THE OFFICE OF REGULATORY STAFF

DIRECT TESTIMONY & EXHIBITS

OF

RICHARD BAUDINO

SEPTEMBER 24, 2018

DOCKET NO. 2017-370-E

Joint Application and Petition of South Carolina Electric & Gas Company and Dominion Energy, Incorporated for Review and Approval of a Proposed Business Combination between SCANA Corporation and Dominion Energy, Incorporated, as May be Required, and for a Prudency Determination Regarding the Abandonment of the V.C. Summer Units 2 and 3 Project and Associated Customer Benefits and Cost Recovery Plans

DIRECT TESTIMONY AND EXHIBITS OF

RICHARD BAUDINO

ON BEHALF OF

THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF

DOCKET NO. 2017-370-E

IN RE: JOINT APPLICATION AND PETITION OF SOUTH CAROLINA ELECTRIC & GAS COMPANY AND DOMINION ENERGY, INCORPORATED FOR REVIEW AND APPROVAL OF A PROPOSED BUSINESS COMBINATION BETWEEN SCANA CORPORATION AND DOMINION ENERGY, INCORPORATED, AS MAY BE REQUIRED, AND FOR A PRUDENCY DETERMINATION REGARDING THE ABANDONMENT OF THE V.C. SUMMER UNITS 2 & 3 PROJECT AND ASSOCIATED CUSTOMER BENEFITS AND COST RECOVERY PLANS

I. QUALIFICATIONS AND SUMMARY

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

A. My name is Richard A. Baudino, a Consultant with J. Kennedy and Associates, Inc., an economic consulting firm specializing in utility ratemaking and planning issues. My business address is 570 Colonial Park Drive, Suite 305, Roswell, Georgia.

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I received my Master of Arts degree with a major in Economics and a minor in Statistics from New Mexico State University in 1982. I also received my Bachelor of Arts Degree with majors in Economics and English from New Mexico State in 1979. I began my professional career with the New Mexico Public Service Commission Staff in October 1982 and was employed as a Utility Economist. During my employment with the Staff, my responsibilities included the analysis of a broad range of issues in the ratemaking field.

Areas in which I testified included cost of service, rate of return, rate design, revenue requirements, analysis of sale/leasebacks of generating plants, utility finance issues, and generating plant phase-ins.

In October 1989, I joined the utility consulting firm of J. Kennedy and Associates as a Senior Consultant where my duties and responsibilities covered substantially the same areas as those during my tenure with the New Mexico Public Service Commission Staff. I became a Manager in July 1992 and was named Director of Consulting in January 1995. Currently, I am a consultant with J. Kennedy and Associates. ORS Exhibit RAB-1 summarizes my expert testimony experience.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am providing testimony on behalf of the South Carolina Office of Regulatory Staff ("ORS").

Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA ("COMMISSION")?

A. No, this is my first time presenting testimony before the Commission.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The primary purpose of my testimony is to present my recommendation with respect to the allowed return on equity for South Carolina Electric and Gas Company ("SCE&G" or "Company"). My recommended return on equity ("ROE") should be applied to the allowed New Nuclear Development ("NND") costs to be collected through a new Capital Cost Recovery ("CCR") Rider as described more fully by other witnesses for ORS.

I will also respond to the Direct Testimony and ROE recommendations of Mr. Robert Hevert, witness for SCE&G. Finally, I will briefly respond to the Direct Testimony filed by SCE&G witness Ms. Ellen Lapson.

In addition, I will present recommendations regarding service quality and credit quality conditions that should be attached to the proposed acquisition of SCANA Corporation ("SCANA") by Dominion Energy, Inc ("Dominion"). These two sets of conditions are necessary to ensure that (1) South Carolina ratepayers receive the best possible quality of service from SCE&G after the acquisition of its system by Dominion and (2) that SCE&G's credit quality is enhanced because of the acquisition. Neither Dominion nor SCE&G proposed any quantifiable service quality measures that would enable the Commission to ensure that the quality of service is enhanced after the Dominion acquisition. Further, Dominion has not offered concrete measures to ensure that its acquisition of SCE&G will enhance the Company's credit quality, although the acquisition will likely improve SCE&G's financial position substantially.

The service and credit quality conditions I recommend, as well as reporting requirements associated with verifiable service quality measures, will assist the Commission, ORS, and other stakeholders to ensure that service quality will be maintained and improved for SCE&G's ratepayers.

Q. PLEASE SUMMARIZE YOUR ROE RECOMMENDATIONS FOR THE COMMISSION.

A. I recommend that the Commission authorize an allowed ROE for SCE&G of 9.1%, which would be applied to the rate of return for the ORS's allowable NND costs. My recommendation is based on the application of the Discounted Cash Flow ("DCF") model

to the proxy group of 22 regulated electric and gas utilities used by Mr. Hevert in the Direct Testimony he filed on August 2, 2018. I also performed Capital Asset Pricing Model ("CAPM") analyses using projected and historical data, although I did not directly incorporate the results into my recommendation.

My 9.1% ROE reflects the required ROE for an average investment grade regulated utility company. It does not reflect any additional ROE premium for SCE&G's current financial condition, which is currently at the bottom of the investment grade credit ratings from Standard and Poor's, Moody's, and Fitch. These low credit ratings are primarily due to SCANA's and SCE&G's involvement in the now cancelled nuclear facility located in Jenkinsville, South Carolina and the uncertainty related to the disposition of the costs and revenue requirements associated with that facility. The ORS has recommended that certain NND costs be collected from SCE&G ratepayers through a new CCR Rider. ORS also recommends the disallowance of imprudently incurred costs from that facility.

With respect to the allowed ROE in this case, the Commission should approve an ROE consistent with a prudently operated, financially sound regulated utility company. The Commission should not allow a higher ROE that reflects any additional risk stemming from SCANA's and SCE&G's actions with respect to the cancelled nuclear project, from the cost disallowances that the ORS recommends, or from imprudent actions by SCANA and/or SCE&G. If the Commission adopts the ORS' recommendations with respect to the amount of allowable NND costs, South Carolina ratepayers will be paying their pro-rata share of costs for a cancelled nuclear plant that will never generate a single kilowatt hour ("kWh") of electricity to serve them. Ratepayers should not support higher rates or a higher ROE that would compensate SCANA's or Dominion's investors for any added risks or

adverse credit impacts from the disallowed NND costs or from any imprudent actions on the part of SCANA and/or SCE&G.

I also recommend that the Commission utilize SCE&G's capital structure ending September 30, 2017, which includes an equity ratio of 52.81%. It is this capital structure that ORS used for its revenue requirement analysis in this proceeding.

Finally, I recommend that the Commission order SCE&G to modify its cost of long-term debt by including the new debt that the Company issued in August. I will discuss this recommendation in more detail in Section III.

II. REVIEW OF ECONOMIC AND FINANCIAL CONDITIONS

Q. WHAT HAS THE TREND BEEN IN LONG-TERM CAPITAL COSTS OVER THE LAST 10 YEARS?

A. Since 2007 and 2008, the overall trend in interest rates in the U.S. and the world economy has been lower. This trend was precipitated by the 2007 financial crisis and severe recession that followed in December 2007. In response to this economic crisis, the Federal Reserve ("Fed") undertook an unprecedented series of steps to stabilize the economy, ease credit conditions, and lower unemployment and interest rates. These steps are commonly known as Quantitative Easing ("QE") and were implemented in three distinct stages: QE1, QE2, and QE3. The Fed's stated purpose of QE was "to support the liquidity of financial institutions and foster improved conditions in financial markets."[1]

Q. PLEASE PROVIDE A BRIEF EXPLANATION OF HOW THE FED USES MONETARY POLICY TO AFFECT CONDITIONS IN THE FINANCIAL MARKETS.

[1] http://www.federalreserve.gov/monetarypolicy/bst_crisisresponse.htm.

A. Generally, the Fed uses monetary policy to implement certain economic goals. The Fed explained its monetary policy as follows:

> Monetary policy in the United States comprises the Federal Reserve's actions and communications to promote maximum employment, stable prices, and moderate long-term interest rates--the three economic goals the Congress has instructed the Federal Reserve to pursue.
>
> The Federal Reserve conducts the nation's monetary policy by managing the level of short-term interest rates and influencing the overall availability and cost of credit in the economy.[2]

One of the Fed's primary tools for conducting monetary policy is setting the federal funds rate. The federal funds rate is the interest rate set by the Fed that banks and credit unions charge each other for overnight loans of reserve balances. Traditionally the federal funds rate directly influences short-term interest rates, such as the Treasury bill rate and interest rates on savings and checking accounts. The federal funds rate has a more indirect effect on long-term interest rates, such as the 30-Year Treasury bond and private and corporate long-term debt. Long-term interest rates are set more by market forces that influence the supply and demand of loanable funds.

Q. PLEASE CONTINUE WITH YOUR DISCUSSION OF THE FED'S QUANTITATIVE EASING PROGRAMS.

A. QE1 was implemented from November 2008 through approximately March 2010. During this time, the Fed cut its key Federal Funds Rate to nearly 0% and purchased $1.25 trillion of mortgage-backed securities and $175 billion of agency debt purchases. QE2 was implemented in November 2010 with the Fed announcing that it would purchase an additional $600 billion of Treasury securities by the second quarter of 2011.[3] Beginning

[2] From the Federal Reserve's web site and the section entitled "Monetary Policy."
[3] http://www.federalreserve.gov/newsevents/press/monetary/20101103a.htm

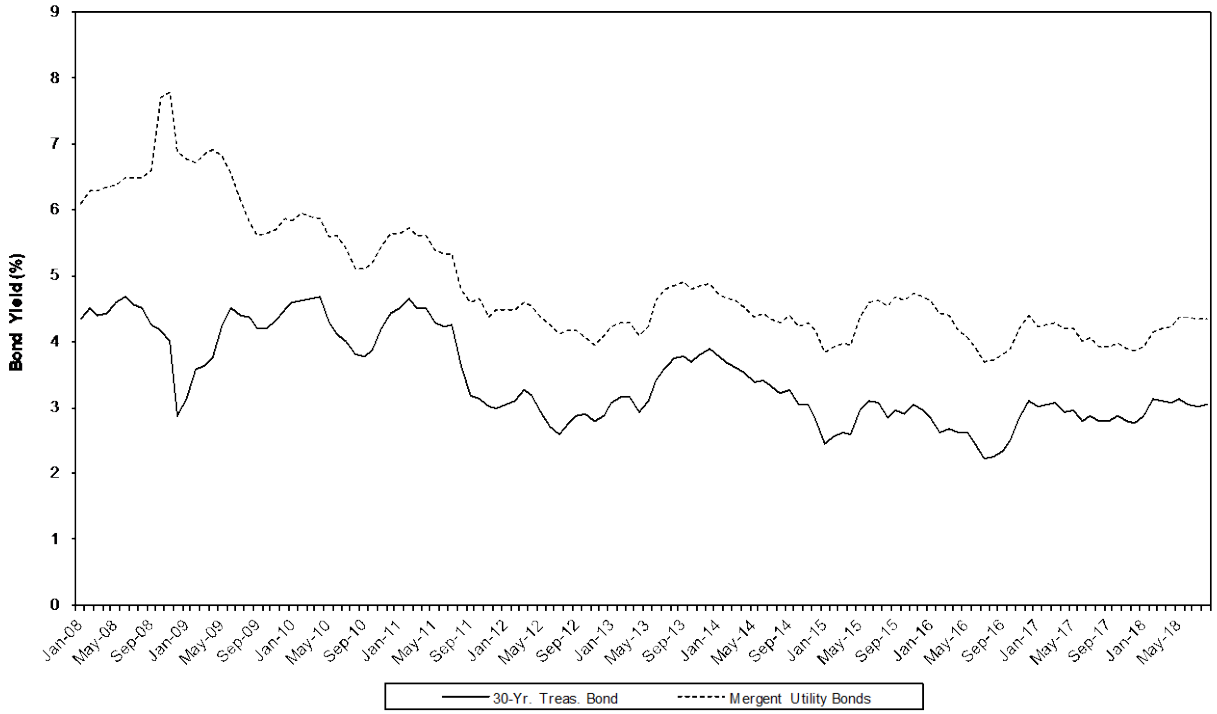
in September 2011, the Fed initiated a "maturity extension program" in which it sold or redeemed $667 billion of shorter-term Treasury securities and used the proceeds to buy longer-term Treasury securities. This program, also known as "Operation Twist," was designed by the Fed to lower long-term interest rates and support the economic recovery. Finally, QE3 began in September 2012 with the Fed announcing an additional bond purchasing program of $40 billion per month of agency mortgage backed securities.

The Fed began to pare back its purchases of securities in the last few years. On January 29, 2014, the Fed stated that beginning in February 2014 it would reduce its purchases of long-term Treasury securities to $35 billion per month. The Fed continued to reduce these purchases throughout the year and in a press release issued October 29, 2014 announced that it decided to close this asset purchase program in October.[4]

Figure 1 below presents a graph that tracks the 30-Year Treasury Bond yield and the Mergent average utility bond yield. The period covers January 2008 through August 2018.

[4] (http://www.federalreserve.gov/newsevents/press/monetary/20141029a.htm)

FIGURE 1
HISTORICAL BOND YIELDS
AVERAGE PUBLIC UTILITY BOND VS 30-YEAR TREASURY BOND



The Fed's QE program and federal funds rate cuts were effective in lowering the long-term cost of borrowing in the United States. The 30-Year Treasury Bond yield declined from 5.11% in July 2007 to a low of 2.59% in July 2012. The average utility bond yield also fell substantially, from 6.28% in July 2007 to 4.12% in July 2012. At the end of August 2018, the 30-Year Treasury yield stood at 3.04% and the average utility bond yield stood at 4.33%.

Q. HAS THE FED RECENTLY INDICATED ANY IMPORTANT CHANGES TO ITS MONETARY POLICY?

A. Yes. In March 2016, the Fed began to raise its target range for the federal funds rate, increasing it to 1/4% to 1/2% from 0% to 1/4%. Since that time, the Fed increased the federal funds rate several more times, with the most recent increase announced on June

13, 2018. The federal funds rate now stands in the range of 1.75% - 2.0%. In its press release dated August 1, 2018, the Fed stated the following:

> "Information received since the Federal Open Market Committee met in June indicates that the labor market has continued to strengthen and that economic activity has been rising at a strong rate. Job gains have been strong, on average, in recent months, and the unemployment rate has stayed low. Household spending and business fixed investment have grown strongly. On a 12-month basis, both overall inflation and inflation for items other than food and energy remain near 2 percent. Indicators of longer-term inflation expectations are little changed, on balance.
>
> Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee expects that further gradual increases in the target range for the federal funds rate will be consistent with sustained expansion of economic activity, strong labor market conditions, and inflation near the Committee's symmetric 2 percent objective over the medium term. Risks to the economic outlook appear roughly balanced.
>
> In view of realized and expected labor market conditions and inflation, the Committee decided to maintain the target range for the federal funds rate at 1-3/4 to 2 percent. The stance of monetary policy remains accommodative, thereby supporting strong labor market conditions and a sustained return to 2 percent inflation."

The Fed also provided certain economic projections that accompanied its June 13, 2018 press release showing the following:

- Projected federal funds rate of 2.4% for 2018, 2.9% for 2019, 3.4% for 2020, and 2.9% for the longer run.
- Inflation running at 1.9% for 2018 and 2.1% for 2019 and 2020.
- The Fed has signaled that it will likely continue increasing the federal funds rate this year and in 2019.

Q. WHY IS IT IMPORTANT TO UNDERSTAND THE FED'S ACTIONS OVER THE LAST 10 YEARS?

A. The Fed's monetary policy actions since 2008 were deliberately undertaken to lower interest rates and support economic recovery. Even with several recent increases in the federal funds rate, the U.S. economy is still in a low interest rate environment. This environment has affected the common stocks of regulated utilities, which are interest rate sensitive due to their high concentration of fixed assets. Thus, as interest rates increase in the general economy, the prices of utility common stocks fall, and their dividend yields rise. Alternatively, as interest rates fall, the dividend yields on utility common stocks tend to fall as their prices rise.

Q. ARE CURRENT INTEREST RATES INDICATIVE OF INVESTOR EXPECTATIONS REGARDING THE FUTURE DIRECTION OF INTEREST RATES?

A. Yes. Securities markets are efficient and most likely reflect investors' expectations about future interest rates. As Dr. Roger Morin pointed out in *New Regulatory Finance:*

> "A considerable body of empirical evidence indicates that U.S. capital markets are efficient with respect to a broad set of information, including historical and publicly available information."[5]

Dr. Morin also noted the following:

> "There is extensive literature concerning the prediction of interest rates. From this evidence, it appears that the no-change model of interest rates frequently provides the most accurate forecasts of future interest rates while at other times, the experts are more accurate. Naïve extrapolations of current interest rates frequently outperform published forecasts. The literature suggests that on balance, the bond market is very efficient in that it is difficult to consistently forecast interest rates with greater accuracy than a no-change model. The latter model provides similar, and in some cases, superior accuracy than professional forecasts."[6]

[5] Morin, Roger A., *New Regulatory Finance,* Public Utilities Reports, Inc. (2006) at 279.
[6] *Ibid* at 172.

Despite recent increases in the general level of short-term interest rates since the second half of 2016, the U.S. economy continues to operate in a low interest rate environment. It is important to realize that investor expectations of higher future interest rates, if any, are already likely already embodied in current securities prices, which include debt securities and stock prices.

Moreover, the current low interest rate environment still favors lower risk regulated utilities. Although the Fed anticipates raising the federal funds rate later this year and in 2019, I still firmly believe that it would not be advisable for utility regulators to raise ROEs in anticipation of higher forecasted interest rates that may or may not occur**.**

Q. HOW HAS THE INCREASE IN THE FEDERAL FUNDS RATE SINCE 2016 AFFECTED UTILITY STOCKS IN TERMS OF BOND YIELDS AND STOCK PRICES?

A. Interestingly, the yield on the average utility bond is lower now than it was in January 2016. Likewise, the Dow Jones Utility Index is substantially higher than it was in January 2016. Table 1 shows the federal funds rate, the yield on the 30-Year Treasury bond, the yield on the average utility bond, and the Dow Jones Utility Average ("DJUA") from January 2016 through August 2018.

TABLE 1
Bond Yields and DJUA

	Federal Funds Rate %	30-Year Treasury %	Avg. Utility Bond %	DJUA
2016				
January	0.34	2.86	4.62	611.35
February	0.38	2.62	4.44	620.70
March	0.36	2.68	4.40	668.57
April	0.37	2.62	4.16	654.44
May	0.37	2.63	4.06	659.44
June	0.38	2.45	3.93	716.52
July	0.39	2.23	3.70	711.42
August	0.40	2.26	3.73	666.87
September	0.40	2.35	3.80	668.13
October	0.40	2.50	3.90	675.23
November	0.41	2.86	4.21	632.67
December	0.54	3.11	4.39	645.86
2017				
January	0.65	3.02	4.24	668.87
February	0.66	3.03	4.25	703.16
March	0.79	3.08	4.30	697.28
April	0.90	2.94	4.19	704.35
May	0.91	2.96	4.19	726.62
June	1.04	2.80	4.01	706.91
July	1.15	2.88	4.06	726.48
August	1.16	2.80	3.92	743.24
September	1.15	2.78	3.93	723.60
October	1.15	2.88	3.97	753.20
November	1.16	2.80	3.88	770.39
December	1.30	2.77	3.85	723.37
2018				
January	1.41	2.88	3.91	699.25
February	1.42	3.13	4.15	668.81
March	1.51	3.09	4.21	692.63
April	1.69	3.07	4.24	707.01
May	1.70	3.13	4.36	695.21
June	1.82	3.05	4.37	711.64
July	1.91	3.01	4.38	724.24
August	1.91	3.04	4.33	726.41

Source: Federal Reserve, Mergent Bond Record, Yahoo! Finance

Note that as the federal funds rate rose from January through December 2017, the 30-Year Treasury yield declined. The DJUA rose throughout 2017, declined sharply in December and through February 2018, then began to rise again through August 2018. Although the federal funds rate steadily increased from 2016, the 30-Year Treasury yield is only slightly higher in August 2018 than it was in January 2016. The average utility bond yield was lower in August 2018 (4.33%) than it was is January 2016 (4.62%), despite the steep increases in the federal funds rate.

Q. HOW DOES THE INVESTMENT COMMUNITY REGARD THE ELECTRIC UTILITY INDUSTRY CURRENTLY?

A. The Value Line Investment Survey stated the following in its August 17, 2018 report on the Electric Utility (East) industry:

> ***Tax Reform***
>
> *This year, the federal corporate tax rate dropped to 21% from 35% previously, thanks to the law that was enacted in late 2017. This is benefiting nonregulated businesses, such as PSEG Power (a subsidiary of Public Service Enterprise Group). The nonutility activities of Dominion Energy also got a boost from the new law. By contrast, regulated utilities are passing through to customers the benefits of the lower tax rate. Exelon estimates that this will save its customers $675 million annually. Since some of the company's utilities are raising rates, the net effect on prices after the passthrough will still be a reduction. Florida Power & Light, the utility subsidiary of NextEra Energy, will use the tax savings to offset the costs of service restoration it incurred from the hurricane that hit the Sunshine State last year.*
>
> *One negative feature of tax reform for utilities is in their cash flow. Many utilities are not cash taxpayers thanks to numerous credits (such as those for renewable energy), so when customers' rates are reduced to reflect the new lower tax rate, there is less cash coming in but there isn't less cash going out. Utilities are trying to address this when they file general rate cases. Some utilities owned by Southern Company and Xcel Energy (covered in Issue 11) have asked for (and received) higher common-equity ratios used to determine their revenue requirements. Another negative*

> *feature is the lower tax shield on expenses at the parent level. Some electric utility holding companies have a good deal of debt held at the parent level. The recent price of most stocks in the Electric Utility Industry is within their 2021-2023 Target Price Range. Naturally, this makes their long-term total return potential unimpressive. The industry's average dividend yield is 3.4% (low, by historical standards), and its average 3- to 5-year total return potential is 3%.*

My conclusion from Value Line's comments here is that despite short-term challenges to cash flow coverages from the Tax Cut and Jobs Act ("TCJA") utilities still have robust valuations in terms of their current prices.

Q. IN 2018, THE EDISON ELECTRIC INSTITUTE ("EEI") PUBLISHED ITS *2017 FINANCIAL REVIEW* OF THE INVESTOR-OWNED ELECTRIC UTILITY INDUSTRY. PLEASE SUMMARIZE EEI'S CONCLUSIONS WITH RESPECT TO CREDIT RATINGS FOR THE ELECTRIC UTILITY INDUSTRY.

A. EEI's report noted the following favorable credit rating summary for 2017:

> The industry's average credit rating in 2017 was BBB+, remaining for a fourth straight year above the BBB average that has held since 2004. Ratings activity, at 53 changes, was below the industry's average for the last decade of 68 changes per year. Upgrades were 73.6% of total actions, the third-highest annual figure in our dataset and just above 2016's 73.1%. In fact, the last five years have produced the five highest upgrade percentages in our historical data.

EEI's report shows that the overall credit standing of the electric industry is still quite strong and has been improving over the last five years.

Q. WHAT CREDIT RATINGS ARE CURRENTLY ASSIGNED TO SCE&G?

A. SCE&G credit and bond ratings are as follows:

- Standard and Poor's corporate credit rating of BBB- and senior secured bond rating of BBB+, negative watch.

- Moody's Issuer Rating of Baa3 and senior secured bond rating of Baa1, negative outlook.
- Fitch's Issuer Default Rating of BB+ and first mortgage bond rating of BBB, evolving watch.

I note that S&P and Fitch lowered their ratings on SCANA and SCE&G after the filing of testimony by the Company on August 2, 2018. Fitch announced ratings downgrades for SCANA and SCE&G on August 8, 2018 and S&P announced its lower ratings on August 9, 2018.

Q. DID YOU REVIEW THE TESTIMONY AND EXHIBITS FILED BY SCE&G WITNESS LAPSON?

A. Yes. SCE&G witness Lapson summarizes the rating agencies' main concerns with respect to SCANA's and SCE&G's credit condition in her Direct Testimony. Ms. Lapson also attached several credit rating agencies reports regarding SCANA and SCE&G as exhibits, with recent July 2018 updates attached as Exhibits ___(EL-5) through ___(EL-7).

Q. BASED ON YOUR REVIEW OF THE CREDIT RATING AGENCY REPORTS, WHAT ARE YOUR CONCLUSIONS WITH RESPECT TO HOW THE COMMISSION SHOULD EVALUATE SCE&G'S ALLOWED ROE IN THIS PROCEEDING?

A. I conclude that the Commission should approach the allowed ROE in this proceeding based on the required ROE for a group of financially sound and prudently operated regulated utility companies. The Commission should not grant a higher ROE to

SCE&G based on its current credit ratings, which are at or near the bottom of the investment grade ratings for S&P, Moody's, and Fitch.

Consider the following excerpt from S&P's report included in Ms. Lapson's Exhibit ___(EL-5):

> The CreditWatch with negative implications on SCANA and its subsidiaries reflects our view of ongoing uncertainty regarding cost recovery of the abandoned V.C. Summer nuclear construction project. We could lower the ratings if the Court does not issue an injunction prohibiting the SCPSC from implementing the new law. A rate decrease of the magnitude reflected in the law would weaken credit metrics significantly. We could also lower ratings even if the Court issues an injunction that is subsequently followed by a SCPSC order to reduce rates or an order to provide rate credits for Summer-related costs that results in weaker financial measures.

My understanding of this report from S&P is that the credit watch with negative implications is primarily due to "uncertainty regarding cost recovery of the abandoned V. C. Summer nuclear construction project."

The Moody's report included in Exhibit ___(EL-7) stated the following with respect to SCANA's and SCE&G's credit outlook:

> "The negative outlooks on SCE&G and SCANA reflect continued uncertainty surrounding the ultimate decision of the SCPSC with regard to SCE&G's recovery of its new nuclear costs, and the future of its relationship with SCE&G. The outlook reflects Moody's view that the political and regulatory environment within which the companies must operate is now considerably below average. The outlook also considers the potential for additional adverse developments as a result of ongoing investigations and legal actions related to the abandoned Summer new nuclear plant and reflects some uncertainty with regard to the company's future."

My understanding is that, like S&P, Moody's also cited uncertainty regarding the recovery of costs related to the abandoned Summer nuclear project as being primarily responsible for the negative rating outlook.

Q. PLEASE COMMENT ON THE RECENT ANNOUNCEMENTS BY S&P AND FITCH REGARDING THE DOWNGRADES OF SCE&G'S CREDIT RATINGS.

A. The announcements by S&P and Fitch I referenced earlier do not change my opinion regarding how the Commission should treat SCE&G's allowed ROE. Both announcements came after the absence of injunctive relief following the recently enacted 14.8% rate cut for SCE&G. Nonetheless, S&P announcement noted the following:

> "We are maintaining the ratings on CreditWatch with negative implications due to uncertainty regarding the PSC's final decision about rate recovery of the V.C. Summer nuclear construction project expected around year-end 2018."

Clearly, the uncertainty regarding the disposition of the treatment of costs related to the Summer nuclear project still drive SCE&G's current credit ratings.

Q. DO THE ORS RECOMMENDATIONS IN THIS CASE BRING MORE CERTAINTY TO THE DISPOSITION OF SCE&G'S NND COSTS AND TO THE PROPOSED ACQUISITION BY DOMINION?

A. Yes. ORS has recommended an allowable amount of NND costs to be collected through the CCR Rider, as well as a full weighted cost of capital to be applied to those costs. ORS also recommends that, if the Commission were to approve the merger proposed by SCANA and Dominion, the Commission should include commitments and conditions necessary to ensure that the Merger is in the public interest and does not harm customers. The ORS recommendations bring far more certainty to SCE&G's current and future position than currently exists.

Q. SHOULD ANY ADVERSE EFFECTS FROM THE ORS RECOMMENDED DISALLOWANCE OF NND COSTS BE REFLECTED IN A HIGHER ROE FOR SCE&G?

A. No, definitely not. South Carolina ratepayers should not be burdened with any imprudent costs from the abandoned Summer plant and that includes any adverse credit

implications from the disallowance of such costs. ORS has recommended the inclusion of allowed NND costs from the cancelled Summer plant, which will never produce a single kWh for use by SCE&G's customers. Customers should support a ROE commensurate with the operation of a prudently run investment grade regulated utility company and no more. This is a fair balancing of interests between SCE&G's shareholders and ratepayers.

Q. HAS SCE&G BEEN ABLE TO ACCESS CAPITAL MARKETS RECENTLY DESPITE THE UNCERTAINTY WITH RESPECT TO THE DISPOSITION OF THE ABANDONED SUMMER PLANT?

A. Yes, SCE&G has been able to access the capital markets this year and on favorable terms. ORS Exhibit RAB-2 contains a news release from SCANA regarding two debt issuances made by SCE&G on August 16, 2018. The release stated that SCE&G issued the following:

- $300 million of 3.5% coupon first mortgage bonds due August 15, 2021 priced at 99.997 percent.
- $400 million of 4.25% coupon first mortgage bonds due August 15, 2028 priced at 99.75 percent.

The pricing and coupon for the 10-year 4.25% first mortgage issuance is consistent with the August 2018 yield on the average utility bond, which was 4.33%. Moody's rated these issuances Baa1 and S&P's rating was BBB+. Based on this information, it appears that SCE&G is well able to access the debt market at reasonable rates.

III. DETERMINATION OF FAIR RATE OF RETURN

Q. PLEASE DESCRIBE THE METHODS YOU EMPLOYED IN ESTIMATING A FAIR RATE OF RETURN FOR SCE&G.

A. I estimated the return on equity for the Company using a Discounted Cash Flow analysis for a group of proxy group of 22 regulated electric companies. This is the same proxy group used by SCE&G witness Hevert. I also employed two Capital Asset Pricing Model analyses using both historical and forward-looking data. However, I did not directly incorporate the CAPM results in my recommendation.

Q. WHAT ARE THE MAIN GUIDELINES TO WHICH YOU ADHERE IN ESTIMATING THE COST OF EQUITY?

A. Generally speaking the estimated cost of equity should be comparable to the returns of other firms with similar risk structures and should be sufficient for the firm to attract capital. These are the basic standards set out by the United States Supreme Court in Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944) and Bluefield W.W. & Improv. Co. v. Public Service Comm'n, 262 U.S. 679 (1922).

From an economist's perspective, the notion of "opportunity cost" plays a vital role in estimating the return on equity. One measures the opportunity cost of an investment equal to what one would have obtained in the next best alternative. For example, let us suppose that an investor decides to purchase the stock of a publicly traded electric utility. That investor made the decision based on the expectation of dividend payments and perhaps some appreciation in the stock's value over time; however, that investor's opportunity cost is measured by what she or he could have invested in as the next best alternative. That alternative could have been another utility stock, a utility bond, a mutual fund, a money market fund, or any other number of investment vehicles.

The key determinant in deciding whether to invest, however, is based on comparative levels of risk. Our hypothetical investor would not invest in a particular

electric company stock if it offered a return lower than other investments of similar risk. The opportunity cost simply would not justify such an investment. Thus, the task for the rate of return analyst is to estimate a return that is equal to the return being offered by other risk-comparable firms.

Q. WHAT ARE THE MAJOR TYPES OF RISK FACED BY UTILITY COMPANIES?

A. In general, risk associated with the holding of common stock can be separated into three major categories: business risk, financial risk, and liquidity risk. Business risk refers to risks inherent in the operation of the business. Volatility of the firm's sales, long-term demand for its product(s), the amount of operating leverage, and quality of management are all factors that affect business risk. The quality of regulation at the state and federal levels also plays an important role in business risk for regulated utility companies.

Financial risk refers to the impact on a firm's future cash flows from the use of debt in the capital structure. Interest payments to bondholders represent a prior call on the firm's cash flows and must be met before income is available to the common shareholders. Additional debt means additional variability in the firm's earnings, leading to additional risk.

Liquidity risk refers to the ability of an investor to quickly sell an investment without a substantial price concession. The easier it is for an investor to sell an investment for cash, the lower the liquidity risk will be. Stock markets, such as the New York and American Stock Exchanges, help ease liquidity risk substantially. Investors who own stocks that are traded in these markets know daily what the market prices of their investments are and that they can sell these investments fairly quickly. Many electric utility stocks are traded on the New York Stock Exchange and are considered liquid investments.

Q. ARE THERE ANY INDICES AVAILABLE TO INVESTORS THAT QUANTIFY THE TOTAL RISK OF A COMPANY?

A. Bond and credit ratings are tools that investors use to assess the risk comparability of firms. Bond rating agencies such as Moody's and Standard and Poor's perform detailed analyses of factors that contribute to the risk of a particular investment. The result of their analyses is a bond rating that reflects these risks. This information can then be used to select a comparison group for use in the Discounted Cash Flow model.

Discounted Cash Flow ("DCF") Model

Q. PLEASE DESCRIBE THE BASIC DCF APPROACH.

A. The basic DCF approach is rooted in valuation theory. It is based on the premise that the value of a financial asset is determined by its ability to generate future net cash flows. In the case of a common stock, those future cash flows take the form of dividends and appreciation in stock price. The value of the stock to investors is the discounted present value of future cash flows. The general equation then is:

$$\boldsymbol{V = \frac{R}{(1+r)} + \frac{R}{(1+r)^2} + \frac{R}{(1+r)^3} + \cdots \frac{R}{(1+r)^n}}$$

Where: *V = asset value*
R = yearly cash flows
r = discount rate

This is no difference from determining the value of any asset from an economic point of view; however, the commonly employed DCF model makes certain simplifying assumptions. One is that the stream of income from the equity share is assumed to be perpetual; that is, there is no salvage or residual value at the end of some maturity date (as is the case with a bond). Another important assumption is that financial markets are reasonably efficient; that is, they correctly evaluate the cash flows relative to the

appropriate discount rate, thus rendering the stock price efficient relative to other alternatives. Finally, the model I employ also assumes a constant growth rate in dividends. The fundamental relationship employed in the DCF method is described by the formula:

$$k = {}^{D_1}/_{P_0} + g$$

Where: D_1 = *the next period dividend*
P_0 = *current stock price*
g = *expected growth rate*
k = *investor-required return*

Under the formula, it is apparent that "k" must reflect the investors' expected return. Use of the DCF method to determine an investor-required return is complicated by the need to express investors' expectations relative to dividends, earnings, and book value over an infinite time horizon. Financial theory suggests that stockholders purchase common stock on the assumption that there will be some change in the rate of dividend payments over time. We assume that the rate of growth in dividends is constant over the assumed time horizon, but the model could easily handle varying growth rates if we knew what they were. Finally, the relevant time frame is prospective rather than retrospective.

Q. WHAT WAS YOUR FIRST STEP IN CONDUCTING YOUR DCF ANALYSIS FOR SCE&G?

A. My first step was to construct a proxy group of electric companies. In this case, I chose to use the same proxy group of 22 companies used by Company witness Hevert. Mr. Hevert described his selection criteria on pages 15 through 16 of his Direct Testimony. For purposes of this case, it is reasonable to proceed with the proxy group of companies shown by Mr. Hevert in Table 2, page 17, of his Direct Testimony. Using the same proxy group as Mr. Hevert also facilitates a direct comparison of our cost of equity results free from any

differences in the selection of a proxy group, eliminating one area of possible disagreement between us.

Q. WHAT WAS YOUR FIRST STEP IN DETERMINING THE DCF RETURN ON EQUITY FOR THE PROXY GROUP OF COMPANIES?

A. I first determined the current dividend yield, D_0/P_0, from the basic equation. My general practice is to use six months as the most reasonable period over which to estimate the dividend yield. A six-month period includes stock price data that is recent and smooths out short-term fluctuations in prices that may occur in a given month.

Q. WHICH SIX-MONTH PERIOD DID YOU USE AND WHAT WERE THE RESULTS?

A. The six-month period I used covered the months from March through August 2018. I obtained historical prices and dividends from Yahoo! Finance. The annualized dividend divided by the average monthly price represents the average dividend yield for each month in the period.

The average dividend yield for the comparison group is 3.40%. These calculations are shown on ORS Exhibit RAB-3.

Q. HAS THE PROXY GROUP DIVIDEND YIELD CHANGED MUCH DURING THE SIX-MONTH PERIOD YOU EXAMINED?

A. Looking at the six-month period, the dividend yield for the proxy group has fallen slightly from 3.54% in March to 3.26% in August. This shows that stock prices for the proxy group have increased over the six-month period despite forecasted increases in short-term interest rates by the Fed.

Q. HAVING ESTABLISHED THE AVERAGE DIVIDEND YIELD, HOW DID YOU DETERMINE THE INVESTORS' EXPECTED GROWTH RATE FOR THE PROXY GROUP?

A. The investors' expected growth rate, in theory, correctly forecasts the constant rate of growth in dividends. The dividend growth rate is a function of earnings growth and the payout ratio, neither of which is known precisely for the future. We refer to a perpetual growth rate since the DCF model has no arbitrary cut-off point. We must estimate the investors' expected growth rate because there is no way to know with absolute certainty what investors expect the growth rate to be in the short term, much less in perpetuity.

For my analysis in this proceeding, I used three major sources of analysts' forecasts for growth. These sources are The Value Line Investment Survey, Zacks, and Yahoo! Finance. This is the method I typically use for estimating growth for my DCF calculations.

Q. PLEASE BRIEFLY DESCRIBE THE VALUE LINE INVESTMENT SURVEY, ZACKS, AND YAHOO! FINANCE.

A. The Value Line Investment Survey ("Value Line") is a widely used and respected source of investor information that covers approximately 1,700 companies in its Standard Edition and several thousand in its Plus Edition. It is updated quarterly and probably represents the most comprehensive of all investment information services. It provides both historical and forecasted information on a number of important data elements. Value Line neither participates in financial markets as a broker nor works for the utility industry in any capacity of which I am aware.

Zacks gathers opinions from a variety of analysts on earnings growth forecasts for numerous firms including regulated electric utilities. The estimates of the analysts

responding are combined to produce consensus average estimates of earnings growth. I obtained Zacks' earnings growth forecasts from its web site.

Like Zacks, Yahoo! Finance also compiles and reports consensus analysts' forecasts of earnings growth.

Q. WHY DID YOU RELY ON ANALYSTS' FORECASTS IN YOUR ANALYSIS?

A. Return on equity analysis is a forward-looking process. Five-year or ten-year historical growth rates may not accurately represent investor expectations for future dividend and earnings growth. Analysts' forecasts for earnings and dividend growth provide better proxies for the expected growth component in the DCF model than historical growth rates. Analysts' forecasts are also widely available to investors and one can reasonably assume that they influence investor expectations.

Q. HOW DID YOU UTILIZE YOUR DATA SOURCES TO ESTIMATE GROWTH RATES FOR THE COMPARISON GROUPS?

A. ORS Exhibit RAB-4 presents the Value Line, Zacks, and Yahoo! Finance forecasted growth estimates for the comparison group. These earnings and dividend growth estimates for the comparison group are summarized on Columns (1) through (4) of page 1 of ORS Exhibit RAB-4.

In my analysis I used dividend and earnings growth from Value Line and earnings growth from Zacks and Yahoo! Finance. It is important to include dividend growth forecasts in the DCF model since the model calls for forecasted cash flows. Value Line is the only sources of which I am aware that forecasts dividend growth and my approach gives this forecast equal weight with each of the three earnings growth forecasts.

Q. HOW DID YOU PROCEED TO DETERMINE THE DCF RETURN ON EQUITY FOR THE COMPARISON GROUP?

A. To estimate the expected dividend yield (D_1) for the group, the current dividend yield must be moved forward in time to account for dividend increases over the next twelve months. I estimated the expected dividend yield by multiplying the current dividend yield by one plus one-half the expected growth rate.

Page 2 of ORS Exhibit RAB-4 presents my standard method of calculating dividend yields, growth rates, and return on equity for the proxy group of companies. The DCF Return on Equity section shows the application of each of four growth rates I used in my analysis to the current group dividend yield of 3.40% to calculate the expected dividend yield. I then added the expected growth rates to the expected dividend yield. In evaluating investor expected growth rates, I use both the average (Method 1) and the median values (Method 2) to estimate the growth rates for the proxy group. The calculations of the resulting DCF returns on equity for both methods are presented on page 2 of ORS Exhibit RAB-4.

Q. WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF ANALYSIS?

A. For the average growth rates in Method 1, the results range from 8.70% to 9.48%, with the average of these results being 9.09%. Using the median growth rates in Method 2, the results range from 8.30% to 9.24%, with the average of these results being 8.86%.

Capital Asset Pricing Model

Q. BRIEFLY SUMMARIZE THE CAPITAL ASSET PRICING MODEL ("CAPM") APPROACH.

A. The theory underlying the CAPM approach is that investors, through diversified portfolios, may combine assets to minimize the total risk of the portfolio. Diversification

allows investors to diversify away all risks specific to a particular company and be left only with market risk that affects all companies. Thus, the CAPM theory identifies two types of risks for a security: company-specific risk and market risk. Company-specific risk includes such events as strikes, management errors, marketing failures, lawsuits, and other events that are unique to a particular firm. Market risk includes inflation, business cycles, war, variations in interest rates, and changes in consumer confidence. Market risk tends to affect all stocks and cannot be diversified away. The idea behind the CAPM is that diversified investors are rewarded with returns based on market risk. Within the CAPM framework, the expected return on a security is equal to the risk-free rate of return plus a risk premium that is proportional to the security's market, or non-diversifiable, risk. Beta is the factor that reflects the inherent market risk of a security and measures the volatility of a particular security relative to the overall market for securities. For example, a stock with a beta of 1.0 indicates that if the market rises by 15%, that stock will also rise by 15%. This stock moves in tandem with movements in the overall market. Stocks with a beta of 0.5 will only rise or fall 50% as much as the overall market. So with an increase in the market of 15%, this stock will only rise 7.5%. Stocks with betas greater than 1.0 will rise and fall more than the overall market. Thus, beta is the measure of the relative risk of individual securities vis-à-vis the market.

Based on the foregoing discussion, the equation for determining the return for a security in the CAPM framework is:

$$K = Rf + \beta(MRP)$$

Where: K = *Required Return on equity*
Rf = *Risk-free rate*
MRP = *Market risk premium*
β = *Beta*

This equation tells us about the risk/return relationship posited by the CAPM. Investors are risk averse and will only accept higher risk if they expect to receive higher returns. These returns can be determined in relation to a stock's beta and the market risk premium. The general level of risk aversion in the economy determines the market risk premium. If the risk-free rate of return is 3.0% and the required return on the total market is 15%, then the risk premium is 12%. Any stock's required return can be determined by multiplying its beta by the market risk premium. Stocks with betas greater than 1.0 are considered riskier than the overall market and will have higher required returns. Conversely, stocks with betas less than 1.0 will have required returns lower than the market as a whole.

Q. ARE THERE CONCERNS REGARDING THE USE OF THE CAPM IN ESTIMATING THE RETURN ON EQUITY?

A. Yes. There is some controversy surrounding the use of the CAPM.[7] There is evidence that beta is not the primary factor in determining the risk of a security. For example, Value Line's "Safety Rank" is a measure of total risk, not its calculated beta coefficient. Beta coefficients usually describe only a small amount of total investment risk.

There is also substantial judgment involved in estimating the required market return. In theory, the CAPM requires an estimate of the return on the total market for investments, including stocks, bonds, real estate, etc. It is nearly impossible for the analyst to estimate such a broad-based return. Often in utility cases, a market return is estimated using the S&P 500 or the return on Value Line's stock market composite. However, these are limited sources of information with respect to estimating the investor's required return

[7] For a more complete discussion of some of the controversy surrounding the use of the CAPM, refer to *A Random Walk Down Wall Street* by Burton Malkiel, pp. 219 - 223, 11th edition.

for all investments. In practice, the total market return estimate faces significant limitations to its estimation and, ultimately, its usefulness in quantifying the investor required ROE.

In the final analysis, a considerable amount of judgment must be employed in determining the risk-free rate and market return portions of the CAPM equation. The analyst's application of judgment can significantly influence the results obtained from the CAPM. My past experience with the CAPM indicates that it is prudent to use a wide variety of data in estimating investor-required returns. Of course, the range of results may also be wide, indicating the difficulty in obtaining a reliable estimate from the CAPM.

Q. HOW DID YOU ESTIMATE THE MARKET RETURN PORTION OF THE CAPM?

A. The first source I used was the Value Line Investment Analyzer, Plus Edition, for September 7, 2018. This edition covers several thousand stocks. The Value Line Investment Analyzer provides a summary statistical report detailing, among other things, forecasted growth rates for earnings and book value for the companies Value Line follows as well as the projected total annual return over the next 3 to 5 years. I present these growth rates and Value Line's projected annual return on page 2 of ORS Exhibit RAB-5. I included median earnings and book value growth rates. The estimated market returns, using Value Line's market data, were 10.62%.

Q. WHY DID YOU USE MEDIAN GROWTH RATE ESTIMATES RATHER THAN THE AVERAGE GROWTH RATE ESTIMATES FOR THE VALUE LINE COMPANIES?

A. Using median growth rates is likely a more accurate method of estimating the central tendency of Value Line's large data set compared to the average growth rates.

Average earnings and book value growth rates may be unduly influenced by very high or very low 3 - 5-year growth rates that are unsustainable in the long run. For example, Value Line's Statistical Summary shows both the highest and lowest value for earnings and book value growth forecasts. For earnings growth, Value Line showed the highest earnings growth forecast to be 94.5% and the lowest growth rate to be -31%. The highest book value growth rate was 85.5% and the lowest was -22%. None of these extreme levels of growth is compatible with long-run growth prospects for the market as a whole. The median growth rate is not influenced by such extremes because it represents the middle value of a very wide range of earnings growth rates.

Q. PLEASE CONTINUE WITH YOUR MARKET RETURN ANALYSIS.

A. I also considered a supplemental check to the Value Line projected market return estimates. Duff and Phelps publishes a study of historical returns on the stock market in its *2018 SBBI Yearbook*. Some analysts employ this historical data to estimate the market risk premium of stocks over the risk-free rate. The assumption is that a risk premium calculated over a long period of time is reflective of investor expectations going forward. Exhibit RAB-6 presents the calculation of the market returns using the historical data.

Q. PLEASE EXPLAIN HOW THIS HISTORICAL RISK PREMIUM IS CALCULATED.

A. ORS Exhibit RAB-6 shows both the geometric and arithmetic average of yearly historical stock market returns over the historical period from 1926 - 2017. The average annual income return for long-term Treasury bond is subtracted from these historical stocks returns to obtain the historical market risk premium. The historical market risk premium range is 5.2% - 7.1%.

Q. DID YOU ADD AN ADDITIONAL MEASURE OF THE HISTORICAL RISK PREMIUM IN THIS CASE?

A. Yes. Duff and Phelps reported the results of a study by Dr. Roger Ibbotson and Dr. Peng Chen indicating that the historical risk premium of stock returns over long-term government bond returns has been significantly influenced upward by substantial growth in the price/earnings ("P/E") ratio for stocks from 1980 through 2001.[8] Duff and Phelps noted that this growth in the P/E ratio for stocks was subtracted out of the historical risk premium because "it is not believed that P/E will continue to increase in the future." The adjusted historical arithmetic market risk premium is 6.04%, which I have also included in ORS Exhibit RAB-6. This risk premium estimate falls near the middle of the market risk premium range shown on this exhibit.

Q. HOW DID YOU DETERMINE THE RISK-FREE RATE?

A. I used the average yields on the 30-year Treasury bond and five-year Treasury note over the six-month period from March through August 2018. This was the latest available data from the Federal Reserve's Selected Interest Rates (Daily) H.15 web site during the preparation of my Direct Testimony. The 30-year Treasury bond is often used by rate of return analysts as the risk-free rate, but it contains a significant amount of interest rate risk. The five-year Treasury note carries less interest rate risk than the 30-year bond and is more stable than three-month Treasury bills. Therefore, I have employed both securities as proxies for the risk-free rate of return. This approach provides a reasonable range over which the CAPM return on equity may be estimated.

Q. HOW DID YOU DETERMINE THE VALUE FOR BETA?

[8] *2018 SBBI Yearbook*, Duff and Phelps, pg. 10-28.

A. I obtained the betas for the companies in the proxy group from most recent Value Line reports. The average of the Value Line betas for the comparison group is 0.66.

Q. PLEASE SUMMARIZE THE CAPM RESULTS.

A. For my forward-looking CAPM return on equity estimates, the CAPM results are 7.97% - 8.08% as presented in ORS Exhibit RAB-5. Using historical risk premiums, the CAPM results are 6.52% - 7.78% as presented in ORS Exhibit RAB-6.

Conclusions and Recommendations

Q. PLEASE SUMMARIZE THE COST OF EQUITY RESULTS FROM YOUR DCF AND CAPM ANALYSES.

A. Table 2 below summarizes the cost of equity estimates I developed using the DCF model and the CAPM.

TABLE 2
SUMMARY OF ROE ESTIMATES

Baudino DCF Methodology:	
Average Growth Rates	
- High	9.48%
- Low	8.70%
- Average	9.09%
Median Growth Rates:	
- High	9.24%
- Low	8.30%
- Average	8.86%
CAPM:	
- 5-Year Treasury Bond	7.97%
- 30-Year Treasury Bond	8.08%
- Historical Returns	6.52% - 7.78%

Q. WHAT IS YOUR RECOMMENDED RETURN ON EQUITY FOR SCE&G IN THIS PROCEEDING?

A. My recommended ROE for SCE&G is 9.1%. My recommendation is consistent with the average of the DCF results from my Method 1 and represents a fair rate of return for a prudently operated investment grade regulated utility company. I explained in Section II of my Direct Testimony why South Carolina ratepayers should be shielded from any adverse cost of capital impacts from the disallowance of imprudently incurred costs from the abandoned Summer nuclear facility. Basing my ROE recommendation to the Commission on the required ROE for the proxy group accomplishes this end.

Q. ON PAGE 62 OF HIS DIRECT TESTIMONY MR. HEVERT PROVIDED THE EARNED RETURNS FROM THE UTILITY OPERATING COMPANIES IN THE PROXY GROUP. HOW DOES YOUR RECOMMENDED ROE OF 9.1% COMPARE TO THE EARNED RETURNS CALCULATED BY MR. HEVERT?

A. My recommended ROE of 9.1% is quite close to the 2017 earned return of 9.17% for the companies in the proxy group. It is also quite close to the 5-year average of 9.54%. My recommended ROE of 9.1% is far more consistent with the earned returns for the companies in the proxy group than the 10.75% ROE that Mr. Hevert recommends. In fact, Mr. Hevert's Chart 8 shows how out of step and grossly overstated his recommended ROE is comparatively.

Q. BEGINNING ON PAGE 54 OF HIS DIRECT TESTIMONY, MR. HEVERT DISCUSSED THE EFFECT OF THE TCJA ON THE DIVIDEND YIELDS AND FINANCIAL METRICS OF THE PROXY GROUP AND OF UTILITIES GENERALLY. PLEASE RESPOND TO HIS CONCERNS REGARDING THE POTENTIAL IMPACT ON THE PROXY GROUP'S ROE FROM THE TCJA.

A. As a general matter, I acknowledge that the TJCA will cause a decline in the credit metrics of regulated utility companies primarily due to the reduction of cash coverages from the cut in the corporate income tax rate to 21%. Value Line noted this as well in the excerpt I quoted from in its August 17, 2018 report on the Electric Utility (East) Industry. However, whether this will necessarily result in credit rating downgrades from S&P, Moody's and Fitch is unclear at this time. Credit rating agencies consider a wide range of qualitative measures as well, which are combined in S&P's business risk profile, for example. My understanding of the rating agency reports cited by Mr. Hevert in his testimony is that any ratings actions due to the TCJA will depend on the circumstances for each utility.

In evaluating the impact, if any, of the TCJA on the required ROE for the proxy group one could look at the monthly average dividend yields of the proxy group over the last 6 months. Exhibit RAB-3 shows that the proxy group dividend yield declined from March (3.54%) through August (3.26%), indicating that stock prices increased over this period. On the basis of stock prices, then, one really cannot say that the TCJA affected stock prices adversely for the proxy group.

Likewise, we could evaluate the direction of the DJUA this year. My Table 1 shows that the DJUA increased significantly from closing at the end of February 2018 at 668.81 to closing in August 2018 at 726.41, an increase of 8.6%. The August 2018 closing level is significantly higher than the January 2017 close of 668.87 as well. This means that the DJUA is at a higher level now than before the passage of the TCJA.

Q. ON PAGE 56 OF HIS DIRECT TESTIMONY, MR. HEVERT REFERRED TO AN UPDATED MOODY'S CREDIT REVIEW DATED JUNE 18, 2018 THAT

LOWERED THE CREDIT OUTLOOK FOR THE REGULATED UTILITY INDUSTRY FROM STABLE TO NEGATIVE. IN YOUR OPINION, DID THIS HAVE A SIGNIFICANT IMPACT ON THE EXPECTED ROE FOR YOUR PROXY GROUP?

A. No. After the June 18, 2018 release date of this report the DJUA continued to increase in July and August and the dividend yield of the proxy group declined, indicating increased stock prices for the companies in the group. Increased stock prices appear do not support Mr. Hevert's concerns about heightened credit risk.

Q. ON PAGE 59 OF HIS DIRECT TESTIMONY, MR. HEVERT OFFERED THE CONCLUSION THAT "IT IS MY VIEW THAT THE TCJA, AND ITS IMPLICATIONS FOR UTILITIES' CASH FLOWS AND CREDIT PROFILES, FURTHER SUPPORT LOOKING TO THE UPPER END OF THE RANGE OF RESULTS WHEN SETTING THE COMPANY'S ROE." DO YOU AGREE WITH HIS CONCLUSION?

A. No. To the extent there is any effect from the TCJA it is already embodied in the stock prices of the companies in the proxy group. Further, there is no need for the Commission to go to the higher end of the DCF results given the increases in stock prices for the proxy group and the increase in the DJUA. Mr. Hevert's conclusion should be rejected.

Q. IN SECTION II OF YOUR TESTIMONY, YOU MENTIONED THAT ON AUGUST 16, 2018 SCE&G ISSUED NEW LONG-TERM DEBT. SHOULD THIS NEW LONG-TERM DEBT BE INCLUDED IN THE COMPANY'S COST OF LONG-

TERM DEBT FOR PURPOSES OF CALCULATING THE RETURN ON THE ORS' ALLOWED NND COSTS?

A. Yes. The two new debt issuances consist of $300 million of First Mortgage Bonds, 3.50% Series due August 15, 2021 and $400 million of First Mortgage Bonds, 4.25% Series due August 15, 2028. Including these two new debt issues will appropriately reflect a slightly lower cost of debt going forward for the Company. I recommend that the Commission require SCE&G to include these two new debt issuances in its cost of long-term debt, recalculate the revised cost and include it in the weighted cost of capital to be applied to the ORS allowed NND costs. For purposes of this calculation, SCE&G should use its September 30, 2017 capital structure.

Q. WHAT CAPITAL STRUCTURE DO YOU RECOMMEND FOR PURPOSES OF THIS CASE?

A. I recommend using SCE&G's capital structure ending September 30, 2017, with a common equity ratio of 52.81% and a long-term debt ratio of 47.19%. This is the capital structure proposed by the Applicants for use in the CCR Rider under the Merger Customer Benefits Plan ("CBP"). It is an imputed capital structure that does not reflect the actual impairment write offs taken in September 2017, which restores the common equity and reduces the long-term debt ratio to reflect a "normalized" proforma capital structure for ratemaking purposes. Further, Dominion stated its intent to make additional equity investments in SCE&G if the Merger is approved to restore the actual common equity to this "normalized" level.

I recommend using this capital structure because it reflects SCE&G's capital structure before the impairment losses recorded in September 2017 and December 2017

and before any additional impairment losses that will be recorded under the ORS recommendations or the Applicants' proposed Merger CBP. Using the capital structure after the impairment losses would improperly compound the effects of the impairment losses through a reduction in the recoveries through the CCR Rider caused by the lower return.

IV. RESPONSE TO HEVERT ROE TESTIMONY

Q. HAVE YOU REVIEWED THE DIRECT TESTIMONY OF MR. ROBERT HEVERT?

A. Yes.

Q. PLEASE SUMMARIZE MR. HEVERT'S TESTIMONY AND APPROACH TO RETURN ON EQUITY.

A. Mr. Hevert employed four methods to estimate the investor required rate of return for SCE&G: (1) the constant growth DCF model, (2) two multi-stage DCF models, (3) the CAPM and Empirical CAPM ("ECAPM"), and (4) the bond yield plus risk premium model.

For his constant growth DCF approach, he used Value Line, First Call, and Zacks for the investor expected growth rate. For the proxy group, Mr. Hevert's mean growth rate ROE results ranged from 9.16% to 9.29%.

Regarding his multi-stage DCF analyses, Mr. Hevert's models are comprised of three distinct stages with assumptions regarding growth rates and payout ratio changes. Mr. Hevert used his own forecast of growth in nominal Gross Domestic Product ("GDP") for his long-term growth rate. The mean ROE results for the Gordon Method for the proxy group ranged from 9.14% to 9.28%. The mean ROE results for the Terminal P/E method ranged from 9.67% to 10.02%.

With respect to the CAPM, Mr. Hevert utilized a current and projected yield on the 30-Year Treasury Bond for his risk-free rate. Using the current Treasury bond yield of 3.11%, his CAPM results ranged from 10.13% to 11.91%. Using the near-term projected Treasury yield of 3.48%, his CAPM results ranged from 10.5% to 12.28%. Mr. Hevert's version of the ECAPM yielded results in the range of 11.53% - 13.33%.

Finally, Mr. Hevert's formulation of the bond yield plus risk premium approach resulted in a ROE range of 9.96% - 10.28%.

Based on the results of his analyses and judgment, Mr. Hevert recommended a ROE range for SCE&G of 10.25% to 11.00%, concluding that the cost of equity is 10.75%.

Q. BEFORE YOU PROCEED TO THE PARTICULARS OF YOUR REVIEW OF MR. HEVERT'S TESTIMONY, WHAT IS YOUR OVERALL CONCLUSION WITH RESPECT TO MR. HEVERT'S RECOMMENDED ROE RANGE?

A. Mr. Hevert's recommended ROE range of 10.25% - 11.00% fails to reflect the full range of results from his analyses. His mean DCF results, which are fairly consistent with mine, were completely excluded from his range of recommendations. This means that Mr. Hevert rejected the results from two of his four ROE methodologies, choosing instead to mainly rely on the results from the CAPM. To put this another way, consider the following:

- Mr. Hevert effectively rejected the average (mean) results from the constant growth DCF in total.
- Mr. Hevert effectively rejected the mean results from his multi-stage DCF models in total.
- Mr. Hevert effectively rejected two of the three bond yield plus risk premium results (9.96% - 10.03%).

Mr. Hevert also apparently rejected the CAPM results that used the average Value Line beta, which ranged from 11.66% - 12.28% as well as the ECAPM results (11.53% - 13.33%). Indeed, these results are so unreasonably high that they should be rejected out of hand. Mr. Hevert's own historical data presented in his Exhibit RBH-6 show that more recent allowed returns are far below these calculated returns, making them extreme outliers. I will explain this in more detail later in my response to Mr. Hevert.

What we are left with to discern the basis for Mr. Hevert's ROE range, then, is the CAPM results from the average Bloomberg beta (10.13% - 10.71%) and the bond yield plus risk premium result of 10.28% using a forecasted Treasury bond yield. Based on the results summarized by Mr. Hevert on his Tables 1a and 1b, I was not able to determine how he obtained the 11.0% high end of his recommended ROE range. Although Mr. Hevert presented four different approaches to ROE analysis, he primarily relied on the results of one method, the CAPM.

Q. IS IT APPROPRIATE FOR MR. HEVERT TO REJECT THE MEAN RESULTS FROM HIS CONSTANT GROWTH DCF ANALYSES?

A. No. It is incorrect for Mr. Hevert to exclude the mean results of the DCF models in his recommended ROE for SCE&G. The constant growth DCF model utilizes verifiable public information with respect to investor return requirements for electric utilities. Current stock prices are the best indicators we have of investor expectations and analysts' earnings and dividend growth forecasts may reasonably be assumed to influence investors' required ROEs. Simply discarding this important publicly available information, as Mr. Hevert has done, serves to significantly overstate his recommended investor required return for the average regulated utility company. The DCF model currently shows that investor

required returns are lower for utility stocks given their safety and security relative to the stock market as a whole.

Q. IS USING THE HIGH MEAN RESULTS FROM THE DCF MODELS APPROPRIATE?

A. No, definitely not. Mr. Hevert's high mean results simply use the highest ROE for each company in the proxy group, which is driven by the highest expected growth rate. There is no basis for assuming that investors are more likely to expect the highest growth rate from the three sources used by Mr. Hevert. The average of the three sources is a far more likely and reasonable assumption. Further, the proxy group high mean is unduly influenced by Avangrid, which has a high ROE result of over 16%.

Referring to Mr. Hevert's Table 1a, there is no single DCF mean ROE result that supports the low end of Mr. Hevert's recommended range of 10.25%. In addition, the high mean results for Mr. Hevert's multi-stage DCF models cannot be used because they are greatly overstated due to an excessively high GDP growth forecast that Mr. Hevert developed himself. I will address this in more detail later in my testimony.

Q. ON PAGE 26 OF HIS DIRECT TESTIMONY, MR. HEVERT DESCRIBED TWO DCF MODEL ASSUMPTIONS THAT HE CLAIMED "LIKELY ARE NOT CONSISTENT WITH CURRENT MARKET CONDITIONS." PLEASE SUMMARIZE THE ASSUMPTIONS ADDRESSED BY MR. HEVERT.

A. Mr. Hevert addressed the following assumptions:

- A constant payout ratio
- Constant required return on equity

These are two of the basic assumptions that underlie the DCF model. The payout ratio refers to the percentage of earnings that are paid out in dividends. For example, if a utility company earns $1.00 per share and pays out $0.80 per share in dividends, then the payout ratio is 0.80. The constant growth DCF analysis assumes that this ratio is constant over time and is a very reasonable simplifying assumption.

The DCF model also assumes that the investor has a constant required return on equity over time. This is a logical assumption given that investors base their investment decisions on assessing expectations of the future outcomes using a current market required return on equity.

Q. DID MR. HEVERT PROVIDE SUFFICIENT BASIS FOR THE COMMISSION TO QUESTION THE DCF RESULTS?

A. No, he did not. Before I proceed to a more detailed response to Mr. Hevert's criticisms of the DCF model's assumptions, it is important to realize that none of the models Mr. Hevert and I use to estimate the investor required ROE strictly adhere to their underlying assumptions 100% of the time. The DCF, CAPM, and risk premium models all operate with certain simplifying assumptions. Earlier in my testimony I pointed out the limitations of the CAPM that must be considered in assessing its effectiveness relative to the DCF model. One of those limitations is estimating the market required rate of return. Estimating the market required rate of return requires considerable judgment on the part of the analyst, judgment that may result in a wide range of possible returns. And in fact, Mr. Hevert and I used very different estimates of the market rate of return that caused our CAPM results to differ considerably. I will address the serious underlying problems with Mr. Hevert's CAPM later in my testimony.

I suggest that the Commission keep in mind that no ROE estimation model strictly adheres to its underlying assumptions all the time.

Q. PLEASE CONTINUE WITH YOUR RESPONSE TO MR. HEVERT'S CRITICISM OF THE DCF MODEL'S ASSUMPTIONS.

A. With respect to the assumption of a constant payout ratio, simply because the industry's current payout ratio may be above or below the long-term average payout ratio does not mean that the DCF results based on current data are questionable and should be thrown out completely. This is also the case with respect to the industry's price/earnings ("P/E") ratio and the assumption of a constant expected future return. As I have stated previously in my testimony, capital markets are efficient and can be assumed to reflect investor preferences in the prices they are willing and able to pay for a regulated utility's common stock. This includes publicly available information to which investors have access including payout and P/E ratios. The current stock price, then, is reflective of the discounted future cash flows to the investor in the form of dividends as well as the expected price of the stock when it is sold. It does not make sense for a rational investor to expect a capital loss in the future based on the price that investor pays today. What this means is that it is reasonable to assume that current stock prices are reflective of investors' required ROE and that the DCF model can provide valid information to the Commission in its determination of the allowed ROE for regulated utilities generally and SCE&G specifically. Similarly, payout ratios will also vary around their long-term historical averages based on current market conditions, but this by no means invalidates the DCF model results.

Q. ON PAGE 26 OF HIS DIRECT TESTIMONY, MR. HEVERT TESTIFIED THAT THE "PROCESS OF NORMALIZATION, TOGETHER WITH THE UNCERTAINTY SURROUNDING THE "UNWINDING" OF THE ASSETS PUT ON THE FEDERAL RESERVE'S BALANCE SHEET DURING ITS "QUANTITATIVE EASING" INITIATIVES, INTRODUCE A DEGREE OF RISK, AND A LIKELIHOOD OF INCREASING INTEREST RATES NOT PRESENT IN THE CURRENT MARKET." DO YOU AGREE WITH THIS STATEMENT?

A. No. Instead, it is highly likely that investors have taken this information into account since it is already public knowledge given the Federal Reserve's statements regarding its plans for unwinding its Quantitative Easing program and increasing short-term interest rates. In fact, Mr. Hevert referred to these statements on pages 49 and 50 of his Direct Testimony.

Q. ON PAGE 27, LINES 3 THROUGH 8 MR. HEVERT TESTIFIED THAT SINCE 1980 ONLY ONE UTILITY RATE CASE INCLUDED AN AUTHORIZED ROE OF 9.0% FOR A VERTICALLY INTEGRATED UTILITY. PLEASE RESPOND TO MR. HEVERT'S TESTIMONY ON THIS POINT.

A. Including rate cases since 1980 is, quite frankly, an irrelevant exercise because it places too much emphasis on stale data. In the 1980s and 1990s interest rates and allowed ROEs were far higher than they have been in the last few years. Consider the following information I developed using the information in Mr. Hevert's Exhibit RBH-6:

- From 1980 through 1989, the average awarded ROE was 14.80% and the average 30-Year Treasury Bond yield was 11.35%.

- From 1990 through 1999, the average awarded ROE was 11.91% and the average 30-Year Treasury Bond yield was 7.51%.
- From 2000 through 2009, the average awarded ROE was 10.62% and the average 30-Year Treasury Bond yield was 4.81%.

Note that this data includes all ROE awards since 1980, not just those for vertically integrated companies. Nonetheless, these averages give the Commission a general picture of the interest rate and ROE levels from the 1980s, 1990s, and 2000s and represent 1,218 of the 1,556 observations in Mr. Hevert's data set in Exhibit RBH-6. They are in no way indicative of investor required returns today given how much higher interest rates were during these prior periods. Since January 2016, the average awarded ROE was 9.63% and so far in 2018 the average allowed ROE was 9.58%. More recent ROE awards show how grossly overstated Mr. Hevert's 10.75% ROE recommendation is in today's environment.

Q. CONSIDERING THE FOREGOING DISCUSSION, PLEASE SUMMARIZE YOUR CONCLUSIONS WITH RESPECT TO MR. HEVERT'S RECOMMENDED ROE RANGE AND ROE FOR SCE&G.

A. I strongly recommend that the Commission reject Mr. Hevert's recommended ROE range and his recommended ROE of 10.75%. Mr. Hevert's ROE range omits critically important information from the DCF model and, as a result, greatly overstates the investor required ROE for investment grade regulated electric utilities.

CAPM and ECAPM

Q. BRIEFLY SUMMARIZE THE MAIN ELEMENTS OF MR. HEVERT'S CAPM APPROACH.

A. On page 36 of his Direct Testimony, Mr. Hevert testified that he used two different measures of the risk-free interest rate: the current 30-day average yield on the 30-year Treasury bond (3.11%) and a projected 30-year Treasury bond yield (3.48%). Mr. Hevert used these yields in both his CAPM and ECAPM analyses. Mr. Hevert did not consider any shorter maturity bonds, such as the 5-year Treasury note.

Mr. Hevert then calculated ex-ante measures of total market returns using data from Bloomberg and Value Line. Total market returns from these two sources were 15.73% using Bloomberg data and a 16.10% return using Value Line data. Mr. Hevert used these market returns in both the CAPM and ECAPM. Mr. Hevert also used two different estimates for beta from Bloomberg and Value Line.

Q. IS IT APPROPRIATE TO USE FORECASTED OR PROJECTED BOND YIELDS IN THE CAPM?

A. No. Current interest rates and bond yields embody all the relevant market data and expectations of investors, including expectations of changing future interest rates. The forecasted bond yield used by Mr. Hevert is speculative at best and may never come to pass. Current interest rates provide tangible and verifiable market evidence of investor return requirements today, and these are the interest rates and bond yields that should be used in both the CAPM and in the bond yield plus risk premium analyses. To the extent that investors give forecasted interest rates any weight at all, they are already incorporated in current securities prices.

Q. YOU NOTED EARLIER THAT MR. HEVERT USED A FORECASTED 30-YEAR TREASURY BOND YIELD OF 3.48%, WHILE THE CURRENT YIELD WAS

3.11%. WHAT DOES THIS SUGGEST WITH RESPECT TO INVESTORS CURRENTLY HOLDING 30-YEAR TREASURY BONDS?

A. It suggests that investors today should expect to incur huge losses in the value of their investments in long-term Treasury bonds, which suggests economic irrationality on their part. There is no sound basis for such an assumption.

The price of a bond moves in the opposite direction of its yield. In other words, given a certain current bond coupon and price, if the required yield on that bond increases then the price of the bond goes down. Alternatively, if the required yield declines then the price of the bond increases. This relationship can be illustrated with the following simplified example. Assume a current 30-year Treasury bond has a coupon of $3.00 and a price of $100, resulting in a current yield of 3.00%. This is the approximate current yield for 30-year Treasury bonds in the market at the time I prepared my Direct Testimony. If interest rates were to rise in the economy such that the required yield on the 30-year Treasury increased to 3.50%, then the price of our existing 30-year Treasury bond would fall to $85.71 from $100, given the coupon of $3.00. This represents a loss to our current bond investor of 14.30%.

The point here is that if investors were certain that there would soon be a substantial increase in interest rates, the rational response would be to immediately discount what they were willing to pay currently for the 30-year Treasury bond rather than pay $100 and suffer certain significant losses to the value of their bonds. The fact that the 30-Year Treasury bond is currently yielding about 3.00% suggests that investors do not expect Treasury Bonds yields to drastically increase and, as a result, cause dramatic losses in their investments.

Q. SHOULD MR. HEVERT HAVE CONSIDERED SHORTER-TERM TREASURY YIELDS IN HIS CAPM ANALYSES?

A. Yes. In theory, the risk-free rate should have no interest rate risk. 30-year Treasury Bonds do tend to face interest rate risk, which is the risk that interest rates could rise in the future and lead to a capital loss for the bondholder. Typically, the longer the duration of the bond, the greater the interest rate risk. The 5-year Treasury note has much less interest rate risk than the 30-year Treasury Bond and may be considered one reasonable proxy for a risk-free security.

Q. PLEASE COMMENT ON MR. HEVERT'S USE OF BLOOMBERG AND VALUE LINE EARNINGS GROWTH ESTIMATES FOR THE S&P 500.

A. Mr. Hevert used earnings growth estimates from these two sources to estimate the expected market return for his CAPM and ECAPM. According to the data contained in Exhibit RBH-5, the average Value Line growth rate is 11.79% and the average Bloomberg growth rate is 12.33%. These are by no means long-run sustainable growth rates. They are well over double the long-term GDP forecast of 5.45% that Mr. Hevert used in his multi-stage DCF analysis. If forecasted GDP growth were used as the long-term growth rate for the S&P 500, then both Mr. Hevert's and my own market return estimates would fall significantly.

Q. HOW DO MR. HEVERT'S ESTIMATES OF THE OVERALL MARKET RETURN COMPARE TO YOURS?

A. My estimates of the market required return are as follows:

- Value Line 3-5 Year Total Return: 10.0%
- Value Line Growth Rates: 11.25%

- S&P Average Historical Returns: 10.2% - 12.1%

Mr. Hevert's market returns of 15.73% - 16.10% are extraordinarily high compared to historical norms. I recommend that the Commission give Mr. Hevert's inflated market returns no weight in this proceeding.

Q. PLEASE ADDRESS THE USE OF THE ECAPM.

A. The ECAPM is supposed to account for the possibility that the CAPM understates the return on equity for companies with betas less than 1.0. The use of an adjustment factor to "correct" the CAPM results for companies with betas less than 1.0 suggests that published betas by such sources as Value Line are incorrect and that investors should not rely on them in formulating the CAPM. Further, Mr. Hevert did not present evidence that investors use the adjustment figure he calculated (alpha) in his ECAPM.

Of course, given the excessively high returns from Mr. Hevert's ECAPM, the argument regarding his use of this model is academic. All of the returns from the ECAPM fall well outside the upper end of his recommended ROE range (11.0%).

Multi-stage DCF Model

Q. PLEASE SUMMARIZE THE COMPONENTS OF MR. HEVERT'S MULTI-STAGE DCF MODEL.

A. Mr. Hevert described the structure and the inputs for his multi-stage DCF model on pages 29 through 31 of his Direct Testimony. The main elements of Mr. Hevert's multi-stage DCF analyses are as follows:

- 30, 90, and 180 average stock prices.
- First stage of growth based on the average earnings growth rates from Value Line, Zacks, and First Call.

- A transition period from near-term to long-term growth.
- Long-term growth estimated using GDP growth based on historical real GDP growth from 1929 through 2017 (3.21%) and a forecasted inflation rate. The total nominal GDP growth rate was 5.45%.
- Expected dividend in the final year divided by solved cost of equity less long-term growth rate.
- Payout ratio assumptions based on Value Line for the first stage, a transition period, and a long-term expected payout ratio.

Q. AS A PRACTICAL MATTER, IS IT LIKELY THAT INVESTORS WOULD USE THE MULTI-STAGE MODEL PRESENTED BY MR. HEVERT?

A. No. In my opinion, it is highly unlikely that investors would employ the complicated structure and set of assumptions used by Mr. Hevert. Mr. Hevert presented no evidence that investors use such a model in forming their required returns for regulated utilities. He presented no evidence that investors use GDP growth in their evaluation of expected growth in dividends and earnings for electric utility companies. Neither did he show that investors utilize his assumptions regarding the transition period or payout ratio forecasts.

Q. IN YOUR OPINION, DID MR. HEVERT OVERSTATE EXPECTED GDP GROWTH?

A. Yes. There are two publicly available forecasts of GDP growth that have been relied upon by the Federal Energy Regulatory Commission ("FERC") in the determination of the second stage of the two-stage growth rate in its DCF return on equity formula. These forecasts come from the Energy Information Administration ("EIA"), and the Social

Security Administration's ("SSA") Trustees Report.[9] The latest EIA GDP forecast shows expected growth in nominal GDP of 4.39%. The SSA Report forecasts nominal growth in GDP of 4.38%. I included the calculation of these two GDP growth rates on ORS Exhibit RAB-7. My calculations are based on my understanding of how the FERC Staff used the data contained in the EIA and SSA documents to calculate long-term GDP growth for the second stage of its two-stage DCF model.

These independent sources are forecasting nominal GDP growth to be substantially lower than the forecast developed by Mr. Hevert (4.38% vs. Mr. Hevert's forecast of 5.45%). In conclusion, Mr. Hevert's GDP forecast contributes to a significant overstatement of his multi-stage DCF results.

Q. DID YOU RECALCULATE MR. HEVERT'S TWO VERSIONS OF THE MULTI-STAGE DCF MODEL WITH THE LOWER GDP FORECASTS FROM EAI AND THE SSA?

A. Yes. ORS Exhibit RAB-8, pages 1 and 2 show the revised results from Mr. Hevert's multi-stage DCF models using the 180-day average prices and a long-term GDP growth forecast of 4.4%, which is the rounded average of the GDP forecasts from EAI and the SSA. ***The revised mean results from the two multi-stage DCF methods are 8.28% and 9.15%.***

If the Commission considers a two-stage, or multi-stage DCF approach in this case, then it should use the publicly available independent GDP forecasts I have provided, not the one developed by Mr. Hevert.

[9] Please see the Energy Information Administration, *Annual Energy Outlook 2018* and Social Security Administration, 2018 OASDI Trustees Report, Table VI.G6 - Selected Economic Variables.

Risk Premium

Q. PLEASE SUMMARIZE MR. HEVERT'S RISK PREMIUM APPROACH.

A. Mr. Hevert developed a historical risk premium using Commission-allowed returns for regulated electric utility companies and 30-year Treasury bond yields from January 1980 through June 15, 2018. He used regression analysis to estimate the value of the inverse relationship between interest rates and risk premiums during that period. Applying the regression coefficients to the average risk premium and using current and projected 30-year Treasury yields I discussed earlier, Mr. Hevert's risk premium ROE estimate range is 9.96% - 10.28%.

Q. PLEASE RESPOND TO MR. HEVERT'S RISK PREMIUM ANALYSIS.

A. First, the bond yield plus risk premium approach is imprecise and can only provide very general guidance on the current authorized ROE for a regulated electric utility. Risk premiums can change substantially over time. As such, this approach is a "blunt instrument," if you will, for estimating the ROE in regulated proceedings. In my view, a properly formulated DCF model using current stock prices and growth forecasts is far more reliable and accurate than the bond yield plus risk premium approach, which relies on a historical risk premium analysis over a certain period of time.

Second, I recommend that the Commission reject the use of the forecasted Treasury bond yield for the same reasons I described in my response to Mr. Hevert's CAPM approach. Using a forecasted Treasury bond yield, rather than the current yield, will overestimate the investor required return.

Q. BEGINNING ON PAGE 44 OF HIS DIRECT TESTIMONY MR. HEVERT DISCUSSES HIS PERCEPTION OF THE CURRENT CAPITAL MARKET ENVIRONMENT. PLEASE RESPOND TO THIS DISCUSSION.

A. I presented my own view of current capital market conditions in Section II of my Direct Testimony. I would generally respond to Mr. Hevert by agreeing that it is likely that interest rates and bond yields will rise in the future. However, the expectations of investors regarding the probability and timing of this is already reflected in current prices that they are willing to pay for stocks and bonds. Given the efficiency of capital markets that I discussed earlier, the Commission does not need to use forecasted interest rates or use the high end of Mr. Hevert's DCF calculations for the allowed ROE for SCE&G.

Q. BEGINNING ON PAGE 60 MR. HEVERT PRESENTED A PROFORMA ANALYIS OF SCE&G'S EARNED RETURN ON EQUITY USING SEVERAL DIFFERENT SCENARIOS. ARE THESE ANALYSES RELEVANT TO YOUR RECOMMENDED ROE OR TO THE ORS'S RECOMMENDATIONS IN THIS CASE?

A. No. On page 62 of his Direct Testimony, Mr. Hevert explained that he considered four scenarios: The Customer Benefits Plan, The No Merger Benefits Plan, The Base Request, and Experimental rates under the Act, if made permanent. In this proceeding the ORS Staff has made its own analysis of prudent and allowable costs, including NND costs. The ORS position is summarized by Mr. Lane Kollen in his Direct Testimony. The Commission should adopt ORS's recommendations for recovery of revenue requirements, allowable NND costs, rate of return, and its position regarding the proposed Merger and related conditions.

V. SERVICE QUALITY

Q. HAVE YOU TESTIFIED IN OTHER PROCEEDINGS REGARDING SERVICE QUALITY MEASURES AND REPORTING?

A. Yes. I have presented service quality testimony in the following recent cases:

- Docket No. 46238 before the Public Utility Commission of Texas. This case involved the proposed acquisition of Oncor Electric Delivery Company by NextEra Energy, Inc. I submitted Direct Testimony that addressed service and credit quality issues dated January 11, 2016.
- Combined Docket Nos. 39971 and 9574 before the Georgia Public Service Commission. This proceeding involved the acquisition of AGL Resources, Inc. by Southern Company. I submitted Direct Testimony on service and credit quality measures for Atlanta Gas Light and Georgia Power Company dated April 4, 2016.
- Combined Docket Nos. 16-G-0058 and 16-G-0059. These dockets involved rate proceedings for Keyspan Gas East Corp. and Brooklyn Union Gas Co. I addressed service quality standards and reporting in Direct Testimony dated May 20, 2016.
- Docket No. 16-057-01 before the Public Service Commission of Utah. This proceeding involved the proposed merger of Dominion Resources and Questar Corporation. I submitted Direct Testimony addressing the continuation of Questar's service quality standards and reporting dated July 7, 2016.

These proceedings all involved service quality standards and reporting requirements that had already been approved by state regulatory authorities. In South Carolina, the Commission has not yet set service quality standards and reporting requirements for SCE&G. Thus, the proposed acquisition by Dominion provides an excellent opportunity

for the Commission to review and establish service quality standards for SCE&G that will protect South Carolina ratepayers from possible degradation of service quality due to the proposed transaction with Dominion. Moreover, my service quality recommendations are intended to enhance SCE&G's service quality to its customers.

Q. DOES SCE&G MONITOR ANY MEASURES OF SERVICE QUALITY TO ITS SOUTH CAROLINA CUSTOMERS?

A. According to the Companies' response to ORS 4-49, SCE&G complies with the following "service quality measures and standards":

- Requirements noted in Chapter 103 of the 1976 Code, Article 3 Electric Systems and Article 4 Gas Systems.
- Compliance with its most recent *Electric General Terms and Conditions* and *Gas General Terms and Conditions.*
- *Termination of Service Due to Non-Payment Written Procedures for its Electric and Natural Gas Operations.*
- Bill of Rights for Residential electric and natural gas customers.
- The Company measures service levels in contact center operations (% of calls answered in a specific amount of time – not established or approved by the Commission. SCE&G did not provide any quantification of the percentage of calls answered in a specific amount of time.
- Customer contacts quality program – with attached *Quality Reference Guide* – not established or approved by the Commission.
- SCE&G "customer accuracy program" that reviews certain electric and gas customer transactions – not established or approved by the Commission

- Tracking of SAIDI and SAIFI, with values provided from 2013 – 2017

I have provided SCE&G's complete response in ORS Exhibit RAB-9. Due to the voluminous nature of the attachments, I did not include them in the exhibit.

Q. PLEASE EXPLAIN THE TERMS "SAIDI" AND "SAIFI".

A. SAIDI is a measure of the length of time (duration) during a year that the average customer experienced an outage. SAIFI is a measure of how frequently customers were interrupted during the year. Table 3 below presents SCE&G's SAIDI and SAIFI values for the years 2013- 2017 and the 5-year average. These values were taken from the Companies' response to ORS 4-49.

TABLE 3

	SAIDI	SAIFI
2013	91.31	1.19
2014	96.60	1.44
2015	96.60	1.34
2016	90.50	1.27
2017	81.82	1.14
Average	91.37	1.28

For 2017, SCE&G's SAIDI was 81.82, which means that the average customer on SCE&G's system experienced 81.82 minutes of interrupted service during the year. For 2017, SCE&G's SAIFI was 1.14, meaning that the average customer was interrupted 1.14 times during 2017. Lower SAIDI and SAIFI number indicate interruptions of shorter duration and fewer interruptions, respectively.

Q. DOES DOMINION MEASURE AND REPORT ON SERVICE QUALITY METRICS FOR ITS REGULATED OPERATING SUBSIDIARIES?

A. Yes. The Companies' responses to ORS 4-47 and 4-48 provided the measures and standards followed and reported by Dominion's operating subsidiaries. The Company's response to ORS 4-48 provides numerous service quality and reliability standards that are in place for Dominion's gas operating subsidiaries. Dominion also provides regular service and reliability reports to the North Carolina and Virginia commissions for gas operations. Notably, there are no service standards in place for Dominion's electric operating subs, although Dominion follows SAIDI, SAIFI, and Average Speed of Answer ("ASA"). I have provided the Companies' responses to ORS 4-47 and 4-48 in ORS Exhibit RAB-10. Due to the voluminous amount of reports provided by the Companies in response to ORS 4-48, I did not include the reports themselves in ORS Exhibit RAB-10.

Q. EARLIER IN YOUR DIRECT TESTIMONY YOU LISTED A DOCKET IN WHICH DOMINION MERGED WITH QUESTAR CORPORATION. PLEASE DISCUSS THE SERVICE QUALITY STANDARDS THAT WERE IN PLACE FOR QUESTAR THAT DOMINION ACCEPTED AS PART OF THE MERGER.

A. Questar's Customer Satisfaction Standards ("CSS") reports covered a broad range of customer service and satisfaction components. This comprehensive set of service quality standards resulted from a Settlement agreed to by members of the Service Standards Task Force in Utah Public Service Commission Docket No. 02-057-02. Questar's CSS covered service quality in the following general areas:

- Overall impression of Questar Gas Company
- Customer care
- Customer affairs
- Service Calls - Ask-A-Tech

- Service Calls
- Billing

Each component within the broad areas listed above had Annual Goals associated with performance. Please refer to ORS Exhibit RAB-11, which contains the 2017 CSS report from the Dominion subsidiary that took over the Questar Gas operations in Utah. The Companies filed this report as Attachment ORS 4-48 B.

Q. PLEASE PROVIDE SOME ADDITIONAL DETAILS REGARDING THE BROAD CUSTOMER SERVICE CATEGORIES YOU OUTLINED ABOVE.

A. Page 1 of ORS Exhibit RAB-11 shows 7 separate customer satisfaction categories under the main category entitled "Overall Impression of QGC" (QGC stands for Questar Gas Company). The responses are scored on a scale of 1 to 7, with 1 meaning "do not agree at all" and 7 meaning "strongly agree". The 2017 performance goal is shown along with the actual scores for each quarter and the 12 months ending 12/31/2017.

Page 2 of ORS Exhibit RAB-11 shows 11 customer care components. The first five standards have performance statistics associate with them. For example, "Percentage of emergency call answered within 60 seconds by agent" has a 2017 Annual Goal of 99%. Standards 6 through 11 are survey standards that are scored using the 1 through 7 scales.

Page 3 of ORS Exhibit RAB-11 shows the performance standards for Customer Affairs and Service Calls - Ask-A-Tech. The Ask-A-Tech standards are scored using the 1 - 7 scale.

Page 4 of ORS Exhibit RAB-11 contains 10 service standards pertaining to Service Calls. This first 5 are survey responses based on the 1 to 7 scale. Standards 6 through 10 have quantifiable performance standards with statistical goals. For example, "Emergency

calls - company representative is onsite within 1 hour of call" has a performance standard of 95%.

Page 5 of ORS Exhibit RAB-11 shows 5 metrics for Billing. These standards are based on statistical performance compared to an annual goal. For example, "Read each meter monthly" has a goal of 99%.

Q. PLEASE EXPLAIN IN MORE DETAIL THE SERVICE QUALITY ELEMENTS THAT DOMINION'S ELECTRIC SUBSIDIARIES FOLLOW AND REPORT.

A. Please refer to ORS Exhibit RAB-12, which contains selected pages from the North Carolina Quarterly Service Reliability Data Report and the North Carolina Quarterly Call Center Performance Report. These reports were provided by the Companies as attachments to their response to ORS 4-48.

Page 1 of ORS Exhibit RAB-12 presents performance indicators SAIDI and SAIFI for Dominion North Carolina Power for the last quarter of 2017. This report shows:

- The five-year SAIDI and SAIFI averages including and excluding major storms.
- Quarterly and end of year SAIDI and SAIFI results for 2017.
- How the SAIDI and SAIFI numbers were calculated.
- The major event exclusion methodology

Page 2 of ORS Exhibit RAB-12 presents Call Center Performance Metrics for Dominion Energy North Carolina and Dominion Energy Virginia for the 4th Quarter of 2017. This report follows customer satisfaction measures for automated voice system and customer service representatives as well as average response time performance metrics that include answer rate and average speed of answer.

Q. PLEASE EXPLAIN WHY THE COMMISSION SHOULD IMPOSE SERVICE QUALITY CONDITIONS AND REPORTING STANDARDS TO THE MERGER.

A. First, it is important that South Carolina ratepayers are assured of excellent quality of service. The proposed acquisition should not result in diminished quality of service to SCE&G customers should Dominion attempt to cut costs after the acquisition is completed. Service quality standards with regular reporting to the Commission will assure all stakeholders that the integrity of SCE&G's service quality will be maintained and even enhanced.

Second, SCE&G has no Commission-approved service quality standards and reporting requirements in place currently. Dominion's electric and gas operating subsidiaries do have such standards and reporting requirements. Thus, Dominion understands how to gather, evaluate, and report on service quality for its gas and electric operations. It would benefit customers if, as the new owner of SCE&G, Dominion employed this expertise in South Carolina.

Q. DO YOU HAVE CONCERNS REGARDING SCE&G'S QUALITY OF SERVICE FOR ELECTRIC OPERATIONS?

A. Yes. J.D. Power released its 2018 Electric Utility Residential Customer Satisfaction Study on July 11, 2018. I included the press release from J.D. Power in ORS Exhibit RAB-13. According to J.D. Power:

> "The J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study is based on responses from more than 104,000 online interviews conducted from July 2017 through May 2018 among residential customers of the 138 largest electric utility brands across the United States, which collectively represent more than 99 million households."

J.D. Power's survey ranked electric utility companies in terms of overall residential customer satisfaction by region. Please refer to page 8 of ORS Exhibit RAB-13, which

shows J.D. Power's customer satisfaction index ranking of electric utilities in the South region. Of the 14 electric utilities included in the South region, SCE&G ranked next to last in residential customer satisfaction. Dominion received an average score. The highest-ranking utility was Georgia Power Company.

Based on J.D. Power's 2018 ranking of residential customer satisfaction, SCE&G has substantial room for improvement. My recommended service quality standards and reporting will provide an incentive for the Company to improve its quality of service to South Carolina ratepayers.

Q. PLEASE PRESENT THE SERVICE QUALITY MEASURES THAT THE COMMISSION SHOULD REQUIRE FOR SCE&G'S ELECTRIC OPERATIONS.

A. For SCE&G's electric operations, the standards should include:

- SAIDI and SAIFI reporting shown on ORS Exhibit RAB-12, page 1.
- Call Center Performance Metrics shown on ORS Exhibit RAB-12, page 2.
- Yearly plan for addressing the 5% worst performing feeders on the Company’s system.

The Commission should require quarterly reporting similar to the reporting in Dominion's filings contained in ORS Exhibit RAB-12. Quarterly reporting to the Commission should begin no less than three (3) months after the close of the transaction.

The Commission should also require a yearly report from SCE&G with a plan for addressing its 5% worst performing feeders on the electric system. This should assist the Company and the Commission in making sure that SCE&G is making consistent improvement in its system reliability.

Q. WHAT OTHER REPORTING SHOULD THE COMMISSION REQUIRE IF IT APPROVES THE PROPOSED MERGER?

A. Within six (6) months of closing the transaction, SCE&G should file a detailed report with the Commission identifying opportunities for improving the service quality to electric customers on SCE&G's system. The 2018 J.D. Power press release I provided to the Commission shows a low level of customer satisfaction with SCE&G's electric service. SCE&G should address this situation as soon as possible and provide the Commission, ORS, and other stakeholders a report showing how it intends to improve electric service customer satisfaction in South Carolina. This report should contain specific actions and metrics that could be included in the quarterly service quality reports that I recommend the Commission require SCE&G to provide.

I also recommend that the Commission open a docket within two (2) years from the filing of the service quality improvement report to evaluate SCE&G's progress on service quality. ORS and other stakeholders may intervene in this docket. SCE&G should be required to submit testimony to demonstrate its progress and experience with service quality since the close of the merger.

Q. PLEASE PRESENT THE SERVICE QUALITY MEASURES THAT THE COMMISSION SHOULD REQUIRE FOR SCE&G'S GAS OPERATIONS.

A. I recommend that SCE&G file quarterly service quality reports with the same service quality metrics shown in the report for Dominion contained in ORS Exhibit RAB-11. For purposes of this case, I recommend that the goals for each metric be the same as the current 2017 goals used by Dominion in Utah. Since Dominion already has experience

with this kind of reporting and data gathering, it should be readily able to apply this expertise in South Carolina.

I recommend that quarterly reporting on the gas service quality metrics commence no less than six months after the close of the transaction between Dominion, SCANA, and SCE&G.

I also recommend that SCE&G file testimony regarding its experience with gas service quality in the service quality proceeding I recommended earlier for the electric operations in South Carolina. In this way, the Commission, ORS, and other stakeholders may fully evaluate the impact of the merger on the electric and gas service quality for South Carolina customers.

VI. CREDIT QUALITY CONDITIONS

Q. PLEASE PRESENT THE CREDIT QUALITY CONDITIONS THAT YOU RECOMMEND BE ADOPTED BY THE COMMISSION.

A. I recommend that the Commission approve the following credit quality conditions related to the proposed merger:

1. The ROE for SCE&G should be determined using a proxy group of investment grade regulated utilities. The Commission should not allow Dominion or SCE&G to pass through increases in the cost of equity due to adverse effects from the proposed acquisition or from any additional risk due to imprudent actions by SCANA and/or SCE&G.
2. The Commission should require that the cost of new long-term debt issued by or for SCE&G be set based on the lower of the prevailing cost of debt for an average

investment grade regulated utility (rated BBB/Baa/A) or on SCE&G's actual cost of new long-term debt.

Q. PLEASE EXPLAIN WHY THE COMMISSION SHOULD DETERMINE THE COST OF EQUITY FOR SCE&G BASED ON A PROXY GROUP OF INVESTMENT GRADE REGULATED UTILITY COMPANIES.

A. The Commission should protect South Carolina's ratepayers from any adverse impacts from the proposed transaction on SCE&G's ROE. Although it is very likely that the acquisition by Dominion will improve SCE&G's credit quality, ratepayers must be protected from unforeseen circumstances that may result from the proposed acquisition. Both Mr. Robert Hevert and myself estimated the ROE for SCE&G based on a proxy group of investment grade regulated utilities, though our recommended ROEs are strikingly different. Nonetheless, our approaches of using a proxy group of regulated utilities is similar and should be followed in all subsequent proceedings before the Commission.

It is also very important that South Carolina ratepayers be shielded from any adverse financial consequences from SCANA's and SCE&G's involvement in the abandoned Summer nuclear project, including any findings of imprudent actions. Disallowances of costs from the abandoned NND project should not be partially or indirectly compensated for through a higher cost of capital.

Q. PLEASE ADDRESS WHY THE COST OF NEW LONG-TERM DEBT SHOULD BE BASED ON THE AVERAGE COST, OR YIELD, ON CURRENT INVESTMENT GRADE (BBB/Baa/A) LONG-TERM UTILITY DEBT.

A. If SCE&G/Dominion issues new long-term debt that is rated lower that SCE&G's current debt rating due to adverse consequences of the proposed merger, then ratepayers

should not have to pay for the higher cost of the new lower credit quality debt. Tying the cost of SCE&G's new post-transaction long-term debt to the lower of actual cost or the cost of average investment grade long-term utility debt will help ensure ratepayer protection from lower post-transaction debt ratings for SCE&G.

Q. WILL YOU UPDATE YOUR TESTIMONY BASED ON INFORMATION THAT BECOMES AVAILABLE?

A. Yes. ORS fully reserves the right to revise its recommendation via supplemental testimony should new information become available not previously provided by the Joint Applicants, or from pending state and federal investigations and lawsuits.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Office of Regulatory Staff
RICHARD BAUDINO
EXHIBIT LIST
South Carolina Electric & Gas Company and Dominion Energy, Inc.
Docket No. 2017-370-E

EXHIBIT NUMBER	DESCRIPTION
RAB-1	Resume and Expert Testimony Appearances
RAB-2	SCANA August 16, 2018 Debt Offering Announcement
RAB-3	SCE&G Proxy Group Average Price, Dividend, and Dividend Yield
RAB-4	SCE&G Proxy Group DCF Growth Rate Analysis and Return on Equity
RAB-5	SCE&G Proxy Group Capital Asset Pricing Model Analysis
RAB-6	SCE&G Proxy Group CAPM with Historic Market Risk Premium
RAB-7	FERC GDP Growth Rate
RAB-8	Hevert Multi-Stage DCF Model with 4.40% GDP Growth
RAB-9	Response to ORS Request 4-49
RAB-10	Response to ORS Requests 4-47 and 4-48
RAB-11	Customer Satisfaction Standards Quarterly Report
RAB-12	Pages from Attachment ORS 4-48 (RSW) 2 and 3
RAB-13	Press Release J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study

RESUME OF RICHARD A. BAUDINO

EDUCATION

New Mexico State University, M.A.
Major in Economics
Minor in Statistics

New Mexico State University, B.A.
Economics
English

Thirty-five years of experience in utility ratemaking and the application of principles of economics to the regulation of electric, gas, and water utilities. Broad based experience in revenue requirement analysis, cost of capital, rate of return, cost and revenue allocation, and rate design.

REGULATORY TESTIMONY

Preparation and presentation of expert testimony in the areas of:

Cost of Capital for Electric, Gas and Water Companies
Electric, Gas, and Water Utility Cost Allocation and Rate Design
Revenue Requirements
Gas and Electric industry restructuring and competition
Fuel cost auditing
Ratemaking Treatment of Generating Plant Sale/Leasebacks

RESUME OF RICHARD A. BAUDINO

EXPERIENCE

1989 to Present: **Kennedy and Associates: Director of Consulting, Consultant** - Responsible for consulting assignments in revenue requirements, rate design, cost of capital, economic analysis of generation alternatives, electric and gas industry restructuring/competition and water utility issues.

1982 to 1989: **New Mexico Public Service Commission Staff: Utility Economist** - Responsible for preparation of analysis and expert testimony in the areas of rate of return, cost allocation, rate design, finance, phase-in of electric generating plants, and sale/leaseback transactions.

CLIENTS SERVED

Regulatory Commissions

Louisiana Public Service Commission
Georgia Public Service Commission
New Mexico Public Service Commission

Other Clients and Client Groups

Ad Hoc Committee for a Competitive Electric Supply System
Air Products and Chemicals, Inc.
Arkansas Electric Energy Consumers
Arkansas Gas Consumers
AK Steel
Armco Steel Company, L.P.
Assn. of Business Advocating Tariff Equity
Atmos Cities Steering Committee
Canadian Federation of Independent Businesses
CF&I Steel, L.P.
Cities of Midland, McAllen, and Colorado City
Cities Served by Texas-New Mexico Power Co.
Climax Molybdenum Company
Connecticut Industrial Energy Consumers
Cripple Creek & Victor Gold Mining Co.
General Electric Company
Holcim (U.S.) Inc.
IBM Corporation
Industrial Energy Consumers
Kentucky Industrial Utility Consumers
Kentucky Office of the Attorney General
Lexington-Fayette Urban County Government
Large Electric Consumers Organization
Newport Steel
Northwest Arkansas Gas Consumers
Maryland Energy Group
Occidental Chemical
PSI Industrial Group
Large Power Intervenors (Minnesota)
Tyson Foods
West Virginia Energy Users Group
The Commercial Group
Wisconsin Industrial Energy Group
South Florida Hospital and Health Care Assn.
PP&L Industrial Customer Alliance
Philadelphia Area Industrial Energy Users Gp.
Philadelphia Large Users Group
West Penn Power Intervenors
Duquesne Industrial Intervenors
Met-Ed Industrial Users Gp.
Penelec Industrial Customer Alliance
Penn Power Users Group
Columbia Industrial Intervenors
U.S. Steel & Univ. of Pittsburg Medical Ctr.
Multiple Intervenors
Maine Office of Public Advocate
Missouri Office of Public Counsel
University of Massachusetts - Amherst
WCF Hospital Utility Alliance
West Travis County Public Utility Agency
Steering Committee of Cities Served by Oncor
South Carolina Office of Regulatory Staff
Utah Office of Consumer Services
Healthcare Council of the National Capital Area
Vermont Department of Public Service

Expert Testimony Appearances
of
Richard A. Baudino
As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
10/83	1803, 1817	NM	New Mexico Public Service Commission	Southwestern Electric Coop.	Rate design.
11/84	1833	NM	New Mexico Public Service Commission Palo Verde	El Paso Electric Co.	Service contract approval, rate design, performance standards for nuclear generating system
1983	1835	NM	New Mexico Public Service Commission	Public Service Co. of NM	Rate design.
1984	1848	NM	New Mexico Public Service Commission	Sangre de Cristo Water Co.	Rate design.
02/85	1906	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
09/85	1907	NM	New Mexico Public Service Commission	Jornada Water Co.	Rate of return.
11/85	1957	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
04/86	2009	NM	New Mexico Public Service Commission	El Paso Electric Co.	Phase-in plan, treatment of sale/leaseback expense.
06/86	2032	NM	New Mexico Public Service Commission	El Paso Electric Co.	Sale/leaseback approval.
09/86	2033	NM	New Mexico Public Service Commission	El Paso Electric Co.	Order to show cause, PVNGS audit.
02/87	2074	NM	New Mexico Public Service Commission	El Paso Electric Co.	Diversification.
05/87	2089	NM	New Mexico Public Service Commission	El Paso Electric Co.	Fuel factor adjustment.
08/87	2092	NM	New Mexico Public Service Commission	El Paso Electric Co.	Rate design.
10/87	2146	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Financial effects of restructuring, reorganization.
07/88	2162	NM	New Mexico Public Service Commission	El Paso Electric Co.	Revenue requirements, rate design, rate of return.

Expert Testimony Appearances of Richard A. Baudino As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
01/89	2194	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Economic development.
1/89	2253	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Financing.
08/89	2259	NM	New Mexico Public Service Commission	Homestead Water Co.	Rate of return, rate design.
10/89	2262	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Rate of return.
09/89	2269	NM	New Mexico Public Service Commission	Ruidoso Natural Gas Co.	Rate of return, expense from affiliated interest.
12/89	89-208-TF	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Rider M-33.
01/90	U-17282	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
09/90	90-158	KY	Kentucky Industrial Utility Consumers	Louisville Gas & Electric Co.	Cost of equity.
09/90	90-004-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Cost of equity, transportation rate.
12/90	U-17282 Phase IV	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
04/91	91-037-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Transportation rates.
12/91	91-410-EL-AIR	OH	Air Products & Chemicals, Inc., Armco Steel Co., General Electric Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Cost of equity.
05/92	910890-EI	FL	Occidental Chemical Corp.	Florida Power Corp.	Cost of equity, rate of return.
09/92	92-032-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost of equity, rate of return, cost-of-service.
09/92	39314	ID	Industrial Consumers for Fair Utility Rates	Indiana Michigan Power Co.	Cost of equity, rate of return.

Expert Testimony Appearances of Richard A. Baudino As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
09/92	92-009-U	AR	Tyson Foods	General Waterworks	Cost allocation, rate design.
01/93	92-346	KY	Newport Steel Co.	Union Light, Heat & Power Co.	Cost allocation.
01/93	39498	IN	PSI Industrial Group	PSI Energy	Refund allocation.
01/93	U-10105	MI	Association of Businesses Advocating Tariff Equality (ABATE)	Michigan Consolidated Gas Co.	Return on equity.
04/93	92-1464-EL-AIR	OH	Air Products and Chemicals, Inc., Armco Steel Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Return on equity.
09/93	93-189-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Transportation service terms and conditions.
09/93	93-081-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost-of-service, transportation rates, rate supplements; return on equity; revenue requirements.
12/93	U-17735	LA	Louisiana Public Service Commission Staff	Cajun Electric Power Cooperative	Historical reviews; evaluation of economic studies.
03/94	10320	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric Co.	Trimble County CWIP revenue refund.
4/94	E-015/ GR-94-001	MN	Large Power Intervenors	Minnesota Power Co.	Evaluation of the cost of equity, capital structure, and rate of return.
5/94	R-00942993	PA	PG&W Industrial Intervenors	Pennsylvania Gas & Water Co.	Analysis of recovery of transition costs.
5/94	R-00943001	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania charge proposals.	Evaluation of cost allocation, rate design, rate plan, and carrying
7/94	R-00942986	PA	Armco, Inc., West Penn Power Industrial Intervenors	West Penn Power Co.	Return on equity and rate of return.
7/94	94-0035-E-42T	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Return on equity and rate of return.

Expert Testimony Appearances
of
Richard A. Baudino
As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
8/94	8652	MD	Westvaco Corp. Co.	Potomac Edison	Return on equity and rate of return.
9/94	930357-C	AR	West Central Arkansas Gas Consumers	Arkansas Oklahoma Gas Corp.	Evaluation of transportation service.
9/94	U-19904	LA	Louisiana Public Service Commission	Gulf States Utilities	Return on equity.
9/94	8629	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Transition costs.
11/94	94-175-U	AR	Arkansas Gas Consumers	Arkla, Inc.	Cost-of-service, rate design, rate of return.
3/95	RP94-343-000	FERC	Arkansas Gas Consumers	NorAm Gas Transmission	Rate of return.
4/95	R-00943271	PA	PP&L Industrial Customer Alliance	Pennsylvania Power & Light Co.	Return on equity.
6/95	U-10755	MI	Association of Businesses Advocating Tariff Equity	Consumers Power Co.	Revenue requirements.
7/95	8697	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Cost allocation and rate design.
8/95	95-254-TF U-2811	AR	Tyson Foods, Inc.	Southwest Arkansas Electric Cooperative	Refund allocation.
10/95	ER95-1042 -000	FERC	Louisiana Public Service Commission	Systems Energy Resources, Inc.	Return on Equity.
11/95	I-940032	PA	Industrial Energy Consumers of Pennsylvania	State-wide - all utilities	Investigation into Electric Power Competition.
5/96	96-030-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Revenue requirements, rate of return and cost of service.
7/96	8725	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.,Potomac Electric Power Co. and Constellation Energy Corp.	Return on Equity.
7/96	U-21496	LA	Louisiana Public Service Commission	Central Louisiana Electric Co.	Return on equity, rate of return.
9/96	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.

Expert Testimony Appearances of Richard A. Baudino As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
1/97	RP96-199-000	FERC	The Industrial Gas Users Conference	Mississippi River Transmission Corp.	Revenue requirements, rate of return and cost of service.
3/97	96-420-U	AR	West Central Arkansas Gas Corp.	Arkansas Oklahoma Gas Corp.	Revenue requirements, rate of return, cost of service and rate design.
7/97	U-11220	MI	Association of Business Advocating Tariff Equity	Michigan Gas Co. and Southeastern Michigan Gas Co.	Transportation Balancing Provisions.
7/97	R-00973944	PA	Pennsylvania American Water Large Users Group	Pennsylvania-American Water Co.	Rate of return, cost of service, revenue requirements.
3/98	8390-U	GA	Georgia Natural Gas Group and the Georgia Textile Manufacturers Assoc.	Atlanta Gas Light	Rate of return, restructuring issues, unbundling, rate design issues.
7/98	R-00984280	PA	PG Energy, Inc. Intervenors	PGE Industrial	Cost allocation.
8/98	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Revenue requirements.
10/98	97-596	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric Co.	Return on equity, rate of return.
10/98	U-23327	LA	Louisiana Public Service Commission	SWEPCO, CSW and AEP	Analysis of proposed merger.
12/98	98-577	ME	Maine Office of the Public Advocate	Maine Public Service Co.	Return on equity, rate of return.
12/98	U-23358	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity, rate of return.
3/99	98-426	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas and Electric Co	Return on equity.
3/99	99-082	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Utilities Co.	Return on equity.
4/99	R-984554	PA	T. W. Phillips Users Group	T. W. Phillips Gas and Oil Co.	Allocation of purchased gas costs.
6/99	R-0099462	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Balancing charges.
10/99	U-24182	LA	Louisiana Public Service Commission	Entergy Gulf States,Inc.	Cost of debt.

Expert Testimony Appearances of Richard A. Baudino As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
10/99	R-00994782	PA	Peoples Industrial Intervenors	Peoples Natural Gas Co.	Restructuring issues.
10/99	R-00994781	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Restructuring, balancing charges, rate flexing, alternate fuel.
01/00	R-00994786	PA	UGI Industrial Intervenors	UGI Utilities, Inc.	Universal service costs, balancing, penalty charges, capacity Assignment.
01/00	8829	MD	Maryland Industrial Gr.	Baltimore Gas & Electric Co.	Revenue requirements, cost allocation, rate design.
02/00	R-00994788	PA	Penn Fuel Transportation	PFG Gas, Inc., and	Tariff charges, balancing provisions.
05/00	U-17735	LA	Louisiana Public Service Comm.	Louisiana Electric Cooperative	Rate restructuring.
07/00	2000-080	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric Co.	Cost allocation.
07/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket E)	LA	Louisiana Public Service Commission	Southwestern Electric Power Co.	Stranded cost analysis.
09/00	R-00005654	PA	Philadelphia Industrial And Commercial Gas Users Group.	Philadelphia Gas Works	Interim relief analysis.
10/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B)	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Restructuring, Business Separation Plan.
11/00	R-00005277 (Rebuttal)	PA	Penn Fuel Transportation Customers	PFG Gas, Inc. and North Penn Gas Co.	Cost allocation issues.
12/00	U-24993	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
03/01	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Stranded cost analysis.
04/01	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B) (Addressing Contested Issues)	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Restructuring issues.
04/01	R-00006042	PA	Philadelphia Industrial and Commercial Gas Users Group	Philadelphia Gas Works	Revenue requirements, cost allocation and tariff issues.

Expert Testimony Appearances
of
Richard A. Baudino
As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
11/01	U-25687	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
03/02	14311-U	GA	Georgia Public Service Commission	Atlanta Gas Light	Capital structure.
08/02	2002-00145	KY	Kentucky Industrial Utility Customers	Columbia Gas of Kentucky	Revenue requirements.
09/02	M-00021612	PA	Philadelphia Industrial And Commercial Gas Users Group	Philadelphia Gas Works	Transportation rates, terms, and conditions.
01/03	2002-00169	KY	Kentucky Industrial Utility Customers	Kentucky Power	Return on equity.
02/03	02S-594E	CO	Cripple Creek & Victor Gold Mining Company	Aquila Networks – WPC	Return on equity.
04/03	U-26527	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
10/03	CV020495AB	GA	The Landings Assn., Inc.	Utilities Inc. of GA	Revenue requirement & overcharge refund
03/04	2003-00433	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric	Return on equity, Cost allocation & rate design
03/04	2003-00434	KY	Kentucky Industrial Utility Customers	Kentucky Utilities	Return on equity
4/04	04S-035E	CO	Cripple Creek & Victor Gold Mining Company, Goodrich Corp., Holcim (U.S.) Inc., and The Trane Co.	Aquila Networks – WPC	Return on equity.
9/04	U-23327, Subdocket B	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Fuel cost review
10/04	U-23327 Subdocket A	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Return on Equity
06/05	050045-EI	FL	South Florida Hospital and HeallthCare Assoc.	Florida Power & Light Co.	Return on equity
08/05	9036	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Revenue requirement, cost allocation, rate design, Tariff issues.
01/06	2005-0034	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Co.	Return on equity.

Expert Testimony Appearances of Richard A. Baudino As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
03/06	05-1278-E-PC-PW-42T	WV	West Virginia Energy Users Group	Appalachian Power Company	Return on equity.
04/06	U-25116 Commission	LA	Louisiana Public Service	Entergy Louisiana, LLC	Transmission Issues
07/06	U-23327 Commission	LA	Louisiana Public Service	Southwestern Electric Power Company	Return on equity, Service quality
08/06	ER-2006-0314	MO	Missouri Office of the Public Counsel	Kansas City Power & Light Co.	Return on equity, Weighted cost of capital
08/06	06S-234EG	CO	CF&I Steel, L.P. & Climax Molybdenum	Public Service Company of Colorado	Return on equity, Weighted cost of capital
01/07	06-0960-E-42T	WV	West Virginia Energy Users Group	Monongahela Power & Potomac Edison	Return on Equity
01/07	43112	AK	AK Steel, Inc.	Vectren South, Inc.	Cost allocation, rate design
05/07	2006-661	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric	Return on equity, weighted cost of capital.
09/07	07-07-01	CT	Connecticut Industrial Energy Consumers	Connecticut Light & Power	Return on equity, weighted cost of capital
10/07	05-UR-103	WI	Wisconsin Industrial Energy Group, Inc.	Wisconsin Electric Power Co.	Return on equity
11/07	29797	LA	Louisiana Public Service Commission	Cleco Power :LLC & Southwestern Electric Power	Lignite Pricing, support of settlement
01/08	07-551-EL-AIR	OH	Ohio Energy Group	Ohio Edison, Cleveland Electric, Toledo Edison	Return on equity
03/08	07-0585, 07-0585, 07-0587, 07-0588, 07-0589, 07-0590, (consol.)	IL	The Commercial Group	Ameren	Cost allocation, rate design
04/08	07-0566	IL	The Commercial Group	Commonwealth Edison	Cost allocation, rate design
06/08	R-2008-2011621	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Cost and revenue allocation, Tariff issues
07/08	R-2008-2028394	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy	Cost and revenue allocation, Tariff issues

Expert Testimony Appearances
of
Richard A. Baudino
As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
07/08	R-2008-2039634	PA	PPL Gas Large Users Group	PPL Gas	Retainage, LUFG Pct.
08/08	6680-UR-116	WI	Wisconsin Industrial Energy Group	Wisconsin P&L	Cost of Equity
08/08	6690-UR-119	WI	Wisconsin Industrial Energy Group	Wisconsin PS	Cost of Equity
09/08	ER-2008-0318	MO	The Commercial Group	AmerenUE	Cost and revenue allocation
10/08	R-2008-2029325	PA	U.S. Steel & Univ. of Pittsburgh Med. Ctr.	Equitable Gas Co.	Cost and revenue allocation
10/08	08-G-0609	NY	Multiple Intervenors	Niagara Mohawk Power	Cost and Revenue allocation
12/08	27800-U	GA	Georgia Public Service Commission	Georgia Power Company	CWIP/AFUDC issues, Review financial projections
03/09	ER08-1056	FERC	Louisiana Public Service Commission	Entergy Services, Inc.	Capital Structure
04/09	E002/GR-08-1065	MN	The Commercial Group	Northern States Power	Cost and revenue allocation and rate design
05/09	08-0532	IL	The Commercial Group	Commonwealth Edison	Cost and revenue allocation
07/09	080677-EI	FL	South Florida Hospital and Health Care Association	Florida Power & Light	Cost of equity, capital structure, Cost of short-term debt
07/09	U-30975	LA	Louisiana Public Service Commission	Cleco LLC, Southwestern Public Service Co.	Lignite mine purchase
10/09	4220-UR-116	WI	Wisconsin Industrial Energy Group	Northern States Power	Class cost of service, rate design
10/09	M-2009-2123945	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Smart Meter Plan cost allocation
10/09	M-2009-2123944	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Company	Smart Meter Plan cost allocation
10/09	M-2009-2123951	PA	West Penn Power Industrial Intervenors	West Penn Power	Smart Meter Plan cost allocation
11/09	M-2009-2123948	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Smart Meter Plan cost allocation
11/09	M-2009-2123950	PA	Met-Ed Industrial Users Group Penelec Industrial Customer Alliance, Penn Power Users Group	Metropolitan Edison, Pennsylvania Electric Co., Pennsylvania Power Co.	Smart Meter Plan cost allocation

Expert Testimony Appearances
of
Richard A. Baudino
As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
03/10	09-1352-E-42T	WV	West Virginia Energy Users Group	Monongahela Power	Return on equity, rate of return Potomac Edison
03/10	E015/GR-09-1151	MN	Large Power Intervenors	Minnesota Power	Return on equity, rate of return
04/10	2009-00459	KY	Kentucky Industrial Utility Consumers	Kentucky Power	Return on equity
04/10	2009-00548 2009-00549	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity.
05/10	10-0261-E-GI	WV	West Virginia Energy Users Group	Appalachian Power Co./ Wheeling Power Co.	EE/DR Cost Recovery, Allocation, & Rate Design
05/10	R-2009-2149262	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Class cost of service & cost allocation
06/10	2010-00036	KY	Lexington-Fayette Urban County Government	Kentucky American Water Company	Return on equity, rate of return, revenue requirements
06/10	R-2010-2161694	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Rate design, cost allocation
07/10	R-2010-2161575	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Return on equity
07/10	R-2010-2161592	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Cost and revenue allocation
07/10	9230	MD	Maryland Energy Group	Baltimore Gas and Electric	Electric and gas cost and revenue allocation; return on equity
09/10	10-70	MA	University of Massachusetts-Amherst	Western Massachusetts Electric Co.	Cost allocation and rate design
10/10	R-2010-2179522	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Cost and revenue allocation, rate design
11/10	P-2010-2158084	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Transmission rate design
11/10	10-0699-E-42T	WV	West Virginia Energy Users Group	Appalachian Power Co. & Wheeling Power Co.	Return on equity, rate of Return
11/10	10-0467	IL	The Commercial Group	Commonwealth Edison	Cost and revenue allocation and rate design
04/11	R-2010-2214415	PA	Central Pen Gas Large Users Group	UGI Central Penn Gas, Inc.	Tariff issues, revenue allocation
07/11	R-2011-2239263	PA	Philadelphia Area Energy Users Group	PECO Energy	Retainage rate

Expert Testimony Appearances
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Richard A. Baudino
As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
08/11	R-2011-2232243	PA	AK Steel	Pennsylvania-American Water Company	Rate Design
08/11	11AL-151G	CO	Climax Molybdenum	PS of Colorado	Cost allocation
09/11	11-G-0280	NY	Multiple Intervenors	Corning Natural Gas Co.	Cost and revenue allocation
10/11	4220-UR-117	WI	Wisconsin Industrial Energy Group	Northern States Power	Cost and revenue allocation, rate design
02/12	11AL-947E	CO	Climax Molybdenum, CF&I Steel	Public Service Company of Colorado	Return on equity, weighted cost of capital
07/12	120015-EI	FL	South Florida Hospitals and Health Care Association	Florida Power and Light Co,	Return on equity, weighted cost of capital
07/12	12-0613-E-PC	WV	West Virginia Energy Users Group	American Electric Power/APCo	Special rate proposal for Century Aluminum
07/12	R-2012-2290597	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities Corp.	Cost allocation
09/12	05-UR-106	WI	Wisconsin Industrial Energy Group	Wisconsin Electric Power Co.	Class cost of service, cost and revenue allocation, rate design
09/12	2012-00221 2012-00222	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity.
10/12	9299	MD	Maryland Energy Group	Baltimore Gas & Electric	Cost and revenue allocation, rate design Cost of equity, weighted cost of capital
10/12	4220-UR-118	WI	Wisconsin Industrial Energy Group	Northern States Power Company	Class cost of service, cost and revenue allocation, rate design
10/12	473-13-0199	TX	Steering Committee of Cities Served by Oncor	Cross Texas Transmission, LLC	Return on equity, capital structure
01/13	R-2012-2321748 et al.	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Cost and revenue allocation
02/13	12AL-1052E	CO	Cripple Creek & Victor Gold Mining, Holcim (US) Inc.	Black Hills/Colorado Electric Utility Company	Cost and revenue allocations
06/13	8009	VT	IBM Corporation	Vermont Gas Systems	Cost and revenue allocation, rate design
07/13	130040-EI	FL	WCF Hospital Utility Alliance	Tampa Electric Co.	Return on equity, rate of return
08/13	9326	MD	Maryland Energy Group	Baltimore Gas and Electric	Cost and revenue allocation, rate design, special rider

Expert Testimony Appearances of Richard A. Baudino As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
08/13	P-2012-2325034	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities, Corp.	Distribution System Improvement Charge
09/13	4220-UR-119	WI	Wisconsin Industrial Energy Group	Northern States Power Co.	Class cost of service, cost and revenue allocation, rate design
11/13	13-1325-E-PC	WV	West Virginia Energy Users Group	American Electric Power/APCo	Special rate proposal, Felman Production
06/14	R-2014-2406274	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Cost and revenue allocation, rate design
08/14	05-UR-107	WI	Wisconsin Industrial Energy Group	Wisconsin Electric Power Co.	Cost and revenue allocation, rate design
10/14	ER13-1508 et al.	FERC	Louisiana Public Service Comm.	Entergy Services, Inc.	Return on equity
11/14	14AL-0660E	CO	Climax Molybdenum Co. and CFI Steel, LP	Public Service Co. of Colorado	Return on equity, weighted cost of capital
11/14	R-2014-2428742	PA	AK Steel	West Penn Power Company	Cost and revenue allocation
12/14	42866	TX	West Travis Co. Public Utility Agency	Travis County Municipal Utility District No. 12	Response to complain of monopoly power
3/15	2014-00371 2014-00372	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric, Kentucky Utilities	Return on equity, cost of debt, weighted cost of capital
3/15	2014-00396	KY	Kentucky Industrial Utility Customers	Kentucky Power Co.	Return on equity, weighted cost of capital
6/15	15-0003-G-42T	WV	West Virginia Energy Users Gp.	Mountaineer Gas Co.	Cost and revenue allocation, Infrastructure Replacement Program
9/15	15-0676-W-42T	WV	West Virginia Energy Users Gp.	West Virginia-American Water Company	Appropriate test year, Historical vs. Future
9/15	15-1256-G-390P	WV	West Virginia Energy Users Gp.	Mountaineer Gas Co.	Rate design for Infrastructure Replacement and Expansion Program
10/15	4220-UR-121	WI	Wisconsin Industrial Energy Gp.	Northern States Power Co.	Class cost of service, cost and revenue allocation, rate design
12/15	15-1600-G-390P	WV	West Virginia Energy Users Gp.	Dominion Hope	Rate design and allocation for Pipeline Replacement & Expansion Prog.
12/15	45188	TX	Steering Committee of Cities Served by Oncor	Oncor Electric Delivery Co.	Ring-fence protections for cost of capital

Expert Testimony Appearances of Richard A. Baudino As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
2/16	9406	MD	Maryland Energy Group	Baltimore Gas & Electric	Cost and revenue allocation, rate design, proposed Rider 5
3/16	39971	GA	GA Public Service Comm. Staff	Southern Company / AGL Resources	Credit quality and service quality issues
04/16	2015-00343	KY	Kentucky Office of the Attorney General	Atmos Energy	Cost of equity, cost of short-term debt, capital structure
05/16	16-G-0058 16-G-0059	NY	City of New York	Brooklyn Union Gas Co., KeySpan Gas East Corp.	Cost and revenue allocation, rate design, service quality issues
06/16	16-0073-E-C	WV	Constellium Rolled Products Ravenswood, LLC	Appalachian Power Co.	Complaint; security deposit
07/16	9418	MD	Healthcare Council of the National Capital Area	Potomac Electric Power Co.	Cost of equity, cost of service, Cost and revenue allocation
07/16	160021-EI	FL	South Florida Hospital and Health Care Association	Florida Power and Light Co.	Return on equity, cost of debt, capital structure
07/16	16-057-01	UT	Utah Office of Consumer Svcs.	Dominion Resources, Questar Gas Co.	Credit quality and service quality issues
08/16	8710	VT	Vermont Dept. of Public Service	Vermont Gas Systems	Return on equity, cost of debt, cost of capital
08/16	R-2016-2537359	PA	AK Steel Corp.	West Penn Power Co.	Cost and revenue allocation
09/16	2016-00162	KY	Kentucky Office of the Attorney General	Columbia Gas of Ky.	Return on equity, cost of short-term debt
09/16	16-0550-W-P	WV	West Va. Energy Users Gp.	West Va. American Water Co.	Infrastructure Replacement Program Surcharge
01/17	46238	TX	Steering Committee of Cities Served by Oncor	Oncor Electric Delivery Co.	Ring fencing and other conditions for acquisition, service quality and reliability
02/17	45414	TX	Cities of Midland, McAllen, and Colorado City	Sharyland Utilities, LP and Sharyland Dist. and Transmission Services, LLC	Return on equity
02/17	2016-00370 2016-00371	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric, Kentucky Utilities	Return on equity, cost of debt, weighted cost of capital
03/17	10580	TX	Atmos Cities Steering Committee	Atmos Pipeline Texas	Return on equity, capital structure, weighted cost of capital
03/17	R-3867-2013	Quebec, Canada	Canadian Federation of Independent Businesses	Gaz Metro	Marginal Cost of Service Study

Expert Testimony Appearances of Richard A. Baudino As of September 2018

Date	Case	Jurisdict.	Party	Utility	Subject
05/17	R-2017-2586783	PA	Philadelphia Industrial and Commercial Gas Users Gp.	Philadelphia Gas Works	Cost and revenue allocation, rate design, Interruptible tariffs
08/17	R-2017-2595853	PA	AK Steel	Pennsylvania American Water Co.	Cost and revenue allocation, rate design
8/17	17-3112-INV	VT	Vt. Dept. of Pubic Service	Green Mountain Power	Return on equity, cost of debt, weighted cost of capital
9/17	4220-UR-123	WI	Wisconsin Industrial Energy Group	Northern States Power	Cost and revenue allocation, rate design
10/17	2017-00179	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Co.	Return on equity, cost of short-term debt
12/17	2017-00321	KY	Office of the Attorney General	Duke Energy Kentucky, Inc.	Return on equity
1/18	2017-00349	KY	Office of the Attorney General	Atmos Energy	Return on equity, cost of debt, weighted cost of capital
5/18	Fiscal Years 2019-2021 Rates	PA	Philadelphia Large Users Group	Philadelphia Water Department	Cost and revenue allocation
8/18	18-0974-TF	VT	Vt. Dept. of Public Service	Green Mountain Power	Return on equity, cost of debt, weighted cost of capital
8/18	48401	TX	Cities Served by Texas-New Mexico Power Company	Texas-New Mexico Power Co.	Return on equity, capital structure
8/18	18-05-16	CT	Connecticut Industrial Energy Consumers	Connecticut Natural Gas Co.	Cost and revenue allocation
9/18	9484	MD	Maryland Energy Group	Baltimore Gas & Electric	Cost and revenue allocation, rate design
9/18	2017-370-E	SC	South Carolina Office of Regulatory Staff	South Carolina Electric & Gas, Dominion Resources, SCANA	Return on equity, service quality standards, credit quality conditions

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South Carolina Electric & Gas Company Announces Debt Offering

Cayce, SC, August 16, 2018 --- South Carolina Electric & Gas Company (SCE&G), principal subsidiary of SCANA Corporation (NYSE:SCG), announced today that it sold, in a negotiated offering, a total of $700 million principal amount of its First Mortgage Bonds. The sale consisted of $300 million principal amount of its First Mortgage Bonds, 3.50 percent Series due August 15, 2021 and $400 million principal amount of its First Mortgage Bonds, 4.25 percent Series due August 15, 2028. The 3-year and 10-year bonds sold today are initially being offered to the public at 99.997 percent and 99.750 percent respectively. Merrill Lynch, Pierce, Fenner & Smith Incorporated, J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC, and Wells Fargo Securities, LLC acted as joint book-running managers, and FTN Financial Securities Corp. and Synovus Securities, Inc. acted as co-managers for the transaction.

SCE&G intends to apply the net proceeds from the sale of the bonds to pay $550 million of First Mortgage Bonds with a maturity date of November 1, 2018. SCE&G may also apply the net proceeds from the sale of the bonds to repay borrowings under a credit agreement and other short-term debt and for general corporate purposes.

It is anticipated that these bonds will be issued on August 17, 2018. The transaction is subject to normal closing conditions.

Copies of a written prospectus and related prospectus supplement meeting the requirements of Section 10 of the Securities Act of 1933, as amended, relating to the offering of these bonds may be obtained by contacting: Merrill Lynch, Pierce, Fenner & Smith Incorporated, 200 North College Street, NC1-004-03-43, Charlotte, NC, 28255-0001, Attention: Prospectus Department, telephone: 1-800-294-1322, email: dg.prospectus_requests@baml.com; J.P. Morgan Securities LLC, 383 Madison Avenue, New York, New York 10179, Attn: Investment Grade Syndicate Desk, Telephone: 1-212-834-4533; Morgan Stanley & Co. LLC, 180 Varick Street, New York, New York 10014, Attention: Prospectus Department, telephone: 1-866-718-1649; Wells Fargo Securities, LLC, 608 2nd Avenue South, Suite 1000, Minneapolis, Minnesota 55402, telephone: 1-800-645-3751, email: wfscustomerservice@wellsfargo.com.

This news release does not constitute an offer to sell or a solicitation of an offer to buy any of the bonds or any other securities, nor will there be any sale of the bonds or any other securities in any state or jurisdiction in which such an offer, solicitation or sale is not permitted. A registration statement relating to these bonds has been filed with the Securities and Exchange Commission and is effective.

PROFILE

SCANA Corporation, headquartered in Cayce, S.C., is an energy-based holding company principally engaged, through subsidiaries, in electric and natural gas utility operations and other energy-related businesses. Information about SCANA and its businesses is available at www.scana.com.

SCE&G is a regulated public utility engaged in the generation, transmission, distribution and sale of electricity to approximately 727,000 customers in the central, southern and southwestern portions of South Carolina. The company also provides natural gas service to approximately 373,000 customers throughout South Carolina. More information about SCE&G is available at www.sceg.com.

SCE&G PROXY GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD

		Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18
ALLETE	High Price ($)	72.800	77.450	79.860	78.620	80.780	79.420
	Low Price ($)	67.070	70.400	73.760	70.460	75.850	74.470
	Avg. Price ($)	69.935	73.925	76.810	74.540	78.315	76.945
	Dividend ($)	0.560	0.560	0.560	0.560	0.560	0.560
	Mo. Avg. Div.	3.20%	3.03%	2.92%	3.01%	2.86%	2.91%
	6 mos. Avg.	2.99%					
Alliant Energy	High Price ($)	41.040	43.270	43.470	42.780	43.950	43.840
	Low Price ($)	37.850	40.340	40.110	38.220	41.410	41.390
	Avg. Price ($)	39.445	41.805	41.790	40.500	42.680	42.615
	Dividend ($)	0.335	0.335	0.335	0.335	0.335	0.335
	Mo. Avg. Div.	3.40%	3.21%	3.21%	3.31%	3.14%	3.14%
	6 mos. Avg.	3.23%					
Ameren Corp.	High Price ($)	56.790	58.950	59.790	61.250	62.410	65.090
	Low Price ($)	53.080	55.010	55.720	55.210	59.150	60.780
	Avg. Price ($)	54.935	56.980	57.755	58.230	60.780	62.935
	Dividend ($)	0.458	0.458	0.458	0.458	0.458	0.458
	Mo. Avg. Div.	3.33%	3.21%	3.17%	3.14%	3.01%	2.91%
	6 mos. Avg.	3.13%					
American Electric Power	High Price ($)	69.240	70.980	69.990	70.300	71.890	72.910
	Low Price ($)	64.600	66.460	64.460	62.710	68.130	69.320
	Avg. Price ($)	66.920	68.720	67.225	66.505	70.010	71.115
	Dividend ($)	0.620	0.620	0.620	0.620	0.620	0.620
	Mo. Avg. Div.	3.71%	3.61%	3.69%	3.73%	3.54%	3.49%
	6 mos. Avg.	3.63%					
Avangrid, Inc.	High Price ($)	51.500	53.000	54.550	53.160	54.180	51.210
	Low Price ($)	47.540	49.585	51.310	49.600	48.750	49.000
	Avg. Price ($)	49.520	51.292	52.930	51.380	51.465	50.105
	Dividend ($)	0.432	0.432	0.432	0.432	0.432	0.432
	Mo. Avg. Div.	3.49%	3.37%	3.26%	3.36%	3.36%	3.45%
	6 mos. Avg.	3.38%					
Black Hills Corp.	High Price ($)	54.620	57.280	59.490	61.650	64.140	61.460
	Low Price ($)	50.490	52.630	55.530	55.070	59.010	58.620
	Avg. Price ($)	52.555	54.955	57.510	58.360	61.575	60.040
	Dividend ($)	0.475	0.475	0.475	0.475	0.475	0.475
	Mo. Avg. Div.	3.62%	3.46%	3.30%	3.26%	3.09%	3.16%
	6 mos. Avg.	3.31%					

SCE&G PROXY GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD

		Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18
CMS Energy Corp.	High Price ($)	45.580	47.480	47.200	47.580	48.680	50.120
	Low Price ($)	41.980	43.790	43.720	42.520	46.250	47.180
	Avg. Price ($)	43.780	45.635	45.460	45.050	47.465	48.650
	Dividend ($)	0.358	0.358	0.358	0.358	0.358	0.358
	Mo. Avg. Div.	3.27%	3.13%	3.15%	3.17%	3.01%	2.94%
	6 mos. Avg.	3.11%					
DTE Energy Co.	High Price ($)	105.190	106.240	105.460	105.130	109.660	114.120
	Low Price ($)	99.520	101.820	99.000	94.250	101.880	106.270
	Avg. Price ($)	102.355	104.030	102.230	99.690	105.770	110.195
	Dividend ($)	0.883	0.883	0.883	0.883	0.883	0.883
	Mo. Avg. Div.	3.45%	3.39%	3.45%	3.54%	3.34%	3.20%
	6 mos. Avg.	3.40%					
Duke Energy Corp.	High Price ($)	77.910	80.850	80.410	80.150	81.750	82.720
	Low Price ($)	74.580	75.960	73.130	71.960	77.900	79.510
	Avg. Price ($)	76.245	78.405	76.770	76.055	79.825	81.115
	Dividend ($)	0.890	0.890	0.890	0.890	0.890	0.928
	Mo. Avg. Div.	4.67%	4.54%	4.64%	4.68%	4.46%	4.58%
	6 mos. Avg.	4.59%					
El Paso Electric Co.	High Price ($)	51.250	51.550	59.130	59.350	62.700	64.350
	Low Price ($)	48.050	48.500	49.450	54.750	58.250	60.950
	Avg. Price ($)	49.650	50.025	54.290	57.050	60.475	62.650
	Dividend ($)	0.335	0.335	0.335	0.360	0.360	0.360
	Mo. Avg. Div.	2.70%	2.68%	2.47%	2.52%	2.38%	2.30%
	6 mos. Avg.	2.51%					
Hawaiian Electric Ind.	High Price ($)	34.620	35.130	35.200	34.510	36.200	36.030
	Low Price ($)	32.580	33.790	32.880	32.590	34.140	34.160
	Avg. Price ($)	33.600	34.460	34.040	33.550	35.170	35.095
	Dividend ($)	0.310	0.310	0.310	0.310	0.310	0.310
	Mo. Avg. Div.	3.69%	3.60%	3.64%	3.70%	3.53%	3.53%
	6 mos. Avg.	3.61%					
IDACORP	High Price ($)	88.600	94.160	96.010	93.280	95.350	99.280
	Low Price ($)	80.290	84.820	87.340	85.230	90.920	92.030
	Avg. Price ($)	84.445	89.490	91.675	89.255	93.135	95.655
	Dividend ($)	0.590	0.590	0.590	0.590	0.590	0.590
	Mo. Avg. Div.	2.79%	2.64%	2.57%	2.64%	2.53%	2.47%
	6 mos. Avg.	2.61%					

SCE&G PROXY GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD

		Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18
NextEra Energy, Inc.	High Price ($)	164.410	165.150	166.620	169.530	171.500	175.650
	Low Price ($)	151.340	158.650	155.220	155.060	163.510	165.450
	Avg. Price ($)	157.875	161.900	160.920	162.295	167.505	170.550
	Dividend ($)	1.110	1.110	1.110	1.110	1.110	1.110
	Mo. Avg. Div.	2.81%	2.74%	2.76%	2.74%	2.65%	2.60%
	6 mos. Avg.	2.72%					
Northwestern Corp.	High Price ($)	54.190	55.750	55.800	57.740	59.920	62.160
	Low Price ($)	50.460	52.430	52.770	51.530	55.980	58.030
	Avg. Price ($)	52.325	54.090	54.285	54.635	57.950	60.095
	Dividend ($)	0.550	0.550	0.550	0.550	0.550	0.550
	Mo. Avg. Div.	4.20%	4.07%	4.05%	4.03%	3.80%	3.66%
	6 mos. Avg.	3.97%					
OGE Energy Corp.	High Price ($)	32.830	33.390	35.420	35.540	36.590	37.690
	Low Price ($)	30.760	31.490	32.700	33.190	34.130	35.580
	Avg. Price ($)	31.795	32.440	34.060	34.365	35.360	36.635
	Dividend ($)	0.333	0.333	0.333	0.333	0.333	0.333
	Mo. Avg. Div.	4.18%	4.10%	3.90%	3.87%	3.76%	3.63%
	6 mos. Avg.	3.91%					
Otter Tail Corp.	High Price ($)	44.550	44.850	48.350	48.750	49.750	49.750
	Low Price ($)	39.650	42.300	42.550	44.800	47.000	47.350
	Avg. Price ($)	42.100	43.575	45.450	46.775	48.375	48.550
	Dividend ($)	0.335	0.335	0.335	0.335	0.335	0.335
	Mo. Avg. Div.	3.18%	3.08%	2.95%	2.86%	2.77%	2.76%
	6 mos. Avg.	2.93%					
Pinnacle West Capital	High Price ($)	80.210	81.850	80.730	81.250	83.050	82.830
	Low Price ($)	75.210	77.140	75.820	73.410	77.560	78.270
	Avg. Price ($)	77.710	79.495	78.275	77.330	80.305	80.550
	Dividend ($)	0.695	0.695	0.695	0.695	0.695	0.695
	Mo. Avg. Div.	3.58%	3.50%	3.55%	3.59%	3.46%	3.45%
	6 mos. Avg.	3.52%					
PNM Resources	High Price ($)	38.700	40.730	40.600	40.050	39.900	40.950
	Low Price ($)	34.950	37.100	37.600	34.950	37.170	38.250
	Avg. Price ($)	36.825	38.915	39.100	37.500	38.535	39.600
	Dividend ($)	0.265	0.265	0.265	0.265	0.265	0.265
	Mo. Avg. Div.	2.88%	2.72%	2.71%	2.83%	2.75%	2.68%
	6 mos. Avg.	2.76%					

SCE&G PROXY GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD

		Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18
Portland General Electric	High Price ($)	41.060	42.700	42.930	43.290	46.000	47.560
	Low Price ($)	39.020	39.180	39.660	39.600	42.100	44.380
	Avg. Price ($)	40.040	40.940	41.295	41.445	44.050	45.970
	Dividend ($)	0.340	0.340	0.340	0.363	0.363	0.363
	Mo. Avg. Div.	3.40%	3.32%	3.29%	3.50%	3.29%	3.15%
	6 mos. Avg.	3.33%					
Southern Company	High Price ($)	45.100	46.750	46.580	46.850	48.650	49.430
	Low Price ($)	43.020	43.750	42.420	42.730	46.020	43.630
	Avg. Price ($)	44.060	45.250	44.500	44.790	47.335	46.530
	Dividend ($)	0.580	0.580	0.600	0.600	0.600	0.600
	Mo. Avg. Div.	5.27%	5.13%	5.39%	5.36%	5.07%	5.16%
	6 mos. Avg.	5.23%					
WEC Energy Group	High Price ($)	63.130	64.840	64.930	64.980	66.500	68.480
	Low Price ($)	58.920	61.390	59.960	58.480	63.190	64.920
	Avg. Price ($)	61.025	63.115	62.445	61.730	64.845	66.700
	Dividend ($)	0.553	0.553	0.553	0.553	0.553	0.553
	Mo. Avg. Div.	3.62%	3.50%	3.54%	3.58%	3.41%	3.31%
	6 mos. Avg.	3.49%					
Xcel Energy	High Price ($)	45.870	47.380	46.930	46.240	47.150	48.720
	Low Price ($)	42.570	43.930	43.280	41.990	44.540	45.870
	Avg. Price ($)	44.220	45.655	45.105	44.115	45.845	47.295
	Dividend ($)	0.380	0.380	0.380	0.380	0.380	0.380
	Mo. Avg. Div.	3.44%	3.33%	3.37%	3.45%	3.32%	3.21%
	6 mos. Avg.	3.35%					
Monthly Avg. Dividend Yield		3.54%	3.42%	3.41%	3.45%	3.30%	3.26%
6-month Avg. Dividend Yield		3.40%					

Source: Yahoo! Finance

SCE&G PROXY GROUP
DCF Growth Rate Analysis

Company	(1) Value Line DPS	(2) Value Line EPS	(3) Zacks	(4) Yahoo! Finance
ALLETE, Inc.	4.50%	5.00%	6.00%	6.00%
Alliant Energy Corporation	6.00%	6.50%	5.49%	5.75%
Ameren Corp.	5.50%	7.50%	6.61%	6.90%
American Electric Power Co.	5.00%	4.50%	5.59%	5.59%
Avangrid, Inc.	5.00%	13.00%	9.14%	10.40%
Black Hills Corporation	6.00%	6.50%	3.98%	4.57%
CMS Energy Corporation	7.00%	7.00%	6.18%	6.92%
DTE Energy Company	6.50%	7.00%	5.33%	5.67%
Duke Energy	4.00%	5.50%	4.64%	4.13%
El Paso Electric Co.	7.00%	4.50%	4.67%	4.70%
Hawaiian Electric	2.00%	3.50%	7.09%	7.10%
IDACORP, Inc.	6.50%	3.00%	2.78%	3.40%
NextEra Energy, Inc.	11.00%	9.00%	8.38%	9.44%
Northwestern Corporation	4.50%	3.50%	2.27%	2.45%
OGE Energy Corp.	8.00%	6.00%	4.82%	4.70%
Otter Tail Corporation	3.50%	7.50%	N/A	9.00%
Pinnacle West Capital Corp.	5.50%	5.00%	4.47%	3.72%
PNM Resources, Inc.	7.00%	7.50%	4.64%	4.45%
Portland General Electric Company	6.00%	4.00%	3.13%	3.30%
Southern Company	3.50%	3.00%	4.50%	2.10%
WEC Energy Group	6.00%	7.00%	4.13%	4.54%
Xcel Energy Inc.	5.50%	5.50%	5.78%	5.95%
Averages	5.70%	5.98%	5.22%	5.49%
Median Values	5.75%	5.75%	4.82%	5.15%

Sources: **Value Line Investment Survey, June 15, July 27, and August 17, 2018**
Yahoo! Finance growth rates retrieved August 14, 2018
Zacks growth rates retrieved August 14, 2018

SCE&G PROXY GROUP
DCF RETURN ON EQUITY

	(1) Value Line Dividend Gr.	(2) Value Line Earnings Gr.	(3) Zack's Earning Gr.	(4) Yahoo! Earning Gr.	(5) Average of All Gr. Rates
Method 1:					
Dividend Yield	3.40%	3.40%	3.40%	3.40%	3.40%
Average Growth Rate	5.70%	5.98%	5.22%	5.49%	5.60%
Expected Div. Yield	3.49%	3.50%	3.48%	3.49%	3.49%
DCF Return on Equity	***9.19%***	***9.48%***	***8.70%***	***8.98%***	***9.09%***
Method 2:					
Dividend Yield	3.40%	3.40%	3.40%	3.40%	3.40%
Median Growth Rate	5.75%	5.75%	4.82%	5.15%	5.37%
Expected Div. Yield	3.49%	3.49%	3.48%	3.48%	3.49%
DCF Return on Equity	***9.24%***	***9.24%***	***8.30%***	***8.63%***	***8.86%***

SCE&G PROXY GROUP
Capital Asset Pricing Model Analysis

30-Year Treasury Bond, Value Line Beta

Line No.		Value Line
1	Market Required Return Estimate	10.62%
2	Risk-free Rate of Return, 30-Year Treasury Bond	
3	Average of Last Six Months	3.07%
4	Risk Premium	
5	(Line 1 minus Line 3)	7.56%
6	Comparison Group Beta	0.66
7	Comparison Group Beta * Risk Premium	
8	(Line 5 * Line 6)	5.02%
9	CAPM Return on Equity	
10	(Line 3 plus Line 8)	8.08%

5-Year Treasury Bond, Value Line Beta

1	Market Required Return Estimate	10.62%
2	Risk-free Rate of Return, 5-Year Treasury Bond	
3	Average of Last Six Months	2.75%
4	Risk Premium	
5	(Line 1 minus Line 3)	7.88%
6	Comparison Group Beta	0.66
7	Comparison Group Beta * Risk Premium	
8	(Line 5 * Line 6)	5.23%
9	CAPM Return on Equity	
10	(Line 3 plus Line 8)	7.97%

SCE&G PROXY GROUP
Capital Asset Pricing Model Analysis

Supporting Data for CAPM Analyses

30 Year Treasury Bond Data

	Avg. Yield
March-18	3.09%
April-18	3.07%
May-18	3.13%
June-18	3.05%
July-18	3.01%
August-18	3.04%
6 month average	3.07%

Source: www.federalreserve.gov/datadownload/

5 Year Treasury Bond Data

	Avg. Yield
March-18	2.63%
April-18	2.70%
May-18	2.82%
June-18	2.78%
July-18	2.78%
August-18	2.77%
6 month average	2.75%

Value Line Market Return Data:

Forecasted Data:	
Value Line Median Growth Rates:	
Earnings	12.00%
Book Value	8.50%
Average	10.25%
Average Dividend Yield	0.95%
Estimated Market Return	11.25%
Value Line Projected 3-5 Yr. Median Annual Total Return	10.00%
Average of Projected Mkt. Returns	10.62%

Source: Value Line Investment Survey for Windows retreived September 7, 2018

Comparison Group Betas:

	Value Line
ALLETE, Inc.	0.75
Alliant Energy Corporation	0.70
Ameren Corp.	0.65
American Electric Power Co.	0.65
Avangrid, Inc.	0.30
Black Hills Corporation	0.85
CMS Energy Corporation	0.65
DTE Energy Company	0.65
Duke Energy	0.55
El Paso Electric Co.	0.75
Hawaiian Electric	0.65
IDACORP, Inc.	0.65
NextEra Energy	0.60
Northwestern Corp.	0.65
OGE Energy Corp.	0.95
Otter Tail Corp.	0.85
Pinnacle West Capital Corp.	0.65
PNM Resources	0.75
Portland General Electric Company	0.65
Southern Company	0.50
WEC Energy Group	0.60
Xcel Energy Inc.	0.60
Average	0.66

SCE&G PROXY GROUP
Capital Asset Pricing Model Analysis
Historic Market Premium

	Geometric Mean	Arithmetic Mean	Adjusted Arithmetic Mean
Long-Term Annual Return on Stocks	10.20%	12.10%	
Long-Term Annual Income Return on Long-Term Treas. Bonds	5.00%	5.00%	
Historical Market Risk Premium	5.20%	7.10%	6.04%
Comparison Group Beta, Value Line	0.66	0.66	0.66
Beta * Market Premium	3.45%	4.71%	4.01%
Current 30-Year Treasury Bond Yield	3.07%	3.07%	3.07%
CAPM Cost of Equity, Value Line Beta	**6.52%**	**7.78%**	**7.07%**

Source: *2018 SBBI Yearbook, Stocks, Bonds, Bills, and Inflation*, Duff and Phelps; pp. 6-17, 10-31

FERC GDP GROWTH RATE

	2020	2050	2070	
Energy Information Administration				
Real GDP	18,335	33,205		
GDP Deflator	1.217	2.437		
	22,314	80,921		4.39%
SSA Trustees Report	22,288		189,838	4.38%
Average GDP Growth Rate				4.38%

Sources:

Energy Information Administration, *Annual Energy Outlook 2018* (Macroeconomic Indicators).
Social Security Administration, 2018 OASDI Trustees Report, Table VI.G6

Hevert Multi-Stage Growth Discounted Cash Flow Model
180 Day Average Stock Price
Average EPS Growth Rate Estimate in First Stage, Revised GDP Growth Rate of 4.40%

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
		Stock	EPS Growth Rate Estimates				Long-Term	Payout Ratio			Iterative Solution		Terminal	Terminal
Company	Ticker	Price	Zacks	First Call	Value Line	Average	Growth	2018	2022	2028	Proof	IRR	P/E Ratio	PEG Ratio
ALLETE, Inc.	ALE	$74.39	6.00%	6.00%	5.00%	5.67%	4.40%	65.00%	64.00%	65.57%	($0.00)	7.69%	20.78	4.72
Alliant Energy Corporation	LNT	$41.41	5.60%	5.85%	6.50%	5.98%	4.40%	64.00%	64.00%	65.57%	($0.00)	8.24%	17.84	4.05
Ameren Corporation	AEE	$58.05	6.50%	6.30%	7.50%	6.77%	4.40%	60.00%	59.00%	65.57%	($0.00)	8.34%	17.35	3.94
American Electric Power Company, Inc.	AEP	$69.91	5.70%	5.79%	4.50%	5.33%	4.40%	67.00%	63.00%	65.57%	($0.00)	8.37%	17.24	3.92
Avangrid, Inc.	AGR	$50.25	9.10%	10.40%	13.00%	10.83%	4.40%	76.00%	66.00%	65.57%	($0.00)	8.07%	18.68	4.25
Black Hills Corporation	BKH	$57.41	4.10%	3.86%	5.00%	4.32%	4.40%	55.00%	60.00%	65.57%	($0.00)	8.54%	16.54	3.76
CMS Energy Corporation	CMS	$45.84	6.40%	7.05%	7.00%	6.82%	4.40%	61.00%	61.00%	65.57%	$0.00	8.35%	17.34	3.94
DTE Energy Company	DTE	$105.75	5.30%	5.59%	7.00%	5.96%	4.40%	61.00%	60.00%	65.57%	$0.00	8.67%	16.05	3.65
Duke Energy Corporation	DUK	$80.74	4.70%	4.22%	5.50%	4.81%	4.40%	76.00%	80.00%	65.57%	($0.00)	8.47%	16.81	3.82
El Paso Electric	EE	$54.16	5.10%	5.20%	4.50%	4.93%	4.40%	57.00%	61.00%	65.57%	($0.00)	7.69%	20.82	4.73
Hawaiian Electric Industries, Inc.	HE	$34.70	7.10%	9.10%	3.50%	6.57%	4.40%	66.00%	59.00%	65.57%	($0.00)	8.28%	17.62	4.01
IDACORP, Inc.	IDA	$89.13	3.90%	3.10%	3.50%	3.50%	4.40%	57.00%	63.00%	65.57%	$0.00	7.57%	21.56	4.90
NextEra Energy, Inc.	NEE	$156.22	8.60%	9.79%	8.50%	8.96%	4.40%	55.00%	63.00%	65.57%	$0.00	8.37%	17.24	3.92
NorthWestern Corporation	NWE	$55.80	3.00%	3.16%	3.50%	3.22%	4.40%	64.00%	64.00%	65.57%	($0.00)	8.40%	17.10	3.89
OGE Energy Corp.	OGE	$33.47	6.00%	4.30%	6.00%	5.43%	4.40%	69.00%	71.00%	65.57%	($0.00)	8.93%	15.10	3.43
Otter Tail Corporation	OTTR	$44.07	NA	9.00%	7.50%	8.25%	4.40%	66.00%	60.00%	65.57%	$0.00	8.27%	17.69	4.02
Pinnacle West Capital Corporation	PNW	$81.85	4.50%	3.78%	5.00%	4.43%	4.40%	63.00%	63.00%	65.57%	($0.00)	8.30%	17.57	3.99
PNM Resources, Inc.	PNM	$39.36	5.10%	4.30%	7.50%	5.63%	4.40%	53.00%	50.00%	65.57%	($0.00)	8.05%	18.74	4.26
Portland General Electric Company	POR	$43.26	2.80%	2.65%	4.00%	3.15%	4.40%	64.00%	63.00%	65.57%	$0.00	7.91%	19.52	4.44
Southern Company	SO	$46.80	4.50%	2.72%	3.00%	3.41%	4.40%	80.00%	74.00%	65.57%	($0.00)	9.31%	13.95	3.17
WEC Energy Group, Inc.	WEC	$63.81	4.10%	4.43%	7.00%	5.18%	4.40%	66.00%	64.00%	65.57%	$0.00	8.14%	18.31	4.16
Xcel Energy Inc.	XEL	$46.44	5.70%	5.89%	5.50%	5.70%	4.40%	62.00%	63.00%	65.57%	($0.00)	8.27%	17.71	4.02
											Mean	8.28%	17.80	
											Max	9.31%		
											Min	7.57%		

Hevert Multi-Stage Growth Discounted Cash Flow Model - Terminal P/E Ratio Equals 20.54
180 Day Average Stock Price
Average EPS Growth Rate Estimate in First Stage, Revised GDP Growth Rate of 4.40%

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
		Stock	EPS Growth Rate Estimates				Long-Term	Payout Ratio			Iterative Solution		Terminal	Terminal
Company	Ticker	Price	Zacks	First Call	Value Line	Average	Growth	2018	2022	2028	Proof	IRR	P/E Ratio	PEG Ratio
ALLETE, Inc.	ALE	$74.39	6.00%	6.00%	5.00%	5.67%	4.40%	65.00%	64.00%	65.57%	($0.00)	7.63%	20.54	4.67
Alliant Energy Corporation	LNT	$41.41	5.60%	5.85%	6.50%	5.98%	4.40%	64.00%	64.00%	65.57%	($0.00)	9.07%	20.54	4.67
Ameren Corporation	AEE	$58.05	6.50%	6.30%	7.50%	6.77%	4.40%	60.00%	59.00%	65.57%	$0.00	9.35%	20.54	4.67
American Electric Power Company, Inc.	AEP	$69.91	5.70%	5.79%	4.50%	5.33%	4.40%	67.00%	63.00%	65.57%	($0.00)	9.41%	20.54	4.67
Avangrid, Inc.	AGR	$50.25	9.10%	10.40%	13.00%	10.83%	4.40%	76.00%	66.00%	65.57%	$0.00	8.64%	20.54	4.67
Black Hills Corporation	BKH	$57.41	4.10%	3.86%	5.00%	4.32%	4.40%	55.00%	60.00%	65.57%	$0.00	9.82%	20.54	4.67
CMS Energy Corporation	CMS	$45.84	6.40%	7.05%	7.00%	6.82%	4.40%	61.00%	61.00%	65.57%	($0.00)	9.35%	20.54	4.67
DTE Energy Company	DTE	$105.75	5.30%	5.59%	7.00%	5.96%	4.40%	61.00%	60.00%	65.57%	($0.00)	10.12%	20.54	4.67
Duke Energy Corporation	DUK	$80.74	4.70%	4.22%	5.50%	4.81%	4.40%	76.00%	80.00%	65.57%	($0.00)	9.63%	20.54	4.67
El Paso Electric	EE	$54.16	5.10%	5.20%	4.50%	4.93%	4.40%	57.00%	61.00%	65.57%	$0.00	7.61%	20.54	4.67
Hawaiian Electric Industries, Inc.	HE	$34.70	7.10%	9.10%	3.50%	6.57%	4.40%	66.00%	59.00%	65.57%	($0.00)	9.20%	20.54	4.67
IDACORP, Inc.	IDA	$89.13	3.90%	3.10%	3.50%	3.50%	4.40%	57.00%	63.00%	65.57%	($0.00)	7.28%	20.54	4.67
NextEra Energy, Inc.	NEE	$156.22	8.60%	9.79%	8.50%	8.96%	4.40%	55.00%	63.00%	65.57%	$0.00	9.41%	20.54	4.67
NorthWestern Corporation	NWE	$55.80	3.00%	3.16%	3.50%	3.22%	4.40%	64.00%	64.00%	65.57%	($0.00)	9.48%	20.54	4.67
OGE Energy Corp.	OGE	$33.47	6.00%	4.30%	6.00%	5.43%	4.40%	69.00%	71.00%	65.57%	($0.00)	10.70%	20.54	4.67
Otter Tail Corporation	OTTR	$44.07	NA	9.00%	7.50%	8.25%	4.40%	66.00%	60.00%	65.57%	($0.00)	9.16%	20.54	4.67
Pinnacle West Capital Corporation	PNW	$81.85	4.50%	3.78%	5.00%	4.43%	4.40%	63.00%	63.00%	65.57%	($0.00)	9.22%	20.54	4.67
PNM Resources, Inc.	PNM	$39.36	5.10%	4.30%	7.50%	5.63%	4.40%	53.00%	50.00%	65.57%	($0.00)	8.61%	20.54	4.67
Portland General Electric Company	POR	$43.26	2.80%	2.65%	4.00%	3.15%	4.40%	64.00%	63.00%	65.57%	($0.00)	8.21%	20.54	4.67
Southern Company	SO	$46.80	4.50%	2.72%	3.00%	3.41%	4.40%	80.00%	74.00%	65.57%	$0.00	11.48%	20.54	4.67
WEC Energy Group, Inc.	WEC	$63.81	4.10%	4.43%	7.00%	5.18%	4.40%	66.00%	64.00%	65.57%	($0.00)	8.82%	20.54	4.67
Xcel Energy Inc.	XEL	$46.44	5.70%	5.89%	5.50%	5.70%	4.40%	62.00%	63.00%	65.57%	($0.00)	9.15%	20.54	4.67
											Mean	9.15%	20.54	
											Max	11.48%		
											Min	7.28%		

SOUTH CAROLINA ELECTRIC & GAS COMPANY
OFFICE OF REGULATORY STAFF'S CONTINUING
AUDIT INFORMATION REQUEST
DOCKET NO. 2017-207-E (5th Continuing AIR)
DOCKET NO. 2017-305-E (4th Continuing AIR)
DOCKET NO. 2017-370-E (4th Continuing AIR)

REQUEST 4-49:

Provide all service quality measures and standards that are currently effective for SCE&G. Identify which of these measures and standards have been established and/or approved by the Commission.

RESPONSE 4-49:

The service quality measures and standards that are currently effective for SCE&G are:

- The Company complies with requirements noted in Chapter 103 of the 1976 Code (Public Service Commission (Statutory Authority: 1976 Code §§ 58–3–140, 58–23–10, 58–23–590, 58–23–1010, and 58–23–1830)) Article 3 Electric Systems and Article 4 Gas Systems. (Please see "Response 4-49 103 Electric" on the enclosed CD.)

- The Company complies with its most recent *Electric General Terms and Conditions* (Effective for Service Rendered On and After February 28, 2018) and its *Gas General Terms and Conditions* (Effective for bills rendered on and after January 1, 2016). The General Terms and Conditions for both the Electric and Gas businesses are required under Chapter 103. (Please see "Response 4-49 103 Gas" on the enclosed CD.)

- The Company adheres to its *Termination of Service Due to Non-Payment Written Procedures for its Electric and Natural Gas Operations* (Revision date: August 31, 2015). (Attached)

- The Company complies with its *Bill of Rights For Residential Customers of Electrical Utilities* and *Bill of Rights For Residential Customers of Natural Gas Utilities*. (Attached)

- The Company measures service levels in our contact center operations (% of calls answered within a specific amount of time). The measure is used to plan staffing needs for our contact centers. (Not established and/or approved by the Commission.)

- The Company manages a customer contacts (calls and emails) quality program. The program focuses on the value of the customer's experience by identifying opportunities, maintaining quality standards, and encouraging employee engagement to improve the way we serve our customers – *Quality Reference Guide* (Attached).

  Key parts of the program include:

  - Quality Assessments - A sampling of calls and emails for each customer service representative is randomly selected and assessed every month in accordance with the Quality Reference Guide (a set of internal guidelines that identify expected behaviors during customer interactions).
  - Targeted Development – Quality metrics are used to identify opportunities for improvement in quality performance, as well as to deliver targeted training and coaching to our employees.

(The contacts quality program is not established and/or approved by the Commission.)

- SCE&G's customer accuracy program reviews certain electric and gas customer transactions to ensure accuracy and compliance and promote accountability.

  Key parts of the program include:

  - Errors occurring during the normal course of business (service orders, credit transactions/ credit arrangements, non-registering meters, etc.) are reported by various areas within the company to the Quality Assurance team. The Quality Assurance team reviews/ analyzes errors, with high priority placed on errors that may impact customers. Process and performance improvements focus on eliminating repeat error types.
  - Accuracy findings are used to provide improvements to employee training and development, coaching employees, customer information system (CIS) enhancements.

(The customer accuracy program is not established and/or approved by the Commission.)

- In addition to these service standards, SCE&G tracks both SAIDI (System Average Interruption Duration Index) and SAIFI (System Average Interruption Frequency Index) as industry endorsed measures of electric service reliability to customers.

SCE&G RELIABILITY STATISTICS

2013 - 2017

	2013	2014	2015	2016	2017
SAIDI*	91.31	96.60	96.60	90.50	81.82
SAIFI*	1.19	1.44	1.34	1.27	1.14

**values represent adjustment for MEDs*

Responsible person: Carol Clements

SOUTH CAROLINA ELECTRIC & GAS COMPANY
OFFICE OF REGULATORY STAFF'S CONTINUING
AUDIT INFORMATION REQUEST
DOCKET NO. 2017-207-E (5th Continuing AIR)
DOCKET NO. 2017-305-E (4th Continuing AIR)
DOCKET NO. 2017-370-E (4th Continuing AIR)

REQUEST 4-47:

Provide all service quality measures and standards that are currently effective for each of Dominion's regulated utility operating companies.

RESPONSE 4-47:

Please see Response 4-48 for these measures and standards.

While the Company uses the following standard industry metrics to measure service quality, there are currently no standards in effect for Dominion Energy's electric utility operating company.

- System Average Interruption Duration Index ("SAIDI")
- System Average Interruption Frequency Index ("SAIFI")
- Average Speed of Answer ("ASA")

Responsible Persons: Robert Wright and Jeff Murphy

SOUTH CAROLINA ELECTRIC & GAS COMPANY
OFFICE OF REGULATORY STAFF'S CONTINUING
AUDIT INFORMATION REQUEST
DOCKET NO. 2017-207-E (5th Continuing AIR)
DOCKET NO. 2017-305-E (4th Continuing AIR)
DOCKET NO. 2017-370-E (4th Continuing AIR)

REQUEST 4-48:

Provide a copy of all ongoing service quality and reliability reports filed with regulatory commissions by Dominion's regulated utility operating companies from 2015 through 2018.

RESPONSE 4-48:

The ongoing service quality and reliability reports filed with regulatory commissions by Dominion Energy's natural gas utility operating companies from 2015 through 2017 are included in Attachments ORS 4-48 A through F. No such reports are filed by Dominion's West Virginia natural gas utility, Hope Gas, Inc. d/b/a Dominion Energy West Virginia.

The ongoing service quality and reliability reports filed with regulatory commissions by Dominion Energy's electric utility operating company for the requested timeframe are provided in the following attachments:

- VA Quarterly Service Reliability Data Report – Attachment ORS 4-48 (RSW) 1 of 3
- NC Quarterly Service Reliability Data Report – Attachment ORS 4-48 (RSW) 2 of 3
- NC Quarterly Call Center Performance Report – Attachment ORS 4-48 (RSW) 3 of 3

Responsible Persons: Robert Wright and Jeff Murphy

CUSTOMER SATISFACTION STANDARDS
QUARTERLY REPORT

	Service	2017 Annual Goal	Measurement Source	Q1 2017	Q2 2017	Q3 2017	Q4 2017	12 Mo. Ended 12/31/17
Overall Impression of QGC								
1	How satisfied are you with the product and services you receive	6.0	CSS	6.3	6.3	6.2	6.3	6.3
2	Delivers natural gas to my home/good value for price paid	5.5	CSS	5.8	5.9	5.9	5.8	5.8
3	Keeps me informed when/why natural gas rates change before it happens	5.0	CSS	5.4	5.5	5.2	5.2	5.3
4	Consistently delivers natural gas to my home without disruption	6.5	CSS	6.7	6.7	6.6	6.7	6.7
5	Is honest and open in its dealings	5.5	CSS	5.8	6.0	5.9	5.8	5.9
6	Safely delivers natural gas to my home	6.5	CSS	6.6	6.6	6.6	6.6	6.6
7	Demonstrates care and concern for people like me	5.0	CSS	5.7	5.8	5.6	5.6	5.7

(1 to 7 scale: 1= do not agree at all; 7= strongly agree)
CSS - Customer Satisfaction Survey

CUSTOMER SATISFACTION STANDARDS
QUARTERLY REPORT

	Service	2017 Annual Goal	Measurement Source	Q1 2017	Q2 2017	Q3 2017	Q4 2017	12 Mo. Ended 12/31/17
Customer Care								
1	Percentage of calls answered within 60 seconds after customer chooses menu option	85%	Internal Statistics	84.4%	88.1%	92.0%	92.2%	89.2%
2	Percentage of emergency calls answered within 60 seconds by agent	99%	Internal Statistics	99.5%	99.4%	99.5%	99.4%	99.4%
3	Average wait for customer after menu selection	less than 45 seconds	Internal Statistics	70	51	33	29	46
4	Callers that hang up after menu choice is made	less than 2%	Internal Statistics	1.9%	1.5%	1.0%	0.9%	1.3%
5	Amount of time talking with customer and completing request	less than 5 minutes	Internal Statistics	5.1	5.0	4.8	4.9	5.0
6	The phone staff was courteous	6.0	CSS	6.6	6.7	6.7	6.6	6.7
7	The phone staff was knowledgeable	6.0	CSS	6.5	6.6	6.6	6.3	6.5
8	My call was answered quickly	5.5	CSS	6.1	6.4	6.2	6.1	6.2
9	The person I spoke with was able to resolve my issue	6.0	CSS	6.4	6.4	6.5	6.2	6.3
10	The automated menu was easy to use	5.7	CSS	6.0	6.2	5.9	6.0	6.0
11	How satisfied are you with the actions taken by Questar Gas in response to your call	5.8	CSS	6.2	6.3	6.4	6.1	6.2

(1 to 7 scale: 1= do not agree at all; 7= strongly agree)
CSS - Customer Satisfaction Survey

CUSTOMER SATISFACTION STANDARDS
QUARTERLY REPORT

	Service	2017 Annual Goal	Measurement Source	Q1 2017	Q2 2017	Q3 2017	Q4 2017	12 Mo. Ended 12/31/17
Customer Affairs								
1	Respond to customer regarding any PSC complaint within 5 business days	100%	Public Service Commission Report	100%	100%	100%	100%	100%

	Service	2017 Annual Goal	Measurement Source	Q1 2017	Q2 2017	Q3 2017	Q4 2017	12 Mo. Ended 12/31/17
Service Calls - Ask-A-Tech								
1	The technician was courteous	6.2	CSS	6.7	6.8	6.8	6.8	6.8
2	The technician was knowledgeable	6.2	CSS	6.7	6.7	6.8	6.6	6.7
3	The technician was able to help me quickly	5.9	CSS	6.6	6.6	6.6	6.7	6.6
4	The technician was able to help me resolve my issue	5.9	CSS	6.5	6.3	6.5	6.6	6.5
5	The automated menu was easy to use	5.7	CSS	6.4	6.1	6.4	6.5	6.3
6	How satisfied are you with the technician's overall performance	6.0	CSS	6.7	6.5	6.5	6.5	6.5

(1 to 7 scale: 1= do not agree at all; 7= strongly agree)
CSS - Customer Satisfaction Survey

CUSTOMER SATISFACTION STANDARDS
QUARTERLY REPORT

	Service	2017 Annual Goal	Measurement Source	Q1 2017	Q2 2017	Q3 2017	Q4 2017	12 Mo. Ended 12/31/17
Service Calls								
1	The service technician was courteous	6.4	CSS	7.0	6.8	6.8	6.8	6.8
2	The service technician was knowledgeable	6.4	CSS	6.9	6.8	6.7	6.7	6.8
3	The service technician was able to help me quickly	6.2	CSS	6.8	6.7	6.6	6.6	6.7
4	The service technician was able to help me resolve my issue	6.2	CSS	6.8	6.4	6.5	6.5	6.5
5	How satisfied are you with the service technician's overall performance	6.3	CSS	6.8	6.7	6.6	6.7	6.7
6	Emergency calls - company representative is onsite within 1 hour of call	95%	Internal Statistics	98.1%	98.3%	98.4%	98.3%	98.3%
7	Remove meter seal within 1 business day requested by customer for activation	95%	Internal Statistics	100.0%	100.0%	100.0%	100.0%	100.0%
8	Activate or reactivate customers' gas service within 3 business days	95%	Internal Statistics	100.0%	100.0%	100.0%	100.0%	100.0%
9	Keeping customer appointments	95%	Internal Statistics	100.0%	100.0%	98.9%	100.0%	99.7%
10	Restore interrupted service caused by system failure within 1 business day (except for service interruptions caused by natural disasters, force majeure events and significant third party actions)	24 hours	Internal Statistics	100%	100%	100%	100%	100%

(1 to 7 scale: 1= do not agree at all; 7= strongly agree)
CSS - Customer Satisfaction Survey

CUSTOMER SATISFACTION STANDARDS
QUARTERLY REPORT

	Service	2017 Annual Goal	Measurement Source	Q1 2017	Q2 2017	Q3 2017	Q4 2017	12 Mo. Ended 12/31/17
Billing								
1	Read each meter monthly	99%	Billing Statistics	94.2%	97.4%	97.0%	93.8%	95.6%
2	Percent of adjustments	3% Annual	Billing Statistics	0.53%	0.53%	0.73%	0.60%	2.39%
3	Send corrected statement to customer	5 Business Days	Internal Report	1.75 days	2.21 days	1.75 days	3.24 days	2.33 days
4	Percentage of billing inquiries requiring investigation responded to within 7 business day	95%	Internal Statistics	99.7%	99.8%	99.8%	97.8%	99.3%
5	Response time to investigate meter problems and notify customer within 15 business days	95%	Internal Statistics	97%	94%	90%	84%	91%

	Service	2008 Annual Goal	2004-2007 Results				
			Measurement Source	2004	2005	2006	2007
Customer Safety							
1	Line breaks caused by third parties	N/A	Internal Report	1462	1549	1745	1874
2	Number of gas leaks per 100 miles of main	10	DOT Report	4.8	4.9	5.2	5.2
3	Number of gas leaks per 100 miles of service	40	DOT Report	14.61	16.39	16.59	20.5
4	Number of gas leaks per 100 miles of transmission	1	DOT Report	0	0	0	0.3
5	Number of third party tear outs per number of Blue Stake calls	0.01	Internal Report	0.0045	0.0047	0.0049	0.0051

Dominion North Carolina Power
Performance Indicators - North Carolina Service Territory

		Excluding Major Storms	Including Major Storms
	SAIFI		
Five-year History	Year-end 2012:	**1.29**	**1.62**
	Year-end 2013:	**1.01**	**1.16**
	Year-end 2014:	**1.34**	**1.45**
	Year-end 2015:	**1.24**	**1.34**
	Year-end 2016:	**1.21**	**2.29**
	5-Year Average Annual SAIFI:	**1.22**	**1.57**
	SAIFI		
	1st Quarter 2017:	**0.16**	**0.26**
	2nd Quarter 2017:	**0.33**	**0.33**
	3rd Quarter 2017:	**0.26**	**0.26**
	4th Quarter 2017:	**0.15**	**0.15**
	Total For Last 12 - Months	**0.90**	**1.01**

	SAIDI		
Five-year History	Year-end 2012:	**118**	**197**
	Year-end 2013:	**116**	**149**
	Year-end 2014:	**138**	**185**
	Year-end 2015:	**134**	**168**
	Year-end 2016:	**140**	**1,120**
	5-Year Average Annual SAIDI:	**129**	**364**
	SAIDI		
	1st Quarter 2017:	**19**	**74**
	2nd Quarter 2017:	**34**	**34**
	3rd Quarter 2017:	**36**	**36**
	4th Quarter 2017:	**19**	**19**
	Total For Last 12 - Months	**108**	**163**

Indices:

System average interruption frequency index (sustained interruptions):
SAIFI = Total Number of Customer Interruptions / Total Number of Customers Served = Average Interruptions/Customer

System average interruption duration index:
SAIDI = Sum of all Customer Interruption Durations / Total Number of Customers Served = Average Minutes Out/Customer

Major Event Exclusion Methodology
2013 to Present - Calculated using IEEE 1366 Methodology
2012 Calculated using the former storm exclusion methodology

Call Center Regulatory Conditions

Call Center Performance Metrics for Dominion Energy North Carolina / Dominion Energy Virginia

Q4 2017 Update

This document relates to regulatory conditions from NC Docket No. E-100 Sub 138; Rule R8-4A.

Customer Satisfaction Metrics

The customer service representative score is specific to customers in North Carolina only, while the automated voice system is based on customers of both Dominion Energy Virginia and Dominion Energy North Carolina.

Please note that customers rating their satisfaction an '8, 9 or 10' are considered 'highly satisfied.'

CSAT with call center performance is measured through these two specific measures:

- **Automated voice system** *% rating satisfaction '8, 9, or 10' on 1-10 scale*
- **Customer service representative** *% rating satisfaction '8, 9, or 10' on 1-10 scale*

Customer Satisfaction Measure	Q4 – 17	Q3 – 17	Q2 – 17	Q1 – 17
Automated voice system ***(% 8-10)*** *(VA/NC)*	**94%**	**94%**	**94%**	**94%**
Customer service representative ***(% 8-10)*** *(NC)*	**96%**	**96%**	**96%**	**95%**

Average Response Time Performance

Answer rate and average speed of answer are based on customers of both Dominion Energy Virginia and Dominion Energy North Carolina.

Average Response Time Measures	12 months ending Q4 -2017
Answer Rate (live voice-handled calls) *(VA/NC)*	**94.3%**
Average Speed of Answer (live voice- and technology-handled calls) *(VA/NC)*	**27.3**

J.D. POWER

Press Release

Residential Electric Utility Customer Satisfaction Increases for Seventh Consecutive Year, Driven by Proactive Communication, J.D. Power Finds

COSTA MESA, Calif.: 11 July 2018 — Overall customer satisfaction with residential electric utility companies shows a seventh consecutive year-over-year increase, according to the J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study,SM released today.

"Proactive communications, primarily delivered through digital channels, such as email, text message, or social media post, are having a significant positive impact on residential electric utility customer satisfaction," said **John Hazen, senior director of the energy practice at J.D. Power**. "Power outages are going to happen. The more proactive electric utilities are in clearly communicating information about the cause, anticipated duration, and repair of an outage, the more satisfied their customers will be with their overall service."

The study, now in its 20th year, measures customer satisfaction with electric utility companies by examining six factors: power quality & reliability; price; billing & payment; corporate citizenship; communications; and customer service.

Following are the highest-ranking utilities in each region:

- Cooperatives Segment: **Sawnee EMC**
- East Large Segment: **PPL Electric Utilities**
- East Midsize Segment: **Penn Power**
- Midwest Large Segment: **MidAmerican Energy**
- Midwest Midsize Segment: **Kentucky Utilities**
- South Large Segment: **Georgia Power**
- South Midsize Segment: **EPB**
- West Large Segment: **SRP**
- West Midsize Segment: **Clark Public Utilities**

The J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study is based on responses from more than 104,000 online interviews conducted from July 2017 through May 2018 among residential customers of the 138 largest electric utility brands across the United States, which collectively represent more than 99 million households.

For more information about the Electric Utility Residential Customer Satisfaction Study, visit http://www.jdpower.com/resource/electric-utility-residential-customer-satisfaction-study.

See the online press release at http://www.jdpower.com/pr-id/2018105.

J.D. Power is a global leader in consumer insights, advisory services and data and analytics. These capabilities enable J.D. Power to help its clients drive customer satisfaction, growth and profitability. Established in 1968, J.D. Power is headquartered in Costa Mesa, Calif., and has offices serving North/South America, Asia Pacific and Europe. J.D. Power is a portfolio company of XIO Group, a global alternative investments and private equity firm headquartered in London, and is led by its four founders: Athene Li, Joseph Pacini, Murphy Qiao and Carsten Geyer.

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John Roderick; St. James, N.Y.; 631-584-2200; john@jroderick.com

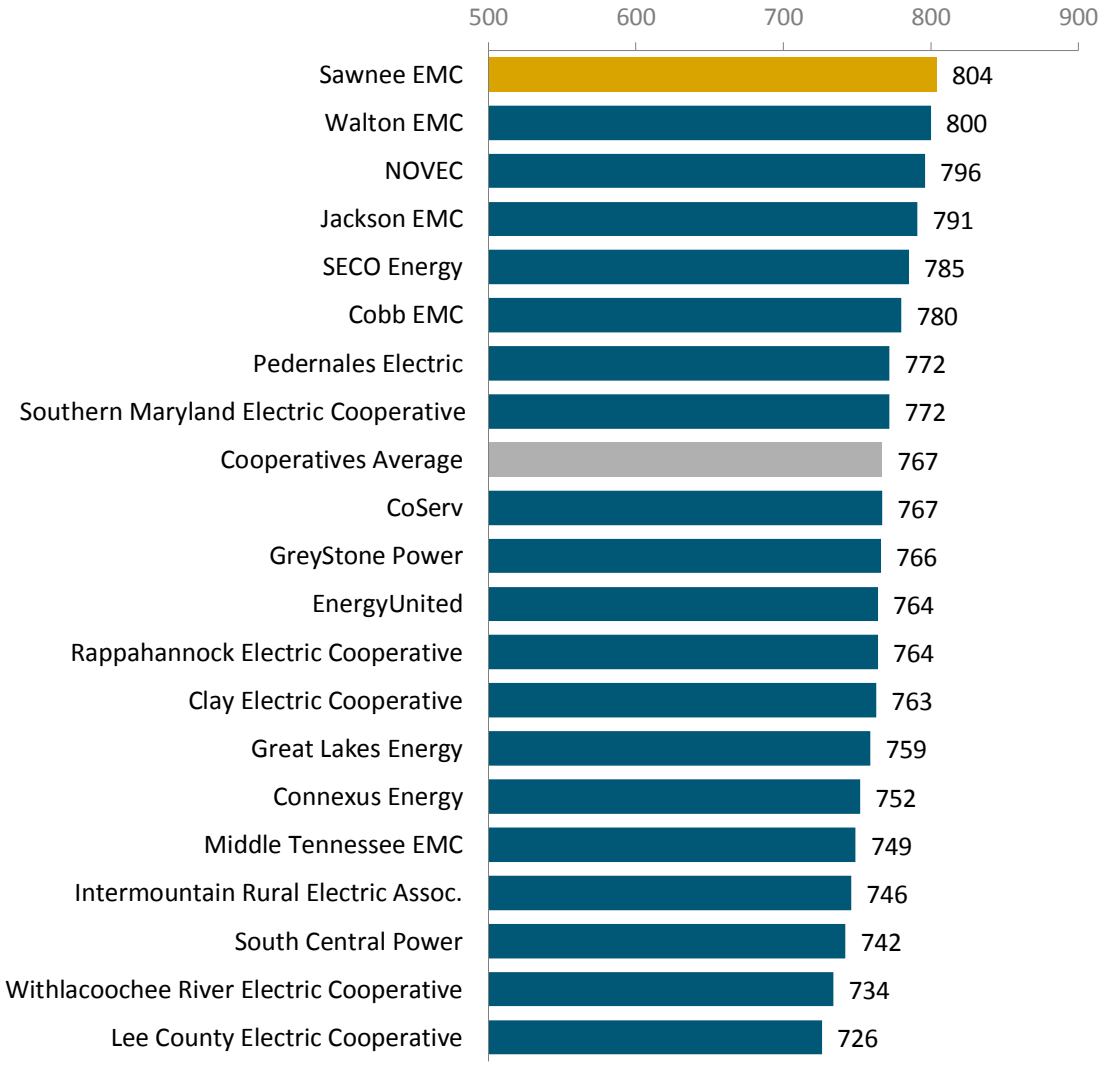
About J.D. Power and Advertising/Promotional Rules www.jdpower.com/about-us/press-release-info

# # #
NOTE: Nine charts follow.

J.D. Power
2018 Electric Utility Residential Customer Satisfaction Study[SM]

Customer Satisfaction Index Ranking
Cooperatives Segment

(Based on a 1,000-point scale)

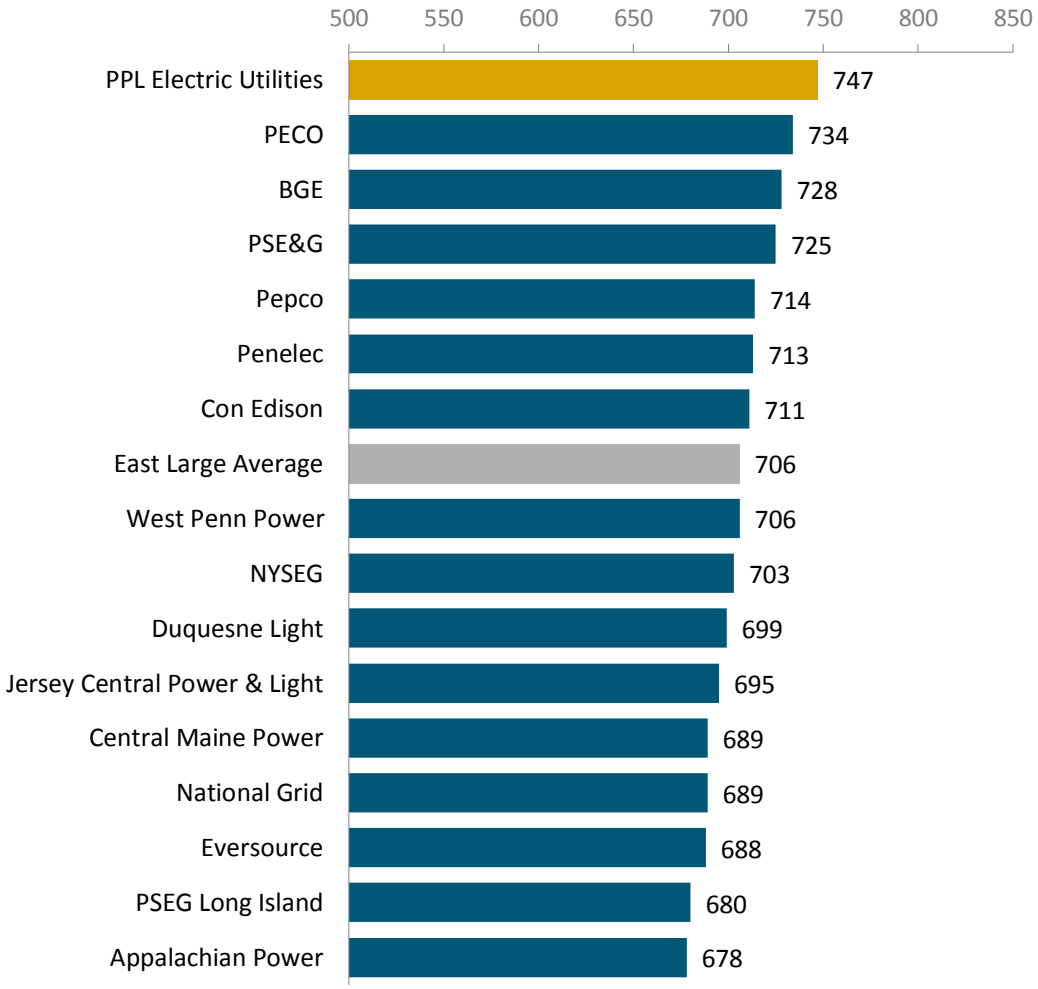


Source: J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study[SM]

J.D. Power
2018 Electric Utility Residential Customer Satisfaction Study℠

Customer Satisfaction Index Ranking
East Region: Large Segment

(Based on a 1,000-point scale)

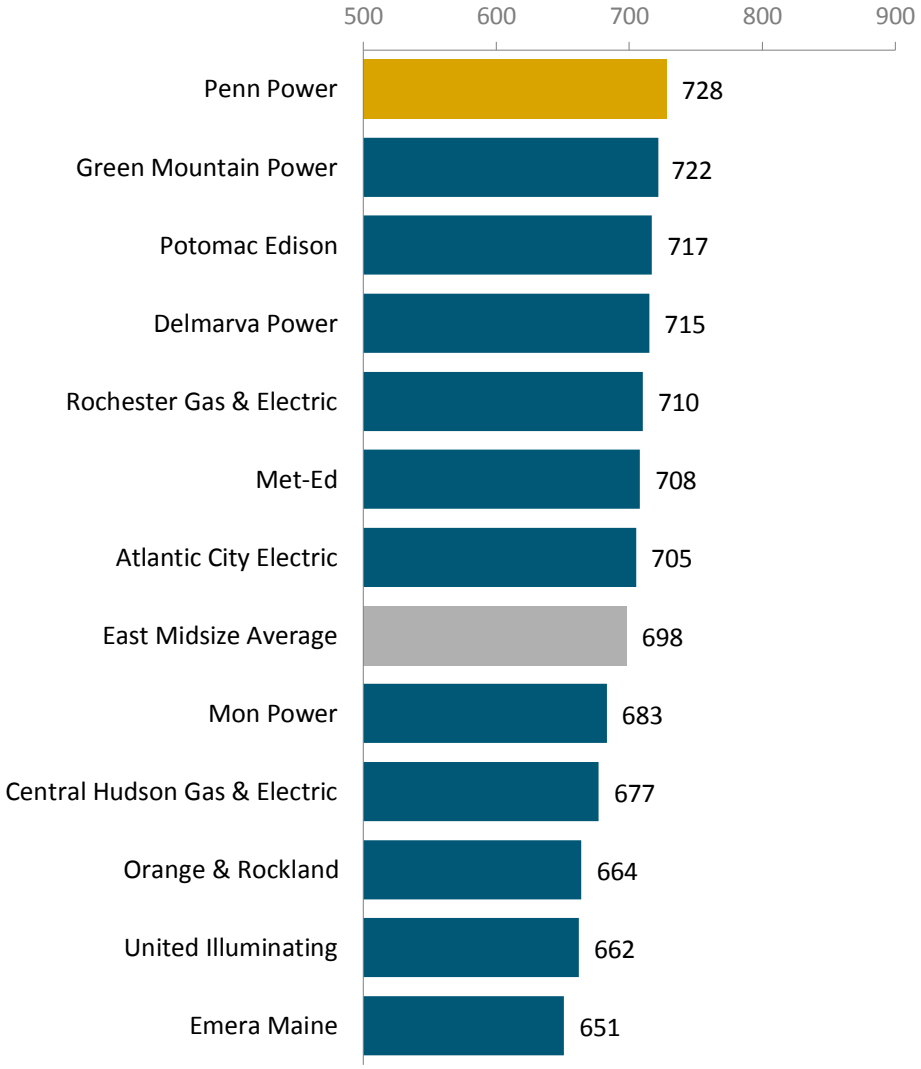


Source: J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study℠

J.D. Power
2018 Electric Utility Residential Customer Satisfaction Study℠

Customer Satisfaction Index Ranking
East Region: Midsize Segment

(Based on a 1,000-point scale)

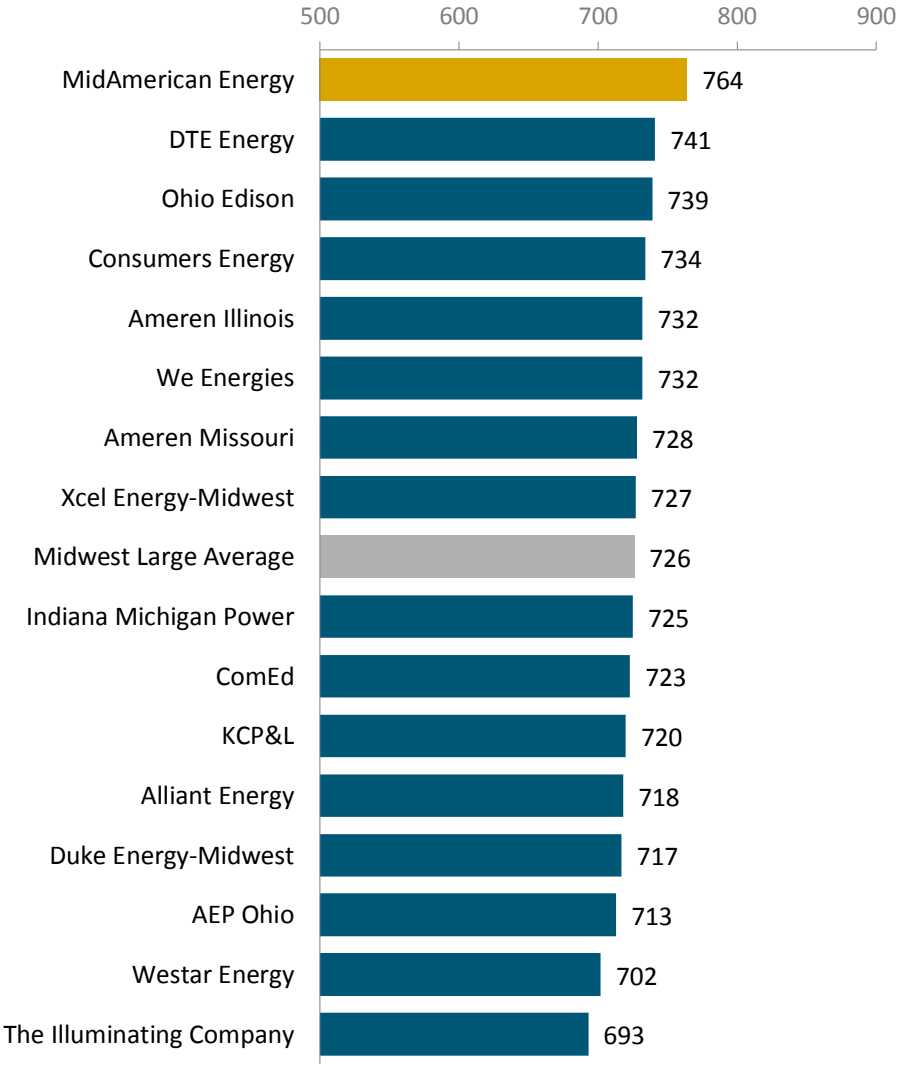


Source: J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study℠

J.D. Power
2018 Electric Utility Residential Customer Satisfaction Study[SM]

Customer Satisfaction Index Ranking
Midwest Region: Large Segment

(Based on a 1,000-point scale)

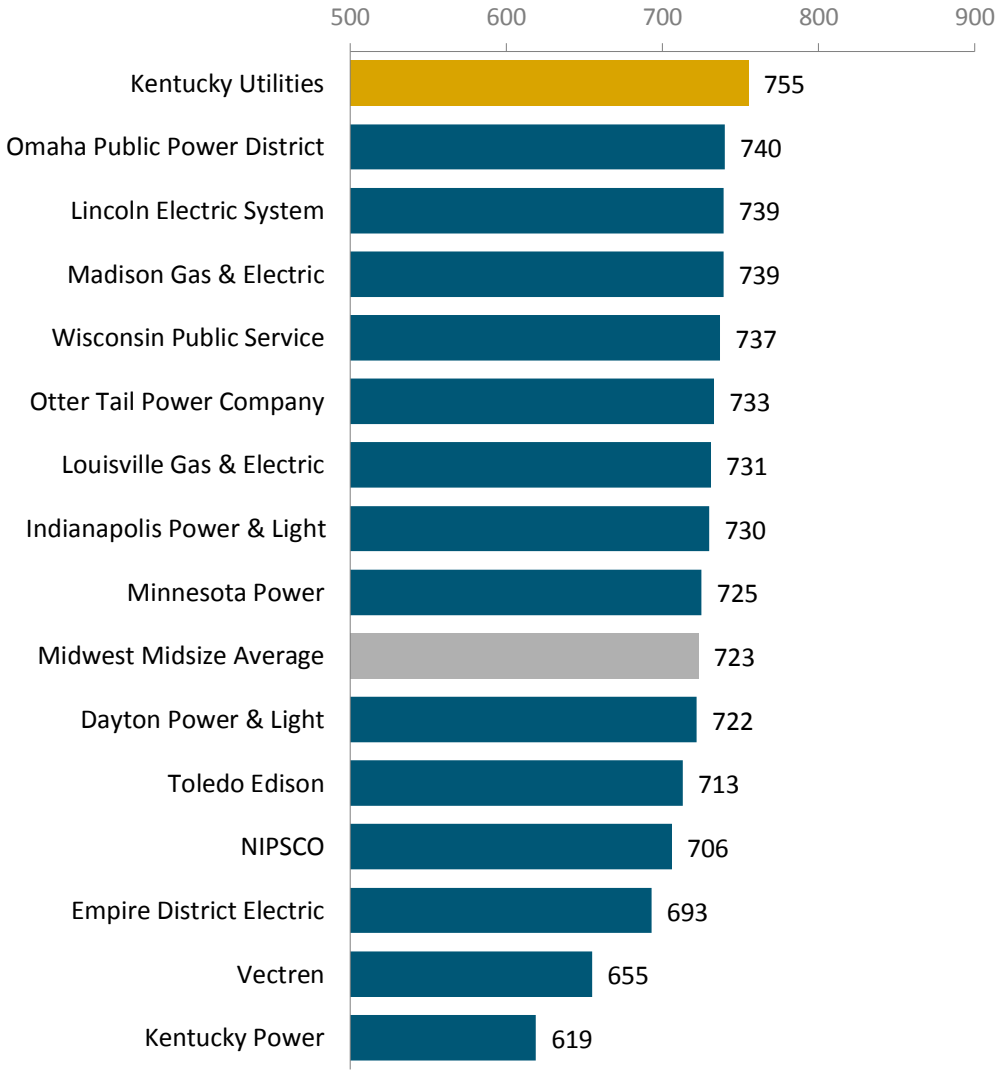


Source: J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study[SM]

J.D. Power
2018 Electric Utility Residential Customer Satisfaction Study[SM]

Customer Satisfaction Index Ranking
Midwest Region: Midsize Segment

(Based on a 1,000-point scale)

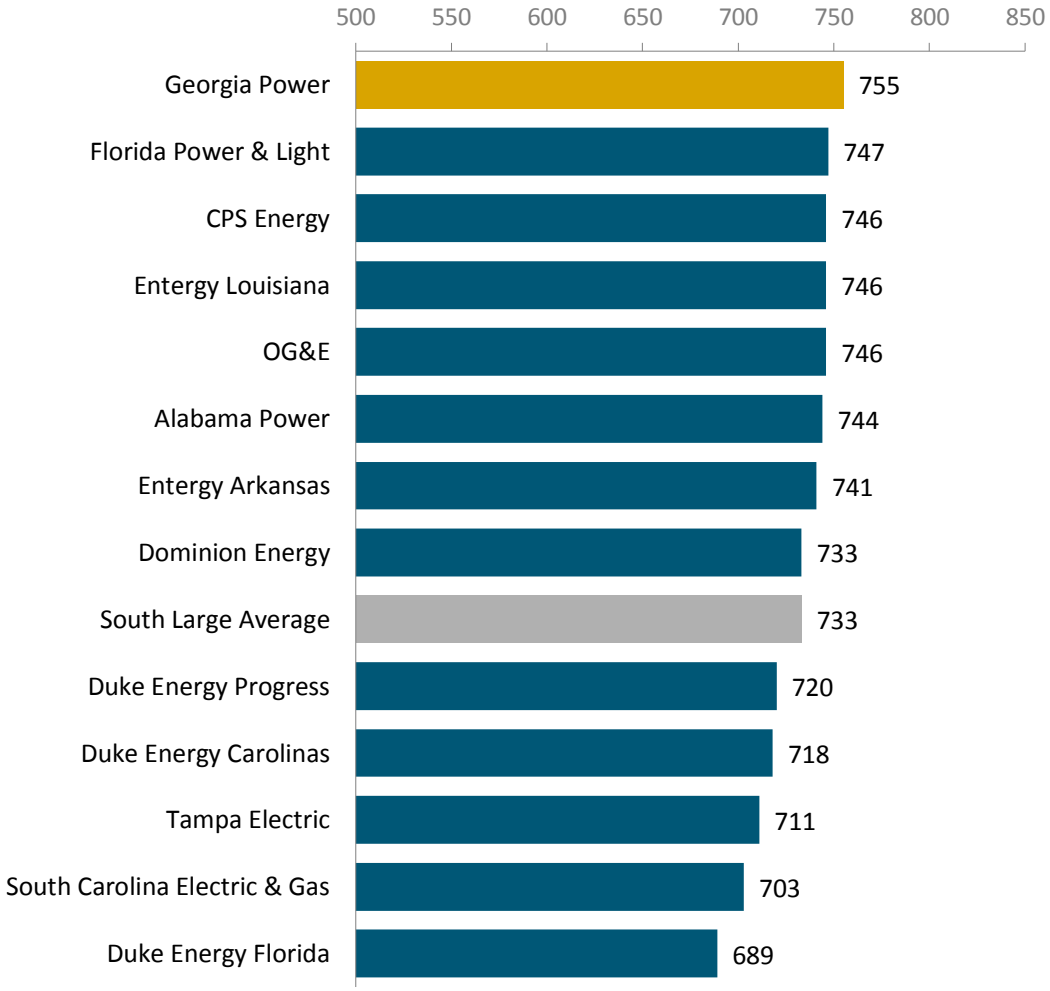


Source: J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study[SM]

J.D. Power
2018 Electric Utility Residential Customer Satisfaction Study℠

Customer Satisfaction Index Ranking
South Region: Large Segment

(Based on a 1,000-point scale)

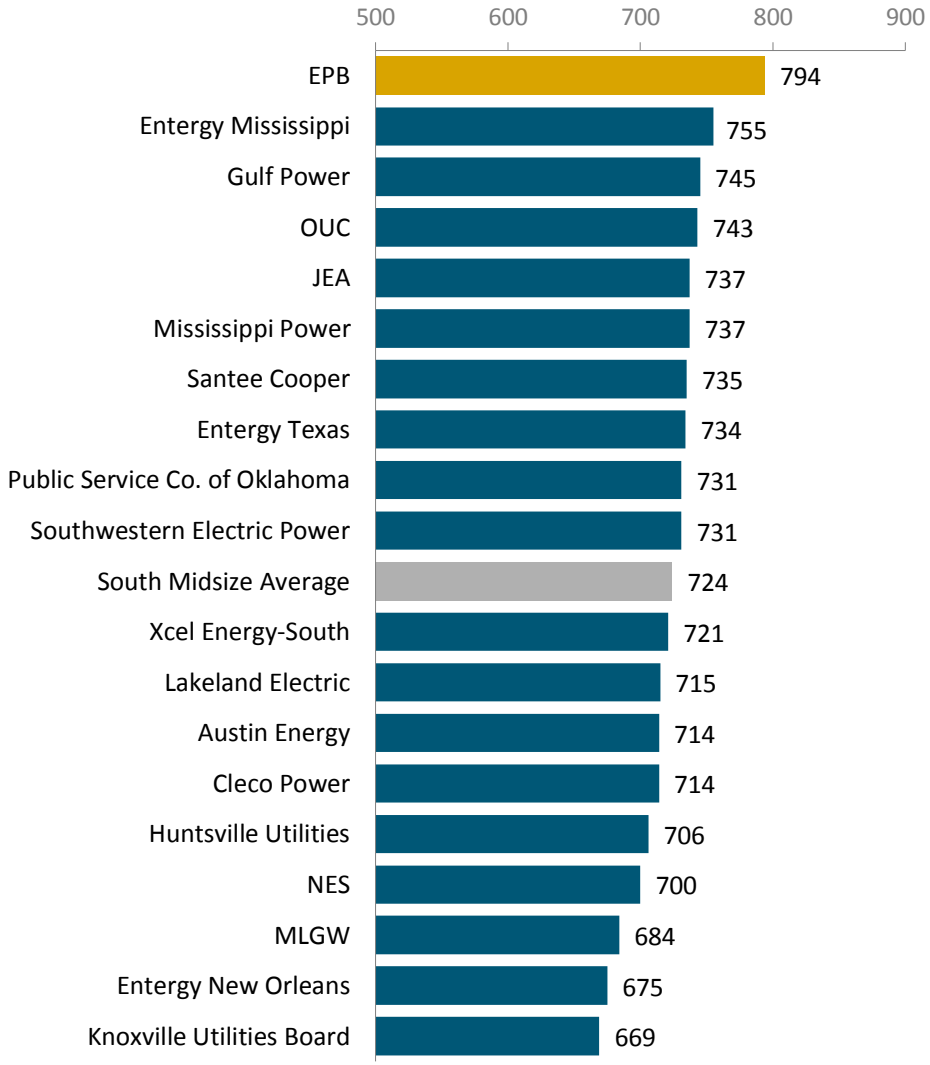


Source: J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study℠

J.D. Power
2018 Electric Utility Residential Customer Satisfaction Study℠

Customer Satisfaction Index Ranking
South Region: Midsize Segment

(Based on a 1,000-point scale)



Source: J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study℠

J.D. Power
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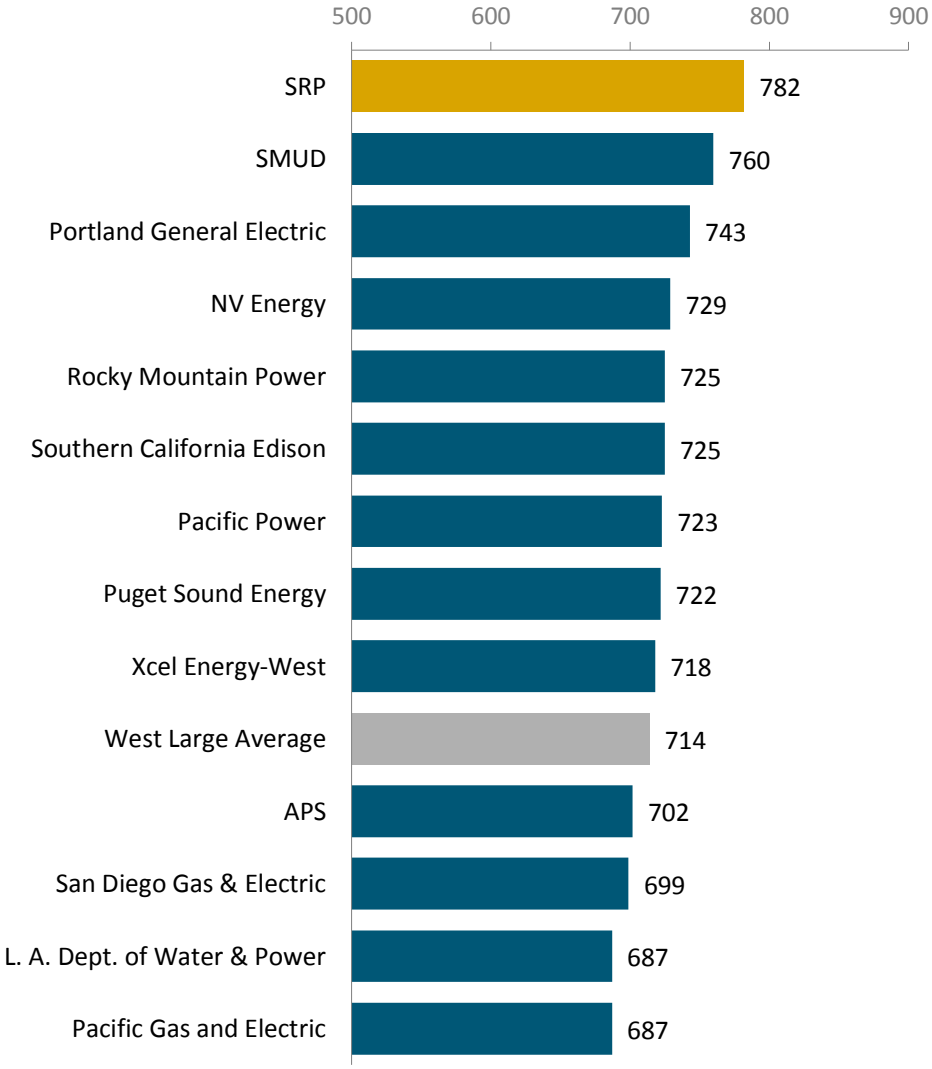
Customer Satisfaction Index Ranking
West Region: Large Segment

(Based on a 1,000-point scale)

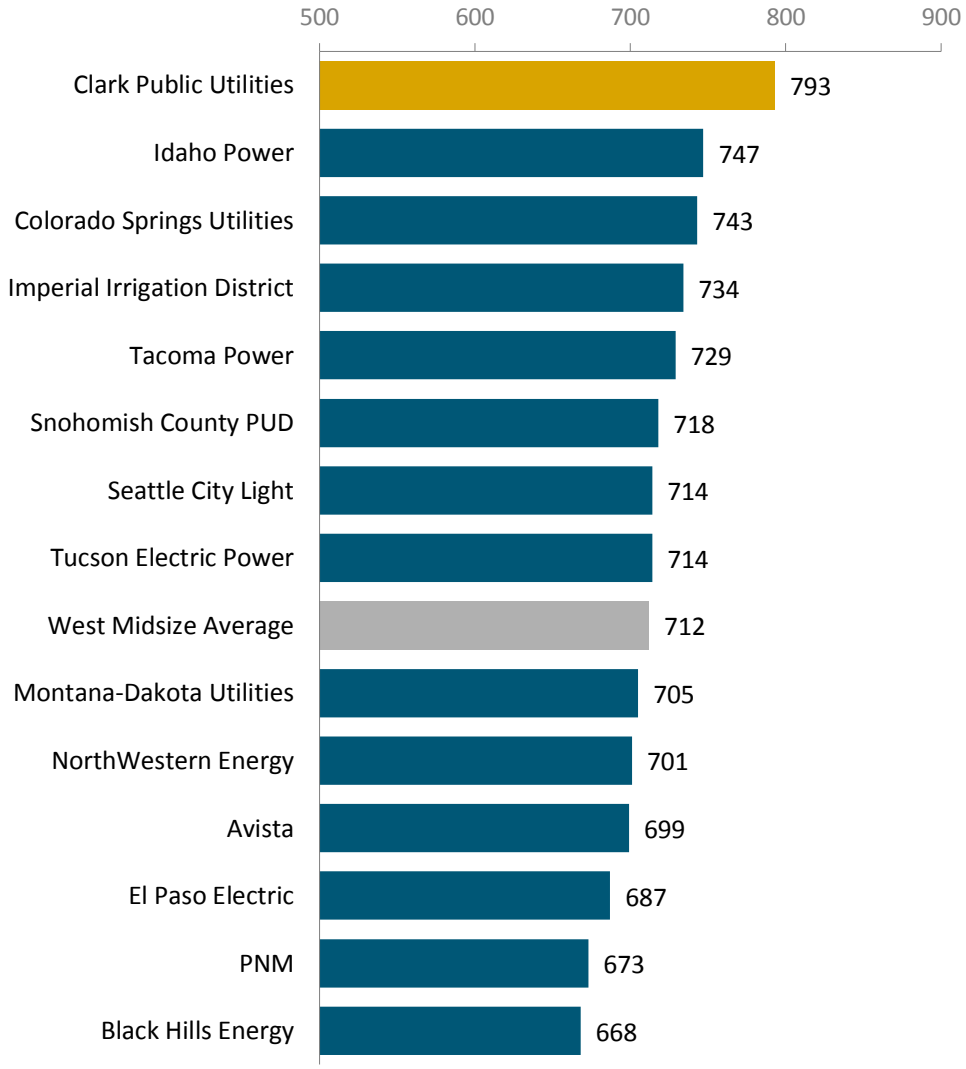


Source: J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study℠

J.D. Power
2018 Electric Utility Residential Customer Satisfaction Study℠

Customer Satisfaction Index Ranking
West Region: Midsize Segment

(Based on a 1,000-point scale)



Source: J.D. Power 2018 Electric Utility Residential Customer Satisfaction Study℠