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April 26, 2019

VIA HAND DELIVERY
Ms. Lora W. Johnson, CMC
Clerk of Council
City Hall, Room 1E09
1300 Perdido Street
New Orleans, LA 70112

RE: *Revised Application of ENO for a Change in Electric and Gas Rate in the City of New Orleans Pursuant to Council Resolutions R-15-194 and R-17-504 and for Related Relief*
CNO Docket UD-18-07
Our File No.: 7717-46

Dear Ms. Johnson:

Please find enclosed the original and three copies of the Surrebuttal Testimony and Schedules of Christopher C. Walters on behalf of Air Products and Chemicals, Inc. which we request you file into the record in the above-referenced matter. Please file an original and two copies into the record and return a date-stamped copy to my office in accordance with normal procedures.

Should you have any questions regarding the above, please do not hesitate to contact me. Thank you for your assistance with this matter.

Very truly yours,

Carrie R. Tournillon

CRT/mpk
Enclosures
cc: Official Service List UD-18-07 (via electronic mail)

BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS

APPLICATION OF ENTERGY NEW ORLEANS, INC. FOR A CHANGE IN ELECTRIC AND GAS RATES PURSUANT TO COUNCIL RESOLUTIONS R-15-194 AND R-17-504 AND FOR RELATED RELIEF	**)** **)** **)** **)** **)**	**DOCKET NO. UD-18-07**

Surrebuttal Testimony & Schedules of

Christopher C. Walters

On behalf of

Air Products and Chemicals, Inc.

April 26, 2019

BRUBAKER & ASSOCIATES, INC.

Project 10658

BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS

APPLICATION OF ENTERGY NEW ORLEANS, INC. FOR A CHANGE IN ELECTRIC AND GAS RATES PURSUANT TO COUNCIL RESOLUTIONS R-15-194 AND R-17-504 AND FOR RELATED RELIEF	)	**DOCKET NO. UD-18-07**

STATE OF MISSOURI)
) **SS**
COUNTY OF ST. LOUIS)

Affidavit of Christopher C. Walters

Christopher C. Walters, being first duly sworn, on his oath states:

1. My name is Christopher C. Walters. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by Air Products and Chemicals, Inc. in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes are my surrebuttal testimony and schedules which were prepared in written form for introduction into evidence in the Council of the City of New Orleans Docket No. UD-18-07.

3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.

Christopher C. Walters

Subscribed and sworn to before me this 26th day of April, 2019.

Notary Public

MARIA E. DECKER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis City
My Commission Expires: May 5, 2021
Commission # 13706793

BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS

APPLICATION OF ENTERGY NEW ORLEANS, INC. FOR A CHANGE IN ELECTRIC AND GAS RATES PURSUANT TO COUNCIL RESOLUTIONS R-15-194 AND R-17-504 AND FOR RELATED RELIEF	**)**	**DOCKET NO. UD-18-07**

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BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS

APPLICATION OF ENTERGY NEW ORLEANS, INC. FOR A CHANGE IN ELECTRIC AND GAS RATES PURSUANT TO COUNCIL RESOLUTIONS R-15-194 AND R-17-504 AND FOR RELATED RELIEF	**)**	**DOCKET NO. UD-18-07**

Surrebuttal Testimony of Christopher C. Walters

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Christopher C. Walters. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q ARE YOU THE SAME CHRISTOPHER C. WALTERS WHO PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

A Yes. On February 1, 2019, I filed direct testimony on behalf of Air Products and Chemicals, Inc. ("APC").

Q WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of ENO witness Mr. Robert Hevert. My silence on any specific aspect of the Company's rebuttal testimony or the direct testimony of the other parties in this case should not be taken as tacit agreement with their position on any particular issue.

RESPONSE TO ENO WITNESS MR. HEVERT

The DCF method and Authorized ROEs

Q AT PAGES 5-6 OF HIS REBUTTAL TESTIMONY, MR. HEVERT GENERALLY DISCUSSES THE RECOMMENDATIONS OF THE INTERVENING PARTIES, THEIR RELIANCE ON THE DISCOUNTED CASH FLOW ("DCF") METHOD, AND AUTHORIZED ROES FOR VERTICALLY INTEGRATED ELECTRIC UTILITIES. WHAT ISSUES DOES HE BRING UP IN THIS PORTION OF HIS TESTIMONY?

A Here, Mr. Hevert seems to be taking issue with the fact that all other witnesses (Baudino, Proctor, Watson, and I, collectively the "Opposing witnesses") gave "considerable weight" to the DCF results in forming our recommendations in this case. He then argues that over time the constant growth DCF model has understated the authorized ROE for vertically integrated electric utilities for the majority of the quarters since 2014. To show this, Mr. Hevert applied a constant growth DCF model to his revised proxy group over the same time period. The results of his analysis are provided in his Chart 1.

He then goes on to state that "[e]ven the highest of their recommendations is 44 basis points below the average return for vertically integrated electric utilities and is below all but eight ROEs authorized for vertically integrated electric utilities from 2014 through February 2019."[1] To support this claim, Mr. Hevert provides his Chart 2, which is a scatterplot of authorized ROEs for vertically integrated electric utilities.

[1]Mr. Hevert is referring to my, and Mr. Baudino's recommended ROE of 9.35%. The 44 basis points is calculated as the difference in our recommendation of 9.35% and his calculated average authorized ROE of 9.79% over the 2014 through February 2019.

Q DO YOU HAVE ANY COMMENTS ON THE ANALYSIS AND COMMENTS PROVIDED BY MR. HEVERT?

A Yes. As an initial matter, the 2014 starting point seems to be arbitrary and Mr. Hevert has provided no basis for using it as his starting point. In any event, Mr. Hevert's observation that the DCF model has historically understated the average authorized ROE, as shown on his Chart 1, is a straw man argument. The average authorized ROE is based on Commission decisions from around the country that presumably make their decisions according to record evidence. Assuming Mr. Hevert is correct that one model, applied as Mr. Hevert does, understates the average authorized ROE retrospectively, this does not mean the respective Commissions did not consider the constant growth DCF method when deciding a fair ROE.

Further, Mr. Hevert's scatterplot on Chart 2, and his conclusion that even the "highest of (our) recommendations" is 44 basis points below the average and lower than all but eight authorized ROEs, is quite misleading. I have recreated Mr. Hevert's Chart 2 in my Schedule CCW-19. Here, as Mr. Hevert has done, I have included only the ROE decisions for vertically integrated electric utilities since 2014. However, I have extended the time period to include through March 31, 2019. Also on this graph, I have boxed in Mr. Hevert's range of 10.25% to 11.25%, as well as indicated his point estimate of 10.75%. Likewise, I have boxed in my recommended range of 9.00% to 9.70%, and indicated my point estimate recommendation of 9.35%.

As shown on my Schedule CCW-19, of the 110 decisions since 2014, only nine ROE decisions have fallen within his range of 10.25% to 11.25%. In fact, Mr. Hevert's recommendation of 10.75% is higher than ALL but one ROE decision during this time

period. More telling, none of the ROE decisions within, or above, Mr. Hevert's recommended range have occurred in 2018 or 2019.

Contrary to Mr. Hevert's testimony, my recommended range of 9.00% to 9.70% captures 52 of the 110 decisions, 13 of which have occurred in 2018 or 2019. In fact, most recently, on March 14, 2019, Public Service Company of Oklahoma was awarded an ROE of 9.40%, or 85 basis points less than the lower end of Mr. Hevert's recommended range.

Based on this more in-depth and unbiased review of ROEs awarded to vertically integrated electric utilities provided in my Schedule CCW-19, it is easy to see that Mr. Hevert's recommended range of 10.25% to 11.25% and his 10.75% point estimate are out of touch with the industry and his conclusions are misleading.

Constant growth DCF Analysis

Q PLEASE DESCRIBE MR. HEVERT'S CONCERNS WITH YOUR CONSTANT GROWTH DCF ANALYSIS.

A Mr. Hevert lays out several concerns with the constant growth DCF model in Section II of his rebuttal testimony, to which he refers in his response to my DCF analysis. I have responded to Section II of his rebuttal testimony, and his general concerns with the DCF model above. In addition to the concerns Mr. Hevert detailed in Section II, his specific concern with my constant growth DCF analysis primarily relates to the current price-to-earnings ("P/E") ratio for utility stocks. He observes that the P/E ratios for utility stocks are high by historical standards but the growth rates are relatively low.[2] He claims that

[2]Hevert Rebuttal at 90-91.

the existence of a high P/E ratio with relatively low growth results in components of the DCF model which are largely not compatible. He proceeds to reference the Duff & Phelps book, which I previously cited, where the authors acknowledged unsustainable expansion in P/E ratios and normalized the high valuations in determining the market risk premium. He further cites the Duff & Phelps book stating that the authors recognized the long-term trend of the level of P/E ratios is important and that abnormally high P/E ratios will produce questionable results.

Q ARE MR. HEVERT'S COMMENTS CONCERNING YOUR DCF ANALYSES VALID?

A No. First, Mr. Hevert's reliance on the Duff & Phelps book regarding the normalization of the market return because of abnormally high P/E ratios is suspect at best. I say this since Duff & Phelps normalized, or reduced, the market risk premium because of P/E expansions. In other words, the market risk premium was exceeding a normal, or sustainable, level because market returns were abnormally high through expansions in the P/E ratio of the broader market. Mr. Hevert selectively chooses to apply his P/E ratio argument to the DCF model when applied to utilities, while ignoring it when it comes to applying it to the market. Mr. Hevert's reliance on the Duff & Phelps book to criticize my DCF study is completely at odds with his Capital Asset Pricing Model ("CAPM") analysis.

In addition, the time period shown on Mr. Hevert's Chart 13, where he plots the rolling 13-week and 26-week average P/E ratio for my proxy group is misleading. Mr. Hevert's Chart 13 starts in 2008 and covers a period during which the global financial

systems were on the brink of collapsing and the U.S. began to enter into a very serious and deep recession. The fact that Mr. Hevert's chart begins in 2008 means that what he has called the long-term trend line is potentially being heavily influenced by an aberrant market event occurring over what is actually a very short period of time. The long-term trend line shown on his Chart 13 is anything but long-term in a historical context.

Multi-Stage DCF Model

Q PLEASE SUMMARIZE MR. HEVERT'S CONCERNS WITH YOUR MULTI-STAGE DCF MODEL.

A Mr. Hevert states that my application of the multi-stage DCF model relies on several assumptions that produce unreasonably low results. Namely, he takes issue with my model assuming a long-term perpetual growth rate beginning in year 11, or 2029, with a GDP growth rate that is forecasted through 2029. Mr. Hevert also takes issue with the assumption that dividends are assumed to be paid at year-end rather than throughout the course of the year.

In addition, Mr. Hevert states that my terminal growth rate is not consistent with my model's structure or measures of growth applied elsewhere throughout the rest of my testimony. In this regard, Mr. Hevert makes an attempt to tie my long-term GDP growth rate to the underlying growth rate assumed in my CAPM's market risk premium. He then refers to pages 29-30 of my testimony where he states that I conclude utility earnings growth rates should correlate with the expected GDP growth rate.

Q DO YOU HAVE ANY INITIAL COMMENTS REGARDING THIS PORTION OF MR. HEVERT'S REBUTTAL TESTIMONY?

A Mr. Hevert's concerns about my multi-stage DCF model are misplaced. My recommended range is 9.00% to 9.70%. The average (7.78%) and median (7.67%) results of my multi-stage DCF analysis are 122 and 133 basis points below the low-end of my range (9.00%), respectively. Given these differences, it is easy to see that I accorded the multi-stage DCF results little to no weight in determining my recommended range. Having said that, I will briefly address some of his concerns below.

Q PLEASE RESPOND TO MR. HEVERT'S CONCERNS ABOUT THE TIMING OF YOUR FORECASTED GDP GROWTH PERIOD RELATIVE TO YOUR STEADY STATE GROWTH PERIOD.

A Mr. Hevert's concern about the apparent disconnect between the 11th year of my model being the first year of perpetual growth beginning the same year (2029) in which the period of the forecasted GDP growth rate I relied on ends, is nothing more than a red herring.

For example, in Table 5 on page 34 of my Direct testimony, I provided a total of six long-term GDP forecasts that cover various periods of time from five years to 48 years taken from six different sources. The forecasted GDP growth rates shown on that table range from 3.7% to 4.4%. The 4.19% used in my multi-stage DCF model is above the midpoint of that range (4.05%). In addition, in that table, there are four estimates that cover a period of 25 years or more. Those four estimates range from 3.7%

to 4.4%, with a midpoint of 4.05% and an average of 4.08%. The 4.19% GDP growth rate used in my model is above both of those point estimates. As a result, my use of the Blue Chips consensus estimate of GDP growth is completely reasonable and well supported.

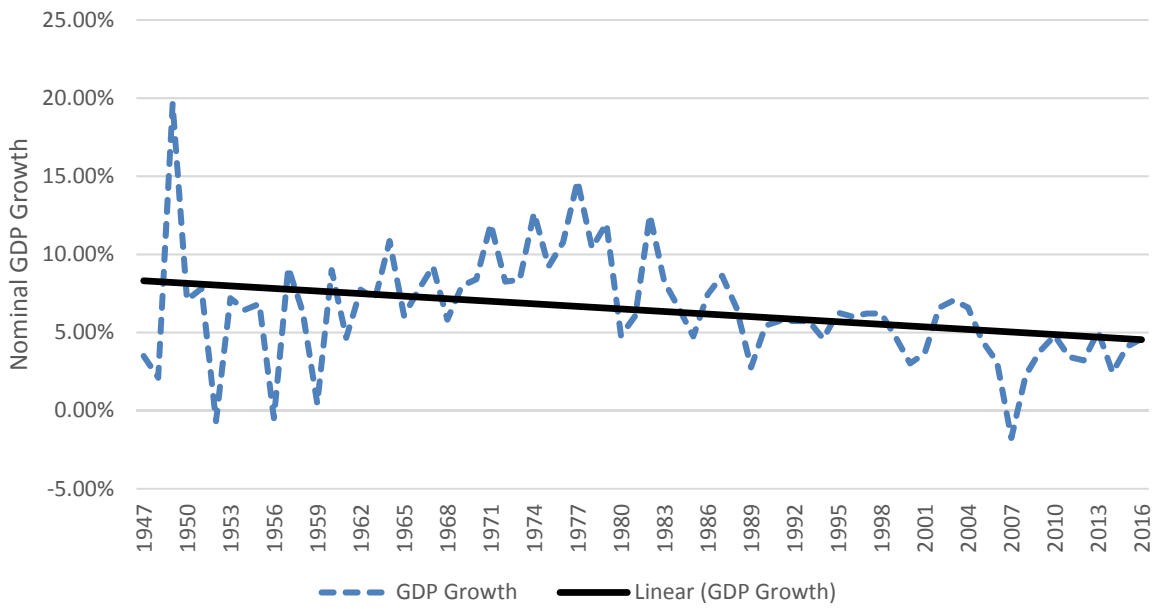
For these reasons, Mr. Hevert's concern about the timing of my perpetual growth stage relative to the forecast period of the GDP growth rate used is irrelevant and should be disregarded.

Q PLEASE RESPOND TO MR. HEVERT'S ATTEMPT TO TIE YOUR GDP GROWTH RATE OF 4.19% TO THE IMPLIED PERPETUAL GROWTH RATE NEEDED TO PRODUCE RESULTS CONSISTENT WITH THE 2018 AVERAGE AUTHORIZED ROE AND THE IMPLIED GROWTH RATE IN YOUR MARKET RISK PREMIUM.

A Mr. Hevert's testimony here is nothing more than an attempt to muddy the waters. The fact of the matter is, over the long-term, utility earnings, and as a result dividend growth, cannot exceed the growth rate of the economy in which it operates. While the long-term average GDP growth rate may be around 6.3%, as shown on the graph below in Figure 1, nominal GDP growth is in a clear downward trend. In fact, since 1947, there have been 30 instances where nominal U.S. GDP growth was less than 6.0%. Of those 30 instances, 20 of them have occurred since 1990. Furthermore, nominal U.S. GDP growth has not exceeded 6.0% since 2005. Given that current and expected inflation is around 2.0%, real GDP growth would have to reach 4.2% to achieve nominal GDP

growth of 6.3%. Real GDP growth of 4.2% is approximately double every independent economic projection of which I am aware.

FIGURE 1



Mr. Hevert's attempt to twist individual components from the several models used in my analysis to assert economic growth in excess of 6.3% is unsupported and should be rejected.

Risk Premium Analysis

Q PLEASE SUMMARIZE MR. HEVERT'S CONCERNS WITH YOUR RISK PREMIUM ANALYSIS.

A Mr. Hevert has four primary concerns with my risk premium analysis. His first concern is the "unexplained" reasoning for treating the low-end results of my risk premium analysis differently than the low-end results of my other models. He states that I relied

on the highest results of my DCF and CAPM analyses while relying on the lowest risk premium results in my recommendation. He asserts the effect of this is to reduce my ROE range.

Mr. Hevert's other concerns are that my methodology ignores the inverse relationship between nominal interest rates and the risk premium, the low-end of my risk premium is lower than any authorized ROE since at least 1986, and finally, he takes issue with my use of market-to-book ("M/B") ratios as a relevant benchmark.

Q PLEASE RESPOND TO MR. HEVERT'S CONCERN THAT YOU RELIED ON THE LOWEST RISK PREMIUM ESTIMATE TO EFFECTIVELY LOWER YOUR ROE RANGE.

A Mr. Hevert's claim that I have retained the lowest risk premiums, which produces ROEs below the lowest CAPM and DCF results that I essentially discarded, is misplaced. In my DCF and CAPM analyses, I measured the central tendencies of the proxy group results. For example, my constant growth DCF analysis based on analyst growth rate estimates had individual results in the range of 5.77% to 12.45%. The average and median were 8.86% and 9.30%, respectively. Because I base my recommendations on the central tendencies of these results, Mr. Hevert has inaccurately described my analysis and his criticism is misplaced.

Similarly, when assessing the CAPM, I applied the average proxy group beta. This methodology gives equal weight to the lowest and the highest beta, and effectively, the lowest and highest results. Had I shown the individual CAPM results for each company, rather than using the average proxy group beta, the CAPM range under my

high market risk premium estimate would have been 5.91% (Avangrid) to 10.15% (OGE Energy). The average of the individual results would have been 8.24%.

If I would have measured the risk premium estimated cost of equity in a fashion similar to my DCF and CAPM results, it would have lowered my recommended range. For example, as shown on my Schedule CCW-11, since 1986, the risk premium over Treasury bonds has ranged from 3.83% to 7.09% with an average of 5.54% on an annual basis. Adding the projected 3.6% Treasury yield to these would have produced an ROE range of 7.43% to 10.69%, with an average of 9.14% (3.6% + 5.54%) over all years observed. This methodology results in an ROE estimate that is 56 basis points below my recommended risk premium-based estimate of 9.7%. If anything, my application of over-weighting the high-end risk premium increased my recommended range, not lowered it.

Also of note, because my risk premiums are above the long-term average risk premiums during a period in which the interest rates are lower than the long-term average, it is inaccurate for Mr. Hevert to say I ignored an inverse relationship between the two. This is not to say that I agree with the idea that nominal interest rates are the only factor that influences the risk premium, rather it is important to point out that my application of the risk premium has in effect taken into consideration the relationship Mr. Hevert says I ignored. Mr. Hevert's analogy is misplaced and should be disregarded.

Q PLEASE COMMENT ON MR. HEVERT'S M/B RATIO ARGUMENT CHALLENGING THE RELIABILITY OF YOUR RISK PREMIUM STUDY.

A Mr. Hevert's belief that relying on a M/B ratio in judging an appropriate time period to construct a market risk premium estimate is again a red herring. The only aspect of a M/B ratio that was used in my study was to determine that my study time period included a period when utility stock prices traded at a premium to book value. This was used as observable evidence to show that during the observed 30-plus year time period, utilities had access to capital at reasonable terms and prices because they could issue shares above book value. This is a potential indication that the authorized returns on equity were perceived as fair compensation by the market based on observable valuations of utility stocks. Conversely, during periods where M/B ratios are below 1, a utility could not sell stock to the market without diluting the value of existing shareholders. Under those circumstances, utilities likely would not choose to sell stock to the market.

Q PLEASE RESPOND TO MR. HEVERT'S ASSERTION THAT YOU IGNORED A KNOWN INVERSE RELATIONSHIP BETWEEN INTEREST RATES AND RISK PREMIUMS.

A Mr. Hevert is critical of my risk premium studies, stating that I ignored an inverse relationship of nominal interest rates and equity risk premiums. This assertion is misleading. While I did not rely on a regression analysis to measure a relationship, my over-weighting of the high-end risk premium and under-weighting the low-end risk premium produced a weighted-average risk premium that is significantly above the

historical average. His application of a regression analysis indicates that he believes the only factor that should be considered in gauging an appropriate risk premium in the current marketplace is the current level of nominal interest rates. That belief is simply not supported by academic literature.

As I stated in my testimony, changes in the nominal interest rate is one factor that helps to gauge an appropriate equity risk premium but is not the only factor. Rather, gauging an appropriate equity risk premium in the market today depends on the market's perceived level of investment risk differentials between equity and bond investments, levels of inflation, and other market factors beyond just the level of nominal interest rates.

CAPM Analysis

Q PLEASE SUMMARIZE MR. HEVERT'S CONCERNS WITH YOUR CAPM ANALYSIS.

A Mr. Hevert's criticisms are largely with the market risk premium estimates of 6.1% and 7.7%, which are based on total market returns of 9.7% and 11.3%, respectively, included in my CAPM return estimates. Mr. Hevert argues that my total market return of 9.7% is 236 basis points below the long-term average and my market return of 11.3% is in the bottom 22nd percentile of average returns over the last 50 years. He references the long-term average as being 12.1% through 2017, while the rolling 50-year average is consistently in the range of 12.0%. Based on these results, Mr. Hevert specifically takes issue with my total market return of 9.7% and the resulting market risk premium of 6.1%. He concludes his comments on my CAPM by stating that, for the same reasons

he disagrees with Mr. Proctor's historical average market risk premium, he disagrees with mine. His principal disagreements with Mr. Proctor's market risk premium is that the market risk premium is not static over time and is inversely related to Treasury yields.

Q PLEASE RESPOND.

A Mr. Hevert's concerns with my market risk premiums are, again, misplaced. This is particularly true with my market return of 11.3% and resulting market risk premium of 7.7%. Because my recommended CAPM results largely rest on the results produced using this higher market risk premium, I will not be responding in depth to his comments on my 6.1% market risk premium.

As I mentioned in my Direct testimony, the researchers at Duff & Phelps have measured the realized average market risk premium as 6.1%. This market risk premium is 60 basis points higher than the normalized recommended market risk premium of 5.5% as recently published by Duff & Phelps.[3] Duff & Phelps states that its recommended normalized risk premium of 5.5% should be used in conjunction with the normalized risk-free rate of 3.5%. In other words, Duff & Phelps recommends a normalized return on the market of 9.0% (5.5% + 3.5% = 9.0%). Both of my total market return estimates of 9.7% and 11.3% are well above the Duff & Phelps recommended normalized market returns. Furthermore, my market risk premium estimates of 6.1% and 7.7% are well above the Duff & Phelps recommended normalized market risk premium of 5.5%.

[3]Duff & Phelps 2019 Cost of Capital: Annual U.S. Guidance and Examples at 3-1.

My high-end market risk premium of 7.7% is based on a total market return of 11.3%. This expected market return falls in the lower 22nd percentile of the historical average returns as measured by Mr. Hevert because it is assuming an expected inflation rate of 2.1%. This inflation rate is about one percentage point lower than the realized rate of inflation over time. Using an expected inflation rate of 2.1% is consistent with the Federal Reserve's target rate of about 2.0%, as well as independent economists as measured by the consensus of consensus projections which I discussed in my Direct testimony. Furthermore, my market risk premium of 7.7% is 220 basis points above the current normalized recommended market risk premium of 5.5% as recently published by Duff & Phelps. Finally, measuring the market risk premium the way I have mitigates the potential bias that can be inherent in the DCF method employed by Mr. Hevert.

Q WHAT BIAS POTENTIALLY IS PRESENT IN THE DCF-METHODOLOGY EMPLOYED BY MR. HEVERT IN ESTIMATING THE MARKET RETURN, AND ULTIMATELY MARKET RISK PREMIUM?

A Measuring the expected return on the market as Mr. Hevert has done produces a biased, or skewed upward, results based on short-term growth rate estimates for the individual companies that make up the broad market index. For example, to estimate a market risk premium, Mr. Hevert calculated a DCF for the individual companies of the S&P 500. His DCF produced an estimated return on the market of 13.68%. The underlying individual company DCF results were as high as 104.1%, and individual growth rates exceeded 96%. Growth rates and returns of this nature are aberrant and cannot be expected to be sustained over any reasonable period of time. As such, my approach in

estimating the market risk premium is balanced and Mr. Hevert's concerns should be disregarded.

Response to Mr. Hevert's Comments on My Criticisms on His Analysis

Q DID MR. HEVERT RESPOND TO YOUR CRITICISMS OF THE ANALYSIS HE PROVIDED IN DIRECT TESTIMONY?

A Yes. He has responded to my criticisms of his analysis, but he has not provided any evidence that would cause me to change my criticisms of his analysis that I provided in my direct testimony.

Q YOU PREVIOUSLY MENTIONED MR. HEVERT'S REFERENCE TO THE DUFF & PHELPS METHODOLOGY IN RECOGNIZING EXPANDING P/E RATIOS WHEN ESTIMATING THE RISK PREMIUM. DO YOU HAVE ANY MORE COMMENTS AS IT APPLIES TO HIS CAPM?

A Yes, I do. Mr. Hevert has essentially cherry-picked when and where he wants to rely on that methodology. He uses it to criticize my application of the DCF model, while ignoring it for what the authors intended as its application: estimating the market risk premium. If Mr. Hevert is going to use that reference to criticize my DCF, he also should use it when assessing the reasonableness of the market risk premium in his CAPM.

Q WHAT DOES THE DUFF & PHELPS TEXT SAY ABOUT THE EXPANSION OF THE P/E RATIO AND ITS IMPACT ON THE RISK PREMIUM?

A The text notes that the expansion of P/E ratios has accounted for approximately 0.84% per year when using a three-year averaging methodology in earnings and up to 0.95% per year when using a one year averaging methodology.[4] The Duff & Phelps text quotes William Goetzman and Roger Ibbotson in discussing their expected market risk premium forecasts saying:

> These forecasts tend to give somewhat lower forecasts than historical risk premiums, primarily because part of the total returns of the stock market have come from price-earnings ratio expansion. This expansion is not predicted to continue indefinitely, and should logically be removed from the expected risk premium.[5]

In other words, Mr. Hevert's expected market risk premium needs to be adjusted to account for the expansion of the market's P/E ratio, particularly if he is going to rely on the text to support his criticisms of the DCF model results.

It should be noted that Mr. Hevert's highest market risk premium of 13.77% is higher than the historical unadjusted risk premium by approximately 770 basis points, and 2.5x the Duff & Phelps recommended risk premium of 5.5%.

[4]Duff & Phelps, 2018 Valuation Handbook, U.S. Guide to Cost of Capital, at 3-44, footnote 3.83.
[5]*Id.* at 3-44.

Spot Versus Forecasted Treasury Yields

Q MR. HEVERT DISAGREES WITH YOUR SUGGESTION OF USING CURRENT SPOT YIELDS AS A MEASURE OF FORECAST YIELDS. HE ARGUES THAT YOUR APPROACH WILL UNDER-ESTIMATE ACTUAL YIELDS AND DOWNWARDLY BIAS YOUR RESULTS. PLEASE RESPOND.

A Mr. Hevert's arguments again are not persuasive. This is evident by looking at the yield curve over time. I provide a view of the yield curve at three different points in time in my Schedule CCW-20, going as far back as three years ago. The yield curve shows the yields of several different U.S. Treasury bills, notes, and bonds at a single point in time. The spread between the short-term Treasury yields (left side of graph) and the long-term Treasury yields (right side of graph) is known as the steepness of the slope of the yield curve. The larger the spread, the steeper the slope. The narrower the spread, the flatter the slope. There are two important observations that should be made from this graph. First, the yield curve has experienced significant flattening over the last three years, a period of time during which the Federal Reserve has raised the Federal Funds Rate. Second, long-term Treasury bonds have been range-bound and tightly clustered near 3.0% despite the Federal Reserve's implementation of normalization policies. This can be further observed, and confirmed, in Figure 3 on page 14 of my direct testimony.

The increase in short-term rates is quite noticeable. As can be seen three years ago, the 1-Month T-Bill had a yield of near zero. As of April 2019, the same T-Bill was yielding just under 2.5%. This shift in short-term rates makes sense because short-term rates are largely related to one another and the Federal Reserve has increased its target for the Federal Funds Rate seven times since December 2015. However, we have not

seen a corresponding increase at the long-term end of the yield curve. In fact, we have seen a slight decrease in the 30-Year Treasury yield since one year ago, and only a marginal increase in the 30-Year Treasury since three years ago.

The lack of increases in the yield at the long-term end of the yield curve also makes sense when thought through. During the Federal Reserve's normalization period, it has increased short-term rates and has begun letting holdings mature and roll off its balance sheet. These actions are known as "tightening" in monetary policy. Often, tightening actions in monetary policy are utilized to control increasing inflation and an over-heating economy. So, as the Federal Reserve has increased short-term rates to a normalized level, it has put downward pressure on an already low rate of inflation. Because long-term Treasury bond payments are contractually fixed payments for a longer period of time, these bonds and their prices are much more sensitive to inflation than short-term bonds. Because of the relationship long-term bonds have with inflation and because the Federal Reserve has potentially limited increases in inflation through its tightening of monetary policy, long-term bonds have not experienced the forecasted increases in yields over the last several years.

Q HAS THE FEDERAL RESERVE CHANGED ITS INTEREST RATE AND BALANCE SHEET POLICY RECENTLY?

A Yes. On March 20, 2019, the Federal Reserve declined to increase the Federal Funds rate, removed any further projected increases in the Federal Funds rate through at least 2019, and as of September, the Fed will pause the decline in holdings on its balance sheet. In addition, the Fed has lowered the GDP growth outlooks and inflation forecasts.

Q WHAT ARE THE IMPORTANT TAKEAWAYS FROM THIS REVIEW?

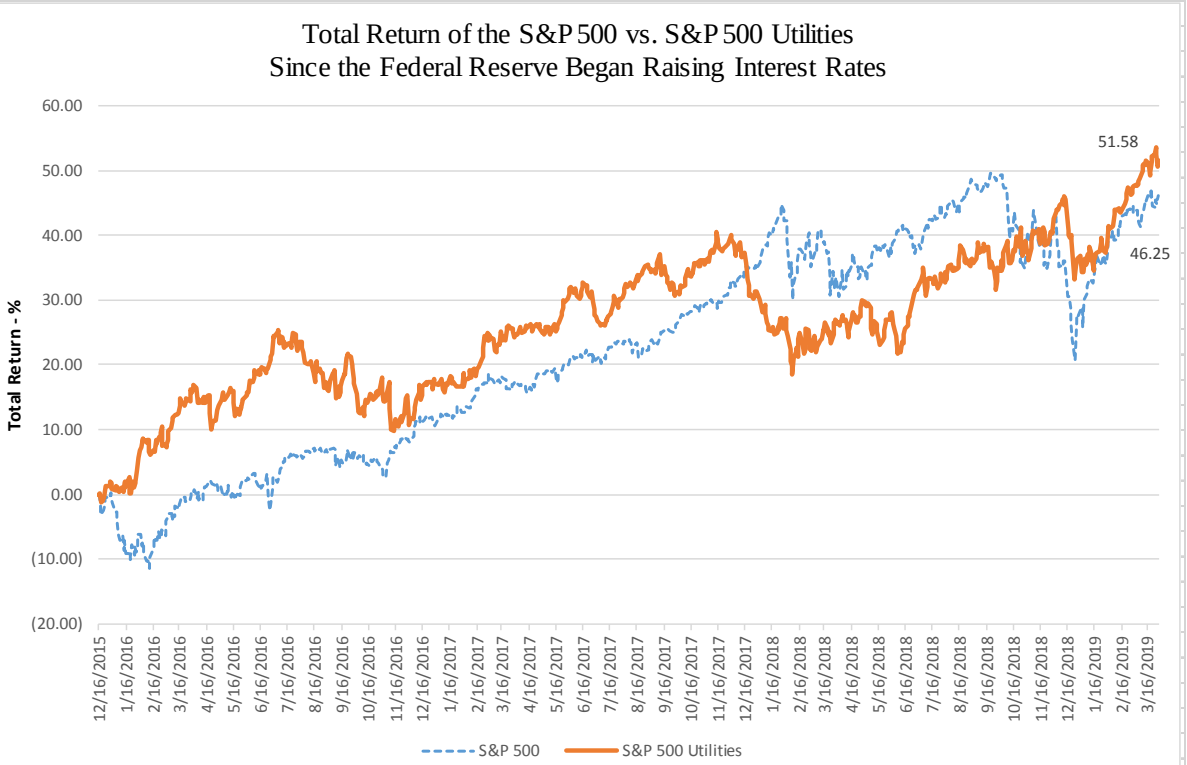
A The obvious and most important take away from my review of that data is that there is reason to believe long-term yields have normalized near current levels for the near- to intermediate-term and, therefore, relying solely on forecasted yields, especially longer-term forecasts, can be quite unreliable. As we have seen, this is especially true for the current economic environment. Therefore, Mr. Hevert's argument that my approach will under-estimate actual yields and downwardly bias my results is unfounded.

Mr. Hevert's Assertion that Utilities Have Underperformed the Market is Demonstrably False

Q DO YOU HAVE ANY OTHER GENERAL COMMENTS OR CONCERNS WITH MR. HEVERT'S REBUTTAL TESTIMONY?

A Yes. At pages 135-136 of his rebuttal testimony, Mr. Hevert asserts that as interest rates have increased, utilities (as measured by the S&P 500 Utilities Index) have significantly underperformed the broader market (as measured by the S&P 500 Index). He specifically refers to the time in which the Federal Reserve began increasing the Federal Funds Rate, which was December 16, 2015. Mr. Hevert's assertion that utilities have underperformed the broader market since the Fed started increasing short-term rates in December 2015 is inaccurate, and in fact, contrary to what has happened since that time. As shown below in Figure 2, the S&P 500 Utilities Index has outperformed the broader market with a total return of 51.6% compared to 45.3% for the broader market, an outperformance of 6.3%.

FIGURE 2



Q DO YOU HAVE ANY COMMENTS ON MR. HEVERT'S UPDATED ROE ANALYSES?

A Yes. For the same reasons detailed in my Direct testimony, Mr. Hevert's DCF, CAPM, and Risk Premium analyses produce excessive estimates for the required ROE and should be rejected.

CONCLUSION

Q HAS ANY OF THE REBUTTAL TESTIMONY YOU HAVE REVIEWED CAUSED YOU TO CHANGE THE RECOMMENDATIONS PROVIDED IN YOUR DIRECT TESTIMONY?

A No. I continue to support a return on equity in the range of 9.00% to 9.70%, with a point estimate of 9.35%, as fully supported and reasonable.

Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A Yes, it does.

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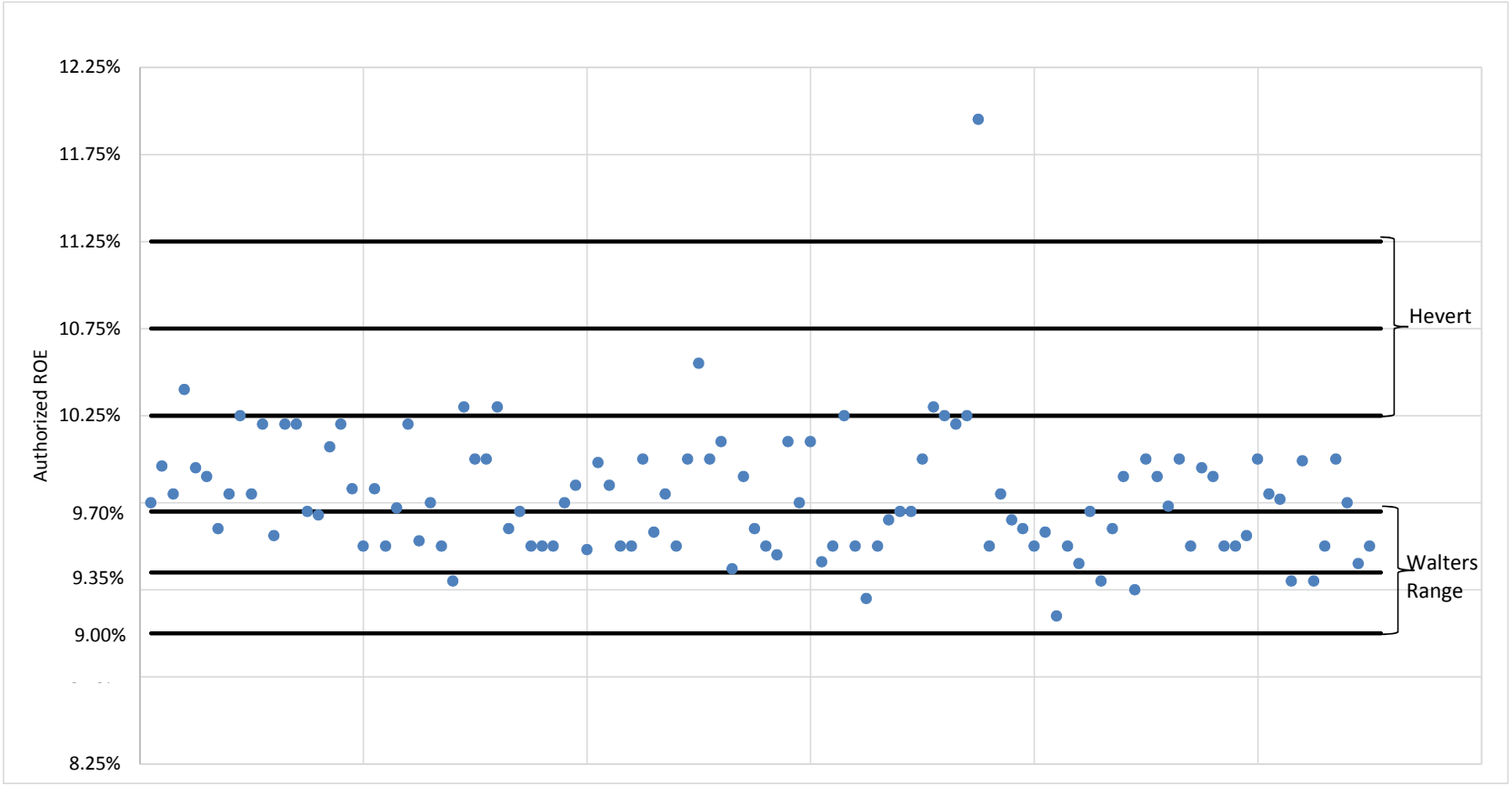
Authorized ROEs for Vertically Integrated Electric Utilities



Source:
S&P Global Market Intelligence, downloaded 4/1/2019.

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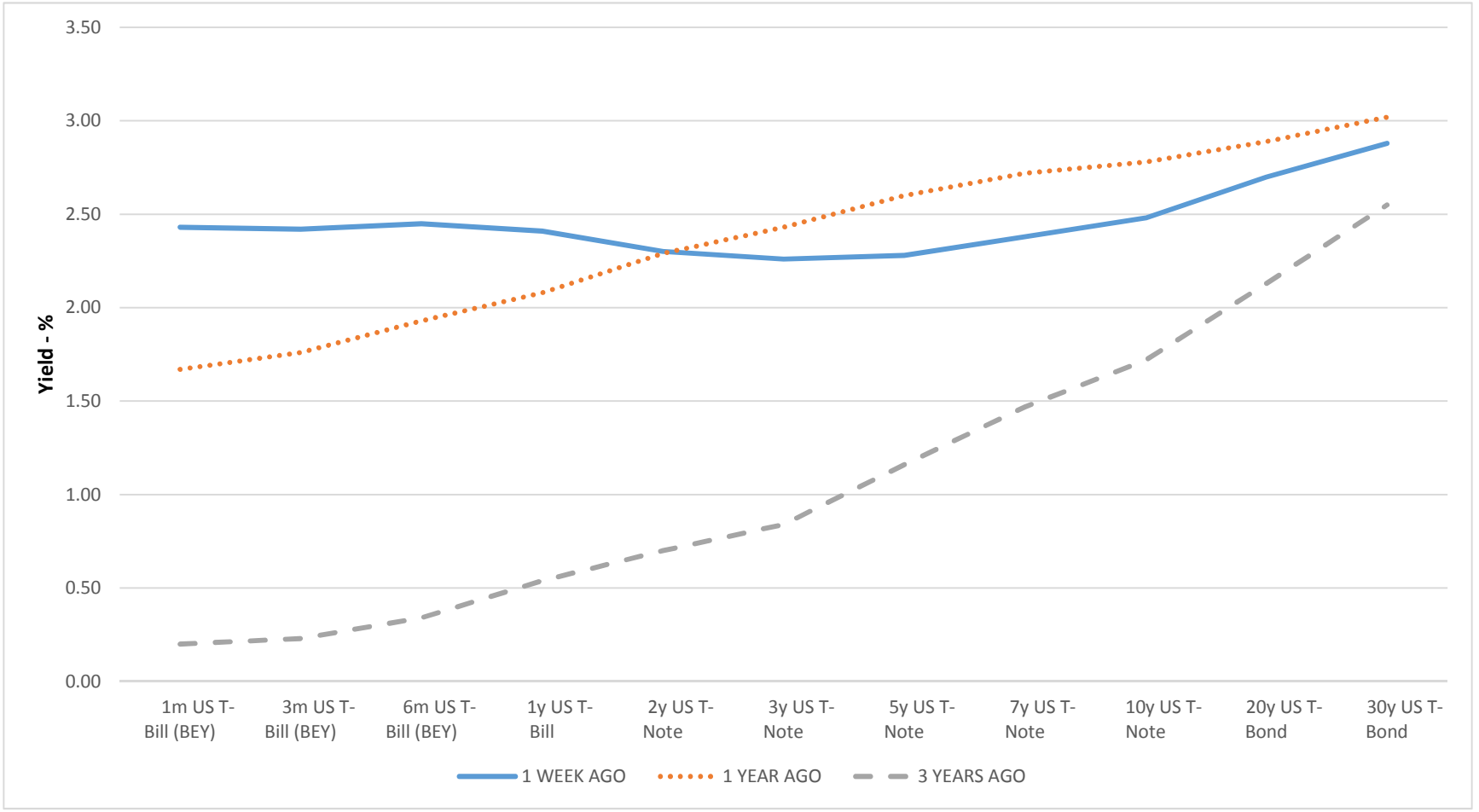
Changes in the Yield Curve



Source:
S&P Global Market Intelligence downloaded 4/9/2019.