rate-setting in Tampa Electric's Florida regulated utility operations. Hence, I am attempting to determine whether my proposed rate of return will in turn support cash flow metrics, balance sheet strength, and earnings that will support an investment grade bond rating and Tampa Electric's financial integrity.

Q DID YOU INCLUDE ANY OFF-BALANCE SHEET DEBT ("OBSD")?

A Yes. As shown in Exhibit MPG-17, page 3, I estimated OBSD equivalents of $56.10 million attributed to Tampa Electric's operating leases and purchased power agreements ("PPA") as provided by the Company in response to FEA's First Set of IRRs, IRR No. 3. S&P includes other off-balance sheet debt adjustments which I did not include in my analysis. S&P's inclusion of intermediate hybrids, post-retirement benefits, and accrued interest not reported on the Company's debt and asset retirement obligations, were not included in my analysis. Each of these factors are either reflected in Tampa Electric's cost of

[33] *Standard & Poor's RatingsDirect*: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

service, or I could not find evidence that they relate to regulated utility operations. As such, I did not include them in the metrics to judge the reasonableness of my rate of return for retail operations in Florida in this proceeding.

Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS FOR TAMPA ELECTRIC.

A The S&P financial metric calculations for Tampa Electric at a 9.25% return are developed on Exhibit MPG-17, page 1.

Tampa Electric's adjusted total debt ratio is approximately 47%. This is within the "Significant" utility guideline range of 45% to 50%. This total debt ratio will support an investment grade bond rating.

As shown in Exhibit MPG-17, page 1, column 1, based on an equity return of 9.25%, Tampa Electric will be provided an opportunity to produce a debt to EBITDA ratio of 2.9x. This is at the high end of S&P's "Intermediate" guideline range of 2.0x to 3.0x.[34] This ratio also supports an investment grade credit rating.

Finally, Tampa Electric's retail operations FFO to total debt coverage at a 9.25% equity return would be 24%, which is within the "Significant" metric guideline range of 20% to 30%. The FFO/total debt ratio will support an investment grade bond rating.

At my recommended return on equity of 9.25% and proposed capital structure, Tampa Electric's financial credit metrics are supportive of its current "BBB+" utility bond rating.

[34] *Standard & Poor's RatingsDirect*: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009 at 4.

RESPONSE TO TAMPA ELECTRIC WITNESS MR. ROBERT HEVERT

Q WHAT RETURN ON COMMON EQUITY IS TAMPA ELECTRIC PROPOSING FOR THIS PROCEEDING?

A Mr. Hevert is sponsoring Tampa Electric's return on equity recommendation. He is proposing a return on equity of 11.25%[35] based on a recommended range of 10.50% to 11.50%. Mr. Hevert relied on a constant growth DCF analysis, CAPM studies, and a Bond Yield Plus Risk Premium approach to support his recommended return for Tampa Electric.

Q ARE MR. HEVERT'S RETURN ON EQUITY ESTIMATES REASONABLE?

A No. Mr. Hevert's estimated costs ranging from 10.50% to 11.50% are overstated and should be rejected. Mr. Hevert's analyses produce excessive results for various reasons: (1) his constant growth DCF results are based on excessive, unsustainable growth rates, (2) his CAPM is based on inflated market risk premiums, and (3) his Bond Yield Plus Risk Premium is based on inflated utility equity risk premiums.

Q PLEASE SUMMARIZE TAMPA ELECTRIC WITNESS MR. HEVERT'S RETURN ON EQUITY ESTIMATES.

A Mr. Hevert's return on equity estimates are summarized below in Table 6. In Column 2, I show the results with prudent and sound adjustments to Mr. Hevert's common equity return estimates. With reasonable adjustments to his proxy group's DCF, CAPM and Risk Premium return estimates, Mr. Hevert's own

[35] Hevert Direct at 3.

studies show my recommended return on equity of 9.25% is reasonable for Tampa Electric.

TABLE 6

Hevert's Return on Equity Estimates

Description	Mean[1] (1)	Adjusted[2] (2)
Constant Growth DCF (Mean/Median)		
30-Day Average Stock Price	10.60%/10.84%	9.57%/9.54%
90-Day Average Stock Price	10.69%/10.86%	9.64%/9.51%
180-Day Average Stock Price	10.70%/10.81%	9.62%/9.38%
CAPM Results (Bloomberg Beta)		
Current Treasury Yield (Sharpe Ratio – 3.12%)	7.42%	7.90%
Current Treasury Yield (Bloomberg DCF – 3.12%)	10.18%	7.90%
Current Treasury Yield (Capital IQ DCF – 3.12%)	10.13%	7.90%
Near-Term Projected (Sharpe Ratio – 3.25%)	7.56%	8.00%
Near-Term Projected (Bloomberg DCF – 3.25%)	10.31%	8.00%
Near-Term Projected (Capital IQ DCF – 3.25%)	10.26%	8.00%
Long-Term Projected (Sharpe Ratio – 5.10%)	9.41%	9.90%
Long-Term Projected (Bloomberg DCF – 5.10%)	12.16%	9.90%
Long-Term Projected (Capital IQ DCF – 5.10%)	12.11%	9.90%
Average	**9.95%**	**8.60%**
CAPM Results (*Value Line* Beta)		
Current Treasury Yield (Sharpe Ratio – 3.12%)	7.45%	7.90%
Current Treasury Yield (Bloomberg DCF – 3.12%)	10.22%	7.90%
Current Treasury Yield (Capital IQ DCF – 3.12%)	10.16%	7.90%
Near-Term Projected (Sharpe Ratio – 3.25%)	7.58%	8.00%
Near-Term Projected (Bloomberg DCF – 3.25%)	10.35%	8.00%
Near-Term Projected (Capital IQ DCF – 3.25%)	10.30%	8.00%
Long-Term Projected (Sharpe Ratio – 5.10%)	9.43%	9.90%
Long-Term Projected (Bloomberg DCF – 5.10%)	12.20%	9.90%
Long-Term Projected (Capital IQ DCF – 5.10%)	12.15%	9.90%
Average	**9.98%**	**8.60%**
Risk Premium		
Current	10.23%	7.51%
Near-Term Projected	10.24%	7.64%
Long-Term Projected	10.76%	9.50%
Average	**10.41%**	**8.22%**
Range	**10.50%-11.50%**	**8.60%-9.70%**
Recommended/Midpoint Return on Equity	**11.25%**	**9.30%**

Sources:
[1]Exhibit No. ___ (RBH-1), Document No. 1.
[2]Exhibit MPG-18.

Q PLEASE DESCRIBE MR. HEVERT'S CONSTANT GROWTH DCF RETURN ESTIMATES.

A His constant growth DCF returns are developed in his Exhibit No. ___ (RBH-1), Document No. 2, pages 1-3. Mr. Hevert's constant growth DCF models are based on consensus growth rates published by Zacks and First Call, and individual growth rate projections made by *Value Line*. He relied on dividend yield calculations based on average stock prices over three different periods – 30-day, 90-day and 180-day.

Q DO YOU BELIEVE THAT MR. HEVERT'S CONSTANT GROWTH DCF RETURN MODELS PRODUCE A REASONABLE RETURN ESTIMATE FOR TAMPA ELECTRIC?

A No. Mr. Hevert relied on growth rate estimates which are far too high to be reasonable estimates of long-term sustainable growth. Also, Mr. Hevert's results are subject to certain outliers. For example, Otter Tail Corporation and PNM Resources have *Value Line* growth rates of 24.0% and 16.0%, respectively, which is significantly above the sustainable long-term growth rate of 4.9% as discussed above. Eliminating these clearly outlier growth rate estimates would reduce Mr. Hevert's average DCF studies to 9.57% to 9.64% as shown on my Exhibit MPG-18. However, Mr. Hevert's DCF results are still overstated because of his development of his DCF input estimates.

Q PLEASE DESCRIBE THE GROWTH RATES INCLUDED IN MR. HEVERT'S CONSTANT GROWTH DCF RETURN ESTIMATES.

A The growth rate estimates, dividend yields and corresponding DCF return estimates for Mr. Hevert's constant growth DCF studies are illustrated on my Exhibit MPG-19. Mr. Hevert's schedules do not show the details of the DCF estimate.

As shown on that schedule, his DCF return estimates for his proxy group are based on a range of growth rate estimates from a low of 4.73%, to a mean growth rate estimate of 6.50%, and a high DCF growth rate of 8.94%. These growth rate estimates were used in all of his constant growth DCF study 30-, 90- and 180-day average stock prices.

Q WHY DO YOU BELIEVE THAT MR. HEVERT'S MEAN AND HIGH-END GROWTH RATE ESTIMATES OF 6.50% AND 8.94%, RESPECTIVELY, ARE TOO HIGH TO BE REASONABLE ESTIMATES OF LONG-TERM SUSTAINABLE GROWTH?

A These growth rates cannot be sustained indefinitely for various reasons. First, the consensus of economists is that GDP growth of the U.S. general economy, which is a proxy for the growth rate of the economies in which these utilities operate, is between 4.7% and 5.1% indefinitely.[36] Hence, the growth rates of 6.50% and 8.94% are substantially higher than the growth outlooks of the economies in which these utilities operate. It is simply not rational to expect that these companies can grow faster than the economies in which they provide

[36] *Blue Chip Financial Forecasts*, June 1, 2013, page 14.

service, because utilities provide service to meet the demand of the economies they serve.

Second, growth rates in the range of 6.50% and 8.94% could not be sustained by the current earnings retention rate of utility companies. Indeed, the *Value Line* long-term payout ratio for the utility industry will be about 60.12% (Exhibit MPG-5). In order to sustain growth rates of 6.50% and 8.94%, utilities would have to achieve returns on book equity of 16.30% and 22.42%, respectively, indefinitely.[37] Hence, it is simply not a rational outlook to expect that utilities will be able to produce earnings that could sustain this level of growth indefinitely.

Q CAN YOU DESCRIBE AGAIN WHY A THREE- TO FIVE-YEAR GROWTH RATE CAN EXCEED A LONG-TERM SUSTAINABLE GROWTH RATE?

A Yes. A three- to five-year growth rate can exceed a long-term sustainable growth rate for several reasons including: (1) the utility's capital program and rate base are growing at an abnormally high level; (2) a company's growth in earnings is above a depressed level of earnings; and/or (3) altering dividend payout ratio targets can create temporary acceleration or decline to short-term growth.

As discussed above, while short-term accelerated earnings growth rates may be a reasonable expectation for relatively short periods of time, it is not reasonable to expect that accelerated short-term growth can be sustained indefinitely. That is the flaw of Mr. Hevert's DCF studies. He is deriving DCF estimates based on accelerated short-term growth rates that he assumes can be sustained over an indefinite period of time. This is simply not a rational outlook,

[37] 6.50% ÷ (1 – 60.12%) = 16.30% and 8.94% ÷ (1 – 60.12%) = 22.42%.

and produces an excessive DCF return estimate.

Q CAN MR. HEVERT'S DCF ANALYSES BE REVISED TO REFLECT A REASONABLE LONG-TERM SUSTAINABLE GROWTH RATE?

A Yes. Mr. Hevert's DCF studies can be revised to reflect the short-term growth rate estimates that will be realized over the period they were designed to reflect, five years, and the growth rate after that would eventually converge down to a lower sustainable long-term rate of growth. This can be accomplished by using a multi-stage growth DCF analysis. The multi-stage growth DCF model can reflect abnormally high short-term growth, followed by a decline to a lower growth rate that can be sustained over a long-term period.

Q HOW WOULD MR. HEVERT'S CONSTANT GROWTH DCF MODEL CHANGE IF A MULTI-STAGE DCF MODEL IS PERFORMED?

A As shown on my Exhibit MPG-19, using *The Blue Chip Financial Forecasts'* GDP growth forecast of 4.9% (average of 5.1% and 4.7%) and Mr. Hevert's inputs as developed on his Exhibit No. ___ (RBH-1), will reduce his DCF return estimate for his proxy group from 10.69% (mean) and 10.84% (median) to 9.61% (mean) and 9.55% (median). The results are summarized in Table 7 below.

TABLE 7

Hevert Multi-Stage DCF Analysis

Description	Hevert Mean[1] (1)	Revised Estimate[2] (2)
Mean		
30-Day Average Stock Price	10.60%	9.54%
90-Day Average Stock Price	10.69%	9.64%
180-Day Average Stock Price	10.79%	9.66%
Average	10.69%	9.61%
Median		
30-Day Average Stock Price	10.84%	9.61%
90-Day Average Stock Price	10.86%	9.59%
180-Day Average Stock Price	10.81%	9.45%
Average	10.84%	9.55%

Sources:
[1]Exhibit No. ___ (RBH-1), Document No. 2.
[2]Exhibit MPG-20.

Q PLEASE DESCRIBE THE ISSUES YOU TAKE WITH MR. HEVERT'S CAPM ANALYSES.

A My major concern with Mr. Hevert's CAPM analysis is his inflated market risk premium estimates.

Q PLEASE DESCRIBE MR. HEVERT'S MARKET RISK PREMIUMS.

A Mr. Hevert developed three market risk premium estimates. The first two are DCF-derived market risk premiums of 9.88% (Bloomberg) and 9.81% (Capital IQ), which are based on market DCF returns of 13.00% and 12.93%, respectively, less the current 30-year Treasury bond yield of 3.12%. (Exhibit No.

___ (RBH-2), Document No. 5, pages 2 and 15). The second market risk premium (referred as the Sharpe market risk premium) of 6.03% is based on one historical market risk premium estimate of 6.60%, adjusted for the difference in long-term historical and current market volatility. (*Id.*, page 1).

Q WHAT ISSUES DO YOU HAVE WITH MR. HEVERT'S DCF-DERIVED MARKET RISK PREMIUM ESTIMATES?

A Mr. Hevert's DCF-derived market risk premiums are based on market returns of approximately 13.00% and 12.93%, which consist of a growth rate component of approximately 11.00% and a dividend yield of approximately 2.00%. As discussed above, the DCF model requires a long-term sustainable growth rate. Mr. Hevert's sustainable market growth rate of approximately 11.00% is far too high to be a rational outlook for sustainable long-term market growth. This growth rate is more than two times the growth rate of the U.S. GDP long-term growth outlook of 4.9%. Indeed, it is even about twice Mr. Hevert's flawed and overstated GDP growth projection.

As a result of this unreasonable long-term market growth rate estimate, Mr. Hevert's market DCF returns are inflated and not reliable. Consequently, Mr. Hevert's 9.88% (Bloomberg) and 9.81% (Capital IQ) market risk premiums are inflated and not reliable.

Q IS THERE INFORMATION ON ACTUAL ACHIEVED CAPITAL APPRECIATION FOR THE MARKET INDEX USED BY MR. HEVERT?

A Yes. Morningstar estimates the actual capital appreciation for the S&P 500 over the period 1926 through 2012 to have been 7.5%.[38] Using this gauge of actual capital appreciation in the market in the past as an estimate of future expected growth of the market index going forward, along with Mr. Hevert's estimated dividend yield of approximately 2.0%, would imply a total expected return on the market going forward of approximately 9.5%. This 9.5% less the risk-free estimates used by Mr. Hevert of 3.1% would imply a going-forward expected market risk premium of 6.4%.

This expected return on the market is very consistent with Morningstar's data which estimates market risk premiums in the range of 6.0% to 6.7% based on its historical market and Treasury bond investment data that I discussed above.

Q PLEASE DESCRIBE MR. HEVERT'S SHARPE MARKET RISK PREMIUM.

A Mr. Hevert's Sharpe market risk premium is 6.03%. Mr. Hevert maintains that his Sharpe market risk premium adjusts the historical market risk premium to reflect the difference between historic and expected market volatility. He adjusts the historical market risk premium of 6.6% by the expected market volatility of 18.54%, relative to historical market volatility of 20.30%.[39] He measures expected market volatility using the Chicago Board Options Exchange's ("CBOE") three-month volatility index of settlement prices of futures on the CBOE's one-month volatility index (July 2013 through Sept 2013).

[38] 2013 Ibbotson *SBBI Valuation Yearbook* at 23.
[39] Exhibit No. ___ (RBH-1), Document No. 3, page 1 of 27.

As shown on his Exhibit No. ___ (RBH-1), Document No. 3, page 1, using this relative comparison of market volatility, he adjusts the historical market risk premium of 6.60% down to 8.35%, by the ratio of expected market volatility of 18.54%, to historical market volatility of 20.30% (6.60% x (18.54% ÷ 20.30%)).

Q DO YOU BELIEVE THAT MR. HEVERT'S SHARPE RATIO EXPECTED MARKET RISK PREMIUM PRODUCES RELIABLE RESULTS?

A No. The period rates determined in this proceeding will be in effect is several years into the future. In significant contrast, Mr. Hevert is measuring expected market volatility for a relatively short six-week time period in 2012. This relatively short period of time does not prove that market volatility in the long term will be different from volatility in the past. Mr. Hevert's short-term based analysis is not useful in estimating a fair return for Tampa Electric in this case. It simply is not designed to estimate long-term investors' cost of capital requirements.

Q WHY IS MR. HEVERT'S PROPOSAL TO MEASURE MARKET RISK PREMIUM BASED ON A SIX-WEEK MARKET VOLATILITY NOT USEFUL IN ESTIMATING A FAIR RETURN ON EQUITY FOR TAMPA ELECTRIC IN THIS PROCEEDING?

A Mr. Hevert's Sharpe ratio market risk premium does not capture the return expectations of long-term utility investors. Rather, it reflects the short-term investment outlooks of short-term trading investors or speculators looking to react to misvaluations in the marketplace. Indeed, the entire analysis is based on derivative future valuation data rather than directly on stock price data. As such, the Sharpe market risk premium does not measure long-term stock

investment outlooks and requirements, and does not produce a fair return on equity estimate for Tampa Electric.

Q CAN MR. HEVERT'S CAPM ANALYSIS BE REVISED TO REFLECT A MORE REASONABLE MARKET RISK PREMIUM?

A Yes. Using Mr. Hevert's risk-free rates of 3.12%, 3.25% and 5.10% (Exhibit No. ___ (RBH-4), published Bloomberg beta estimate of 0.71,[40] and the 6.70% Morningstar market risk premium described above, Mr. Hevert's CAPM would be in the range of 7.90% to 9.90%. Using the same risk-free rates and market risk premium, and the *Value Line* beta of 0.72,[41] will produce a CAPM return in the range of 7.90% to 9.90%[42] for Mr. Hevert's proxy group.

Q PLEASE DESCRIBE MR. HEVERT'S BOND YIELD PLUS RISK PREMIUM.

A As shown on Exhibit No. ___ (RBH-5), Mr. Hevert constructs a risk premium return on equity estimate based on the premise that equity risk premiums are inversely related to the interest rates. He estimates an average electric risk premium of 4.39% current, near-term and long-term over Treasury bond yields of 3.12%, 3.25% and 5.10% over the period January 1980 to February 2013, respectively. Then he applies a regression analysis to the current, near-term and long-term projected Treasury bond yields of 3.12%, 3.25% and 5.10% to produce an average electric risk premium of 7.11%, 6.99% and 5.66%, respectively. This in turn yields a return on equity estimate of 10.23%, 10.24% and 10.76%, respectively.

[40] Exhibit No. ___ (RBH-1), Document No. 5.
[41] *Id.*
[42] 3.12% + 0.71 (or 0.72) x 6.70% = 7.90%; 3.25% + 0.71 (or 0.72) x 6.70% = 8.00%; 5.10% + 0.71 (or 0.72) x 6.70% = 9.90%.

Q IS MR. HEVERT'S BOND YIELD PLUS RISK PREMIUM METHODOLOGY REASONABLE?

A No. Mr. Hevert's contention that there is a simplistic inverse relationship between equity risk premiums and interest rates is not supported by academic research. While academic studies have shown that, in the past, there has been an inverse relationship with these variables, researchers have found that the relationship changes over time and is influenced by changes in perception of the risk of bond investments relative to equity investments, and not simply changes to interest rates.[43]

In the 1980s, equity risk premiums were inversely related to interest rates, but that was likely attributable to the interest rate volatility that existed at that time. As such, when interest rates were more volatile, the relative perception of bond investment risk increased relative to the investment risk of equities. This changing investment risk perception caused changes in equity risk premiums.

In today's marketplace, interest rate volatility is not as extreme as it was during the 1980s.[44] Nevertheless, changes in the perceived risk of bond investments relative to equity investments still drive changes in equity premiums. However, a relative investment risk differential cannot be measured simply by observing nominal interest rates. Changes in nominal interest rates are highly influenced by changes to inflation outlooks, which also change equity return expectations. As such, the relevant factor needed to explain changes in equity

[43] "The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts," Robert S. Harris and Felicia C. Marston, *Journal of Applied Finance*, Volume 11, No. 1, 2001 and "The Risk Premium Approach to Measuring a Utility's Cost of Equity," Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *Financial Management*, Spring 1985.

[44] "The Risk Premium Approach to Measuring a Utility's Cost of Equity," Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *Financial Management*, Spring 1985, at 44.

risk premiums is the relative changes to the risk of equity versus debt securities investments, and not simply changes in interest rates.

Importantly, Mr. Hevert's analysis simply ignores investment risk differentials. He bases his adjustment to the equity risk premium exclusively on changes in nominal interest rates. This is a flawed methodology and does not produce accurate or reliable risk premium estimates. As such, his argument should be rejected by the Commission.

Q DO YOU HAVE ANY OTHER COMMENTS CONCERNING MR. HEVERT'S RISK PREMIUM ANALYSES?

A Yes. Mr. Hevert's use of projected long-term Treasury yields is not appropriate because the accuracy of those projections could be highly problematic. However, to limit the issues with Mr. Hevert's studies and considering the low interest rate environment today, I will not take issue with his use of long-term projected Treasury bond yields.

Q CAN MR. HEVERT'S BOND YIELD PLUS RISK PREMIUM STUDY BE USED TO PRODUCE A MORE REASONABLE RETURN ON EQUITY ESTIMATE FOR TAMPA ELECTRIC?

A Yes. Mr. Hevert's equity risk premium average of 4.39% applied to the Treasury bond yields of 3.12%, 3.25% and 5.10%, will produce a risk premium return estimate in the range of 7.51% to 9.50%. While I agree with Mr. Hevert that his estimate is significantly low because it is influenced by the current low-cost interest environment, I find his attempt to increase the average equity risk premium by applying the notion of an inverse relationship inappropriate.

Q DO YOU HAVE ANY COMMENTS CONCERNING MR. HEVERT'S FLOTATION COST ADJUSTMENT?

A Yes. Even though Mr. Hevert did not propose a specific flotation cost adjustment, he estimated that a 14 basis point adder represents a reasonable adjustment to account for flotation costs. He also took flotation costs along with other factors into consideration when determining where the Company's return on equity falls within the range of his results.[45]

Q DO YOU AGREE WITH MR. HEVERT'S FLOTATION COST ESTIMATE OF 0.14%?

A No. Mr. Hevert's flotation cost estimate is flawed and it should not be taken into consideration when determining a fair return for Tampa Electric.

Flotation costs are a legitimate cost of doing business. However, flotation costs should only be included in the development of cost of service under two conditions. First, the Company has to demonstrate what its actual flotation costs are, and prove they are reasonable. It is not appropriate to approximate flotation cost for utility companies and build that approximated cost into a utility's cost of service. Costs should be known and measurable and should be verifiable and most importantly should be shown to be reasonable before they are included in cost of service. This is not possible if a utility's flotation costs are approximated, as Mr. Hevert has done.

Second, and more important, Tampa Electric is not a publicly traded company. Rather, it is a wholly-owned subsidiary of TECO Energy. Hence, Tampa Electric does not incur costs related to selling common stock to the

[45] Hevert Direct at 4 and 52.

market. Tampa Electric's common equity capital comes from two sources: (1) retained earnings, which incur no flotation cost, and (2) equity infusion from its parent company.

Therefore, Mr. Hevert's estimate of 14 basis points to account for flotation costs should be disregarded and not considered in determining the Company's return on equity.

Q DID MR. HEVERT ALSO OFFER AN ANALYSIS TO ASSESS CURRENT MARKET CONDITIONS IN SUPPORT OF HIS RECOMMENDED RETURN ON EQUITY?

A Yes. At pages 52 through 65 of his direct testimony, Mr. Hevert describes several factors which he suggests gauge investor sentiment including incremental credit spreads, market volatility, and the relationship between the dividend yield of proxy group companies and Treasury yields. He concludes that these metrics indicate that current levels of instability and risk aversion are significantly higher than the levels observed prior to the recent recession.

Q DO YOU BELIEVE THAT MR. HEVERT'S USE OF THESE MARKET SENTIMENTS SUPPORTS HIS FINDINGS THAT TAMPA ELECTRIC'S MARKET COST OF EQUITY IS CURRENTLY 11.25%?

A No. Indeed, in many instances Mr. Hevert's analysis simply ignores market sentiments toward utility companies, and instead lumps utility investments in with general corporate investments. A broader analysis of utility securities shows that the market generally regards utility securities as low-risk investment instruments,

and helps support the reasonable findings that utilities' cost of capital is very low in today's marketplace.

RESIDENTIAL SALES REVENUE

Q DID TAMPA ELECTRIC FORECAST RESIDENTIAL SALES REVENUE FOR THE 2014 TEST YEAR?

A Yes. Tampa Electric witnesses Lorraine C. Cifuentes and William R. Ashburn prepared direct testimony which addressed the projected 2014 residential sales revenue. Based on Ms. Cifuentes' forecast, Mr. Ashburn presents the customer and sales data used by Tampa Electric to calculate the residential sales revenue at existing rates.

Q WHAT IS THE RESIDENTIAL SALES REVENUE AT PRESENT RATES PROPOSED BY TAMPA ELECTRIC?

A Tampa Electric has proposed a level of residential sales revenue of $489.6 million based on 619,152 customers and total residential sales of 8,563,003 MWh.

Q IS THE RESIDENTIAL REVENUE AT PRESENT RATES PROJECTED BY TAMPA ELECTRIC REASONABLE?

A No. I believe Tampa Electric has substantially understated the annualized level of residential sales revenue at present rates.

Ms. Cifuentes' projection reflects a decline in average residential sales per customer usage relative to that actually experienced by Tampa Electric over

the period 2005 through 2012. This level of sales per customer is shown below in Table 8.

TABLE 8

Residential Sales/Customer

Year	MWh Sales[1]	Number of Customers[1]	Sales per Customer (MWh/Customer)
2005	8,558,461	558,728	15.32
2006	8,720,867	575,111	15.16
2007	8,871,217	586,776	15.12
2008	8,546,468	587,602	14.54
2009	8,666,471	587,396	14.75
2010	9,184,729	591,554	15.53
2011	8,717,962	595,914	14.63
2012	8,395,166	603,594	13.91
Average			14.87
Tampa Electric Proposed 2014	8,563,003[2]	619,152[2]	13.83

Sources/Notes:

[1]2005-2012 data from Tampa Electric FERC Form 1 Annual Reports.
[2]Tampa Electric's Minimum Filing Requirements, Schedule E-13c, page 2 of 19 (Customers = Bills ÷ 12).

As shown above in Table 8, the projected 2014 test year sales per customer declines to 13.83 MWh per year. However, the actual usage/customer over the 2005-2012 ranges from 15.53 to 13.91 MWh per year and averages 14.87 MWh per year.

As shown in the table above, the Company's projected sales significantly understate Tampa Electric's actual residential sales revenue per customer experienced over the last eight years.

Q WHY DO YOU BELIEVE THAT TAMPA ELECTRIC'S ESTIMATED RESIDENTIAL REVENUE IS UNREASONABLE BASED ON THE DATA ABOVE IN TABLE 8?

A Tampa Electric's use per residential customer projected for the 2014 test year is lower than the actual sales use per customer in any year during the period 2005-2012. I believe this projection is inconsistent with the data outlined in Ms. Cifuentes' testimony. Specifically, she describes an economic forecast used to derive the Company's projected peak demand and customer load energy sales. As shown on Ms. Cifuentes' Document No. 3, the projected economic activity for the Tampa Electric service territory is quite robust for the 2014 test year relative to the historical period 2009-2012. For example, commercial real gross output is projected to grow by 8.6% in 2014 over 2012, compared to only 4.4% growth from 2010 to 2012. This would indicate strong economic growth for a commercial business in the Tampa Electric area.

This is a strong indication that residential customers would be spending more of their disposable income, which is also projected to grow by 5.6% in 2012-2014, compared to only 2% growth from 2010-2012. This strong increase in real household income is supporting strong commercial real estate gross output, and would also suggest customers are spending more on discretionary items which would include electricity consumption.

Further, construction employment in the service territory actually declined from 2010-2012 but is projected to increase by 5.5% for 2012-2014. Industrial employment is projected to stay relatively flat through the period 2010-2014.

Further, the Company's actual load characteristics appear to be rather pessimistic. For example, the actual heating and cooling degree days

projections as outlined on Ms. Cifuentes' Document No. 4, suggests that there will be fewer heating degree days and cooling degree days in the projected period relative to the actual experienced on average through the period 1992-2011. Specifically, Ms. Cifuentes states that the heating degree days and cooling degree days over 1992-2011 were 515 and 3,667, respectively. However, for the forecast, she is expecting considerably milder heating and cooling weather reflecting only 512 heating degree days and 3,655 cooling degree days over the projected period 2013-2022. This change in heating and cooling degree days impacts residential consumptions during the heating and cooling seasons, respectively, and likely explains why she is projecting a decline in average use per residential customer. I believe Ms. Cifuentes has not adequately justified this expectation of lower heating and cooling weather events, driving down Tampa Electric's sales for heating and cooling residential load.

Q WOULD IT BE APPROPRIATE TO USE THE ACTUAL SALES IN CALENDAR YEAR 2012 AS A PROJECTION FOR ACTUAL SALES IN THE 2014 TEST YEAR?

A No. Actual weather-related sales data included in Ms. Cifuentes' testimony demonstrates that calendar year 2012 did not reflect normal residential heating loads.

Q DO YOU BELIEVE THE ANNUAL AVERAGE USAGE PER RESIDENTIAL CUSTOMER AS PROPOSED BY TAMPA ELECTRIC IS REASONABLE?

A No. Tampa Electric is proposing a usage per residential customer that is below any level previously experienced by the Company. Referring to Table 8, the

annual average usage per residential customer has historically been in the 14-15 MWh range. The only time usage per residential customer has been below 14.5 in the last eight years was 2012 and as I have previously stated, the low annual usage experienced that year was due to an unusually warm winter. Yet Tampa Electric has proposed a level even lower than the abnormal results experienced in 2012. Proposing an annual usage level less than the 2012 level highlights the unreasonableness of Tampa Electric's proposal.

Q DO YOU TAKE ISSUE WITH THE COMPANY'S PROJECTED NUMBER OF CUSTOMERS IN THE 2014 TEST YEAR?

A No. I believe the Company's projected increase in customers of 1.5% appears to be reasonably consistent with its historical data. However, the use per customer appears to be understated.

Q WHAT LEVEL OF SALES DO YOU RECOMMEND BE USED TO ESTIMATE RESIDENTIAL SALES REVENUE IN THE FORECASTED TEST YEAR IN ORDER TO ESTIMATE TAMPA ELECTRIC'S CLAIMED REVENUE DEFICIENCY IN THIS PROCEEDING?

A I recommend the use of average residential sales of 14.25 MWh/customer. This level exceeds the projection for 2014, but reflects a decline in annual usage the Company has actually experienced over the period 2005-2011. However, this decline I believe is skewed by 2012 data, which reflects weak economic activity, and abnormally low heating degree days for the period around 2012. Ms. Cifuentes' projections reflect a return to stronger economic activity, which

should encourage residential customers to return to more normal consumption levels.

Q WHAT IS THE IMPACT ON TAMPA ELECTRIC'S ANNUALIZED RESIDENTIAL SALES REVENUE USING YOUR PROPOSED 14.25 MWH LEVEL OF USAGE?

A As shown on my Exhibit MPG-22, by using a 14.25 MWh level of usage per customer, Tampa Electric's annualized residential revenues would be increased by $12.5 million.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A Yes, it does.

Qualifications of Michael P. Gorman

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q PLEASE STATE YOUR OCCUPATION.

A I am a consultant in the field of public utility regulation and a Managing Principal with Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A In 1983 I received a Bachelors of Science Degree in Electrical Engineering from Southern Illinois University, and in 1986, I received a Masters Degree in Business Administration with a concentration in Finance from the University of Illinois at Springfield. I have also completed several graduate level economics courses.

In August of 1983, I accepted an analyst position with the Illinois Commerce Commission ("ICC"). In this position, I performed a variety of analyses for both formal and informal investigations before the ICC, including: marginal cost of energy, central dispatch, avoided cost of energy, annual system production costs, and working capital. In October of 1986, I was promoted to the position of Senior Analyst. In this position, I assumed the additional responsibilities of technical leader on projects, and my areas of responsibility were expanded to include utility financial modeling and financial analyses.

In 1987, I was promoted to Director of the Financial Analysis Department. In this position, I was responsible for all financial analyses conducted by the staff. Among other things, I conducted analyses and sponsored testimony before the ICC on rate of return, financial integrity, financial modeling and related issues. I also supervised the development of all Staff analyses and testimony on these same issues. In addition, I supervised the Staff's review and recommendations to the Commission concerning utility plans to issue debt and equity securities.

In August of 1989, I accepted a position with Merrill-Lynch as a financial consultant. After receiving all required securities licenses, I worked with individual investors and small businesses in evaluating and selecting investments suitable to their requirements.

In September of 1990, I accepted a position with Drazen-Brubaker & Associates, Inc. ("DBA"). In April 1995, the firm of Brubaker & Associates, Inc. ("BAI") was formed. It includes most of the former DBA principals and Staff. Since 1990, I have performed various analyses and sponsored testimony on cost of capital, cost/benefits of utility mergers and acquisitions, utility reorganizations, level of operating expenses and rate base, cost of service studies, and analyses relating industrial jobs and economic development. I also participated in a study used to revise the financial policy for the municipal utility in Kansas City, Kansas.

At BAI, I also have extensive experience working with large energy users to distribute and critically evaluate responses to requests for proposals ("RFPs") for electric, steam, and gas energy supply from competitive energy suppliers. These analyses include the evaluation of gas supply and delivery charges, cogeneration and/or combined cycle unit feasibility studies, and the evaluation of third-party asset/supply management agreements. I have participated in rate

cases on rate design and class cost of service for electric, natural gas, water and wastewater utilities. I have also analyzed commodity pricing indices and forward pricing methods for third party supply agreements, and have also conducted regional electric market price forecasts.

In addition to our main office in St. Louis, the firm also has branch offices in Phoenix, Arizona and Corpus Christi, Texas.

Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?

A Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of service and other issues before the Federal Energy Regulatory Commission and numerous state regulatory commissions including: Arkansas, Arizona, California, Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Michigan, Missouri, Montana, New Jersey, New Mexico, New York, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, and before the provincial regulatory boards in Alberta and Nova Scotia, Canada. I have also sponsored testimony before the Board of Public Utilities in Kansas City, Kansas; presented rate setting position reports to the regulatory board of the municipal utility in Austin, Texas, and Salt River Project, Arizona, on behalf of industrial customers; and negotiated rate disputes for industrial customers of the Municipal Electric Authority of Georgia in the LaGrange, Georgia district.

Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR ORGANIZATIONS TO WHICH YOU BELONG.

A I earned the designation of Chartered Financial Analyst ("CFA") from the CFA Institute. The CFA charter was awarded after successfully completing three examinations which covered the subject areas of financial accounting, economics, fixed income and equity valuation and professional and ethical conduct. I am a member of the CFA Institute's Financial Analyst Society.

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Tampa Electric Company

Rate of Return
Adjusted Capital Structure
2014 Test Year

Line	Description	Amount (000) (1)	Specific Adjustments (2)	Pro Rata Adjustments (3)	Juris Adjusted Amount (4)	Weight (5)	Cost (6)	Weighted Cost (7)
1	Long-Term Debt	$ 1,750,463	$ 1,104	$ (287,470)	$ 1,461,412	33.78%	5.40%	1.82%
2	Customer Deposits	$ 129,515	$ 82	$ -	$ 129,359	2.99%	2.20%	0.07%
3	Common Equity	$ 2,091,067	$ 1,328	$ (343,407)	$ 1,745,780	40.35%	**9.25%**	3.73%
4	Short-Term Debt	$ 31,024	$ (2,725)	$ (4,644)	$ 23,611	0.55%	1.47%	0.01%
5	Deferred Income Tax	$ 962,726	$ (3,719)	$ -	$ 957,248	22.12%	0.00%	0.00%
6	Investment Tax Credit	$ 9,184	$ -	$ -	$ 9,167	0.21%	7.45%	0.02%
7	**Total**	**$ 4,973,979**	**$ (3,930)**	**$ (635,522)**	**$ 4,326,577**	100.00%		5.65%

Investor Capital Structure

Line	Description	Investor Capital Amount (000)* (1)	Investor Capital Weight (2)	Pro-Rata Allocation (3)
8	Long-Term Debt	$ 1,751,567	45.23%	$ (287,470)
9	Short-Term Debt	$ 28,299	0.73%	$ (4,644)
10	Common Equity	$ 2,092,395	54.04%	$ (343,407)
11	**Total**	**$ 3,872,261**	**100.00%**	$ (635,522)

Source:
Schedule D-1a.
* Sum of Columns 1 and 2, Lines 1, 3, and 4.

Tampa Electric Company

Proxy Group

Line	Company	Credit Ratings[1] S&P (1)	Credit Ratings[1] Moody's (2)	Common Equity Ratios SNL[1] (3)	Common Equity Ratios Value Line[2] (4)	S&P Business Risk Score[3] (5)
1	American Electric Power Company, Inc.	BBB	Baa2	44.3%	49.4%	Excellent
2	Cleco Corp.	BBB	Baa3	52.6%	54.4%	Excellent
3	Empire District Electric	BBB	Baa2	50.1%	50.9%	Excellent
4	Great Plains Energy Inc.	BBB	Baa3	46.9%	54.4%	Excellent
5	IDACORP, Inc.	BBB	Baa2	52.2%	54.5%	Excellent
6	Otter Tail Corporation	BBB	Baa3	54.4%	54.4%	Excellent
7	Pinnacle West Capital Corp.	BBB+	Baa2	52.9%	55.4%	Excellent
8	PNM Resources, Inc.	BBB	Ba1	45.5%	48.7%	Excellent
9	Portland General Electric Company	BBB	Baa2	51.1%	52.9%	Excellent
10	Southern Company	A	Baa1	43.8%	47.3%	Excellent
11	Westar Energy, Inc.	BBB	Baa2	45.4%	48.8%	Excellent
12	**Average**	**BBB**	**Baa2**	**49.0%**	**51.9%**	**Excellent**
13	Tampa Electric Company	BBB+[4]	A3[4]	54.2%[4]		Excellent

Sources:

[1] SNL Financial, Downloaded on June 24, 2013.

[2] *The Value Line Investment Survey,* May 3, May 24, and June 21, 2013.

[3] *S&P RatingsDirect:* "U.S. Regulated Electric, Gas, And Water Utilities, Strongest To Weakest," April 22, 2013.

[4] Callahan Direct at 25.

Tampa Electric Company

Consensus Analysts' Growth Rates

Line	Company	Zacks Estimated Growth %[1] (1)	Zacks Number of Estimates (2)	SNL Estimated Growth %[2] (3)	SNL Number of Estimates (4)	Reuters Estimated Growth %[3] (5)	Reuters Number of Estimates (6)	Average of Growth Rates (7)
1	American Electric Power Company, Inc.	3.38%	N/A	4.00%	3	3.84%	7	3.74%
2	Cleco Corp.	8.00%	N/A	8.00%	1	8.00%	1	8.00%
3	Empire District Electric	3.00%	N/A	N/A	N/A	3.00%	1	3.00%
4	Great Plains Energy Inc.	5.07%	N/A	5.00%	4	6.26%	5	5.44%
5	IDACORP, Inc.	4.00%	N/A	4.00%	1	N/A	N/A	4.00%
6	Otter Tail Corporation	6.00%	N/A	6.00%	1	6.00%	1	6.00%
7	Pinnacle West Capital Corp.	4.13%	N/A	4.20%	2	6.00%	2	4.78%
8	PNM Resources, Inc.	7.32%	N/A	6.20%	2	6.15%	2	6.56%
9	Portland General Electric Company	6.53%	N/A	6.60%	3	5.84%	4	6.32%
10	Southern Company	4.76%	N/A	5.00%	5	5.00%	6	4.92%
11	Westar Energy, Inc.	5.13%	N/A	4.00%	3	4.83%	3	4.65%
12	**Average**	**5.21%**	**N/A**	**5.30%**	**3**	**5.49%**	**3**	**5.22%**

Sources:
[1] Zacks Elite, http://www.zackselite.com/, downloaded on June 24, 2013.
[2] SNL Interactive, http://www.snl.com/, downloaded on June 24, 2013.
[3] Reuters, http://www.reuters.com/, downloaded on June 24, 2013.

Tampa Electric Company

Constant Growth DCF Model
(Consensus Analysts' Growth Rates)

Line	Company	13-Week AVG Stock Price[1] (1)	Analysts' Growth[2] (2)	Annualized Dividend[3] (3)	Adjusted Yield (4)	Constant Growth DCF (5)
1	American Electric Power Com	$48.16	3.74%	$1.96	4.22%	7.96%
2	Cleco Corp.	$46.74	8.00%	$1.45	3.35%	11.35%
3	Empire District Electric	$22.35	3.00%	$1.00	4.61%	7.61%
4	Great Plains Energy Inc.	$23.20	5.44%	$0.87	3.95%	9.40%
5	IDACORP, Inc.	$48.06	4.00%	$1.52	3.29%	7.29%
6	Otter Tail Corporation	$29.64	6.00%	$1.19	4.26%	10.26%
7	Pinnacle West Capital Corp.	$58.26	4.78%	$2.18	3.92%	8.70%
8	PNM Resources, Inc.	$22.90	6.56%	$0.66	3.07%	9.63%
9	Portland General Electric Corr	$31.06	6.32%	$1.08	3.70%	10.02%
10	Southern Company	$46.12	4.92%	$2.03	4.62%	9.54%
11	Westar Energy, Inc.	$32.90	4.65%	$1.36	4.33%	8.98%
12	**Average**	**$37.22**	**5.22%**	**$1.39**	**3.94%**	**9.16%**
13	**Median**					**9.40%**

Sources:
[1] SNL Financial, Downloaded on June 24, 2013.
[2] Exhibit MPG-3.
[3] *The Value Line Investment Survey,* May 3, May 24, and June 21, 2013.

Tampa Electric Company

Payout Ratios

Line	Company	Dividends Per Share 2012 (1)	Dividends Per Share Projected (2)	Earnings Per Share 2012 (3)	Earnings Per Share Projected (4)	Payout Ratio 2012 (5)	Payout Ratio Projected (6)
1	American Electric Power Company, Inc.	$1.88	$2.30	$2.98	$3.75	63.09%	61.33%
2	Cleco Corp.	$1.30	$2.00	$2.70	$3.50	48.15%	57.14%
3	Empire District Electric	$1.00	$1.20	$1.32	$1.70	75.76%	70.59%
4	Great Plains Energy Inc.	$0.86	$1.20	$1.35	$2.00	63.70%	60.00%
5	IDACORP, Inc.	$1.37	$1.90	$3.37	$3.65	40.65%	52.05%
6	Otter Tail Corporation	$1.19	$1.30	$1.05	$2.00	113.33%	65.00%
7	Pinnacle West Capital Corp.	$2.67	$2.60	$3.50	$4.25	76.29%	61.18%
8	PNM Resources, Inc.	$0.58	$1.08	$1.31	$2.15	44.27%	50.23%
9	Portland General Electric Company	$1.08	$1.30	$1.87	$2.25	57.75%	57.78%
10	Southern Company	$1.94	$2.30	$2.67	$3.25	72.66%	70.77%
11	Westar Energy, Inc.	$1.32	$1.52	$2.15	$2.75	61.40%	55.27%
12	**Average**	**$1.38**	**$1.70**	**$2.21**	**$2.84**	**65.19%**	**60.12%**

Source:
The Value Line Investment Survey, May 3, May 24, and June 21, 2013.

Tampa Electric Company

Sustainable Growth Rate

Line	Company	3 to 6 Year Projections: Dividends Per Share (1)	Earnings Per Share (2)	Book Value Per Share (3)	Book Value Growth (4)	ROE (5)	Adjustment Factor (6)	Adjusted ROE (7)	Payout Ratio (8)	Retention Rate (9)	Internal Growth Rate (10)	Sustainable Growth Rate (11)
1	American Electric Power Company, Inc.	$2.30	$3.75	$38.25	4.05%	9.80%	1.02	10.00%	61.33%	38.67%	3.87%	4.29%
2	Cleco Corp.	$2.00	$3.50	$31.75	5.03%	11.02%	1.02	11.29%	57.14%	42.86%	4.84%	4.88%
3	Empire District Electric	$1.20	$1.70	$19.25	2.64%	8.83%	1.01	8.95%	70.59%	29.41%	2.63%	3.18%
4	Great Plains Energy Inc.	$1.20	$2.00	$25.00	2.82%	8.00%	1.01	8.11%	60.00%	40.00%	3.24%	3.27%
5	IDACORP, Inc.	$1.90	$3.65	$43.45	4.38%	8.40%	1.02	8.58%	52.05%	47.95%	4.11%	4.24%
6	Otter Tail Corporation	$1.30	$2.00	$18.00	4.52%	11.11%	1.02	11.36%	65.00%	35.00%	3.97%	6.12%
7	Pinnacle West Capital Corp.	$2.60	$4.25	$42.50	3.26%	10.00%	1.02	10.16%	61.18%	38.82%	3.94%	4.52%
8	PNM Resources, Inc.	$1.08	$2.15	$24.40	4.01%	8.81%	1.02	8.98%	50.23%	49.77%	4.47%	4.48%
9	Portland General Electric Company	$1.30	$2.25	$26.75	3.18%	8.41%	1.02	8.54%	57.78%	42.22%	3.61%	3.72%
10	Southern Company	$2.30	$3.25	$25.75	4.07%	12.62%	1.02	12.87%	70.77%	29.23%	3.76%	4.76%
11	Westar Energy, Inc.	$1.52	$2.75	$29.65	5.31%	9.27%	1.03	9.51%	55.27%	44.73%	4.26%	4.83%
12	**Average**	**$1.70**	**$2.84**	**$29.62**	**3.93%**	**9.66%**	**1.02**	**9.86%**	**60.12%**	**39.88%**	**3.88%**	**4.39%**

Sources and Notes:
Cols. (1), (2) and (3): *The Value Line Investment Survey*, May 3, May 24, and June 21, 2013.
Col. (4): [Col. (3) / Page 2 Col. (2)] ^ (1/5) - 1.
Col. (5): Col. (2) / Col. (3).
Col. (6): [2 * (1 + Col. (4))] / (2 + Col. (4)).
Col. (7): Col. (6) * Col. (5).
Col. (8): Col. (1) / Col. (2).
Col. (9): 1 - Col. (8).
Col. (10): Col. (9) * Col. (7).
Col. (11): Col. (10) + Page 2 Col. (9).

Tampa Electric Company

Sustainable Growth Rate

Line	Company	13-Week Average Stock Price[1] (1)	2012 Book Value Per Share[2] (2)	Market to Book Ratio (3)	Common Shares Outstanding (in Millions)[2] 2012 (4)	Common Shares Outstanding (in Millions)[2] 3-5 Years (5)	Growth (6)	S Factor[3] (7)	V Factor[4] (8)	S * V (9)
1	American Electric Power Company, Inc.	$48.16	$31.37	1.54	485.67	505.00	0.78%	1.20%	34.86%	0.42%
2	Cleco Corp.	$46.74	$24.84	1.88	60.36	60.50	0.05%	0.09%	46.85%	0.04%
3	Empire District Electric	$22.35	$16.90	1.32	42.48	46.25	1.72%	2.27%	24.37%	0.55%
4	Great Plains Energy Inc.	$23.20	$21.75	1.07	153.53	156.00	0.32%	0.34%	6.25%	0.02%
5	IDACORP, Inc.	$48.06	$35.07	1.37	50.16	51.00	0.33%	0.46%	27.03%	0.12%
6	Otter Tail Corporation	$29.64	$14.43	2.05	36.17	40.00	2.03%	4.18%	51.32%	2.14%
7	Pinnacle West Capital Corp.	$58.26	$36.20	1.61	109.74	115.00	0.94%	1.51%	37.86%	0.57%
8	PNM Resources, Inc.	$22.90	$20.05	1.14	79.65	80.00	0.09%	0.10%	12.45%	0.01%
9	Portland General Electric Company	$31.06	$22.87	1.36	75.56	76.75	0.31%	0.43%	26.37%	0.11%
10	Southern Company	$46.12	$21.09	2.19	867.77	905.00	0.84%	1.84%	54.27%	1.00%
11	Westar Energy, Inc.	$32.90	$22.89	1.44	126.50	135.00	1.31%	1.88%	30.42%	0.57%
12	**Average**	**$37.22**	**$24.31**	**1.54**	**189.78**	**197.32**	**0.79%**	**1.30%**	**32.00%**	**0.51%**

Sources and Notes:

[1] SNL Financial, Downloaded on June 24, 2013.

[2] *The Value Line Investment Survey*, May 3, May 24, and June 21, 2013.

[3] Expected Growth in the Number of Shares, Column (3) * Column (6).

[4] Expected Profit of Stock Investment, [1 - 1 / Column (3)].

Tampa Electric Company

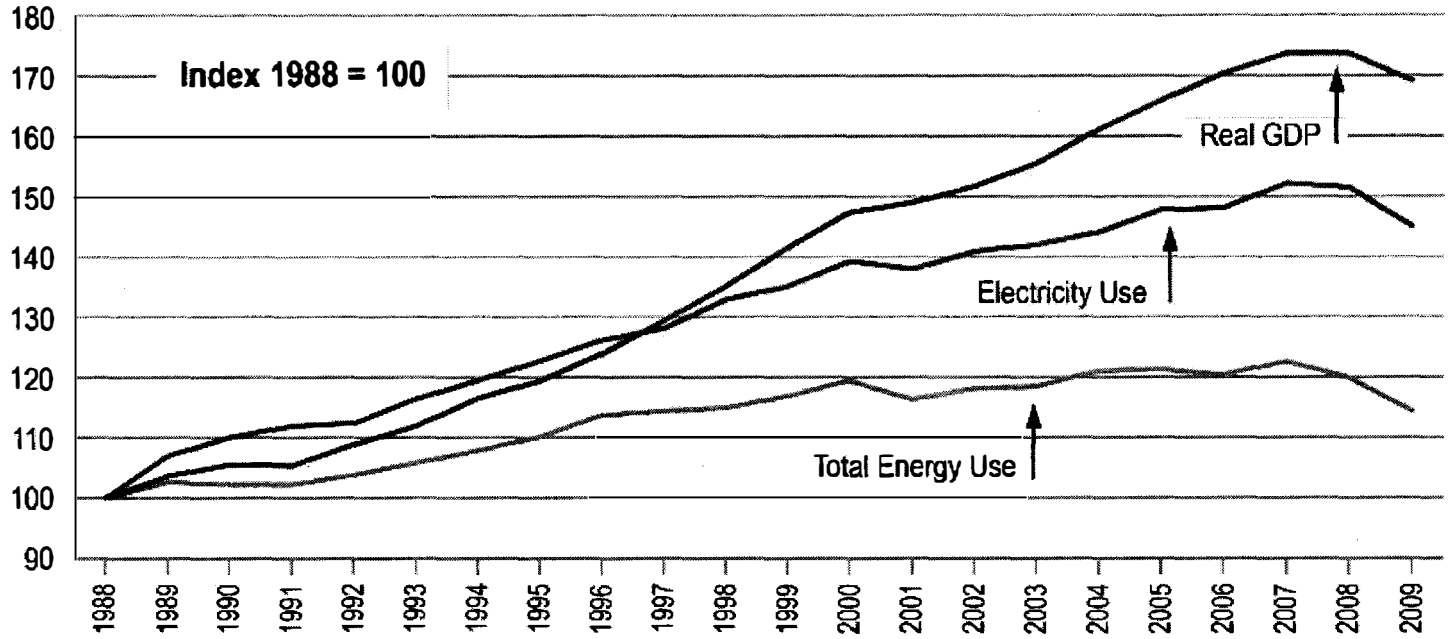
Constant Growth DCF Model
(Sustainable Growth Rate)

Line	Company	13-Week AVG Stock Price[1] (1)	Sustainable Growth[2] (2)	Annualized Dividend[3] (3)	Adjusted Yield (4)	Constant Growth DCF (5)
1	American Electric Power Company, Inc.	$48.16	4.29%	$1.96	4.24%	8.53%
2	Cleco Corp.	$46.74	4.88%	$1.45	3.25%	8.14%
3	Empire District Electric	$22.35	3.18%	$1.00	4.62%	7.80%
4	Great Plains Energy Inc.	$23.20	3.27%	$0.87	3.87%	7.14%
5	IDACORP, Inc.	$48.06	4.24%	$1.52	3.30%	7.53%
6	Otter Tail Corporation	$29.64	6.12%	$1.19	4.27%	10.39%
7	Pinnacle West Capital Corp.	$58.26	4.52%	$2.18	3.91%	8.43%
8	PNM Resources, Inc.	$22.90	4.48%	$0.66	3.01%	7.49%
9	Portland General Electric Company	$31.06	3.72%	$1.08	3.61%	7.33%
10	Southern Company	$46.12	4.76%	$2.03	4.61%	9.38%
11	Westar Energy, Inc.	$32.90	4.83%	$1.36	4.33%	9.16%
12	**Average**	**$37.22**	**4.39%**	**$1.39**	**3.91%**	**8.30%**
13	**Median**					**8.14%**

Sources:
[1] SNL Financial, Downloaded on June 24, 2013.
[2] Exhibit MPG-6, page 1.
[3] *The Value Line Investment Survey*, May 3, May 24, and June 21, 2013.

Tampa Electric Company

Electricity Sales Are Linked to U.S. Economic Growth



Note:
1988 represents the base year. Graph depicts increases or decreases from the base year.

Sources:
U.S. Department of Energy, Energy Information Administration.
Edison Electric Institute, http://www.eei.org.

Tampa Electric Company

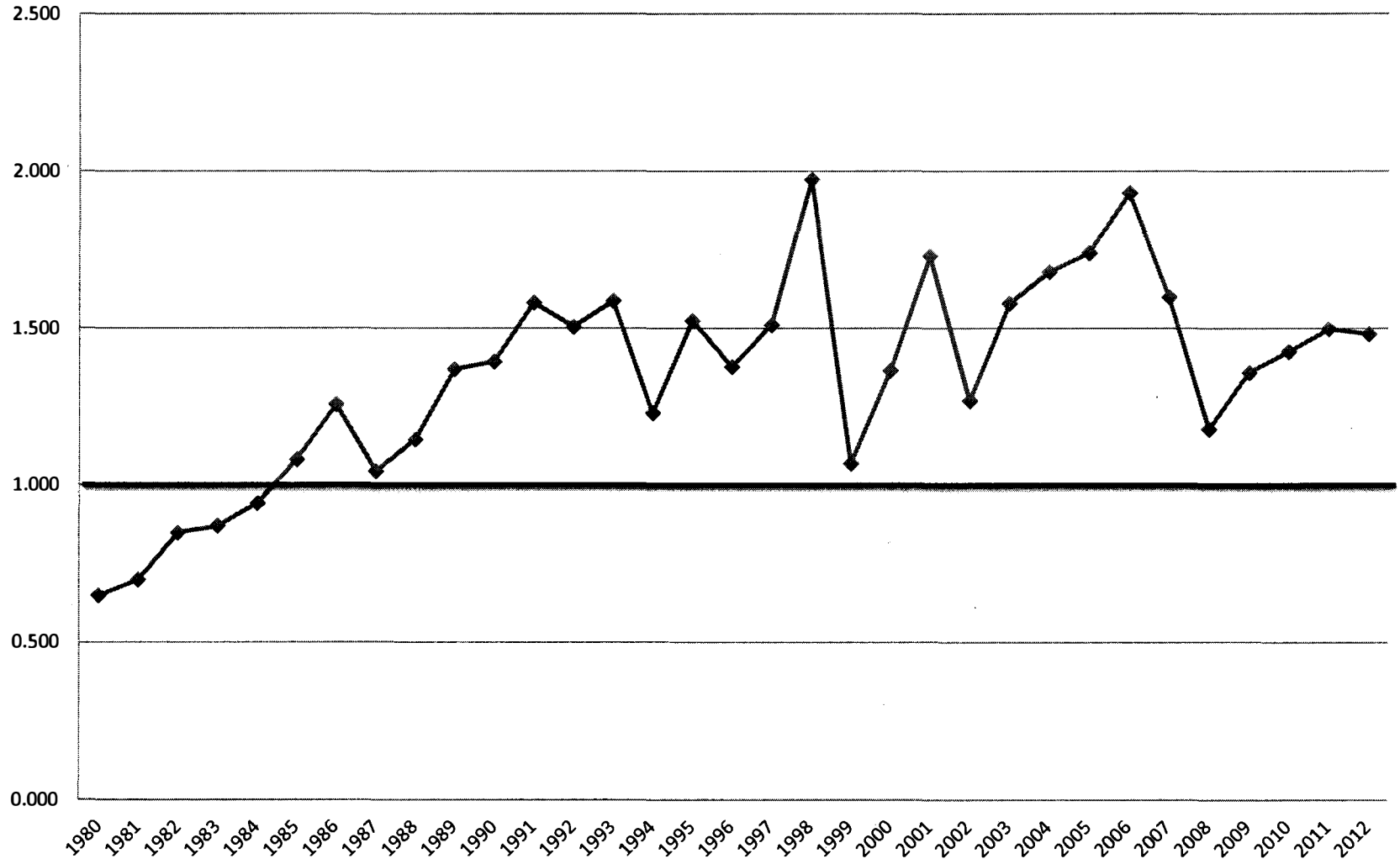
Multi-Stage Growth DCF Model

Line	Company	13-Week AVG Stock Price[1] (1)	Annualized Dividend[2] (2)	First Stage Growth[3] (3)	Second Stage Growth Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)	Third Stage Growth[4] (9)	Multi-Stage Growth DCF (10)
1	American Electric Power Company, Inc.	$48.16	$1.96	3.74%	3.93%	4.13%	4.32%	4.51%	4.71%	4.90%	8.86%
2	Cleco Corp.	$46.74	$1.45	8.00%	7.48%	6.97%	6.45%	5.93%	5.42%	4.90%	8.85%
3	Empire District Electric	$22.35	$1.00	3.00%	3.32%	3.63%	3.95%	4.27%	4.58%	4.90%	9.06%
4	Great Plains Energy Inc.	$23.20	$0.87	5.44%	5.35%	5.26%	5.17%	5.08%	4.99%	4.90%	8.97%
5	IDACORP, Inc.	$48.06	$1.52	4.00%	4.15%	4.30%	4.45%	4.60%	4.75%	4.90%	8.02%
6	Otter Tail Corporation	$29.64	$1.19	6.00%	5.82%	5.63%	5.45%	5.27%	5.08%	4.90%	9.42%
7	Pinnacle West Capital Corp.	$58.26	$2.18	4.78%	4.80%	4.82%	4.84%	4.86%	4.88%	4.90%	8.79%
8	PNM Resources, Inc.	$22.90	$0.66	6.56%	6.28%	6.00%	5.73%	5.45%	5.18%	4.90%	8.26%
9	Portland General Electric Company	$31.06	$1.08	6.32%	6.09%	5.85%	5.61%	5.37%	5.14%	4.90%	8.89%
10	Southern Company	$46.12	$2.03	4.92%	4.92%	4.91%	4.91%	4.91%	4.90%	4.90%	9.52%
11	Westar Energy, Inc.	$32.90	$1.36	4.65%	4.69%	4.74%	4.78%	4.82%	4.86%	4.90%	9.17%
12	**Average**	**$37.22**	**$1.39**	**5.22%**	**5.17%**	**5.11%**	**5.06%**	**5.01%**	**4.95%**	**4.90%**	**8.89%**
13	**Median**										**8.89%**

Sources:
[1] SNL Financial, Downloaded on June 24, 2013.
[2] *The Value Line Investment Survey*, May 3, May 24, and June 21, 2013.
[3] Exhibit MPG-4.
[4] *Blue Chip Financial Forecasts*, June 1, 2013 at 14.

Tampa Electric Company

Common Stock Market/Book Ratio



Tampa Electric Company

Equity Risk Premium - Treasury Bond

Line	Year	Authorized Electric Returns[1] (1)	Treasury Bond Yield[2] (2)	Indicated Risk Premium (3)
1	1986	13.93%	7.80%	6.13%
2	1987	12.99%	8.58%	4.41%
3	1988	12.79%	8.96%	3.83%
4	1989	12.97%	8.45%	4.52%
5	1990	12.70%	8.61%	4.09%
6	1991	12.55%	8.14%	4.41%
7	1992	12.09%	7.67%	4.42%
8	1993	11.41%	6.60%	4.81%
9	1994	11.34%	7.37%	3.97%
10	1995	11.55%	6.88%	4.67%
11	1996	11.39%	6.70%	4.69%
12	1997	11.40%	6.61%	4.79%
13	1998	11.66%	5.58%	6.08%
14	1999	10.77%	5.87%	4.90%
15	2000	11.43%	5.94%	5.49%
16	2001	11.09%	5.49%	5.60%
17	2002	11.16%	5.43%	5.73%
18	2003	10.97%	4.96%	6.01%
19	2004	10.75%	5.05%	5.70%
20	2005	10.54%	4.65%	5.89%
21	2006	10.36%	4.99%	5.37%
22	2007	10.36%	4.83%	5.53%
23	2008	10.46%	4.28%	6.18%
24	2009	10.48%	4.07%	6.41%
25	2010	10.34%	4.25%	6.09%
26	2011	10.22%	3.91%	6.31%
27	2012	10.01%	2.92%	7.09%
28	**Average**	**11.40%**	**6.10%**	**5.30%**

Sources:

[1] Regulatory Research Associates, Inc., *Regulatory Focus,* Jan. 85 - Dec. 06, and January 17, 2013, excluding the VA cases, which are subject to a 200 basis point adjustment for certain generation assets.

[2] St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/. The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank.

Tampa Electric Company

Equity Risk Premium - Utility Bond

Line	Year	Authorized Electric Returns[1] (1)	Average "A" Rated Utility Bond Yield[2] (2)	Indicated Risk Premium (3)
1	1986	13.93%	9.58%	4.35%
2	1987	12.99%	10.10%	2.89%
3	1988	12.79%	10.49%	2.30%
4	1989	12.97%	9.77%	3.20%
5	1990	12.70%	9.86%	2.84%
6	1991	12.55%	9.36%	3.19%
7	1992	12.09%	8.69%	3.40%
8	1993	11.41%	7.59%	3.82%
9	1994	11.34%	8.31%	3.03%
10	1995	11.55%	7.89%	3.66%
11	1996	11.39%	7.75%	3.64%
12	1997	11.40%	7.60%	3.80%
13	1998	11.66%	7.04%	4.62%
14	1999	10.77%	7.62%	3.15%
15	2000	11.43%	8.24%	3.19%
16	2001	11.09%	7.76%	3.33%
17	2002	11.16%	7.37%	3.79%
18	2003	10.97%	6.58%	4.39%
19	2004	10.75%	6.16%	4.59%
20	2005	10.54%	5.65%	4.89%
21	2006	10.36%	6.07%	4.29%
22	2007	10.36%	6.07%	4.29%
23	2008	10.46%	6.53%	3.93%
24	2009	10.48%	6.04%	4.44%
25	2010	10.34%	5.46%	4.88%
26	2011	10.22%	5.04%	5.18%
27	2012	10.01%	4.13%	5.88%
28	**Average**	**11.40%**	**7.51%**	**3.89%**

Sources:

[1] Regulatory Research Associates, Inc., *Regulatory Focus,* Jan. 85 - Dec. 06, and January 17, 2013, excluding the VA cases, which are subject to a 200 basis point adjustment for certain generation assets.

[2] Mergent Public Utility Manual, Mergent Weekly News Reports, 2003. The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record. The utility yields from 2010-2012 were obtained from http://credittrends.moodys.com/.

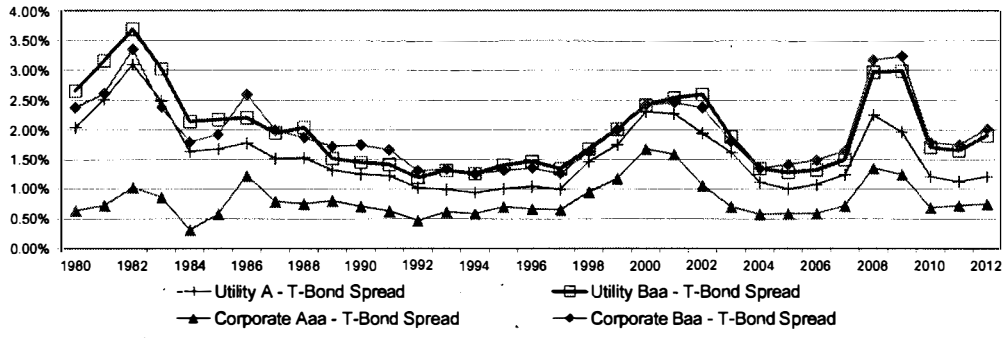
Tampa Electric Company

Bond Yield Spreads

			Public Utility Bond				Corporate Bond				Utility to Corporate	
Line	Year	T-Bond Yield[1] (1)	A[2] (2)	Baa[2] (3)	A-T-Bond Spread (4)	Baa-T-Bond Spread (5)	Aaa[1] (6)	Baa[1] (7)	Aaa-T-Bond Spread (8)	Baa-T-Bond Spread (9)	Baa Spread (10)	A-Aaa Spread (11)
1	1980	11.30%	13.34%	13.95%	2.04%	2.65%	11.94%	13.67%	0.64%	2.37%	0.28%	1.40%
2	1981	13.44%	15.95%	16.60%	2.51%	3.16%	14.17%	16.04%	0.73%	2.60%	0.56%	1.78%
3	1982	12.76%	15.86%	16.45%	3.10%	3.69%	13.79%	16.11%	1.03%	3.35%	0.34%	2.07%
4	1983	11.18%	13.66%	14.20%	2.48%	3.02%	12.04%	13.55%	0.86%	2.38%	0.65%	1.62%
5	1984	12.39%	14.03%	14.53%	1.64%	2.14%	12.71%	14.19%	0.32%	1.80%	0.34%	1.32%
6	1985	10.79%	12.47%	12.96%	1.68%	2.17%	11.37%	12.72%	0.58%	1.93%	0.24%	1.10%
7	1986	7.80%	9.58%	10.00%	1.78%	2.20%	9.02%	10.39%	1.22%	2.59%	-0.39%	0.56%
8	1987	8.58%	10.10%	10.53%	1.52%	1.95%	9.38%	10.58%	0.80%	2.00%	-0.05%	0.72%
9	1988	8.96%	10.49%	11.00%	1.53%	2.04%	9.71%	10.83%	0.75%	1.87%	0.17%	0.78%
10	1989	8.45%	9.77%	9.97%	1.32%	1.52%	9.26%	10.18%	0.81%	1.73%	-0.21%	0.51%
11	1990	8.61%	9.86%	10.06%	1.25%	1.45%	9.32%	10.36%	0.71%	1.75%	-0.29%	0.54%
12	1991	8.14%	9.36%	9.55%	1.22%	1.41%	8.77%	9.80%	0.63%	1.67%	-0.25%	0.59%
13	1992	7.67%	8.69%	8.86%	1.02%	1.19%	8.14%	8.98%	0.47%	1.31%	-0.12%	0.55%
14	1993	6.60%	7.59%	7.91%	0.99%	1.31%	7.22%	7.93%	0.62%	1.33%	-0.02%	0.37%
15	1994	7.37%	8.31%	8.63%	0.94%	1.26%	7.96%	8.62%	0.59%	1.25%	0.01%	0.35%
16	1995	6.88%	7.89%	8.29%	1.01%	1.41%	7.59%	8.20%	0.71%	1.32%	0.09%	0.30%
17	1996	6.70%	7.75%	8.17%	1.05%	1.47%	7.37%	8.05%	0.67%	1.35%	0.12%	0.38%
18	1997	6.61%	7.60%	7.95%	0.99%	1.34%	7.26%	7.86%	0.66%	1.26%	0.09%	0.34%
19	1998	5.58%	7.04%	7.26%	1.46%	1.68%	6.53%	7.22%	0.95%	1.64%	0.04%	0.51%
20	1999	5.87%	7.62%	7.88%	1.75%	2.01%	7.04%	7.87%	1.18%	2.01%	0.01%	0.58%
21	2000	5.94%	8.24%	8.36%	2.30%	2.42%	7.62%	8.36%	1.68%	2.42%	-0.01%	0.62%
22	2001	5.49%	7.76%	8.03%	2.27%	2.54%	7.08%	7.95%	1.59%	2.45%	0.08%	0.68%
23	2002	5.43%	7.37%	8.02%	1.94%	2.59%	6.49%	7.80%	1.06%	2.37%	0.22%	0.88%
24	2003	4.96%	6.58%	6.84%	1.62%	1.89%	5.67%	6.77%	0.71%	1.81%	0.08%	0.91%
25	2004	5.05%	6.16%	6.40%	1.11%	1.35%	5.63%	6.39%	0.58%	1.35%	0.00%	0.53%
26	2005	4.65%	5.65%	5.93%	1.00%	1.28%	5.24%	6.06%	0.59%	1.42%	-0.14%	0.41%
27	2006	4.99%	6.07%	6.32%	1.08%	1.32%	5.59%	6.48%	0.60%	1.49%	-0.16%	0.48%
28	2007	4.83%	6.07%	6.33%	1.24%	1.50%	5.56%	6.48%	0.72%	1.65%	-0.15%	0.52%
29	2008	4.28%	6.53%	7.25%	2.25%	2.97%	5.63%	7.45%	1.35%	3.17%	-0.20%	0.90%
30	2009	4.07%	6.04%	7.06%	1.97%	2.99%	5.31%	7.30%	1.24%	3.23%	-0.24%	0.72%
31	2010	4.25%	5.46%	5.96%	1.21%	1.71%	4.94%	6.04%	0.69%	1.79%	-0.08%	0.52%
32	2011	3.91%	5.04%	5.56%	1.13%	1.65%	4.64%	5.66%	0.73%	1.75%	-0.10%	0.40%
33	2012	2.92%	4.13%	4.83%	1.21%	1.91%	3.67%	4.94%	0.75%	2.01%	-0.11%	0.46%
34	**Average**	**7.16%**	**8.73%**	**9.14%**	**1.56%**	**1.98%**	**7.99%**	**9.12%**	**0.83%**	**1.95%**	**0.02%**	**0.74%**

Yield Spreads

Treasury Vs. Corporate & Treasury Vs. Utility



Sources:

[1] St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/.

[2] Mergent Public Utility Manual, Mergent Weekly News Reports, 2003. The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record. The utility yields from 2010-2012 were obtained from http://credittrends.moodys.com/.

Tampa Electric Company

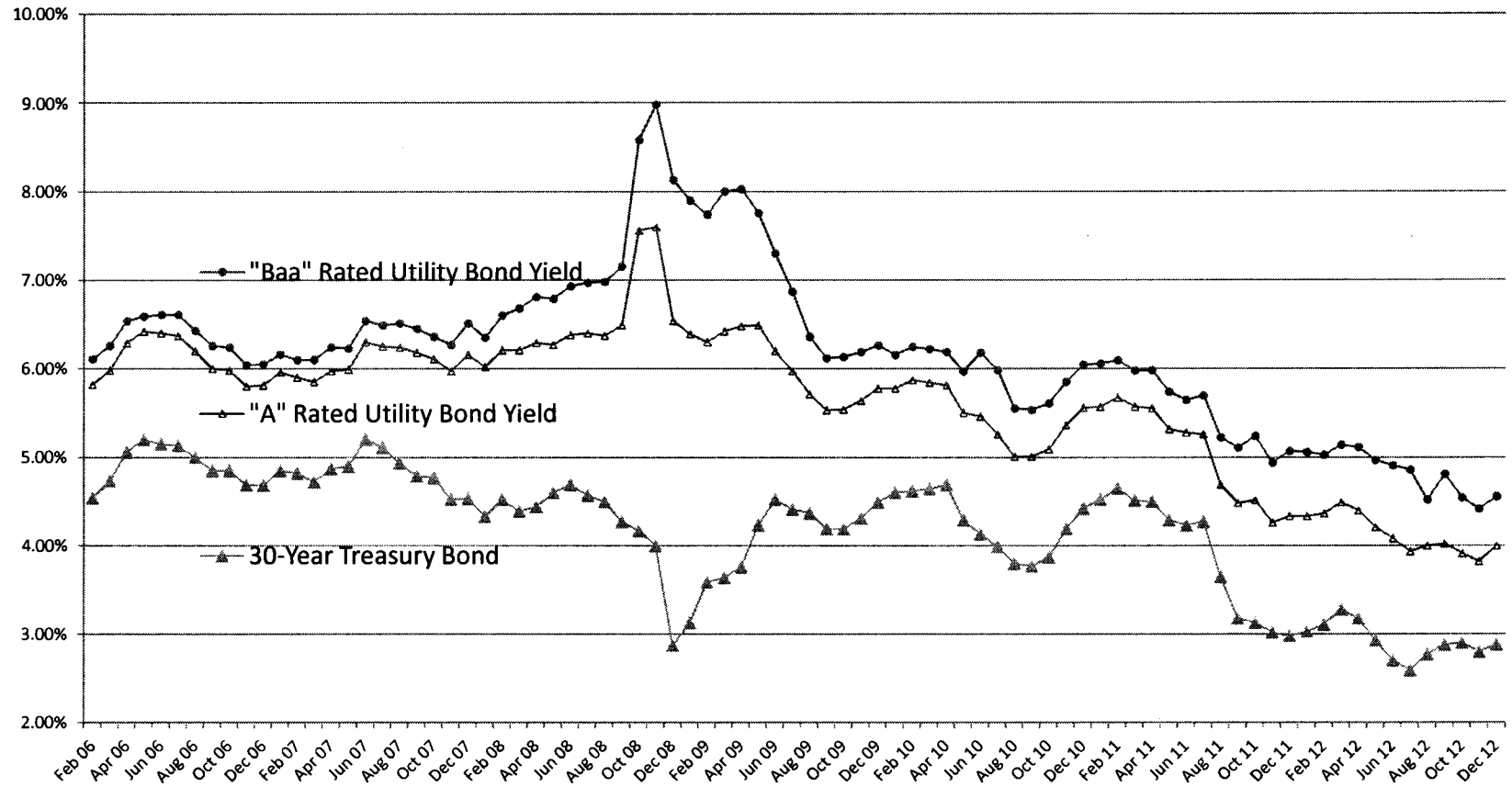
Treasury and Utility Bond Yields

Line	Date	Treasury Bond Yield[1] (1)	"A" Rated Utility Bond Yield[2] (2)	"Baa" Rated Utility Bond Yield[2] (3)
1	06/21/13	3.56%	4.72%	5.28%
2	06/14/13	3.28%	4.42%	4.98%
3	06/07/13	3.33%	4.43%	4.96%
4	05/31/13	3.30%	4.36%	4.86%
5	05/24/13	3.18%	4.22%	4.69%
6	05/17/13	3.17%	4.21%	4.69%
7	05/10/13	3.10%	4.16%	4.64%
8	05/03/13	2.96%	4.03%	4.51%
9	04/26/13	2.87%	3.93%	4.41%
10	04/19/13	2.88%	3.96%	4.43%
11	04/12/13	2.92%	3.99%	4.47%
12	04/05/13	2.87%	3.93%	4.43%
13	03/28/13	3.10%	4.17%	4.68%
14	**Average**	**3.12%**	**4.19%**	**4.69%**
15	**Spread To Treasury**		**1.07%**	**1.57%**

Sources:
[1] St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org.
[2]http://credittrends.moodys.com/.

Tampa Electric Company

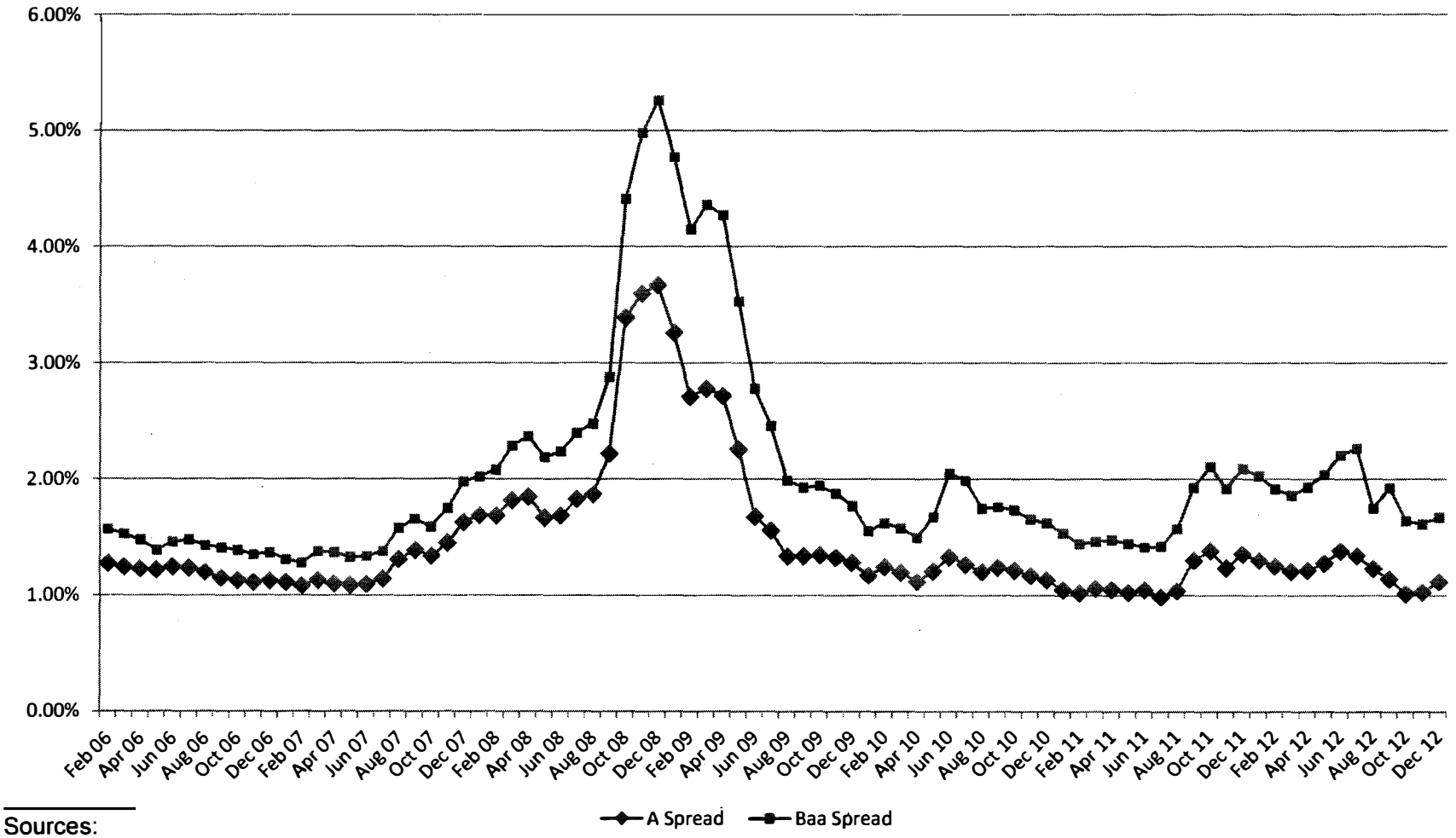
Trends in Bond Yields



Sources:
Merchant Bond Record.
www.moodys.com, Bond Yields and Key Indicators.
St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/

Tampa Electric Company

Yield Spread Between Utility Bonds and 30-Year Treasury Bonds



Sources:
Merchant Bond Record.
www.moodys.com, Bond Yields and Key Indicators.
St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org/

Tampa Electric Company

Value Line Beta

Line	Company	Beta
1	American Electric Power Company, Inc.	0.65
2	Cleco Corp.	0.65
3	Empire District Electric	0.65
4	Great Plains Energy Inc.	0.80
5	IDACORP, Inc.	0.70
6	Otter Tail Corporation	0.90
7	Pinnacle West Capital Corp.	0.70
8	PNM Resources, Inc.	0.95
9	Portland General Electric Company	0.75
10	Southern Company	0.55
11	Westar Energy, Inc.	0.75
12	**Average**	**0.73**

Source:
The Value Line Investment Survey,
May 3, May 24, and June 21, 2013.

Tampa Electric Company

CAPM Return

Line	Description	Market Risk Premium
1	Risk-Free Rate[1]	3.70%
2	Risk Premium[2]	6.70%
3	Beta[3]	0.73
4	**CAPM**	**8.60%**

Sources:

[1] *Blue Chip Financial Forecasts*; June 1, 2013, at 2.

[2] Morningstar, Inc. *Ibbotson SBBI 2013 Classic Yearbook* at 88, and Morningstar, Inc. *Ibbotson SBBI 2013 Valuation Yearbook* at 54 and 66.

[3] Exhibit MPG-15

Tampa Electric Company

Standard & Poor's Credit Metrics

Line	Description	Retail Cost of Service Amount (1)	S&P Benchmark[1/2] Intermediate (2)	S&P Benchmark[1/2] Significant (3)	Reference (4)
1	Rate Base	$ 4,339,974			Schedule A-1.
2	Weighted Common Return	5.00%			Page 2, Line 3, Col. 4.
3	Pre-Tax Rate of Return	10.62%			Page 2, Line 4, Col. 5.
4	Income to Common	$ 216,924			Line 1 x Line 2.
5	EBIT	$ 460,760			Line 1 x Line 3.
6	Depreciation & Amortization	$ 233,881			Schedule C-1.
7	Imputed Amortization	$ 1,200			FEA's First Set of IRRs, IRR No. 3.
8	Deferred Income Taxes & ITC	$ 41,822			Schedule C-22, page 3 of 6.
9	Funds from Operations (FFO)	$ 493,827			Sum of Line 4 and Lines 6 through 8.
10	Imputed Interest Expense	$ 3,455			FEA's First Set of IRRs, IRR No. 3.
11	EBITDA	$ 699,296			Sum of Lines 5 through 7 and Line 10.
12	Total Debt Ratio	47%	35% - 45%	45% - 50%	Page 3, Line 4, Col. 2.
13	Debt to EBITDA	2.9x	2.0x - 3.0x	3.0x - 4.0x	(Line 1 x Line 12) / Line 11.
14	FFO to Total Debt	24%	30% - 45%	20% - 30%	Line 9 / (Line 1 x Line 12).

Sources:
[1] Standard & Poor's: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009
[2] *S&P RatingsDirect:* "U.S. Regulated Electric Utilities, Strongest to Weakest," April 20, 2011.

Note:
Based on the April 2012 S&P metrics, Tampa Electric has an "Excellent" business profile and a "Significant" financial profile.

Tampa Electric Company

Standard & Poor's Credit Metrics
(Pre-Tax Rate of Return)

Line	Description	Amount (000) (1)	Weight (2)	Cost (3)	Weighted Cost (4)	Pre-Tax Weighted Cost (5)
1	Long-Term Debt	$ 1,461,412	45.23%	5.40%	2.44%	2.44%
2	Short-Term Debt	$ 23,611	0.73%	1.47%	0.01%	0.01%
3	Common Equity	$ 1,745,780	54.04%	**9.25%**	5.00%	8.16%
4	**Total**	**$ 3,230,803**	**100.00%**		**7.45%**	**10.62%**
5	Tax Conversion Factor*					1.6332

Sources:
Exhibit MPG-1.
* Schedule A-1.

Tampa Electric Company

Standard & Poor's Credit Metrics
(Financial Capital Structure)

Line	Description	Amount (000) (1)	Weight (2)
1	Long-Term Debt	$ 1,461,412	44.46%
2	Short-Term Debt	$ 23,611	0.72%
3	Off Balance Sheet Debt*	$ 56,100	1.71%
4	**Total Debt**	**$ 1,541,123**	**46.89%**
5	Common Equity	$ 1,745,780	53.11%
6	**Total**	**$ 3,286,903**	**100.00%**

Sources:
Exhibit MPG-1.
* FEA's First Set of IRRs, IRR No. 3.

Tampa Electric Company

Hevert Revised Constant Growth DCF Analysis
(30-Day Average Stock Price)

Line	Company	Stock Price (1)	Annualized Dividend (2)	Low EPS Growth Rate (3)	Expected Dividend Yield (4)	Low DCF ROE (5)	Average EPS Growth Rate (6)	Expected Dividend Yield (7)	Average DCF ROE (8)	High EPS Growth Rate (9)	Expected Dividend Yield (10)	High DCF ROE (11)
1	American Electric Power Co.	$44.20	$1.88	3.00%	4.32%	7.32%	3.28%	4.32%	7.61%	3.47%	4.33%	7.80%
2	Cleco Corp.	$42.22	$1.35	3.00%	3.25%	6.25%	4.67%	3.27%	7.94%	8.00%	3.33%	11.33%
3	Empire District Electric	$21.10	$1.00	5.50%	4.87%	10.37%	7.85%	4.93%	12.78%	10.20%	4.98%	15.18%
4	Great Plains Energy Inc.	$21.19	$0.87	5.50%	4.22%	9.72%	6.60%	4.24%	10.84%	7.20%	4.25%	11.45%
5	IDACORP, Inc.	$45.18	$1.52	2.00%	3.40%	5.40%	3.33%	3.42%	6.75%	4.00%	3.43%	7.43%
6	Pinnacle West Capital Corp.	$53.04	$2.18	6.50%	4.24%	10.74%	6.97%	4.25%	11.22%	7.50%	4.26%	11.76%
7	Portland General Electric Co.	$28.30	$1.08	1.99%	3.85%	5.84%	3.85%	3.89%	7.74%	5.50%	3.92%	9.42%
8	Southern Company	$43.77	$1.96	4.86%	4.59%	9.45%	4.95%	4.59%	9.54%	5.00%	4.59%	9.59%
9	Westar Energy, Inc.	$29.92	$1.32	6.38%	4.55%	10.93%	7.13%	4.57%	11.70%	7.50%	4.58%	12.08%
10	**Average**	**$36.55**	**$1.46**	**4.30%**	**4.14%**	**8.45%**	**5.40%**	**4.16%**	**9.57%**	**6.49%**	**4.19%**	**10.67%**
11	**Median**			**4.86%**	**4.24%**	**9.45%**	**4.95%**	**4.25%**	**9.54%**	**7.20%**	**4.26%**	**11.33%**

Source:
Exhibit No. ___ (RBH-1), Document NO. 2.

Tampa Electric Company

Hevert Revised Constant Growth DCF Analysis
(90-Day Stock Price)

Line	Company	Stock Price	Annualized Dividend	Low EPS Growth Rate (1)	Expected Dividend Yield (3)	Low DCF ROE (4)	Average EPS Growth Rate (5)	Expected Dividend Yield (7)	Average DCF ROE (8)	High EPS Growth Rate (9)	Expected Dividend Yield (11)	High DCF ROE (12)
1	American Electric Power Co.	$43.47	$1.88	3.00%	4.39%	7.39%	3.28%	4.40%	7.68%	3.47%	4.40%	7.87%
2	Cleco Corp.	$41.30	$1.35	3.00%	3.32%	6.32%	4.67%	3.35%	8.01%	8.00%	3.40%	11.40%
3	Empire District Electric	$20.84	$1.00	5.50%	4.93%	10.43%	7.85%	4.99%	12.84%	10.20%	5.04%	15.24%
4	Great Plains Energy Inc.	$21.10	$0.87	5.50%	4.24%	9.74%	6.60%	4.26%	10.86%	7.20%	4.27%	11.47%
5	IDACORP, Inc.	$43.89	$1.52	2.00%	3.50%	5.50%	3.33%	3.52%	6.85%	4.00%	3.53%	7.53%
6	Pinnacle West Capital Corp.	$52.06	$2.18	6.50%	4.32%	10.82%	6.97%	4.33%	11.30%	7.50%	4.34%	11.84%
7	Portland General Electric Co.	$27.40	$1.08	1.99%	3.98%	5.97%	3.85%	4.02%	7.87%	5.50%	4.05%	9.55%
8	Southern Company	$43.99	$1.96	4.86%	4.56%	9.42%	4.95%	4.57%	9.51%	5.00%	4.57%	9.57%
9	Westar Energy, Inc.	$29.22	$1.32	6.38%	4.66%	11.04%	7.13%	4.68%	11.81%	7.50%	4.69%	12.19%
10	**Average**	**$35.92**	**$1.46**	**4.30%**	**4.21%**	**8.51%**	**5.40%**	**4.23%**	**9.64%**	**6.49%**	**4.25%**	**10.74%**
11	**Median**			**4.86%**	**4.32%**	**9.42%**	**4.95%**	**4.33%**	**9.51%**	**7.20%**	**4.34%**	**11.40%**

Source:
Exhibit No. ___ (RBH-1), Document NO. 2.

Tampa Electric Company

Hevert Revised Constant Growth DCF Analysis
(180-Day Stock Price)

Line	Company	Stock Price	Annualized Dividend	Low EPS Growth Rate (1)	Expected Dividend Yield (3)	Low DCF ROE (4)	Average EPS Growth Rate (5)	Expected Dividend Yield (7)	Average DCF ROE (8)	High EPS Growth Rate (9)	Expected Dividend Yield (11)	High DCF ROE (12)
1	American Electric Power Co.	$42.69	$1.88	3.00%	4.47%	7.47%	3.28%	4.48%	7.76%	3.47%	4.48%	7.95%
2	Cleco Corp.	$41.68	$1.35	3.00%	3.29%	6.29%	4.67%	3.31%	7.98%	8.00%	3.37%	11.37%
3	Empire District Electric	$21.05	$1.00	5.50%	4.88%	10.38%	7.85%	4.94%	12.79%	10.20%	4.99%	15.19%
4	Great Plains Energy Inc.	$21.36	$0.87	5.50%	4.19%	9.69%	6.60%	4.21%	10.81%	7.20%	4.22%	11.42%
5	IDACORP, Inc.	$42.96	$1.52	2.00%	3.57%	5.57%	3.33%	3.60%	6.93%	4.00%	3.61%	7.61%
6	Pinnacle West Capital Corp.	$52.17	$2.18	6.50%	4.31%	10.81%	6.97%	4.32%	11.29%	7.50%	4.34%	11.84%
7	Portland General Electric Co.	$27.16	$1.08	1.99%	4.02%	6.01%	3.85%	4.05%	7.91%	5.50%	4.09%	9.59%
8	Southern Company	$45.26	$1.96	4.86%	4.44%	9.30%	4.95%	4.44%	9.38%	5.00%	4.44%	9.44%
9	Westar Energy, Inc.	$29.49	$1.32	6.38%	4.62%	11.00%	7.13%	4.64%	11.76%	7.50%	4.64%	12.14%
10	**Average**	**$35.98**	**$1.46**	**4.30%**	**4.20%**	**8.50%**	**5.40%**	**4.22%**	**9.62%**	**6.49%**	**4.24%**	**10.73%**
11	**Median**			**4.86%**	**4.31%**	**9.30%**	**4.95%**	**4.32%**	**9.38%**	**7.20%**	**4.34%**	**11.37%**

Source:
Exhibit No. ___ (RBH-1), Document NO. 2.

Tampa Electric Company

Hevert Constant Growth DCF Analysis
(30-Day Average Stock Price)

Line	Company	Stock Price (1)	Annualized Dividend (2)	Low EPS Growth Rate (3)	Expected Dividend Yield (4)	Low DCF ROE (5)	Average EPS Growth Rate (6)	Expected Dividend Yield (7)	Average DCF ROE (8)	High EPS Growth Rate (9)	Expected Dividend Yield (10)	High DCF ROE (11)
1	American Electric Power Co.	$44.20	$1.68	3.00%	4.32%	7.32%	3.28%	4.32%	7.61%	3.47%	4.33%	7.80%
2	Cleco Corp.	$42.22	$1.35	3.00%	3.25%	6.25%	4.67%	3.27%	7.94%	8.00%	3.33%	11.33%
3	Empire District Electric	$21.10	$1.00	5.50%	4.87%	10.37%	7.85%	4.93%	12.78%	10.20%	4.98%	15.18%
4	Great Plains Energy Inc.	$21.19	$0.87	5.50%	4.22%	9.72%	6.60%	4.24%	10.84%	7.20%	4.25%	11.45%
5	IDACORP, Inc.	$45.18	$1.52	2.00%	3.40%	5.40%	3.33%	3.42%	6.75%	4.00%	3.43%	7.43%
6	Otter Tail Corporation	$26.63	$1.19	5.00%	4.58%	9.58%	11.67%	4.73%	16.40%	24.00%	5.00%	29.00%
7	Pinnacle West Capital Corp.	$53.04	$2.18	6.50%	4.24%	10.74%	6.97%	4.25%	11.22%	7.50%	4.26%	11.76%
8	PNM Resources	$20.93	$0.58	8.35%	2.89%	11.24%	11.22%	2.93%	14.14%	16.00%	2.99%	18.99%
9	Portland General Electric Co.	$28.30	$1.08	1.99%	3.85%	5.84%	3.85%	3.89%	7.74%	5.50%	3.92%	9.42%
10	Southern Company	$43.77	$1.96	4.86%	4.59%	9.45%	4.95%	4.59%	9.54%	5.00%	4.59%	9.59%
11	Westar Energy, Inc.	$29.92	$1.32	6.38%	4.55%	10.93%	7.13%	4.57%	11.70%	7.50%	4.58%	12.08%
12	**Average**	**$34.23**	**$1.36**	**4.73%**	**4.07%**	**8.60%**	**6.50%**	**4.10%**	**10.60%**	**8.94%**	**4.15%**	**13.09%**
13	**Median**			**5.00%**	**4.24%**	**9.58%**	**6.60%**	**4.25%**	**10.84%**	**7.50%**	**4.26%**	**11.45%**

Source:
Exhibit No. ___ (RBH-1), Document NO. 2.

Tampa Electric Company

Hevert Constant Growth DCF Analysis
(90-Day Stock Price)

Line	Company	Stock Price	Annualized Dividend	Low EPS Growth Rate (1)	Expected Dividend Yield (3)	Low DCF ROE (4)	Average EPS Growth Rate (5)	Expected Dividend Yield (7)	Average DCF ROE (8)	High EPS Growth Rate (9)	Expected Dividend Yield (11)	High DCF ROE (12)
1	American Electric Power Co.	$43.47	$1.88	3.00%	4.39%	7.39%	3.28%	4.40%	7.68%	3.47%	4.40%	7.87%
2	Cleco Corp.	$41.30	$1.35	3.00%	3.32%	6.32%	4.67%	3.35%	8.01%	8.00%	3.40%	11.40%
3	Empire District Electric	$20.84	$1.00	5.50%	4.93%	10.43%	7.85%	4.99%	12.84%	10.20%	5.04%	15.24%
4	Great Plains Energy Inc.	$21.10	$0.87	5.50%	4.24%	9.74%	6.60%	4.26%	10.86%	7.20%	4.27%	11.47%
5	IDACORP, Inc.	$43.89	$1.52	2.00%	3.50%	5.50%	3.33%	3.52%	6.85%	4.00%	3.53%	7.53%
6	Otter Tail Corporation	$25.04	$1.19	5.00%	4.87%	9.87%	11.67%	5.03%	16.70%	24.00%	5.32%	29.32%
7	Pinnacle West Capital Corp.	$52.06	$2.18	6.50%	4.32%	10.82%	6.97%	4.33%	11.30%	7.50%	4.34%	11.84%
8	PNM Resources	$21.07	$0.58	8.35%	2.87%	11.22%	11.22%	2.91%	14.12%	16.00%	2.97%	18.97%
9	Portland General Electric Co.	$27.40	$1.08	1.99%	3.98%	5.97%	3.85%	4.02%	7.87%	5.50%	4.05%	9.55%
10	Southern Company	$43.99	$1.96	4.86%	4.56%	9.42%	4.95%	4.57%	9.51%	5.00%	4.57%	9.57%
11	Westar Energy, Inc.	$29.22	$1.32	6.38%	4.66%	11.04%	7.13%	4.68%	11.81%	7.50%	4.69%	12.19%
12	**Average**	**$33.58**	**$1.36**	**4.73%**	**4.15%**	**8.88%**	**6.50%**	**4.19%**	**10.69%**	**8.94%**	**4.24%**	**13.18%**
13	**Median**			**5.00%**	**4.32%**	**9.74%**	**6.60%**	**4.33%**	**10.86%**	**7.50%**	**4.34%**	**11.47%**

Source:
Exhibit No. ___ (RBH-1), Document NO. 2.

Tampa Electric Company

Hevert Constant Growth DCF Analysis
(180-Day Stock Price)

Line	Company	Stock Price	Annualized Dividend	Low EPS Growth Rate (1)	Expected Dividend Yield (3)	Low DCF ROE (4)	Average EPS Growth Rate (5)	Expected Dividend Yield (7)	Average DCF ROE (8)	High EPS Growth Rate (9)	Expected Dividend Yield (11)	High DCF ROE (12)
1	American Electric Power Co.	$42.69	$1.88	3.00%	4.47%	7.47%	3.28%	4.48%	7.76%	3.47%	4.48%	7.95%
2	Cleco Corp.	$41.68	$1.35	3.00%	3.29%	6.29%	4.67%	3.31%	7.98%	8.00%	3.37%	11.37%
3	Empire District Electric	$21.05	$1.00	5.50%	4.88%	10.38%	7.85%	4.94%	12.79%	10.20%	4.99%	15.19%
4	Great Plains Energy Inc.	$21.36	$0.87	5.50%	4.19%	9.69%	6.60%	4.21%	10.81%	7.20%	4.22%	11.42%
5	IDACORP, Inc.	$42.96	$1.52	2.00%	3.57%	5.57%	3.33%	3.60%	6.93%	4.00%	3.61%	7.61%
6	Otter Tail Corporation	$24.05	$1.19	5.00%	5.07%	10.07%	11.67%	5.24%	16.90%	24.00%	5.54%	29.54%
7	Pinnacle West Capital Corp.	$52.17	$2.18	6.50%	4.31%	10.81%	6.97%	4.32%	11.29%	7.50%	4.34%	11.84%
8	PNM Resources	$20.61	$0.58	8.35%	2.93%	11.28%	11.22%	2.97%	14.19%	16.00%	3.04%	19.04%
9	Portland General Electric Co.	$27.16	$1.08	1.99%	4.02%	6.01%	3.85%	4.05%	7.91%	5.50%	4.09%	9.59%
10	Southern Company	$45.26	$1.96	4.86%	4.44%	9.30%	4.95%	4.44%	9.38%	5.00%	4.44%	9.44%
11	Westar Energy, Inc.	$29.49	$1.32	6.38%	4.62%	11.00%	7.13%	4.64%	11.76%	7.50%	4.64%	12.14%
12	**Average**	**$33.50**	**$1.36**	**4.73%**	**4.16%**	**8.90%**	**6.50%**	**4.20%**	**10.70%**	**8.94%**	**4.25%**	**13.19%**
13	**Median**			**5.00%**	**4.31%**	**9.69%**	**6.60%**	**4.32%**	**10.81%**	**7.50%**	**4.34%**	**11.42%**

Source:
Exhibit No. ___ (RBH-1), Document NO. 2.

Tampa Electric Company

Hevert Multi-Stage Growth DCF Analysis
(30-Day Stock Price)

Line	Company	Stock Price (1)	Dividend (2)	First Stage Growth (3)	Second Stage Growth Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)	Third Stage Growth* (9)	Multi-Stage Growth DCF (10)
1	American Electric Power Co.	$44.20	$1.88	3.28%	3.55%	3.82%	4.09%	4.36%	4.63%	4.90%	8.93%
2	Cleco Corp.	$42.22	$1.35	4.67%	4.71%	4.74%	4.78%	4.82%	4.86%	4.90%	8.20%
3	Empire District Electric	$21.10	$1.00	7.85%	7.36%	6.87%	6.38%	5.88%	5.39%	4.90%	10.83%
4	Great Plains Energy Inc.	$21.19	$0.87	6.60%	6.32%	6.03%	5.75%	5.47%	5.18%	4.90%	9.68%
5	IDACORP, Inc.	$45.18	$1.52	3.33%	3.59%	3.86%	4.12%	4.38%	4.64%	4.90%	8.08%
6	Otter Tail Corporation	$26.63	$1.19	11.67%	10.54%	9.41%	8.28%	7.16%	6.03%	4.90%	11.83%
7	Pinnacle West Capital Corp.	$53.04	$2.18	6.97%	6.62%	6.28%	5.93%	5.59%	5.24%	4.90%	9.79%
8	PNM Resources	$20.93	$0.58	11.22%	10.16%	9.11%	8.06%	7.01%	5.95%	4.90%	9.19%
9	Portland General Electric Co.	$28.30	$1.08	3.85%	4.03%	4.20%	4.38%	4.55%	4.73%	4.90%	8.64%
10	Southern Company	$43.77	$1.96	4.95%	4.94%	4.93%	4.92%	4.92%	4.91%	4.90%	9.61%
11	Westar Energy, Inc.	$29.92	$1.32	7.13%	6.76%	6.38%	6.01%	5.64%	5.27%	4.90%	10.20%
12	**Average**	**$34.23**	**$1.36**	**6.50%**	**6.23%**	**5.97%**	**5.70%**	**5.43%**	**5.17%**	**4.90%**	**9.54%**
13	**Median**										**9.61%**

Sources:
Exhibit No. ___ (RBH-1), Document NO. 2.
* *Blue Chip Financial Forecasts,* June 1, 2013 at 14.

Tampa Electric Company

Hevert Multi-Stage Growth DCF Analysis
(90-Day Stock Price)

Line	Company	Stock Price (1)	Dividend (2)	First Stage Growth (3)	Second Stage Growth Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)	Third Stage Growth* (9)	Multi-Stage Growth DCF (10)
1	American Electric Power Co.	$43.47	$1.88	3.28%	3.55%	3.82%	4.09%	4.36%	4.63%	4.90%	8.99%
2	Cleco Corp.	$41.30	$1.35	4.67%	4.71%	4.74%	4.78%	4.82%	4.86%	4.90%	8.27%
3	Empire District Electric	$20.84	$1.00	7.85%	7.36%	6.87%	6.38%	5.88%	5.39%	4.90%	10.90%
4	Great Plains Energy Inc.	$21.10	$0.87	6.60%	6.32%	6.03%	5.75%	5.47%	5.18%	4.90%	9.70%
5	IDACORP, Inc.	$43.89	$1.52	3.33%	3.59%	3.86%	4.12%	4.38%	4.64%	4.90%	8.18%
6	Otter Tail Corporation	$25.04	$1.19	11.67%	10.54%	9.41%	8.28%	7.16%	6.03%	4.90%	12.24%
7	Pinnacle West Capital Corp.	$52.06	$2.18	6.97%	6.62%	6.28%	5.93%	5.59%	5.24%	4.90%	9.88%
8	PNM Resources	$21.07	$0.58	11.22%	10.16%	9.11%	8.06%	7.01%	5.95%	4.90%	9.17%
9	Portland General Electric Co.	$27.40	$1.08	3.85%	4.03%	4.20%	4.38%	4.55%	4.73%	4.90%	8.77%
10	Southern Company	$43.99	$1.96	4.95%	4.94%	4.93%	4.92%	4.92%	4.91%	4.90%	9.59%
11	Westar Energy, Inc.	$29.22	$1.32	7.13%	6.76%	6.38%	6.01%	5.64%	5.27%	4.90%	10.32%
12	**Average**	**$33.58**	**$1.36**	**6.50%**	**6.23%**	**5.97%**	**5.70%**	**5.43%**	**5.17%**	**4.90%**	**9.64%**
13	**Median**										**9.59%**

Sources:
Exhibit No. ___ (RBH-1), Document NO. 2.
* Blue Chip Financial Forecasts, June 1, 2013 at 14.

Tampa Electric Company

Hevert Multi-Stage Growth DCF Analysis
(180-Day Stock Price)

Line	Company	Stock Price (1)	Dividend (2)	First Stage Growth (3)	Second Stage Growth Year 6 (4)	Year 7 (5)	Year 8 (6)	Year 9 (7)	Year 10 (8)	Third Stage Growth* (9)	Multi-Stage Growth DCF (10)
1	American Electric Power Co.	$42.69	$1.88	3.28%	3.55%	3.82%	4.09%	4.36%	4.63%	4.90%	9.07%
2	Cleco Corp.	$41.68	$1.35	4.67%	4.71%	4.74%	4.78%	4.82%	4.86%	4.90%	8.24%
3	Empire District Electric	$21.05	$1.00	7.85%	7.36%	6.87%	6.38%	5.88%	5.39%	4.90%	10.84%
4	Great Plains Energy Inc.	$21.36	$0.87	6.60%	6.32%	6.03%	5.75%	5.47%	5.18%	4.90%	9.64%
5	IDACORP, Inc.	$42.96	$1.52	3.33%	3.59%	3.86%	4.12%	4.38%	4.64%	4.90%	8.25%
6	Otter Tail Corporation	$24.05	$1.19	11.67%	10.54%	9.41%	8.28%	7.16%	6.03%	4.90%	12.52%
7	Pinnacle West Capital Corp.	$52.17	$2.18	6.97%	6.62%	6.28%	5.93%	5.59%	5.24%	4.90%	9.87%
8	PNM Resources	$20.61	$0.58	11.22%	10.16%	9.11%	8.06%	7.01%	5.95%	4.90%	9.26%
9	Portland General Electric Co.	$27.16	$1.08	3.85%	4.03%	4.20%	4.38%	4.55%	4.73%	4.90%	8.80%
10	Southern Company	$45.26	$1.96	4.95%	4.94%	4.93%	4.92%	4.92%	4.91%	4.90%	9.45%
11	Westar Energy, Inc.	$29.49	$1.32	7.13%	6.76%	6.38%	6.01%	5.64%	5.27%	4.90%	10.27%
12	**Average**	**$33.50**	**$1.36**	**6.50%**	**6.23%**	**5.97%**	**5.70%**	**5.43%**	**5.17%**	**4.90%**	**9.66%**
13	**Median**										**9.45%**

Sources:
Exhibit No. ___ (RBH-1), Document NO. 2.
* Blue Chip Financial Forecasts, June 1, 2013 at 14.

Tampa Electric Company

Valuation Metrics

Price to Earnings (P/E) Ratio [1]

Line	Company	12-Year Average (1)	2013 [2] (2)	2012 (3)	2011 (4)	2010 (5)	2009 (6)	2008 (7)	2007 (8)	2006 (9)	2005 (10)	2004 (11)	2003 (12)	2002 (13)
1	American Electric Power	12.80	14.60	13.77	11.92	13.42	10.03	13.06	16.27	12.91	13.70	12.42	10.66	12.68
2	Cleco Corp.	14.38	18.00	15.03	13.25	12.27	13.21	14.09	19.58	17.32	15.05	13.76	12.39	12.25
3	Empire District Electric	18.07	15.60	15.76	15.76	16.75	14.34	17.26	21.70	15.92	24.50	24.81	15.83	16.18
4	Great Plains Energy	14.99	14.10	15.53	16.11	12.10	16.03	20.55	16.35	18.30	13.96	12.59	12.23	11.09
5	IDACORP, Inc.	15.52	15.20	12.41	11.54	11.83	10.20	13.93	18.19	15.07	16.70	15.49	26.51	18.88
6	Otter Tail Corp.	26.22	20.00	21.75	47.48	55.10	31.16	30.06	19.02	17.35	15.40	17.34	17.77	16.01
7	Pinnacle West Capital	14.85	16.50	14.35	14.60	12.57	13.74	16.07	14.93	13.69	19.24	15.80	13.96	14.43
8	PNM Resources	17.51	17.90	14.97	14.53	14.05	18.09	NMF	35.65	15.57	17.38	15.02	14.73	15.08
9	Portland General	14.90	16.80	13.98	12.37	12.00	14.40	16.30	11.94	23.35	N/A	N/A	N/A	N/A
10	Southern Co.	15.42	17.10	16.97	15.85	14.90	13.52	16.13	15.95	16.19	15.92	14.68	14.83	14.63
11	Westar Energy	14.22	14.00	13.43	14.78	12.96	14.95	16.96	14.10	12.18	14.79	17.44	10.78	14.02
12	Average	16.26	16.35	15.27	17.11	17.08	15.42	17.44	18.52	16.17	16.66	15.93	14.97	14.52

Market Price to Cash Flow (MP/CF) Ratio [1]

Line	Company	12-Year Average (1)	2013 [2/a] (2)	2012 (3)	2011 (4)	2010 (5)	2009 (6)	2008 (7)	2007 (8)	2006 (9)	2005 (10)	2004 (11)	2003 (12)	2002 (13)
13	American Electric Power	5.58	6.80	6.18	5.46	5.54	4.71	5.71	6.84	5.54	6.07	5.50	4.69	5.19
14	Cleco Corp.	6.98	8.56	7.51	6.50	5.49	6.15	6.45	9.61	8.96	7.73	7.08	5.24	6.10
15	Empire District Electric	7.76	6.97	6.97	6.43	6.88	6.23	6.94	8.78	8.17	9.20	9.60	8.22	7.93
16	Great Plains Energy	6.20	5.74	6.09	5.74	4.49	5.06	7.71	7.13	7.68	6.70	6.52	5.92	5.14
17	IDACORP, Inc.	7.13	7.86	7.16	6.75	6.67	5.31	7.10	8.23	7.73	7.55	7.15	7.27	7.53
18	Otter Tail Corp.	8.82	9.18	8.43	9.04	8.07	8.01	11.65	9.53	8.66	8.18	9.01	8.13	8.33
19	Pinnacle West Capital	5.31	7.03	6.34	5.80	5.65	3.84	4.19	4.76	4.48	7.48	5.88	4.80	5.21
20	PNM Resources	6.44	6.46	5.80	4.94	4.58	4.53	7.10	10.67	7.50	7.62	6.84	5.55	5.72
21	Portland General	4.94	5.77	5.08	4.86	4.13	4.63	4.81	5.34	5.74	N/A	N/A	N/A	N/A
22	Southern Co.	8.17	8.55	8.75	8.22	7.79	7.08	8.18	8.62	8.47	8.41	8.28	8.28	7.83
23	Westar Energy	5.88	7.23	6.71	6.67	5.51	5.32	7.09	6.88	5.81	7.00	6.54	4.24	2.94
24	Average	6.66	7.29	6.82	6.40	5.89	5.53	6.99	7.85	7.16	7.59	7.24	6.23	6.19

Sources:

[1] *The Value Line Investment Survey Investment Analyzer Software*, downloaded on June 27, 2013.

[2] *The Value Line Investment Survey*, May 3, May 24, and June 21, 2013.

Note:

[a] Based on the average of the high and low price for 2013 and the projected 2013 cash flow per share, published in The Value Line Investment Survey, March 8, 2013.

Tampa Electric Company

Residential Sales Revenue Adjustment

Line	Description	Amount
1	Revised Residential MWh Sales / Customer [1]	14.25
2	Tampa Electric Proposed 2014 Customer Level [2]	619,125
3	Revised Annualized MWh Sales (Line 1 X Line 2)	8,822,531
4	Tampa Electric Annualized 2014 MWh Sales [2]	8,563,003
5	Increase In Annualized MWh Sales (Line 3 - Line 4)	259,528
6	Revenue / MWh Sales (Present Rates) [3]	$ 48.07
7	Increase In Annualized Revenues At Present Rates (Line 6 X Line 5)	$ 12,475,523

Sources:
[1] Gorman Direct Testimony at 71.
[2] Tampa Electric's Minimum Filing Requirements, Schedule E-13c, page 2 of 19 (Customers = Bills / 12)
[3] Tampa Electric's Minimum Filing Requirements, Schedule E-13c, page 2 of 19 (Composite Energy Charge At Present Rates = $411,636,315 / 8,563,003 MWh)