OCC EXHIBIT NO. ______

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Duke Energy Ohio, Inc.	)	
for Approval of an Alternative Form of	)	Case No. 19-791-GA-ALT
Regulation	)	

DIRECT TESTIMONY
OF
DANIEL J. DUANN, Ph.D.
FOR CONSUMER PROTECTION FROM THE STIPULATION

On Behalf of
The Office of the Ohio Consumers' Counsel
65 East State Street, 7th Floor
Columbus, Ohio 43215-4213

January 13, 2021

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ATTACHMENTS:

I. INTRODUCTION

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

A1. My name is Daniel J. Duann. My business address is 65 East State Street, Columbus, OH 43215. I am the Assistant Director of Analytical Services with the Office of the Ohio Consumers' Counsel ("OCC").

Q2. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AND EDUCATIONAL BACKGROUND.

A2. I joined OCC in January 2008 as a Senior Regulatory Analyst. I was promoted to the position of Principal Regulatory Analyst in November 2011 and to my current position in June 2018. My primary responsibility is to assist OCC by participating in proceedings before the Public Utilities Commission of Ohio ("PUCO") and the Federal Energy Regulatory Commission ("FERC"). These proceedings include, among others, rate cases, cost of capital, standard service offer, and infrastructure replacement riders.

Prior to joining OCC, I was an independent consultant. Before that, I was a Senior Institute Economist at the National Regulatory Research Institute ("NRRI") at The Ohio State University. NRRI has been a policy research center funded by the National Association of Regulatory Utility Commissioners and state public utilities commissions since 1976. NRRI is currently located in Washington, DC and no longer a part of The Ohio State University. My work at NRRI involved research, publishing, and public services in areas of public utility regulation and energy policy. Before NRRI, I held various positions with the Forecasting Section of the Ohio Division of Energy (the Forecasting Section was later transferred to the PUCO), the Center of Health Policy Research at the American Medical Association, and the Policy Analysis and Research Division of the Illinois Commerce Commission.

I received my Ph.D. degree in Public Policy Analysis and M.S. degree in Energy Management and Policy from the University of Pennsylvania. I also have an 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 have been a Certified Rate of Return Analyst by the Society of Utility and Regulatory Financial Analysts since 2011.

Q3. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY OR TESTIFIED BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO AND OTHER GOVERNMENT AGENCIES AND LEGISLATURES?

A3. Yes. I have submitted expert testimony or testified on behalf of the OCC before the PUCO in numerous proceedings. A list of these proceedings is included in Attachment DJD-1. I have also testified before the Illinois Commerce Commission regarding a proposed divestiture of three nuclear power plants by Commonwealth Edison Company in 1987. Additionally, I testified in 1989, as an independent expert from NRRI, before the California State Legislature (the Senate Committee on Energy and Public Utilities) regarding a legislation banning "sweetheart deals" between electric utilities and their non-regulated affiliates in (SB 769).

Q4. HAVE YOU PREVIOUSLY PUBLISHED OR PRESENTED IN ACADEMIC JOURNALS, TRADE PUBLICATIONS, AND PROFESSIONAL CONFERENCES?

A4. Yes. I have published in academic journals and trade publications, and also presented in many conferences on topics related to utility regulation, energy policy, and emerging technology. A selected listing of these publications and presentations is included as Attachment DJD-2.

II. PURPOSE AND RECOMMENDATION

Q5. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A5. My testimony serves two purposes. First, it supports the recommendation of OCC for the PUCO to reject the Stipulation and Recommendation ("Settlement") filed by Duke Energy Ohio ("Duke" or "Utility") on November 16, 2020.[1] Second, my testimony supports the OCC objection (filed on June 22, 2020)[2] regarding the pre-tax rate of return that Duke proposes to charge customers for its Capital Expenditure Program ("CEP") is excessive.[3] Because the Settlement does not reduce the pre-tax rate of return included in

[1] *See In the Matter of The Duke Energy Ohio, Inc. for Approval of an Alternative Form of Regulation*, Case No. 19-0791-GA-ALT, Stipulation and Recommendation (November 16, 2020). ("Settlement").

[2] *See* Objections by the Office of the Ohio Consumers' Counsel at 9-10 (June 22, 2020). ("OCC Objections").

[3] *See* PUCO Case No. 19-0791-GA-ALT, Application (May 3, 2019). ("CEP Application").

the CEP Application, the discussion of these OCC Objections would further explain and support my recommendation regarding the Settlement.

Q6. TO PROTECT CONSUMERS, WHAT IS YOUR RECOMMENDATION REGARDING THE SETTLEMENT?

A6. In order to protect Duke's nearly 400,000 residential gas utility customers, I recommend that the PUCO reject the Settlement. It does not meet the three-prong test used by the PUCO in evaluating a settlement. Specifically, the pre-tax rate of return of 9.16% proposed in the Settlement (and in Duke's Application)[4] is excessive and unreasonable. The adoption of this pre-tax rate of return, in comparison to OCC's recommended pre-tax rate of return of 8.29%, would result in customers paying unjust and unreasonable rates, and cost Duke's customers at least $7.9 million over the next four years.[5]

Also, the monthly residential rate cap included in the Settlement does not offer sufficient protection of customers from sudden and drastic rate increases. For example, the proposed residential rate cap would allow Duke to almost triple its CEP residential rate in one year (from $3.69 to $9.31 per month).[6] The magnitude of this sudden increase in a fixed monthly CEP charge is unreasonable and harmful to Duke's customers.

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[4] *See* Application, Exhibit J, Schedule 1 at 1. A pre-tax rate of return includes both the weighted cost of long-term debt and the grossed-up (for income tax) weighted cost of equity. A pre-tax rate of return is always higher than the after-tax rate of return.

[5] I will explain further about the calculation of the $7.9 million additional cost of the Settlement in the following sections of my testimony.

[6] *See* Table 2.

Q7. TO PROTECT CONSUMERS, WHAT IS YOUR RECOMMENDATION REGARDING THE PRE-TAX RATE OF RETURN FOR DUKE'S CEP PROGRAM?

A7. If the CEP program is approved (which OCC does not support), I recommend that the PUCO adopt a pre-tax rate of return no higher than 8.29 %. A comparison of the pre-tax rate of return included in the Settlement and recommended by OCC is shown in Table 1.[7]

Table 1
Comparison of Pre-tax Rate of Returns

		Settlement	OCC
		(based on 2012 gas rate case)	(based on current market condition and updated capital structure)
Cost of Debt	(1)	5.32%	4.03%
Debt Ratio	(2)	0.4670	0.4603
Weighted Cost of Debt	(3) = (1) * (2)	2.48%	1.86%
Cost of Equity (ROE)	(4)	9.84%	9.36%
Equity Ratio	(5)	0.5330	0.5397
Tax Gross-up Factor	(6)	1.2727273	1.2727273
Weighted Cost of Equity	(7) = (4) * (5) * (6)	6.68%	6.43%
Pre-tax Rate of Return	(8) = (3) + (7)	9.16%	8.29%

[7] I will discuss my recommended pre-tax rate of 8.29% and its underlying components in detail later in my testimony.

III. THE PUCO SHOULD REJECT THE SETTLEMENT TO PROTECT DUKE'S CUSTOMERS

Q8. WHAT IS THE THREE-PRONG TEST THAT THE PUCO COMMONLY USES IN EVALUATING A SETTLEMENT?

A8. I understand that the PUCO typically analyzes a settlement under a three-prong test. Specifically, the PUCO will consider:

(1) Is the settlement a product of serious bargaining among capable, knowledgeable parties?

(2) Does the settlement, as a package, benefit customers and the public interest?

(3) Does the settlement package violate any important regulatory principle or practice?

I also understand that when considering the first prong, the PUCO has found that a diversity of interests among signatory parties is a relevant factor.[8] If the PUCO determines that a proposed settlement does not meet each of the three criteria outlined above, the settlement would be rejected.[9] Additionally, in deciding to

[8] *See, e.g., In re Columbia Gas of Ohio, Inc.*, Case No. 17-2202-GA-ALT, Opinion & Order ¶ 45 (November 28, 2018) (settlement met first prong, in part, because it was "the product of serious bargaining among capable, knowledgeable parties representing interests ranging from consumers and community groups to commercial and industrial sectors, not to mention Staff and Columbia").

[9] More specifically, the PUCO "may take the stipulation into consideration, but must determine what is just and reasonable from the evidence presented at the hearing" in deciding to adopt or reject a settlement. *See OCC v. PUCO*, 64 Ohio St.3d 123, 125 (1992).

adopt or reject a settlement, the PUCO "may take the stipulation into consideration, but must determine what is just and reasonable from the evidence presented at the hearing."[10]

Q9. IS THIS SETTLEMENT A PRODUCT OF SERIOUS BARGAINING AMONG CAPABLE, KNOWLEDGEABLE PARTIES WITH DIVERSE INTERESTS?

A9. No. Contrary to the claims by Duke and the PUCO Staff, the Settlement does not represent an accommodation of the diverse interests and is not entitled to a careful consideration by the PUCO.[11] The mere acts of phone calls, meetings, or negotiation among parties in crafting a settlement do not meet the requirement that the Settlement be a product of serious bargaining among capable, knowledgeable parties with diverse interests.

Both the process of bargaining as well as the end product (the Settlement) of the bargaining process should be considered in applying this prong. A settlement reached by parties must reflect a genuine compromise among parties with diverse or competing interests. If parties with similar interests sign a settlement reflecting very little compromise, then the parties did not really "bargain" for anything.

[10] *Id.*

[11] *See* Settlement at 2.

Regarding this Settlement between Duke and the PUCO Staff ("Staff") (the only two parties who signed the Settlement), as evidenced by the close alignment of Duke's and the Staff's positions, this Settlement clearly is not a product of serious bargaining among competing or opposing interests.

First, the Staff and Duke made no attempt to address the excessively high rate of return that was based on the financial market conditions eight years ago when the last gas rate case was decided. The Staff did not propose any modification to the pre-tax rate of return of 9.16% requested by Duke.[12] Second, the first-year Rider CEP charge included in the Settlement, in particular the fixed monthly residential rate of \$3.69,[13] is higher than that recommended in the Audit Report (\$3.68 per month)[14] and only slightly lower than that proposed in Duke's Application (\$3.72 per month).[15] One has to question why the Staff is negotiating backward by agreeing to a higher rate than proposed in the Audit Report. For example, Staff abandoned the Audit Report's recommendation that Duke should remove earnings- and stock-based performance incentives from the CEP and agreed to increase its recommendation for the initial residential CEP Rider rate from \$3.68 per month to \$3.69 per month, which favors Duke.

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[12] *See* Staff Report (May 22, 2020).

[13] *See* Settlement at 3.

[14] *See* Audit Report (May 11, 2020), Exhibit 5-1.

[15] *See* Application, Exhibit J, Schedule 1.

Third, the monthly residential caps for Rider CEP proposed in the Settlement,[16] as shown in Table 2, are significantly higher than those proposed in the Staff Report.[17] It seems Staff gives up its position regarding the monthly residential caps and largely accepts the position of Duke. There appears to have been no serious bargaining in terms of a meaningful give-and-take between Duke and Staff that would protect customers from sudden and drastic CEP rate increases. Staff mostly gives and Duke mostly takes. Specifically, Staff agreed to increase the cap on increases to the CEP Rider rate for 2019 investments from $1.00 in the Staff Report to Duke's requested $2.92 – a 192% increase that favors Duke at customers' expense. Similarly, for 2020 investments, Staff again deserted its $1.00 cap on CEP increases in favor of a $2.70 cap – a 170% increase that again favors Duke.

Table 2
Duke's Monthly CEP Residential Rate Cap

	Monthly Residential Rate Cap Per Staff Report	Monthly Residential Rate Cap Per Settlement	For CEP Investments Made Before	Expected Effective Date
Year 1	$3.68	$3.69	December 31, 2018	2021
Year 2	$4.68	$9.31	December 31, 2020	2022
Year 3	$5.68	$10.31	December 31,2021	2023
Year 4	$6.68	$11.31	December 31,2022	2024

All these facts demonstrate there was no serious bargaining or diverse interests (especially representing consumers' interests) between the signing parties of the

[16] *See* Settlement at 4-5.

[17] *See* Staff Report at 8-9.

Settlement. As a result, the Settlement is not a product of serious bargaining, and does not pass the first prong.

Q10. DOES THE SETTLEMENT BENEFIT CUSTOMERS AND THE PUBLIC INTEREST?

A10. No. The Settlement benefits neither customers nor the public interest. By including an excessively high pre-tax rate of return of 9.16%, Duke's customers will be harmed substantially if the Settlement is approved by the PUCO. I calculated that a 9.16% pre-tax rate of return (vs. the 8.29% pre-tax rate of return I recommend) would increase the CEP charges (or revenue requirements) by approximately $7.9 million over the next four years.[18] This $7.9 million harm to Duke's customers is derived solely from the adoption the Settlement's pre-tax rate of return of 9.16%. It does not represent all the additional costs associated with the Settlement. Another OCC witness, Kerry J. Adkins, will discuss other additional costs to customers associated with the Settlement.

In addition to an unreasonable pre-tax rate of return, the monthly residential rate caps in the Settlement[19] will not benefit customers or the public interests. This so-called "monthly residential cap" as presented in the Settlement is just a tool allowing Duke to drastically accelerate its CEP collection and to impose an unfair burden on those

[18] *See* Tables 3 and 4. The estimated additional costs from the 9.16% pre-tax rate of return are $843,517 for the first year and $7,063,492 for three years after that for a total additional cost of $7,907,009.

[19] *See* Settlement at 4-5.

customers, including those who may be least able to afford to pay for gas utility service during this challenging economic time.

The CEP riders approved or proposed by other Ohio gas utilities (such as Columbia Gas of Ohio or Dominion Energy Ohio) do not allow the residential monthly cap to increase by such a large amount ($5.62, from $3.69 to $9.31per month) within a twelve-month period.[20] This drastic increase in the fixed monthly residential charge, totally separated from gas usage, is unreasonable and unfair. The use of the CEP Rider is already accelerating the return on and return of capital investments to Duke that should be done through a base rate case. The proposed monthly residential caps under the Settlement would hasten this accelerated revenue collection from customers.

Q11. PLEASE EXPLAIN YOUR CALCULATION OF THE $7.9 MILLION HARM TO CUSTOMERS OVER THE NEXT FOUR YEARS IF THE 9.16% PRE-TAX RATE OF RETURN WERE ADOPTED.

A11. My calculation is based on the same revenue requirement methodology proposed in the Application and the Audit Report[21] to calculate the annual CEP revenue requirement and rates. For the CEP revenue requirement of the first year, I use the same Total Operating Expenses, revenue requirement allocation among customer classes, and the number of

[20] *See*, for example, in the Dominion CEP Case (PUCO Case No. 19-468), the Stipulation proposed a monthly residential rate cap of $3.86, $5.51, $6.31, and $6.96 for the first four years. In the Columbia CEP Case (PUCO Case No. 17-2202), the PUCO approved a monthly residential rate cap of $3.51, $4.56, $5.61, and $6.66 for the first four years after the approval.

[21] *See* Audit Report, Exhibit 5-1.

residential customer monthly bills agreed in the Settlement and the Audit Report. However, I accept the adjustment (a reduction of $918,153) to the Net Rate Base associated with the incentive and stock-based compensation recommended in the Audit Report.[22] The Settlement rejects this adjustment by the Auditor and will increase the Net Rate Base by the same amount.[23]

The calculation of the first-year CEP revenue and the monthly fixed residential rate is shown in Table 3. The difference in the revenue requirement between the Settlement and OCC's recommendations is $919,632. Out of this amount, $843,517 is attributed to the higher pre-tax rate of return[24] and $76,115 is the revenue requirements associated with the increase in Net Rate Base from incentive-based compensations.[25]

Table 3
Additional Cost of Using the 9.16% Pre-Tax Rate of Return in First Year of Rider CEP

	Per Settlement Using 9.16% ROR	**Per Settlement Using 8.29% ROR**	**Difference**	**Using 8.29% ROR and a Lower Net rate Base**	**Difference**
	(1)	**(2)**	**(3) = (1) – (2)**	**(4)**	**(5) = (1) – (4)**
Net Rate Base	$96,956,013	$96,956,013		$96,037,860	$918,153
Pre-tax Rate of Return	9.16%	8.29%		8.29%	
Annualized Return on Rate Base	$8,881,171	$8,037,653	$843,517	$7,961,539	$919,632
Total Operating Expenses	$15,809,760	$15,809,760		$15,809,760	$0
Annual Revenue Requirement	$24,690,931	$23,847,413	$843,517	$23,771,299	$919,632
Rider CEP Rates					
GSS/ECTA Residential Rates	$3.69	$3.57		$3.56	

[22] *See* Audit Report at 9-10. Another OCC witness, Kerry J. Adkins will explain the reasons why this proposed reduction by the Auditor is reasonable and should be adopted.

[23] *See* Settlement at 3.

[24] $843,517 = $24,606,828 - $23,847,413.

[25] $76,115 = $23,847,413 - $23,771,299.

For the difference in the revenue requirements for the second to the fourth years under different pre-tax rate of returns, it is more complicated because the Net Plant additions and retirements after 2019 are not known at this time. Therefore, I needed to project the Net Rate Base applicable in calculating the annual CEP revenue requirements for the second to the fourth years.

Specifically, I assume: (1) the residential monthly rate caps in the Settlement as I described above will become effective; (2) the number of annual residential bills is 4,836,307;[26] (3) the revenue requirement allocation for residential customers is 72.35%;[27] and (4) the percentage of Total Operating Expenses is 64.03% of annual revenue requirement as calculated based on the revenue requirement of the first year.[28] In adopting these assumptions, I calculate an additional cost of approximately $7 million ($7,063,492)[29] to Duke's customers over the three additional years after the first year of the CEP Rider if the 9.16% pre-tax rate of return were adopted.[30] This calculation is shown in Table 4.

[26] This is the number of residential customer bill shown in Audit Report, Exhibit 5-1.

[27] This is the same revenue requirement allocated to residential customers (63.34%) shown in the Application and the Audit Report, Exhibit 5-1.

[28] 64.03% = $15,809,760 / $24,690,931. This is the percentage calculated from the revenue requirement of the first year of Rider CEP as proposed in the Settlement.

[29] $7,063,492 = $2,126,127 (year 2) + $2,354,497 (year 3) + $2,582,868 (year 4).

[30] Even though these assumptions may not match exactly what the Duke proposed in the Settlement regarding the revenue requirement and rates after the first year, the estimated additional costs are sufficiently close and reasonable.

Table 4
Cost of Using the 9.16% Pre-Tax Rate of Return for Year 2 to Year 4

(1)			Year 2	Year 3	Year 4
(2)	Rate Cap		$9.31	$10.31	$11.31
(3)	Number of Customer Bill		4,836,307	4,836,307	4,836,307
(4)	Residential Revenues	(2) * (3)	$45,025,018	$49,862,365	$54,698,632
(5)	Total Revenues	(4) / 0.7235	$62,233,612	$68,918,210	$75,602,809
(6)	Total Operating Expenses	(5) * 0.6403	$39,848,182	$44,128,330	$48,408,478
(7)	Annualized Return on Rate Base at 9.19%	(5) – (6)	$22,385,430	$24,789,880	$27,194,330
(8)	Projected Net Rate Base	(7) / 0.0916	$244,382,426	$270,631,881	$296,881,335
(9)	Annualized Return on Rate Base at 8.29%	(8) * 0.0829	$20,259,303	$22,435,383	$24,611,463
(10)	Difference in Annualized Return on Rate Base in using different ROR	(7) – (9)	$2,126,127	$2,354,497	$2,582,868

Q12. DOES THE SETTLEMENT VIOLATE ANY IMPORTANT REGULATORY PRINCIPLES?

A12. Yes. The Settlement violates important regulatory principles that have guided the regulation of public utility regulation in the United States for over 100 years. First, the use of an outdated and exceedingly high rate of return will unreasonably increase the revenue requirement for Rider CEP and lead to rates that are unjust and unreasonable (and too high) for customers. This is a violation of the fundamental regulatory principle that all utility rates must be just and reasonable.[31] This fundamental regulatory principle has been codified in Ohio law since 1953. Specifically, the Settlement violates Ohio law that requires:

[31] This is also referred as cost-based regulation. In other words, the rates of utility services should be based on the prudently incurred costs of providing these utility services which includes a reasonable and fair rate of return on the capital invested. *See*, for example, James C. Bonbright, Principles of Public Utility Rates, Columbia University Press, New York (1961) at 240-241. *See also* R.C. 4905.22 (requiring all rates to be just and reasonable).

> Every public utility shall furnish necessary and adequate service and facilities, and every public utility shall furnish and provide with respect to its business such instrumentalities and facilities, as are adequate and in all respects just and reasonable. All charges made or demanded for any service rendered, or to be rendered, shall be just, reasonable, and not more than the charges allowed by law or by order of the public utilities commission, and no unjust or unreasonable charge shall be made or demanded for, or in connection with, any service, or in excess of that allowed by law or by order of the commission.[32]

Second, the continuous use of those rate of return components (costs of debt and equity) set in the 2012 gas rate case, as proposed in the Settlement, violates the regulatory principle that the authorized rate of return of a regulated utility should be based on current market conditions and for providing investors of the utility the opportunity to earn a fair return comparable to other currently available investments. The principle of setting a reasonable rate of return based on current market condition is of particular importance given that the costs of long-term debt and common equity have declined significantly during the eight-year period from 2012 to 2020. This fundamental regulatory principle was established in the landmark *Bluefield* Decision in 1923.[33]

[32] *See* R.C. 4905.22. This requirement has been effective since October 1, 1953.

[33] *See Bluefield Water Works v. Public Service Comm'n,* 262 U.S. 679 (1923).

In that case, the U.S Supreme Court ruled that:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures.

This is exactly the situation here where Duke and the Staff are trying to deny Duke's customers any benefits from a drastically lower cost of capital prevailing now by sticking to an excessive (relative to current market conditions) rate of return decided eight years ago. The PUCO should not allow this to happen.

Q13. DOES THE SETTLEMENT VIOLATE STATE POLICY TO THE DETRIMENT OF CONSUMERS?

A13. Yes. The Settlement directly contradicts several Ohio policies regarding gas services that are delineated in Revised Code 4929.02.[34] The Settlement violates the state gas policies in at least two areas.

[34] *See* R.C. 4929.02.

First, the Settlement will not "[p]romote the availability to consumers of adequate, reliable, and reasonably priced natural gas services and goods"[35] because it will impose unreasonable costs, such as the $7.9 million additional costs from the use of a unreasonably high pre-tax rate of return of 9.16%, on customers, especially for residential customers.

Second, the Settlement will not "[f]acilitate the state's effectiveness in the global economy."[36] The Settlement forces Duke's monopoly customers to provide millions in subsidies to Duke through an unjust and unreasonable CEP charge. The Settlement, if approved, will adversely affect the livelihood of many Ohioans and the Ohio economy. Residential customers, small business owners, and manufacturing plants will be required to pay higher monthly gas bills. This money could be spent on other daily expenses, investing in new machines, or hiring new employees, but instead must be diverted to Duke. The dramatic and unjustified additional cost of gas service being imposed on Duke's customers, as a result of the Settlement, will not promote economic development in Duke's service territory. Thus, this Settlement will not advance Ohio's competitiveness and effectiveness in the new global economy.

[35] *See* R.C. 4928.02 (A) (1).

[36] *See* R.C. 4929.02 (A) (10).

III. THE PRE-TAX RATE OF RETURN OF 9.16 PERCENT PROPOSED IN THE SETTLEMENT IS EXCESSIVE AND UNREASONABLE FOR CONSUMERS TO PAY

Q14. WHAT IS THE PRE-TAX RATE OF RETURN DUKE PROPOSED TO CHARGE CUSTOMERS FOR ITS CAPITAL EXPENDITURE PROGRAM?

A14. Duke proposes to use a pre-tax rate of return of 9.16% in calculating the Rider CEP revenue requirement.[37] Duke indicates that this pre-tax rate of return reflects the rate of return components stipulated in Duke's last rate case, Case No. 12-1585-GA-AIR et al.[38] Specifically, the 9.16% pre-tax rate of return is based on: a cost of equity (or return on equity, ROE) of 9.84%, a cost of long-term debt of 5.32%, a capital structure of 46.7% debt and 53.3% equity, and a tax gross-up factor of 1.2727273 reflecting the federal income tax rate of 21% currently in place.[39]

Q15. IS THIS PRE-TAX RATE OF RETURN FROM DUKE'S RATE CASE FILED IN 2012, JUST AND REASONABLE FOR DUKE'S CUSTOMERS TO PAY NOW?

A15. No. OCC objects to the adoption of this pre-tax rate of return.[40] A pre-tax rate of return of 9.16% on Duke's CEP rate base is neither justified nor reasonable under current market

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[37] *See* Application, Exhibit J, Schedule 1.

[38] *Id.*

[39] *See* Case No. 12-1685-GA-AIR, Opinion and Order at 13 (November 13, 2013), and Application Exhibit I, Schedule A-1 (May 3, 2019).

[40] *See* OCC objection 6.

conditions or established regulatory principles. Given the significant decline in the interest rates and cost of capital since 2012, continuing to use the return on equity and cost of debt set eight years ago will lead to an excessive and unreasonable CEP charges for customers to pay.

Q16. IS THE PUCO REQUIRED TO USE THE RATE OF RETURN SET IN THE LAST RATE CASE FOR SUBSEQUENT RIDERS THAT CUSTOMERS PAY?

A16. No. There is no requirement that the PUCO use the rate of return decided in the last rate case for any subsequent rider cases or other proceedings that involve a return on rate base.

Q17. DO YOU AGREE WITH DUKE'S CLAIM THAT ANY REDUCTION IN RATE OF RETURN IN THIS PROCEEDING WOULD BE ARBITRARY AND NOT AFFORDING DUKE THE OPPORTUNITY TO DEVELOP, SUPPORT, AND LITIGATE A FAIR RATE OF RETURN?

A17. No. I do not agree with this claim by Duke.[41] Duke was given the opportunity to update its rate of return components by the PUCO and Duke has provided updated information on its weighted cost of long-term debt and capital structure as of December 31, 2018.[42] However, Duke chose not to update its cost of equity in its supplemental filings. Duke

[41] *See* Supplemental Testimony of Jay P. Brown at 21(January 6, 2021).

[42] *See* Supplemental Filing, Exhibit I Schedules D-1A, and D-3A (September 9, 2019).

also has the opportunity to file testimony supporting the update of its rate of return components and it chose not to do it.

The timely update of the rate of return components after eight years and with very significant reductions in the costs of debt and equity in the financial market is reasonable, not arbitrary. To continue using an outdated and highly inflated rate of return, to the detriment of consumers, is arbitrary. Allowing Duke to do so is arbitrary and unreasonable.

Q18. WHAT HAVE YOU OBSERVED REGARDING THE FINANCIAL MARKET CONDITIONS SINCE 2012 THAT SHOULD GUIDE THE PUCO IN SETTING RATES FOR DUKE'S CUSTOMERS?

A18. The most pronounced changes in the financial market over the last eight years after Duke's last gas rate case are the significant decline in the costs of debt and equity for all businesses including regulated utilities.

According to S&P Global Market Intelligence, a widely used and reliable trade publication, the average authorized return on equity ("ROE") in gas rate cases decided nationwide has declined from 9.94% in 2012 to 9.71% in 2019 and 9.40% in the first half of 2020.[43] As for the costs of long-term debt, it also declined drastically from 2012 to

[43] *See* https://platform.mi.spglobal.com/web/client?auth=inherit#news/file?keyfileversion=52840B38-67A7-96F2-7C9B-283021E904EC&KeyFileFormat=3&isNewsletter=1. Access may require paid subscription.

2020, probably more so than the decline in the authorized ROEs. For example, the daily Long-Term Composite Rate (defined as the unweighted average of bid yields on all outstanding fixed-coupon bonds neither due nor callable in less than 10 years) published by the U.S. Treasury has decreased from 2.64% in January 3, 2012 to 1.04% in July, 31 2020.[44] The yields of BBB-rated corporate bonds, generally considered by many financial analysts as a proxy for long-term debts of regulated utilities, published by the St. Louis Federal Reserve Bank have shown a similar degree of decline from 4.58 in January 3, 2012 to 2.35% in July 31, 2020.[45] I expect this trend of declining cost of equity (or the authorized ROE) and cost of debt for regulated utilities to continue for the next few years based on the struggling U.S. economy and the challenging employment condition.

Q19. IS DUKE FACING ANY UNUSUAL AND DISTINCT RISKS THAT JUSTIFY CHARGING CUSTOMERS A HIGHER RATE OF RETURN THAN A TYPICAL GAS UTILITY?

A19. No. Duke currently has an above-average investment-grade credit rating. Duke is rated "A-" with a "stable" outlook by S&P Global Ratings, and a "Baa1" with "stable" outlook by Moody's.[46] Duke's parent company, Duke Energy Corporation, also has an investment-grade credit rating with "A-" rating and a "stable" outlook by S&P Global

[44] *See* https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=longtermrate.

[45] *See* https://fred.stlouisfed.org/series/BAMLC0A4CBBBEY.

[46] *See* https://www.duke-energy.com/our-company/investors/fixed-income-investors/credit-ratings.

Ratings and "Baa1" rating with "stable" outlook by Moody's.[47] There is no indication that Duke is facing or will face any unusual and distinct business and financial risks that would distinguish it significantly from a typical regulated gas distribution company. Duke's expected earnings are considered stable especially in the current economic environment with considerable uncertainty due to the coronavirus pandemic and economic dislocations arising from the pandemic. Duke is providing an essential gas utility service that is needed by almost everyone within its service territory.

In addition, under Ohio's current regulatory environment, Duke has various riders and "credit supportive" rate design in place that would largely insulate Duke from any usage decline due to economic recession or other factors. There is simply no basis whatsoever to consider Duke to be riskier than an average gas utility and to give it a ROE higher than that authorized for an average gas utility in recent years.

Q20. WHAT IS YOUR RECOMMENDED CAPITAL STRUCTURE FOR DUKE IN THIS PROCEEDING?

A20. Because Duke has provided an updated capital structure as of December 31, 2018 in its Supplemental filing made on September 9, 2019, I propose to use this updated capital structure of 46.03% debt and 53.97% equity as of December 31, 2018 for calculating the pre-tax rate of return in this proceeding.[48]

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[47] *Id.*

[48] *See* Supplemental Filing, Exhibit I Schedule D-1A (September 9, 2019).

Q21. WHAT IS YOUR RECOMMENDED COST OF LONG-TERM DEBT FOR DUKE IN THIS PROCEEDING?

A21. In its Application, Duke proposed to use the cost of debt of 5.32% approved in 2012 to set the pre-tax rate of return for its CEP investments. This cost of debt of 5.32% is outdated and overstated. As ordered by the PUCO, Duke has submitted supplemental information regarding its costs of debt. Duke calculated its embedded cost of long-term debt to be 4.94% as of December 31, 2018.[49]

Duke's current cost of long-term debt has decreased further from 4.94% because Duke has refinanced its long-term debts totaling $1.2 billion in 2019 and 2020. Duke has sold three First Mortgage Bonds totaling $1.2 billion in 2019 and 2020: a $400 million bond due in 2029 with an interest rate of 3.65%, another $400 million bond due in 2049 with an interest rate of 4.30%, and a $400 million due in 2030 with an interest rate of 2.125% on May 21, 2020.[50] Part of the proceeds of the 2019 First Mortgage Bonds was used to retire the First Mortgage Bonds of $450 million (with an interest rate of 5.450%) that would mature on April 1, 2019.[51] As a result of these debt financings in 2019 and 2020, I have updated Duke's current cost of long-term debt to be approximately 4.03%. This calculation is shown in Table 5.

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[49] *See* Supplemental Filing, Exhibit I, Schedule D-3A (September 9, 2019). This filing can be accessed at http://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=e5c71b3d-cff6-4ef1-9220-46cdd963960f.

[50] *See* PUCO Case No. 18-238-GE-AIS, Report of Issuance (January 8, 2019). This Report can be access at http://dis.puc.state.oh.us/TiffToPDf/A1001001A19A08B10841D01065.pdf, and PUCO Case No. 19-637-AIS, Report of Issuance (June 16, 2020). This Report can be access at http://dis.puc.state.oh.us/TiffToPDf/A1001001A20F16B03433G01413.pdf.

[51] *See* PUCO Case No. 18-238-GE-AIS, Report of Issuance at S-10.

Table 5
Duke's Updated Cost of Long-term Debt

	Face Amount Outstanding	Interest rate	Unamortized Discount	Unamortized Debt Expense	Unamortized Loss on Reacquired Debt	Carrying Value	Annual Interest Cost	Cost of Debt
	(1)	(2)	(3)	(4)	(5)	(6) = (1) + (3) – (4) – (5)	(7) = (1) * (2)	
As of 12/31/2018	$1,575,184,011	varies	($30,865,309)	$6,489,384	$2,781,185	$1,535,027,083	$75,895,057	4.94%
1/8/2019 Debt Finance (1)	$400,000,000	3.65%	($2,600,000)	$277,000	$0	$397,123,000	$14,600,000	3.68%
1/8/2019 Debt Finance (2)	$400,000,000	4.30%	($3,500,000)	$277,000	$0	$396,223,000	$17,200,000	4.34%
4/1/2019 Debt Retirement	$450,000,000	5.45%				$450,000,000	$24,525,000	5.45%
5/21/2020 Refinance	$400,000,000	2.125%	($2,600,000)	$560,000	$0	$397,123,000	$8,600,000	2.17%
Total	$2,325,184,011	varies	($39,586,359)	$7,603,384	$2,781,185	$2,275,313,083	$116,195,057	4.03%

Q22. WHAT IS YOUR RECOMMENDED COST OF EQUITY (OR RETURN ON EQUITY) THAT CUSTOMERS SHOULD PAY FOR DUKE'S CEP PROGRAM?

A22. Because Duke is not facing any unusual and distinct business and financial risks in comparison to other regulated gas utilities, I propose to use the average ROEs authorized for gas distribution utilities in 2019 and the first half of 2020 nationwide as the starting point for setting the baseline ROE for Duke in this proceeding. Based on the rate case data compiled by S&P Global Market Intelligence, the average of the average ROEs granted in gas rate cases in 2019 (9.71%) and the first half of 2020 (9.40%) is 9.56%. However, in light of the favorable Ohio regulatory environment that Duke is operating and the low risk profile of its gas distribution business and the current economic stress experienced by many Duke's customers, I make a downward adjustment of 20 basis point (0.20%) to the baseline ROE, resulting in a final recommended ROE of 9.36%.

Q23. WHAT IS YOUR RECOMMENDED PRE-TAX RATE OF RETURN FOR DUKE IN THIS PROCEEDING?

A23. If my recommended cost of equity of 9.36% and cost of long-term debt of 4.03% were adopted and applied to the capital structure of 46.03% debt and 53.97% equity, with the cost of equity grossed-up (with a gross-up factor of 1.2727273 as proposed by Duke) for federal income tax, the resulting pre-tax rate of return would be 8.29%. This is my recommended pre-tax rate of return for Duke's capital expenditure program.

IV. SUMMARY AND CONCLUSION

Q24. PLEASE SUMMARIZE YOUR RECOMMENDATIONS FOR CONSUMER PROTECTION IN THIS PROCEEDING.

A24. To protect Duke's customers from paying unjust and unreasonable rates, the PUCO should reject the Settlement because the Settlement does not satisfy the three-prong test used by the PUCO in approving a settlement. I also recommend that the PUCO should set the pre-tax rate of return applicable to Duke's current capital expenditure program based on current market conditions instead of a rate of return set eight years ago. As observed by the U.S. Supreme Court nearly one hundred years ago in the landmark *Bluefield* decision, "[a] rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market, and business conditions generally."[52] This is precisely the situation here. The PUCO should adopt a pre-tax rate of return no higher than 8.29% for determining what consumers should pay if Rider CEP is approved.

Furthermore, to protect Duke's customers from unreasonable and substantial increase in monthly fixed charge, I recommend that the PUCO reject the residential monthly rate cap included in the Settlement. A more reasonable residential rate cap as proposed by another OCC witness, Kerry J. Adkins, should be adopted instead if the CEP program is approved by the PUCO. The monthly residential rate cap included in the Settlement would only accelerate the collection of charges by Duke and offer no real protection to residential customers for sudden and drastic rate increase.

Q25. DOES THIS CONCLUDE YOUR TESTIMONY?

A25. 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.

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[52] *See Bluefield Water Works v. Public Service Comm'n, 262 U.S. 679 (1923).*

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing *Direct Testimony of Daniel J. Duann, Ph.D. on behalf of the Office of the Ohio Consumers' Counsel* has been served upon those persons listed below via electronic service this 13th day of January 2021.

/s/William J. Michael
William J. Michael
Assistant Consumers' Counsel

The PUCO's e-filing system will electronically serve notice of the filing of this document on the following parties:

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Daniel J. Duann, Ph.D.
List of Testimonies Filed Before PUCO

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

2. *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).

3. *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).

4. *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).

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

6. *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).

7. *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).

8. *In the Matter of the Application of Columbus Southern Power Company and AEP Company for Authority to Establish a Standard Service Offer Pursuant to 4928.143, Ohio Rev. Code in the Form of an Electric Security Plan (ESP)*, Case Nos. 11-346-EL-SSO, et al (July 25, 2011).

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

10. *In the Matter of the 2010 Annual Filing of Columbus Southern Power Company and AEP Company Required by Rule 4901:1-35-10, Ohio Administrative Code,* Case Nos. 11-4571-EL-UNC and 11-4572-EL-UNC (October 12, 2011).

11. *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).

12. *In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to 4928.143, Ohio Rev. Code in the Form of an Electric Security Plan (Modified ESP)*, Case Nos. 11-346-EL-SSO, et al (May 4, 2012).

13. *In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company For Authority to Establish a Standard Service Offer Pursuant to R.C. § 4928.143 in the Form Of an Electric Security Plan,* Case No. 12-1230-EL-SSO (May 21, 2012).

14. *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).

15. *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).

16. *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).

17. *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).

18. *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).

19. *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).

20. *In the Matter of the Application Seeking Approval of AEP 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).

21. *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 (November 6, 2015).

22. *In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.141 in the Form of an Electric Security Plan,* Case No. 14-1297-EL-SSO (June 22, 2016).

23. *In the Matter of the Application of Ohio Power Company for Administration of the Significantly Excessive Earnings Test for 2014 under Section 4928.143 (F), Revised Code, and Rule 4901:1-35-10, Ohio Administrative Code,* Case No. 16-1105-El-UNC (August 15, 2016).

24. *In the Matter of the Application of Ohio Power Company for Administration of the Significantly Excessive Earnings Test for 2014 under Section 4928.143 (F), Revised Code, and Rule 4901:1-35-10, Ohio Administrative Code,* Case No. 16-1105-El-UNC (September 19, 2016).

25. *In the Matter of the Application of Aqua Ohio, Inc. for Authority to Increase Its Rates and Charges for Its Waterworks Service.* Case No. 16-0997-WW-AIR (December 19, 2016).

26. *In the Matter of the Application of Ohio Power Company for Administration of the Significantly Excessive Earnings Test for 2016 Under Section 4928.143(F), Revised Code, and Rule 4901:1-35-10, Ohio Administrative Code,* Case No. 17-1230-EL-UNC (January 12, 2018).

27. *In the Matter of the Annual Application of Duke Energy Ohio, Inc., for an Adjustment to Rider AMRP Rates.* Case No. 17-2318-GA-AIR (April 5, 2018).

28. *In the Matter of the Application of the Dayton Power and Light Company for an Increase in Electric Distribution Rates.* Case No. 15-1380-EL-AIR (April 11, 2018).

29. *In the Matter of the Application of Duke Energy Ohio, Inc., for an Increase in Distribution Rates.* Case No. 17-0032-EL-AIR et al., (June 25, 2018).

30. *In the Matter of the Determination of the Existence of Significantly Excessive Earnings Test for 2017 Under the Electric Security Plan of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company.* Case No. 18-0967-EL-UNC, (October 16, 2018).

31. *In the Matter of the Application of Suburban Natural Gas Company for an Increase in Gas Distribution Rates.* Case No. 18-1205-GA-AIR et al., (March 8, 2019).

32. *In the Matter of the Application of Suburban Natural Gas Company for an Increase in Gas Distribution Rates.* Case No. 18-1205-GA-AIR et al., (June 21, 2019).

33. *In the Matter of the Application of Northeast Ohio Gas Corp. for an Increase in Gas Distribution Rates.* Case No. 18-1720-GA-AIR et al., (July 25, 2019).

34. *In the Matter of the Application of Northeast Ohio Gas Corp. for an Increase in Gas Distribution Rates.* Case No. 18-1720-GA-AIR et al., (September 5, 2019).

35. *In the Matter of the Application of Ohio Power Company for Administration of the Significantly Excessive Earnings Test for 2018 Under Section 4029.143(F), Revised Code, and Rule 4901:1-35-10, Ohio Administrative Code.* Case No. 19-1098-EL-UNC, (August 30, 2019).

36. *In the Matter of the Application of Ohio Power Company for Administration of the Significantly Excessive Earnings Test for 2018 Under Section 4029.143(F), Revised Code, and Rule 4901:1-35-10, Ohio Administrative Code.* Case No. 19-1098-EL-UNC, (November 5, 2019).

Selected Publications of Daniel J. Duann, Ph.D.

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The National Regulatory Research Institute, **Natural Gas Vehicles and the Role of State**

Public Service Commissions, 1992 (with Youssef Hegazy).

The National Regulatory Research Institute, **Incentive Regulation for Local Gas Distribution Companies under Changing Industry Structure**, 1991 (with Mohammad Harunuzzaman, Kenneth W. Costello, and Sung-Bong Cho).

The National Regulatory Research Institute, **Discussion Papers on Competitive Bidding And Transmission Access and Pricing issues in the Context of Integrated Resource Planning**, 1990 (with Robert E. Bums, Kenneth Rose, Kevin Kelly, and Narayan Rau).

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The National Regulatory Research Institute, **State Gas Transportation Policies: An Evaluation of Approaches**, 1989 (with Robert E. Bums and Peter A. Nagler).

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