Clean
Errata Filing of April 6, 2026

**BEFORE THE PUBLIC SERVICE COMMISSION**
**OF MARYLAND**

| | | |
|---|---|---|
| In the Matter of the Application of Washington Gas Light company for Authority to Increase Existing Rates and Charges and to Revise Its Terms and Conditions for Gas Service | * * * * | Case No. 9849 |

* * * * * * * * * * * * *

# DIRECT TESTIMONY AND EXHIBITS OF ALBERT LIN

ON BEHALF OF
THE MARYLAND OFFICE OF PEOPLE'S COUNSEL

MARCH 31, 2026

## Table of Contents



## List of Attachments

## I. Introduction & Purpose of Testimony

**Q. Please state your name, business affiliation, position, and address.**

A. My name is Albert Lin. I am an economic and financial consultant for the OG Finance Lab, located at 26732 Via La Jolla, San Juan Capistrano, CA 92675.

**Q. On whose behalf are you testifying?**

A. I am testifying on behalf of the Maryland Office of People's Counsel.

**Q. Please state your educational background and experience.**

A. I have worked in finance and capital markets analysis related to regulated industries since 1989. After graduating from the University of Texas at Austin with bachelor's degrees in Finance and International Business, as well as a master's degree in Business Administration from the university's honors program, I worked for a regulated utility called General Telephone and Electric ("GTE"), now called Verizon. GTE conducted business in over 20 states nationwide and derived most of its revenue from activities regulated by state public utility commissions. I worked in the finance and audit departments, where I analyzed and supported optimal financial outcomes for shareholders consistent with the policies and orders of the public utility commissions in each state where GTE conducted business. My work focused mainly on financial and accounting activities aimed at achieving the highest returns possible, with least operating risk and most consistent financial outcomes, for GTE's equity shareholders. These activities included satisfying credit rating agencies, whose determinations about GTE's financial risk could

impact its cost of debt—and, thereby, would likely affect how shareholders perceived the company's equity value.

After a series of legislative changes culminating in the Telecommunications Act of 1996, GTE's primary activities were fully de-regulated across the country. Just prior to the Act's passage, the focus of my work shifted to the equity valuation of wireless communications assets. In this role, I helped price the cost of capital and equity value of wireless communication assets for various Wall Street capital markets firms. I also became a founder and partner for a broker-dealer, registered with the Financial Industry Regulatory Authority ("FINRA"), which focused on equity valuation and forecasts in high-growth industries, such as the technology industry sector.

Since 2020, my work has focused on economic consulting and financial analysis covering the energy industry, including the regulated utility sector, in the United States. A copy of my professional resume is attached to this testimony as Attachment AL-1.

**Q. Have you previously testified in proceedings before the Maryland Public Service Commission?**

A. No.

**Q. Have you previously testified in other regulatory jurisdictions?**

A. Yes. I have testified before public utility commissions in Virginia, North Carolina, South Carolina, Geogia, and Utah. My CV provides details on specific dockets, as I have testified more than once in some states.

**Q. What is the purpose of your direct testimony?**

A. The purpose of this testimony is to assist the Commission in determining an appropriate return on equity ("ROE") for Washington Gas Light Company ("WGL" or "company").

**Q. What documents do you rely upon for your analysis, findings, and recommendations?**

A. My analysis relies primarily upon public and private data, analysis, and reports available from the largest asset managers, capital advisors, and financial institutions in the United States. I also rely on the testimonies and exhibits filed by the company.

**Q. How is the rest of your testimony organized?**

A. Sections 2 and 3 summarize the Company's proposal for rate of return and my recommendations to the Commission. Section 4 discusses the principles for setting a rate of return as established by the *Hope* and *Bluefield* Supreme Court cases. Section 5 introduces the academics and investment professionals whose cost of equity estimates inform my ROE recommendation. Section 6 addresses why the potential consequences of a lower ROE that WGL witness Joshua Nowak discusses in his testimony are unlikely to occur. Section 7 analyzes the flaws in the cost of equity models that Mr. Nowak uses. Section 8 develops an overall rate of return using my recommended capital structure, cost of equity, and cost of debt. Section 9 explains why my recommendations conform to the standards of *Hope* and *Bluefield*.

## II. Summary of Company's Rate of Return Proposal

**Q. Please describe the company's proposed capital structure, return on equity, return on debt, and overall rate of return.**

A. The company proposes an overall rate of return ("ROR") of 8.069 percent, based on the following capital structure and cost of capital for equity, long-term debt, and short-term debt:

**Table 1: WGL's proposed capital structure and cost of capital**[1]

| Capital Type | Ratio | Capital Cost | Weighted Cost |
|---|---|---|---|
| Long-term debt | 44.687% | 4.725% | 2.112% |
| Short-term debt | 1.045% | 6.625% | 0.069% |
| Equity | 54.269% | 10.850% | 5.888% |
| Total | 100% | - | 8.069% |

**Q. Please summarize the cost of equity results that company produces.**

A. Mr.Nowak uses the Discounted Cash Flow ("DCF"), Capital Asset Pricing Model ("CAPM"), and a Risk Premium model to estimate a cost of equity for a group of companies that proxy WGL. His analyses produce mean estimates of 10.96 percent (DCF), 11.32 percent (CAPM), and 10.37 percent (Risk Premium), for an overall average of 10.88 percent. Mr. Nowak's low end for his range of ROE

[1] Washington Gas Light Company, *Washington Gas Light Company's Application for Authority to Increase Rates and Charges for Natural Gas Services* (Case No.9849, Dec. 29, 2026), Direct Testimony of Janet Burrows ("Burrows Direct") at 2.

analysis is 10.25 percent and the high is 11.25 percent. Based on this set of cost of equity results, he recommends an ROE of 10.85 percent.[2]

## III. Summary of Testimony and Recommendations

**Q. What are the key problems with the company's rate of return proposal?**

A. As I discuss in the testimony that follows, the main problem with the company's proposal is that the analysis the company provides in support of its proposed ROE utilizes well-known financial formulas but selects inputs that are incorrect or improper. I will address some specifics in my testimony. Another issue with the company's proposal is its lack of recognition of how far WGL's conclusions deviate from the ROE conclusions published by the financial community of practicing experts and academic institutions that train the very professionals who work in the finance industry. The company also claims harms resulting from a lower ROE, such as lost access to capital markets, which are not supported by current data or historical examples.

**Q. Please summarize your recommendations for the Commission.**

**A.** I recommend the following:

**1.** The Commission should set the company's ROE based on the cost of capital expectations of credible asset managers and academic institutions in the United States. These entities are financially motivated to seek accuracy, not a specific outcome, and have a greater depth of experience and

[2] Direct Testimony of Joshua C. Nowak ("Nowak Direct") at 4:13-18;at Figure 1.

expertise than most experts who represent utilities, who consistently produce cost of equity estimates that are significantly higher than market data indicates or even than other parties in rate case proceedings. Lowering WGL's ROE is highly unlikely to result in the company losing access to capital markets or higher prices for customers.

**2.** The Commission should give little weight to the results from Mr. Nowak's financial formulas because they are based on inputs that are biased or used incorrectly and fail to capture the financial reality of the market and the company.

**3.** The Commission should accept WGL's cost of debt proposals of 4.725 percent of long-term debt and 6.625 percent for short-term debt.

**4.** The Commission should adopt an ROE of 6.74 percent based on my analysis of the market conditions and investor expectations for a utility like WGL with relatively strong financial metrics.

**5.** The Commission should adopt an authorized equity ratio of 52 percent, in line with the equity ratio it authorized in prior cases.

Based on my recommendations for the Commission to (i) lower WGL's ROE to 6.74 percent; (ii) accept WGL's cost of debt proposals as 4.725 percent for long-term debt and 6.625 percent for short-term debt; and (iii) maintain WGL's equity layer at 52 percent, I recommend an overall rate of return at 5.793 percent as shown in Table 2 below.

**Table 2: Recommended capital structure and cost of capital for WGL**

| Capital Type | Ratio | Capital Cost | Weighted Cost |
|---|---|---|---|
| Long-term debt | 46.955% | 4.725% | 2.219% |
| Short-term debt | 1.045% | 6.625% | 0.069% |
| Equity | 52.000% | 6.740% | 3.505% |
| **Total** | **100%** | **-** | **5.793%** |

**Q. What is the basis of your recommendations?**

A. My recommendations are based on estimates of the cost of capital that are published by leading academic experts and investment professionals and are publicly available.

**Q. Why is your recommendation based on estimates published by leading academics and investment professionals?**

A. In a rate case, the utility has an interest in gaining approval of as high of an overall return as possible. Accordingly, the utility's rate of return witness generally points to financial models that were built with improper and biased assumptions. Mr. Nowak's analysis in this proceeding is no exception, as I will discuss in more detail below. By contrast to the motivations of a typical utility witness, academic and investment professionals are financially motivated to be correct in judging the cost of capital and market conditions. Being correct enables investment professionals to earn higher returns for themselves and their clients, and to bolster their reputation. Experts like the ones I relied on in developing my recommendations are more credible and reliable than those hired by WGL because

they are more experienced, their motivations are unbiased, and they have a track record that demonstrates expertise.

## IV. Principles for Rate of Return

**Q. What principles should be used in setting a utility's authorized rate of return?**

A. The U.S. Supreme Court established the primary objectives of ratemaking in two seminal cases: *Bluefield Waterworks v. Public Service Commission of West Virginia* in 1923 and *Federal Power Commission v. Hope Natural Gas* in 1944.[3]

The Court in *Bluefield* established that a public utility is entitled to rates that will permit it to earn a return on its investments "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 that the utility "has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures."[4]

In *Hope*, the Court set out the primary objective in public utility ratemaking, stating that arriving at "just and reasonable rates" requires "a balancing of the investor and the consumer interests."[5] Consumers want to minimize costs and rates as much as possible while receiving safe and reliable service. The interests of both debt and equity investors are broader but still straightforward: a utility's debt investors expect to receive their contractual

[3] 262 U.S. 679 (1922) ("*Bluefield*");
320 U.S. 591 (1944) ("*Hope*").
[4] *Bluefield* at 692–93.
[5] *Hope* at 603.

interest payments and, therefore, "[have] a legitimate concern with the financial integrity of the company whose rates are being regulated," i.e., a concern with the utility's credit quality and anticipated ability to fulfill its obligations to debtholders.[6] Equity investors expect to receive a fair return on equity, defined in *Hope* as a return that is "commensurate with returns on investments in other enterprises having corresponding risks."[7]

**Q. What measure should fact finders employ when determining a utility authorized rate of return?**

A. As the National Association of Regulatory Utility Commissioners ("NARUC") has explained, "[f]undamental financial concepts demonstrate that the fair rate of return to use in ratemaking for a utility is its cost of capital in order to achieve the proper balance between customers and investors."[8] The objective in setting a utility's authorized rate of return, therefore, should be to set the rate of return on each source of capital as close as possible to the utility's actual cost of capital—its cost of debt and cost of equity.

**Q. What is the cost of capital?**

A. The cost of capital is the return investors expect on their investment. It is referred to as a "cost" because it reflects what investors expect in return for assuming the

[6] *Id*.
[7] *Id*.
[8] J.D. Quackenbush. *Cost of Capital and Capital Markets: A Primer for Utility Regulators* at 10, Nat'l Ass'n of Regul. Util. Comm'rs for U.S. Agency for Int'l Dev. (Dec. 2019), *accessible at* https://pubs.naruc.org/pub.cfm?id=CAD801A0-155D-0A36-316A-B9E8C935EE4D.

risk of the investment and, therefore, what companies must pay for that investment.

**Q. How are the cost of debt and the cost of equity determined?**

A. The cost of debt and the cost of equity are determined differently. The cost of debt can be directly determined from contractual interest rates. Similarly, the cost of debt expected to be issued can be determined accurately from known interest rate indexes for debt of comparable credit quality, such as Moody's utility bond indexes, which in turn are based on interest rates directly observed in the market.

In contrast, the cost of equity, both existing and to-be-issued, cannot be observed directly and must be estimated through analysis, which usually takes the form of econometric models. The aim of the models should be to determine the level of return necessary for a utility to attract investor capital. For reasons discussed below, however, many utility-proffered models for estimating the cost of equity are inherently biased and often produce results that are drastically at odds with reliable data available from independent financial market sources. Comparing utilities' modeling results against these independent sources is an easy check for modeling accuracy.

**Q. Please explain the relationship between cost of capital, investor expectations, and risk.**

A. The relationship between cost of capital, investor expectations, and risk is simple: Investors are willing to accept a lower return on capital invested in securities that have a lower risk of yielding a financial loss. The most decisive way to reduce

such risk is to eliminate competition, thereby increasing the probability that the business can set and preserve prices with greater certainty. In other words, the best way to reduce the financial risk of investment in a business is to make that business a monopoly.

This basic principle is the reason that governments have passed laws to prevent the formation of monopolies and trusts to preserve competition, drive innovation, and protect consumers from artificially high prices. The goal of such policies is that competitive markets should determine the prices of goods and services. The United States has supported fair competition and consumer choice with a long-standing set of laws to achieve this goal, starting with the Sherman Antitrust Act in 1890 and continuing to this day.[9]

WGL is a monopoly utility. It has no competitors in its Maryland service territory. And, although it is subject to regulation by the Commission, it is allowed to recover its costs, including "sufficient, but no more than sufficient," returns on investment necessary for the company to fulfill its obligation to serve.[10] This framework significantly reduces risk to investors, and WGL's authorized ROE should reflect that.

[9] For example, in October 2020, President Trump signed into law a continuing resolution that contains the Antitrust Criminal Penalty Enhancement and Reform Permanent Extension Act, reauthorizing the Antitrust Criminal Penalty Enhancement and Reform Act and repealing the sunset provision therein. In July 2021, President Biden issued Executive Order 14036 to establish a "whole-of-government effort to promote competition in the American economy" by encouraging stronger enforcement of antitrust law and authorizing an all-of-government approach to promoting competition, including the creation of the White House Competition Council.

[10] J.C. Bonbright, *Principles of Public Utility Rates* at 240–41, Columbia University Press (1961), *accessible at* https://www.raponline.org/knowledge-center/principles-of-public-utility-rates/.

**Q. Is there a difference between a utility's cost of capital and its rate of return?**

A. Yes. Cost of capital and rate of return are frequently confused in utility regulatory proceedings, in part because utility experts often use the two terms interchangeably. However, cost of capital and rate of return are different concepts. Rate of return is a financial performance metric focused on profitability (or potential profitability) from the perspective of an investor, while cost of capital is an economic concept concerning the cost of funding from the perspective of a company (here, a utility).

As noted above, the Commission's goal should be to set just and reasonable rates that balance utility and consumer interests, which means setting authorized returns on debt and equity as close as possible to the utility's actual costs of debt and equity as determined by financial markets.

When a Commission authorizes a rate of return that is higher than a utility's cost of capital, it tips the scales in favor of the utility's debt and equity investors at the expense of consumers. Muddying the difference between the cost of capital and the rate of return, therefore, is not just of semantic concern. The confusion between *cost* of equity and *return* on equity has infiltrated some of the models commonly used in utility ratemaking proceedings. For example, some models rely exclusively on historical or forecasted utility authorized rates of return on equity, without reference to utilities' actual cost of equity. These models in particular should be rejected outright. But *all* models must be examined closely and

compared with data from independent financial sources to determine which, if any, are suitable bases for estimating the cost of equity.

**Q. Why is it important to ensure that ROE is determined in an unbiased and fair manner?**

A. Put simply, higher approved ROEs raise customer rates and result in higher bills for customers. While customer bills may increase for many reasons, any increase in the ROE should be granted only if a utility's risk has increased or market conditions have otherwise changed in a way that increases the utility's cost of capital.

## V. Investment Professionals and Academic Experts Provide Cost of Equity Information Regularly

**Q. Please explain the analysis supporting your recommendations.**

A. The overall approach for my analysis is quite simple. Because the investors in the company have access to, and therefore decide among, all other equities and debt securities in the overall financial markets, it is logical to use the market pricing data produced by the leading academic and financial institutions to determine the cost of capital. Specifically, I would examine the established financial academics and asset managers known worldwide for regularly analyzing market risks and the appropriate return for such risks.

**Q. What is an asset manager?**

A. An asset manager is a firm that invests money on behalf of its clients, on its own account, or both. Asset managers are most commonly compensated in an amount equating to a percentage of their assets under management ("AUM"), a percentage

of the returns they generate for clients, or some combination of the two. For example, an asset manager with $1 billion in AUM and an average fee of 1 percent would earn $10 million in fees each year.

The compensation structure for asset managers is relevant because it motivates them to correctly diagnose market conditions and the cost of capital, identifying over- or under-valued markets, sectors and stocks. Such correct diagnoses allow asset managers to generate higher returns for their clients, in turn allowing the managers to earn higher fees for themselves and attract new business.

**Q. Why is the motivation to correctly diagnose market conditions and cost of capital a key factor in assessing the reliability of experts?**

A. Motivation is a key factor because it can influence the assumptions an analyst makes. Asset managers and financial institutions are motivated to correctly assess the cost of capital because doing so will improve future returns for their clients and themselves. An asset manager that regularly publishes or relies on flawed or biased numbers is also likely to make poor decisions on portfolio allocations, resulting in reputational and direct financial harm as clients leave (with their assets) for competitors who were more accurate. This is why looking at the expectations of asset managers is critical in assessing utility cost of capital and setting ROEs. In short, an asset manager "gets it right" for its clients by actually getting it right.

**Q. What characteristics improve the credibility of an asset manager?**

A. A longer track record and greater AUM are two primary considerations. The longer the track record an asset manager has, the more data there is to demonstrate the asset manager can correctly analyze expected returns under many market conditions. Similarly, greater AUM indicates greater stability as well as a high degree of competency because clients trust the manager with more money over time.

**Q. Are there other factors that you believe enhance asset manager credibility?**

A. Yes. First, access to a relatively large pool of investors is important because utilities seek capital from the same investors transacting in the entire equity and debt markets. Active participants with complete market exposure would likely have a more accurate measure of where the market is pricing expected returns for a given level of risk.

Second, the more frequently an asset manager estimates future market returns, the more it puts its expertise to use. It stands to reason that a person or company practicing in a regular and frequent manner carries a greater level of expertise since the financial markets are evaluating and re-evaluating risk and reward expectations constantly. Firms that utilize these skills in a competitive environment on a continuous basis would have higher level of risk-pricing proficiency compared to those who only have their analysis tested and challenged occasionally.

**Q. Are there any asset managers which meet all the criteria you mentioned?**

A. Yes. BlackRock, Vanguard, and State Street are three investment managers that meet the criteria discussed above.

**Q. Please provide relevant specifics about BlackRock, Vanguard, and State Street.**

A. BlackRock was founded in 1988 and became a publicly traded company in 1999. BlackRock is now the largest asset manager in the world with over 21,000-financial professionals and more than $14 trillion in AUM.[11] BlackRock manages more money than the entire utility industry's $1.7 trillion market capitalization, of which the natural gas industry is just a 6.1 percent sub-sector.[12]

Vanguard, founded in 1975, is another asset manager with a tremendous record of success in the last half a century. Vanguard employs over 20,000 people to manage over $8 trillion for more than 50 million investors. Like BlackRock, Vanguard manages more assets than the entire regulated utility industry market.[13]

State Street Investment Management is the second oldest asset manager in this country, founded in 1792. State Street Investment Management manages $4.7 trillion, which again is more AUM than the entire utility industry's market capitalization.[14]

---

[11] BlackRock Corporate Website: https://ir.blackrock.com/home/default.aspx.
[12] *Utilities*. Yahoo! Finance (accessed Mar. 24, 2026), https://tinyurl.com/bdhsdpbx.
[13] *Vanguard by the Numbers*, Vanguard (accessed Mar. 24, 2026), https://corporate.vanguard.com/content/corporatesite/us/en/corp/why-vanguard/who-we-are/facts-and-figures.html.
[14] *State Street Corporation (NYSE: STT) Reports Fourth-Quarter and Full-Year 2024 Financial Results*, State Street (Jan. 17, 2026), https://investors.statestreet.com/investor-news-events/press-releases/news-details/2025/State-Street-Corporation-NYSE-STT-Reports-Fourth-Quarter-and-Full-Year-2024-Financial-Results/default.aspx.

All three of these entities publish annual or quarterly forecasted expected returns for many asset classes.

**Q. Why are the academic institutions you mentioned relevant to cost of capital analysis?**

A. The popular and common financial formulas used in finance are taught and often created by academic institutions. The formulas that are effective and useful, such as the CAPM and DCF, are used throughout the industry and have been used by WGL's witness in this case. The professors at leading academic institutions who instruct our country's financial professionals typically understand the proper use of these formulas and know the limitations of these same formulas. Some of these institutions will also provide market cost of equity estimates, which can provide valuable insight into market return expectations.

**Q. What criteria did you use to identify academic institutions that are reliable sources of information for setting an ROE in this proceeding?**

A. Similar to my approach in identifying reliable investment managers, I look for academic institutions with a long and proven history of success, scale of operations, and quality of work.

**Q. Is there an academic institution which meets these criteria?**

A. Yes. The New York University Stern School of Business meets all the criteria. NYU was established in 1831 and created its School of Commerce, Accounts, and Finance in 1900. In 1988, the school renamed the program to the Leonard N. Stern School of business and is now commonly called the Stern School or NYU Stern.[15]

[15] NYU Leonard N. Stern School of Business Website: https://www.stern.nyu.edu/.

The Stern School has been a top MBA program since U.S. News and World Report began to publish rankings.[16] The ratings for finance specific programs show that NYU Stern has been a top-three program every year since the rankings were started over 35 years ago.[17] NYU Stern excels in finance with a very high concentration of graduates taking jobs in finance (36.6 percent in 2025).[18] With over 125 years of teaching the professionals who work in finance and over 114,000 current alumni, NYU Stern has established itself as an elite program to prepare for a career in the finance industry.[19]

**Q. What NYU Stern-published information is relevant to this proceeding?**

A. In 1999, NYU Stern professor of finance Dr. Aswath Damodaran began to publish financial data, including the cost of equity for U.S. Equities 13 years after becoming a professor of finance at NYU, and has since expanded to cover individual sectors—including utilities—and global markets.[20] The results are available publicly and at no cost, published annually on the NYU Stern website,

[16] *2025 Best Business Schools,* U.S. News and World Report (accessed Mar. 24, 2026), https://www.usnews.com/best-graduate-schools/top-business-schools/mba-rankings.
[17] *2025 Best Business Schools,* U.S. News and World Report (accessed Mar. 24, 2026), https://www.usnews.com/best-graduate-schools/top-business-schools/mba-rankings.
[18] *NYU Stern Employment Report: MBA Class of 2025 & Record Compensation*, US News and World Report Rankings (Dec. 8, 2025), https://www.clearadmit.com/2025/12/nyu-stern-employment-report-mba-class-of-2025/.
[19] *By the Numbers*, NYU Leonard N. Stern School of Business (accessed Mar. 24, 2026), https://www.stern.nyu.edu/programs-admissions/undergraduate/why-stern/numbers#:~:text=Career%20Outcomes%20Report-,Community,1%20Class%20of.
[20] A. Damodaran, *Cost of Equity and Capital (US)*, Damodaran Online (Jan. 2026), https://pages.stern.nyu.edu/~adamodar/.

and are based on the financial formulas taught by NYU Stern to the many thousands of students who become financial professionals.[21]

**Q. You mentioned that NYU publishes estimates of the cost of equity. Is there a distinction between the cost of equity and ROE in the regulated utility industry?**

A. Yes, there is an important difference between the two.

Cost of equity is the return that investors expect to earn for providing equity to the company to invest. Cost of equity is determined by actions of buyers and sellers in the market, not by a regulator's decision.[22]

ROE, on the other hand, is set by the regulator, and it represents the revenue a utility is permitted to include in rates such that it has a reasonable opportunity to earn the return on equity investments. The utility is not guaranteed to earn this return, as that typically depends on how well the utility manages its costs, among other factors.[23]

The Commission will set WGL's ROE during this rate case, but importantly, the Supreme Court standards from *Hope* and *Bluefield* (discussed in more depth in Section 4) dictate that a reasonable ROE should be based on the cost of equity that WGL pays in the market.[24] Thus, understanding WGL's cost of equity is critical to determining the ROE that will be set in this proceeding.

[21] A. Damodaran (Jan. 2026).
[22] J. Lazar, P. Chernick, W. Marcus & M. LeBel, *Electric Cost Allocation for a New Era: A Manual*, Regulatory Assistance Project (Jan. 2020), *accessible at* https://www.raponline.org/wp-content/uploads/2023/09/rap-lazar-chernick-marcus-lebel-electric-cost-allocation-new-era-2020-january.pdf.
[23] *Id.*
[24] Bonbright (1961).

**Q. Do NYU and the asset managers that you have discussed develop estimates of cost of equity?**

A. Yes. Table 3 below shows the cost of equity estimates that these entities have developed for the entire market of publicly listed US large cap stocks.

**Q. How does WGL's requested ROE compare to the cost of equity estimates for US stocks developed by each of NYU Stern and the asset managers?**

A. The asset managers and expert academics have published estimates of the cost of equity that are materially lower than the ROE that WGL is requesting, as shown in Table 3 below. Mr. Nowak is recommending a 10.85 percent ROE, which is 4.11 percentage points above the average cost of equity figure published by the experts. Utilities, as legal monopolies, are insulated from competitive risks. As such, they are less risky than the average company in the market. I do not see a financial or economic basis for a regulated utility's ROE to be set above the cost of equity level for an average company.

**Table 3: Cost of Equity Estimates from Professional Investors and Leading Academic Experts**

| Institution | Cost of Equity Estimate |
|---|---|
| **BlackRock**[25] | 7.74% |
| **Vanguard**[26] | 4.50% |
| **State Street**[27] | 6.70% |
| **NYU**[28] | 8.02% |
| **high/average/low** | 8.02 / 6.74 / 4.50% |
| **MD OPC Recommendation** | 6.74% |

**Q. Can a utility's cost of equity be higher than the cost of equity for the average company in the market?**

A. Under almost all circumstances, no. Utilities are legal monopolies providing an essential service. As such, they are protected from competitive risks, have relatively predictable revenues, and because most costs of operating the business are passed through to customers, utilities are insulated from the major risks of

[25] *Capital market assumptions*. BlackRock Investment Institute (Feb. 24, 2026, accessed April 3, 2026), *accessible at* https://www.blackrock.com/institutions/en-us/insights/thought-leadership/capital-market-assumptions; 7.74 percent is the central expected 10 year annualized return for US equities.

[26] *Vanguard economic and market outlook for 2026. AI exuberance: Economic upside, stock market downside* at 17. Vanguard Research (Dec. 2025, accessed April 3, 2026), *accessible at* https://corporate.vanguard.com/content/dam/corp/research/pdf/isg_vemo_2026.pdf; 4.50 percent is the midpoint of Vanguard's 10 year stock return projection for US equities of 4 to 5 percent.

[27] *Long-Term Asset Class Forecasts: Q1 2026*. State Street Investment Management (Jan. 23, 2026, accessed April 3, 2026), *accessible at* https://www.ssga.com/us/en/institutional/insights/long-term-asset-class-forecasts-q1-2026; 6.70 percent is the Long Term (10+ Years) US Large Cap forecast.

[28] A. Damodaran, *Cost of Equity and Capital (US)*, Damodaran Online (Jan. 2026, accessed April 3, 2026), https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/wacc.html; 8.02 percent is the estimated cost of equity for the Total Market.

unexpected price hikes, actions, and outcomes of competitors and the marketplace. These factors all combine to make utilities a relatively low-risk investment.[29]

When a company is a relatively low-risk investment, its cost of equity is likewise relatively low.[30] Therefore, a utility's cost of equity should be lower, and certainly not higher, than the cost of equity for an average company in the marketplace. The NYU Cost of Equity report estimates the total market has a cost of equity of 8.02 percent, while the estimate for the "Utility (General)" sector is a lower 5.02 percent.[31] This difference of 3.00 percent reflects, in large part, the lower risk that most utilities have as legal monopolies. As a matter of common sense, companies with competitors are subject to far more variabilities and challenges to their business outlook than utilities. Thus, the cost of equity for an average competitive company in the general market should at the very least be the upper bound for a regulated utility's cost of equity.

**Q. Is there any other academic research supporting your view that WGL's current ROE is higher than its cost of equity?**

A. Yes. Researchers at the University of California, Berkeley, found that for investor-owned utilities, there has been "a premium in approved returns on equity ranging from one to five percentage points over the past three decades."[32] A premium, in

[29] The Supreme Court recognized that utilities are relatively low-risk investments due to their monopoly status in *Bluefield*, stating that a utility has "no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures, the Supreme Court stated in *Bluefield* at 692-693.

[30] Z. Bodie, A. Kane, and A. Marcus. *Investments* (12th ed), McGraw-Hill Education (2021).

[31] A. Damodaran (Jan. 2026).

[32] K.D. Werner, and S. Jarvis. *Rate of Return Regulation Revisited*. Energy Institute at Haas (Mar. 2025), https://haas.berkeley.edu/wp-content/uploads/WP329.pdf.

this context, is simply the amount by which an authorized ROE exceeds the cost of equity. The researchers use multiple approaches to measure the cost of equity that utilities face and conclude that even their highest estimates are below the ROEs that have been authorized. The researchers conclude that the additional returns that have been granted to utilities has cost American ratepayers an estimated $7 billion each year over the past three decades.[33]

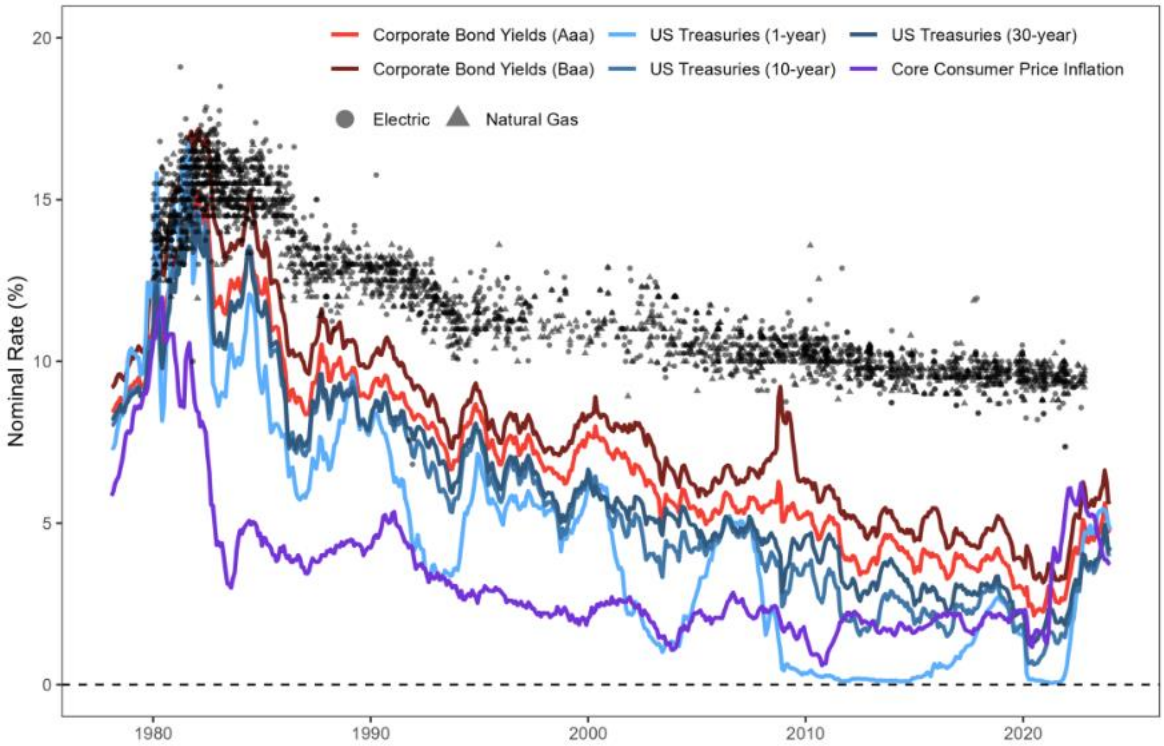
**Q. What did the researchers find was the primary driver of this premium in approved ROEs?**

A. In short, there has been a large decline in interest rates (a benchmark for the cost of capital) since the early 1980's. During that time, 30-year U.S. Treasury rates have fallen from roughly 12 percent to 4.5 percent (inclusive of recent increases in rates).[34] Over that same time, the average authorized ROE has also fallen, but at a significantly slower rate. As a result, the difference between the average ROE and 30-year U.S. Treasury rates has roughly doubled from between 2 to 3 percent in the early 1980s to 5 to 6 percent today. Figure 1 below illustrates this trend over the past several decades.

[33] *Id.*

[34] *Market Yield on U.S. Treasury Securities at 30-Year Constant Maturity*. Federal Reserve Bank of St. Louis (access March 17, 2026), https://fred.stlouisfed.org/series/DGS30. 4.5 percent refers to the yield on 30-Year US Treasuries as of October 31, 2025, the date that Mr. Nowak used for his analysis.

**Figure 1: Authorized ROEs & Benchmarks for the Cost of Capital** [35]




**Q. Does anything from WGL's testimony support the finding that authorized ROEs should be lower, given how interest rates have fallen since the 1980s?**

A. Yes. In discussing interest rates over the past handful of years, Mr. Nowak states that "[i]n general, as interest rates on government bonds increase, the cost of capital also must increase, as utilities—competing with interest rates on government bonds—must offer higher dividend yields to attract and retain investors."[36] Thus, Mr. Nowak appears to agree that interest rates and the cost of capital tend to rise and fall together.

Nonetheless, it also appears that Mr. Nowak intends for the link between interest rates and the cost of capital to justify a higher ROE for WGL—given that

[35] Werner and Jarvis (2025).
[36] Nowak Direct at 17:12-16.

interest rates have risen in the past few years. His analysis, however, ignores the prior four decades. During the prior four decades, the cost of capital fell much faster than the authorized ROEs for utilities, including WGL. The premium of authorized ROEs over the cost of capital is likely smaller now than it was before interest rates rose from 2021 to 2024, but a combination of academic research and estimates from investing professionals confirms that a premium still exists.[37]

## VI. Reducing WGL's ROE Lowers Its Overall Rate of Return

**Q. What does Mr. Nowak claim would be the consequences of lowering WGL's authorized ROE?**

A. Mr. Nowak claims that a reduction in WGL's ROE would expose the company to "regulatory risk," which he defines as "uncertainty in the ability to recover costs" that could materialize, "for example, in the form of a disallowance or an authorized cost of capital that does not reflect the utility's actual cost of capital."[38] Mr. Nowak also suggests that a lower ROE could weaken WGL's credit rating[39] and therefore jeopardize its ability to attract capital on "reasonable terms."[40]

**Q. What is your response to Mr. Nowak's statement that WGL needs to raise capital "on reasonable terms"?**

A. This statement makes no sense in the world of finance. Mr. Nowak has not defined what makes terms "reasonable" or "unreasonable" for either the buyer or seller in a transaction. Whenever a transaction occurs between a willing buyer and seller,

[37] Werner and Jarvis (2025); *see also* Table 3 with cost of equity estimates from investment managers.
[38] Nowak Direct at 47:16-22.
[39] Nowak Direct at 47:23 – 48:21; 51:4 – 52:2.
[40] Nowak Direct at 53:15 – 54:12.

both parties must have found the price to be reasonable, else there would be no transaction. This central feature of free markets illustrates that transactions occur at reasonable terms *unless shown otherwise*. Mr. Nowak's use of "reasonable terms," however, seems to describe a view of reasonableness that corresponds to how high or low WGL's cost of capital is—with a lower cost of capital being more reasonable—rather than how well WGL's cost of capital reflects the risk and return offered to the capital provider. In this paradigm, a higher ROE that enables WGL to access cheaper debt would thus be more "reasonable."

The idea of raising WGL's authorized return—which should only be done to reflect a higher cost of capital under the *Hope* and *Bluefield* standards—in order to reduce the actual cost of capital WGL pays, is nonsensical. For Mr. Nowak's theory to be useful in this proceeding, he should have defined the standard for measuring the reasonableness of terms. Without such a standard, this line of reasoning simply acts as a way for WGL to request a higher ROE.

**Q. Are you aware of any case where a utility has been unable to access capital markets because its ROE was perceived to be too low?**

A. No, there is no empirical support for the notion that lower ROEs would restrict a utility's access to capital markets. When asked in discovery to "[p]rovide examples where a lowered ROE for a regulated utility resulted in lost access to capital markets," Mr. Nowak replied that when the Arizona Corporation Commission lowered Arizona Public Service's ("APS") ROE in 2021, S&P and Moody's both downgraded its credit, and the stock of its parent company, Pinnacle

West Capital, fell nearly 25 percent, "a signal that investors required higher returns to supply the capital necessary for APS to provide safe and reliable service to its customers."[41]

A declining stock price is not the same thing as losing access to capital. In 2022, APS received a $150 million equity infusion from Pinnacle West Capital, the same equity infusion it had received in 2020 and 2021.[42] Mr. Nowak incorrectly states in discovery that after APS' ROE was lowered in 2021, it "did not issue another senior unsecured bond until June 2023."[43] However, APS disclosed the company issued more than $500 million in debt in 2022, including $400 million in senior unsecured notes in November 2022, surpassing the debt capital APS raised in 2021 before its ROE was lowered.[44]

Mr. Nowak attempts to use APS to show that a lower ROE could restrict access to capital. In fact, he shows only that despite a large reduction to its ROE, APS retained access to markets and raised substantial amounts of capital to meet its operating plans. There is no evidence that APS failed to provide service to their customers after its ROE was reduced.

[41] WGL Response to OPC Data Request 03-13.
[42] *Form 10-K, Year Ended December 31, 2022* at page 110, Pinnacle West Corporation https://d18rn0p25nwr6d.cloudfront.net/CIK-0000764622/7e6d1000-d89f-453d-a5eb-703aef2c67f8.pdf.
[43] WGL Response to OPC Data Request 14-4.
[44] *Prospectus Supplement, 6.35% Notes Due 2032*. Arizona Public Service Company (Nov. 7, 2022) https://www.sec.gov/Archives/edgar/data/7286/000110465922115414/tm2229134-2_424b2.htm; *see also* Pinnacle West Corporation (Form 10-K, Year Ended December 31, 2022 at page 110).

**Q. Does Mr. Nowak claim that regulatory risk could raise customers' rates in any other ways?**

A. Mr. Nowak discusses how regulatory risks—including those that stem from below-average ROEs—can put pressure on a utility's cash flow to debt metrics, hurting its credit ratings.[45] He concludes that "[d]eclining credit ratings will increase costs to customers by increasing the cost of debt."[46]

**Q. Can you summarize Mr. Nowak's theory on how regulatory risk, which could manifest as a low ROE, would affect WGL's credit rating?**

A. Mr. Nowak discusses how the regulatory environment "increased focus for investors as several of [New York's] operating utilities experienced an erosion in credit metrics and received credit rating downgrades" following legislation that had been proposed in New York state to "codify performance standards and provide the state regulator greater authority to penalize utility companies outside the traditional regulatory construct."[47] To support his claim, Mr. Nowak cites a report from Moody's Investors Service and provides a list of examples in Figure 15 of his testimony of New York utilities whose credit was reviewed or downgraded.[48]

All but one of the downgrades listed in Figure 15 took place *before the legislation was proposed*. Thus, if Mr. Nowak intended to show that the proposed legislation adversely affected the utilities' regulatory risk and caused credit

[45] Nowak Direct at 50:17–52:22.
[46] Nowak Direct at 52:20–21.
[47] Nowak Direct at 51:21–52:2 (first quote) and at 51: 15-17 (second quote).
[48] Nowak Direct at 52, Figure 15.

downgrades, the evidence does not fit his argument: that is not what actually happened.

**Q. Has the company demonstrated that a reduction to its ROE would likely lead to a credit rating downgrade?**

A. No, it has not. The company describes its Funds from Operations ("FFO") to Debt ratio as one of the key credit metrics that maintains its credit rating.[49] FFO is a cash flow metric, calculated as net operating income plus depreciation and amortization, deferred tax changes, and other noncash items outside of working capital. The company's FFO to Debt ratio was 19.4% for the year ending September 30, 2025.[50]

One simple method for estimating the likelihood of a credit rating downgrade would be an examination of the highly watched FFO-to-Debt metric. Looking at the peer A- rated companies that company witness Janet Burrows (Vice President and Treasurer of AltaGas Ltd.) examines, the average and median FFO-to-Debt ratios among those companies are 16.65 percent and 17.35 percent, respectively.[51] For WGL's FFO-to-Debt to fall to 17.35 percent, its FFO would need to fall by $46 million.[52] I used WGL's model to approximate that if its equity layer was set to 52 percent and its ROE to 6.00 percent, its FFO would drop by $45 million.[53]

[49] Burrows Direct at 10:15–21.
[50] Burrows Direct at 11:2–4.
[51] WGL Exhibit JB-5.
[52] Author's analysis using WGL Exhibit JB-5. WGL's debt is 2,224,754,000 and current FFO is $431,914,000 (for a 19.4% ratio). For the ratio to fall to 17.35%, holding debt constant, its FFO would need to be $385,995,000, or roughly $46 million lower.
[53] In this analysis, I assume depreciation and amortization, deferred tax changes, and other noncash items outside of working capital remain constant, meaning changes in net income and in FFO would be the

WGL's FFO-to-Debt ratio, which is already above its A- rated peers' ratios, would still maintain a financial cushion to absorb a lower equity layer and lower ROE before falling to a point where a credit rating downgrade is likely to occur. Even if a credit rating downgrade were to occur for any reason, there has not been an instance where access to necessary capital was not available. The price or cost of the capital may change to reflect the financial risks before and after the downgrade may differ, but the ability to obtain financing will remain.

**Q. Did Mr. Nowak provide any examples where a credit rating downgrade resulted in a utility losing access to capital markets?**

A. No. In response to a discovery request, Mr. Nowak points to Pacific Gas and Electric ("PG&E") and Hawaii Electric Light Co. as examples of utilities whose debt is rated below investment grade, which he states will limit the pool of potential investors and raise their cost of capital.[54] Notably, he does not claim that either utility has lost access to capital markets (although the discovery request stated: "Provide examples where a credit rating downgrade resulted in lost access to capital markets or an inability to provide service as a going concern."). Over the past five fiscal years, PG&E has issued north of $10 billion in debt each year, while the smaller Hawaiian Electric Company has issued $50 to $500 million in debt each year.[55]

same. These items are unlikely to vary significantly as a result of ROE changing, and the results are intended to approximate, not exact.

[54] WGL Response to OPC Data Request 3-14.

[55] Figures sourced from S&P Capital IQ, "Total Debt Issued" for Fiscal Years 2021 through 2025.

In addition, the capital markets in the United States are the largest and deepest in the world. S&P Global quantified the depth of the bond markets based on credit rating and published the results:

**Figure 2: Debt Issuance by Rating and Sector[56]**

**Global corporate debt amounts by rating category and sector**

| | --Debt amount (bil. $)-- | | | --Debt amount (%)-- | | |
|---|---|---|---|---|---|---|
| | Financial | Nonfinancial | Total | Financial | Nonfinancial | Total |
| AAA | 673.3 | 97.3 | 770.6 | 2.9 | 0.4 | 3.3 |
| AA | 924.2 | 720.0 | 1,644.3 | 4.0 | 3.1 | 7.1 |
| A | 3,486.8 | 3,315.5 | 6,802.3 | 15.0 | 14.3 | 29.3 |
| BBB | 2,616.8 | 6,158.7 | 8,775.5 | 11.3 | 26.5 | 37.8 |
| BB | 503.4 | 1,955.3 | 2,458.7 | 2.2 | 8.4 | 10.6 |
| B | 143.1 | 2,108.1 | 2,251.2 | 0.6 | 9.1 | 9.7 |
| CCC and below | 21.5 | 483.9 | 505.5 | 0.1 | 2.1 | 2.2 |
| Investment grade | 7,701.2 | 10,291.5 | 17,992.7 | 33.2 | 44.3 | 77.5 |
| Speculative grade | 668.0 | 4,547.4 | 5,215.4 | 2.9 | 19.6 | 22.5 |
| Total | 8,369.2 | 14,838.9 | 23,208.1 | 36.1 | 63.9 | 100.0 |

Data as of Jul. 1, 2023. Includes bonds, notes, loans, and revolving credit facilities rated by S&P Global Ratings. Excludes debt instruments that do not have global scale ratings. Foreign currencies are converted to U.S. dollars at the exchange rate on Jul. 1, 2023. Source: S&P Global Ratings Credit Research & Insights.

Corporations rated below investment grade (generally a rating below BBB) have issued trillions of dollars of debt. Figure 2 shows that the pool of investors who are willing to commit debt capital to a company does not decline in tandem with its credit rating. PG&E and Hawaiian Electric Company are among the many corporations that issued debt while assigned a low credit rating. The cost of the utility's debt or equity is set by the market and is not a regulatory concern so long as the market is willing to provide capital.

[56] *Credit Trends: Global State of Play: Debt Growth Diverging by Credit Quality*, Table 1. S&P Global (Sept. 6, 2023), https://www.spglobal.com/ratings/en/regulatory/article/230906-credit-trends-global-state-of-play-debt-growth-diverging-by-credit-quality-s12835732.

**Q. Can you elaborate on PG&E's ability to access capital?**

A. I believe PG&E is the worst example of the three Mr. Nowak provided to show how a lower ROE could increase regulatory risk and hurt a utility's ability to access capital markets. PG&E was downgraded by S&P to debt rating of D (Default) and then later upgraded CC (Speculative or "Junk") and entered bankruptcy (Chapter 11, filed January 29, 2019) while trying to raise capital.[57] Naturally, the costs to borrow money and raise equity would differ relative to a corporation with a higher credit rating (e.g., lower equity price and higher debt interest rate). The important fact to observe with the PG&E example is that PG&E still raised $13.7 billion in the debt markets, plus $9.24 billion in the equity markets six months after PG&E filed for bankruptcy with a CC credit rating from S&P.[58] PG&E then successfully accessed credit and equity markets to raise significant amounts of additional funding, including approximately $3.2 billion dollars in equity,[59] $7.5 billion in securitization bonds,[60] and $2.4 billion first

[57] *PG&E Bankruptcy*. California Public Utilities Commission (accessed Mar. 20, 2026), https://www.cpuc.ca.gov/industries-and-topics/pge/pge-bankruptcy; *see also*, *S&P cuts rating on PG&E unit in third such cut this month*. Reuters (Jan. 16, 2019), https://www.reuters.com/article/business/sp-cuts-rating-on-pge-unit-in-third-such-cut-this-month-idUSKCN1PB02D/.

[58] *PG&E Emerges from Chapter 11*. Cravath (Sept. 25, 2020), https://www.cravath.com/news-insights/pgande-emerges-from-chapter-11.html.

[59] *PG&E Corporation Announces $3.25 Billion Common Stock Investment from Multiple Investors*. Business Wire (Jun. 8, 2020), https://www.businesswire.com/news/home/20200608005185/en/PGE-Corporation-Announces-%243.25-Billion-Common-Stock-Investment-from-Multiple-Investors.

[60] Elizabeth McCarthy. *PG&E's $7.5B securitization: A bellwether for utility efforts to cover the costs of climate change?* Canary Media (May 11, 2021), https://www.canarymedia.com/articles/utilities/pg-es-7-5b-securitization-a-bellwether-for-utility-efforts-to-pay-the-costs-of-climate-change.

mortgage bonds in 2021.[61]

The example from Mr. Nowak actually demonstrates that accessing capital is possible for regulated utilities with credit ratings far below WGL's and AltaGas's current credit ratings, directly illustrating that the risks Mr. Nowak presents in his testimony do not reflect any actual outcomes. PG&E's ability to raise debt even after two bankruptcies shows how a lower ROE or higher perceived regulatory risk may affect the *cost of* capital but not the utility's *access to* capital to continue serving the public interest.

**Q. Do you agree with Mr. Nowak that lower credit ratings increase costs for customers?** [62]

A. No. After a credit rating downgrade, a utility would typically need to pay a higher interest rate to borrow capital. However, if the cause of downgrade is a lower ROE, as in Mr. Nowak's discussion of regulatory risk, it is highly likely that the cost to ratepayers will *decrease* after accounting for both the lower ROE and higher interest rates. This is because the cost of debt increases in relatively small amounts between each credit rating notch. In other words, if WGL's credit rating decreased from an A- to a BBB+, its cost of debt is likely to rise only moderately. Consequently, the savings that customers realize from a lower ROE are likely to exceed the additional cost of debt that customers incur from a credit downgrade.

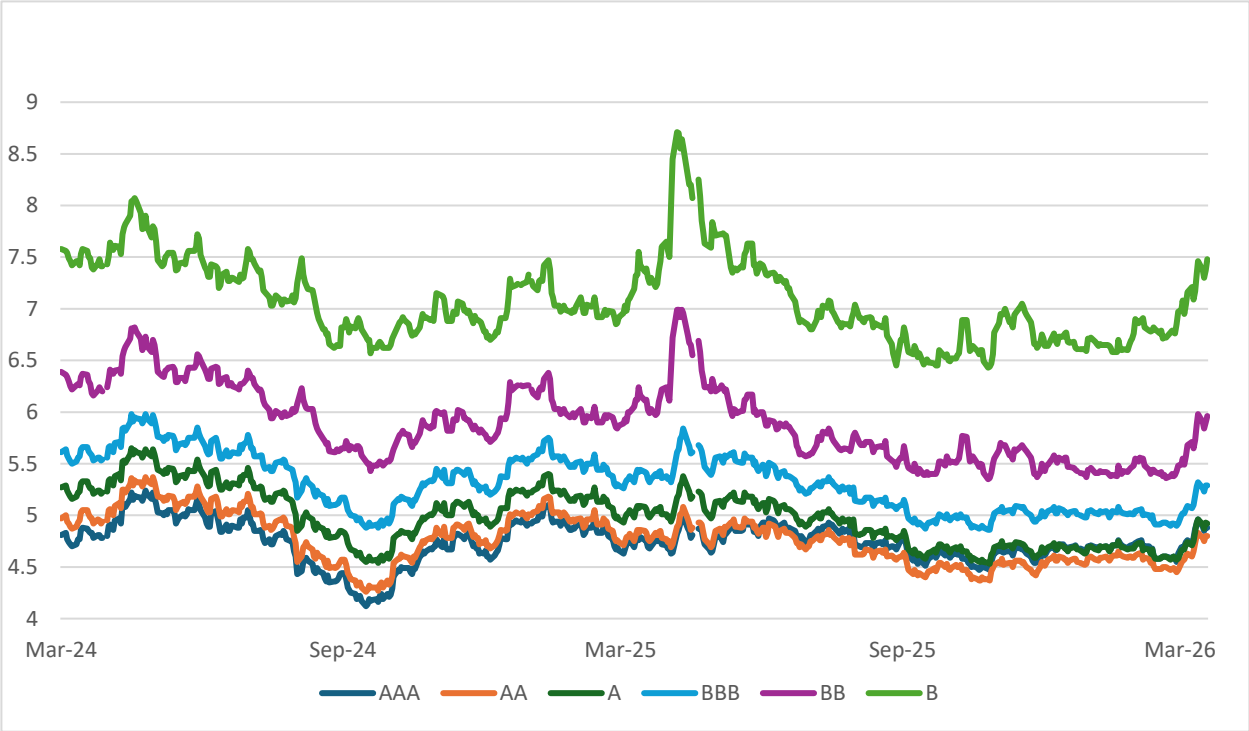
[61] *Pacific Gas and Electric $2.4 billion first mortgage bonds offering*, Davis Polk (Mar. 11, 2021), https://www.davispolk.com/experience/pacific-gas-and-electric-2-4-billion-first-mortgage-bonds-offering.
[62] Nowak Direct at 52:20–21.

**Q. Can you elaborate on the first point, that the cost of debt rises relatively moderately?**

A. Figure 3 below shows the average effective yield for corporate bonds rated AAA through B over the past two years. Over the past two years, the difference in yields between bonds (called a "spread") rated A and BBB has been 0.33 percent on average, 0.46 percent at most, and was 0.37 percent as of Friday, March 19, 2026.[63] Spreads tend to increase for progressively lower rated bonds, but over the past two years have generally been between 0 percent and 0.7 percent for investment grade bonds. Should ROE be reduced to such a point that WGL's credit rating were reduced, this data indicates that one could reasonably conclude that the increase in its cost of debt would be approximately 0.30 percent to 0.50 percent.

[63] ICE Data Indices, LLC, ICE BofA *AAA US Corporate Index Effective Yield*, *AA US Corporate Index Effective Yield*, *Single-A US Corporate Index Effective Yield*, *BBB US Corporate Index Effective Yield*, *BB US High Yield Index Effective Yield*, and *Single-B US High Yield Index Effective Yield*. Federal Reserve Bank of St. Louis (accessed Mar. 20, 2026).

**Figure 3: ICE BofA US Corporate Index Effective Yield by Credit Rating[64]**




**Q. The ICE BofA US Corporate Index data is not specific to utilities. Do you have any utility-specific examples that demonstrate rates do not rise rapidly between credit rating notches?**

A. Yes. Among the data that Ms. Burrows collects to demonstrate that WGL's credit spreads are favorable relative to the company's gas utility peers, I analyzed the average spread between bonds at each credit rating notch. Bonds rated A3 by Moody's had yields that were 5.5 basis points ("bps") more favorable than Baa1 rated bonds, while bonds rated A- had yields that were 5.3bps more favorable than BBB+ rated bonds.[65]

[64] *Id.*
[65] Analysis by author using data from Direct Testimony of Janet Burrows, Exhibit JB-6.

I also expanded Ms. Burrows' peer comparison analysis with data on 10-year plus fixed-rate bond issuances since June 2023[66] by the peer companies included in Exhibit JB-5. For each issuance, I took the spread between the bond's effective yield at issuance and its benchmark U.S. Treasury yield and adjusted that spread following Ms. Burrows's methodology (secured debt's spread is adjusted by 10bps vs. unsecured debt, secondary placements are adjusted by 25bps vs. private placements). Following this approach, the difference in average spread for the A- and BBB+ groups was 13bps (121bps vs. 134bps; see Attachment AL-03 for more details).

These data all point towards the same conclusion: if WGL's credit rating were to be downgraded due to a reduced ROE, it is highly likely that its cost of debt would, at worst, increase by a handful of basis points.

**Q. Can you elaborate on the second point you made earlier, that the cost of debt would need to rise more than ROE was reduced for customer rates to increase?**

A. Using WGL's revenue allocation model, I analyzed how WGL's revenue requirement would change for different permutations of cost of capital and capital structure.[67] Looking specifically at the revenue requirement for residential customer classes and using my recommended 52 percent equity, 46.955 percent long-term debt, and 1.045 percent short-term debt capital structure, Table 4 shows how much the cost of long-term debt would need to increase for a given reduction

[66] I chose this date as the comparisons in Exhibit JB-6 appeared to stretch back to the summer of 2023.
[67] WGL Exhibit CSF-07 – Revenue Apportionment.

in ROE such that the overall revenue requirement stays the same. For example, if ROE was reduced by 2.85 percentage points to 8.00 percent, the cost of long-term debt would need to rise by 3.452 percentage points to 8.177 percent for WGL's revenue requirement for residential classes to stay the same. As long as WGL's cost of debt stays lower than that, customers save money even if WGL's interest rates rise. For reference, PG&E, whom Mr. Nowak used as an example of a sub-investment grade rated utility whose cost of debt is high, issued $800 million of 30-year bonds at a 6.038 percent yield in February, 2026.[68] WGL's most recent issuances were 30-year notes with a 5.40 percent rate and 10-year notes with a 4.84 percent rate.[69] In other words, it is highly unlikely that reducing WGL's ROE would lead the company's interest rates to rise even half as much as would be necessary for customers to not save money.

[68] *$800,000,000 6.000% First Mortgage Bonds due 2056, Pricing Term Sheet*. Pacific Gas & Electric (Feb. 19, 2026), https://www.sec.gov/Archives/edgar/data/75488/000119312526057655/d80668dfwp.htm.
[69] Burrows Direct at 6:24–7:2.

**Table 4: Reducing ROE has a larger impact on rates than a higher cost of debt**

| ROE Decrease from Proposed [a] | Authorized ROE after Decrease [b] | Cost of Debt to Offset Savings [c] | Cost of Debt Increase [d] |
|---|---|---|---|
| 0.00% | 10.85% | 5.021% | 0.296% |
| 0.35% | 10.50% | 5.409% | 0.684% |
| 0.85% | 10.00% | 5.963% | 1.237% |
| 1.35% | 9.50% | 6.516% | 1.791% |
| 1.85% | 9.00% | 7.070% | 2.345% |
| 2.35% | 8.50% | 7.624% | 2.898% |
| 2.85% | 8.00% | 8.177% | 3.452% |
| 3.35% | 7.50% | 8.731% | 4.006% |
| 3.85% | 7.00% | 9.285% | 4.560% |
| 4.11% | 6.74% | 9.573% | 4.848% |
| 4.35% | 6.50% | 9.839% | 5.113% |

**Q. If customers see lower overall bills following an ROE reduction even if the utility is downgraded, who else is affected?**

A. There is a risk to the stock price or equity value of WGL or its parent holding company if the ROE is lowered, as the marketplace may adjust the equity price to better match expected returns for a regulated utility. These changes would affect shareholders, not customers or vendors of WGL. Even if the share price falls on expectations of a lower ROE, my recommended ROE still gives investors an opportunity to earn a fair return that matches their cost of capital. I believe the studies mentioned in this testimony demonstrate that utility-approved ROEs have consistently remained higher than major cost of equity determinants, such as inflation and interest rates, since the 1970s. This phenomenon generally benefits shareholders over utility customers and aligns with customer complaints regarding

energy bills rising significantly faster than the rate of inflation. The fact that approved ROEs have not correlated with market cost of equity data for much of the past several decades should not justify continuing this trend.

## VII. Mr. Nowak's Cost of Equity Estimates are Flawed and Unreasonably Deviate from the Expectations of Other Financial Experts

**Q. What models does Mr. Nowak use to calculate cost of equity estimates?**

A. Mr. Nowak uses the Discounted Cash Flow ("DCF"), Capital Asset Pricing Model ("CAPM"), and a Risk Premium model to estimate a cost of equity for a group of companies that proxy WGL.

**Q. Are these models appropriate for the purpose of cost of equity and return on equity analysis?**

A. Yes. All the models used by Mr. Nowak are regularly used in the finance industry. But I find fault with the way in which the inputs are created or selected by Mr. Nowak for these models leading to results which are far beyond the results produced when the inputs are representative of the actual market and respect known and identified limits for how inputs should be created or selected.

**Q. Please summarize the cost of equity results that Mr. Nowak produces.**

A. Mr. Nowak's analyses produce mean estimates of 10.96 percent (DCF), 11.32 percent (CAPM), and 10.37 percent (Risk Premium), for an overall average of 10.88 percent. His low-end cost of equity estimate is 10.25 percent and his high-end estimate is 11.25 percent.[70]

[70] Nowak Direct at 57:3-4.

**Q. How does WGL's estimation of the cost of equity differ from the asset managers and academic experts you have discussed?**

A. The 10.88 percent cost of equity estimate that Mr. Nowak produces is nearly 4 percentage points higher than the 6.74 percent average of published academic expert and asset manager estimates (see Table 3 above for more detail).

For context, NYU Stern measures the cost of equity for nearly 100 industry sectors and 6,000 publicly traded companies.[71] Mr. Nowak's recommended ROE of 10.85 percent is very close to the 10.80 percent cost of equity that NYU Stern estimates for the "Retail (Building Supply)" industry— a riskier industry than utilities—in its most recent annual analysis.[72] Mr. Nowak's average ROE recommendation for WGL is even higher than the cost of equity for the for the highly volatile and far riskier "Semiconductor" industry at 10.72 percent. And in the NYU Stern analysis of nearly 100 industry sectors, only one industry segment is estimated to have a cost of equity higher than Mr. Nowak's high-range 11.25 percent estimate: the Software (internet) sector, at 11.48 percent. For Mr. Nowak to conclude that the proper ROE for WGL should include an upper range that is only exceeded by 1 of nearly 100 industry sectors is not credible.

Mr. Nowak's analysis represents an extreme outlier to the world of finance. The cost of equity calculations by Professor Damodaran, who has been called the

[71] For more details on the specific industries and their definitions, see A. Damodaran, *Data: Breakdown*, NYU Stern, https://pages.stern.nyu.edu/~adamodar/New_Home_Page/databreakdown.html#industry.

[72] For example, the NYU Stern data shows that the "Retail (Building Supply)" industry has a beta of 1.54. Beta is a measure of exposure to market risk, where a beta above 1 indicates higher than average risk. For context, the "Utility (General)" industry has a beta of 0.24 and the "Power" industry has a beta of 0.48, indicating significantly below average risk.

"Dean of Valuation," remain close to the other expert financial institutions identified earlier.[73] I believe the Commission should also note the fact that out of the nearly 100 industry sectors analyzed by NYU Stern, the lowest cost of equity in the entire US economy is the "Utility (general)" sector, a position it has held often in the prior decades of historical publication of this analysis.[74]

**Q. What accounts for the difference between Mr. Nowak's results and the results of the asset managers and academics cited above?**

A. Mr. Nowak made several significant errors in determining the inputs for his models. Although Mr. Nowak is utilizing well-known financial formulas, the improperly derived inputs create his extreme results. This is why his estimates are so much higher than those from experts who have financial and professional incentives, skills, and market breadth to correctly assess the cost of equity of a regulated utility versus other sectors of the economy. In short, Mr. Nowak's estimates stray far from representing how financial markets normally price risk and returns.

**Q. Please explain Mr. Nowak's errors.**

A. I will discuss errors that Mr. Nowak made in running his DCF and CAPM models in detail. I will not provide a detailed discussion of Mr. Nowak's Risk Premium model ("RPM") results because in running that model, Mr. Nowak erroneously relies on a past regulatory decision when the financial requirement is to measure

[73] Kevin Harris. *Professor Aswath Damodaran on Valuation*. Forbes (Jul. 17, 2018), https://www.forbes.com/sites/kevinharris/2018/07/17/professor-aswath-damodaran-on-valuation/.
[74] A. Damodaran (2026).

the current required investor expectation. This circular logic makes his RPM analysis inherently unreliable.

### *i. Constant Growth Discounted Cash Flow model*

**Q. Please provide an example of a significant error Mr. Nowak committed in using a common financial formula.**

A. Mr. Nowak uses a popular variant of the DCF called the Constant Growth Rate DCF.[75] The most important input for the DCF formula is the growth rate, particularly in the Constant Growth version of the DCF, as it assumes the cash flows or dividends that investors receive will grow at a fixed, long-term average rate in perpetuity. Mr. Nowak's DCF uses an improper growth rate to create a cost of equity result far above what financial markets would deem normal.

**Q. Can you explain how Mr. Nowak's DCF growth rate is flawed?**

A. Mr. Nowak commits two major errors that bias his results for this well-known financial formula. First, the constant growth DCF formula requires a perpetual growth rate. Mr. Nowak states he uses "consensus analyst five-year growth estimates in earnings per share ("EPS") from S&P Capital IQ and Zacks, as well as EPS growth rate estimates published by Value Line."[76] Using this method, Mr. Nowak estimates that the average growth rate for his proxy group is 7.40 percent; the low value is 5.55 percent and the high value is 11.01 percent.[77] Five-year growth rates calculated for 30-day, 90-day, and 180-day ranges are simply too

[75] Nowak Direct at 28.
[76] Nowak Direct at 29: 20-22.
[77] Nowak Direct, Exhibit JCN-4.

short in time and not representative of a long-term growth rate expected to last forever. Mr. Nowak chooses to use five-year estimates in spite of the fact that he also states—correctly—that "[t]he Constant Growth DCF model assumes that dividends grow at a constant rate in perpetuity."[78]

The second major error is the use of estimates that far exceed any reasonable long-term growth rate. Mr. Nowak's analysis produces an average constant growth rate of 7.40 percent.[79] This is an unrealistically high growth rate unsupported by any credible analysis showing it could continue in perpetuity, even if Value Line estimates that such a growth rate may exist for the next 5 years.

**Q. How can you be sure that a 7.40 percent average growth rate is an improperly high estimate?**

A. One of the tenets of the Constant Growth DCF is that the growth rate for the company or companies cannot exceed the growth rate of the overall economy in which they operate. This is based on the fact that if a company's perpetual growth rate is higher than the growth rate of the economy, it implies the company will eventually become larger than the entire economy.[80] Large economies like the United States do not grow more than 2 percent to 3 percent (4 percent to 5 percent with inflation added) as illustrated by the current data from the Federal Reserve.[81]

[78] Nowak Direct at 30: 2-3.
[79] Nowak Direct, Exhibit JCN-4.
[80] McKinsey & Co. *Measuring and Managing the Value of Companies* at Chapter 12, Wiley (8th ed., May 20, 2025).
[81] *The Long-Term Budget Outlook: 2025 to 2055* at 32, U.S. Congressional Budget Office (Mar. 27, 2025), https://www.cbo.gov/publication/61187.

In other words, a 7.40 percent terminal growth rate assumes the company will become larger than entire US economy in size.

McKinsey & Company, in describing the proper way to use the Constant Growth DCF, uses a ceiling of approximately 4 percent as their standard. This is comprised of 2 percent inflation and 2 percent gross domestic product ("GDP") growth for the real total economy growth rate as measured by GDP, and is consistent with the Federal Reserve's growth rate cap.[82]

Similarly, John Burr Williams, the creator of the DCF model, warns that: "[a]t the outset, it is obvious that no stock exists whose dividends will increase without limit, for no company can continue to grow in dividend-paying power forever, even at 1 or 2 percent per annum; in other words, infinite dividends are impossible in a finite world."[83] Adding inflation to the 1-2 percent per annum growth rates that Williams states sums to a constant growth rate of approximately 4 percent, substantially lower than the 7.40 percent rate Mr. Nowak uses. Using an unrealistically high growth rate in the Constant Growth DCF will lead to unrealistically high return estimates.

When challenged on this point in discovery, Mr. Nowak responded that he "has not performed an analysis as to whether any of the earnings per share growth rates will permanently exceed the growth rate of the economy. However, given

[82] McKinsey & Co (2025).
[83] John Burr Williams, *The Theory of Investment Value* at page 87, North Holland Publishing Company (1938), https://ia601506.us.archive.org/18/items/in.ernet.dli.2015.225177/2015.225177.The-Theory.pdf.

that the long-term growth rate of the economy is an average of the overall economy, invariably, some industries and firms will outperform the average, and some will underperform the average."[84] This is true over a given period (e.g., 3-5 years), but it cannot be true in perpetuity for the reasons McKinsey articulated in the quote provided above.

Consequently, the Commission should ignore the results of Mr. Nowak's DCF, as using a growth rate of 7.40 percent is an extremely obvious input error creating an inflated ROE result.

### *ii. Capital Asset Pricing Model*

**Q. Please explain the Capital Asset Pricing Model.**

A. The CAPM is the most popular of all the formulas used for estimating expected returns. The CAPM estimates expected return as a function of the return on a risk-free asset plus a premium for exposure to the risk of the overall market. Market risk cannot be diversified away, but company-specific risk can be diversified away. The greater the exposure to the risks of the market, the greater the expected return. The CAPM shows that rational investors should expect higher returns for systematic (market) risks that cannot be diversified away, but not for company-specific risks.[85]

Formally, the CAPM estimates the return on a security as:

[84] WGL Response to OPC Data Request 3-4.

[85] F. Fama, and K. French. *The Capital Asset Pricing Model: Theory and Evidence*. Journal of Economic Perspectives, 18(3), 25-46; see also J. Graham, S. Smart, and W. Megginson. *Corporate Finance: Linking Theory to What Companies Do,* South-Western Cengage Learning (3rd ed., 2010).

Expected Return = $R_f$ + Beta * ($R_m$ – $R_f$), where:

$R_f$ = the return on a risk-free asset, or the risk-free rate of return

Beta = the security's exposure to the market

$R_m$ = the return on the market portfolio

Once an analyst has estimated these three values ($R_f$, beta, and $R_m$), it is straightforward to calculate the cost of equity estimate using the CAPM.

**Q. Please describe how Mr. Nowak uses the CAPM in his analysis.**

A. Mr. Nowak calculates the risk-free rate, $R_f$, as a combination of (1) the current 30-day average yield on 30-year U.S. Treasury bonds, (2) the projected 30-year U.S. Treasury bond yield for Q1 2026 through Q1 2027, and (3) the projected 30-year U.S. Treasury bond yield for 2027 through 2031.[86] He runs his analysis using risk-free rates of 4.67 percent (current), 4.58 percent (projected Q1 2026 to Q2 2027), and 4.40 percent (projected 2027-2031).[87]

Next, Mr. Nowak calculates beta as a combination of "(1) the reported Beta coefficients from Bloomberg (which are calculated using ten years of weekly data against the S&P 500 Index); and (2) the reported Beta coefficients from Value Line (which are calculated using five years of weekly data against the New York Stock Exchange Composite Index)."[88] The betas he calculates for the proxy group are 0.74 (Bloomberg) and 0.76 (Value Line).[89]

[86] Nowak Direct at 33:10-14.
[87] Nowak Direct, Exhibit JCN-6.
[88] Nowak Direct at 33:17–20.
[89] Nowak Direct, Exhibit JCN-6.

Finally, to calculate the market return, $R_m$, Mr. Nowak runs another Constant Growth DCF model. This time, rather than just analyzing the proxy group companies, Mr. Nowak runs a DCF on every company in the S&P 500 Index using projected EPS growth rates from Value Line.[90] Using this method, Mr. Nowak estimates that the expected market return is 11.70 percent.[91]

**Q. What is the result of Mr. Nowak's CAPM analysis?**

A. Mr. Nowak's Figure 1 summarizes the results of his analyses and shows his low, mean, and high CAPM results were 10.94 percent, 11.32 percent, and 11.58 percent, respectively.[92] Similarly, Exhibit JCN-2 shows company-by-company results, with CAPM figures that match the summary in Figure 1.

These summary results are an average of two different approaches Mr. Nowak uses to calculate the market risk premium. In the first, Mr. Nowak uses all companies in the S&P 500; in the second, he uses only companies whose growth rates are estimated between 0 percent and 20 percent. [93] Mr. Nowak states that he "applied FERC's more conservative convention," implying he adopted the market risk premium following FERC's convention as an input in his CAPM calculations. However, he does not explain that his summary results are an average of a CAPM model using FERC's convention to calculate the market risk premium and a

[90] Nowak Direct at 33:22 – 34:14.
[91] Nowak Direct, Exhibit JCN-5, page 8.
[92] Nowak Direct at 7, Figure 1.
[93] Nowak Direct at 33:22 – 34:14.

second CAPM model using all companies in the S&P 500 to calculate the market risk premium.[94]

Exhibit JCN-6 shows the calculation of the CAPM results following both methods and using both Value Line and Bloomberg betas. These results show that Mr. Nowak's low, mean, and high CAPM results would have been 9.65 percent, 9.94 percent, and 10.15 percent, respectively, had he used only the FERC method as he implied.[95] Had Mr. Nowak used his average CAPM result of 9.94 percent rather than the 11.32 percent he did use in his summary range, his cost of equity estimate would have been 0.46 percentage points lower.

**Q. Is Mr. Nowak's CAPM calculated in a manner consistent with how other financial experts use the formula?**

A. No, it is not. As discussed above, Mr. Nowak runs a Constant Growth DCF model on companies in the S&P 500 Index to calculate the expected market return. This is a critical input to the CAPM, as the higher the expected market return, the higher the estimate of the cost of equity will be. In running a Constant Growth DCF, Mr. Nowak follows the same methodology as in his standalone DCF analysis, repeating the same set of significant errors discussed in the preceding section. In particular, Mr. Nowak continues to rely on short-term (3 to 5 year) EPS growth forecasts from Value Line to produce an input that is supposed to be a *perpetual dividend* growth rate.

[94] Nowak Direct, Exhibit JCN-2.
[95] Nowak Direct, Exhibit JCN-6 at 3–4.

The use of 3–5 year EPS growth forecasts compounds the resulting errors when applied to all of the S&P 500 companies, as many of these companies are less mature than utility companies and thus could be expected to have higher growth rates currently as compared to the growth they will experience in a decade or two from now. In other words, their 3–5 year EPS growth forecasts are even more overstated (as compared to utilities) relative to the perpetual growth rate than the model calls for. As shown in Exhibit JCN-5, Mr. Nowak estimates the growth rate for the S&P 500 at 10.27 percent, more than double the long-term growth rate of the U.S. economy.[96] As discussed earlier, the proper method for a Constant Growth DCF as described by McKinsey & Company and the model's creator John Burr Williams, is to cap the perpetual growth rate at the long-run economic growth rate. In this case, that is estimated at roughly 4 percent.[97] If we reduce Mr. Nowak's 10.27 percent growth rate to 4 percent, as the formula demands, his estimate for the expected market return would fall to 5.36 percent, much closer to the 6.74 percent average of the BlackRock, Vanguard, State Street, and NYU Stern estimates.

[96] Nowak Direct, Exhibit JCN-5 at 8.
[97] *See* Section 4.i above; *see also* U.S. Congressional Budget Office (2025).

### *iii. WGL's estimate of cost of equity compared to the broader financial industry's estimates of the cost of equity*

**Q. Is Mr. Nowak's estimate for WGL's cost of equity an outlier compared to the broader financial community's estimates?**

A. Yes, it is. Mr. Nowak's cost of equity estimates may align with those typically developed by the small group of witnesses that frequently represent utilities in rate case proceedings, but they are significantly different from the estimates produced by the far larger group of financial and academic experts regularly working in the financial markets across all industry sectors.

The gap between investor-required returns, on one hand, and ROEs recommended by utility witnesses, on the other, is generally not discussed in regulated utility proceedings, but it is well-known in the financial and academic world. I discussed several financial institutions earlier that constantly publish and take advantage of this mispricing of risk in the utility industry. In addition to NYU Stern, which estimates that utilities' cost of equity is less than half of what Mr. Nowak recommends, I have discussed a study conducted by the UC Berkeley Haas Energy Institute which illustrates how regulated utilities exhibit a cost of equity divergence not seen in other industries.[98] Further studies have conducted by Carnegie Mellon[99] and Columbia[100] have come to similar conclusions.

[98] Werner and Jarvis (2025).
[99] D. Rode & P. Fischbeck. *Regulated Equity Returns: A Puzzle*, Energy Policy, 133: 110891 (Oct. 2019), https://doi.org/10.1016/j.enpol.2019.110891.
[100] S. Azgad-Tromer & E.L. Talley. *The Utility of Finance* at page 25, Columbia University School of Law, The Center for Law & Economic Studies, Working Paper No. 569 (2017), https://scholarship.law.columbia.edu/faculty_scholarship/2042/.

Rode and Fischbeck at Carnegie Mellon conclude that "rates of return authorized by U.S. state regulatory agencies… [demonstrate] a growing spread over the riskless rate of return across the time horizon studied. The size and growth of this spread—the risk premium—does not appear to be consistent with classical finance theory, as expressed by the CAPM. In fact, regression analysis of the data suggests the *opposite* of what would be predicted if the CAPM holds."[101]

Similarly, the Columbia professors analyzed "the relationship of awarded rates of return on equity to standard asset pricing models adjusting expected rates of return with anticipated risks. Our analysis demonstrates that rate setting practices adopted by PUCs diverge appreciably (even violently) from the predictions of financial economics across numerous dimensions."[102] In fact, the mean awarded ROEs analyzed in this study were such outliers from the financial industry that they were higher than returns from "Fortune Magazine's top twenty investments from the last decade."[103] The violent divergence the report found was similar to the divergence between the NYU Stern cost of equity data and Mr. Nowak's ROE recommendations.

**Q. Do these academic studies provide reasons for why such a large gap has formed between rates of return approved by utility regulators and the interest rates which drive the utilities' cost of capital?**

A. The report from UC Berkeley states: "One possible explanation for the asymmetric adjustment we observe relates to the timing of when rate cases are

[101] D. Rode & P. Fischbeck (2019) at 14.
[102] Azgad-Tromer & Talley (2017).
[103] Azgad-Tromer & Talley (2017).

initiated and thus how long they last. Regulators face an information asymmetry with the utilities they regulate when determining whether costs are prudent and necessary."[104]

From a common-sense perspective, regulators are asked to balance an extremely wide range of variables spanning many areas of expertise. Understandably, limited resources and time to make major decisions like assessing a proper ROE creates the potential for asymmetry in knowledge and information in areas of expertise. Corroborating this idea, Columbia's research finds that immersion training in finance led to ROE rulings that were "more aligned with standard asset pricing theory" than those made by regulators who did not receive such immersion training.[105]

## VIII. Developing an Overall Rate of Return

**Q. Please restate the company's proposed capital structure.**

A. The company is proposing a capital structure that consists of 44.687 percent long-term debt, 1.045 percent short-term debt, and 54.269 percent equity.[106]

**Q. What capital structure did the Commission authorize in WGL's prior rate case?**

A. In WGL's last rate case, Case No. 9704, the Commission authorized a capital structure of 42.81 percent long-term debt, 5.19 percent short-term debt, and 52

[104] Werner and Jarvis (2025) at 4.
[105] Azgad-Tromer & Talley (2017) at 25.
[106] Burrows Direct, Exhibit JB-1.

percent equity.[107] In its order, the Commission recognized that WGL's proposed debt ratio of 47 percent—e.g., higher than the debt ratio it proposes in this case — was "clearly too low, which results in excessively high capital costs and utility costs."[108]

**Q. What justification does the company provide for its proposed capital structure?**

A. The company states that the appropriate starting point for determining the capital structure is the capital structure that is expected in the rate-effective period. WGL states that Commission precedent is to use a Test Year actual capital structure, which for WGL was 54.269 percent equity and 45.731 percent debt.[109] The reasonableness of this proposal is, according to WGL, its comparison with similarly rated peer companies.[110]

**Q. Do you believe that the proposed capital structure is reasonable?**

A. I do not. The Commission's general practice is to use the utility's existing capital structure except where it is an unjustified cost to ratepayers. WGL's proposed capital structure includes a significantly higher equity layer than what the Commission has authorized in prior cases.[111]

---

[107] Md. Pub. Serv. Comm'n, Order No. 90943, Washington Gas Light Company's Application for Authority to Increase Rates and Charges for Natural Gas (Case No. 9704, December 14, 2023), at 95.
[108] Order No. 90943 at 94.
[109] Burrows Direct at 12:23–13:2.
[110] Burrows Direct at 16:23–17:2.
[111] *See e.g.*, Order No. 90943, Washington Gas Light Company's Application for Authority to Increase Rates and Charges for Natural Gas (Case No. 9704, Dec. 14, 2023) (reducing WGL's 52.6% suggested equity ratio to 52%); Order No. 90948, Baltimore Gas and Electric Company's Application for an Electric and Gas Multi-Year Plan (Case No. 9692, Dec. 14, 2023) (awarding 52% equity ratio); Order No. 89799, Washington Gas Light Company's Application for Authority to Increase Its Rates and Charges (Case No.

WGL has not provided a justification for a higher equity ratio, and as such, I recommend the Commission set the company's authorized equity ratio at 52 percent.

**Q. What cost of debt does the company propose?**

A. WGL has proposed a cost of long-term debt of 4.725 percent and a cost of short-term debt of 6.625 percent, inclusive of adjustments.[112]

**Q. Do you think the company's cost of debt proposal is reasonable?**

A. Yes, I do.

## IX. Does WGL's Analysis Conform to the Analytical Standards Mandated by *Hope* and *Bluefield*?

**Q. Do you believe WGL's proposed ROE is unreasonably high?**

A. Yes. As noted above, utility ROEs have not declined at the rate seen in the rest of the market over the past several decades—in other words, they still need to *decline further* to catch up and be in line with market rates. Compared with market data, WGL's current ROE of 9.50 percent is already too high; a 10.85 percent ROE (as the company has proposed) would exacerbate the condition identified earlier where utility rates of return remain unreasonably high relative to almost all other industries in the current economy.

9651, Apr. 9, 2021) (upholding Public Utility Law Judge's decision to award 52.03% equity ratio instead of WGL's alternative capital structure and requested 54.55% equity ratio).

[112] Burrows Direct at 17:5–18-25.

**Q. If the authorized ROE for WGL is far higher than what the financial markets would find reasonable, what is the impact on customer bills?**

A. Generally, a high utility ROE means higher bills for customers and a likely higher stock price for utility shareholders. In this case, WGL has requested an ROE of 10.85 percent, an increase of 1.35 percent from its currently approved ROE. Approving this higher ROE, along with an increase in WGL's equity layer, would cost residential ratepayers upwards of $13 million per year, as shown in Table 5. The table compares the revenue requirement for residential classes for a 52% equity layer (maintaining the currently approved capital structure) and various ROEs to the revenue requirement for residential classes that WGL has proposed; row 4 represents the savings between what WGL has proposed and the status quo.

**Table 5: Illustrative impact of maintaining WGL's equity layer at 52% and reducing WGL's ROE on residential customer rates[113]**

| ROE Decrease from Proposed [a] | Authorized ROE after Decrease [b] | Total Savings vs. Proposed [c] | Increase vs. Current [d] | Increase vs. Current (%) [e] | Savings vs. Proposed (%) [f] |
|---|---|---|---|---|---|
| 0.00% | 10.85% | $2,192,191 | $51,269,294 | 19.4% | 0.7% |
| 0.35% | 10.50% | $5,063,454 | $48,398,032 | 18.3% | 1.6% |
| 0.85% | 10.00% | $9,165,257 | $44,296,229 | 16.7% | 2.9% |
| 1.35% | 9.50% | $13,267,060 | $40,194,426 | 15.2% | 4.2% |
| 1.85% | 9.00% | $17,368,862 | $36,092,623 | 13.6% | 5.5% |
| 2.35% | 8.50% | $21,470,665 | $31,990,820 | 12.1% | 6.7% |
| 2.85% | 8.00% | $25,572,468 | $27,889,018 | 10.5% | 8.0% |
| 3.35% | 7.50% | $29,674,270 | $23,787,215 | 9.0% | 9.3% |
| 3.85% | 7.00% | $33,776,072 | $19,685,413 | 7.4% | 10.6% |
| 4.11% | 6.74% | $35,911,481 | $17,550,215 | 6.6% | 11.3% |
| 4.35% | 6.50% | $37,877,874 | $15,583,611 | 5.9% | 11.9% |

[113] Results calculated using WGL Class Cost of Service Study, Exhibit CSF-07 and assume OPC's proposed capital structure with a 52% equity layer. See Exhibit AL-02 for more detail.

WGL's ROE is already several percentage points above its cost of equity. As previously discussed, academics and investment professionals who are unbiased and more experienced than Mr. Nowak have forecasted U.S. equity returns at 6.74 percent, substantially below Mr. Nowak's 10.85 percent recommendation. Reducing WGL's ROE to the same 6.74 percent could save residential customers roughly $36 million per year relative to WGL's proposed ROE and capital structure. Any ROE approved beyond what is necessary financially benefits utility shareholders at the expense of customers.

**Q. How important are any of the commonly used financial formulas?**

A. Ultimately, the formulas matter less than whether the utility can remain solvent and attract capital. "Under the statutory standard of 'just and reasonable,' it is the result reached, not the method employed, which is controlling."[114] This "end result" doctrine supports finding the ROE that matches the business risk environment in such a manner as to sustain the utility's ability to attract capital and operate as a business over whatever results a formula or other method computes. As discussed earlier, there are no examples known to me, the company, or Mr. Nowak where a regulated utility receiving a lower approved ROE has restricted access to capital.

[114] *Hope* at 602.

**Q. What would you recommend to the Commission if the "end result" doctrine, which states the result reached is controlling, is followed?**

A. The Commission understands the challenge of balancing the many variables and issues to ensure utilities are healthy and able to grow and serve the public good. When it comes to the proper ROE, a rate equal to the general market may be lower than the currently approved ROE, but it is generous and ample when it comes to the ability to attract capital and provide investors with a return for risking their capital. We understand that utility peers may have different approved ROEs, but setting a proper ROE in this case should be about pricing risk properly, not following prior decisions. The capital markets will supply capital at the right price even if a utility's ROE is lower than other utilities' because the market adjusts the prices (such as stock price value) to adjust for such conditions. Our use of some of the best financial and academic resources available creates an average ROE of 6.74 percent. As such, I recommend an ROE of 6.74 percent as a suitable approved ROE rate which is achievable and fair to customers and investors alike.

**Q. What overall rate of return do you recommend?**

A. Based on my recommendations for the Commission to (i) lower the approved ROE to 6.74 percent; (ii) accept the cost of debt proposals at 4.725 percent for long-term debt and 6.6625 percent for short-term debt; and (iii) maintain the company's equity layer at 52 percent creating an overall rate of return at 5.793 percent as shown in Table 6 below.

**Table 6: Recommended capital structure and cost of capital for WGL**

| Capital Type | Ratio | Capital Cost | Weighted Cost |
|---|---|---|---|
| Long-term debt | 46.955% | 4.725% | 2.219% |
| Short-term debt | 1.045% | 6.625% | 0.069% |
| Equity | 52.000% | 6.740% | 3.505% |
| Total | 100% | - | 5.793% |

**Q. Does this conclude your direct testimony?**

A. Yes, it does.

# ALBERT LIN

## SKILLS

- **Financial Consulting on ROE and Regulatory Policy**
- **Equity Investment and Valuation (Broker-Dealer Operations)**
- **Energy Generation Development (IGCC/CCGT)**
- **Board of Directors (Governance) of publicly traded and private companies**

## SUMMARY

**Finance executive and entrepreneur in capital markets focused on consulting to the energy industry in recent years. Providing perspective and analysis of impacts of energy policy when new technology and practices are present constitute most consulting engagements.**

## EXPERIENCEHIGHLIGHTS

**Consultant | Gizmo Global | 2015-Present**

Financial Consulting focused on the energy industry with emphasis on the electricity system of the USA. Acted in capacity of executive, manager, and consultant to The Finance Lab as well as other electricity dense users such as data centers

**Energy Policy Analysis | OG Finance Lab | 2020-Present**

Directing the OG Finance Lab to assist energy policy stakeholders on financial incentives and implications. Providing key features of legislation governing fuel clause adjustment (CO Bill 2022/2023) and analyzing the impact of ROE rate setting for regulated utilities in the United States

**CEO and Chairperson of the Board | EmberClear | 2008-2015**

Electricity Generation Asset Developer. Permitted, developed, sold IGCC and CCGT power plants to PE Funds and Large International Power Plant Operators ranging in sizes from 330 – 450 Megawatts

alin@soonercap.com
(415) 409-9150
https://www.linkedin.com/in/linalbert/

**Managing Director | AmTech| 2002-2007**

Co-Founder for a Technology Focused broker dealer. Acted as Director of Research for 24 equity analysts. Sold to a publicly traded competitor after annual revenue per employee exceeded $1MM in 2007

**Equities Analyst | Various| 1992-2002**

Sell-side equities analyst in wireless communications for SG Cowen & Co, Soundview Financial, and Rauscher Pierce.

Buy-side technology portfolio manager for

The Abernathy Group, Meerkat Capital, and Ivory Capital. Managed portfolio of high growth technology equities in a long-short strategy.

**Finance Manager | Verizon| 1989-1992**

Various finance and audit positions at regulated telecommunications company General Telephone & Electric which became Verizon Communications. Prepared financial analysis used for regulatory and shareholder meetings

## EDUCATION & OTHER

**University of Texas @ Austin (1989)**

**BS: Finance**

**BA: International Business**

**Honors Masters Business Degree**

**Guest Lecturer at Boston College Graduate School of Business 2020-2023 "Blockchain & Crypto Currencies"**

**FINRA Series 7,24,63,65 (licenses granted, but no longer sponsored)**

# Regulated Industry Details

## Regulatory Engagements:

Public Service Commission of South Carolina Duke Energy Carolinas, LLC General Rate Case Docket 2025-172-E (December 2025)

Public Service Commission of South Carolina Duke Energy Progress, LLC General Rate Case Docket 2025-154-E (November 2025)

North Carolina Utilities Commission Duke Energy Progress, LLC Fuel and Fuel-Related Charge Adjustments Docket E-7 Sub 1358 (November 2025)

Virginia State Corporation Commission Virginia Electric & Power Company Fuel Factor Hearing PUR 2025-00059 (July 2025)

North Carolina Utilities Commission Duke Energy Carolinas, LLC Fuel and Fuel-Related Charge Adjustments Docket E-7 Sub 1313 (June 2025)

Montana Public Services Commission educational ROE discussions and analysis of Northwestern Energy General Rate Case (2024.05.053) and Montana-Dakota Utilities General Rate Case (2024.04.061) with Northern Plains Resource Council (Jan 2025)

PacifiCorp Rocky Mountain Power General Rate Case ROE expert witness in Utah for Western Resource Advocates (Dec 2024)

ROE workshop for RE-AMP serving Midwest USA (Aug 2024)

Dominion Energy South Carolina General Rate Case (24-035-04) ROE expert witness in South Carolina (June 2024)

# Electricity Industry Details

## Regulatory Engagements (Continued):

Georgia Power Yates Certification Hearing (No. 55378) expert witness in Georgia for Sierra Club and Southern Alliance for Clean Energy (May 2024)

Testified and attended drafting sessions for Colorado SB291 to legislate fuel cost sharing for Colorado Public Utilities Commission (April 2023)

Natural gas price risk discussion with South Carolina Legislators (12 total) for Southern Alliance for Clean Energy (Feb 2023)

Ex-Parte discussion of natural gas price risk to Public Services Commission and Office of Regulatory Staff in South Carolina (Jan 2023)

# BILL IMPACTS ANALYSIS

## Illustrative impact of maintaining WGL's equity layer at 52% and reducing WGL's ROE on residential customer rates

| Line No. | ROE Decrease from Proposed [a] | Authorized ROE after Decrease [b] | Total Savings vs. Proposed [c] | Increase vs. Current [d] | Increase vs. Current (%) [e] | Savings vs. Proposed (%) [f] | Avg. Monthly Bill Reduction [g] | Cost of Debt to Offset Savings [h] | Cost of Debt Increase [i] |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.00% | 10.85% | $2,192,191 | $51,269,294 | 19.4% | 0.7% | $0.42 | 5.021% | 0.296% |
| 2 | 0.35% | 10.50% | $5,063,454 | $48,398,032 | 18.3% | 1.6% | $0.98 | 5.409% | 0.684% |
| 3 | 0.85% | 10.00% | $9,165,257 | $44,296,229 | 16.7% | 2.9% | $1.77 | 5.963% | 1.237% |
| 4 | 1.35% | 9.50% | $13,267,060 | $40,194,426 | 15.2% | 4.2% | $2.56 | 6.516% | 1.791% |
| 5 | 1.85% | 9.00% | $17,368,862 | $36,092,623 | 13.6% | 5.5% | $3.35 | 7.070% | 2.345% |
| 6 | 2.35% | 8.50% | $21,470,665 | $31,990,820 | 12.1% | 6.7% | $4.14 | 7.624% | 2.898% |
| 7 | 2.85% | 8.00% | $25,572,468 | $27,889,018 | 10.5% | 8.0% | $4.93 | 8.177% | 3.452% |
| 8 | 3.35% | 7.50% | $29,674,270 | $23,787,215 | 9.0% | 9.3% | $5.72 | 8.731% | 4.006% |
| 9 | 3.85% | 7.00% | $33,776,072 | $19,685,413 | 7.4% | 10.6% | $6.51 | 9.285% | 4.560% |
| 10 | 4.11% | 6.74% | $35,911,482 | $17,550,215 | 6.6% | 11.3% | $6.92 | 9.573% | 4.848% |
| 11 | 4.35% | 6.50% | $37,877,874 | $15,583,611 | 5.9% | 11.9% | $7.30 | 9.839% | 5.113% |

## Illustrative impact of increasing WGL's equity layer to 54.269% and reducing WGL's ROE on residential customer rates

| Line No. | ROE Decrease from Proposed [a] | Authorized ROE after Decrease [b] | Total Savings vs. Proposed [c] | Increase vs. Current [d] | Increase vs. Current (%) [e] | Savings vs. Proposed (%) [f] | Avg. Monthly Bill Reduction [g] | Cost of Debt to Offset Savings [h] | Cost of Debt Increase [i] |
|---|---|---|---|---|---|---|---|---|---|
| 12 | 0.00% | 10.85% | $0 | $53,461,486 | 20.2% | 0.0% | $0.00 | 4.725% | - |
| 13 | 0.35% | 10.50% | $2,996,537 | $50,464,949 | 19.1% | 0.9% | $0.58 | 5.150% | 0.425% |
| 14 | 0.85% | 10.00% | $7,277,303 | $46,184,183 | 17.4% | 2.3% | $1.40 | 5.758% | 1.032% |
| 15 | 1.35% | 9.50% | $11,558,069 | $41,903,416 | 15.8% | 3.6% | $2.23 | 6.365% | 1.639% |
| 16 | 1.85% | 9.00% | $15,838,835 | $37,622,650 | 14.2% | 5.0% | $3.05 | 6.972% | 2.247% |
| 17 | 2.35% | 8.50% | $20,119,601 | $33,341,884 | 12.6% | 6.3% | $3.88 | 7.579% | 2.854% |
| 18 | 2.85% | 8.00% | $24,400,367 | $29,061,118 | 11.0% | 7.7% | $4.70 | 8.186% | 3.461% |
| 19 | 3.35% | 7.50% | $28,681,133 | $24,780,352 | 9.4% | 9.0% | $5.53 | 8.794% | 4.068% |
| 20 | 3.85% | 7.00% | $32,961,899 | $20,499,587 | 7.7% | 10.4% | $6.35 | 9.401% | 4.676% |
| 21 | 4.11% | 6.74% | $35,190,190 | $18,271,507 | 6.9% | 11.1% | $6.78 | 9.717% | 4.992% |
| 22 | 4.35% | 6.50% | $37,242,664 | $16,218,822 | 6.1% | 11.7% | $7.18 | 10.008% | 5.283% |

[c] WGL's proposed revenue requirement for Residential classes minus the rev. requirement that satisfies the ROE in column [b]
[d] The revenue requirement for Residential classes that satisfies the ROE in column [b] minus the rev. requirement at Current Rates
[e] Column [d] divided by the rev. requirement at Current Rates
[f] Column [c] divided by WGL's proposed revenue requirement for Residential classes
[g] Column [c] divided by the average number of Residential class Delivery customers, divided by 12
[h] The long-term cost of debt that would make Column [c] equal to $0.
[i] Column [h] minus the proposed long-term cost of debt (4.725%)

# DEBT ISSUE COMPARISONS

| Line No. | Company | Issue Date | Maturity Date | New Issue/ Secondary | Type | Moody's | S&P | Fitch | Size ($ Million) | Tenor (Years) | Coupon | YTM at Offer | Benchmark Treasury Yield | Spread to Benchmark Treasury | Normalized Spread (bps) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [a] | [b] | [c] | [d] | [e] | [f] | [g] | [h] | [i] | [j] | [k] | [l] | [m] | [n] | [o] |
| 1 | Atmos Energy Corporation | 6/16/2025 | 5/15/2035 | Secondary | Sr. Unsecured | A2 | A- | | 500 | 9.9 | 5.200% | 5.248% | 4.448% | 0.800% | 105 |
| 2 | Atmos Energy Corporation | 6/18/2024 | 11/15/2033 | Secondary | Sr. Unsecured | A1 | A- | | 325 | 9.4 | 5.900% | 5.178% | 4.228% | 0.950% | 120 |
| 3 | Atmos Energy Corporation | 10/5/2023 | 11/15/2033 | Secondary | Sr. Unsecured | A1 | A- | | 400 | 10.1 | 5.900% | 5.916% | 4.716% | 1.200% | 145 |
| 4 | Southern Company Gas | 9/3/2025 | 9/15/2035 | New Issue | Sr. Unsecured | Baa1 | A- | BBB+ | 425 | 10.0 | 5.100% | 5.133% | 4.203% | 0.930% | 93 |
| 5 | Southern Company Gas | 9/3/2024 | 9/15/2034 | New Issue | Sr. Unsecured | Baa1 | A- | BBB+ | 450 | 10.0 | 4.950% | 4.994% | 3.844% | 1.150% | 115 |
| 6 | NiSource Inc. | 6/23/2025 | 7/15/2035 | New Issue | Sr. Unsecured | Baa2 | BBB+ | BBB | 900 | 10.1 | 5.350% | 5.364% | 4.314% | 1.050% | 105 |
| 7 | NiSource Inc. | 3/11/2024 | 4/1/2034 | New Issue | Sr. Unsecured | Baa2 | BBB+ | BBB | 650 | 10.1 | 5.350% | 5.378% | 4.098% | 1.280% | 128 |
| 8 | Piedmont Natural Gas Co. | 8/12/2024 | 2/15/2035 | New Issue | Sr. Unsecured | A3 | BBB+ | | 375 | 10.5 | 5.100% | 5.107% | 3.907% | 1.200% | 120 |
| 9 | Piedmont Natural Gas Co. | 6/5/2023 | 6/15/2033 | New Issue | Sr. Unsecured | A3 | BBB+ | | 350 | 10.0 | 5.400% | 5.400% | 3.700% | 1.700% | 170 |
| 10 | Southern Company Gas | 9/11/2023 | 9/15/2033 | New Issue | Sr. Unsecured | Baa1 | BBB+ | BBB+ | 500 | 10.0 | 5.750% | 5.764% | 4.284% | 1.480% | 148 |
| 11 | Atmos Energy Corporation | 9/18/2025 | 5/15/2055 | Secondary | Sr. Unsecured | A2 | A- | | 600 | 29.7 | 5.450% | 5.490% | 4.720% | 0.770% | 102 |
| 12 | Atmos Energy Corporation | 9/17/2024 | 12/15/2054 | Secondary | Sr. Unsecured | A1 | A- | | 650 | 30.2 | 5.000% | 5.045% | 3.965% | 1.080% | 133 |
| 13 | Atmos Energy Corporation | 10/5/2023 | 11/15/2053 | Secondary | Sr. Unsecured | A1 | A- | | 500 | 30.1 | 6.200% | 6.217% | 4.887% | 1.330% | 158 |
| 14 | NiSource Inc. | 6/23/2025 | 4/1/2055 | Secondary | Sr. Unsecured | Baa2 | BBB+ | BBB | 750 | 29.8 | 5.850% | 6.005% | 4.855% | 1.150% | 140 |
| 15 | NiSource Inc. | 3/20/2025 | 4/1/2055 | New Issue | Sr. Unsecured | Baa2 | BBB+ | BBB | 750 | 30.0 | 5.850% | 5.868% | 4.568% | 1.300% | 130 |

[f], [g], [h] Blanks convey that the company is not covered by the rating agency
[o] Following the method in JB-6, Secured debt estimated to be about 10 bps less than Unsecured, Index-Eligible Secondary about 25 bps less than new issuance Private Placements

[1] Figures for WGL sources from WGL Exhibit JB-6

| 10-Yr | Avg. Normalized Spread (bps) |
|---|---|
| A- Group | 116 |
| BBB Group | 134 |
| WGL [1] | 128 |

| 30-Yr | Avg. Normalized Spread (bps) |
|---|---|
| A- Group | 131 |
| BBB Group | 135 |
| WGL [1] | 150 |

| All | Avg. Normalized Spread (bps) |
|---|---|
| A- Group | 121 |
| BBB Group | 134 |
| WGL [1] | 139 |

**Washington Gas Light Company's Application for Authority to Increase Rates and Charges for Natural Gas Services**

**Case No. 9849**

**Data Responses Referenced in the Direct Testimony of Albert Lin**

WGL Response to OPC Data Request 3-4

WGL Response to OPC Data Request 3-13

WGL Response to OPC Data Request 3-14

WGL Response to OPC Data Request 14-4

MARYLAND PUBLIC SERVICE COMMISSION

WASHINGTON GAS LIGHT COMPANY

Case No. 9849

WASHINGTON GAS COMPANY RESPONSE
AND/OR NOTICE OF OBJECTION/UNAVAILABILITY
DIRECTED TO THE OFFICE OF PEOPLE'S COUNSEL

OPC DATA REQUEST NO. 3

QUESTION NO. 3-4

**Q.** Please see Nowak Direct at 31, Table of DCF Outcomes. Please explain the logic of relying *exclusively* on analysts' projected Earnings Per Share (EPS) growth rates while explicitly rejecting dividend growth rates. Does the Company assume that long-term sustainable growth can permanently exceed the rate of the economy, or is this reliance on EPS meant to capture short-term volatility?

**WASHINGTON GAS' RESPONSE** **March 03, 2026**

**A.** As to the first request, "Please explain the logic of relying exclusively on analysts' projected Earnings Per Share (EPS) growth rates while explicitly rejecting dividend growth rates," Mr. Nowak discussed his reliance on earning per share growth estimates at pages 29 to 31 of his Direct Testimony.

As to the second question, "Does the Company assume that long-term sustainable growth can permanently exceed the rate of the economy, or is this reliance on EPS meant to capture short-term volatility?" Mr. Nowak disagrees with the premise of the question that these are mutually exclusive possibilities. As to the first component, "Does the Company assume that long-term sustainable growth can permanently exceed the rate of the economy," Mr. Nowak has not performed an analysis as to whether any of the earnings per share growth rates will permanently exceed the growth rate of the economy. However, given that the long-term growth rate of the economy is an average of the overall economy, invariably, some industries and firms will outperform the average, and some will underperform the average. As to the second component of the question, Mr. Nowak relied on long-term earnings growth estimates.

SPONSOR: Joshua C. Nowak, Vice President, Concentric Energy Advisors

MARYLAND PUBLIC SERVICE COMMISSION

WASHINGTON GAS LIGHT COMPANY

Case No. 9849

WASHINGTON GAS COMPANY RESPONSE
AND/OR NOTICE OF OBJECTION/UNAVAILABILITY
DIRECTED TO THE OFFICE OF PEOPLE'S COUNSEL

OPC DATA REQUEST NO. 3

QUESTION NO. 3-13

**Q.** Provide examples where a lowered ROE for a regulated utility resulted in lost access to capital markets as a result of a lower approved ROE decision.

**WASHINGTON GAS' RESPONSE** **March 03, 2026**

**A.** As an example, in 2021, the Arizona Corporation Commission authorized an ROE of 8.70 percent for Arizona Public Service Company ("APS"), a significant reduction from its prior 10.00 percent ROE. S&P and Moody's downgraded APS, and the stock price for APS' parent company, Pinnacle West Capital declined by nearly 25% – a signal that investors required higher returns to supply the capital necessary for APS to provide safe and reliable service to its customers. As such, the ROE determination impeded APS' ability to access capital markets at reasonable rates.

SPONSOR: Joshua C. Nowak, Vice President, Concentric Energy Advisors

MARYLAND PUBLIC SERVICE COMMISSION

WASHINGTON GAS LIGHT COMPANY

Case No. 9849

WASHINGTON GAS COMPANY RESPONSE
AND/OR NOTICE OF OBJECTION/UNAVAILABILITY
DIRECTED TO THE OFFICE OF PEOPLE'S COUNSEL

OPC DATA REQUEST NO. 3

QUESTION NO. 3-14

**Q.** Provide examples where a credit rating downgrade resulted in lost access to capital markets or an inability to provide service as a going concern. This request is not limited to the Moody's Figure 15 in Witness Nowak's Direct Testimony (page 52).

**WASHINGTON GAS' RESPONSE** **March 03, 2026**

**A.** There have been several examples in which a utility's access to capital has been affected by its credit rating. For example, Pacific Gas and Electric and Hawaii Electric Light Co. are both currently rated below investment grade. A utility with a credit rating below investment grade will be more limited in the pool of investors willing to commit capital which can limit access to capital and increase the cost of capital. However, a credit rating downgrade, even if that rating is investment-grade, comparatively increases the cost to access capital as the cost of debt is highly correlated to credit ratings. As such, any credit rating downgrade can have a material effect on the cost to access capital markets.

SPONSOR: Joshuia C. Nowak, Vice President, Concentric Energy Advisors

MARYLAND PUBLIC SERVICE COMMISSION

WASHINGTON GAS LIGHT COMPANY

Case No. 9849

WASHINGTON GAS COMPANY RESPONSE
AND/OR NOTICE OF OBJECTION/UNAVAILABILITY
DIRECTED TO THE OFFICE OF PEOPLE'S COUNSEL

OPC DATA REQUEST NO. 14

QUESTION NO. 14-4

**Q.** Please refer to WGL's response to OPC Data Request 3-13.

a. APS is an example of raising money at a price that was different from what the company desired. Can WGL cite an example where an ROE or credit downgrade resulted in a utility being unable to access capital at any price?

b. Was there anything deficient, inaccurate, or inappropriate about the S&P and Moody's downgrade of APS?

c. Does the Company believe customer bills would rise more from a change in credit rating than the amount saved from a lower ROE?

i. If yes, please provide the basic accounting for how that would occur.

**WASHINGTON GAS' RESPONSE** **March 20, 2026**

**A.** a. The question presumes that instances of a utility being unable to access capital is observable. However, due to the nature of decisions security issuances, it is not readily observable as to when a company may not be able to access capital. For example, when a utility issues debt, there are typically public filings that disclose the terms of the debt offering. If a company believes it is unable to issue capital, there is no required filing, so it is not possible to perform an exhaustive analysis of instances when a company was unable to access capital markets. In the case of Arizona Public Service ("APS") and the referenced ROE decision and subsequent credit downgrade, it is notable that APS had issued long-term, senior unsecured bonds at least once each year from 2014 through 2021. Subsequent to the 2021 decision to authorize an ROE of 8.70 percent for APS (down from a prior ROE of 10.00 percent), the company did not issue another senior unsecured bond until June 2023. Importantly, the authorized ROE was increased in a settlement approved by the ACC in June 2023 after the original decision was appealed to the Arizona Court of Appeals and remanded to the Arizona Corporation Commission for further review. While I am not aware of any public disclosures whether the company was unable to access capital

markets in the intervening period, or if the terms were unfavorable, it is notable that the Company did not issue debt until it was able to obtain a higher ROE.

Further, other examples exist of challenges for utilities in raising capital as a result of adverse regulatory decisions. In one instance, Connecticut utilities - The United Illuminating Company ("UI"), Southern Connecticut Gas ("SCG"), and Connecticut Natural Gas ("CNG") - experienced reduced investor demand for bonds and higher premiums demanded by investors as a result of a highly contentious and adverse regulatory environment in Connecticut. In a 2024 rate case filing, UI explained that that as a result of the Connecticut Public Utility Regulatory Authority's adverse decision in the company's 2022 rate case, credit rating agencies expressed alarm regarding the outcome of Connecticut regulatory proceedings and the impact they would have on UI's financial integrity. In its 2024 filing, UI noted:

> These investment community concerns go beyond revised credit outlooks from the credit rating agencies as they have manifested themselves in restrictions on accessing capital and higher borrowing costs. For example, on November 15, 2023, parent Avangrid attempted to place a bond issuance for five of its operating affiliates, three of which operate in Connecticut (UI, CNG, and SCG)... on the day of pricing, the offers received by UI barely met the anticipated subscription level and the subscriptions sought for SCG and CNG were only roughly 50% fulfilled. After some additional negotiation, Avangrid secured the full financing level sought for SCG and CNG and priced the transaction on the following day; however, the credit spreads were wider than anticipated for all three companies, raising the financing cost by approximately 10-15 basis points, or by approximately $300,000-$450,000 annually. The bankers informed Avangrid that the difficulty in fulfilling the necessary subscription levels and the wider credit spreads attracted were caused in part by the limited interest to invest in Connecticut utilities due to concerns over the regulatory environment impacting current ratings. The potential inability to borrow funds necessary to operate the business and support necessary new investment in the system on a long-term basis, or to obtain those borrowings at a reasonable cost, is now a very real risk for UI and its affiliates. (Direct Testimony of the Revenue Requirements Panel at 23-24, PURA Docket No. 24-10-04).

UI was unable to secure capital at its anticipated costs, demonstrating the difficulty securing sufficient capital from investors following an adverse regulatory outcome.

b. Mr. Nowak is not aware of S&P and Moody's issuing any reports about its credit decisions regarding APS as being "deficient, inaccurate, or inappropriate."

c. The question is unclear as to what constitutes a "lower ROE" or a "change in credit rating." That is, the effect on customer bills depends on the degree to which the ROE changes and relative change in the cost of debt. Further, while there is evidence that a credit rating for a utility company depends, in part, on the authorized ROE, there are several other contributing factors. As such, the requested analysis would require several assumptions that would limit the analytical value of such an exercise.

SPONSOR: Joshua C. Nowak, Vice President, Concentric Energy Advisors