***OCC EXHIBIT NO. \_\_\_\_\_\_***

**BEFORE**

**THE PUBLIC UTILITIES COMMISSION OF OHIO**

|  |  |  |
| --- | --- | --- |
| In the Matter of the Application of Duke Energy Ohio, Inc. for Approval of an Alternative Rate Plan Pursuant to R.C. 4929.05, Revised Code, for an Accelerated Service Line Replacement Program. | )  )  )  )  ) | Case No. 14-1622-GA-ALT |

**DIRECT TESTIMONY**

**OF**

**DANIEL J. DUANN, Ph.D.**

**On Behalf of**

**The Office of the Ohio Consumers’ Counsel**

*10 West Broad Street, Suite 1800*

*Columbus, Ohio 43215-3485*

***November 6, 2015***

**LIST OF ATTACHMENTS**

Attachment DJD-1

Attachment DJD-2

***Q1. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION.***

***A1.*** My name is Daniel J. Duann. My business address is 10 West Broad Street, Suite 1800, Columbus, Ohio, 43215-3485. I am a Principal Regulatory Analyst with the Office of the Ohio Consumers’ Counsel (“OCC”).

***Q2. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.***

***A2.*** I received my Ph.D. degree in public policy analysis from the Wharton School, University of Pennsylvania. I also have a M.S. degree in energy management and policy from the University of Pennsylvania, and a M.A. degree in economics from the University of Kansas. I completed my undergraduate study in business administration at the National Taiwan University, Taiwan, Republic of China. I was conferred by the Society of Utility and Regulatory Financial Analysts as a Certified Rate of Return Analyst in April 2011.

I was a Utility Examiner II in the Forecasting Section of the Ohio Division of Energy, Ohio Department of Development, from 1983 to 1985. The Forecasting Section was later transferred to the Public Utilities Commission of Ohio (“PUCO”). From 1985 to 1986, I was an Economist with the Center of Health Policy Research at the American Medical Association in Chicago. In late 1986, I joined the Illinois Commerce Commission as a Senior Economist at its Policy Analysis and Research Division. I was employed as a Senior Institute Economist at the National Regulatory Research Institute (“NRRI”) at The Ohio State University from 1987 to 1995. My work at NRRI involved many areas of utility regulation and energy policy. I was an independent business consultant from 1996 to 2007.

I joined the OCC in January 2008 as a Senior Regulatory Analyst. I was promoted to my current position in November 2011. My responsibilities are to assist the OCC by participating in various regulatory proceedings before the PUCO. These proceedings include rate cases, alternative regulation, fuel cost recovery, service reliability, and other types of filings by Ohio’s electric, gas, and water companies.

***Q3. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY OR TESTIFIED BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO?***

***A3.*** Yes. I have submitted expert testimony on behalf of the OCC before the PUCO in a number of cases involving electric, gas, and water utilities. A list of these cases is included in Attachment DJD-1.

***Q4. WHAT ARE YOUR QUALIFICATIONS IN REGARD TO YOUR TESTIMONY IN THIS PROCEEDING?***

***A4.*** I am a trained economist with over twenty-five years of experience in studying and analyzing the regulation of public utilities in the United States. A list of my selected professional publications is included in Attachment DJD-2. I have directly participated in many public utility proceedings in Ohio and Illinois. I am familiar with many regulatory and policy issues related to cost of capital, alternative regulation, standard service offerings, and retail competition of utility services in Ohio.

***Q5. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?***

***A5.*** The purpose of my testimony is to explain and support OCC’s position that Duke Energy Ohio, Inc.’s (“Duke” or “Utility”) proposed pre-tax rate of return (“ROR”) of 10.60% and rate of return on equity (“ROE”) of 9.84% for its Accelerated Service Line Replacement Program (“ASRP”) investments should be reduced.[[1]](#footnote-1) If the proposed ASRP and Rider ASRP are approved by the PUCO, (which OCC is not recommending) [[2]](#footnote-2) the pre-tax rate of return would be used in calculating the forecasted annualized revenue requirement collected from customers under Rider ASRP.[[3]](#footnote-3)

***Q6. PLEASE SUMMARIZE YOUR FINDINGS.***

***A6.*** Based on my review of the relevant material in this proceeding, my experience as a regulatory economist, and my understanding of the regulatory construct of utility service in Ohio, I conclude the following:

1. Given that the hearing on the proposed ASRP is pending and a PUCO decision may be issued in late 2015 or early 2016, Duke would not likely make any substantial ASRP-related capital investment and put it in service in 2015. Because Duke is not expected to make any substantial ASRP-related capital investments in 2015, and assuming the proposed procedure in updating and truing up Rider ASRP is adopted by the PUCO, Duke would not make its first actual application to update Rider ASRP until approximately March 1, 2017 to collect its twelve-month actual ASRP-related costs for 2016;
2. Even if the PUCO were to approve the proposed ASRP contrary to the recommendations of OCC to protect customers, Duke is not expected to make its first actual Rider ASRP application until early 2017. It is premature and unnecessary to set the ROR or ROE in this proceeding at this time for Rider ASRP (which is not expected to be updated until May 2017). This is especially true given Duke is now obligated to file an electric distribution rate case no later than October 22, 2016 (PUCO Case No. 10-2326-GE-RDR, Notice of Staff Determination). When Duke files its electric distribution rate case, there will be detailed and updated financial information available (such as those included in Schedule D of the Standard Filing Requirements) for the PUCO to consider in setting the ROR and ROE for updating the ASRP Rider in 2017;
3. If the PUCO were to approve the proposed ASRP and Rider ASRP in this proceeding and elects to set a ROE and its resulting ROR on ASRP-related investment now, the pre-tax ROR of 10.60% and ROE of 9.84%, proposed by Duke,[[4]](#footnote-4) should be reduced for various reasons. Specifically, the 9.84% ROE proposed by Duke in this proceeding is identical to the ROE stipulated in Duke’s most recent gas distribution case[[5]](#footnote-5) and that ROE was developed largely on the credit and capital market conditions prevailing in 2012. The 9.84% ROE, if adopted in this proceeding, would not properly reflect a general decline in the costs of credit and capital that has occurred since 2012;

The proposed 9.84% ROE also does not reflect Duke’s reduced risk that results from accelerated collection of ASRP costs through a rider mechanism. In addition, as noted by OCC witness Williams, there is a need to relieve the significant current and future financial burdens resulting from the accelerated infrastructure replacement programs on Duke’s residential customers; and

1. There are several deficiencies in Duke’s testimony supporting the 9.8% ROE that, if not corrected, would tend to overstate the amount of customer funding (based on a higher than necessary ROE) for Duke’s proposed ASRP investments.

***Q7. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.***

***A7.*** If the PUCO approves the ASRP and Rider ASRP over the objections of the OCC to protect customers from unnecessary charges, then I recommend the following modifications to the proposed ASRP and Rider ASRP:

1. Given that there is likely no ASRP-related capital investments made by Duke and put into service in 2015, the PUCO should direct Duke to set Rider ASRP at $0 until May 2017;
2. Because Rider ASRP will not need to be updated until May 2017 at the earliest, the PUCO should direct Duke to file all relevant financial information when Duke makes its first actual application for Rider ASRP on or before March 1, 2017. The ROR and ROE used for calculating Rider ASRP should be determined at that time; and
3. If a ROR and ROE is to be set at this time, the PUCO should reduce Duke’s proposed ROE by 100 basis points (1%). In other words, the PUCO should authorize a ROE no higher than 8.84% (vs. the 9.84% proposed by Duke) applicable to Rider ASRP. The resulting pre-tax ROR should be no higher than 9.77% (vs. the 10.60% proposed by Duke) and the after-tax ROE should be no higher than 7.20%.[[6]](#footnote-6)

***Q8. PLEASE EXPLAIN WHY THERE IS NO NEED FOR DUKE TO FILE AN ACTUAL APPLICATION TO UPDATE RIDER ASRP UNTIL MARCH 1, 2017.***

***A8.*** According to Duke Energy Ohio’s witness, Peggy A. Laub, Rider ASRP will be calculated using actual, year-end data, and it will include the return on ASRP-related capital investment that is in-service and ASRP-related expenses during the calendar year.[[7]](#footnote-7) Specifically, Duke proposes:

On or before December 1 of each calendar year, the Company will submit a pre-filing notice, which will include a revenue requirement calculation based on ten months of actual data and two months of projected data for that calendar year. On or before March 1 of the subsequent year, the Company will file an actual application based on the twelve-month actual costs.[[8]](#footnote-8)

Duke also proposes that Rider ASRP be effective the first billing cycle in May following the close of the calendar year.[[9]](#footnote-9) Duke expects Rider ASRP to be effective upon approval and initially set at zero.[[10]](#footnote-10) Duke indicates it intends to file its first pre-filing notice on or before December 1, 2015.[[11]](#footnote-11) But I do not believe this planned pre-filing notice is needed given that Duke is not likely to make any substantial ASRP-related capital investment in 2015. Even if the pre-filing notice is filed, it will not lead to an actual application for adjusting Rider ASRP on or before March 1, 2016 or a change in Rider ASRP effective the first billing cycle of May 2016. Obviously, Duke cannot make any ASRP-related capital investment until the ASRP is authorized by the PUCO. Given that a hearing in this proceeding is not to take place until late November 2015, any decision by the PUCO regarding the ASRP and Rider ASRP will likely not be issued until very late 2015 or early 2016 at the earliest.

As a result, it is unlikely that Duke will make any significant amount of ASRP-related capital investment and put it in-service during the 2015 calendar year even if the proposed ASRP and Rider ASRP were approved by the PUCO in late 2015. Absent any significant amount of ASRP-related capital investments made and put into service in 2015, there is no need for Duke to file an actual ASRP application on or before March 1, 2016. The purpose of a 2016 Rider ASRP filing by Duke would be to update its collection of the return on and of capital investment and operating expenses incurred in 2015. This is unnecessary because the 2015 ASRP-related return on investment and O&M expenses should be equal to $0).

Assuming that the proposed ASRP and Rider ASRP is approved by the PUCO, and Duke does incur substantial amounts of ASRP-related capital investments and expenses in 2016, Duke can file an application in 2017 to update Rider ASRP. The purpose of the 2017 filing is to collect the 2016 ASRP-related investment return and expenses. The earliest date for this first actual Rider ASRP application is on or before March 1, 2017.

***Q9. WHY IS IT PREMATURE AND UNNECESSARY TO SET A RATE OF RETURN OR RETURN ON EQUITY THAT CUSTOMERS WILL FUND TO UPDATE THE ASRP RIDER AT THIS TIME?***

***A9.*** As discussed above, the earliest time that Duke would need to file an actual application to update its Rider ASRP is on or before March 1, 2017. Even if the PUCO approves the ASRP and Rider ASRP (which OCC recommends against to protect customers from excessive unwarranted charges) in late 2015 or early 2016, I expect the proposed Rider ASRP to remain $0 until May 2017.

During the time period between now and March 2017 Duke’s financial condition (such as its capital structure, its embedded costs of debt, and the estimated return on equity) is subject to change. This is because the credit and equity market conditions in the U.S. and globally could change significantly and Duke’s business practices and strategies could also change. It is well recognized in utility regulation, that the setting of a ROR and a ROE for a regulated utility should reflect the prevailing financial market and economical condition at that time. In other words, utility rates, including the ROR and ROE that are used to calculate rates, should be established close to the time when the proposed rates will become effective. Therefore, now is not the proper time for setting the rate of return (or ROE) for a Rider ASRP. It is premature and unreasonable, at this time, to set a ROR or ROE that will be used for setting rates charged to customers nearly eighteen months from now (May 2017).

***Q10. WHAT ADDITIONAL FACTOR SHOULD THE PUCO CONSIDER IN THIS PROCEEDING WHEN SETTING A RATE OF RETURN OR A RETURN ON EQUITY THAT CUSTOMERS MUST FUND THROUGH RIDER ASRP?***

***A10.*** The PUCO should also consider the timing of the upcoming Duke electric distribution base rate. According to PUCO Staff, Duke is obligated to file an electric distribution rate case before October 22, 2016.[[12]](#footnote-12) Duke is not required to file a gas distribution rate case before that date. Nevertheless, the same detailed financial information filed in the forthcoming electric distribution base rate case (mostly in Schedule D of the Standard Filing Requirements) can be considered and used (with modifications if necessary) for Duke’s Rider ASRP in March 2017. Duke is a combination electric and gas utility. In its most recent gas and electric distribution base rate case, Duke provided the same financial information and asked for the same ROR and ROE for both gas and electric services (PUCO Case Nos. 12-1682-EL-AIR and 12-1685-GA-AIR). In these two base distribution rate cases, the PUCO authorized the same capital structure, ROR and ROE for Duke’s gas and electricity distribution services.

***Q11. WHAT ARE THE RATE OF RETURN AND RETURN ON EQUITY PROPOSED BY DUKE IN THIS PROCEEDING?***

***A11.*** Duke does not explain or justify the calculation of its proposed Pre-tax Rate of Return of 10.60%. Duke only indicates that it wanted to use its currently authorized ROR from its most recent gas distribution base rate case.[[13]](#footnote-13) Duke uses a Pre-tax Rate of Return of 10.60% in calculating its projected Annualized Revenue Requirement from 2015 to 2024.[[14]](#footnote-14) Duke also proposes to use a 9.84% ROE, which is unchanged from the ROE set in the same base gas distribution case.[[15]](#footnote-15) These financial rates (capital structure, embedded cost of long-term debt, estimated return on equity, and gross conversion factor) underlying the proposed Pre-tax Rate of Return of 10.60% were established as part of a stipulation in Duke’s most recent electric and gas base distribution cases.

***Q12. WHY IS IT INAPPROPRIATE TO CONTINUE USING THE 9.84% ROE STIPULATED IN DUKE’S 2012 GAS DISTRIBUTION CASE IN THIS PROCEEDING?***

***A12.*** The 9.84% ROE proposed by Duke in this proceeding was negotiated and agreed upon by parties as part of a partial stipulation of its 2012 gas distribution base rate case.[[16]](#footnote-16) The partial stipulation was approved by the PUCO and the stipulated ROE was not modified in that proceeding.[[17]](#footnote-17) Because this 9.84% ROE is part of a stipulated package, there should not be a presumption that any individual elements of the stipulation could be pulled out and pointed to as being reasonable on a stand-alone basis. Furthermore, the parties in the 2012 gas rate case stipulation specifically agreed that the ROE of 9.84% “shall not be used as precedent in any future gas proceeding, except for the purpose of determining the revenue requirement for collection from customers in proceedings addressing Duke’s SmartGrid rider, currently known as Rider AU, and Rider AMRP.”[[18]](#footnote-18) Instead, the PUCO should establish and adopt a new and current ROE based on, among other things, Duke’s updated financial information, and the current credit and equity markets conditions.

It should also be noted that the stipulated ROE of 9.8% was at the top of the range recommended by the PUCO Staff in the 2012 Duke Rate Case. Specifically, in that proceeding, OCC proposed a ROE of 7.84% and an after-tax ROR of 6.66%[[19]](#footnote-19) and Duke proposed a ROE of 10.60% and an after-tax ROR of 8.13%.[[20]](#footnote-20) The PUCO Staff recommended a range of 8.82% to 9.84% for ROE, and a range of 7.19% to 7.73% for after-tax ROR.[[21]](#footnote-21)

Most importantly, these ROE recommendations by Duke, Staff, and OCC in the 2012 Duke Rate Case were all based on the credit and capital market conditions and Duke’s financial condition of 2012. For example, Duke’s financial information as shown in Schedule D of its Application of the 2012 Duke Rate Case was dated March 31, 2012. Given the considerable lapse of time and a new opportunity presented (in the forthcoming electric distribution case to be filed no later than October 22, 2016) to review updated financial and credit and equity market information, it is inappropriate to continue using this 9.84% stipulated ROE (based largely on dated financial information). This is especially true when the proposed ROE will be used to calculate a new rider that has not been approved and may not go into effect until a much later date (i.e., almost five years from the time those financial data were produced).

***Q13.*** ***SHOULD CUSTOMERS BE REQUIRED TO FUND DUKE’S ASRP THROUGH A 9.84% ROE PROPOSED BY DUKE IN THIS PROCEEDING?***

***A13.* No.**The 9.84% ROE proposed by Duke for Rider ASRP is not reasonable and should be reduced. First of all, as discussed by other OCC witnesses, OCC does not support Duke’s proposal to charge customers increased rates under the proposed ASRP and Rider ASRP. Furthermore, even if the PUCO were to approve the ASRP and Rider ASRP in this proceeding, I believe it is premature and unnecessary to set the ROR and ROE at this time. This is because Duke is not likely to file an actual Rider ASRP application on or before March 1, 2017.

However, if the PUCO decides to approve the ASRP and set a ROE for Rider ASRP at this time, the proposed ROE of 9.84% should be reduced to account for three factors. These factors are as follows:

1. A decline in the approved ROEs for regulated utilities in recent years as a result of the more favorable conditions in the credit and equity markets in the U.S.;
2. A reduction in the regulatory lag and regulatory risk as a result of the accelerated collection from customers of return on and of capital investments and O&M expenses under the proposed ASRP and Rider ASRP; and
3. As noted by OCC witness Williams, a need to relieve the financial burden on Duke’s residential customers who are

already paying the highest monthly gas bills in Ohio (among the major gas distribution companies)

***Q14. PLEASE SUMMARIZE YOUR RECOMMENDATIONS ON THE DOWNARD ADJUSTMENTS TO DUKE’S PROPOSED ROE FOR RIDER ASRP.***

***A14.*** I recommend three downward adjustments to the 9.84% ROE proposed by Duke in this proceeding.

* First, I recommend a reduction of 25 basis points (0.25%) to account for the general decline in the approved ROE for regulated utilities and in the costs of credit and equity.
* Second, I recommend an additional 25 basis points (0.25%) reduction to account for the decrease in regulatory lag and regulatory risk as a result of the acceleration of collecting return on and of capital investments and O&M expenses under the proposed ASRP.
* Last, I recommend an additional 50 basis points (0.50%) downward adjustment to the proposed ROE to provide a much-needed relief to Duke’s residential customers who are currently paying the highest monthly gas bills among major gas utilities in Ohio.[[22]](#footnote-22) Duke’s customers have been paying Rider AMRP over an extended period of time and they may be required to pay simultaneously both Rider AMRP and Rider ASRP in 2016 and beyond.[[23]](#footnote-23)

***Q15. WHY IS IT APPROPRIATE TO REDUCE THE PROPOSED ROE THAT CUSTOMERS WOULD FUND BY 25 BASIS POINTS AS A RESULT OF DECLINING DEBT AND EQUITY COSTS IN RECENT YEARS?***

***A15.*** Based on my observation of the financial markets and the regulatory actions related to gas and electric utilities, there is a definite decline in the allowed ROE set by state regulators for regulated utilities in recent years. While the specific magnitude of the reduction in allowed ROEs may be difficult to quantify the overall trend of a declining allowed ROE is unmistakable.

This decline of the allowed ROE in recent years is not surprising given the dramatic increase in the availability of credit at very low cost and the substantial appreciation in equity prices following the 2008 global financial crisis. The pace of change in adjusting the allowed ROE by the regulatory agencies is typically slower and lags behind the pace of change in the costs of credit and equity. Nevertheless, regulatory agencies have responded to market conditions and gradually set a lower allowed ROE to reflect the decreased cost of credit and equity observed in the financial markets.

***Q16. WHY IS IT APPROPRIATE TO REDUCE THE PROPOSED ROE FUNDED BY CUSTOMERS BY 25 BASIS POINTS TO ACCOUNT FOR THE DECREASE IN REGULATORY LAG AND RISK ASSOCIATED WITH RIDER ASRP?***

***A16.*** It is well recognized that an accelerated infrastructure replacement rider mechanism, such as Rider ASRP, can reduce regulatory lag and risk facing a utility.[[24]](#footnote-24) Even though the exact magnitude of the reduction in risk associated with a rider such as Rider ASRP is difficult to estimate for many reasons, I believe a 25 basis point reduction to the proposed ROE in this proceeding is appropriate for the proposed Rider ASRP because it will assist in protecting customers from unreasonable rates. The PUCO has recognized this reduction in regulatory risk and regulatory lag and the corresponding financial benefits to a regulated utility as a result of the accelerated infrastructure replacement programs.

***Q17. WHY IS IT APPROPRIATE TO REDUCE THE PROPOSED ROE FUNDED BY CUSTOMERS BY 50 BASIS POINTS TO PROVIDE RELIEF TO DUKE’S RESIDENTIAL CUSTOMERS?***

***A17.*** The affordability of utility services and the financial burden on customers should be and are important considerations by regulatory agencies in setting the rates for utility services. For example, it is the policy of the state to “Promote the availability to consumer of adequate, reliable, and reasonably priced natural gas services and goods;” and to “Facilitate the state’s competitiveness in the global economy.”[[25]](#footnote-25)

In the past, and on more than one occasion, the PUCO has explicitly expressed its consideration in reducing the ROR or the ROE for gas and water utilities to make these services more affordable for consumers. For example, in a 2009 Ohio American Water Company (“OAW”) distribution rate case, the PUCO adopted a 7.73% ROR that was at the lower end of the range (7.60% to 8.11%) recommended by the PUCO Staff.[[26]](#footnote-26) This was a significant departure from established PUCO practice that typically set the ROR at the mid-point of the range recommended by the PUCO Staff. It was clear that the PUCO was concerned about the affordability of OAW’s services and wanted to set a lower ROR to make the water services more affordable for customers. In its Opinion and Order, the PUCO specifically cited a harsh economic condition in OAW’s service area and the fact that the rate case was OAW’s fourth application for a rate increase in five years for its decision.[[27]](#footnote-27)

Another example is the most recent East Ohio Gas Company (“Dominion East Ohio”) distribution rate case (PUCO Case No. 07-829-GA-AIR et al.). In this case, the PUCO indicated its intention in reducing a stipulated ROE by 20 basis points (from 8.49% to 8.29%). The PUCO cited the deteriorating economic conditions of customers expressed at local public hearings as well as a decrease of risk assumed by Dominion East Ohio in ordering such a reduction.[[28]](#footnote-28) On rehearing, the PUCO concluded that, upon review, the stipulation approved by the parties had, in fact, already incorporated a lower ROR to account for the lower risk to Dominion East Ohio. The 8.49% ROR agreed to in the stipulation was reestablished. In my view, this reestablishment of the 8.49% ROR upon rehearing does not diminish the significance, to the PUCO, of considering the customer’s ability to pay for utility service in setting a reasonable ROR or ROE.

Although Duke’s customers have not been subjected to four distribution base rate increases over a five-year period as was OAW’s customers, they have been paying for the existing infrastructure replacement program through Rider AMRP since May 31, 2002.[[29]](#footnote-29) It should be noted that although the increase in the yearly caps for Rider AMRP may not be technically considered a “rate increase” the fact of the matter is that customers have been paying a higher AMRP charge every year through either Rider AMRP or base distribution rate since 2002. The AMRP is finally near its ending, even though the customers may still be paying AMRP charges in 2016, and possibly in 2017 and beyond until the filing of Duke’s next gas distribution case[[30]](#footnote-30) Now Duke is asking for another infrastructure replacement program for service line replacement.

It is time for the PUCO to provide some relief to Duke’s customers. The PUCO can do so b not approving the ASRP and Rider ASRP, as recommended by OCC. If the PUCO determines to allow the ASRP, it should at the very least lower the return on capital investment that customers must fund under Rider ASRP.

***Q18. DO YOU HAVE ANY COMMENTS REGARDING DUKE’S TESTIMONY RECOMMENDING THAT CUSTOMERS FUND A ROE IN THE RANGE 9.8% – 10.7% WITH A MIDPOINT OF 10.3%?***

***A18.*** Yes. I have reviewed the testimony provide by Duke’s witness, Roger A. Morin, Ph.D. I do not support his recommendation in this proceeding on a reasonable ROE range applicable to Duke’s natural gas distribution operations.[[31]](#footnote-31) In particular, I have concerns in two areas: his use of forecasted interest rates (4.5%) on long-term U.S. Treasury bonds as the risk-free rate and his use of a high market risk premium of 7.1%.

***Q19. PLEASE EXPLAIN YOUR CONCERNS ABOUT USING A FORECASTED INTEREST RATE.***

***A19.*** I believe the use of a forecasted interest rate would inflate the estimated ROE (that customers would fund) under both the Capital Asset Pricing Model (“CAPM”) and the Risk Premium Method used by Dr. Morin. The use of a forecasted interest rate of 4.5% as a proxy for risk-free return in estimating the ROE is not justified given the current market prices (interest rates) of credit with different risk levels. It significantly overstates the return on risk-free investments used in the CAPM and the Risk Premium Method. For example, in the 2012 Duke Rate Case, Duke used a risk-free rate proxy of 4.7%, which was based largely on the forecasts of long-term Treasury interest rates in 2013, 2014, and 2015.[[32]](#footnote-32) These forecasts for interest rates from 2013 to 2015 used by Duke in the 2012 Duke Rate Case ranged from 4.1% to 5.3%[[33]](#footnote-33) and they turned out to be significantly higher than the actual long-term government bond yield of 3.67% in 2013 and 2.40% in 2014.[[34]](#footnote-34) This shows that the forecasted interest rates of long-term government bonds are quite subjective and may not be a reliable proxy of the current return of risk-free investments used in the CAPM and Risk Premium Method.

The use of forecasted interest rates also ignores the fact that the current market prices (yields or interest rates) have already fully reflected the expectation and available information to the buyer and sellers of long-term government bonds. The current market prices (of long-term government bonds) are readily available and observable. There is no need to use the forecasted interest rates of long-term government bonds as the proxy for the return of risk-free investments in estimating the return on equity.

***Q20. PLEASE EXPLAIN YOUR CONCERNS ABOUT USING A 7.1% MARKET RISK PREMIUM.***

***A20.*** The use of a high market risk premium of 7.1% by Dr. Morin may not distort the ROE results as much as the use of forecasted interest rate. But the 7.1% market risk premium is certainly on the high end (as recognized by Dr. Morin himself)[[35]](#footnote-35) of the range of market risk premiums historically and typically found in financial publications. For example, in the Ibbotson SBBI 2015 Classic Yearbook, the market risk premium as measured by difference between the annualized total return (from 1926 to 2014) of Large-Cap Stocks (12.1%) and the annualized total return of Long-term Government Bonds (6.1%) is 6% if the arithmetic mean of total return is used.[[36]](#footnote-36) If a geometric mean of yearly total return is used, the market risk premium is 4.4%.[[37]](#footnote-37) Clearly, the choice of the magnitude of a market risk premium can be quite subjective. But the estimated ROE for Duke will be lower if a lower market risk premium that is more consistent with those found in financial publications is used in this proceeding.

My comments here are not intended as a comprehensive review of Duke’s proposed return on equity for its gas operation in this proceeding. The purpose of my observations is to point out that Duke has overestimated its proposed ROE used for the Rider ASRP and some downward adjustments to the ROE proposed by Duke is reasonable.

***Q21. DO YOU BELIEVE A LOWER RETURN ON EQUITY (THAN THAT PROPOSED BY DUKE) AUTHORIZED IN THIS PROCEEDING WILL PROVIDE DIRECT AND SUBSTANTIAL BENEFITS TO DUKE’S RESIDENTIAL CUSTOMERS?***

***A21.*** Yes. The Annualized Revenue Requirement for the ASRP consists of a Return on Investment and Operating Expenses.[[38]](#footnote-38) A lower ROE, which will in turn set a lower Pre-tax ROR, will definitely reduce the amount of Return on Investment that customers will have to fund through the proposed Rider ASRP. As discussed earlier, a 100 basis points (1%) reduction in allowed ROE will reduce the Pre-tax Rate of Return by 83 basis points (0.83%).[[39]](#footnote-39) Assuming a $30 million increase in the Net Rate Base (which is similar in magnitude to Additions in Plant In-Service shown in Ms. Laub’s Direct Testimony) the annual revenue requirement for the first year of the ASRP will be reduced by approximately $2.49 million.[[40]](#footnote-40) This is a direct benefit to Duke’s customers, including residential customers.

***Q22. DO YOU BELIEVE A LOWER RETURN ON EQUITY (THAN THAT PROPOSED BY DUKE) AUTHORIZED IN THIS PROCEEDING WILL LOWER THE CREDIT RATING OF DUKE OR DRIVE UP DUKE’S COST OF EQUITY AND DEBT FINANCING?***

***A22.*** Not necessarily. I do not believe Duke’s credit rating or its costs of equity and debt financing will be adversely affected by the adoption of an 8.84% ROE for its Rider ASRP. First of all, the 8.84% ROE recommended by OCC for Rider ASRP is still a reasonably high ROE based on current financial market conditions. Second, an allowed ROE for one particular rider such as Rider ASRP is only one factor being considered by the investors, financial analysts, or credit rating agencies in assessing the financial and business risk of Duke. There are other factors that may affect the investors’ decisions on whether to buy or sell the bonds and equity issued by Duke or its parent company. Dr. Morin recognizes this and has identified some of these factors such as the weakening of the economy, declining customer natural gas usage, and planned capital expenditures in his testimony.[[41]](#footnote-41)

Consequently, unless the PUCO were to set an extremely low ROE, that is clearly out of tune with current credit and equity market environment and the financial condition of Duke, I do not believe that a ROE lower than that proposed by Duke will necessarily adversely affect Duke’s credit rating or its ability to obtain financing.

***Q23. DOES THIS CONCLUDE YOUR TESTIMONY?***

***A23.*** Yes. However, I reserve the right to supplement my testimony in the event that additional testimony is filed, or if new information or data in connection with this proceeding becomes available.

**CERTIFICATE OF SERVICE**

I hereby certify that a true copy of the foregoing *Direct* *Testimony of Daniel J. Duann, Ph.D. on Behalf of the Office of the Ohio Consumers’ Counsel’s,* was served via electronic transmission to the persons listed below on this 6th day of November 2015.

*/s/ Kevin Moore*

Kevin Moore

Assistant Consumers’ Counsel

**SERVICE LIST**

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**ATTACHMENT DJD-1**

Page 1 of 2

**Daniel J. Duann, Ph.D.**

**List of Testimonies Filed Before PUCO**

*Application of The Dayton Power and Light Company for Approval of Its Electric Security Plan*, Case No. 08-1094-EL-SSO (January 26, 2009).

*Application of Ohio American Water Company to Increase Its Rates for Water and Sewer Service Provided to Its Entire Service Area*, Case No. 09-391-WS-AIR (January 4,2010).

*Application of Aqua Ohio, Inc. for Authority to Increase its Rates and Charges in its Masury Division*, Case No. 09-560-WW-AIR (February 22, 2010).

*Application of Aqua Ohio, Inc. for Authority to increase its Rates and Charges in its Lake Erie Division*, Case No. 09-1044-WW-AIR (June 21, 2010).

*In the Matter of the Fuel Adjustment Clauses for Columbus Southern Power Company and Ohio Power Company*, Case Nos. 09-872-EL-FAC and 09-873-EL-FAC (August 16, 2010).

*In the Matter of the Application of Columbus Southern Power Company for Approval of an Electric Security Plan; an Amendment to its Corporate Separation Plan; and the Sale or Transfer of Certain Generating Asset (Remand)*, Case Nos. 08-917-EL-SSO et al (June 30, 2011).

*In the Matter of the Application of The East Ohio Gas Company d/b/a Dominion East Ohio for Approval of Tariffs to Modify and further Accelerate its Pipeline Infrastructure Replacement Program and to Recover the Associated Costs et al.*, Case Nos. 11-2401-GA-ALT and 08-169-GA-ALT (July 15, 2011).

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*In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Merge and Related Approval (ESP Stipulation)*, Case Nos. 10-2376-EL-UNC, et al (September 27, 2011).

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*In the Matter of the Application of Ohio American Water Company to Increase Its Rates for Water and Sewer Service Provided to Its Entire Service Area*, Case No. 11-4161-WS-AIR (March 1, 2012).

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2. *In the Matter of the Application of Duke Energy Ohio, Inc., for an Increase in Electric Distribution Rates, et al.* Case Nos. 12-1682-EL-AIR (February 19, 2013).
3. *In the Matter of the Application of Duke Energy Ohio, Inc., for an Increase in Gas Rates,* Case Nos. 12-1685-GA-AIR, et al (February 25, 2013).
4. *In the Matter of the Application of Dayton Power & Light Company for Authority to Establish a Standard Service Offer in the Form Of an Electric Security Plan Pursuant to R.C. 4928.143,* Case No. 12-426-EL-SSO et al. (March 1, 2013).
5. *In the Matter of the Application of The Dayton Power and Light Company for Authority to Recover of Certain Storm-related Service Restoration Costs,* Case Nos. 12-3062-EL-RDR, et al. (January 31, 2014).
6. *In the Matter of the Application of The Dayton Power and Light Company for Authority to Recover of Certain Storm-related Service Restoration Costs,* Case Nos. 12-3062-EL-RDR, et al. (May 23, 2014).
7. *In the Matter of the Application of Aqua Ohio, Inc. to Increase Its Rates and Charges for Its Waterworks Service,* Case No. 13-2124-WW-AIR (August 4, 2014).
8. *In the Matter of the Application Seeking Approval of Ohio Power Company’s Proposal to Enter into an Affiliate Power Purchase Agreement for Inclusion in the Power Purchase Agreement Ride,* Case No. 14-1693-EL-RDR, et al. (September 11, 2015).

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**Daniel J. Duann, Ph.D.**

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*Regulation, The Cato Review of Business & Government*, “Turning up the Heat in the Natural Gas Industry,” Vol. 19, 1996, (with Kenneth W. Costello).

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1. *In the Matter of the Application of Duke Energy Ohio, Inc. for Approval of an Alternative Rate Plan Pursuant to Section 4929.05, Revised Code, for an Accelerated Service Line Replacement Program,* PUCO Case No. 14-1622-GA-ALT, Application (January 20, 2015). [↑](#footnote-ref-1)
2. See Testimony of OCC Witnesses Hayes and Williams. [↑](#footnote-ref-2)
3. Direct Testimony of Peggy A. Laub, Attachment PAL-1 (October 23, 2015). [↑](#footnote-ref-3)
4. Direct Testimony of Roger A. Morin, Ph.D. at 4 (October 23, 2015). [↑](#footnote-ref-4)
5. *In the Matter of the Application of Duke Energy Ohio, Inc. for an Increase in its Natural Gas Distribution Rates*, Case Nos. 12-1685-GA-AIR et al., Opinion and Order at 13 and 21 (November 13, 2013) (“2012 Duke Rate Case”). [↑](#footnote-ref-5)
6. The pre-tax rate of returns are calculated based on a capital structure of 53.3% equity and 46.7% debt, a debt cost rate of 5.32%, and a gross conversion factor of 1.5468532. All these parameters are the same as those included in the partial stipulation of Duke’s most recent gas distribution rate case (“2012 Duke Rate Case”). [↑](#footnote-ref-6)
7. Direct Testimony of Peggy A. Laub at 3 (October 23, 2015). [↑](#footnote-ref-7)
8. Direct Testimony of Peggy A. Laub at 5 (October 23, 2015). [↑](#footnote-ref-8)
9. Direct Testimony of Peggy A. Laub at 5 (October 23, 2015). [↑](#footnote-ref-9)
10. Id. [↑](#footnote-ref-10)
11. Id. [↑](#footnote-ref-11)
12. *In the Matter of the Application of Duke Energy Ohio, Inc. to Adjust Rider DRI and Rider AU for 2010 SmartGrid Costs and Mid-Deployment Review*, Case No. 10-2326, Notice of Staff Determination (October 22, 2015). [↑](#footnote-ref-12)
13. Direct Testimony of Peggy A. Laub at 5 (October 23, 2015). [↑](#footnote-ref-13)
14. Direct Testimony of Peggy A. Laub at Attachment PAL-1 (October 23, 2015). [↑](#footnote-ref-14)
15. Direct Testimony of Peggy A. Laub at 5 (October 23, 2015). [↑](#footnote-ref-15)
16. 2012 Duke Rate Case, Opinion and Order at 13 (November 13, 2013). [↑](#footnote-ref-16)
17. Id. at 21-22. [↑](#footnote-ref-17)
18. Id. at 13. [↑](#footnote-ref-18)
19. 2012 Duke Rate Case, Direct Testimony of Daniel J. Duann, Ph.D. at 4 (February 25, 2013). [↑](#footnote-ref-19)
20. 2012 Duke Rate Case, Direct Testimony of Roger A. Morin, Ph.D. at 4 (July 20, 2012) and Schedule D1-A (July 9, 2012). [↑](#footnote-ref-20)
21. 2012 Duke Rate Case, Staff Report at 15-17 (January 4, 2013). [↑](#footnote-ref-21)
22. See Ohio Utility Rate Survey, September 1, 2015. Ohio Energy Bills – Residential Customers Comparison of Utility Bills 16 Major Cities. [↑](#footnote-ref-22)
23. Even though I do not believe that Duke’s customers should be required to pay any Rider ASRP charge in 2016, it is still a possibility that cannot be completely ruled out at this time. [↑](#footnote-ref-23)
24. See, for example, Direct Testimony of Roger A. Morin, Ph.D. at 62 (October 23, 2015). [↑](#footnote-ref-24)
25. See R.C. 4929.02 (A) (1) and (10). [↑](#footnote-ref-25)
26. *In the Matter of the Application of Ohio American Water Company to Increase its Rates for Water and Sewer Services Provided to its Entire Service Area.*, Case No. 09-391-WS-AIR, Opinion and Order at 36 (May 5, 2010). [↑](#footnote-ref-26)
27. Ibid. [↑](#footnote-ref-27)
28. *In the Matter of the Application of The East Ohio Gas Company d/b/a Dominion East Ohio for Authority to Increase Rates for its Gas Distribution Service*, PUCO Case No. 07-829-GA-AIR et al., Opinion and Order at 27 (October 15, 2008). [↑](#footnote-ref-28)
29. *In the Matter of the Application of The Cincinnati Gas & Electric Company for an Increase in Rates,* PUCO Case No. 01-1228-GA-AIR et al., Opinion and Order at 4 and 8 (May 30, 2002). [↑](#footnote-ref-29)
30. *In the Matter of the Annual Application of Duke Energy Ohio for an Adjustment to Rider AMRP Rates*, PUCO Case No. 10-2788-GA-RDR, Opinion and Order at 8 and 10 (May 4, 2011). [↑](#footnote-ref-30)
31. Direct Testimony of Roger A. Morin, Ph. D. at 4 (October 23, 2015). [↑](#footnote-ref-31)
32. 2012 Duke Rate Case, Direct Testimony of Roger A. Morin, Ph.D. at 34 (July 20, 2012). [↑](#footnote-ref-32)
33. Id. [↑](#footnote-ref-33)
34. Direct Testimony of Roger A. Morin Ph.D., Attachment RAM-8 at 2 of 2 (October 23, 2015). [↑](#footnote-ref-34)
35. See Direct Testimony of Roger A. Morin, Ph.D. at 43 (October 23, 2015). [↑](#footnote-ref-35)
36. See *2015 Ibbotson Stocks, Bonds, Bills, and Inflation (SBBI) Classic Yearbook* at 91, Table 6-7. [↑](#footnote-ref-36)
37. Id. [↑](#footnote-ref-37)
38. See Direct Testimony of Peggy A. Laub at Attachment PAL-1 (October 23, 2015). [↑](#footnote-ref-38)
39. The Pre-tax ROR will decrease from 10.60 percent to 9.77 percent if the allowed ROE is reduced from 9.84% to 8.84% assuming the same capital structure, embedded cost of long-term debt, and gross conversion factor. [↑](#footnote-ref-39)
40. Direct Testimony of Peggy A. Laub at Attachment PAL-1 (October 23, 2015), $2.49 million = $30 million \* 0.083. [↑](#footnote-ref-40)
41. See Direct Testimony of Roger A. Morin, Ph.D. at 62 (October 23, 2015). [↑](#footnote-ref-41)