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**BEFORE THE
GEORGIA PUBLIC SERVICE COMMISSION**

**IN RE: GEORGIA POWER COMPANY'S)
 2022 RATE CASE) DOCKET NO. 44280**

**DIRECT TESTIMONY
AND EXHIBITS
OF
MICHAEL P. GORMAN
(RATE OF RETURN)**

TRADE SECRET

**ON BEHALF OF THE
GEORGIA PUBLIC SERVICE COMMISSION
PUBLIC INTEREST ADVOCACY STAFF**

OCTOBER 20, 2022

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**DIRECT TESTIMONY OF
MICHAEL P. GORMAN**

I. QUALIFICATIONS AND SUMMARY

I.A. Qualifications

Q. Please state your name and business address.

A. My name is Michael P. Gorman. My business address is Brubaker & Associates, Inc.,
16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q. What is your occupation and by whom are you employed?

A. I am a consultant in the field of public utility regulation and a Managing Principal with
the firm of Brubaker & Associates, Inc. (“BAI”), energy, economic and regulatory
consultants.

Q. Please describe your education and professional experience.

A. My education and professional experience are detailed in my Exhibit___(MPG-1).

Q. On whose behalf are you testifying?

A. I am offering testimony on behalf of the Georgia Public Service Commission Public
Interest Advocacy Staff (“PIAS” or “Staff”).

I.B. Summary

Q. What is the purpose of your testimony?

A. My testimony will address Georgia Power Company’s (“GPC” or “the Company” or
“Georgia Power”) overall rate of return including return on equity, embedded debt cost,
and ratemaking capital structure.

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1 **Q. Please summarize your recommendations and conclusions on rate of return.**

2 A. I recommend the Georgia Public Service Commission (the “Commission”) award
3 Georgia Power a return on common equity of 9.45%, within the range of 9.00% to
4 9.90%. This return on equity reflects GPC’s current market cost of equity. I recommend
5 the Commission approve a return on equity that reflects fair compensation for GPC’s
6 level of investment risk, and impose tariff rate charges on customers that are no more
7 expensive than necessary to fairly compensate the Company and maintain its financial
8 integrity and credit standing.

9 I also propose an adjustment to the Company’s ratemaking capital structure once
10 Vogtle Units 3 and 4 are placed in-service. I recommend the Commission adjust the
11 Company’s ratemaking capital structure to include a 51% common equity ratio for 2024
12 and 2025, down from the 56% common equity ratio currently approved. The Company’s
13 financial position will strengthen significantly with revenues from Vogtle Units 3 and 4
14 and a 56% common equity ratio would no longer be necessary to support the Company’s
15 financial integrity. This adjusted 51% common equity ratio reflects the Company’s
16 common equity ratio that the Commission approved in the 2013 rate case order, which is
17 also generally consistent with ratemaking capital structures for other similarly situated
18 regulated utility companies, and is adequate to support GPC’s bond rating, financial
19 integrity and credit standing, but at much lower cost to customers.

20
21 **Q. What is your recommended overall rate of return for GPC in this case?**

22 A. As shown on my Exhibit___(MPG-2), based on my recommended return on equity and
23 the Company’s proposed capital structure for the test year ending July 31, 2023 and
24 calendar year 2023, I recommend a rate of return of 6.83%, and 6.84%, respectively.
25 Starting in 2024, based on my recommended return on equity and adjusted capital
26 structure reflecting a 51% common equity ratio, I recommend an overall rate of return of
27 6.57% and 6.61% for 2024 and 2025, respectively.

1 **Q. Please describe how your testimony is organized.**

2 A. My testimony is broken into several factors used to estimate a fair rate of return for
3 Georgia Power, which will maintain its financial integrity and access to capital at the
4 most reasonable costs possible to customers. My testimony is structured as follows.

5 First, I provide observable evidence on current market costs and regulatory
6 support for financial integrity, credit standing, and access to capital.

7 Second, I review the Company's proposed ratemaking capital structure for the test
8 year, the 12-month period ending July 31, 2023, and for year-end 2023, 2024, and 2025.
9 As outlined below, I do not take issue with the Company's proposed ratemaking capital
10 structure for the test year or for calendar year 2023. However, in 2024, after the new
11 Vogtle generating units are expected to be placed in-service, I recommend adjusting the
12 ratemaking capital structure to include a common equity ratio of 51%. This adjusted
13 capital structure following the in-service date of Vogtle Units 3 and 4 will reduce GPC's
14 cost of service, maintain its financial integrity and credit standing, and mitigate the
15 impact on customers' rates by including the cost of these new nuclear units in retail cost
16 of service.

17 Third, I estimate GPC's current market cost of equity using market-based cost of
18 capital models to estimate the current market-required return on equity that investors
19 require to assume the investment risk similar to GPC.

20 Fourth, I rely on my recommended rate of return to develop credit metrics, which
21 demonstrate that my recommended rate of return for GPC will support its investment
22 grade bond rating, and access to capital at reasonable cost.

23 Finally, I respond to GPC witness Mr. James Coyne's recommended return on
24 equity in the range of 8.99% to 13.55%, and his point estimate of 11.00%, which includes
25 a flotation cost adjustment of 8 basis points. I comment on his analysis and show that his
26 recommended return on equity substantially exceeds the current market cost of capital for
27 companies with investment risk similar to that of GPC. Mr. Coyne's recommended
28 return on equity unnecessarily inflates GPC's claimed revenue deficiency, and would
29 increase rates beyond a just and reasonable level.
30

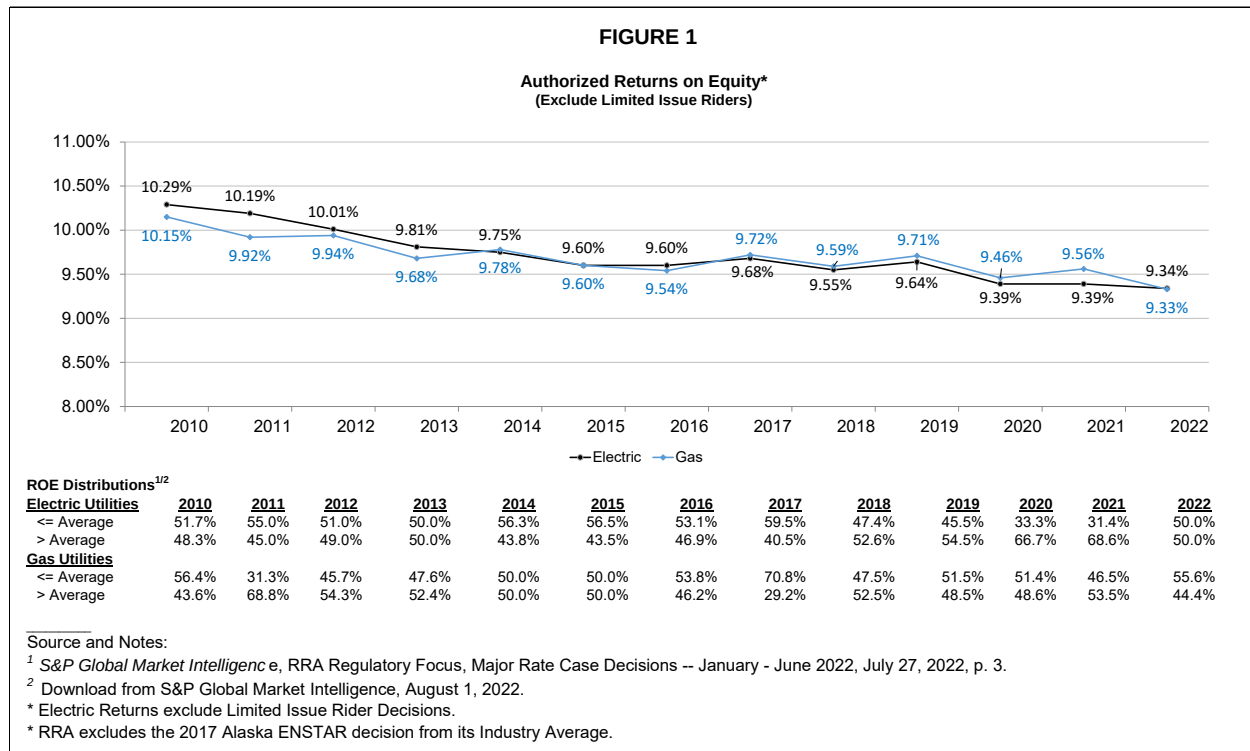
II. RATE OF RETURN

II.A. Utility Industry Authorized Returns on Equity,

Access to Capital, and Credit Strength

Q. Please describe the observable evidence on trends in authorized returns on equity for regulated utilities.

A. Authorized returns on equity are an important aspect available to utilities to produce revenues and cash flows adequate to support their credit standing and maintain their financial integrity, which supports their access to capital under reasonable terms and prices. Observing data on industry authorized returns on equity, trends and outlooks on credit standing, and ability to attract capital to fund large investments, provides clear evidence that industry authorized returns on equity have been judged by market participants to be fair and reasonable. With this as a backdrop, it is significant to observe that the industry authorized returns on equity for electric and gas utilities have ranged between 9.35% to 9.78% for the period 2014-2022 to date and, since 2020, the industry authorized returns on equity have averaged below 9.50%. These returns are summarized in Figure 1 below.



Q. Have utilities been able to access external capital to support capital expenditure programs?

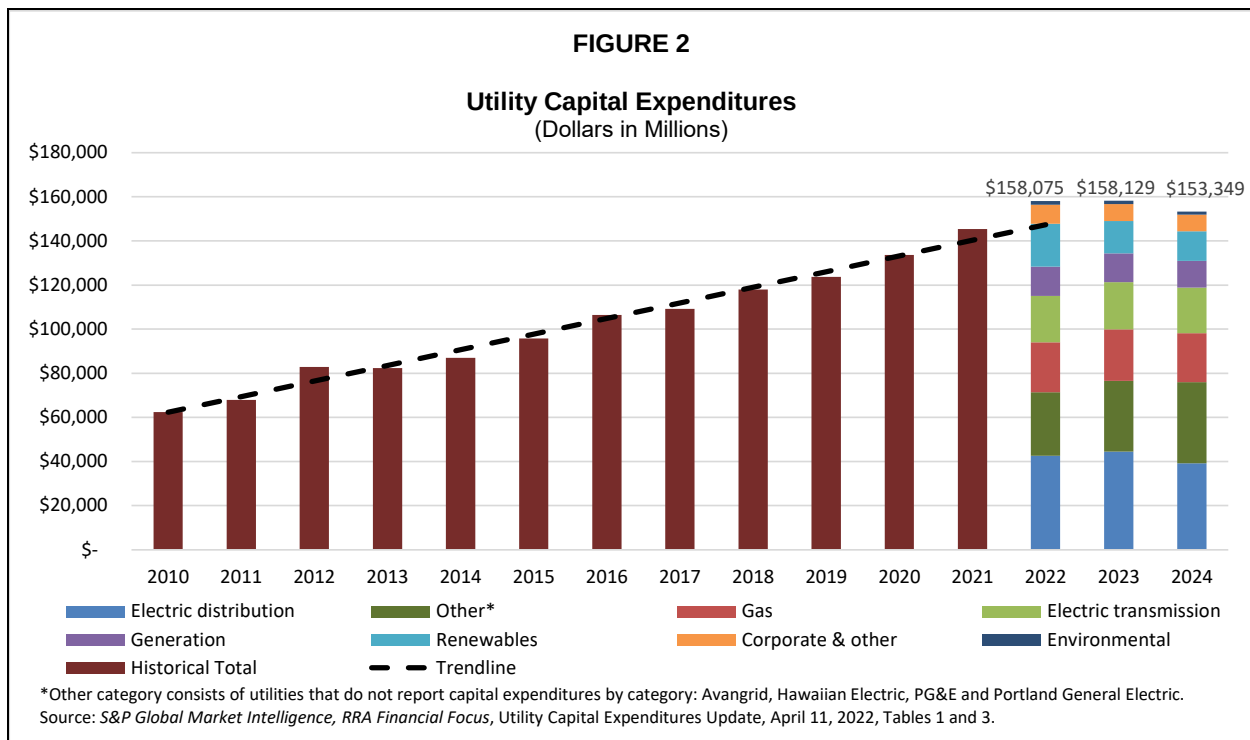
A. Yes. In Regulatory Research Associates' ("RRA") April 11, 2022 Utility Capital Expenditures Update report, *RRA Financial Focus*, a division of S&P Global Market Intelligence, made several relevant comments about utility investments generally:

- Projected 2022 capital expenditures for the 47 energy utilities included in the Regulatory Research Associates representative sample of the publicly traded U.S.-based utility universe currently exceeds \$154.2 billion, well above the \$131.8 billion of actual investment spent in 2021 by the same companies. Much of the increased outlays are [sic] driven by federal support for infrastructure investment that was approved by congress [sic] and signed into law late in 2021.
- Investment across these 47 energy utilities may rise 15% or more by the close of 2022.
- Across the small investor-owned water utility industry, total capex is forecast to increase 7.3% in 2022 to approximately \$3.9 billion. The segment experienced modest growth of 4.9% in 2021.

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- 2021 energy utility capital expenditures marked a record high, about 1.3% above the \$130.1 billion invested in 2020. Investment in 2021 might have been even higher without the multiple supply chain issues associated with the ongoing coronavirus pandemic.¹

As shown in Figure 2 below, capital expenditures for electric and natural gas utilities have increased considerably over the period 2021 into 2022, and the forecasted capital expenditures remain elevated through the end of 2023, albeit falling below current levels in 2024.



As outlined in Figure 2 above, and in the comments made by RRA S&P Global Market Intelligence, capital investments for the utility industry continue to stay at elevated levels, and these capital expenditures are expected to fuel utilities' profit growth into the foreseeable future. This is clear evidence that the capital investments are enhancing shareholder value, and are attracting both equity and debt capital to the utility industry in a manner that allows for funding these elevated capital investments. While capital markets embrace these profit-driven capital investments, regulatory commissions

¹S&P Global Market Intelligence, RRA Financial Focus: "Utility Capital Expenditures Update," April 11, 2022, at 5.

also must be careful to maintain reasonable prices and tariff terms and conditions to protect customers' need for reliable utility service at competitive tariff prices.

Q. Is there evidence of robust valuations of regulated utility equity securities?

A. Yes. Robust valuations are an indication that utilities can sell securities at high prices, which is a strong indication that they can access equity capital under reasonable terms and conditions, and at relatively low cost. As shown on my Exhibit___(MPG-3), utility valuation metrics show robust valuation of utility securities more recently compared to the historical period extending back to 2002. Specifically, *The Value Line Investment Survey* ("Value Line") tracks and projects various valuation metrics related to regulated utility securities, as well as non-regulated companies followed by *Value Line*. These valuation metrics are considered by market participants in assessing the investment risk characteristics of individual company stocks and industries, and are used by market participants to derive their required rates of return for making investments. All of these valuation metrics for electric utility stocks indicate robust valuations of utility stocks, which in turn support my finding that utilities' cost of capital is low by historical comparison and are competitive returns.

For example, my Exhibit___(MPG-3) shows a *Value Line* electric utility industry price-to-earnings ratio of 20.34x, compared to a 21-year average price-to-earnings ratio of around 17.25x (Page 1). The current price-to-earnings ratio for gas utilities is 19.32x relative to the 17-year average price-to-earnings ratio of 18.42x (Page 11). This strong price-to-earnings performance indicates stock prices relative to earnings have been robust. Robust stock prices, or higher stock prices, indicate lower cost of capital as investors are willing to pay more for future profits.

The market price-to-cash flow for electric utilities is currently 9.11x, compared to the 21-year average of 7.54x (Page 2). The market price-to-cash flow for gas utilities is currently 9.71x, compared to the 17-year average of 9.60x (Page 11). Again, high stock prices in relationship to utility cash flows indicate investors are willing to accept lower rates of return to invest in utility stocks.

Finally, the current market-to-book ratio for the electric utility industry is 2.00x, compared to the 18-year average of 1.71x (Page 3). The current market-to-book ratio for

1 the gas utility industry is 1.79x, which is comparable to the 17-year average of 1.82x
2 (Page 11). Again, the market-to-book ratio indicates robust stock prices and low cost of
3 capital to utilities.

4 The utility industry exhibits strong valuations in the marketplace, which is a clear
5 indication that utilities have access to external capital markets under favorable conditions
6 and at low costs.

7
8 **Q. Please describe the credit strength and financial integrity of the regulated utility**
9 **industry.**

10 A. Credit ratings are reasonable assessments of the utility industry's financial integrity,
11 because they indicate the utility's credit strength, which in turn provides strong evidence
12 of the utility's ability to attract capital necessary to make infrastructure investments under
13 reasonable terms and prices. Trends in credit ratings are an indication of whether or not
14 the regulatory decisions have supported the utilities' ability to generate adequate revenue
15 to recover their costs, produce adequate cash flows, and maintain credit strength. The
16 primary factors in these regulatory decisions are the commissions' awarded returns on
17 equity, allowed capital structure and development of depreciation rates.

18 As shown in Table 1 below, electric utilities' credit standing has remained very
19 robust through the Tax Cuts and Jobs Act (2017) changes and impacts on cash flow
20 starting around 2018, through the COVID pandemic, and up through current times. As
21 shown below in Table 1, from approximately 2017 through 2022, over 80% of the
22 regulated utility industry have bond ratings of BBB+ or stronger. Georgia Power
23 currently has a BBB+ rating or equivalent from two of the three major bond rating
24 agencies and a BBB rating from the third major bond rating agency.²

²Fetter Direct Testimony at 5.

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TABLE 1

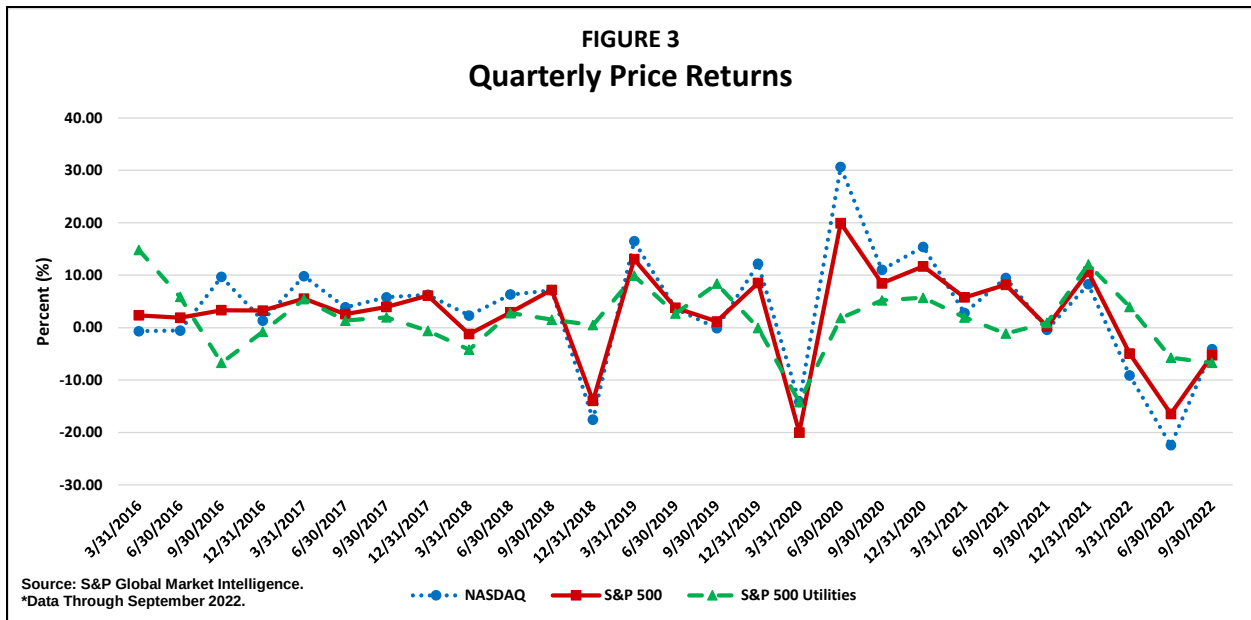
S&P Ratings by Category
Electric Utility Subsidiaries
(Year End)

Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
A or higher	12%	12%	11%	13%	13%	13%	10%	10%	8%	14%	14%	10%	10%
A-	20%	19%	22%	26%	26%	34%	43%	52%	54%	54%	53%	37%	38%
BBB+	24%	28%	28%	25%	28%	24%	32%	21%	22%	18%	19%	35%	35%
BBB	26%	24%	22%	26%	23%	18%	4%	7%	13%	12%	3%	16%	16%
BBB-	16%	15%	17%	11%	11%	11%	11%	11%	2%	1%	1%	0%	0%
Below BBB-	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	10%	1%	1%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
BBB+ or Above	56%	59%	61%	63%	67%	71%	85%	82%	84%	87%	86%	83%	83%

Source: S&P CAPITAL IQ and Market Intelligence, downloaded 9/26/22.
Note: Subsidiary ratings used.

Q. Please describe utility stock price performance over the last several years.

A. As shown in Figure 3 below, S&P Global Market Intelligence (“MI”) has recorded gas and electric utility stock price performance (excluding dividend yields) compared to overall market performance.



Utility stocks have not exhibited the same volatility as the S&P 500, and have maintained strong valuation relative to overall market performance.

1 **Q. How should the Commission use this market information in assessing a fair return**
2 **for GPC?**

3 A. Observable market evidence is quite clear that capital market costs are near historically
4 low levels. While authorized returns on equity have fallen to the mid-9% range, utilities
5 continue to have access to large amounts of external capital even as they are funding
6 large capital programs. Furthermore, utilities' investment-grade credit ratings are stable
7 and have improved due, in part, to supportive regulatory treatment. The Commission
8 should carefully weigh all this important observable market evidence in assessing a fair
9 return on equity for GPC.

10
11 **II.B. Federal Reserve's Impact on Cost of Capital**

12 **Q. Are the monetary policy decisions and actions of the Federal Reserve, and of the**
13 **Federal Reserve System's ("FRS") Federal Open Market Committee ("FOMC"),**
14 **known to market participants, and is it reasonable to believe those decisions and**
15 **actions are reflected in the market's valuation of both debt and equity securities?**

16 A. Yes. The Federal Reserve has been transparent on its efforts to support the economy to
17 achieve maximum employment, and to manage long-term inflation to around a 2% level.
18 The Federal Reserve in a September 21, 2022 press release, noted that recent indicators
19 point to modest growth in spending and production, job gains have been robust, the
20 unemployment rate has remained low, inflation remains elevated, reflecting supply and
21 demand imbalances related to the pandemic, higher food and energy prices and broader
22 price pressures. The Federal Reserve also noted that Russia's war against Ukraine is
23 causing tremendous human and economic hardship, which is placing additional upward
24 pressure on inflation and impacting global economic activity. The Federal Reserve noted
25 that it is highly attentive to inflation risk.³

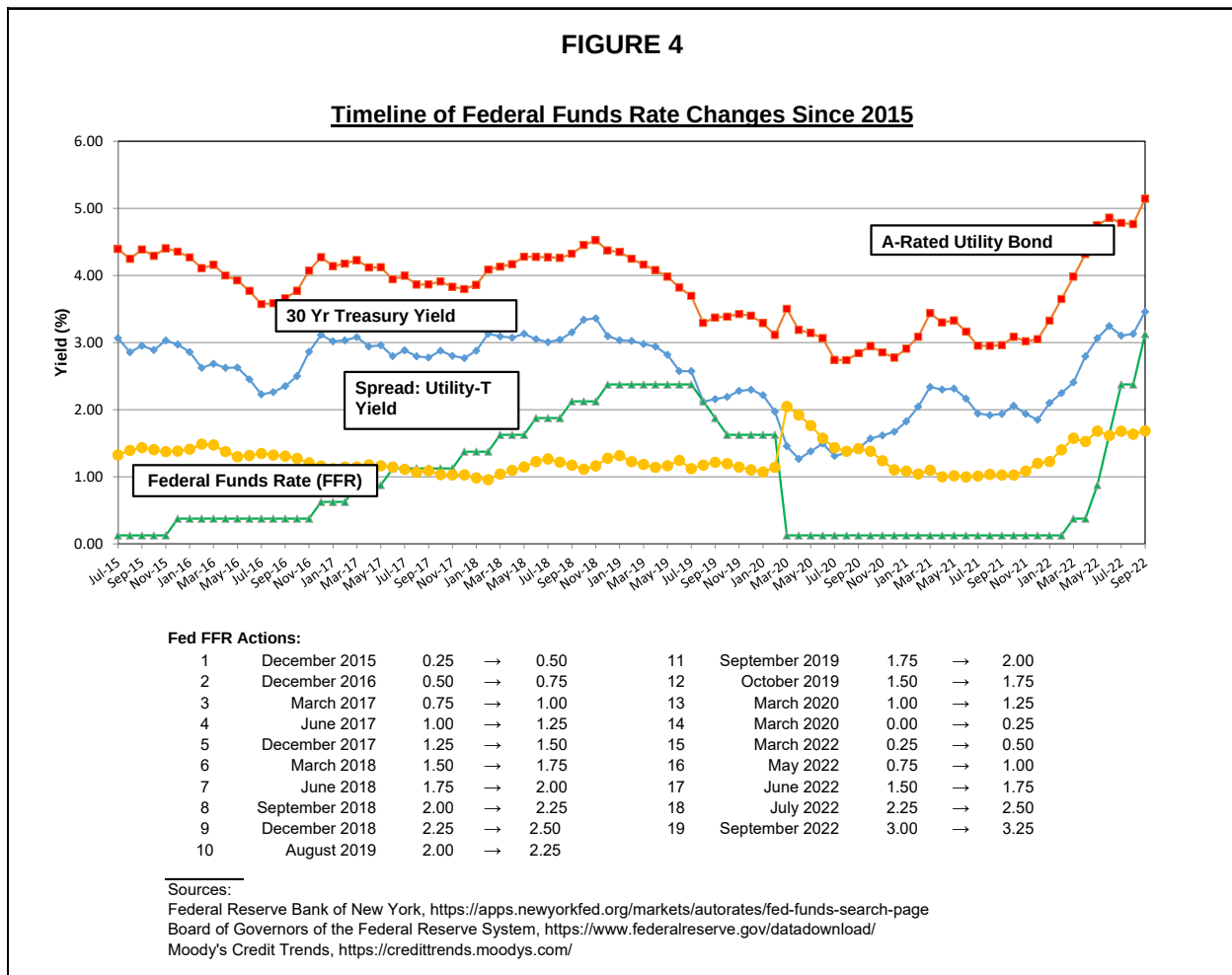
26 With this as a backdrop, the Federal Reserve announced that it will continue to
27 seek maximum employment and a target inflation rate of 2% over the long-term. In
28 support of those goals, the Federal Reserve announced it will raise the target range of the
29 Federal Funds Rate ("FFR") from 2.50% to 3.25%, and that it anticipates ongoing
30 increases to the FFR to achieve the target 2.0% inflation rate. The Federal Reserve also

³Federal Reserve press release, September 21, 2022.

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stated that it will continue to reduce its holding of Treasury securities, agency debt securities and agency mortgage backed securities, as outlined in the Size of The Federal Reserve Balance Sheet statement issued in May 2022. In that statement, the Federal Reserve outlined its intention to reinvest cash proceeds from dividends and coupons, but to gradually reduce its balance sheet holdings of these securities over time and intends to do so without a disruption of the markets. The Federal Reserve reiterated its strong commitment to returning inflation to the 2% rate objective.⁴

The trend in the Federal Reserve's monetary actions on the Federal Funds Rate is shown below in Figure 4.



As shown in Figure 4, the Federal Reserve's recent increase to the Federal Funds Rate, currently at a 3.00% to 3.25% range, represents a higher Federal Funds Rate than the rate

⁴*Id.*

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1 prior to the economic effects of the worldwide pandemic starting around March/April of
2 2020.

3
4 **Q. Do independent economists' outlooks for future interest rates align with the Federal**
5 **Reserve's monetary policy?**

6 A. Yes. In its most recent report, *Blue Chip Financial Forecasts* outlines consensus
7 economists' projections that reflect a rising risk of inflation, and likely continued
8 monetary tightening of the Federal Reserve to fight inflation. *Blue Chip Financial*
9 *Forecasts* indicated the likelihood that the Federal Reserve would increase the Federal
10 Funds Rate in September as an effort to fight inflationary pressure, and noted that there is
11 a high probability of the economy slowing down, possibly entering a recession, and notes
12 a continued strong labor market. These outlooks and projections of short-term Federal
13 Funds Rate, and long-term Treasury bond 30-year maturities, and U.S. economic outlook
14 suggest inflation will impact interest rates over the intermediate term but are expected to
15 moderate over the long term. All of this is illustrated in a comparison of interest rate and
16 Gross Domestic Product ("GDP") projections over time as developed in Table 2 below.

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TABLE 2

Blue Chip Financial Forecasts
Projected Federal Funds Rate, 30-Year Treasury Bond Yields, and GDP Price Index

<u>Publication Date</u>	<u>3Q 2021</u>	<u>4Q 2021</u>	<u>1Q 2022</u>	<u>2Q 2022</u>	<u>3Q 2022</u>	<u>4Q 2022</u>	<u>1Q 2023</u>	<u>2Q 2023</u>	<u>3Q 2023</u>	<u>4Q 2023</u>
<u>Federal Funds Rate</u>										
Oct-21	0.1	0.1	0.1	0.1	0.1	0.2	0.3			
Nov-21	0.1	0.1	0.1	0.1	0.1	0.3	0.4			
Dec-21	0.1	0.1	0.1	0.1	0.3	0.4	0.6			
Jan-22		0.1	0.1	0.3	0.5	0.7	0.9	1.1		
Feb-22		0.1	0.2	0.5	0.8	1.0	1.3	1.5		
Mar-22		0.1	0.2	0.6	1.0	1.3	1.6	1.8		
Apr-22			0.1	0.8	1.4	1.8	2.2	2.4	2.6	
May-22			0.1	1.0	1.7	2.2	2.6	2.9	3.0	
Jun-22			0.1	1.0	1.9	2.4	2.8	3.0	3.1	
Jul-22				0.7	2.4	3.1	3.5	3.5	3.5	3.4
Aug-22				0.8	2.5	3.2	3.5	3.5	3.4	3.3
Sep-22				0.8	2.5	3.4	3.6	3.6	3.5	3.4
<u>T-Bond, 30 yr.</u>										
Oct-21	1.9	2.2	2.3	2.4	2.5	2.6	2.7			
Nov-21	1.9	2.2	2.3	2.4	2.5	2.6	2.7			
Dec-21	1.9	2.1	2.2	2.3	2.5	2.6	2.7			
Jan-22		2.0	2.1	2.2	2.4	2.5	2.7	2.8		
Feb-22		2.0	2.2	2.3	2.5	2.6	2.7	2.8		
Mar-22		2.0	2.2	2.5	2.6	2.7	2.9	3.0		
Apr-22			2.3	2.6	2.8	3.0	3.2	3.3	3.3	
May-22			2.3	2.9	3.1	3.2	3.4	3.5	3.5	
Jun-22			2.3	3.0	3.3	3.4	3.5	3.6	3.6	
Jul-22				3.0	3.5	3.6	3.7	3.8	3.8	3.8
Aug-22				3.0	3.2	3.4	3.5	3.5	3.5	3.5
Sep-22				3.0	3.1	3.4	3.5	3.6	3.6	3.6
<u>GDP Price Index</u>										
Oct-21	4.2	2.9	2.5	2.5	2.5	2.5	2.4			
Nov-21	5.7	3.4	2.7	2.6	2.5	2.4	2.3			
Dec-21	5.9	4.6	3.4	2.8	2.7	2.5	2.5			
Jan-22		4.6	3.7	3.1	2.8	2.6	2.5	2.5		
Feb-22		6.9	4.3	3.4	3.0	2.8	2.6	2.5		
Mar-22		7.1	4.8	3.8	3.1	2.8	2.6	2.5		
Apr-22			4.8	5.1	3.7	3.0	2.8	2.6	2.6	
May-22			8.0	5.6	4.0	3.4	3.0	2.8	2.6	
Jun-22			8.1	5.9	4.6	3.5	3.1	2.8	2.7	
Jul-22				5.9	5.2	3.9	3.4	2.8	2.7	2.6
Aug-22				8.7	5.3	3.8	3.3	2.7	2.7	2.6
Sep-22				8.9	4.9	4.1	3.3	2.7	2.7	2.5

Source and Note:

Blue Chip Financial Forecasts, October 2021 through September 2022.

Actual Yields in Bold.

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Further, the outlook for long-term interest rates in the intermediate to longer term is also impacted by the current Federal Reserve actions and the expectation that eventually the Federal Reserve's monetary actions will return to more normal levels. Long-term interest rate projections are illustrated in Table 3.

TABLE 3			
<u>30-Year Treasury Bond Yield Actual Vs. Projection</u>			
<u>Description</u>	<u>Actual</u>	<u>2-Year Projected*</u>	<u>5- to 10-Year Projected</u>
<u>2018</u>			
Q1	3.02%	3.63%	
Q2	3.09%	3.80%	4.2% - 4.4%
Q3	3.07%	3.73%	
Q4	3.27%	3.67%	3.9% - 4.2%
<u>2019</u>			
Q1	3.01%	3.50%	
Q2	2.78%	3.17%	3.6% - 3.8%
Q3	2.30%	2.70%	
Q4	2.30%	2.50%	3.2% - 3.7%
<u>2020</u>			
Q1	1.88%	2.57%	
Q2	1.38%	1.90%	3.0% - 3.8%
Q3	1.36%	1.87%	
Q4	1.62%	1.97%	2.8% - 3.6%
<u>2021</u>			
Q1	2.07%	2.23%	
Q2	2.26%	2.77%	3.5% - 3.9%
Q3	1.93%	2.63%	
Q4	1.95%	2.70%	3.4% - 3.8%
<u>2022</u>			
Q1	2.25%	2.87%	
Q2	3.04%	3.47%	3.8% - 3.9%
Source and Note:			
<i>Blue Chip Financial Forecasts</i> , January 2015 through August 2022.			
*Average of all 3 reports in Quarter.			

As outlined in Table 3 above, the outlook for increases in interest rates has jumped more recently relative to 2020 but is still relatively modest compared to time periods prior to the beginning of the worldwide pandemic. Indeed, today's relatively low capital market costs are expected to prevail at least in the short-term over the next five to ten years. While there may be some upward movement in the cost of capital, that upward movement is not expected to be significant. Importantly, the U.S. economy has largely recovered from the severe effects of the COVID-19 pandemic experienced in 2020. Capital markets continue to perform in a rational and economically logical manner at lower capital costs for safe investment sectors such as the utility industry.

II.C. Market Sentiments and Utility Industry Outlook

Q. Please describe the credit rating outlook for regulated utilities.

A. The global economy has faced the extraordinary challenges of the novel coronavirus, which led to nearly a complete shutdown of the global economy. This unprecedented event has impacted all sectors and capital markets. However, regulated utilities have generally performed well during the COVID-19 pandemic with consistent access to capital markets.

Moody's Investors Service ("Moody's") views the regulatory environment for the U.S. utility companies to be supportive and maintains a stable outlook for the industry. Specifically, Moody's states:

We are maintaining a stable outlook for the US regulated utilities sector based on our expectations that the regulatory environment will remain supportive of rate base growth and infrastructure investments and in mitigating the impact of extreme weather events. We anticipate that the regulated utility sector will remain resilient and benefit from the continuing US economic recovery.

» **Regulatory environment to remain supportive.** We expect average aggregate rate base growth of around 6% in 2022 amid a supportive regulatory environment. Rate case outcomes and other regulatory actions have been remarkably consistent with our expectations over the past few years, despite extreme weather events and economic disruptions caused by the coronavirus pandemic.

» **FFO-to-debt will be steady at current levels.** We estimate that the sector's aggregate industry funds from operations (FFO) to debt ratio will

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range between 14% and 15%, consistent with our projections last year for 2021. Our FFO-to-debt forecast incorporates our expectations for improving economic conditions in the US.

» **Capital expenditures will remain high.** With a heightened focus on reducing carbon exposure, utilities continue to invest in new renewable generation capacity and to make up for accelerated coal-fired power plant retirements as well as to bolster transmission and distribution networks. Also, the frequency and severity of extreme weather events in 2021 are prompting many utilities to invest more in hardening their systems and enhancing the resilience of their operations amid rising physical climate risk.⁵

Similarly, Fitch Ratings (“Fitch”) states the following:

The sector outlook for North American Utilities, Power and Gas in 2022 is neutral, according to Fitch Ratings.

Approximately 81% of rated entities in the sector have Stable Rating Outlooks based on an expectation that retail electricity sales will continue to strengthen and the regulatory environment will remain supportive.

Key rating concerns include high natural gas prices, which will increase the fuel and purchased power costs for utilities and will be directly passed through to customers. Elevated capex, recovery of storm restoration costs and recovery of deferred coronavirus expenses will compound the pressure on customer bills. Declining O&M costs due to cost control initiatives and the ongoing energy transition to lower cost renewables should provide some offset.

Fitch expects median FFO leverage for the sector to modestly improve to 4.5x in 2022 as utilities see a rebound in FFO from growth investments and recovery in retail sales. Parent holding companies will likely continue to look for asset monetization opportunities to supplement or replace equity needs to fund high capex. However, the improvement in leverage may not be enough to reverse the negative ratings trend for utility parent holding companies.

Fitch expects liquidity of regulated utilities and parent holding companies to remain strong. The companies maintain large credit lines and benefit from unfettered access to capital markets. For competitive generators, robust FCF generation supports liquidity.⁶

⁵Moody’s Investors Service Sector Comment: “2022 Outlook Stable On Sustained Regulatory Support for Robust Investment Cycle,” November 4, 2021 at 1 (emphasis added).

⁶Fitch Ratings: “Neutral Outlook for North American Utilities, Power & Gas in 2022,” December 9, 2021 at 1-2. (emphasis added).

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S&P currently has a negative outlook for the regulated utility industry, because utility companies are operating with minimum financial cushion from their downgrade thresholds and their exposure to environmental, social and governance risk. Specifically, S&P states the following:

Key Takeaways

- For the second consecutive year rating downgrades outpaced upgrades for the investor-owned North American regulated utility industry, causing the median rating on the industry to fall to the 'BBB' category.

- During 2021, credit quality was primarily pressured by weak financial measures and Environmental, Social, and Governance (ESG) credit risks. We expect that these risks will continue to pressure the credit quality of the industry in 2022.

- Our outlook on the investor-owned North American regulated utility industry remains negative. We believe that 2022 could be the third consecutive year that downgrades outpace upgrades.

- Recently, several new credit risks have emerged, including inflation, higher interest rates, and rising commodity prices. Persistent pressure from any of these risks would likely lead to a further weakening of the industry's credit quality in 2022.

* * *

What's Behind This Fundamental Weakening Of Credit Quality?

Utility cash flows tend to be more stable and predictable than most other industries. Strategically, an increasing percentage of the industry has been managing their financial measures with only minimal financial cushion from their downgrade threshold. While this strategy of limiting excess credit capacity works well under ordinary conditions, when unexpected risks occur or base case assumptions deviate from expectations, the utility can become susceptible to a weakening of credit quality. This has been one of the primary drivers of the industry's weakening of credit quality over the past two years.

* * *

Environmental, Social, and Governance (ESG) Credit Risks

During 2020 and 2021 the industry credit quality was constrained by many ESG-related credit risks. Unexpectedly, the industry faced several governance-related credit risks in 2020. We view these governance events

as isolated incidents and do not believe that they will have broader implications for the larger utility industry. However, we do expect that physical and environmental risks will continue to constrain the industry's credit quality. Wildfires, severe winter storms, hurricanes, and tornadoes lead to higher costs that are either partially disallowed by regulators or are deferred for future recovery. Similarly, higher environmental costs can also result in higher costs that are either partially disallowed by regulators or are deferred for future recovery. Either outcome for physical and environmental risks typically results in weaker financial measures until the utility fully recovers such costs from customers. Because of climate change, we believe that these risks will continue to negatively affect credit quality in 2022.⁷

Q. How is this observable market data used in forming your recommended return on equity and overall rate of return for GPC?

A. Generally, authorized returns on equity, credit standing, and access to capital have been quite robust for utilities over the last several years. The COVID-19 pandemic has created challenges for the U.S. economy as a whole, including utility companies. However, the U.S. economy has largely recovered and utilities are expected to weather the economic downturn caused by the pandemic, and their financial strength will be restored as the economy continues to recover. In the meantime, it is critical that the Commission ensure that rates are increased no more than necessary to provide fair compensation and maintain financial integrity, and be especially concerned about rate impacts on the service area economies that are severely constrained due to current economic conditions.

II.D. GPC Investment Risk

Q. Please describe the market's assessment of the investment risk of GPC.

A. The market's assessment of GPC's investment risk is described by credit rating analysts' reports. GPC's current corporate bond ratings of BBB+ from S&P, Baa1 from Moody's, and BBB from Fitch. The Company has a "Stable" outlook from all three credit rating agencies.⁸

⁷S&P Global Ratings: "For the First Time Ever, the Median Investor-Owned Utility Ratings Falls to the 'BBB' Category," January 20, 2022, at 1, 6 and 10. (emphasis added).

⁸Fetter Direct Testimony at 5. The Moody's Baa1 is equivalent to BBB+.

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1 S&P's credit assessment of GPC is largely interconnected with its credit
2 assessment of its parent company, Southern Company. Specifically, S&P states the
3 following:

4 **Outlook: Stable**

5 The stable outlook for GPC reflects our outlook on the parent Southern
6 Co. The stable outlook on Southern Co. reflects our expectations that the
7 parent's consolidated financial measures will approximate funds from
8 operations (FFO) to debt of 15%-16% over the next two years, coinciding
9 with the approximate timeframe for the company to complete its complex
10 nuclear construction projects.

11 **Business Risk: Excellent**

12 Our assessment of GPC's business risk largely reflects the company's large
13 and diversified regulated utility operations in Georgia, and its effective
14 management of regulatory risk. We view the company's regulatory risk
15 management as effective, which is favorable for GPC's credit quality.
16 Other aspects of the business risk include the size and quality of the
17 company's service territory, and GPC's record of providing reliable
18 electric services to its customers. In our view, these positive factors are
19 offset by the construction and execution risks related to finishing the
20 remainder of the company's construction activities for its two nuclear
21 power projects, Vogtle Units 3 and 4 as well as the company's exposure to
22 energy transition risks given its coal-fired fleet. Given the aforementioned
23 factors, we view the company's business risk profile as being at the lower
24 half of the excellent business risk profile category, supporting our use of a
25 negative comparable ratings analysis modifier.

26 **Financial Risk: Significant**

27 We assess GPC's financial measures under our medial volatility table,
28 reflecting its low-risk vertically integrated utility operations and effective
29 management of regulatory risk. We expect FFO to debt of about 16% in
30 2021, averaging about 17% for 2022 and 2023. The company's FFO to
31 debt for 2021 primarily reflects the combined effects of GPC's capital
32 spending in 2021 of about \$4 billion, which is about \$550 million higher
33 than in 2020, penalties on the company's Vogtle NCCR tariff, and
34 negative discretionary cash flow over our forecast period. Our base case
35 also reflects our expectation for parent Southern Co to provide equity as
36 needed to support GPC's regulated capital structure. Improvements to the
37 company's financial measures beyond 2022 assumes that Vogtle Units 3
38 and 4 are placed in service by the revised in-service dates. Under this

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scenario, we view GPC's financial risk profile as being consistent with the significant financial risk profile category.⁹

Moody's also notes a "Stable" outlook for its Baa1 credit rating for GPC, also largely emphasizing the Company's progress and development of Vogtle Units 3 and 4. A summary of the highpoints of Moody's assessment of GPC includes the following:

[REDACTED]

[REDACTED]

[REDACTED]¹⁰

In a May 2022 report, Fitch also noted concern about elevated business risk related to the construction and development costs of Vogtle Units 3 and 4. Fitch, like Moody's, noted ITAACs with the NRC, and expected near-term fueling of Vogtle Unit 3. Fitch also notes the current construction cap of \$7.3 billion deemed reasonable by the Georgia PSC for the development of these two units. Fitch describes risk of further delays and ultimately the placing in-service of these two units and inclusion of all prudently incurred costs as being part of the execution risk, but notes that with the in-service date and ratemaking treatment, these costs will be mitigated.¹¹

⁹Standard & Poor's RatingsDirect, Summary: "Georgia Power Co.," November 18, 2021 at 3-4, 6.

¹⁰Moody's Investors Service: "Georgia Power Company," Trade Secret STF-BAI-1-7 Attachment A, August 5, 2022.

¹¹Fitch Ratings: "Georgia Power Senior Unsecured Notes BBB+," May 3, 2022.

1 **Q. Has the Commission approved any adjustments to GPC's retail rate-setting**
2 **methodologies to support GPC's financial integrity during the development of the**
3 **Vogtle 3 and 4 nuclear units?**

4 A. Yes. As described in more detail below, the Commission adjusted its ratemaking equity
5 ratio to increase the common equity ratio to 56%, from roughly 51%, in an effort to
6 strengthen the Company's financial integrity after the change in the federal tax law in
7 2018. This revised capital structure reduced the Company's reliance on debt and
8 increased equity, which provided stronger cash flow coverages of debt obligations. The
9 changing capital structure, however, increased GPC's overall rate of return and thus its
10 revenue requirement, and this financial integrity assistance is then being paid for by
11 customers in the form of increased bills.

12 In 2010, the Georgia legislature approved O.C.G.A. § 46-2-25(c.1), the
13 implementation of a Nuclear Construction Cost Recovery ("NCCR") rider tariff which
14 allows GPC to recover certain construction period financing charges on Vogtle Units 3
15 and 4. The Commission issued a certification order approving the collection of financing
16 costs. Construction period carrying charges are based on rates at stated carrying charges,
17 and applied to certification construction costs up to \$4.4 billion.¹² For construction
18 period carrying charges above the amount recovered through the NCCR, GPC is allowed
19 to accrue Allowance for Funds Used During Construction ("AFUDC") charges, include
20 those charges with plant costs, and recover them to the extent they are proven to be
21 reasonable and prudent after the units are placed in-service and included in the
22 development of retail rates.¹³

23
24 **Q. Has the Commission approved any other regulatory mechanisms to support GPC's**
25 **energy transition risk?**

26 A. Yes. The Commission approved recovery of certain Coal Combustion Residual Asset
27 Retirement Obligations ("CCR ARO") costs through the Environmental Compliance Cost

¹²Supplemental Information Review Stipulation. Paragraph 7.

¹³*Id.*

1 Recovery (“ECCR”) tariff. Recovering these CCR AROs enhances the Company’s cash
2 flows and enhances assurance of full recovery of these CCR costs.¹⁴

3 In support of the development of Vogtle Units 3 and 4, the Commission has
4 reached determination of construction costs up to \$7.3 billion are assumed to be
5 reasonable.¹⁵ Further, the Commission approved an NCCR tariff that provides recovery
6 of construction period financial charges from customers currently. The NCCR increases
7 customer bills by charging them a certain portion of the construction period carrying
8 charges at a stated NCCR rate of return.¹⁶ The NCCR provides recovery of certain costs
9 of Vogtle Units 3 and 4 development prior to these units being placed in commercial
10 operation. This cost recovery enhances GPC’s cash flows, and cash coverage of debt
11 metrics and thereby supports its ability to maintain its investment grade bond rating.
12

13 **II.E. GPC’s Proposed Capital Structure**
14

15 **Q. What is GPC’s proposed capital structure?**

16 A. GPC’s witnesses Aaron Abramovitz, Sarah P. Adams, Adam D. Houston and Michael B.
17 Robinson sponsored the Company’s projected capital structure, which is shown below in
18 Table 4. The proposed capital structure is based on the projected capital structure for the
19 12-month calendar test year period ending on July 31, 2023.

¹⁴GPC FERC Form 1, December 31, 2021 at pdf page 52.

¹⁵Order on the 17th Semi-Annual VCM Report. Paragraph 3. Page 11 of 20.

¹⁶*Id.* Paragraphs 7 and 9. Page 14 of 20.

TABLE 4

GPC's Proposed Capital Structure

<u>Description</u>	<u>Test Year 7/31/2023</u>	<u>Year-End 2023/2024/2025</u>
Long-Term Debt	44.18%	44.00%
Common Equity	<u>55.82%</u>	<u>56.00%</u>
Total Regulatory Capital Structure	100.00%	100.00%

Source: Exhibit __ (APA/SPA/ADH/MBR-3,
Schedule 2, Workpapers 1-4).

GPC panel witnesses Abramovitz, Adams, Houston and Robinson state that the Company's requested return on equity and the retail capital structure composed of 56% equity and 44% debt will maintain the Company's financial integrity and ensure its ability to raise capital at reasonable cost and upon reasonable terms for the benefit of customers.¹⁷

Q. Is GPC's proposed ratemaking capital structure reasonable for ratemaking purposes?

A. Not entirely. I do not contest the Company's proposed test year capital structure nor its proposed capital structure for calendar year 2023. Through year-end 2023, both Vogtle Units 3 and 4 will remain under development, which will continue to put financial stress on GPC's credit rating.¹⁸

However, the Company expects to place its Vogtle Unit 3 and common facilities in-service in first quarter of 2023, and to place Vogtle Unit 4 in-service by the fourth

¹⁷Direct Testimony of Aaron P. Abramovitz, Sarah P. Adams, Adam D. Houston & Michael B. Robinson at 7.

¹⁸GPC FERC Form 1, December 31, 2021 at pdf page 56.

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1 quarter of 2023.¹⁹ Starting in 2024 both Vogtle units will be in-service, and the
2 Commission should adjust the ratemaking capital structure to include a common equity
3 ratio of 51%, down from the 56%.

4 This capital structure adjustment is fair and reasonable for the following reasons:

- 5 1. The increased equity ratio while Vogtle Units 3 and 4 are being constructed is
6 necessary to provide increased cash flow and maintain adequate credit metrics
7 until Vogtle Units 3 and 4 are completed. After the construction is completed
8 and these units are placed in-service, this credit metric support is no longer
9 necessary.
- 10 2. Adjusting the ratemaking capital structure at the time Vogtle Units 3 and 4 are
11 placed in-service will help mitigate the impact on customers' rates by
12 including these new nuclear units' development in rates.
- 13 3. After the Vogtle Units are placed in-service, a lower common equity ratio is
14 fair and reasonable because it will support GPC's financial integrity and credit
15 standing, but at much lower cost to customers.
- 16 4. After the Vogtle Units are placed in-service, GPC's financial integrity will be
17 very strong and its higher internal cash flow in proportion to its cash
18 obligations will justify mitigating the impact on customers.
- 19 5. Rates charged to customers should be no more expensive than necessary to
20 provide fair compensation and maintain financial integrity and credit standing.
21 This objective is necessary to ensure that customers' rates are just and
22 reasonable, and the public interest is protected.

23
24 **Q. Did the Commission make comments when it changed GPC's ratemaking capital**
25 **structure to 56%?**

26 A. Yes. The Commission increased GPC's common equity ratio to 56%, from
27 approximately 51% in an effort to strengthen GPC's financial integrity and credit
28 standing. In a 2013 rate case, in Docket No. 36989, the Commission approved a

¹⁹S&P *Capital IQ*: "Georgia Power's Vogtle nuclear expansion costs rise; no new delays expected," September 2, 2022.

1 ratemaking capital structure with a 50.84% common equity ratio.²⁰ After this case, and
2 after the Tax Cuts and Jobs Act went into effect in 2018, the Commission approved a
3 settlement which allowed GPC to increase its common equity ratio to 55%.²¹ In the
4 Company's last rate case, in Docket No. 42516, the Commission approved a ratemaking
5 capital structure with a 56% common equity ratio.

6 In approving a ratemaking capital structure with an increased common equity
7 ratio, the Commission commented on the settlement in the case and the capital structure
8 to be adequate to ensure GPC has access to capital whenever necessary, and reflected the
9 impact on the Company's financial position as a result of the Tax Cuts and Jobs Act and
10 settlement that was enacted after the Company's previous rate case in 2013.²²
11

12 **Q. Does GPC's projected financial metrics indicate a significant improvement in its**
13 **financial strength after the Vogtle Units are placed in-service?**

14 A. Yes. The Company's financial projections indicate significant improvement in the
15 Company's financial standing after these units' construction is completed, and the
16 facilities are placed in-service. The Company provided actual and projected financial
17 statements and credit metrics in response to STF-NEC-1-5 in Attachment I Trade Secret.
18 It was a 2022 rating agency meeting presentation. I summarize the results of that
19 financial presentation and related core credit metric calculations as follows:
20

- 21 1. The Company's Funds From Operations ("FFO") as a percentage of capital
22 expenditures improves significantly after the nuclear units are placed
23 in-service, as expected, by 2024. During the period 2020 through 2023, the
24 Company's FFO covered approximately 74% to 90% of its annual capital
25 expenditures. After the units are expected to be placed in-service and
26 included in rates in 2024, GPC's FFO to capital expenditures increases
27 significantly to over [REDACTED]. This indicates that the Company is able to fund
28 its planned capital expenditures in 2024 entirely with internally generated

²⁰Docket No. 36989, Georgia Power 2013 Rate Case Settlement Agreement at 1.

²¹Order On The Tax Cuts And Jobs Act - 2018 TCJA Base Rates Settlement Exhibit 1, Docket No. 36989.

²²*Id.*

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1 cash.

2 [REDACTED]

3 [REDACTED]

4 [REDACTED] As outlined on my Exhibit
5 MPG-3, pages 7 and 15, GPC's projected internal cash flow to fund its capital
6 expenditures makes it one of the strongest financial positions of the utilities in
7 the *Value Line* regulated utility industry.

8 2. The Company's projected core credit metric financial ratios from both S&P,
9 Moody's, and Fitch all improved significantly in 2024 relative to the
10 preceding four-year period.

11 3. The Company's S&P core ratio of FFO to Debt improves considerably,

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 4. The projected Moody's core credit ratios also improved significantly in 2024.

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 5. Similarly, the projected Fitch credit ratios, like the other credit rating
20 agencies, show very strong improvement in 2024 relative to the preceding
21 four years.

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TABLE 5									
Confidential - Financial Metrics									
Line	Description	Company Presentation					Adjusted 2024	Rating Agency Benchmarks	
		2020A	2021A	2022E	2023E	2024E			
1	Equity Ratio								
2	Debt Ratio								
3	FFO/Cap Exp								
	<u>S&P Core¹</u>							"A"	"BBB"
4	FFO/Debt							23% - 35%	13% - 23%
5	Debt/EBITDA							2.5x - 3.5x	3.5x - 4.5x
	<u>Moody's Core²</u>								
6	CFO Pre-WC - Div / Debt							17% - 25%	9% - 17%
7	Debt / Capitalization							35% - 45%	45% - 55%
8	CFO Pre-WC + Interest / Interest							4.5x - 6.0x	3.0x - 4.5x
	<u>Fitch Core³</u>								
9	Debt/EBITDAR							3.25x - 3.75x	3.75x - 4.75x
10	FFO Fixed Charge Coverage							5.5x = >	4.5x - 5.5x
11	FFO Leverage							<= 3.5x	5.0x - 3.5x

Sources:
¹Standard & Poor's: "Criteria: Corporate Methodology," November 19, 2013.
²Moody's: "Rating Methodology: Regulated Electric and Gas Utilities," June 23, 2017.
³FitchRatings: Sector Navigators Addendum to the Corporate Rating Criteria, October 15, 2021.

Also outlined in Table 5 above is a column titled "Adjusted 2024." In this column, I started with the Company's projected credit metrics in 2024, but I adjusted the metrics to reflect a 51% equity ratio and 49% debt ratio. As shown in this column, even with this capital structure adjustment and the related reduction in net income, and increase in interest expense, the Company's Debt to EBITDA credit metrics continue to support an improvement in the Company's current investment grade bond rating of BBB+, and continue to inch toward a stronger credit rating of "A" over time. Similarly, the FFO to Debt ratio is still in the A rating category range. This indicates that with the capital structure adjustment, GPC's credit rating metrics will

As outlined later in my testimony, adjusting the ratemaking capital structure to reflect 51% common equity starting in 2024, after the Vogtle Units are placed in-service, the Company's projected credit metrics still support the expectation that its credit rating will be improved up to an "A" category.

1 **Q. Should the Commission be concerned about approving a ratemaking capital**
2 **structure that is far more expensive than necessary to support the financial integrity**
3 **of GPC?**

4 **A.** Yes. The Company will have an incentive to try to maintain the current capital structure
5 after it is no longer needed not only to support GPC's financial integrity, but will
6 continue to be needed to support the financial integrity of its parent company, Southern
7 Company. I state this simply because GPC is one of the primary contributors of cash
8 dividends to Southern Company, along with other regulated utility companies owned by
9 Southern Company. Utility dividends cash flows are needed by Southern Company to
10 service its own significant debt leverage.

11 Specifically, while GPC has a relatively modest level of leverage in its capital
12 structure, its dividend payments to Southern Company are critical in supporting Southern
13 Company's financial obligation, which is far more leveraged than that of its subsidiary
14 GPC. Southern Company's actual capital structure mix of debt and equity is shown
15 below in Table 6.

TABLE 6							
<u>Southern Company Capital Structure</u>							
<u>Line</u>	<u>Description</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>June 30,</u> <u>2022</u>
1	Long-Term Debt	66.6%	61.7%	60.5%	61.3%	63.2%	63.1%
2	Common Equity	<u>33.4%</u>	<u>38.3%</u>	<u>39.5%</u>	<u>38.7%</u>	<u>36.8%</u>	<u>36.9%</u>
3	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Sources:							
S&P Market Intelligence, downloaded on September 28, 2022.							

16 Because of the close affiliation and tie between Southern Company and GPC's
17 credit rating, the Commission should be careful to ensure that the rates to customers are
18 not inflated beyond what are necessary for Georgia Power's financial integrity and not to
19 support the highly leveraged capital structure of its parent company, Southern Company.

20 Moreover, as shown on my Exhibit __ (MPG-4), GPC's projected funding source
21 for its capital improvement program indicates that GPC pays all of its earnings as
22

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1 dividends up to its parent company, and in return, the parent company makes equity
2 infusions in GPC to maintain its ratemaking capital structure. Because of the significant
3 leverage at Southern Company, it may be funding equity infusions with a combination of
4 debt and equity capital at the parent company level in exchange for GPC paying 100% of
5 the equity it generates through retained earnings up to the parent company in the form of
6 dividends. This exchange makes it clear that GPC's capital structure should be designed
7 to support the financial integrity of GPC on a stand-alone basis, and Southern Company
8 should finance the parent company structure in a manner that does not degrade or cause
9 financial distress on GPC or any of its other regulated utility affiliates.

10
11 **Q. Would an adjustment to GPC's ratemaking capital structure to include a 51%**
12 **equity ratio after the Vogtle Units are placed in-service produce a capital structure**
13 **that reasonably aligns with industry normal regulatory capital structures?**

14 **A.** Yes. A 51% common equity ratio reasonably aligns with the industry average common
15 equity ratio awarded to regulated utility companies over the 13-year period shown in
16 Table 7 below. As shown in this table, the gas utility industry average and median
17 common equity ratios have generally fallen to around 51% over the period 2010-2022.
18 The industry medians generally support common equity ratios around of 50.00% -
19 51.00%.

TABLE 7

Trends in State Authorized Common Equity Ratios
(Industry)

<u>Line</u>	<u>Year</u> (1)	<u>Electric</u> ¹		<u>Natural Gas</u> ¹	
		<u>Average</u> (2)	<u>Median</u> (3)	<u>Average</u> (4)	<u>Median</u> (5)
1	2010	49.49%	49.79%	49.25%	49.90%
2	2011	49.09%	49.10%	52.49%	52.45%
3	2012	51.45%	52.00%	51.13%	51.47%
4	2013	50.12%	51.03%	51.16%	50.43%
5	2014	50.28%	50.00%	51.90%	51.99%
6	2015	50.24%	50.48%	49.79%	50.33%
7	2016	49.70%	49.99%	51.85%	51.35%
8	2017	50.02%	49.85%	51.13%	51.76%
9	2018	50.60%	50.23%	52.58%	53.08%
10	2019	51.55%	51.37%	52.72%	52.22%
11	2020	50.94%	51.17%	52.34%	52.00%
12	2021	51.01%	52.00%	51.63%	52.00%
13	2022	51.53%	51.92%	51.17%	50.50%
14	Min	49.09%	49.10%	49.25%	49.90%
15	Max	51.55%	52.00%	52.72%	53.08%
14	Average	50.46%	50.69%	51.47%	51.50%
16	Median	50.28%	50.48%	51.63%	51.76%

Source and Notes:

¹ S&P Global Market Intelligence; data through September 16, 2022.

- Excludes Arkansas, Florida, Indiana and Michigan
because they include non-investor capital.

As shown above in Table 7, the industry average and median common equity ratios for electric utilities over the last several years have been consistently about 49.00% to 52.00%. GPC's proposed ratemaking capital structure of approximately 56.00% equity is significantly in excess of the electric utility industry average ratemaking capital structure.

Q. Would a 51% ratemaking equity ratio align with the amount of leverage consistent with other regulated utility companies with bond ratings similar to that of GPC?

A. Yes. In assessing its credit rating, S&P developed what it refers to as an “adjusted” debt ratio by deriving a utility’s debt leverage reflecting all of its on-balance sheet debt, both short-term and long-term, and off-balance sheet contractual obligations. GPC indicated in data response STF-BAI-1-17, that it does not have any off-balance sheet debt obligations.

In calendar 2024, adjusted to reflect short-term debt not included in the ratemaking capital structure, and including all the off-balance sheet contractual obligations noted by GPC in response to STF-BAI-1-17 (zero), I developed an S&P adjusted debt ratio on my Exhibit____(MPG-5). As shown on this exhibit, at a 51% ratemaking common equity ratio, GPC’s adjusted debt ratio would be approximately 50%.

I compared this 50% debt ratio to GPC’s current bond rating of BBB+, and A-rated utility companies. As shown in Table 8 below, a ratemaking common equity ratio with around 50% debt is reasonably aligned with a majority of regulated utility companies with bond ratings in the range of BBB+ to A.

TABLE 8
S&P Adjusted Debt Ratio
(Operating Subsidiaries of Value Line Electric, Gas and Water Utilities)

<u>Rating</u>	<u>Average</u>	<u>% Distribution of 3 Year Average</u>			
		<u><45</u>	<u>45 to 50</u>	<u>50 to 55</u>	<u>>55</u>
AA-	43.6%	67%	33%	0%	0%
A+	52.7%	18%	36%	0%	45%
A	48.5%	26%	41%	15%	19%
A-	52.4%	7%	24%	39%	30%
BBB+	52.0%	9%	29%	39%	23%
BBB	48.6%	30%	23%	30%	17%

Source:
S&P Capital IQ, downloaded June 7, 2022.

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Hence, adjusting GPC's ratemaking capital structure to reflect a 51% equity ratio in 2024 would be consistent with the normalized industry ratemaking capital structure and reflect a moderate amount of leverage in support of GPC's current investment grade bond rating, and even an improvement to the bond rating into the "A" category.

Q. You stated that adjusting the common equity ratio in 2024 from 56% down to 51% will help to mitigate cost increases on customers. What is the potential reduction in GPC's cost of service through this adjustment to its 2024 and 2025 ratemaking capital structure?

A. The impact on GPC's revenue requirement in 2024 by adjusting its ratemaking capital structure to include a 51% common equity ratio would lower its 2024 and 2025 revenue requirement by approximately \$145.1 million and \$153.7 million, respectively, which is developed on my Exhibit____(MPG-6). This offset to its cost of service reflects GPC's projected 2024 and 2025 rate base of \$26.8 billion and \$28.4 billion, respectively. Hence, this offset to its cost of service as of 2024 will support its customers' ability to be able to pay rates stated at GPC's cost of service, after the Vogtle Units are placed in-service and included in the development of base tariff rates.

Q. What is your recommended ratemaking capital structure for GPC in the test year, and the proposed post-test year adjustments?

A. As shown below in Table 9, I do not oppose the Company's proposed ratemaking capital structure in the test year, and for the calendar year 2023. However, in 2024, I recommend the Company's ratemaking capital structure be modified to reflect a common equity ratio of 51% and this capital structure would remain in place for 2025, and beyond.

TABLE 9

GPC's Proposed Capital Structure

<u>Description</u>	<u>Test Year 7/31/2023¹</u>	<u>Year-End 2023¹</u>	<u>Year-End 2024/2025²</u>
Long-Term Debt	44.18%	44.00%	49.00%
Common Equity	<u>55.82%</u>	<u>56.00%</u>	<u>51.00%</u>
Total Regulatory Capital Structure	100.00%	100.00%	100.00%

Sources:

¹Exhibit___ (APA/SPA/ADH/MBR-3, Schedule 1, Workpapers 1).²Exhibit___ (MPG-2).

Adjusting the ratemaking capital structure in 2024 and 2025 to reflect 51% common equity is reasonable and appropriate, because it will reduce GPC's revenue requirement and offset the increase in the revenue requirement at the time Vogtle Units 3 and 4 are introduced due to its cost of service, and will maintain adequate credit metrics and financial integrity to support GPC's ability to access external capital after the development of Vogtle Units 3 and 4.

Q. Will your proposed capital structure support credit metrics that will maintain GPC's investment grade bond rating?

A. Yes. Later in the financial integrity section of my testimony, I show that my proposed overall rate of return supports GPC's current investment grade bond rating in the test year and 2023-2025.

1 **Q. Did GPC witness Steven Fetter comment on the appropriateness of maintaining a**
2 **utility's financial integrity and strong credit standing?**

3 A. Yes. In summarizing his testimony, he recognized that GPC has a BBB+ bond rating
4 from S&P, Baa1 from Moody's and BBB from Fitch with a "Stable" outlook from all
5 three credit rating agencies.²³

6 Mr. Fetter also points out that the credit rating agencies view the regulatory
7 environment in GPC's service territory as supportive to credit ratings but they all express
8 concerns regarding the delays with the Vogtle nuclear project.

9 Mr. Fetter also lists key credit metrics considered by S&P in assigning GPC's
10 bond ratings. He states that two core financial ratios include Funds From Operations
11 ("FFO") to Debt, which focuses on cash flow, and Debt to Earnings Before Interest,
12 Taxes, Depreciation and Amortization ("EBITDA") which provides a comparative
13 profitability measure. He further testified that it is S&P's long held belief that cash flow
14 analysis is the single most critical aspect of credit rating decisions.²⁴
15

16 **Q. Did Mr. Fetter demonstrate that the Company's proposed ratemaking capital**
17 **structure, and the Company's requested return on equity are necessary to maintain**
18 **adequate core credit metrics at a level that will maintain GPC's credit standing and**
19 **financial integrity?**

20 A. No. I disagree with Mr. Fetter's assertion that GPC will maintain or improve its credit
21 rating if the Commission adopts GPC witness Coyne's recommended return on equity of
22 11.0%. Importantly, Mr. Fetter provided no substance or evidence that supports his
23 conclusion that GPC's credit rating and financial integrity are only achieved if the
24 Company's return on equity and proposed ratemaking capital structure are adopted.
25

26 **II.F. Embedded Cost of Debt**

27 **Q. What is GPC's embedded cost of long-term debt?**

28 A. GPC is proposing an embedded cost of long-term debt of 3.53% for the Test Period
29 ending July 31, 2023 and is developed in the workpapers to

²³Fetter Direct Testimony at 5.

²⁴*Id.* at 15.

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Exhibit___(APA/SPA/ADH/MBR-3, Schedule 3, Workpaper 3 and 4) of the Company's filing. GPC's embedded cost of debt is also 3.53% for December 31, 2023, 3.58% for December 31, 2024, and 3.66% for December 31, 2025.

III. RETURN ON EQUITY

Q. Please describe what is meant by a "utility's cost of common equity."

A. A utility's cost of common equity is the expected return that investors require on an investment in the utility. Investors expect to earn their required return from receiving dividends and through stock price appreciation.

Q. Please describe the framework for determining a regulated utility's cost of common equity.

A. In general, determining a fair cost of common equity for a regulated utility has been framed by two hallmark decisions of the U.S. Supreme Court: Bluefield Electric Works & Improvement Co. v. Pub. Serv. Comm'n of W. Va., 262 U.S. 679 (1923) and Fed. Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944). In these decisions, the Supreme Court found that just compensation depends on many circumstances and must be determined by fair and enlightened judgments based on relevant facts. The Court found that a utility is entitled to such rates as are permitted to earn a return on a property devoted to the convenience of the public that is generally consistent with the same returns available in other investments of corresponding risk. The Court continued that the utility has no constitutional rights to profits such as those realized or anticipated in highly profitable enterprises or speculative ventures, and defined the ratepayer/investor balance as follows:

The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.²⁵

As such, a fair rate of return is based on the expectation that the utility's costs reflect efficient and economical management, and the return will support its credit

²⁵*Bluefield*, 262 U.S. 679, 693 (1923), emphasis added.

standing and access to capital, without being in excess of this level. From these standards, rates to customers will be just and reasonable, and under economic management, compensation to the utility will be fair and support financial integrity and credit standing.

III.A. Risk Proxy Group

Q. Please describe how you identified proxy utility group that could be used to estimate GPC's current market cost of equity.

A. I relied on the same proxy group developed by GPC witness Mr. Coyne with one exclusion. I excluded American Electric Power Company, Inc. because it entered into a definitive agreement to sell Kentucky Power Transmission, and the transaction has not been completed. I also included Southern Company, GPC's publicly traded parent company, which meets the proxy group risk selection criteria.

Companies that are involved in mergers and acquisitions ("M&A") or divestiture activities have market valuations that may not accurately reflect the stand-alone valuation of the company, but rather may anticipate enhanced valuation from the proposed M&A transaction. Therefore, removing them from the proxy group is necessary because the resulting market-based return analyses on these specific companies can be distorted and/or would simply be unreliable.

Q. Please describe why you believe your proxy group is reasonably comparable in investment risk to GPC.

A. My proxy group is shown in Exhibit ___ (MPG-7). The proxy group has an average credit rating from S&P of BBB+, which is identical to GPC's credit rating from S&P. The proxy group has an average Moody's credit rating of Baa2, which is one notch below GPC's credit rating of Baa1 from Moody's.

My proxy group has an average common equity ratio of 41.2% from S&P (including short-term debt) and a 44.7% equity ratio from *Value Line* (excluding short-term debt). GPC's requested common equity ratio of 56.0% is higher than the proxy group average of 44.7%. My proposed common equity ratio of 51.0% for forecasted years 2024 and 2025 is also higher than the group average common equity ratio.

III.B. Discounted Cash Flow (“DCF”) Model

Q. Please describe the DCF model.

A. The DCF model posits that a stock price is valued by summing the present value of expected future cash flows discounted at the investor’s required rate of return or cost of capital. This model is expressed mathematically as follows:

$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty} \quad (\text{Equation 1})$$

P_0 = Current stock price

D = Dividends in periods 1 - ∞

K = Investor’s required return

This model can be rearranged in order to estimate the discount rate or investor-required return, known as “ K .” If it is reasonable to assume that earnings and dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

$$K = D_1/P_0 + G \quad (\text{Equation 2})$$

K = Investor’s required return

D_1 = Dividend in first year

P_0 = Current stock price

G = Expected constant dividend growth rate

Equation 2 is referred to as the annual “constant growth” DCF model.

III.C. Constant Growth DCF

Q. Please describe the inputs to your constant growth DCF model.

A. As shown in Equation 2 above, the DCF model requires a current stock price, expected dividend, and expected growth rate in dividends.

Q. What stock price did you use in your constant growth DCF model?

A. I relied on the average of the weekly high and low stock prices of the utilities in the proxy group over a 13-week period ending on September 16, 2022. An average stock price is less susceptible to market price variations than a price at a single point in time. Therefore, an average stock price is less susceptible to aberrant market price movements, which may not reflect the stock’s long-term value.

1 A 13-week average stock price reflects a period that is still short enough to
2 contain data that reasonably reflects current market expectations, but the period is not so
3 short as to be susceptible to market price variations that may not reflect the stock's
4 long-term value. In my judgment, a 13-week average stock price is a reasonable balance
5 between the need to reflect current market expectations and the need to capture sufficient
6 data to smooth out aberrant market movements.

7
8 **Q. What dividend did you use in your constant growth DCF model?**

9 A. I used the most recently paid quarterly dividend as reported in *Value Line*.²⁶ This
10 dividend was annualized (multiplied by 4) and adjusted for next year's growth to produce
11 the D_1 factor for use in Equation 2 above. In other words, I calculate D_1 by multiplying
12 the annualized dividend (D_0) by $(1+G)$.

13
14 **Q. What dividend growth rates did you use in your constant growth DCF model?**

15 A. There are several methods that can be used to estimate the expected growth in dividends.
16 However, regardless of the method, to determine the market-required return on common
17 equity, one must attempt to estimate investors' consensus about what the dividend, or
18 earnings growth rate, will be and not what an individual investor or analyst may use to
19 make individual investment decisions.

20 As predictors of future returns, securities analysts' growth estimates have been
21 shown to be more accurate than growth rates derived from historical data.²⁷ That is,
22 assuming the market generally makes rational investment decisions, analysts' growth
23 projections are more likely to influence investors' decisions, which are captured in
24 observable stock prices, than growth rates derived only from historical data.

25 For my constant growth DCF analysis, I have relied on a consensus, or mean, of
26 professional securities analysts' earnings growth estimates as a proxy for investor
27 consensus dividend growth rate expectations. I used the average of analysts' growth rate

²⁶The *Value Line Investment Survey*, July 22, August 12, and September 9, 2022.

²⁷See, e.g., David Gordon, Myron Gordon & Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

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estimates from three sources: Zacks, MI, and Yahoo! Finance. All such projections were available on September 16, 2022, and all were reported online.

Each consensus growth rate projection is based on a survey of securities analysts. There is no clear evidence whether a particular analyst is most influential on general market investors. Therefore, a single analyst's projection does not as reliably predict consensus investor outlooks as does a consensus of market analysts' projections. The consensus estimate is a simple arithmetic average, or mean, of surveyed analysts' earnings growth forecasts. A simple average of the growth forecasts gives equal weight to all surveyed analysts' projections. Therefore, a simple average, or arithmetic mean, of analyst forecasts is a good proxy for market consensus expectations.

Q. What are the growth rates you used in your constant growth DCF model?

A. The growth rates I used in my DCF analysis are shown in Exhibit___(MPG-8). The average growth rate for my proxy group is 5.45%.

Q. What are the results of your constant growth DCF model?

A. As shown in Exhibit___(MPG-9), the average and median constant growth DCF returns for my proxy group for the 13-week analysis are 8.97% and 9.20%, respectively.

Q. Do you have any comments on the results of your constant growth DCF analysis?

A. Yes. The constant growth DCF analysis for my proxy group is based on an average long-term sustainable growth rate of 5.45%. The three- to five-year growth rate is higher than my estimate of a maximum long-term sustainable growth rate of 4.35%.

Q. How did you estimate a maximum long-term sustainable growth rate?

A. The long-term sustainable growth rate for a utility stock cannot exceed the growth rate of the economy in which it sells its goods and services. The long-term maximum sustainable growth rate for a utility investment is, accordingly, best proxied by the projected long-term GDP growth rate as that reflects the projected long-term growth rate of the economy as a whole. While growth rates on shorter periods can exceed the GDP growth rate, those short-term growth periods are likely followed by other periods where

the growth rate is below the GDP. On average, over long periods of time, the growth rate is most accurately approximated by the long-term growth rate outlooks of the U.S. GDP.

Blue Chip Financial Forecasts projects that over the next 5 to 10 years, the U.S. nominal GDP will grow at an annual rate of approximately 4.35%.²⁸ These GDP growth projections reflect a real growth outlook of around 2.05% and an inflation outlook of around 2.25% going forward. As such, the average nominal growth rate over the next 5 years is around 4.35%, which I believe is a reasonable proxy of long-term sustainable growth.²⁹

Q. Is there independent authoritative support for using long-term GDP growth as a maximum sustainable growth rate?

A. Yes. In my multi-stage growth DCF analysis, I discuss academic and investment practitioner support for using the projected long-term GDP growth outlook as a maximum sustainable growth rate projection. Using the long-term GDP growth rate, however, as a conservative projection for the maximum sustainable growth rate is logical, and is generally consistent with academic and economic practitioner accepted practices.

III.D. Sustainable Growth DCF

Q. Please describe how you estimated a sustainable long-term growth rate for your sustainable growth DCF model.

A. A sustainable growth rate is based on the percentage of the utility's earnings that is retained and reinvested in utility plant and equipment. These reinvested earnings increase the earnings base (rate base). Earnings grow when plant funded by reinvested earnings is put into service, and the utility is allowed to earn its authorized return on such additional rate base investment.

The internal growth methodology is tied to the percentage of earnings retained by the utility and not paid out as dividends. The earnings retention ratio is 1 minus the dividend payout ratio. As the payout ratio declines, the earnings retention ratio increases.

²⁸*Blue Chip Financial Forecasts*, June 1, 2022, at 14.

²⁹*Id.*

1 An increased earnings retention ratio will fuel stronger growth because the business funds
2 more investments with retained earnings.

3 The payout ratios of the proxy group are shown in my Exhibit___(MPG-10).
4 These dividend payout ratios and earnings retention ratios then can be used to develop a
5 sustainable long-term earnings retention growth rate. A sustainable long-term earnings
6 retention ratio will help gauge whether analysts' current three- to five-year growth rate
7 projections can be sustained over an indefinite period of time.

8 The data used to estimate the long-term sustainable growth rate are based on
9 GPC's current market-to-book ratio and on *Value Line*'s three- to five-year projections of
10 earnings, dividends, earned returns on book equity, and stock issuances.

11 As shown in Exhibit___(MPG-11), the average sustainable growth rate using this
12 internal growth rate model is 4.86% for my proxy group, which is in line with the long-
13 term sustainable growth outlook as measured by the GDP growth.

14
15 **Q. What is the DCF estimate using these sustainable long-term growth rates?**

16 A. A DCF estimate based on these sustainable growth rates is developed in
17 Exhibit___(MPG-12). As shown there, the sustainable growth DCF analysis produces
18 proxy group average and median DCF results for the 13-week period of 8.37% and
19 8.17%, respectively.

20
21 **III.E. Multi-Stage Growth DCF Model**

22 **Q. Have you conducted any other DCF studies?**

23 A. Yes. My first constant growth DCF is based on consensus analysts' growth rate
24 projections so it is a reasonable reflection of rational investment expectations over the
25 next three to five years. The limitation on this constant growth DCF model is that it
26 cannot reflect a rational expectation that a period of high or low short-term growth can be
27 followed by a change in growth to a rate that better reflects long-term sustainable growth.
28 Therefore, I performed a multi-stage growth DCF analysis to reflect this outlook of
29 changing growth expectations.

1 **Q. Why do you believe growth rates can change over time?**

2 A. Analyst-projected growth rates over the next three to five years will change as utility
3 earnings growth outlooks change. Utility companies go through cycles in making
4 investments in their systems. When utility companies are making large investments, their
5 rate base grows rapidly, which in turn accelerates earnings growth. Once a major
6 construction cycle is completed or levels off, growth in the utility rate base slows and its
7 earnings growth slows from an abnormally high three- to five-year rate to a lower
8 sustainable growth rate.

9 As major construction cycles extend over longer periods of time, even with an
10 accelerated construction program, the growth rate of the utility will slow simply because
11 the pace of rate base growth will slow and because the utility has limited human and
12 capital resources available to expand its construction program. Therefore, the three- to
13 five-year growth rate projection should only be used as a long-term sustainable growth
14 rate in concert with a reasonable, informed judgment regarding the current market
15 environment, the industry, and the three- to five-year growth outlook to be sustainable.

16
17 **Q. Please describe your multi-stage growth DCF model.**

18 A. The multi-stage growth DCF model reflects the possibility of non-constant growth for a
19 company over time. The multi-stage growth DCF model reflects three growth periods:
20 (1) a short-term growth period consisting of the first five years; (2) a transition period,
21 consisting of the next five years (6 through 10); and (3) a long-term growth period
22 starting in year 11 through perpetuity.

23 For the short-term growth period, I relied on the consensus analysts' growth
24 projections I used above in my constant growth DCF model. For the transition period,
25 the growth rates were reduced or increased by an equal factor reflecting the difference
26 between the analysts' growth rates and the long-term sustainable growth rate. For the
27 long-term growth period, I assumed each company's growth would converge to the
28 maximum sustainable long-term growth rate, which is the projected long-term GDP
29 growth rate.

1 **Q. Why is the GDP growth projection a reasonable proxy for the maximum sustainable**
2 **long-term growth rate?**

3 A. Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the
4 economy in which they sell services.³⁰ Utilities' earnings/dividend growth are created by
5 increased utility investment or rate base. Such investment, in turn, is driven by service
6 area economic growth and demand for utility service. In other words, utilities invest in
7 plant to meet sales demand growth. Sales growth, in turn, is tied to economic growth in
8 their service areas.

9 The U.S. Department of Energy, Energy Information Administration ("EIA") has
10 observed utility sales growth tracks U.S. GDP growth, albeit at a lower level, as shown in
11 Exhibit___(MPG-13). Utility sales growth has lagged behind GDP growth for more than
12 a decade. As a result, nominal GDP growth is a very conservative proxy for utility sales
13 growth, rate base growth, and earnings growth. Therefore, the U.S. GDP nominal growth
14 rate is a reasonable proxy for the highest sustainable long-term growth rate of a utility.

15
16 **Q. Is there research that supports your position that, over the long term, a company's**
17 **earnings and dividends cannot grow at a rate greater than the growth of the U.S.**
18 **GDP?**

19 A. Yes. This concept is supported in published analyst literature and academic work.
20 Specifically, in "Fundamentals of Financial Management," a textbook published by
21 Eugene Brigham and Joel F. Houston, the authors state:

22 The constant growth model is most appropriate for mature companies with
23 a stable history of growth and stable future expectations. Expected growth
24 rates vary somewhat among companies, but dividends for mature firms are
25 often expected to grow in the future at about the same rate as nominal
26 gross domestic product (real GDP plus inflation).³¹

27 The use of the economic growth rate is also supported by investment practitioners
28 as outlined as follows:

³⁰A company cannot grow faster than the general economy indefinitely as it would become larger than the economy.

³¹"*Fundamentals of Financial Management*," Eugene F. Brigham & Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298, emphasis added.

Estimating Growth Rates

One of the advantages of a three-stage discounted cash flow model is that it fits with life cycle theories in regards to company growth. In these theories, companies are assumed to have a life cycle with varying growth characteristics. Typically, the potential for extraordinary growth in the near term eases over time and eventually growth slows to a more stable level.

* * *

Another approach to estimating long-term growth rates is to focus on estimating the overall economic growth rate. Again, this is the approach used in the *Ibbotson Cost of Capital Yearbook*. To obtain the economic growth rate, a forecast is made of the growth rate's component parts. Expected growth can be broken into two main parts: expected inflation and expected real growth. By analyzing these components separately, it is easier to see the factors that drive growth.³²

Q. Are there actual investment results that support the theory that the growth on stock investments will not exceed the nominal growth of the U.S. GDP?

A. Yes. This is evident by a comparison of the compound annual growth of the U.S. GDP to the geometric growth of the U.S. stock market. Kroll measures the historical geometric growth of the U.S. stock market over the period 1926-2021 to be approximately 6.4%.³³ During this same time period, the U.S. nominal compound annual growth of the U.S. GDP was approximately 6.0%.³⁴

As such, over the past 95 years, the geometric average growth of the U.S. nominal GDP has been slightly higher than, but comparable to, the geometric average growth of the U.S. stock market capital appreciation. This historical relationship indicates that the U.S. GDP growth outlook is a reasonable estimate of the long-term sustainable growth of U.S. stock investments.

³²Morningstar, Inc., Ibbotson *SBBI 2013 Valuation Yearbook* at 51 and 52.

³³Kroll, *2022 SBBI Yearbook* at 145.

³⁴U.S. Bureau of Economic Analysis, Table 1.1.5 Gross Domestic Product, Revised May 26, 2022.

1 **Q. What is the geometric average and why is it appropriate to use this measure to**
2 **compare GDP growth to capital appreciation in the stock market?**

3 A. The terms geometric average growth rate and compound annual growth rate are used
4 interchangeably. The geometric annual growth rate is the calculated growth rate, or
5 return, that measures the magnitude of growth from start to finish. The geometric
6 average is best, and most often, used as a measurement of performance or growth over a
7 long period of time.³⁵ Since I am comparing achieved growth in the stock market to
8 achieved growth in U.S. GDP over a long period of time, the geometric average growth
9 rate is most appropriate.

10
11 **Q. How did you determine a long-term growth rate that reflects the current consensus**
12 **market participant outlook?**

13 A. I relied on the economic consensus of long-term GDP growth projections. *Blue Chip*
14 *Financial Forecasts* publishes the consensus for GDP growth projections twice a year.
15 These consensus GDP growth outlooks are the best available measure of the market's
16 assessment of long-term GDP growth because the analysts' projections reflect all current
17 outlooks for GDP. They are therefore likely the most influential on investors'
18 expectations of future growth outlooks. The consensus projections published GDP
19 growth rate outlook is 4.35% over the next 5 to 10 years.³⁶

20 I propose to use the consensus for projected five-year average GDP growth rates
21 of 4.35%, as published by *Blue Chip Financial Forecasts*, as an estimate of long-term
22 sustainable growth. *Blue Chip Financial Forecasts* projections provide real GDP growth
23 projections of approximately 2.05% and inflation of 2.25% over the ten-year (2024--
24 2033) projected periods, resulting in an average five- to-ten-year nominal annual GDP
25 growth projection of 4.35%.³⁷ These GDP growth forecasts represent the most likely
26 views of market participants because they are based on published economic consensus
27 projections.

³⁵*New Regulatory Finance*, Roger Morin, PhD, at 133-134.

³⁶*Blue Chip Financial Forecasts*, June 1, 2022, at 14.

³⁷*Id.*

Q. Do you consider other sources of projected long-term GDP growth?

A. Yes, and these alternative sources corroborate the consensus analysts' projections I relied on. Various, commonly relied upon analysts' projections are shown in Table 10 below.

TABLE 10				
<u>GDP Forecasts</u>				
<u>Source</u>	<u>Projected Period</u>	<u>Real GDP</u>	<u>Inflation</u>	<u>Nominal GDP</u>
Blue Chip Financial Forecasts ¹	5-10 Yrs	2.05%	2.25%	4.35%
EIA - Annual Energy Outlook ²	29 Yrs	2.21%	2.28%	4.55%
Congressional Budget Office ³	30 Yrs	1.62%	2.06%	3.72%
Moody's Analytics ⁴	31 Yrs	2.09%	2.09%	4.22%
Social Security Administration ⁵	74 Yrs			4.12%
Economist Intelligence Unit ⁶	29 Yrs	1.68%	2.18%	3.90%
Sources:				
¹ Blue Chip Financial Forecasts, June 1, 2022 at 14.				
² U.S. Energy Information Administration (EIA), Annual Energy Outlook 2022, March 3, 2022.				
³ Congressional Budget Office, Long-Term Budget Outlook, July 2021.				
⁴ Moody's Analytics Forecast, downloaded June 29, 2022.				
⁵ Social Security Administration, "2021 OASDI Trustees Report," Table VI.G4, August 31, 2021.				
⁶ S&P MI, Economist Intelligence Unit, downloaded on March 9, 2022.				

As shown in the table above, the real GDP and inflation fall in the range of 1.62% to 2.21% and 2.06% to 2.28%, respectively. This results in a nominal GDP in the range of 3.72% to 4.55%.

Therefore, the nominal GDP growth projections made by these independent sources support my use of 4.35% as a reasonable estimate of market participants' expectations for long-term GDP growth.

1 **Q. What stock price, dividend, and growth rates did you use in your multi-stage**
2 **growth DCF analysis?**

3 A. I relied on the same 13-week average stock prices and the most recent quarterly dividend
4 payment data discussed above. For stage one growth, I used the consensus analysts'
5 growth rate projections discussed above in my constant growth DCF model. The first
6 stage covers the first five years, consistent with the time horizon of the securities
7 analysts' growth rate projections. The second stage, or transition stage, begins in year 6
8 and extends through year 10. The second stage growth transitions the growth rate from
9 the first stage to the third stage using a straight linear trend. For the third stage, or
10 long-term sustainable growth stage, starting in year 11, I used a 4.35% long-term
11 sustainable growth rate based on the consensus economists' long-term projected nominal
12 GDP growth rate.

13
14 **Q. What are the results of your multi-stage growth DCF model?**

15 A. As shown in Exhibit___(MPG-14), the average and median multi-stage growth DCF
16 returns on equity for my proxy group using the 13-week average stock price are 8.10%
17 and 8.07%, respectively.

18
19 **III.F. DCF Summary Results**

20 **Q. Please summarize the results from your DCF analyses.**

21 A. The results from my DCF analyses are summarized in Table 11 below:

TABLE 11		
<u>Summary of DCF Results</u>		
<u>Description</u>	<u>Average</u>	<u>Median</u>
Constant Growth DCF Model (Analysts' Growth)	8.97%	9.20%
Constant Growth DCF Model (Sustainable Growth)	8.37%	8.17%
Multi-Stage Growth DCF Model	8.10%	8.07%

22 Based on the current market conditions, my DCF studies indicate a fair return on
23 equity for GPC in the range of 8.80% to 9.20%, with a midpoint of 9.0%.

III.G. Risk Premium Model

Q. Please describe your Bond Yield Plus Risk Premium model.

A. This model is based on the principle that investors require a higher return to assume greater risk. Common equity investments have greater risk than bonds. The coupon (interest) payments on bonds represent contractual obligations that are paid on scheduled dates, and bondholders have more security of payment in bankruptcy proceedings than common equity shareholders. In contrast, companies are not required to pay dividends or guarantee returns on common equity investments. Therefore, common equity securities are considered to be riskier than bond securities.

This risk premium model is based on two estimates of an equity risk premium. First, I quantify the difference between regulatory commission-authorized returns on common equity and contemporary U.S. Treasury bonds. The difference between the authorized return on common equity and the Treasury bond yield is the risk premium. I estimated the risk premium on an annual basis for each year from 1986 through June 2022. The authorized returns on equity were based on regulatory commission-authorized returns for utility companies. Authorized return recommendations presented to commissions are typically based on expert witnesses' estimates of the investor-required return at the time of the proceeding.

The second equity risk premium estimate is based on the difference between regulatory commission-authorized returns on common equity and contemporary "A" rated utility bond yields by Moody's. I selected the period 1986 through June 2022 because public utility stocks consistently traded at a premium to book value during that period. This is illustrated in Exhibit___(MPG-15), which shows the market-to-book ratio since 1986 for the electric utility industry was consistently above a multiple of 1.0x. Over this period, an analyst can infer that authorized returns on equity were sufficient to support market prices that exceeded book value. This is an indication that commission-authorized returns on common equity supported a utility's ability to issue additional common stock without diluting existing shares. It further demonstrates utilities were able to access equity markets without detrimental impact on current shareholders.

Based on this analysis, as shown in Exhibit___(MPG-16), the average indicated equity risk premium over U.S. Treasury bond yields has been 5.72%. Since the risk

1 premium can vary depending upon market conditions and changing investor risk
2 perceptions, I believe using an estimated range of risk premiums provides the best
3 method to measure the current return on common equity for the risk premium
4 methodology.

5 I incorporated five-year and ten-year rolling average risk premiums over the study
6 period to gauge the variability over time of risk premiums. These rolling average risk
7 premiums mitigate the impact of anomalous market conditions and skewed risk
8 premiums over at least one business cycle. As shown on my Exhibit___(MPG-16), the
9 five-year rolling average risk premium over Treasury bonds ranged from 4.25% to
10 7.09%, with an average of 5.68%. The ten-year rolling average risk premium ranged
11 from 4.38% to 6.91%, with an average of 5.68%.

12 As shown on my Exhibit___(MPG-17), the average indicated equity risk premium
13 over contemporary "A" rated Moody's utility bond yields was 4.36%. The five-year
14 rolling average risk premiums ranged from 2.88% to 5.90%, with an average of 4.33%.
15 The ten-year rolling average risk premiums ranged from 3.20% to 5.73%, with an
16 average of 4.32%.

17
18 **Q. Do you believe that the time period used to derive these equity risk premium**
19 **estimates is appropriate to form accurate conclusions about contemporary market**
20 **conditions?**

21 A. Yes. Contemporary market conditions can change during the period that rates
22 determined in this proceeding will be in effect. A relatively long period of time where
23 stock valuations reflect premiums to book value indicates that the authorized returns on
24 equity and the corresponding equity risk premiums were supportive of investors' return
25 expectations and provided utilities access to the equity markets under reasonable terms
26 and conditions. Further, this time period is long enough to smooth abnormal market
27 movement that might distort equity risk premiums. While market conditions and risk
28 premiums do vary over time, this historical time period is a reasonable period to estimate
29 contemporary risk premiums.

30 Alternatively, some studies, such as Kroll, have recommended that the use of
31 "actual achieved investment return data" in a risk premium study should be based on long

historical time periods. The studies find that achieved returns over short time periods may not reflect investors' expected returns due to unexpected and abnormal stock price performance. Short-term, abnormal actual returns would be smoothed over time and the achieved actual investment returns over long time periods would approximate investors' expected returns. Therefore, it is reasonable to assume that averages of annual achieved returns over long time periods will generally converge on the investors' expected returns.

My risk premium study is based on data that inherently relied on investor expectations, not actual investment returns, and, thus, need not encompass a very long historical time period.

Q. What does current observable market data suggest about investor perceptions of utility investments?

A. The equity risk premium should reflect the relative market perception of risk today in the utility industry. I have gauged investor perceptions in utility risk today in Exhibit___(MPG-18), where I show the yield spread between utility bonds and Treasury bonds over the last 43 years. As shown in this exhibit, the average utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utility bonds for this historical period are 1.48% and 1.91%, respectively. The utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utilities through August 2022 were 1.54% and 1.85%, respectively.

The current 13-week average "A" rated utility bond yield of 4.87% when compared to the current 30-year Treasury bond yield of 3.21%, as shown in Exhibit___(MPG-19), implies a yield spread of 1.66%. This current utility bond yield spread is higher than the 43-year average spread for "A" rated utility bonds of 1.48%. The current spread for the "Baa" rated utility bond yield of 2.01% is also higher than the 43-year average spread of 1.91%.

Q. Is there observable market evidence to help gauge market risk premiums?

A. Yes. Market data illustrates how the market is pricing investment risk, and gauging the current demands for returns based on securities of varying levels of investment risk. This market evidence includes bond yield spreads for different bond return ratings as implied

by the yield spreads for Treasury, corporate and utility bonds. These spreads provide an indication of the market's return requirement for securities of different levels of investment risk and required risk premiums.

Table 12 below summarizes the utility and corporate bond spreads relative to Treasury bond yields.

TABLE 12				
<u>Comparison of Yield Spreads Over Treasury Bond Yields</u>				
<u>Year</u>	<u>Utility</u>		<u>Corporate</u>	
	<u>A</u>	<u>Baa</u>	<u>A</u>	<u>Baa</u>
Average Historical Spread	1.48%	1.91%	0.84%	1.91%
2019 Spread	1.18%	1.61%	0.81%	1.79%
2020 Spread	1.49%	1.87%	0.96%	2.10%
2021 Spread	1.05%	1.30%	0.65%	1.34%
2022 Spread*	1.54%	1.85%	0.96%	1.89%
Source: Moody's Bond Yields				
*2022 data through September 16, 2022.				

As outlined above, the observable market evidence indicates that risk premiums are reasonably aligned with long-term historical averages. As such, in comparison to recent utility bond yields and Treasury bond yields, I believe the most reasonable estimate of the current market cost of equity should reflect an average historical yield spread.

In terms of utility stock yields over utility bond yields, the risk premium appears to be returning to more normal levels. As outlined on my Exhibit___(MPG-3), page 4, stock yield spreads over A-rated utility bond yields have expanded to around 1.0% from negative to very thin spreads extending back to 2016. The same is true for utility stock yield spreads over Baa-rated utility bonds. Observable stock yield spreads over utility bond yields indicate that risk premiums in the marketplace today more reasonably align with normal risk premiums that have been experienced over long historical periods.

1 **Q. What is your recommended return for GPC based on your risk premium study?**

2 A. Because yield spreads have reverted to the long-term historical average, I recommend
3 applying a long-term historical average risk premium to current utility bond yield
4 spreads.

5 For the Treasury bond yields, I relied on the five-year rolling average historical
6 risk premium of approximately 5.68% in combination with a forecasted Treasury bond
7 yield of 3.60%.³⁸ A forecasted Treasury bond yield of 3.60% reflects a substantial
8 increase in the Treasury bond yield over a 13-week study period of 3.21%, as shown on
9 my Exhibit__(MPG-19), page 1. Using a Treasury bond risk premium of 5.68% and a
10 projected 30-year Treasury bond yield of 3.60% produces an indicated equity risk
11 premium of 9.28% (5.68% + 3.60%).

12 A risk premium based on utility bond yields reflects current observable bond
13 yields. Current observable bond yields may increase over time based on economists'
14 projections of changes in interest rates. However, history indicates that economists
15 typically overestimate increases in interest rates. Therefore, current observable rates
16 should also be considered. With current observable rates, I recommend using the five-
17 year rolling average risk premium estimate of 4.33%, which as shown on
18 Exhibit__(MPG-17) with an A utility yield of 4.87% as shown on my
19 Exhibit__(MPG-19), page 1, produces a risk premium return on equity of 9.21% (4.33%
20 + 4.87%).

TABLE 13		
<u>Summary of Risk Premium Results</u>		
	<u>Treasury</u>	<u>Utility</u>
Equity Risk Premium	5.68%	4.33%
Risk-Free Rate	3.60%	4.87%
Risk Premium	9.28%	9.21%

³⁸Blue Chip Financial Forecasts, August 1, 2022 at 2.

As shown in Table 13 above, based on this methodology, my 30-year Treasury bond risk premium and my utility bond risk premium rounded indicate a return on equity of 9.30% to 9.20%, or 9.30%.

III.H. Capital Asset Pricing Model ("CAPM")

Q. Please describe the CAPM.

A. The CAPM method of analysis is based upon the theory that the market-required rate of return for a security is equal to the risk-free rate, plus a risk premium associated with the specific security. This relationship between risk and return can be expressed mathematically as follows:

$R_i = R_f + B_i \times (R_m - R_f)$ where:

R_i = Required return for stock i

R_f = Risk-free rate

R_m = Expected return for the market portfolio

B_i = Beta - Measure of the risk for stock

The stock-specific risk term in the above equation is beta. Beta represents the investment risk that cannot be diversified away when the security is held in a diversified portfolio. When stocks are held in a diversified portfolio, stock-specific risks can be eliminated by balancing the portfolio with securities that react in the opposite direction to firm-specific risk factors (e.g., business cycle, competition, product mix, and production limitations).

Risks that cannot be eliminated when held in a diversified portfolio are non-diversifiable risks. Non-diversifiable risks are related to the market and referred to as systematic risks. Risks that can be eliminated by diversification are non-systematic risks. In a broad sense, systematic risks are market risks and non-systematic risks are business risks. The CAPM theory suggests the market will not compensate investors for assuming risks that can be diversified away. Therefore, the only risk investors will be compensated for are systematic, or non-diversifiable, risks. The beta is a measure of the systematic, or non-diversifiable risks.

1 **Q. Please describe the inputs to your CAPM.**

2 A. The CAPM requires an estimate of the market risk-free rate, beta, and the market risk
3 premium.
4

5 **Q. What did you use as an estimate of the market risk-free rate?**

6 A. As previously noted, *Blue Chip Financial Forecasts*' projected 30-year Treasury bond
7 yield is 3.60%.³⁹ The current 30-year Treasury bond yield is 3.21%, as shown in
8 Exhibit___(MPG-19).
9

10 **Q. Why did you use long-term Treasury bond yields as an estimate of the risk-free
11 rate?**

12 A. Treasury securities are backed by the full faith and credit of the United States
13 government. Therefore, long-term Treasury bonds are considered to have negligible
14 credit risk. Also, long-term Treasury bonds have an investment horizon similar to that of
15 common stock. As a result, investor-anticipated long-run inflation expectations are
16 reflected in both common stock required returns and long-term bond yields. Therefore,
17 the nominal risk-free rate (or expected inflation rate and real risk-free rate) included in a
18 long-term bond yield is a reasonable estimate of the nominal risk-free rate included in
19 common stock returns.

20 Treasury bond yields, however, do include risk premiums related to unanticipated
21 future inflation and interest rates. In this regard, a Treasury bond yield is not a risk-free
22 rate. Risk premiums related to unanticipated inflation and interest rates reflect systematic
23 market risks. Consequently, for companies with betas less than 1.0, using the Treasury
24 bond yield as a proxy for the risk-free rate in the CAPM analysis can produce an
25 overstated estimate of the CAPM return.
26

27 **Q. What beta did you use in your analysis?**

28 A. I reviewed the average utility beta of 0.89 for my proxy group as shown on my
29 Exhibit___(MPG-20).

³⁹*Id.*

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1 I also reviewed the long-term trend of *Value Line* betas reported for the proxy
2 group companies, and the *Value Line* regulated utility industries. The proxy group's
3 betas have generally ranged between 0.65 and 0.75 prior to the elevated betas published
4 after the COVID-19 pandemic commenced Exhibit___(MPG-20), page 2). The historical
5 variability in the proxy group *Value Line* betas is similar to the historical variability in the
6 entire regulated utility industry betas followed by *Value Line* (Exhibit___(MPG-20),
7 page 3). On this schedule, similar to the proxy group companies, I show the *Value Line*
8 electric industry historical beta estimates, which also indicate that the current beta is
9 abnormally high, and the long-term historical average beta of the proxy group reasonably
10 aligns with that of the entire industry.

11 The normalized historical beta estimates for the proxy group is 0.75. Thus, the
12 current beta estimate of 0.89 is well above the normalized historical beta for my proxy
13 group.
14

15 **Q. Have you performed any studies to prove that published *Value Line* betas are**
16 **abnormally high and do not accurately reflect investment risk of GPC?**

17 A. Yes. Above, I outline a study based on *Value Line*'s methodology but using the S&P 500
18 utility index, relative to the New York Stock Exchange, and show that beta estimates are
19 skewed due to two months of data within the 60-month time period used to measure beta.
20 The two months that skew the betas are in March and April of 2020, a time period that
21 coincides with the start of the worldwide COVID-19 pandemic. Removing these two
22 months has the effect of reducing utility beta estimates from the very high levels right
23 now of around 0.90, down to more normalized betas in the range of 0.65 to 0.75. This
24 beta regression study is summarized in Table 14 below.

TABLE 14			
S&P 500 Utilities vs. NYSE			
<u>Regression Betas</u>			
<u>Period</u>	<u>Raw Beta</u>	<u>Adjusted Beta</u>	<u>R²</u>
5 Yr Ending Feb '20	0.45	0.65	0.18
May '20 - Current	0.65	0.78	0.39
Most Recent 5 Yr Period	0.82	0.90	0.52
Note: Calculated using Value Line's regression based beta methodology. The current and most recent periods are through 9/16/22.			

Based on this analysis, I reject placing significant weight on *Value Line* published betas and instead rely on more normalized historical betas to produce a fair risk-adjusted return in this proceeding.

Q. Why is it not reasonable to estimate a CAPM return on a regulated utility based on beta estimates that are clearly outliers for historical average betas?

A. Utility company betas have increased from around 0.65 to 0.75 up to a current level around 0.89 over the last two years. This increase in betas suggests that utility companies' investment risks are increasing relative to the overall general marketplace. But, the outlook of increasing utility investment risk is simply not supported by a review of other risk measures for utilities including: (a) current robust valuation metrics of utilities as described above; (b) risk spreads of utility stock yields relative to bond yields; (c) sustained investment grade bond ratings for utility companies, and (d) access to significant amount of capital. Again, as shown on Exhibit___(MPG-3), the historically strong valuation metrics of regulated utilities are particularly robust, indicating the market is paying a premium for utility stocks. The fact that utility stocks are trading at a premium is inconsistent with the notion that the market perceives the utility industry's investment risk to be increasing. It also shows that the market is not demanding a higher rate of return to invest in these securities. My conclusion is that the elevated betas for

1 utility stocks were skewed by the temporary effects of the market events during the onset
2 of the pandemic but the beta impacts have returned to more normal levels as the market
3 recovered.

4 For these reasons, in performing my CAPM, I used a more normalized beta of
5 0.75 and market risk premium factors in order to derive a CAPM return estimate in this
6 proceeding.

7
8 **Q. How did you derive your market risk premium estimate?**

9 A. I derived two market risk premium estimates: a forward-looking estimate and one based
10 on a long-term historical average.

11 The forward-looking estimate was derived by estimating the expected return on
12 the market (as represented by the S&P 500) and subtracting the risk-free rate from this
13 estimate. I estimated the expected return on the S&P 500 by adding an expected inflation
14 rate to the long-term historical arithmetic average real return on the market. The real
15 return on the market represents the achieved return above the rate of inflation.

16 Kroll's 2022 *SBBI Yearbook* estimates the historical arithmetic average real
17 market return over the period 1926 to 2021 to be 9.2%.⁴⁰ A current consensus for
18 projected inflation, as measured by the Consumer Price Index, is 2.5%.⁴¹ Using these
19 estimates, the expected market return is 11.93%.⁴² The market risk premium then is the
20 difference between the 11.93% expected market return and my 3.60% risk-free rate
21 estimate, or 8.33%, which I referred to as a normalized market risk premium.

22 I also developed a current market risk premium based on the difference between
23 the expected return on the market of 11.93% as described above and the current 30-year
24 Treasury yield of 3.21% as shown on my Exhibit___(MPG-19), which produced a current
25 market risk premium of approximately 8.72%.

26 A historical estimate of the market risk premium was also calculated by using
27 data provided by Kroll in its 2022 *SBBI Yearbook*. Over the period 1926 through 2021,
28 the Kroll study estimated that the arithmetic average of the achieved total return on the

⁴⁰Kroll, 2022 *SBBI Yearbook* at 146.

⁴¹*Blue Chip Financial Forecasts*, August 1, 2022 at 2.

⁴² $\{ (1 + 0.092) * (1 + 0.025) - 1 \} * 100$.

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1 S&P 500 was 12.3%⁴³ and the total return on long-term Treasury bonds was 6.0%.⁴⁴ The
2 indicated market risk premium is 6.3% (12.3% - 6.0% = 6.3%).

3 The long-term government bond yield of 6.0% occurred during a period of
4 inflation of approximately 3.0%, thus implying a real return on long-term government
5 bonds of 3.0%.

6
7 **Q. How does your estimated market risk premium range compare to that estimated by**
8 **Kroll?**

9 A. Kroll makes several estimates of a forward-looking market risk premium based on actual
10 achieved data from the historical period of 1926 through 2021 as well as normalized data.
11 Using this data, Kroll estimates a market risk premium derived from the total return on
12 the securities that comprise the S&P 500, less the income return on Treasury bonds. The
13 total return includes capital appreciation, dividend or coupon reinvestment returns, and
14 annual yields received from coupons and/or dividend payments. The income return, in
15 contrast, only reflects the income return received from dividend payments or coupon
16 yields.

17 Kroll's range is based on several methodologies. First, Kroll estimates a market
18 risk premium of 7.46% based on the difference between the total market return on
19 common stocks (S&P 500) less the income return on 20-year Treasury bond investments
20 over the 1926-2021 period.⁴⁵

21 Second, Kroll used the Ibbotson & Chen supply-side model which produced a
22 market risk premium estimate of 6.22%.⁴⁶ Kroll explains that the historical market risk
23 premium based on the S&P 500 was influenced by an abnormal expansion of
24 price/earnings ("P/E") ratios relative to earnings and dividend growth during the period,
25 primarily over the last 30 years. Kroll believes this abnormal P/E expansion is not
26 sustainable. In order to control for the volatility of extraordinary events and their impacts

⁴³Kroll, 2022 *SBBI Yearbook* at 145.

⁴⁴*Id.*

⁴⁵*Id.* at 199.

⁴⁶*Id.* at 207-208.

1 on P/E ratios, Kroll takes into consideration the three-year average P/E ratio as well as
2 the current P/E ratio.⁴⁷

3 Finally, Kroll develops its own recommended equity, or market risk premium, by
4 employing an analysis that takes into consideration a wide range of economic
5 information, multiple risk premium estimation methodologies, and the current state of the
6 economy by observing measures such as the level of stock indices and corporate spreads
7 as indicators of perceived risk. Based on this methodology, and utilizing a “normalized”
8 risk-free rate of 3.5%, Kroll concludes the current expected, or forward-looking, market
9 risk premium is 5.5%, implying an expected return on the market of 9.0%. However,
10 when the current market risk-free rate exceeds the normalized risk-free rate, Kroll
11 recommends applying the current 20-year Treasury yield. Currently, the 20-year
12 Treasury yield is below the normalized risk-free rate.⁴⁸

13 Importantly, Kroll’s market risk premiums are measured over a 20-year Treasury
14 bond. Because I am relying on a projected 30-year Treasury bond yield, the results of my
15 CAPM analysis should be considered conservative estimates for the cost of equity.

16
17 **Q. What are the results of your CAPM analysis?**

18 A. As shown on my Exhibit___(MPG-21), using a current market risk-free rate of 3.21%
19 and a projected market return of 11.93% produces a market risk premium of
20 approximately 8.72%, combined with the beta of 0.89 indicates a CAPM return estimate
21 of 10.93%.

22 Using a market return of 11.93%, with a projected risk-free rate of 3.60%,
23 produces a market risk premium of 8.33%. This market risk premium and risk-free rate
24 with a normalized utility beta of 0.75, indicates a CAPM return of about 9.88%.

25 As discussed above, the current elevated betas do not reflect the low industry risk
26 for GPC or the utility industry as a whole. Therefore, I find a reasonable return on equity
27 for GPC in this case using a CAPM study to be 9.90%.

28

⁴⁷*Id.*

⁴⁸Kroll, “Kroll Increases U.S. Normalized Risk-Free Rate from 3.0% to 3.5%, but Spot 20-Year U.S. Treasury Yield Preferred When Higher,” June 16, 2022.

III.I. Return on Equity Summary

Q. Based on the results of your return on common equity analyses described above, what return on common equity do you recommend for GPC?

A. Based on my analyses, I recommend GPC's current market cost of equity be in the range of 9.00% to 9.90%, with a midpoint of 9.45%.

TABLE 15	
<u>Return on Common Equity Summary</u>	
<u>Description</u>	<u>Results</u>
DCF	9.00%
Risk Premium	9.25%
CAPM	9.90%

My recommended return on common equity of 9.45% falls at the midpoint of the range of 9.00% to 9.90%. The low-end of my range is based on my DCF studies, and the high-end is based on my CAPM. My risk premium study also falls in this range.

My return on equity estimates reflect observable market evidence, the impact of Federal Reserve policies on current and expected long-term capital market costs, an assessment of the current risk premium built into current market securities, and a general assessment of the current investment risk characteristics of the regulated utility industry and the market's demand for utility securities.

III.J. Financial Integrity

Q. Will your recommended overall rate of return support an investment grade bond rating for GPC?

A. Yes. I have reached this conclusion by comparing the key credit rating financial ratios for GPC at my proposed return on equity and GPC's proposed capital structure to S&P's benchmark financial ratios using S&P's credit metric ranges.

1 **Q. Please describe the most recent S&P financial ratio credit metric methodology.**

2 A. S&P publishes a matrix of financial ratios corresponding to its assessment of the business
3 risk of utility companies and related bond ratings. On May 27, 2009, S&P expanded its
4 matrix criteria by including additional business and financial risk categories.⁴⁹

5 Based on S&P's most recent credit matrix, the business risk profile categories are
6 "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and "Vulnerable." Most utilities
7 have a business risk profile of "Excellent" or "Strong."

8 The financial risk profile categories are "Minimal," "Modest," "Intermediate,"
9 "Significant," "Aggressive," and "Highly Leveraged." Most of the utilities have a
10 financial risk profile of "Aggressive" or "Significant." Based on the most recent S&P
11 report, GPC has an "Excellent" business risk profile and a "Significant" financial risk
12 profile.

13
14 **Q. Please describe S&P's use of the financial benchmark ratios in its credit rating
15 review.**

16 A. S&P evaluates a utility's credit rating based on an assessment of its financial and
17 business risks. A combination of financial and business risks equates to the overall
18 assessment of GPC's total credit risk exposure. On November 19, 2013, S&P updated its
19 methodology. In its update, S&P published a matrix of financial ratios that defines the
20 level of financial risk as a function of the level of business risk.

21 S&P publishes ranges for primary financial ratios that it uses as guidance in its
22 credit review for utility companies. The two core financial ratio benchmarks it relies on
23 in its credit rating process include: (1) Debt to Earnings Before Interest, Taxes,
24 Depreciation and Amortization ("EBITDA"); and (2) Funds From Operations ("FFO") to
25 Total Debt.⁵⁰

⁴⁹S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect*: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

⁵⁰*Standard & Poor's RatingsDirect*: "Criteria: Corporate Methodology," November 19, 2013.

1 **Q. How did you apply S&P's financial ratios to test the reasonableness of your rate of**
2 **return recommendations?**

3 A. I calculated each of S&P's financial ratios based on GPC's cost of service for its
4 regulated utility operations in its Georgia service territory over the three-year period
5 using Staff's projected cost of service for the test year (July 31, 2023) and projected years
6 (December 31, 2024 and December 31, 2025). While S&P would normally look at total
7 consolidated GPC financial ratios in its credit review process, my investigation in this
8 proceeding is not the same as S&P's. I am attempting to judge the reasonableness of my
9 proposed cost of capital for rate-setting in GPC's Georgia regulated utility operations.
10 Hence, I am attempting to determine whether my proposed rate of return will in turn
11 support cash flow metrics, balance sheet strength, and earnings that will support an
12 investment grade bond rating and GPC's financial integrity.

13
14 **Q. Did you include any off-balance sheet ("OBS") debt equivalents?**

15 A. No. In response to STF-BAI-1-17, GPC stated that it does not have any off-balance sheet
16 debt equivalents. However, I included GPC's short-term debt obligations as provided in
17 response to STF-BAI-1-11.

18 Hence, I developed my credit metrics using the same assumptions for projected
19 total financial leverage which GPC included in developing current and projected credit
20 metrics in its presentation to credit rating agencies material provided in STF-NEC-1-5
21 Attachment I Trade Secret.

22
23 **Q. How did you apply Staff's ratemaking adjustments?**

24 A. To calculate the credit metrics, based on my recommendations, I relied on the Company's
25 ratemaking capital structure in the test year, and my recommended 9.45% return on
26 equity. For 2024 and 2025, I used my recommended capital structure including a 51%
27 common equity ratio and my recommended return on equity of 9.45%.

28 I also reflected several Staff adjustments to the depreciation and amortization
29 expense and ratemaking rate base outlined in Staff witness Ralph Smith's testimony.

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Further, as shown on my Exhibit___(MPG-22), pages 2 and 3, I included GPC's estimated rate base and associated depreciation expense for Vogtle Units 3 and 4 because both of these units are expected to be placed in-service in late 2023. I relied on the Company's projected cost of service for Vogtle Units 3 and 4 in 2024 and 2025 as included in GPC Exhibit___(APA/SPAADH/MBR-6, Schedule 3).

Q. Please describe the results of this credit metric analysis as it relates to GPC for the test year ending July 31, 2023.

A. The S&P financial metric calculations for GPC at a 9.45% return are developed on Exhibit___(MPG-22), page 1. The credit metrics produced below, with a financial risk profile from S&P of "Significant" and business risk profile of "Excellent," will be used to assess the strength of the credit metrics based on GPC's retail operations in the state of Georgia.

The adjusted debt ratio for credit metric purposes at GPC's capital structure is 44.6%, which is significantly lower than the average adjusted debt ratio for the industry as shown on Exhibit___(MPG-22), page 1 and calculated on Exhibit___(MPG-5).

Based on an equity return of 9.45% and GPC's common equity ratio of 56.0%, the Company will be provided an opportunity to produce a Debt to Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA") ratio of 4.0x. This is within S&P's "Significant" guideline range of 3.5x to 4.5x.⁵¹

GPC's utility operations FFO to total debt coverage at a 9.45% equity return and 56% equity ratio is 19%, which is also within S&P's "Significant" guideline range of 13% to 23%.

I conclude that GPC's core credit metrics ratios based on my return on equity and its capital structure will support its investment grade credit rating. Importantly, my recommended overall rate of return will accomplish these objectives while minimizing GPC's cost of service and supporting the most competitive rates that remain just and reasonable from a rate-setting standpoint.

⁵¹Standard & Poor's RatingsDirect®: "Criteria: Corporate Methodology," November 19, 2013.

1 **Q. Please describe the results of this credit metric analysis as it relates to GPC for the**
2 **projected year ending December 31, 2024.**

3 A. The S&P financial metric calculations for GPC at a 9.45% return are developed on
4 Exhibit___(MPG-22), page 2. The credit metrics produced below, with a financial risk
5 profile from S&P of “Significant” and business risk profile of “Excellent,” will be used to
6 assess the strength of the credit metrics based on GPC’s retail operations in the state of
7 Georgia.

8 The adjusted debt ratio for credit metric purposes at my proposed capital structure
9 is 49.3%, which is lower but comparable to the average adjusted debt ratio for the
10 industry as shown on Exhibit___(MPG-22), page 2 and calculated on Exhibit___(MPG-
11 5).

12 Based on an equity return of 9.45% and my proposed common equity ratio of
13 51.0%, GPC will be provided an opportunity to produce a Debt to EBITDA ratio of 3.9x.
14 This is within S&P’s “Significant” guideline range of 3.5x to 4.5x.⁵²

15 GPC’s utility operations FFO to total debt coverage at a 9.45% equity return and
16 51% equity ratio is 20%, which is within S&P’s “Significant” guideline range of 13% to
17 23%.

18 I conclude that GPC’s core credit metrics ratios based on my return on equity and
19 my proposed capital structure will support GPC’s current investment grade credit rating
20 in 2024, and start to reflect stronger credit metrics and a credit rating improvement.
21 Importantly, my recommended overall rate of return will accomplish these objectives
22 while minimizing GPC’s cost of service and supporting the most competitive rates that
23 remain just and reasonable from a rate-setting standpoint.

24
25 **Q. Please describe the results of this credit metric analysis as it relates to GPC for the**
26 **projected year ending December 31, 2025.**

27 A. The S&P financial metric calculations for GPC at a 9.45% return are developed on
28 Exhibit___(MPG-22), page 3. The credit metrics produced below, with a financial risk
29 profile from S&P of “Significant” and business risk profile of “Excellent,” will be used to

⁵²Standard & Poor’s RatingsDirect®: “Criteria: Corporate Methodology,” November 19, 2013.

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1 assess the strength of the credit metrics based on GPC's retail operations in the state of
2 Georgia.

3 The adjusted debt ratio for credit metric purposes at GPC's capital structure is
4 49.6%, which is still lower but comparable to the average adjusted debt ratio for the
5 industry as shown on Exhibit___(MPG-22), page 5 and calculated on Exhibit___(MPG-
6 5).

7 Based on an equity return of 9.45% and my proposed common equity ratio of
8 51.0%, GPC will be provided an opportunity to produce a Debt to EBITDA ratio of 3.9x.
9 This is within S&P's "Significant" guideline range of 3.5x to 4.5x.⁵³

10 GPC's utility operations FFO to total debt coverage at a 9.45% equity return and
11 51% equity ratio is 19%, which is within S&P's "Significant" guideline range of 13% to
12 23%.

13 I conclude that GPC's core credit metrics ratios based on my return on equity and
14 its capital structure will support GPC's current investment grade credit rating in 2025,
15 and indicate stronger credit metrics and improved credit rating. Importantly, my
16 recommended overall rate of return will accomplish these objectives while minimizing
17 GPC's cost of service and supporting the most competitive rates that remain just and
18 reasonable from a rate-setting standpoint.

19
20 **Q. Does this financial integrity assessment support your recommended overall rate of**
21 **return for GPC?**

22 A. Yes. As noted above, I believe my return on equity and my proposed capital structure
23 represent fair compensation in today's very low capital market costs, and as outlined
24 above, my overall rate of return will provide GPC an opportunity to earn credit metrics
25 that will support its bond rating.

26 27 **IV. RESPONSE TO GPC WITNESS MR. COYNE**

28 **Q. What return on common equity is GPC proposing for this proceeding?**

29 A. Mr. Coyne recommends a return on equity produced by the DCF, CAPM, Risk Premium
30 and Expected Earnings models in the range of 8.99% to 13.55%. The average of his four

⁵³Standard & Poor's RatingsDirect®: "Criteria: Corporate Methodology," November 19, 2013.

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models result is 10.92%. Adding 8 basis points for flotation costs, Mr. Coyne recommends a return on equity of 11.0% for GPC.⁵⁴

Q. Are Mr. Coyne's return on equity estimates reasonable?

A. No. Mr. Coyne's estimated return on equity is overstated and should be rejected. Mr. Coyne's analyses produce excessive results for various reasons, including the following:

1. His constant growth DCF results are based on unsustainably high growth rates;
2. His CAPM is based on inflated market risk premiums;
3. His CAPM is based on beta estimates that do not reflect the low risk nature of utility investments;
4. His Bond Yield Plus Risk Premium studies are based on an overly simplistic inverse relationship between equity risk premiums and interest rates, which produces inflated equity risk premiums;
5. Both Mr. Coyne's CAPM and Risk Premium studies are based on projected interest rates that are highly uncertain, and
6. His Expected Earnings analysis is unreasonable because it measures the book accounting return, rather than the market required return.

Q. Please summarize Mr. Coyne's return on equity estimates.

A. Mr. Coyne's return on equity estimates are summarized in Table 16 below. In the "Adjusted" Column 2, I show the results with prudent and sound adjustments to correct the flaws referenced above. With such adjustments to Mr. Coyne's proxy group's DCF, CAPM, and Risk Premium return estimates, Mr. Coyne's studies show that my 9.45% recommended return on equity for GPC is more reasonable and consistent with the current capital market environment.

⁵⁴Coyne Direct Testimony at 3 and 45.

TABLE 16

Coyne's Adjusted Return on Equity Estimates

Description	Coyne Mean¹ (1)	Gorman Adjusted (2)
<u>Constant Growth DCF</u>		
30-Day Average	8.88%	8.79%
90-Day Average	9.01%	8.82%
180-Day Average	9.09%	8.83%
<u>CAPM DCF-Derived Results at current (2.72%)</u>		
CAPM (<i>Value Line</i> Beta, Adjusted to 0.80)	13.66%	10.09%
CAPM (Bloomberg Beta, Adjusted to 0.75)	13.34%	9.44%
<u>CAPM DCF-Derived Results at near projected (3.34%)</u>		
CAPM (<i>Value Line</i> Beta, Adjusted to 0.80)	13.75%	10.21%
CAPM (Bloomberg Beta, Adjusted to 0.75)	13.44%	9.78%
<u>Risk Premium</u>		
Current 30-Yr Treasury (2.72%)	9.83%	8.82%
Near-Term Projected 30-Yr Treasury (3.34%)	10.09%	9.63%
Long-Term Projected 30-Yr Treasury (3.40%)	10.12%	Reject
Expected Earnings Analysis	11.03%	Reject
Recommended Return on Equity	11.0%	9.45%
Sources: ¹ Coyne Direct Testimony at 35, 34, 37, 39.		

As shown in Table 16 above, corrections and improvements to the accuracy of Mr. Coyne's return on equity estimates support a return on equity for GPC of 9.45%.

While my adjustments are presented in Adjusted Column 2 of Table 16 above, a description of the bases for my adjustments to Mr. Coyne's return on equity estimates is presented below.

1 **IV.A. Reliability of DCF Return Estimates**

2 **Q. Does Mr. Coyne comment on the reliability of market-based models to measure a**
3 **fair return on equity for GPC?**

4 A. Yes, but Mr. Coyne's comments are flawed and without merit. Mr. Coyne opines that the
5 traditional DCF analyses are not producing reasonable results at this time due to the
6 current capital market conditions. He goes on to state that the DCF model, which relies
7 on historical averages, is likely to understate the cost of equity for GPC.⁵⁵ He also opines
8 that interest rates are expected to increase.⁵⁶
9

10 **Q. Has Mr. Coyne identified anything different in this case to distinguish the**
11 **projections that have been offered over the last five to ten years, but have yet to pan**
12 **out?**

13 A. No. As explained in more detail later, economists have consistently been projecting
14 increases in interest rates relative to current observable interest rates over approximately
15 the last ten years. However, those projections for increased interest rates have turned out
16 to be inaccurate. Instead, interest rates have remained relatively stable and at low levels
17 for approximately the last five to ten years. Also, I show that projections for interest rates
18 over the next five to ten years have been moderated by independent consensus
19 economists. This is clear evidence that today's market is embracing the sustainability of
20 relatively low capital market costs in the current market relative to what independent
21 economists have projected in prior periods. A comparison of the components of the DCF
22 return for utilities generally to other income return investment options and growth
23 investment options shows that the results of DCF models are producing reliable and
24 accurate estimates of the current market cost for utility companies.
25

⁵⁵Coyne Direct Testimony at 20, 28-29.

⁵⁶Coyne Direct Testimony at 5, 16, 20, 31.

1 **Q. Please explain why you believe the DCF model is producing reliable results for**
2 **utility companies when the DCF return component is compared to alternative**
3 **investments.**

4 A. The DCF model is producing an economically logical estimate of the current market cost
5 of equity and a return that is comparable with observable returns in alternative
6 investments of comparable risk. The DCF model sums the observable dividend yield on
7 utility stocks and then adds to that an estimate of expected growth. These two
8 components yield DCF returns that are comparable to alternative investments, and, thus,
9 reasonably reflect the current market cost of capital for GPC.

10 Specifically, as shown on my Exhibit___(MPG-3) (pages 4 and 12), the 2022
11 dividend yield of electric (3.36%) and gas (3.22%) utility stock was competitive with the
12 yield on “A” rated utility bonds in 2022 (4.38%). The current yield spread between stock
13 and A-rated utility bond yields is reasonably comparable to that realized historically, and
14 suggests that the stock yield component of the DCF model is robust and competitive with
15 alternative income producing investments.

16 The growth component of the DCF return relates to earnings and stock growth
17 over time. The growth outlook for utility stocks is not depressed generally, but rather
18 provides a robust outlook for dividends and stock price growth. The DCF return is not
19 understated due to the DCF growth rate component.

20 Additionally, the annual growth in dividends for utilities over the last 17 years has
21 been approximately 4.08% for electric and 5.25% for gas as shown on my
22 Exhibit___(MPG-3) (pages 5 and 13). In my constant growth DCF study presented
23 above, the current three- to five-year forward projected growth rate for electric utilities is
24 approximately 5.45%, which is considerably higher than the historical growth rate for the
25 industry. Furthermore, utility earnings growth is expected to be considerably more robust
26 than U.S. GDP growth, which generally is regarded as a reasonable proxy for the
27 maximum sustainable rate of growth for investor capital markets. Going forward, long-
28 term sustainable growth for equity investments is around 4.35%, as described above.
29 Based on these factors, the growth rate component of a regulated utility DCF return is
30 quite robust and produces a highly competitive DCF return estimate.

For these reasons, both dividend yield and growth components of a utility DCF indicate an economically logical return estimate that is competitive with comparably risky alternative investments.

IV.B. Coyne's Constant Growth DCF Models

Q. Please describe Mr. Coyne's constant growth DCF return estimates.

A. Mr. Coyne's constant growth DCF returns are developed on his Exhibit JMC-4. Mr. Coyne's constant growth DCF models are based on consensus growth rates published by *Yahoo! Finance* and *Zacks* and individual growth rate projections made by *Value Line*.

He relied on dividend yield calculations based on average stock prices over three different time periods: 30-day, 90-day, and 180-day ending April 30, 2021 – all reflecting a half year of dividend growth adjustments.

Mr. Coyne's mean DCF results fall in the range of 8.88% to 9.09%.⁵⁷

Q. Are the constant growth DCF results produced by Mr. Coyne reasonable?

A. Mr. Coyne's DCF study results are reasonable compared to the results of my own DCF analysis.

IV.C. Coyne's CAPM Studies

Q. Please describe Mr. Coyne's CAPM analysis.

A. As indicated above, the CAPM analysis is based upon the theory that the market required rate of return for a security is equal to the risk-free rate, plus a risk premium associated with the specific security. The risk premium associated with the specific security is expressed mathematically as:

$$B_i \times (R_m - R_f) \text{ where:}$$

$$B_i = \text{Beta} - \text{Measure of the risk for stock}$$

$$R_m = \text{Expected return for the market portfolio}$$

$$R_f = \text{Risk-free rate}$$

Mr. Coyne's CAPM study is based on current and projected risk-free rates of 2.72% and 3.40%, respectively, a market return of 15.18%, and *Value Line* and

⁵⁷Coyne Direct Testimony at 28.

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1 Bloomberg beta estimates of 0.88 and 0.85, respectively.⁵⁸ His CAPM results fall in the
2 range of 13.34% to 13.75%, with an average of 13.55%.⁵⁹

3
4 **Q. Please describe the issues you have with Mr. Coyne's CAPM study.**

5 A. I have two primary issues with Mr. Coyne's CAPM study. First, I believe the market risk
6 premium he used in his CAPM studies is overstated because it does not reflect a
7 reasonable estimate of the expected return on the market. Second, Mr. Coyne relies on a
8 projected risk-free rate based on the 30-Year Treasury yield for 2023 to 2027. Mr.
9 Coyne's consistent reliance on projected interest rates is unreasonable and should be
10 rejected. Finally, Mr. Coyne's beta estimates do not reflect the low-risk nature of the rate
11 regulated utilities.

12
13 **Q. Please describe Mr. Coyne's market risk premium.**

14 A. Mr. Coyne derived his market risk premium by conducting a DCF analysis for the market
15 (S&P 500). Mr. Coyne market risk premium estimate is based on the total return on the
16 market from 1) S&P Earnings and Estimates report of 15.87%, 2) Bloomberg of 14.03%,
17 and 3) *Value Line* of 15.63%. The average of these market returns is 15.18%. Then, Mr.
18 Coyne subtracts his current and projected risk-free rate of 2.72% and 3.40%, respectively,
19 to produce a market risk premium of 12.46% and 11.78%, respectively.⁶⁰

20
21 **Q. What issues do you have with Mr. Coyne's market risk premium estimates?**

22 A. Mr. Coyne's DCF-derived market risk premium is based on market returns in the range
23 of 14.03% to 15.87% which consist of a growth rate component in the range of 12.38% to
24 14.22% and market-weighted expected dividend yield of approximately 1.54%.⁶¹ As
25 discussed above with respect to my own DCF model, the DCF model requires a long-
26 term sustainable growth rate. Mr. Coyne's sustainable market growth rates in the range
27 of 12.38% to 14.22% are far too high to be a rational outlook for sustainable long-term

⁵⁸Coyne Direct Testimony, Exhibit JMC-5.2.

⁵⁹Coyne Direct Testimony at 34.

⁶⁰Coyne Direct Testimony at 33.

⁶¹Coyne Direct Testimony, Exhibit JMC-5.1.

1 market growth. These growth rates are more than three times the growth rate of the U.S.
2 GDP long-term growth outlook of 4.35% as discussed above.

3 As a result of these unreasonable long-term market growth rate estimates, Mr.
4 Coyne's market DCF returns (14.03% to 15.87%) used in his CAPM analyses are inflated
5 and not reliable. Consequently, Mr. Coyne's market risk premiums should be given
6 minimal weight in estimating GPC's CAPM-based return on equity.

7
8 **Q. Do historical actual returns on the market support Mr. Coyne's projected market**
9 **returns?**

10 A. No. Historical data shows just how unreasonable Mr. Coyne's projected DCF return on
11 the market is on a going-forward basis. Kroll estimates the actual capital appreciation for
12 the S&P 500 over the period 1926 through 2021 to have been 6.4% to 8.2%.⁶² Further,
13 the historical geometric growth of the market of 6.4%⁶³ has reflected geometric growth of
14 GDP over this same time period of approximately 6.0%.⁶⁴ This compares to Mr. Coyne's
15 projected growth rate of the market in the range of 12.38% to 14.22%. Mr. Coyne's
16 projected growth is not reasonable. The historical realized return on the S&P 500,
17 reflecting growth rates between 6.4% and 8.2% resulted in arithmetic average growth of
18 the S&P 500 of around 12.4%. This is far more rational and reasonable than Mr. Coyne's
19 projected DCF return on the market in the range of 14.03% to 15.87%.

20 This review of historical data establishes two facts very clearly. First, historical,
21 actual achieved growth has been substantially less than projected by Mr. Coyne. Second,
22 historical growth of the market has tracked historical growth of the U.S. GDP. Projected
23 growth of the U.S. GDP is now closer to the 4.0% to 4.5% range. All this information
24 strongly supports the conclusion that Mr. Coyne's projected growth rate on the market in
25 the range of 12.38% to 14.22% is substantially overstated. While I do not endorse the
26 use of a historical growth rate to draw assessments of the market's forward-looking
27 growth rate outlooks, this data can be used to show how unreasonable and inflated Mr.
28 Coyne's market return estimate is.

⁶²Kroll, 2022 *SBBI Yearbook* at 145.

⁶³*Id.*

⁶⁴U.S. Bureau of Economic Analysis, May 26, 2022.

1 **Q. Why do you believe Mr. Coyne's reliance on a projected long-term risk-free rate is**
2 **unreasonable?**

3 A. Mr. Coyne's reliance on long-term projected bond yield of 3.40% does not reflect market
4 participants' outlooks for GPC's cost of capital during the period rates determined in this
5 proceeding will be in effect. This bond yield is based on projections of Treasury bond
6 yields five years out (2023-2027). Those projections are highly uncertain, and in any
7 event, do not reflect the cost of capital in the test period or even the period over the next
8 two to three years, the period in which rates determined in this proceeding will largely be
9 in effect. As such, the market risk premium should be based on observable bond yields in
10 the market today. Alternatively, the market risk premium should at most reflect bond
11 yield projections through the rate-effective period in this case.
12

13 **Q. Please describe your concerns with Mr. Coyne's beta estimates.**

14 A. As discussed in regard to my own CAPM study, the current beta estimates have increased
15 substantially during the COVID-19 pandemic. However, these elevated beta estimates do
16 not represent an increase in utility risk or cost of equity. As discussed above, utility
17 companies are well positioned to weather economic downturns and are considered
18 defensive stocks. Their cash flows strength is consistent and supported by strong
19 valuations. In fact, as shown in my Exhibit___(MPG-20), page 4 (industry beta) since
20 2014, 75% of the industry had an average beta estimate of 0.80. Importantly, prior to the
21 COVID-19 pandemic there were no beta estimates close to 0.80. The highest average
22 beta estimate prior to the pandemic was 0.74. Therefore, it is reasonable to consider a
23 normalized beta estimate of approximately 0.75 , which is the average normalized beta
24 estimate as discussed in regard to my CAPM studies.
25

26 **Q. Can Mr. Coyne's CAPM analysis be revised to reflect a more reasonable market**
27 **risk premium and risk-free rates?**

28 A. Yes. Disregarding Mr. Coyne's long-term projected risk-free rate of 3.40% as described
29 above and instead using his current and near-term projected risk-free rates of 2.72% and

3.34%⁶⁵, respectively, my calculated market return of 11.93%, and applying the average *Value Line* beta of 0.80 prior to the pandemic as discussed above, Mr. Coyne's CAPM study would yield a return of 10.09% and 10.21%, respectively.⁶⁶ Applying the current and near-term risk-free rates of 2.72% and 3.34%, my market return of 11.93%, and the average historical beta for regulated utilities of approximately 0.75, will result in a CAPM return of 9.63% and 9.78%, respectively.⁶⁷ Therefore, Mr. Coyne's CAPM study will produce a reasonable return in the range of 9.60% to 10.20%, with an approximate midpoint of 9.90%.

IV.D. Risk Premium Analysis

Q. Please describe Mr. Coyne's risk premium methodology.

A. As shown on his Exhibit JMC-6, Mr. Coyne constructs a risk premium return on equity estimate based on the premise that equity risk premiums are inversely related to interest rates. He estimates an average equity risk premium of 6.06% for electric over the period January 1992 through April 30, 2022. He then applies a regression formula to the current, near-term, and long-term projected 30-year Treasury bond yields of 2.72%, 3.34%, and 3.40%, respectively, to produce electric equity risk premiums of 7.11%, 6.75%, and 6.72%, respectively. Thus, he calculates electric return on equity estimates of 9.83%, 10.09%, and 10.12%, respectively.⁶⁸

Q. Is Mr. Coyne's risk premium methodology reasonable?

A. No. Mr. Coyne contends that there is a simplistic inverse relationship between equity risk premiums and interest rates without any regard to differences in investment risk. Academic studies are quite clear that interest rates are a relevant factor in assessing current market equity risk premiums, but the risk premium ties more specifically to the market's perception of investment risk of debt and equity securities, and not simply changes in interest rates.

⁶⁵Coyne Direct Testimony, Exhibit JMC-6, page 3.

⁶⁶ $2.72\% + 0.80 \times (11.93\% - 2.72\%) = 10.09\%$ and $3.34\% + 0.80 \times (11.93\% - 3.34\%) = 10.21\%$;

⁶⁷ $2.72\% + 0.75 \times (11.93\% - 2.72\%) = 9.63\%$ and $3.34\% + 0.75 \times (11.93\% - 3.34\%) = 9.78\%$

⁶⁸Coyne Direct Testimony at 37 and Exhibit JMC-6, page 3.

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1 More specifically, while academic studies have shown that, in the past, there has
2 been an inverse relationship among these variables, researchers have found that the
3 relationship changes over time and is influenced by changes in perception of the risk of
4 bond investments relative to equity investments, and not simply changes to interest
5 rates.⁶⁹

6 In the 1980s, equity risk premiums were inversely related to interest rates, but that
7 was likely attributable to the interest rate volatility that existed at that time. As such,
8 when interest rates were more volatile, perceptions of bond investment risk increased
9 relative to the investment risk of equities. This changing investment risk perception
10 caused changes in equity risk premiums.

11 In today's marketplace, interest rate volatility is not as extreme as it was during
12 the 1980s.⁷⁰ Nevertheless, changes in the perceived risk of bond investments relative to
13 equity investments still drive changes in equity premiums. However, a relative
14 investment risk differential cannot be measured simply by observing nominal interest
15 rates. Changes in nominal interest rates are highly influenced by changes to inflation
16 outlooks, which also change equity return expectations. As such, the relevant factor
17 needed to explain changes in equity risk premiums is the relative changes to the risk of
18 equity versus debt securities investments, and not simply changes in interest rates.

19 Importantly, Mr. Coyne's analysis simply ignores investment risk differentials.
20 He bases his adjustment to the equity risk premium exclusively on changes in nominal
21 interest rates. This is a flawed methodology that does not produce accurate or reliable
22 risk premium estimates.

⁶⁹Robert S. Harris & Felicia C. Marston, "The Market Risk Premium: "Expectational Estimates Using Analysts' Forecasts," *Journal of Applied Finance*, Volume 11, No. 1, 2001 at 10-13; Eugene F. Brigham, Dilip K. Shome, & Steve R. Vinson, "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985, at 42-43.

⁷⁰"The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985, at 44.

1 **Q. Do you believe that the regression study used by Mr. Coyne in his risk premium**
2 **demonstrates an accurate cause and effect between interest rates and equity risk**
3 **premiums?**

4 A. No. Because the returns he uses are authorized by commissions, those returns are not
5 directly adjusted by market forces. While I also use Commission-authorized returns as a
6 proxy for market-required returns, Mr. Coyne unreasonably relies on a simple regression
7 analysis that tries to describe and gauge equity risk premiums based on only changes in
8 interest rates.

9 Equity risk premiums can move based on changes in market conditions that can
10 impact both equity returns and bond returns in a like manner. This simple regression
11 analysis of equity risk premiums and interest rates ignores these relevant market factors
12 in describing the current market-required equity risk premium.

13
14 **Q. Do you have any other comments concerning Mr. Coyne's risk premium**
15 **methodology?**

16 A. Yes. Similar to his CAPM analysis, in his risk premium, Mr. Coyne's use of a long-term
17 projected bond yield of 3.40%,⁷¹ does not reflect market participants' outlooks for GPC's
18 cost of capital during the period rates determined in this proceeding will be in effect.
19 Therefore, Mr. Coyne's use of projected bond yields five years out should be rejected.

20
21 **Q. Can Mr. Coyne's risk premium analysis be revised to reflect current projections of**
22 **Treasury yields?**

23 A. Yes. Mr. Coyne's simplistic and incomplete notion that equity risk premiums change
24 only with changes to nominal interest rates should be rejected. Adding his average
25 electric and gas equity risk premiums over Treasury bonds of approximately 6.10% to his
26 Treasury yields of 2.74% and 3.34%, produces an electric risk premium no higher than
27 9.40%.

28

⁷¹Coyne Direct Testimony, Exhibit JMC-6.

IV.E. Coyne's Expected Earnings Analysis

Q. Please describe Mr. Coyne's expected earnings analysis.

A. Mr. Coyne's Expected Earnings analysis is based on the projected returns on book equity for the regulated utility companies followed by *Value Line* and included in his proxy group as developed on his Exhibit JMC-7. Based on this analysis, Mr. Coyne concludes that the average return on equity result for his proxy group is 11.03%, for the projected period 2025-2027.

Q. What is problematic about Mr. Coyne's Expected Earnings analysis?

A. Mr. Coyne's Expected Earnings analysis should be rejected because this approach does not measure the market-required return appropriate for the investment risk of GPC. Rather, it measures the book accounting return. The market required return is not the same as the accounting return, and the two can be – and in this instance are – vastly different.

The significant discrepancy between the level and meaning of a market-required return and a book return on equity can have significant implications to both investors and customers, when used to set a fair return on equity for ratemaking purposes. Simply stated, a market return provides a pure measure of fair compensation to investors, and allows for setting rates that provide no more than fair compensation. Conversely, using the earned return on book equity can cause compensation to be either too high or too low, and rates to be set either too low or too high, depending on the specific circumstances when the book return is measured.

For example, if the proxy group's earned return on book equity is lower than the market return, it could be an indication that the rates for the proxy group are too low and not providing fair compensation. As such, the measured return on book equity would be an indication rates need to be increased. However, if the earned return on book equity was used to estimate a fair return for ratemaking purposes, then this depressed earnings level could result in rates being set below a level that provides fair compensation to investors and may not support the utility's financial integrity. Conversely, if the earned return on book equity for the proxy companies is above a fair market return on equity, then that could be an indication that the rates for the proxy companies produce more

1 earnings than necessary to fairly compensate investors, and using this inflated return on
2 equity would result in rates that are not just and reasonable for customers.

3 The market-required return is a long-standing practice in setting rates for utility
4 companies. This is because the market sets the required rate of return for assuming the
5 risk of an investment. To the extent the utility's earnings are adequate to allow it to
6 attract investors, then it will be able to sell new equity shares to the market to secure
7 capital needed to fund additional rate base investments. If this long-standing practice of
8 setting authorized returns consistent with market returns is rejected, in favor of Mr.
9 Coyne's proposal to look at returns on book equity, then the balance between estimating
10 a return that is fair to both investors and customers will be turned upside down, and the
11 rate-setting practice could be substantially impaired and rendered unreliable.

12 The earned return on book equity is simply not an accurate or legitimate basis
13 upon which to determine a fair and reasonable return on equity for both investors and
14 customers. A fair return on equity is a return that provides fair compensation to utility
15 investors, but also results in customer rate impacts that are no more than necessary to
16 produce that fair compensation – except to the extent greater earnings are necessary to
17 maintain financial integrity or credit standing. For these reasons, the Expected Earnings
18 analysis should simply be rejected.

19
20 **IV.F. Flotation Costs**

21 **Q. Did Mr. Coyne include a flotation cost adjustment in his recommended return for**
22 **GPC?**

23 A. Yes. Mr. Coyne calculated an upward adjustment of 8 basis points to his return results to
24 compensate for flotation costs. He developed his flotation cost adjustment by observing
25 the cost incurred by the proxy group companies in issuing equity securities. The costs
26 incurred on these issuances averaged around 2.47% of the issuance amount.

27 Next, Mr. Coyne developed a constant growth DCF model for the proxy group
28 with and without issuance costs to derive his flotation cost adjustment of 8 basis points.⁷²
29

⁷²Exhibit JMC-8.

1 **Q. Is Mr. Coyne's flotation cost adder reasonable?**

2 A. No. Mr. Coyne's flotation cost adder is not reasonable nor justified because it is not
3 based on the recovery of prudent and verifiable actual flotation costs incurred by GPC.
4 Southern Company, GPC's parent company, receives dividend payments from its various
5 subsidiaries and can do whatever it wants with that capital, including redistributing it to
6 another subsidiary. Paid-in capital at GPC can also be derived from debt capital issued
7 by Southern Company. Mr. Coyne has failed to show that the GPC's paid-in capital
8 portion of its common equity balance was derived from common equity issuances at its
9 parent.

10 Because he does not show that his adjustment is based on GPC's actual and
11 verifiable flotation expenses, there are no means of verifying whether Mr. Coyne's
12 proposal is reasonable or appropriate. Stated differently, Mr. Coyne's flotation cost
13 return on equity adder is not based on known and measurable GPC costs. Therefore, the
14 Commission should reject a flotation cost return on equity adder for GPC.
15

16 **IV.G. Mr. Coyne's Consideration of Additional Risks**

17 **Q. Did Mr. Coyne discuss consideration of additional business risks to justify his**
18 **return on equity?**

19 A. Yes. In addition to GPC's capital expenditure program, Mr. Coyne compared the
20 following factors that affect regulatory risk: (1) test year convention; (2) rate base
21 convention; (3) revenue decoupling; and (4) construction work in progress ("CWIP") in
22 rate base to the proxy group.⁷³ Mr. Coyne concluded that these additional risk factors are
23 comparable to the proxy group and there is no additional return on equity adjustment
24 needed. I would also point out that these additional risks are already incorporated in
25 GPC's credit rating relative to the proxy group companies.
26

27 **Q. Please explain.**

28 A. The major business risks identified by Mr. Coyne are already considered in the assigning
29 of a credit rating by the various credit rating agencies.

⁷³Coyne Direct Testimony at 42-43, Exhibit JMC-9.

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As shown on my Exhibit ___ (MPG-7), the average S&P credit rating for my proxy group of BBB+ is identical to GPC's credit rating from S&P. The relative risks discussed by Mr. Coyne are already incorporated in the credit ratings of the proxy group companies. Indeed, S&P and other credit rating agencies go to great lengths and detail in assessing a utility's business risk and financial risk in order to evaluate total investment risk. This total investment risk assessment of GPC, in comparison to a proxy group, is fully absorbed into the market's perception of GPC's risk. The use of a proxy group fully captures the investment risk of GPC and is, in fact, conservative, given that the proxy group has an identical credit rating to GPC and a significantly lower common equity ratio than GPC.

Q. How does S&P assign corporate credit ratings for regulated utilities?

A. In assigning corporate credit ratings, the credit rating agency considers both business and financial risks. Business risks, among others, include a company's size, competitive position, generation portfolio, and capital expenditure programs, as well as consideration of the regulatory environment, current state of the industry, and the economy as whole. Specifically, S&P states:

To determine the assessment for a corporate issuer's business risk profile, the criteria combine our assessments of industry risk, country risk, and competitive position. Cash flow/leverage analysis determines a company's financial risk profile assessment. The analysis then combines the corporate issuer's business risk profile assessment and its financial risk profile assessment to determine its anchor. In general, the analysis weighs the business risk profile more heavily for investment-grade anchors, while the financial risk profile carries more weight for speculative-grade anchors.⁷⁴

⁷⁴*Standard & Poor's RatingsDirect*[®]: "Criteria/Corporates/General: Corporate Methodology," November 19, 2013.

IV.H. Capital Market Conditions

Q. Did Mr. Coyne also offer an assessment of current capital market conditions in support of his recommended return on equity range?

A. Yes. Mr. Coyne also offered an assessment of the current capital market conditions in support of his recommended return on equity range. He observes a few factors that he believes gauge the current capital market environment and investor sentiment, including the volatility levels as measured by the Chicago Board of Exchange (“CBOE”), Implied Volatility Index (“VIX”), the Federal Reserve’s monetary policy, the inflationary pressure, and the expected interest rate environment.⁷⁵

Q. Do you believe that Mr. Coyne’s use of these market sentiments supports his findings that GPC’s market cost of equity is currently 11.0%?

A. No. In many instances, Mr. Coyne’s analysis simply ignores market sentiments favorable toward utility companies and instead lumps utility investments in with general corporate investments. A fair analysis of utility securities shows the market generally regards utility securities as low-risk investment instruments and supports the finding that utilities’ cost of capital is low in today’s marketplace.

Q. What is the market sentiment for utility investments?

A. Again, the current market sentiment toward utility investments, rather than just general corporate investments, is that the market is placing high value on utility securities, recognizing their low risk and stable characteristics. Total expected returns on utility stock is very heavily weighted by dividend yields and by expected stock price appreciation. The utility industry’s ability to pay dividends has proven to be very stable and predictable and a large portion of the expected return on utility stocks has very low risk and uncertainty. In comparison, the expected returns on non-utility investments place minimal to no weight on dividend yields and are primarily produced by stock price appreciation. Stock price appreciation is far less predictable than stock yields, and thus utility stock investments are considered low investment risk options.

⁷⁵Coyne Direct Testimony at 7-20.

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1 This is illustrated by current utility bond yield spreads as discussed at length
2 previously. The current strong utility bond valuation is an indication of the market's
3 sentiment that utility bonds are lower risk and are generally regarded as defensive stocks.

4 Further, other measures of utility stock valuations also support the conclusion that
5 there is a robust market for utility stocks. As shown on my Exhibit___(MPG-3),
6 financial valuation measures (*e.g.*, P/E ratio and market price to cash flow ratio) show
7 that utility stock valuation measures are robust.

8 For all these reasons, direct assessments of valuation measures and market
9 sentiment toward utility securities support the credit rating agencies' findings, as quoted
10 above, that the utility industry is largely regarded as a low-risk investment.

11
12 **Q. Did Mr. Coyne also opine that market volatility has increased, which has caused an**
13 **increase in cost of equity for GPC and other utility companies?**

14 A. Yes. Mr. Coyne also talks about increased volatility as measured by the CBOE VIX.
15 Mr. Coyne states that the VIX index, which generally tracks broader market equity
16 security values, indicates volatility levels not seen since the Great Recession in
17 2008/2009 in the index.⁷⁶

18
19 **Q. Is the VIX index adequate to support the notion that the market perception of the**
20 **investment risk of GPC or utilities generally is increasing?**

21 A. No. The VIX is a broader-based market index of stock price volatility, and not that of
22 subgroups within the market generally, and certainly not applicable to the utility
23 subsector. Utility securities are generally regarded as low-risk investments, and the
24 market generally flecks to low-risk sectors during periods of broader economic distress.
25 The VIX index may indicate greater risk in the overall market but that does not indicate a
26 similar change in investment risk for lower-risk regulated utility companies.

27 Further, the VIX measures investors' expectations of market volatility over the
28 next 30 days and can change significantly over a short period of time. As Mr. Coyne
29 correctly observes, recently it has declined. These drastic fluctuations of the VIX index

⁷⁶*Id.* at 13.

Public Disclosure Version

1 emphasize the fact that the index should not be used to measure investors' perception of
2 utility operating risk.

3
4 **Q. Do you have any comments concerning Mr. Coyne's contention that relying on**
5 **projected market data is currently very important?**

6 A. Yes. Mr. Coyne develops his CAPM and risk premium studies mainly relying on near-
7 term and long-term projected interest rates. Mr. Coyne's primary reliance on forecasted
8 Treasury bond yields is unreasonable because he is not considering the highly likely
9 outcome that current observable interest rates will prevail during the period in which
10 rates determined in this proceeding will be in effect. This is important because, while
11 current observable interest rates are actual market data that provide a measure of the
12 current cost of capital, the accuracy of forecasted interest rates is highly problematic.

13
14 **Q. Why do you believe that the accuracy of forecasted interest rates is highly**
15 **problematic?**

16 A. Over the last several years, observable current interest rates have been a more accurate
17 predictor of future interest rates than economists' consensus projections.
18 Exhibit___(MPG-23) illustrates this point. Specifically, on Exhibit___(MPG-23), under
19 Columns 1 and 2, I show the actual market yield for Treasury bonds at the time a
20 projection is made, and the corresponding projection for Treasury bond yields two years
21 in the future, respectively.

22 As shown in Columns 1 and 2 of Exhibit___(MPG-23), over the last several
23 years, Treasury yields were projected to increase relative to the actual Treasury yields at
24 the time of the projection. Column 3 shows the time period the projection is made to
25 represent. In Column 4, I show the actual Treasury yield two years after the forecast. In
26 Column 5, I show the actual yield change at the time of the projections relative to the
27 projected yield change.

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1 As shown in Exhibit___(MPG-23), economists have consistently projected that
2 interest rates will increase over the near term. However, as shown in Column 5, those
3 yield projections turned out to be overstated in almost every case. Indeed, actual
4 Treasury yields have decreased or remained flat over the last several years rather than
5 increasing as the economists' projections indicated. As such, current observable interest
6 rates are just as likely to accurately predict future interest rates as are economists'
7 projections.

8
9 **Q. Does this conclude your testimony?**

10 **A. Yes.**