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CHRIS SPROWLS
Speaker of the House of
Representatives

June 21, 2021

Adam J. Teitzman, Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Re: Docket No. 20210015-EI

Dear Mr. Teitzman,

Please find enclosed for filing in the above referenced docket the Direct Testimony and Exhibits of Kevin W. O'Donnell, CFA. This filing is being made via the Florida Public Service Commission's Web Based Electronic Filing portal.

If you have any questions or concerns; please do not hesitate to contact me. Thank you for your assistance in this matter.

Sincerely,

Richard Gentry Public Counsel

/s/Patricia A. Christensen
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Associate Public Counsel

Charles J. Rehwinkel Deputy Public Counsel

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cc: All Parties of Record

CERTIFICATE OF SERVICE Docket No. 20210015-EI

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for Rate Increase by Florida Power & Light Company DOCKET NO.: 20210015-EI

FILED: June 21, 2021

DIRECT TESTIMONY

OF

KEVIN W. O'DONNELL, CFA

ON BEHALF OF THE CITIZENS OF

THE STATE OF FLORIDA

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Exhibits:

Exhibit KWO-1 FPL All-Sources Requested Cap Structure Exhibit KWO-1

Exhibit No. KWO-2 Yield Spread 2011 through 2020

Exhibit KWO-3 Interest Cost Differential

Exhibit KWO-4 O&M Costs per MWHI

I. **INTRODUCTION**

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2	Q.	PLEASE STATE YOUR NAME, POSITION, AND BUSINESS ADDRESS
3		FOR THE RECORD.
4	A.	My name is Kevin W. O'Donnell. I am President of Nova Energy Consultants, Inc.
5		My business address is 1350 SE Maynard Rd., Suite 101, Cary, North Carolina
6		27511.
7		
8	Q.	ON WHOSE BEHALF ARE YOU PRESENTING TESTIMONY IN THIS
9		PROCEEDING?
10	A.	I am testifying on behalf of the Florida Office of Public Counsel ("OPC"). The
11		Florida OPC represents consumers/ratepayers before the Public Service
12		Commission of Florida ("Commission").
13		
14	Q.	PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND
15		RELEVANT EMPLOYMENT EXPERIENCE.
16	A.	I have a Bachelor of Science in Civil Engineering from North Carolina State
17		University and a Master of Business Administration from Florida State University.
18		I earned the designation of Chartered Financial Analyst ("CFA") in 1988. I have
19		worked in utility regulation since September 1984, when I joined the Public Staff
20		of the North Carolina Utilities Commission ("NCUC"). I left the NCUC Public
21		Staff in 1991 and have worked continuously in utility consulting since that time,

first with Booth & Associates, Inc. (until 1994), then as Director of Retail Rates for

the North Carolina Electric Membership Corporation (1994 -1995), and since then in my own consulting firm.

I have provided testimony as a witness on rate of return, cost of capital, capital structure, cost of service, rate design, and other regulatory issues, at one time or another in general rate cases, fuel cost proceedings, and other proceedings before the North Carolina Utilities Commission, the South Carolina Public Service Commission, the Wisconsin Public Service Commission, the Virginia State Commerce Commission, the Minnesota Public Service Commission, the Colorado Public Utilities Commission, the District of Columbia Public Service Commission, and the Florida Public Service Commission. In 1996, I testified before the U.S. House of Representatives' Committee on Commerce, Subcommittee on Energy and Power, concerning competition within the electric utility industry. Additional details regarding my education and work experience are set forth in Appendix A to my testimony.

A.

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

The purpose of my testimony in this proceeding is to present my findings and recommendations on behalf of the Florida OPC as to the proper capital structure and cost of debt to allow Florida Power & Light Company ("FPL", or "the Company") in the current proceeding. I also address some of the mythology surrounding the basis for the low rates that FPL contends separates it from other

utilities and for which it seeks additional, excessive revenue recovery from customers.

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4 Q. WHAT CAPITAL STRUCTURE IS FPL REQUESTING AS PART OF THIS

5 **PROCEEDING?**

A. According to FPL's minimum filing requirement ("MFR") Schedule D-1a, FPL is seeking an investor sourced capital structure of 59.60% for common equity, 38.8% for long-term debt, and 1.6% for short-term debt as set forth in **Table 1** below.

Additionally, FPL is seeking cost rates for each of these capital structure components of 11.50%, 3.61%, and 0.94%, respectively.

 Table 1:
 FPL's Requested Cost of Capital

Component	Capital Structure Ratio (%)		Cost Rate (%)	Weighted Cost Rate (%)
	\mathbf{a}^1	c = a / b	\mathbf{d}^2	= c * d
Long-Term Debt	31.37%	38.93%	3.61%	1.41%
Short-Term Debt	1.18%	1.46%	0.94%	0.01%
Common Equity	48.03%	59.61%	11.50%	6.86%
$\mathbf{R}\mathbf{x}^3$	80.58% ⁴ b	100.00%5		8.28%

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Q. DO YOU AGREE WITH FPL'S CAPITAL STRUCTURE REQUEST?

14 A. No. I disagree with FPL's requested capital structure as supported by Company
15 Witnesses Robert E. Barrett (FPL Vice President of Finance) and James M. Coyne
16 (Concentric Energy Advisors, Inc. Senior Vice President). In this proceeding, FPL
17 is asking the Commission to approve a capital structure that includes an equity ratio

³ Rx refers to a "Recalculation".

¹ FPL Minimum Filing Requirement ("MFR"), Schedule D-1a.

 $^{^{2}}$ Id.

⁴ Represents all sources of capital.

⁵ Represents only investor sources of capital.

of 59.60%. FPL's request in this case puts an unnecessarily costly burden upon the ratepayers of Florida and should not be allowed.

To be specific, FPL's requested capital structure in this case, when compared to a capital structure of 50% common equity – 50% debt, will cost FPL consumers approximately an additional \$511 million per year such that the typical residential customer of FPL pays and will continue to pay approximately an extra \$50 per year. Additionally, FPL's requested capital structure in this case, when compared to a capital structure of 55% common equity – 45% debt, will cost FPL consumers approximately an additional \$245 million per year such that the typical residential customer of FPL pays and will continue to pay approximately an extra \$24 per year. The calculations under each of the scenarios I have outlined above can be found within **Exhibit KWO-1**. Although I believe a 50% common equity ratio to be appropriate in this case, given that FPL has historically had a 59.6% common equity ratio, my recommendation in this case is a 55% common equity ratio in recognition of a more gradual adjustment to the ratio. I have further explained the rationale that has led to my ultimate 55% recommendation below.

Q. PLEASE SUMMARIZE YOUR PRIMARY RECOMMENDATIONS IN THIS CASE.

- 20 A. My recommendations in this case are as follows:
 - FPL's requested capital structure is grossly excessive and improper for use in setting rates in this proceeding.

• My recommended capital structure and cost of debt is shown below within

Table 2 that shows OPC's entire cost of capital recommendation:

 Table 2: Florida OPC Recommended Capital Structure

Component	Weighted Cost (%)	Cost Rate (%)	Weighted Cost
Long-Term Debt	43.37%	3.61%	1.57%
Short-Term Debt	1.63%	0.94%	0.02%
Common Equity	55.00%	$8.75\%^{6}$	4.81%
Total Capitalization	100.00%		6.40%

• FPL's claims regarding low electric rates and low O&M expenses are due to mainly excellent management is misleading given that the Company's generation mix is highly leveraged towards natural gas, which is a significant factor in FPL's low rates and low O&M expenses.

Q. HOW IS YOUR TESTIMONY STRUCTURED?

A. I have outlined my testimony in the following manner. First, I discuss the current state of the financial markets, then the economic and regulatory policy guidelines.

Next, I have included discussion of capital structure, which includes an explanation of the concept of capital structure, FPL's requested capital structure, a comparison between capital structure benchmarks, and then OPC's recommended capital structure and its impact on FPL consumers. I then discuss debt and finally a response to FPL's Witness Barrett.

⁶ Witness Woolridge's Direct Testimony, Exhibit JRW-1.

II. <u>CURRENT STATE OF THE FINANCIAL</u>

2 MARKETS

- Q. PLEASE DESCRIBE THE CORPORATE STRUCTURE OF FLORIDA
 POWER & LIGHT.
- 5 A. FPL is a wholly owned subsidiary of NextEra Energy, Inc ("NextEra").

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7 Q. HOW HAVE THE DEBT AND INTEREST MARKETS CHANGED FOR

8 FPL SINCE THE COMPANY'S LATEST RATE CASE?

A. FPL's last rate case filing was in Docket No. 20160021-EI, on March 15, 2016 and ultimately it was resolved by a settlement which was approved on December 15, 2016.8 In the 2016 case, FPL requested a capital structure comprised of a 59.60% equity / 40.40% long term debt capital structure9 (based on investor sources) and cost rates consisting of 11.00% for equity 10 (before the inclusion of an ROE inflator of 50 basis points) / 4.87% for long term debt. 11 Ultimately, the only cost of capital change that was made from what was originally requested was that the authorized equity cost rate was reflected a 10.55% ROE midpoint per settlement agreement. 12

In **Chart 1** below, I provide the change in the 30-year US Treasury bonds since the most recent previous FPL rate case (*i.e.*, November 29, 2016 – June 11,

⁷ Witness Coyne's Direct Testimony, page 3: line 16.

⁸ Order No. PSC-2016-0560-AS-EI, issued December 15, 2016, in Dockets Nos. 2016-0021-EI, 20160061-EI, 20160062-EI, 20160088-EI. In re: Petition for rate increase by Florida Power & Light Company, In re: Petition for approval of 2016-2018 storm hardening plan, by Florida Power & Light Company, In re: 2016 depreciation and dismantlement study by Florida Power & Light Company, In re: Petition for limited proceeding to modify and continue incentive mechanism, by Florida Power & Light Company (2016 Settlement Order).

⁹ Witness Hevert's Direct Testimony, page 65: lines 17 – 18 for Docket No. 20160021-EL.

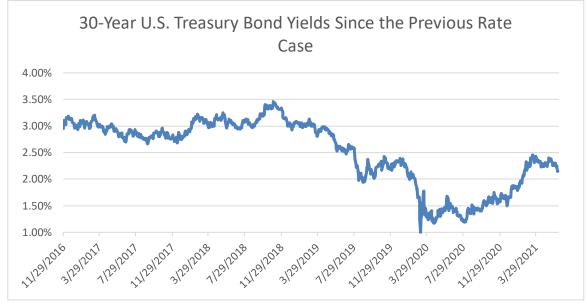
¹⁰ Witness Hevert's Direct Testimony, page 69: line 8 for Docket No. 20160021-EL.

¹¹ FPL MFR Schedule D-1a for Docket No. 20160021-EI.

¹² 2016 Settlement Order.

2021). The maximum value for the 30-Year US Treasury Bonds over this period was 3.46%, the average value was 2.51%, and the minimum value was 0.99%. Refer to Chart 1 below for further details on the yield on 30-year US Treasury Bonds subsequent to the previous rate case.

Yield on 30-Year US Treasury Bonds Chart 1:



Treasury.gov: Date Accessed June 14, 2021. 13 Source:

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HOW HAS THE FEDERAL RESERVE CHANGED THE FEDERAL 8 Q. 9 FUNDS RATE DURING THE LAST 18 MONTHS?

A. On March 3, 2020, the Federal Reserve decreased the Federal Funds rates 50-basis points to a targeted range of between 1.00% and 1.25% in response to recent market conditions. ¹⁴ Subsequently, on March 15, 2020 in response to the COVID-19 12

¹³https://www.treasury.gov/resource-center/data-chart-center/interestrates/Pages/TextView.aspx?data=yield

¹⁴ https://www.cnbc.com/2020/03/03/heres-what-this-surprise-fed-rate-cut-means-for-you.html

outbreak and the disruptions to economic activity in this country across the globe, the Federal Reserve reduced the Federal Funds rate to 0.25%. 15

The sharp decline in the Federal Funds Rate that occurred during March 2020 was the result of the Federal Reserve's reaction to the COVID-19 pandemic. In this circumstance, due to the drastic shift in the country's economic outlook, many individuals were looking for relative safe harbors for which to invest their money with the turbulence felt in the stock markets. Accordingly, prices for bonds were bid up, and the long-term yields and interest rates also decreased as exhibited above in **Chart 1**.

A.

Q. DOES THIS MEAN THAT THE COST OF CAPITAL HAS DECREASED FOR COMPANIES LIKE FPL?

Yes. The Federal Funds Rate represents the interest rate at which commercial banks borrow and lend their short-term reserves to one another on an overnight basis. The decrease in the Federal Funds Rate over the last 18-months contributed to the sharp decline as seen within the yield on 30-year US Treasury rates over the previous 1-2 years. However, as shown in **Chart 1** above, after the 30-year US Treasury rate declined precipitously through the early onset of the COVID-19 pandemic, the economy began to improve significantly throughout the first half of 2021, and the overall 30-year US Treasury Bond Yields also increased back up over 2.00%.

¹⁵ See Commission of Governors of the Federal Reserve System, Federal Reserve Issues FOMC Statement (Mar. 15, 2020), available at:

However, even though the 30-year US Treasury Bond Yields have increased during 2021, the average yield value over the period subsequent to the settlement of the Company's 2016 rate case (*i.e.*, November 29, 2016 through June 11, 2021) was 2.51%, which is still lower than the 2.95% yield at the conclusion of the Company's previous rate proceeding (*i.e.*, at November 29, 2016). Additionally, this yield as of June 11, 2021 was 2.15%. These data points indicate that the Company's cost of capital in relation to its ability to access debt markets has still been lower on average than that at the conclusion of its most recent previous rate case proceeding.

Q. IS THE COMPANY'S RISK GREATER THAN THAT OF OTHER COMPARABLE COMPANIES WHICH WOULD NECESSITATE A CAPITAL STRUCTURE AT THE CURRENT LEVEL?

14 A. No, it is not. Within his testimony, Mr. Coyne noted the following:

Sufficient equity in the capital structure is an important factor for maintaining FPL's financial integrity and investment grade credit rating.... This capital structure represents management's decisions on how best to finance its operations. The Company's proposed equity ratio is reasonable, given the additional risk borne by FPL relative to the proxy group—i.e., the Company's projected capital expenditure requirements, risk associated with ownership of regulated nuclear generation assets, and storm-related risks. ¹⁶

As noted above, Mr. Coyne referenced FPL's projected capital expenditure requirements, risk associated with ownership of regulated nuclear generation assets, and storm-related risks, in comparison to the risks associated with the companies included within his proxy group as part of the reason why he believes

 $^{^{16}}$ Witness Coyne Direct Testimony, page 85: lines 17-23, and page 86: lines 1-4.

1		that the proposed equity ratio of 59.60% is reasonable. However, he does little to
2		expand upon why these attributes of FPL, when compared to the companies within
3		his proxy group, would support FPL's comparatively heightened equity ratio within
4		its capital structure.
5		
6	Q.	HOW HAVE THE CAPITAL MARKETS FOR UTILITIES CHANGED AS
7		A RESULT OF THE COVID-19 PANDEMIC?
8	A.	On April 2, 2020, S&P Global Intelligence published an article entitled "US utilities
9		demonstrate access to capital with billions in debt offerings." This article described
10		how utilities tapped into current credit markets to obtain low-cost debt during
11		periods of financial turbulence as noted in the excerpt below:
12 13 14 15 16		Several utilities, including Xcel Energy and NextEra Energy Inc. subsidiary Florida Power & Light Co., which issued \$1.1 billion in first mortgage bonds, are "using the opportunity to take advantage of attractive borrowing costs, so there does not appear to be an inability to access capital," they said.
17 18 19 20 21 22 23 24		"Utilities are reporting that recent deals have been significantly (7x) oversubscribed, highlighting that the capital markets are open for investment grade-rated utilities," the analysts wrote. "At the same time, we have also observed some utility companies that have fully drawn their bank lines as a precaution to provide them with liquidity in the event that markets seize up," such as Duke Energy Corp. and American Electric Power Co. Inc." 17
2526		Additionally, in the midst of the early stages of the COVID-19 pandemic
27		on April 29, 2020, S&P Global Market Intelligence published an article entitled

28

"Utility sector 'far and away' least impacted by EPS estimate cuts." 18 Note that this

https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/usutilities-demonstrate-access-to-capital-with-billions-in-debt-offerings-57881534

https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/utility-

sector-far-and-away-least-impacted-by-eps-estimate-cuts-58358458.

1	article was published April 29, 2020, when markets were at their most volatile early
2	on during the COVID-19 pandemic. The article provided the following
3	observation:
4	The S&P 500 utility sector has "far and away" experienced the least
5	impact from earnings revisions since Feb. 28, the corporate bond
6	research firm found. Despite market turmoil and the ongoing
7	economic downturn, analysts have only cut earnings per share
8	expectations for stocks in the utility sector by an average 1% for
9	2020 and 2021, according to CreditSights.
10	
11	By comparison, consumer staples, the next least-impacted sector,
12	saw an average 5% decrease to EPS estimates for both years.
13	Technology followed with a 9% estimate cut for 2020 and 2021.
14	
15	CreditSights pulled the data to measure the consensus view that
16	utilities provide a safe harbor to investors. "Water is wet, the sun
17	will rise in the east and U.S. utilities are a defensive sector, but how
18	defensive? Very defensive," CreditSights analysts Andrew DeVries
19	and Nick Moglia wrote in an April 29 research note. 19
20	and then the gam where in the repair 20 recommendation
21	The above referenced article noted the ability of utilities to continue to operate
22	under the COVID-19 conditions impacting the debt and equity markets. This
23	allowed many utilities to perform strongly even in the face of the COVID-19
24	pandemic as referenced in the December 9, 2020 article from S&P Global
25	Intelligence, entitled "Resilient Utilities Post Notable EPS Gains, Solid ROEs
26	Despite COVID-19 Pandemic." Within this article, the following selection was
27	included:
28	Despite the significant challenges caused by an economy that
29	continued to be negatively impacted by COVID-19, utilities overall
30	posted solid earnings growth and earned returns on equity during the

31

32 33 third quarter, illustrating the tenet that utility finances hold up

comparatively well in challenging economic environments.²⁰

¹⁹ Id

²⁰https://platform.marketintelligence.spglobal.com/web/client?auth=inherit#news/articleabstract?i d=61646964

As stated within the articles referenced above, although the utility sector was impacted by the COVID-19 pandemic just like the rest of the economy, utilities were much more resilient during this period than companies across other industries. The resilient performance of utilities, as well as their ability to continue to tap into debt markets, supported that the fact that utilities were still able to access a variety of capital markets throughout 2020, which continued into the 2021 after the capital market resurgence.

A.

Q. HOW ARE INTEREST RATES EXPECTED TO CHANGE OVER THE NEXT FEW YEARS?

On March 15, 2020 in response to the COVID-19 outbreak, and the disruptions to economic activity in this country across the globe, the Federal Reserve reduced the Federal Funds rate to 0.25%. ²¹ The Federal Reserve has since stated that they do not expect to change the Federal Funds Rate at any time in the foreseeable future. Chairman Powell reinforced this view when in January 2021 he said "[w]hen the time comes to raise interest rates, we'll certainly do that, and that time, by the way, is no time soon." ²²

Subsequently, after statements made by Chairman Powell in March 2021, the Federal Reserve explained that although they had sped up their overall

²¹ See Commission of Governors of the Federal Reserve System, Federal Reserve Issues FOMC Statement (Mar. 15, 2020), available at:

https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a.htm

https://www.cnbc.com/2021/01/14/powell-sees-no-interest-rate-hikes-on-the-horizon-as-long-as-inflation-stays-low.html

expectation for economic growth, they continued to reinforce that they did not see
any interest rate hikes likely through 2023. ²³

While changes within the market have raised certain interest rate benchmarks during the second half of 2020 and into 2021, these interest rates remain low in relation to historical interest rates. This lower interest rate environment has continued to provide a benefit to utilities from a borrowing perspective.

 $^{^{23}\ \}underline{https://www.cnbc.com/2021/03/17/fed-decision-march-2021-fed-sees-stronger-economy-higher-inflation-but-no-rate-hikes.html}$

III. ECONOMIC AND REGULATORY POLICY

GUIDELINES

A.

Q. PLEASE BRIEFLY DESCRIBE THE ECONOMIC AND REGULATORY POLICY CONSIDERATIONS YOU HAVE TAKEN INTO ACCOUNT IN DEVELOPING YOUR RECOMMENDATION.

The theory of utility regulation assumes that public utilities perform functions that are natural monopolies. Historically, it was believed or assumed that it was more efficient for a single firm to provide a particular utility service rather than multiple firms. Within the electric industry, the transmission and distribution of electricity to utilities' end-use customers is still a monopolistic business and will be regulated for the foreseeable future. On this basis, state legislatures and state utility commissions/boards established or have recognized exclusive franchise service areas for public utilities in order for these utilities to provide services more efficiently and at the lowest reasonable cost. In exchange for the protection within its monopoly service area, the utility is obligated to provide service that is adequate and non-discriminatory at fair, just and reasonable rates.

This trade-off logically leads to the question — what constitutes a fair, just and reasonable rate? The generally accepted answer is that a prudently managed utility should be allowed to charge prices that allow the utility the opportunity to recover the reasonable and prudent costs of providing utility service and the opportunity to earn a fair, just and reasonable rate of return on invested capital. The fair, just and reasonable rate of return on capital should allow the utility, under prudent management, to provide adequate service and attract capital to meet future

expansion needs in its service area. Since public utilities are capital-intensive businesses, the cost of capital (which is inclusive of capital structure) is a crucial issue for utility companies, their customers, and regulators.

If any of the inputs the cost of capital (including capital structure) are set too high, then consumers are burdened with excessive costs, current investors receive a windfall, and the utility has an incentive to overinvest. If any of these inputs are set too low, then adequate service is jeopardized because the utility will not be able to raise capital on reasonable terms. As such, regulators are tasked with balancing the related interests of the affected parties (*i.e.*, the utility's equity investors, the utility itself, and the utility's customers at the varying residential, commercial, and industrial levels). This balancing act results in what regulators, analysts, and courts often refer to as setting the inputs to the cost of capital within a "zone of reasonableness." Since every equity investor faces a risk-return tradeoff, the issue of risk is an important element in determining the proper inputs to the cost of capital for a utility.

As I referenced above, FPL filed this rate case in March 2021, a time during which the country remained within a pandemic the likes of which have not been seen in this country for over a century, with employment numbers depressed from their averages for approximately one calendar year. Accordingly, what a utility may have initially deemed as fair, just and reasonable cost of capital inputs in 2020 or during prior years may simply be construed as unreasonable today given the current economic climate absent any of the other particulars of their request.

Q. PLEASE EXPLAIN THE SIGNIFICANCE OF THE SUPREME COURT'S HOPE AND BLUEFIELD DECISIONS.

Regulatory law and policy recognize that utilities compete with other firms in the market for investor capital. The United States Supreme Court set the guidelines for a fair, just, and reasonable rate of return in two often-cited cases: *Bluefield Water Works and Improvement Co. v. Public Service Comm'n.* 262 U.S. 679 (1923); and the *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

In the *Bluefield* case, the U.S. Supreme Court stated:

A public utility is entitled to such rates as will permit it to earn a return upon the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding, risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. 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. (*Id.* at pp. 692-693)

A.

In the above finding, the Court found that utilities are entitled to earn a return on investments of comparable risks and that a corresponding return should be sufficient enough to support credit activities and to raise funds to carry out its mission.

In Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591 (1944), the U.S. Supreme Court recognized that utilities compete with other firms in the market for investor capital. Historically, this case has provided legal and policy guidance concerning the return which public utilities should be allowed

to earn. In *Hope Natural Gas*, the U.S. Supreme Court stated that the return to equity owners (or shareholders) of a regulated public utility should be commensurate to returns on investments in other enterprises whose risks correspond to those of the utility being examined:

... the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain credit and attract capital. (*Id.* at p. 603)

A.

Q. PLEASE EXPLAIN THE RELEVANCE OF THE SUPREME COURT'S HOPE AND BLUEFIELD DECISIONS WITHIN THE CURRENT PROCEEDING.

As this Commission is aware, every equity investor faces a risk-return tradeoff. The more risk the investor assumes, the higher return that the investor demands. The risks that a regulated utility incurs can be stated as a financial risk and/or a business risk. As the amount of debt relative to equity capital increases, the amount of money necessary to pay the interest on debt increases, and financial risk increases. Similarly, as the amount of debt relative to equity capital decreases, financial risk decreases. Thus, as the utility assumes more debt or less debt, the risk of repayment of the debt increases or decreases accordingly.

Business risk is a measure of a company's ability to operate at a profit within its industry. Given that FPL operates in a monopoly industry with no retail competition, its business risk is relatively small.

One of the responsibilities of the utility is to employ prudent and reasonable levels of debt and equity. Utility finance personnel will often attempt to employ

different levels of debt and equity in the Company's capital structure to maximize the return allowed by state regulators. The related risk of the regulator is to assess these levels of debt and equity presented in general rate case proceedings to determine if the levels reflect the actual, corresponding financial and business risks to the utility. Further, the regulator should review the utility's capital structure and adjust the requested levels of equity and debt as necessary for rate making purposes to prevent customers from paying rates that are unreasonably high resulting in excessive compensation to shareholders for the services rendered. Moreover, the relative amounts of equity and debt in the total capital raised by the utility directly impacts the risk perceived by investors, and thus it is critical to ensure that allowed rate of return is commensurate with that risk.

IV. PROXY GROUP

A.

2 Q. PLEASE DESCRIBE THE PROXY GROUP USED WITHIN YOUR 3 TESTIMONY FOR ESTIMATING FPL'S CAPITAL STRUCTURE.

On Page 42 of Mr. Coyne's direct testimony, Witness Coyne indicated that he began his proxy group selection process with the 36 electric utilities followed by *Value Line*. Witness Coyne then proceeded to outline 8 selection criteria used to screen his proxy group. This screening process resulted in Witness Coyne's proxy group being comprised of the 14 different utilities shown in **Figure 10** to his direct testimony and within **Exhibit JMC-3**.

OPC Witness Randall Woolridge has made an independent determination of an appropriate proxy group. As such, throughout this testimony I have presented results using, (1) the "OPC Proxy Group" as determined by fellow OPC Witness, Randall Woolridge, and (2) Mr. Coyne's proxy group for FPL as referenced above. As shown within Dr. Woolridge's **Exhibit JRW-3**, Dr. Woolridge has employed a proxy group within this rate case proceeding comprised of 27 different utilities based on the end result of the utility screening process outlined within his testimony.

V. <u>CAPITAL STRUCTURE</u>

A.

A. Explanation of Capital Structure

Q. WHAT IS A CAPITAL STRUCTURE AND HOW DOES IT IMPACT THE

REVENUES THAT FPL IS SEEKING?

The term "capital structure" refers to the relative percentage of debt, equity, and other financial components that are used to finance a company's investments. A company's capital structure typically includes some combination of three principal financing methods.

The <u>first</u> method is to finance an investment with common equity, which essentially represents ownership in a company and its investments. Common equity is comprised of all investments from investors, including common stock, retained earnings, and additional paid in capital. Returns on common equity, which in part take the form of dividends to stockholders, are not tax deductible which, on a pretax basis alone, makes this form of financing about 21% more expensive than debt financing.

The <u>second</u> form of corporate financing is preferred stock, which is normally used to a much smaller degree in capital structures. Dividend payments associated with preferred stock are not tax deductible. FPL does not have any preferred stock in its capital structure.

Debt is the <u>third</u> major form of financing used in the corporate world. There are two basic types of corporate debt: long-term and short-term. Long-term debt is generally understood to be debt that matures in a period of more than one year. Short-term debt is debt that matures in a year or less. Long-term debt and short-

term debt, both of which are "above the line" costs for tax deduction and ratemaking purposes, represent liabilities on the company's books that must be repaid prior to any common stockholders or preferred stockholders receiving a return on their investment.

A.

Q. HOW IS A UTILITY'S TOTAL RETURN CALCULATED?

A utility's total return is developed by multiplying the component percentages of its capital structure, represented by the percentage ratios of the various forms of capital financing relative to the total financing on the company's books, by the cost rates associated with each form of capital and then totaling the results over all of the capital components. When these percentage ratios are applied to various cost rates, a total after-tax required rate of return is developed. Because the utility must pay dividends associated with common equity and preferred stock with after-tax funds, the post-tax returns are then converted to pre-tax required returns by grossing up the common equity and preferred stock dividends to reflect the related tax costs. The final pre-tax required return is then multiplied by the company's rate base in order to develop the amount of money that customers must pay to the utility for return on investment and tax payments associated with that investment.

A.

Q. HOW DOES CAPITAL STRUCTURE IMPACT THIS CALCULATION?

Costs to consumers are greater when the utility finances a higher proportion of its rate base investment with common equity and preferred stock as opposed to long-term debt. However, long-term debt, which is first in line for repayment, imposes a

contractual obligation to make fixed payments on a pre-established schedule, as opposed to common equity where no similar obligations exist.

A.

4 Q. WHY SHOULD THE COMMISSION BE CONCERNED ABOUT HOW 5 THE COMPANY FINANCES ITS RATE BASE INVESTMENT?

There are two reasons that the Commission should be concerned about how FPL finances its rate base investment. First, FPL's cost of common equity is higher than the cost of long-term debt, meaning that a relatively higher equity percentage translates into higher costs to FPL's customers without any corresponding improvement in quality of service. Long-term debt is a financial promise made by a company and is carried as a liability on a company's books. Common stock is ownership in the company. Due to the contingent nature of an equity investment, common stockholders require higher rates of return to compensate them for the extra risk involved in owning part of the company versus having a more senior claim against the company's assets.

The second reason the Commission should be concerned about FPL's capital structure is due to the tax treatment of debt versus common equity. Public corporations, such as NextEra (*i.e.*, the parent company of FPL), can deduct payments associated with debt financing. Corporations are not, however, allowed to deduct common stock dividend payments for tax purposes. All dividend payments must be made with after-tax funds, which are more expensive than pretax funds. The regulatory process allows utilities to recover reasonable and prudent expenses, including taxes, within their rates.

Accordingly, if a utility is allowed to use a capital structure for ratemaking purposes that is top-heavy in common stock, customers will be forced to cover the higher income tax burden, which can result in unjust, unreasonable, and unnecessarily high rates. Setting rates through the use of a capital structure that is weighted too heavily in common equity violates the fundamental principles of utility regulation that rates must be just and reasonable and only high enough to support the utility's provision of safe, adequate, and reliable service at a fair price.

A.

Q. HOW DOES A UTILITY'S SELECTION OF EQUITY VERSUS DEBT IMPACT RATEPAYERS?

Entities in more competitive markets have a profit motive that provides an incentive for such entities to select the most efficient capitalization ratio. However, utilities operating in monopoly, rate-regulated service territories have an incentive to maximize the amount of common equity in their capital structure, to increase revenues and, correspondingly, the utility's profit. Rate-regulated utilities should only be allowed to recover in rates a revenue requirement derived from a capitalization ratio that allows the utility to provide reliable service at the least cost. Therefore, finding the right balance between debt and equity is critical.

If a utility issues more common equity and less debt for a certain project, the rates could potentially be set at an unbalanced debt to equity level. This could result in the ratepayer paying higher rates to support a capital structure that is neither prudent nor reasonable to support the company's current credit rating or the company's adequate access to the capital markets. It is also important to recognize

how rate levels affect economic development. The reality in today's economy is that economic development opportunities for large loads occur in places where costs are lower. A utility with unduly high rates will, all else being equal, cause its service territory to lose out on economic development opportunities.

If, on the other hand, the utility incurs too much debt, the utility's capitalization ratios present excess financial risk to the capital markets, thereby driving up the costs required by the equity markets to compensate for the added risk. In this case, the consumer would also suffer harm because the cost it must pay the utility for accessing the capital markets is higher than it would pay using a less debt-leveraged capital structure.

One role of regulation is to balance the needs of the capital markets, including utility stockholders, with the needs of ratepayers. Either too much equity or too much debt can harm both the stockholders of the corporation, as well as the consuming public.

A.

Q. PLEASE EXPLAIN HOW ONGOING CONSTRUCTION NEEDS ARE IMPACTING UTILITIES AND THEIR CUSTOMERS?

As referenced above, utilities finance construction with three primary sources of capital: retained earnings; common equity issuances; and long-term debt issuances. In an ideal situation, using retained earnings would generally be the most preferred method to finance construction for a utility because using funds from ongoing operations does not dilute common equity, as would an equity issuance, nor does it add debt leverage to the utility's balance sheet. However, in most cases, financing

a large asset with only retained earnings may not be possible due to the sheer size of the plant investment. As a result, utilities undergoing large construction projects often utilize a combination of common equity or long-term debt to finance these projects. Therefore, selecting the proper ratio of equity to debt is important.

Entities in unregulated, competitive markets have a profit motive that provides an incentive for such entities to select the most efficient capitalization ratio. However, franchised electric utilities operating in a regulated, noncompetitive market have an incentive to maximize the amount of common equity in their capital structure so as to increase rates and, correspondingly, the utility's profit. Franchised electric utilities should only be allowed to recover in rates a revenue requirement derived from a capitalization ratio that allows the utility to provide reliable service at the least cost. Thus, finding the right balance between debt and equity is critical, especially if the franchised electric utility is a subsidiary of a larger holding company.

A.

Q. PLEASE EXPLAIN THE RAMIFICATIONS OF RATES BEING SET AT AN UNBALANCED DEBT/EQUITY LEVEL.

If a utility issues too much common equity and not enough debt for a certain project, the customer pays higher rates to support a capital structure that is neither prudent nor reasonable. It is also important to recognize how utility rate levels affect economic development. A utility with high rates will, all else being equal, cause its service territory to lose out on economic development opportunities.

If, on the other hand, the utility incurs too much debt, the utility's capitalization ratio presents excess financial risk to the capital markets, thereby driving up the costs required by the markets to compensate them for the added risk. In this case, the customer would also lose since the cost it must pay the utility for accessing the capital markets is higher than it would pay using a less debt-leveraged capital structure.

One role of regulation is to balance the needs of the capital markets, including utility stockholders, with the needs of ratepayers. Too much equity or too much debt can harm both the stockholders of the corporation, as well as the consuming public. As such, a careful and thoughtful evaluation of the risks and related costs of various potential capitalization ratios is critical.

B. FPL's Requested Capital Structure

14 Q. HAVE YOU REVIEWED THE CAPITAL STRUCTURE REQUESTED BY 15 THE COMPANY IN THIS PROCEEDING?

16 A. Yes, I have.

Q. WHAT CAPITAL STRUCTURE IS THE COMPANY PROPOSING IN

19 THIS CASE?

20 A. FPL has proposed the following capital structure:

Table 3: FPL Requested Capital Structure and Cost Rates (All Capital Sources)²⁴

Source of Capital	Ratio	Cost Rate
Long-Term Debt	31.37%	3.61%
Preferred Stock	0.00%	0.00%

²⁴ FPL MFR, Schedule D-1a (without RSAM).

Customer Deposits	0.82%	2.03%
Short-Term Debt	1.18%	0.94%
Deferred Income Taxes	10.63%	0.00%
FAS 109 Deferred Income Tax	6.08%	0.00%
Investment Tax Credits	1.89%	8.38%
Common Equity	48.03%	11.50%
Total	100.00%	

1

However, note that the capital structure includes all sources of capital for use by 2

FPL to finance rate base operations. When investor-only sources of capital are 3

included, the above capital structure translates into the following: 4

FPL's Requested Cost of Capital (Investor-Only Sources) Table 4:

Component	Capital Struct	ure Ratio (%)	Cost Rate (%)	Weighted Cost Rate (%)
	a ²⁵	c = a / b	\mathbf{d}^{26}	= c * d
Long-Term Debt	31.37%	38.93%	3.61%	1.41%
Short-Term Debt	1.18%	1.46%	0.94%	0.01%
Common Equity	48.03%	59.61%	11.50%	6.85%
Total Rx	$80.89\%^{27}$ b	$100.00\%^{28}$		8.27%

7

8

14

Q. DO YOU BELIEVE THAT REVENUE REQUIREMENTS IN THIS CASE

SHOULD BE SET USING A 59.60% COMMON EQUITY RATIO? 9

- 10 A. No. I believe that FPL's requested equity ratio is excessively high and should not 11 be approved by the Commission for the following reasons:
- 1. The requested equity ratio of 59.60% is out-of-line when compared to the 12 other electric utilities within: 13
 - OPC's proxy group; a.
- Mr. Coyne's proxy group and utility operating company comparison 15 b. group for FPL; 16

²⁵ *Id*.

²⁷ Represents all sources of capital.

²⁸ Represents only investor sources of capital.

- c. Allowed equity ratios from state regulators around the United States;
- d. Non-regulated subsidiaries of NextEra Energy (FPL's parent company);
- 3 and
- e. NextEra Energy itself.
- 5 C. Capital Structure Comparison
- 6 Q. WHAT IS THE AVERAGE COMMON EQUITY RATIO OF THE
- 7 **COMPANIES IN OPC'S PROXY GROUP?**
- 8 A. Table 5 below shows the average common equity ratio (investor sources only) of
- 9 each utility in OPC's electric comparable company proxy group as sourced from
- 10 Value Line.

	2019	2020	2021E*	2022E*	2024E* - 2026E*
Company	Ratio	Ratio	Ratio	Ratio	Ratio
Amer Elec Power	43.90%	41.50%	41.00%	41.50%	40.00%
ALLETE	61.40%	59.00%	58.00%	59.00%	57.00%
Alliant Energy	48.50%	45.70%	46.00%	46.00%	46.00%
Ameren Corp	47.10%	44.30%	45.50%	46.00%	49.00%
Avista Corp	50.60%	49.60%	52.50%	49.50%	50.50%
CMS Energy Corp	29.40%	28.60%	30.00%	32.00%	33.00%
Consol Edison	49.30%	48.00%	47.50%	48.50%	49.00%
Dominion Energy	45.00%	39.50%	39.00%	41.50%	41.00%
Duke Energy	44.10%	44.40%	44.00%	44.00%	43.50%
Edison Int'l	39.90%	39.50%	37.50%	37.00%	36.00%
Entergy Corp	37.10%	33.70%	34.00%	35.00%	35.50%
Evergy Inc.	49.40%	48.70%	49.00%	48.50%	48.50%
Eversource Energy	46.60%	47.10%	46.50%	46.00%	44.50%
Hawaiian Elec	54.60%	52.70%	55.00%	53.50%	52.50%
IDACORP Inc	58.70%	56.10%	55.50%	55.50%	51.00%
MGE Energy Inc	62.00%	64.50%	64.50%	63.50%	61.00%
NextEra Energy	49.60%	46.50%	46.50%	46.50%	47.00%
NorthWestern Corp	47.50%	47.20%	47.50%	50.00%	50.50%
OGE Energy	56.40%	51.00%	51.50%	51.50%	51.00%
Otter Tail Corp	53.10%	58.20%	55.50%	53.50%	59.50%
Pinnacle West Capital	52.90%	47.20%	44.50%	45.00%	42.00%
Portland General	48.70%	46.40%	46.50%	46.50%	47.50%
PPL Corp	38.50%	38.30%	39.50%	41.50%	41.50%
Sempra Energy	43.40%	44.80%	49.50%	49.00%	49.00%
Southern Co	39.50%	38.10%	38.00%	39.00%	39.00%
WEC Energy Group	47.40%	47.10%	45.00%	45.50%	47.00%
Xcel Energy	43.20%	42.60%	42.00%	42.50%	42.00%
AVERAGE	47.70%	46.31%	46.35%	46.57%	46.44%

As can be seen in the table above, the average common equity ratio for OPC's proxy group in 2019 was 47.70%, their average common equity ratio in 2020 was 46.31%, their average expected common equity ratio for 2021 is 46.35%, their average expected common equity ratio for 2022 is 46.57%, and their average expected common equity ratio from 2024 - 2026 is 46.44%, with each of these data points

²⁹ The Value Line Investment Survey: 3/12/2021 (Electric Utilities Central), 4/23/2021 (Electric Utilities West), 5/14/2021 (Electric Utilities East).

for the proxy group being *Value Line*. Notably, each of these group-average metrics is well below the Company's requested equity ratio in this case of 59.60%.

3

4 Q. WHAT IS THE AVERAGE COMMON EQUITY RATIO OF THE 5 COMPANIES IN WITNESS COYNE'S PROXY GROUP?

6 A. **Table 6** below shows the average common equity ratio of each utility in Witness

Coyne's electric comparable company proxy group as sourced from *Value Line*.

8

Table 6: Mr. Coyne's Proxy Group's Equity Ratios³⁰

	2019	2020	2021E*	2022E*	2023E* - 2025E*
Company	Ratio	Ratio	Ratio	Ratio	Ratio
Amer Elec Power	43.90%	41.50%	41.00%	41.50%	40.00%
ALLETE	61.40%	59.00%	58.00%	59.00%	57.00%
Alliant Energy	48.50%	45.70%	46.00%	46.00%	46.00%
Ameren Corp	47.10%	44.30%	45.50%	46.00%	49.00%
Duke Energy	44.10%	44.40%	44.00%	44.00%	43.50%
Edison Int'l	39.90%	39.50%	37.50%	37.00%	36.00%
Entergy Corp	37.10%	33.70%	34.00%	35.00%	35.50%
Evergy Inc.	49.40%	48.70%	49.00%	48.50%	48.50%
Hawaiian Elec	54.60%	52.70%	55.00%	53.50%	52.50%
IDACORP Inc	58.70%	56.10%	55.50%	55.50%	51.00%
OGE Energy	56.40%	51.00%	51.50%	51.50%	51.00%
Pinnacle West Capital	52.90%	47.20%	44.50%	45.00%	42.00%
Portland General	48.70%	46.40%	46.50%	46.50%	47.50%
Xcel Energy	43.20%	42.60%	42.00%	42.50%	42.00%
AVERAGE	48.99%	46.63%	46.43%	46.54%	45.82%

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As can be seen in the table above, the average common equity ratio for Mr. Coyne's proxy group in 2019 was 48.99%, their average common equity ratio in 2020 was 46.63%, their average expected common equity ratio for 2021 is 46.43%, their average expected common equity ratio for 2022 is 46.54%, and their average expected common equity ratio from 2023 – 2025 is 45.82%, with each of these

³⁰ The Value Line Investment Survey: 3/12/2021 (Electric Utilities Central), 4/23/2021 (Electric Utilities West), 5/14/2021 (Electric Utilities East).

proxy group data points provided by *Value Line*. Each of these group-average metrics is also well below the Company's requested equity ratio in this case of 59.60%.

A.

5 Q. WHAT IS YOUR REASONING BEHIND UTILIZING BOTH 6 HISTORICAL AND PROJECTED COMMON EQUITY RATIOS TO 7 SUPPORT YOUR RECOMMENDATION?

Mr. Coyne utilized historical common equity ratios for both his comparable company proxy group and a group of utility operating companies, for the eight quarters ended Q3 2020 as shown in Mr. Coyne's **Exhibit JMC-11**. However, in **Table 5** and **Table 6** above, I presented both historical and forecasted common equity ratios for both OPC's proxy group and Mr. Coyne's own proxy group that includes data that would support my recommendation of a 55% common equity ratio.

I have long maintained that the most accurate projection of future common equity ratios are the current common equity ratios, which is why I included the actual common equity ratios for 2019 and 2020 within **Table 5** and **Table 6**. In my view, most projections tend to set common equity at too high a value given the inherent subjectivity and erratic nature of where common equity ratios may actually fall out in future years, especially in a period as far into the future as a 2023 – 2025 (which is presented in Mr. Coyne's testimony) or a 2024 – 2026 projection (which is presented herein). This is additionally relevant given the current economic

climate where the COVID-19 pandemic has increased the uncertainty associated with projected future common equity ratios.

However, I have also included various projected common equity ratios for the numerous periods provided by *Value Line* as shown in these tables above. Additionally, in discussion below, I have included the national averages for allowed common equity ratios for electric utilities over the previous 15-year period. I have provided each of these various data points simply to show that regardless of whichever metric one uses, the 59.60% equity ratio requested by the Company in this rate case proceeding is not reasonable.

Q. DOES THE INFORMATION PROVIDED BY WITNESS COYNE IN HIS DIRECT TESTIMONY SUPPORT THE EQUITY RATIO OF 59.60% REQUESTED BY THE COMPANY FOR ITS CAPITAL STRUCTURE?

A. No, this information does not support the Company's request of 59.60%. Within Mr. Coyne's direct testimony he made the following assertion:

I calculated the weighted average capital structures for each of the proxy group operating companies on a quarterly basis for the eight quarters through Q3 2020. Exhibit JMC-11 shows that the Company's proposed common equity ratio of approximately 59.6 percent on a financial basis (48.04 percent on a regulatory basis in the Test Year) is the upper end of the range of actual common equity ratios of 46.91 percent to 58.95 percent for the operating companies held by the proxy group over this period.³¹

I note that I sourced the actual and projected common equity ratios for OPC's proxy group and Mr. Coyne's proxy group included in **Table 5** and **Table 6** above from *Value Line*. Whereas the actual common equity ratio results for the eight quarters

 $^{^{31}}$ Witness Coyne's Direct Testimony, page 85: lines 4-10.

ended Q3 2020 found in Mr. Coyne's **Exhibit JMC-11** for his proxy group and his group of utility operating companies have been sourced from *SNL Financial / S&P Global*.

From a quantitative perspective, Mr. Coyne determined that the Company's equity ratio request of 59.60% was reasonable simply based on a comparison of this value to the average actual common equity ratio results for his 14-company comparable proxy group for the eight quarters ended Q3 2020 as shown Mr. Coyne's **Exhibit JMC-11**. As noted within the selection above from Mr. Coyne's direct testimony, the range of the common equity ratios included within his proxy group for the eight quarters ended Q3 2020 was 46.91% – 58.95%. In reference to this range, Mr. Coyne claimed that the Company's recommendation of 59.60% is "... the upper end of the range of actual common equity ratios of 46.91 percent to 58.95 percent for the operating companies held by the proxy group over this period." However, this recommendation of 59.60% isn't simply in the "upper end" of this range, this recommendation of 59.60% exceeds the absolute high end of this range by 65-basis points.

Additionally, the only support Mr. Coyne provided for the Company's request of 59.60% per his written direct testimony is that the common equity ratio range for Mr. Coyne's chosen proxy group over the eight quarters ended Q3 2020 ranged from 46.91% – 58.95%. Upon simply inspecting Mr. Coyne's **Exhibit JMC-11**, one finds that the average of all the common equity ratios over this same time period for the entirety of Mr. Coyne's own proxy group is <u>52.44%</u>. ³³ However,

³² *Id*.

³³ Witness Coyne's Exhibit JMC-11.

Mr. Coyne notably did not feel the need to mention this overall 52.44% average for his proxy group. Simply put, this 52.44% average value sourced from an exhibit to Mr. Coyne's own direct testimony exemplifies how excessive the Company's 59.60% request is in this rate case proceeding.

Additionally, within **Exhibit JMC-11**, Mr. Coyne provided the common equity ratio for a group of utility operating companies for the same eight quarters ending with the Q3 2020 time period. However, Mr. Coyne does not provide the average common equity ratio value for this group of utility operating companies that he included within his testimony and **Exhibit JMC-11**. The average value of the common equity ratios presented within the second table of Mr. Coyne's Capital Structure Analysis shown in **Exhibit JMC-11** is 51.65%.

Mr. Coyne proceeded to note that "[b]ased on the analysis presented in Exhibit JMC-11, my conclusion is that FPL's proposed financial capital structure of 59.6 percent common equity and 40.4 percent debt is reasonable." However, I simply do not believe an analyst can credibly reconcile a claim that the Company's requested common equity percentage of 59.60% is "reasonable" when it exceeds that analyst's own proxy group's average common equity percentage, over a period chosen by that same analyst, by 716-basis points (i.e., 59.60% – 52.44%), and exceeds the average common equity ratio of that analyst's group of utility operating companies by 795-basis points (i.e., 59.60% – 51.65%).

 $^{^{34}}$ Witness Coyne's Direct Testimony, page 85: lines 13 - 15.

1	Q.	DID	WITNESS (COYN	E PRES	SENT ANY ADD	DITIONAL INFO	RMATION
2		IN	SUPPORT	OF	THE	COMPANY'S	REQUESTED	CAPITAL
3		STE	RUCTURE IN	CLUS	SIVE OF	F A 59.60% EOU	ITY RATIO?	

A. The only other piece of information that Mr. Coyne offered to support this inflated equity ratio of 59.60% was the following:

As noted by FPL witness Barrett, the Company has maintained this same equity ratio for more than two decades, and it is an essential component of FPL's financial policies enabling access to capital on favorable terms in a variety of market circumstances. This capital structure represents management's decisions on how best to finance its operations.³⁵

In reference to the above selection from Mr. Coyne's testimony, I do not find it appropriate to merely rely on the fact that the Company's equity ratio has not materially changed in over two decades as support for why its equity ratio should be deemed reasonable. Just because the equity ratio was once approved at such a level does not inherently indicate its reasonableness, especially in a time when common equity ratios have been declining as I exhibited in the tables above.

Each of the values I included in this testimony demonstrate that quantitatively, a 59.60% equity ratio request is far in excess of the average actual and average projected common equity ratios across any of the proxy groups used in this proceeding, and also far in excess of any of the national average of allowed common equity ratios across the country, as shown below. Mr. Coyne suggested that an equity ratio being set at this level "...represents management's decisions on how best to finance its operations." ³⁶ In contrast, I would contend that the Company

 $^{^{35}}$ Witness Coyne's Direct Testimony, page 85: lines 19-23.

³⁶ *Id*.

1		should instead be allowed an equity ratio that does not continue to place an undue
2		and excess amount of financial burden upon its consumers.
3		
4	Q.	WHAT EVIDENCE DID WITNESS BARRETT PROVIDE TO SUPPORT
5		THE COMPANY'S REQUESTED 59.60% EQUITY RATIO?
6	A.	Mr. Robert E. Barrett (FPL VP of Finance) provided the following statement to
7		support FPL requested equity ratio:
8 9 10 11 12		FPL has maintained its equity ratio generally around the 59-60 percent level for more than two decades, and this has been an important underpinning of the overall financial strength that has served customers well. ³⁷
13		In this portion of his testimony, Witness Barrett contends that allowing FPL an
14		equity ratio at the continued level of 59-60 percent has provided FPL the financial
15		strength to serve customers well.
16		Given the Company's position, I asked for support from the Company for
17		this position in OPC's Third Request for Production of Documents, Request No.
18		73, Mr. Barrett then provided the associated response:
19 20 21 22 23 24 25 26 27 28 29 30 31		QUESTION: Cost of Capitol: In reference to the 59.60% equity ratio requested by FPL in this case, Witness Barrett noted on page 45, lines 21-22, through page 46, lines 1-2, that "FPL has maintained its equity ratio generally around the 59-60 percent level for more than two decades, and this has been an important underpinning of the overall financial strength that has served customers well." Can Witness Barrett please provide a cost/benefit analysis showing exactly how FPL's equity ratio being set at a level in the 59-60 percent level for the last two decades has provided FPL the ability to reliably serve customers well and at the lowest cost possible to these customers.
32		1

 $^{^{37}}$ Witness Barrett's Direct Testimony, page 45: lines 21-22, and page 46: lines 1-2.

RESPONSE:

The question's predicate is incorrect in its express or implied assumption that service at the "lowest cost possible" is either the required or appropriate standard for service. The value of service provided is a function of more than just cost. Nevertheless, for references to FPL's achievements in cost efficiency over the last two decades while it has maintained an equity ratio around 59-60%, please refer to the testimony of FPL witnesses Reed, Barrett and Bores, among others. Mr. Barrett's statement is based on the overall value of FPL's service over this period of time based on a combination of factors including reliability, customer service, emissions reductions, and bills. FPL's performance and the value it delivers for customers has not hinged on this single factor, but rather on a number of factors and management initiatives. Accordingly, FPL has no responsive documents.³⁸

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I note that Mr. Barrett's response above is essentially non-responsive. As part of the Company's support for an equity ratio in the 59-60 percent range, Mr. Barrett made the assertion that setting the equity ratio at such a level in the past allowed FPL to serve its customers well. I asked the question whether the Company had performed any analysis that would show how their service levels would change should they be allowed an equity ratio beneath 59.60% and the Company was unable to provide any such analysis to support this assertion.

Q. DOES MR. BARRETT INCLUDE ANYTHING ELSE IN HIS TESTIMONY IN REFERENCE TO THE COMPANY'S REQUESTED EQUITY RATIO?

A. Somewhat. Lastly, Mr. Barrett noted the following:

[I]nvestors expect FPL's capital structure to be relatively stable over time and to reflect the unique risk profile and underlying financial policies of the company. FPL has maintained the current equity ratio for more than twenty years, and it is foundational to FPL's current

³⁸ OPC's Third Request for Production of Documents, Request No. 73.

credit rating, financial strength and flexibility to raise capital when needed and to provide customers with long-term benefits.³⁹

I agree that in a hypothetical scenario, investors like to see stable capital structures over time. However, that does not inherently mean that FPL should be allowed a 59.60% equity ratio in this proceeding. A 59.60% equity ratio is out of line with each and every metric provided within this testimony and would continue to place an undue financial burden on FPL's consumers. This is especially notable in the current climate when unemployment numbers have been higher than previous annual averages given the havoc that the COVID-19 pandemic has played on financial markets over the last year. FPL has not provided any evidence that it cannot continue to thrive financially, while also providing a comparable level of service to its customers, should they be allowed an equity ratio below 59.60% in this current proceeding and more in line with national averages.

A.

Q. WHAT IS THE AVERAGE COMMON EQUITY RATIO GRANTED BY UTILITY REGULATORS FOR ELECTRIC UTILITIES ACROSS THE UNITED STATES?

I have sourced the average common equity ratio values granted by utility regulators for electric utilities from across the country from *S&P Global*. In my research, I found that four states included within the overall average value of electric utilities across the country report their allowed common equity ratios on an all capital sources basis (*i.e.*, Long Term Debt, Short Term Debt, Common Equity, Preferred Stock, Customer Deposits, Deferred Income Taxes, Investment Tax Credits). As

 $^{^{39}}$ Witness Barrett's Direct Testimony, page 46: lines 13-18.

such, I have removed these four states (*i.e.*, Arkansas, Florida, Indiana and Michigan) from these numbers to ensure that each of the states included in this average report their allowed common equity ratio percentages only on investoronly sources of capital (*i.e.*, Long Term Debt, Short Term Debt, Common Equity). I wanted to remove these four states from the overall average to ensure that this represented an appropriate comparison given that FPL's requested equity ratio in this case of 59.60% is based solely off of investor-only sources of capital.

The resulting average common equity ratio granted by regulators for electric utilities for all states on an investor sources basis 2020 was 50.94%. 40

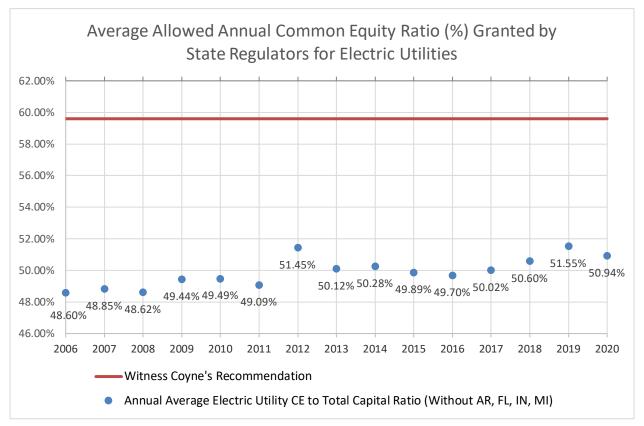
A.

Q. WHAT COMMON EQUITY RATIOS HAVE STATE REGULATORS ACROSS THE UNITED STATES GRANTED TO ELECTRIC UTILITIES OVER THE PAST 15 YEARS?

State regulators have been quite consistent in their rulings in electric cases for allowed common equity ratios based on investor sources of capital over the past 15 years. From 2006 through 2020, common equity ratios have ranged from 48.60% to 51.55%, with an average of 49.91%. If one were to evaluate this data over the previous 12 years, the average common equity ratio over this period is 50.21%, the average ratio over the previous 10 years is 51.36%, and the average ratio over the previous 8 years is 50.39%. In **Chart 4** below I have presented the average annual common equity ratio granted by state regulators for each year over the past 15 years.

⁴⁰ S&P Global Market Intelligence Rate Case Statistics; Date Range: 15 Years; Service Type: Electric; Chart Items: Common Equity to Total Capital, Return on Equity; **Date Accessed**: May 24, 2021.

Chart 4: Common Equity Ratio Granted by State Regulators $(2006 - 2020)^{41}$



Q. HOW DOES THE 59.60% EQUITY RATIO REQUESTED BY FPL

COMPARE TO THE EQUITY RATIO OF NEXTERA ENERGY'S NON-

5 **REGULATED SUBSIDIARIES?**

A. Per the data included within page 2 of **Schedule D-2** of FPL's MFR's in this case, the unregulated subsidiaries/companies of NextEra Energy averaged equity ratios of 44.3% for 2019 and 39.5% for 2020 on a Non-Regulated Operations Combined basis.

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1	Q.	HOW DOES THE 59.60% EQUITY RATIO REQUESTED BY FPL
2		COMPARE TO THE EQUITY RATIO OF NEXTERA ENERGY?
3	A.	Per the data included within page 2 of Schedule D-2 of FPL's MFR's in this case,
4		NextEra Energy had a common equity ratio that declined from 46.5% for 2019 to
5		43.2% for 2020 on an NEE Consolidated basis.
6		
7	Q.	WHY IS THE COMMON EQUITY RATIO OF NEXTERA'S
8		UNREGULATED SUBSIDIARY GROUPING CONSIDERABLY LOWER
9		THAN THE EQUITY RATIO REQUESTED BY FPL?
10	A.	The unregulated subsidiary companies of NextEra, and sister companies of FPL,
11		are leveraging their operations to the maximum extent possible knowing that
12		NextEra has a strong cash flow stream from the regulated operations of FPL, which
13		is protected from retail competition due to regulation in Florida. These strong cash
14		flow payments go to the parent company from FPL and in turn, can support the
15		unregulated operations of NextEra Energy.
16		
17	Q.	IS THE CAPITAL STRUCTURE REQUESTED BY FPL IN THIS CASE
18		DRIVEN BY THE MARKETPLACE?
19	A.	No, it is not. Any capital structure for a regulated utility in a parent/subsidiary
20		structure is hypothetical because NextEra Energy has pre-determined the capital
21		structure ratios. The Company has stated that the capital structure on which the
22		Company wants revenue requirements to be determined in this case is one with a

59.60% equity ratio. If the marketplace was driving the capital structure of the

1		various NextEra subsidiaries, the competition-facing non-regulated subsidiaries
2		would have an equity ratio much higher than 39.5%, and FPL would have an equity
3		ratio much lower than the 59.60% requested in this case.
4		
5		D. OPC Recommendation and Impact on FPL Consumers
6	Q.	PLEASE SUMMARIZE YOUR FINDINGS IN REGARD TO THE
7		REQUESTED EQUITY RATIO IN THIS CASE RELATIVE TO THE
8		EQUITY RATIO OF OTHER ELECTRIC UTILITIES.

 Table 7: Common Equity Ratio Comparison

FPL Eq Ratio Request per Witness Coyne	59.60%
Per Exhibit JMC-11:	
Q4 2018 – Q3 2020 Witness Coyne Proxy Group Actual Eq Ratio Average	52.44%
Q4 2018 – Q3 2020 Witness Coyne Utility Operating Companies Actual Eq Ratio Average	51.65%
Per Table 5:	
2019 OPC Proxy Group Actual Eq Ratio Average	47.70%
2020 OPC Proxy Group Actual Eq Ratio Average	46.31%
2021 OPC Proxy Group Expected Eq Ratio Average	46.35%
2022 OPC Proxy Group Expected Eq Ratio Average	46.57%
2024 – 2026 OPC Proxy Group Expected Eq Ratio Average	46.44%
Per Table 6:	
2019 Witness Coyne Proxy Group Actual Eq Ratio Average	48.99%
2020 Witness Coyne Proxy Group Actual Eq Ratio Average	46.63%
2021 Witness Coyne Proxy Group Expected Eq Ratio Average	46.43%
2022 Witness Coyne Proxy Group Expected Eq Ratio Average	46.54%
2023 – 2025 Witness Coyne Proxy Group Expected Eq Ratio Average	45.82%
2020 Average Annual Regulator Granted Eq Ratio (Above)	50.94%
2006 – 2020 Average Annual Regulator Granted Eq Ratio (Above)	49.91%
NextEra Non-Regulated Subsidiaries Eq Ratio (Above)	39.50%
NextEra's Eq Ratio (Above)	43.20%

As shown in the table above, each of the metrics is closer to a 50.00% equity ratio rather than the 59.60% equity ratio requested by the Company.

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Q. GIVEN THAT THE MOST ELECTRIC UTILITY EQUITY RATIOS ARE

CLOSER TO 50.00%, DO YOU BELIEVE THAT THE CAPITAL

STRUCTURE PROPOSED BY FPL IN THIS CASE IS APPROPRIATE

FOR RATEMAKING PURPOSES?

9 A. No, it is not. The requested capital structure for FPL is not reasonable for 10 ratemaking purposes. Nothing in the make-up of FPL suggests that it requires a 11 high equity ratio in the range that they are requesting than any of the companies 12 within the comparable company proxy groups. Indeed, some of the companies included within the proxy groups are involved in a wider array of business activities that involve more business risk than a utility's production and delivery of generation and distribution of electricity within its monopoly service territory. As such, if anything, the financial risk (as represented by the equity ratio) of the comparable company proxy group should be higher, not lower, than a traditional electric utility such as FPL. Customers of FPL should not pay higher rates associated with a capital structure that consists of so much common equity which, as previously discussed, is more expensive than debt.

A.

Q. WHO HAS THE MOST TO GAIN IF THE COMMISSION ALLOWED FPL TO USE A 59.60% EQUITY RATIO IN ITS CAPITAL STRUCTURE FOR RATEMAKING PURPOSES?

If a 59.60% equity ratio is allowed, the shareholders of FPL would continue to gain at the expense of consumers. If rates are set using an equity ratio of 59.60%, rather than an equity ratio of 50.00%, FPL shareholders will receive approximately an additional \$511 million annually. Additionally, if rates are set using an equity ratio of 59.60%, rather than an equity ratio of 55.00%, FPL shareholders will receive approximately an additional \$245 million annually. Each of these scenarios is outlined within **Exhibit KWO-1**.

Ultimately, FPL's customers will come out on the "losing" side as this the difference in rates in each of the two scenarios outlined above would result in these amounts essentially being transferred to FPL's shareholders (NextEra Energy).

1	Q.	WHAT IS THE SIGNIFICANCE OF THE FACT THAT FPL'S
2		REQUESTED EQUITY RATIO IS MUCH MORE EXPENSIVE THAN
3		OTHER REGULATED UTILITIES AS OUTLINED WITHIN THIS
4		TESTIMONY?

As stated previously, common equity is much more expensive than long-term debt. As such, captive ratepayers of FPL are being tasked with supporting an equity ratio that cannot be justified or explained based on any empirical data or quantitative reasoning. The ratepayers of other utilities with lower equity ratios are not being forced to support such excessively inflated equity ratios. Within pre-filed direct testimony, none of the Company witnesses attempted to demonstrate quantitatively how such an excessive equity ratio could be justified, and certainly did not present any evidence that any other utility comparable to FPL had been allowed an equity ratio above 59%.

Q.

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A.

WHAT WOULD BE THE IMPACT ON RATES IF THE COMMISSION EMPLOYED A CAPITAL STRUCTURE THAT CONTAINED 50% COMMON EQUITY?

As mentioned above, if FPL utilized a capital structure that instead consisted of 50% common equity, the revenue requirement in this case would be approximately \$511 million lower on an annual basis than the requested revenue requested in this case.

On a per customer residential basis, FPL's request amounts to an additional \$50 per year of higher costs for the typical residential customer using 1,000 kWhs

per year. The full details of these calculations can be seen in **Exhibit KWO-1**, but the primary calculations can be seen in **Table 8** below.

Table 8: Impact of FPL's Requested 59.60% Equity Ratio Versus a 50% Ratio

FPL Requested Pre-Tax Cost of Capital	8.73%	
OPC Recommended Pre-Tax Cost of Capital	7.81%	
Difference	0.92%	
Rate Base	\$55,392,402	(\$000s)
Impact	\$510,842	(\$000s)
Retail Sales (kWhs)	122,096,501,415	
Impact per kWh	\$0.00418	
Annual Impact to Res Cust Using 1,000 kWhs/mo.	\$50.21	

Florida also has many senior citizens that live on fixed incomes, as well as low-income customers. An additional \$50 per year per year for a usage of 1000 kWh per month, for this single element of the rate case is in my view, a subsidy FPL is asking this Commission to approve from captive consumers to NextEra to support its ventures into unregulated activities.

Q. WHAT WOULD BE THE IMPACT OF A CAPITAL STRUCTURE OF 50% COMMON EQUITY TO A LARGE INDUSTRIAL CUSTOMER?

An industrial consumer with a load of 10 MW and an 85% load factor would spend approximately an additional \$312,000 per year. The calculations for this cost increase can be seen in the table below as sourced from **Exhibit KWO-1**:

Table 9: Cost Impact for 10 MW Industrial Consumer

Load size	10,000	kW, a
Hours in year	8,760	В
Load factor	85.0%	C
Impact per kWh	\$0.00418	D
Annual Impact to Ind Cust	\$ 311,535	= a * b * c * d

A.

Q. ARE YOU RECOMMENDING A 50% COMMON EQUITY RATIO IN

THIS CASE?

No. I understand FPL has received a 59.6% equity ratio from this Commission for quite some time. Given that history, and given above-stated facts that show FPL's requested common equity ratio is more than excessive for Florida consumers, I am recommending the Commission employ the gradualism concept and grant FPL an equity ratio of 55% from investor-supplied sources in this case. This recommendation should not alarm the investment community as, clearly, the requested 59.6% equity ratio is considerably higher than every other comparison of regulated common equity ratios as I have demonstrated above. The movement from a 59.6% equity ratio to a 55.0% equity ratio is a gradual change that should give confidence to the investment community in that it represents a slow movement towards a more reasonable and balanced capital structure on which the Commission sets rates.

Converting the recommended 55% equity ratio to the all-sources capital structure of FPL yields the following recommendation, while continuing to use FPL's 11.50% ROE request for strict comparison purposes, as shown in **Exhibit**

KWO-1.

Table 10: Capital Structure and Cost Rates Under a 55% Common Equity Ratio Scenario

Source of Capital	Ratio (%)	Cost Rate (%)	Post-Tax Cost Rate
Long-Term Debt	34.95%	3.61%	1.26%
Short-Term Debt	1.31%	0.94%	0.01%
Common Equity	44.32%	11.50%	5.10%
Preferred Stock	0.00%	0.00%	0.00%
Customer Deposits	0.82%	2.03%	0.02%
Deferred Income Taxes	10.63%	0.00%	0.00%
FAS 109 Deferred Income Tax	6.08%	0.00%	0.00%
Investment Tax Credits	1.89%	8.38%	0.16%
Total	100.00%		6.55%

Q. WHAT IS THE IMPACT ON THE REVENUE REQUIREMENT BASED ON YOUR RECOMMENDATION TO USE A 55% EQUITY RATIO FOR INVESTOR-SOURCES OF CAPITAL FOR SETTING RATES IN THIS

7 **PROCEEDING?**

A. **Table 11** below replicates **Table 8** from above, but with the difference being that

Table 11 shows the results if the equity ratio were to be set at 55%. This calculation

can also be found in **Exhibit KWO-1**.

OPC Recommended Pre-Tax Cost of Capital	9.200/	
	8.29%	
Difference	0.44%	
Rate Base (without RSAM)	\$55,392,402	(\$000s)
Impact	\$244,927	(\$000s)
Retail Sales (kWhs)	122,096,501,415	
Impact per kWh	\$0.00201	
Annual Impact to Cust Using 1,000 kWhs/mo.	\$24.07	

As demonstrated in the table above, establishing FPL's equity ratio at 55% for ratemaking purposes reduces the customer's bill impact by \$24.07 per year for a usage of 1000 kWh per month. As stated earlier, in the current economy every dollar saved is important to customers who are trying to get back on their feet.

8 Q. HOW DO YOU THINK FPL WILL RESPOND TO YOUR ARGUMENT 9 THAT FPL'S REQUESTED EQUITY RATIO IS UNFAIR AND TOO 10 EXPENSIVE FOR CUSTOMERS CAPTIVE TO FPL?

11 A. I expect FPL to argue that its bond and credit ratings will be negatively impacted 12 by any decision to allow an equity ratio under 59.60%, or anything close to my 13 recommendation of 55%, for calculating revenue requirements in this case.

Q. DO YOU BELIEVE FPL'S CREDIT RATING WOULD BE DOWNGRADED IF THE COMMISSION DID NOT AWARD THE UTILITY WITH ITS REQUESTED 59.60% EQUITY RATIO?

A. Credit rating agencies examine a myriad of different factors such as business risk and financial risk when determining the credit rating of a utility. It is difficult for anyone to know with any certainty if FPL would suffer a downgrade in its credit

rating based solely on the Commission authorizing a capital structure with a lower equity ratio than 59.60% for ratemaking purposes. However, for the sake of argument, I have calculated the cost of a one-notch downgrade in the FPL credit rating so that we can compare the cost of such a downgrade to the higher revenue requirement sought by FPL in this case.

A.

Q. PLEASE EXPLAIN HOW YOU CALCULATED THE COST OF A POTENTIAL DOWNGRADE IN FPL'S CREDIT RATING?

The higher interest costs that would accompany a downgrade are a product of the amount of debt the Company would issue in the future, multiplied by the credit spread that is accompanied by the difference in spreads between bond ratings. So, the first step in the process is determining the amount of debt FPL may issue in the future. To do so, within **Exhibit KWO-3**, I first examined FPL's year-end 2020 total asset amount and compared that total asset amount to the estimated total asset amounts from the MFR's for 2021 and 2022.

For subsequent years post-2023, I assumed an annual growth rate of 10%, which is well above the 2.3% gross domestic product ("GDP") forecast of the Congressional Budget Office ("CBO")⁴² to provide estimated capital expenditures for FPL over the next 10 years. I next developed a series of possible annual debt needs for the next 10 years, assuming 50% of capital expenditure needs are financed with debt, that will be required to fund the various FPL investments (**Exhibit KWO-3**, page 1). I also developed a series of possible annual debt needs for the

⁴² Congressional Budget Office, "The Budget and Economic Outlook: 2019 to 2029", page 22, available at: https://www.cbo.gov/system/files/2019-03/54918-Outlook-3.pdf.

next 10 years, assuming 45% of capital expenditure needs are financed with debt that will be required to fund the various FPL investments (**Exhibit KWO-3**, page 2).

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Having taken those steps, I examined yield spreads to determine the increase in interest costs associated with the possible one-notch downgrade. The period I examined was from January 2011 through December 2020. The bond yield spread information came from the Mergent Bond Record and listed the average yields on Public Utility "A" rated bonds and Public Utility "Baa" bonds. From January 2011 through December 2020, the average yield spread between these bonds was 55-basis points (i.e., 0.55%). For calendar year 2020, the yield spread was 38-basis points, which equated to 0.38% in interest rate costs. I used 46-basis points (i.e., 0.46%) as a conservative estimate of the future yield spread as it was approximately the average of 55-basis points and 38-basis points. However, this spread represented a 3-notch difference, whereas any potential (unlikely) credit downgrade for FPL would be, in my opinion, a maximum downgrade of only one notch (i.e., A2 to A3). As a result, for the purposes of this analysis, I assumed the yield spread change would be approximately 15-basis points (i.e., 46-basis points divided by 3, rounded to 15-basis points). The details of this analysis can be seen in Exhibit KWO-2, attached to my testimony.

In **Exhibit KWO-3**, I provided calculations showing the effect of the higher interest costs as applied to future capital expenditures financed with debt. As can be seen in that exhibit, the first-year difference in interest costs (2021) under the 50% common equity ratio scenario and the 55% common equity recommendation

are approximately \$3.8 million and \$3.4 million, respectively. By way of comparison, the difference in revenue requirements for consumers due to FPL's higher equity ratio, would cost consumers approximately \$511 million in 2022 under the 50% common equity ratio scenario or \$245 million in 2022 under the 55% common equity recommendation.

By asking for a 59.6% common equity ratio which results in higher rates than would otherwise result from using a significantly more reasonable 55% common equity, FPL is essentially seeking a subsidy from its customers that allows FPL to invest these unjustified funds from these excessive rates into FPL's non-regulated activities.

VI. <u>DEBT</u>

Q. WHAT ARE THE DEBT RATIOS TO BE USED WITHIN YOUR CAPITAL

3 STRUCTURE RECOMMENDATION?

As shown in **Table 2** above, within my recommended capital structure for investoronly sources of capital, I have included a long-term debt ratio of 43.37%, a shortterm debt ratio of 1.63%, and a common equity ratio of 55.00%.

With regard to the split of the remaining 45.00% of the capital structure, I have recommended a long-term debt ratio of 43.37% and a short-term debt ratio of 1.63%. This calculation was based upon the short-term and long-term debt ratios included within **Table 1** above. If one were to take the total debt percentage and then calculate the respective long-term and short-term debt component ratios out of the total debt percentage, the associated percentages are a long-term debt ratio of 43.37% and a short-term debt ratio of 1.63%. This calculation is also shown in **Exhibit KWO-1**.

Q. WHAT IS THE COMPANY'S COST OF DEBT USED IN THIS PROCEEDING?

A. As shown in **Schedule D-1a** to the Company's MFR's, the long-term debt cost rate is 3.61% and the short-term debt cost rate is 0.94%.

The short-term cost of debt is developed based upon **Schedule D-3** within the Company's MFR's. Per Mr. Barrett's testimony, the short-term debt cost rate was developed based upon the "... forward Intercontinental London Interbank

1	Exchange O	offered Rate ('LIBOR")	curve for its short	term debt cos	t projections." ⁴³
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The long-term cost of debt is developed based upon Schedule D-4a within the

3 Company's MFR's.

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5 Q. DO YOU AGREE WITH THE COMPANY'S PROPOSED 3.61% LONG-

6 TERM COST OF DEBT AND 0.94% SHORT-TERM COST OF DEBT?

7 A. Yes, I do. Based on my evaluation of the cost of debt supporting documents

provided by the Company, I agree with the Company's proposed long-term debt

9 cost rate of 3.61% and short-term debt cost rate of 0.94%.

 $^{^{\}rm 43}$ Witness Barrett's Direct Testimony, page 47: lines 2-3.

VII. FPL INCENTIVE MECHANISM

2 Q. WHAT IS THE INCENTIVE MECHANISM THAT FPL IS

3 **PROPOSING?**

4 A. As described in FPL Witness Forrest's Direct Testimony, FPL proposes to continue the Economy Sales, Economy Purchase Savings, Natural Gas 5 Optimization, and Other Incentive Mechanisms. In addition, FPL proposes 6 to update the asset optimization incentive mechanism by reducing the 7 number of thresholds from four threshold levels to three threshold levels 8 and update the variable power plant O&M. 44 FPL also is asking to expand 9 the asset optimization incentive mechanism to include all fuel sources and 10 monetize Renewable Energy Credits ("RECs"). 45 11

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Q. DO YOU RECOMMEND THAT THE COMMISSION APPROVE FPL'S PROPOSED INCENTIVE MECHANISM?

A. No, I cannot recommend wholesale approval of FPL's proposed incentive mechanism at this time. While we have been able to examine activities approved by the Commission in the original pilot program, and have fairly good understanding of how they would work in the future, there is not sufficient information to understanding how the requested expansions of the incentive mechanism would work or if it would benefit customers.

44 Witness Forrest's Direct Testimony, page 17: lines 5-6.

⁴⁵ Witness Forrest's Direct Testimony, page 16: lines 17-18.

1		VIII. RESPONSE TO COMPANY WITNESS BARRETT
2	Q.	DO YOU AGREE WITH MR. BARRETT'S CLAIM THAT THE RECENT
3		MARKET VOLATILITY HAS MADE IT IMPERATIVE THAT FPL
4		MAINTAIN ITS INCREDIBLY HIGH EQUITY RATIO IN ITS PROPOSED
5		CAPITAL STRUCTURE?
6	A.	I disagree with Mr. Barrett's claim that utilities with only very high credit ratings
7		were able to access the credit markets during the COVID-19 crisis. Specifically,
8		Mr. Barrett stated:
9 10 11 12 13 14 15 16 17		The three leading credit rating agencies, S&P Global Ratings ("S&P"), Moody's Investors Service ("Moody's"), and Fitch Ratings ("Fitch"), each issue short-term CP ratings. Those CP ratings, in order of credit quality from high to low are tier-1, tier-2 and tier-3. During periods of extreme volatility and market uncertainty, generally only the tier-1 rated CP issuers such as FPL are able to maintain access, and when lower rated issuers are able to issue CP, those issuances are at significantly elevated rates as illustrated below. ⁴⁶
18 19 20 21 22 23 24 25 26 27 28 29		Mr. Barrett went on to state: However, even for strong tier-1 issuers like FPL, liquidity was extremely limited. While FPL typically issues CP to meet liquidity for a minimum of thirty days, during this extremely constrained period FPL often was only able to issue CP overnight, meaning each day brought concerns about liquidity for the next day. Only FPL's strong financial position, particularly its strong capital structure and credit ratings, enabled it to have continued access to CP markets while other lesser credits were completely essentially shut out of the market. 47

⁴⁶ Witness Barrett's Direct Testimony, page 16. ⁴⁷ *Id.*, page 17.

1	There are two fundamental problems with Mr. Barrett's testimony on this matter	
2	First, his conclusions are contradicted by an S&P Global article, "US Utilities	
3	Access to Capital with Billions in Debt Offerings," 48 published April 2, 2020, that	
4	discussed how utilities across the country were able to raise capital with relative	
5	ease during the COVID-19 crisis that I previously cited in this testimony in Section	
6	II: Current State of the Financial Markets. The article noted FPL when it stated:	
7	Several utilities, including Xcel Energy and NextEra Energy Inc.	
8	subsidiary Florida Power & Light Co., which issued \$1.1 billion in	
9	first mortgage bonds, are "using the opportunity to take advantage	
10	of attractive borrowing costs, so there does not appear to be an	
11	inability to access capital," they said.	
12	UT IA'1'A'	
13	"Utilities are reporting that recent deals have been significantly (7x)	
14	oversubscribed, highlighting that the capital markets are open for	
15	investment grade-rated utilities," the analysts wrote. "At the same	
16	time, we have also observed some utility companies that have fully	
17	drawn their bank lines as a precaution to provide them with	
18	liquidity in the event that marketsseize up," such as Duke Energy	
19	Corp. and American Electric Power Co. Inc. 49	
20		
21	The strength of utilities did not limited access to the credit markets. On February 3,	
22	2021, S&P Global also stated:	
23	The S&P 500 utility sector has "far and away" experienced the least	
24	impact from earnings revisions since Feb. 28, the corporate bond	
25	research firm found. Despite market turmoil and the ongoing	
26	economic downturn, analysts have only cut earnings per share	
27	expectations for stocks in the utility sector by an average 1% for	
28	2020 and 2021, according to CreditSights. ⁵⁰	
29	Furthermore, in regard to FPL, itself, <i>Moody's</i> stated the following in regard to the	
30	Company's exposure to risk with relation to the COVID-19 pandemic:	

⁴⁸ S&P Global Market Intelligence, April 20, 2020 "US Utilities Demonstrated Access to Capital with Billions in Debt Offerings."

⁴⁹ *Id.*⁵⁰ *S&P Global Market Intelligence*, February 3, 2021, "Utility Sector "Far and Away" least impacted by EPS Estimate Cuts."

We expect FPL to be relatively resilient to recessionary pressures related to the coronavirus because of its rate regulated business model, very large residential customer base, and timely cost recovery mechanisms. Nevertheless, we are watching for electricity usage declines, utility bill payment delinquency, and the regulatory response to counter these effects on earnings and cash flow. As events related to the coronavirus continue, we are taking into consideration a wider range of potential outcomes, including more severe downside scenarios. The effects of the pandemic could result in financial metrics that are weaker than expected; however, we see these issues as temporary and not reflective of the long-term financial profile or credit quality of FPL. ⁵¹

The above statement shows that Mr. Barrett's concerns about utilities not being able to access the capital markets during COVID-19 is simply not an accurate one.

2.2

- Q. DO YOU HAVE ANY CONCERNS ABOUT MR. BARRETT'S POSITION

 THAT THERE IS NO "SOUND REASON" THE COMPANY'S

 REQUESTED EQUITY RATIO OF 59.6% SHOULD NOT BE

 APPROVED? 52
 - A. Yes, I do. As I discussed previously, I have provided several "sound reasons" for denying the Company's requested equity ratio of 59.60% based on quantifiable historical data and associated forecasted projections. Specifically, FPL's 59.60% requested equity ratio results in higher rates for the typical FPL customer and these customers are not receiving any benefit from the unnecessarily high equity ratio. As I have shown above, the high equity ratio was not needed to access the capital markets during the COVID-19 pandemic.

⁵¹ Moody's Credit Opinion, Florida Power & Light, August 25, 2020, page 1.

 $^{^{52}}$ Witness Barrett's Direct Testimony, pages 11 - 12.

In his testimony, Mr. Barrett claims that there is no "sound reason" for adopting any capital structure other than the one that he was recommending in this case. However, FPL has the burden of proving the need for their excessive 59.60% equity ratio request. As I previously referenced, Mr. Barrett essentially provided a non-response answer when he was asked to provide a cost/benefit analysis showing how FPL's equity ratio being set a level in the 59-60 percent level for the last two decades provided FPL the ability to reliably serve customers well and at the lowest cost possible to these customers. ⁵³

Unless there is any evidence to the contrary that the Company has declined to provide, the Company has not performed any type of study that would help them to determine its optimal or appropriate capital structure. Instead, in comparison to a more reasonable 55% equity ratio, the Company is simply continuing to ask Florida ratepayers to pay approximately \$245 million per year in higher rates (refer to **Table 11** above) to support a regulatory capital structure that is grossly excessive by any standard. I do not believe the Florida Public Service Commission should allow the Company to arbitrarily set a high equity ratio that punishes consumers \$245 million per year without the Company providing any evidence to support its continued request of this 59.60% equity ratio.

⁵³ OPC's Third Request for Production of Documents, Request No. 73.

1 Q. DO YOU AGREE WITH WITNESS BARRETT THAT FPL'S RATES ARE

LOWER THAN THE NATIONAL AVERAGE?

3 A. Yes, I agree that FPL's rates are lower than the national average. However, I
4 believe Mr. Barrett should have examined this topic more deeply and explained
5 exactly why FPL's rates are below the national average.

FPL's electric rates have not always been lower than the national average. As can be seen in **Chart 3** below, prior to the development of natural gas fracking, FPL's rates were higher than the national average. However, in the 2008/2009 timeframe, fracking was implemented on more of a widespread basis, and FPL's rates began to fall soon thereafter relative to the national average. I believe the primary reason for FPL's relatively low rates is because fracking has driven down the price of natural gas and the United States now has an abundance of natural gas which has driven down the price of the fuel.

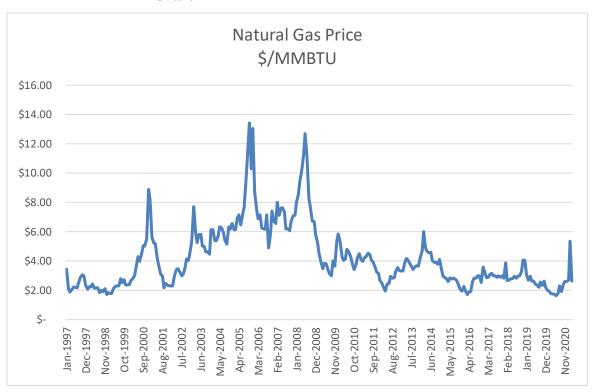
A.

Q. PLEASE DESCRIBE HOW FRACKING HAS LED TO LOWER ELECTRIC RATES FOR FPL.

FPL, as well as the state's two other investor-owned electric utilities, Duke Energy Florida ("DEF") and Tampa Electric Company ("TECO"), obtain a large amount of their generation output from natural gas-fired electric generators. As such, FPL, DEF, and TECO are all heavily dependent upon pricing as found in the natural gas markets. Prior to 2008, most of the natural gas that served electric utilities in the southeast was obtained in the Gulf of Mexico and transported up the eastern seaboard by various interstate pipelines. However, in response to the high natural

gas prices from 2000 to early 2008, the "shale revolution", which was driven by hydraulic fracturing ("fracking"), drove natural gas prices downward tremendously. ⁵⁴ **Chart 2** below shows the price of natural gas dating back to 1997.

Chart 2: Historical Natural Gas Prices



As can be seen above, natural gas was seemingly abundant and cheap in the late 1990s through 2000. However, in the winter of 2000/2001, gas prices went up to over \$8 per MMBTU and, essentially, provided a foreshadowing of the volatility that was to come in the natural gas markets.

In 2008 and 2009, fracking was more widely implemented and, as shown above, prices fell as the new supplies were brought into the marketplace. One of the greatest beneficiaries of the lower cost natural gas were electric utilities with a

⁵⁴ https://www.api.org/news-policy-and-issues/blog/2016/03/29/americas-fracking-energy-progress

heavy reliance on natural gas. **Table 12** below shows the percentage of natural gas generation for the Florida investor-owned electric utilities as compared to the national average.

 Table 12:
 Percentage of Electric Energy Produced Using Natural Gas

	Natural Gas Generation as a Percentage
Utility	of Total Generation
FPL	71.8%55
Duke Florida	87.9% ⁵⁶
Tampa Electric	76.6% ⁵⁷
National Average	39.0%58

As can be seen in the above table, all the Florida utilities rely quite heavily on natural gas, particularly in comparison to the national average. As such, any change in the price of natural gas will have a dramatic impact on prices for electricity produced by any of the three major Florida utilities.

The evolution of fracking and lower natural gas prices can be seen vividly for the Florida utilities in **Chart 3** below. This chart is a double y-axis chart that shows historical electric prices for the Florida utilities and the national average on the right y-axis and historical natural gas prices on the left y-axis.

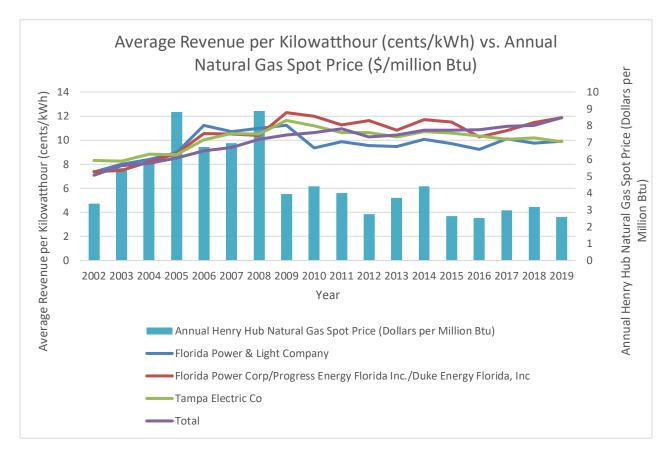
⁵⁵ Raw data sourced from *S&P Global*.

⁵⁶ *Id*.

⁵⁷ *Id*.

⁵⁸https://www.eia.gov/energyexplained/natural-gas/use-of-natural-gas.php#:~:text=Natural%20gas%20accounted%20for%2038,by%20all%20sectors%20in%202019

Chart 3: Florida Electric Costs Compared to National Average and Natural Gas Prices ⁵⁹



FPL's cost line is in blue in the above chart. As can be seen in this chart, the average cost of service from FPL fell sharply in 2009 as the effect of lower natural gas prices began to show up in the electric rates offered by the utility. Specifically, the average electric cost of FPL, as compared to the national average from the period of 2006 through 2010, can be seen in the table below.

 $^{^{59}}$ https://www.eia.gov/dnav/ng/hist/rngwhhdm.htm - Annual data from the Energy Information Association

Table 13: Average Revenue per MWH

	Avg. Rev	Annual Gas Price
Year	per MWH ⁶⁰	at Henry Hub ⁶¹
2006	\$11.22	\$6.75
2007	\$10.70	\$6.98
2008	\$10.99	\$8.86
2009	\$11.24	\$3.95
2010	\$9.37	\$4.39

The table above provides the numerical data that was shown in Chart 3 and show that FPL's electric rates fell dramatically when the price of natural gas fell due to fracking and an abundant new supply of natural gas hitting the United States market.

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ARE THERE REASONS WHY THE COSTS FOR FPL COULD BE LOWER Q. **THAN** DUKE **ENERGY** FLORIDA AND **TAMPA** ELECTRIC, ALTHOUGH BOTH UTILITIES HAVE A HIGHER AMOUNT OF NATURAL GAS GENERATION? 10

Yes. One possible explanation may simply be a function of timing. The current A. regulated utility model is comprised of historical fixed costs and current variable costs. Historical fixed costs are, generally, for assets such as electric generating plants as well as transmission and distribution lines. Recovery of these costs take place over time – 30 years in many cases. As a result, some utilities will, generically, have higher/lower costs than other utilities based on decisions made at the time the assets were constructed and put into service. Without knowing the

⁶⁰ https://www.eia.gov/electricity/sales_revenue_price/

⁶¹ https://www.eia.gov/dnav/ng/hist/rngwhhdm.htm

exact timing of each major plant investment on the Duke Energy Florida, Tampa Electric, and FPL systems, it is possible that timing of the plant investments had a lot to do with current rates. This possibility cannot be discounted in the rush to make claims about superior performance.

A.

Q. WHY DO YOU BELIEVE THE LINK BETWEEN NATURAL GAS AND FPL'S RATES ARE IMPORTANT FOR THIS COMMISSION TO UNDERSTAND?

I have two reasons for bringing this information to the Commission's attention.

First, Mr. Barrett seemingly wants to credit himself and his employer, FPL, for the fact that its rates are below the national average. However, I believe that natural gas prices, over which FPL has no control, has been a significant driver to lower electric prices for FPL. As such, it would appear as though FPL and its customers simply were fortunate with the dramatic turn in natural gas prices. If natural gas prices had remained as high as \$8.86 per MMBTU, I do not believe FPL's rates would now be below the national average.

Secondly, while natural gas prices moving forward appear to be relatively stable, one should also recognize the risk inherent in such forecasts. With the government's new administration advocating for cleaner energy, a federally mandated carbon tax is certainly possible in the next two to four years. Such a tax would disproportionately impact Florida due to the prevalence of natural gas generation in the generation portfolios of the State's utilities.

In addition, with the movement away from coal to natural gas-fired generation and permitting for new interstate pipelines facing mounting legal obstacles, capacity on interstate pipelines continues to tighten. Such supply/demand imbalances may drive up the price of natural gas thereby also driving up the price of electricity in the State.

If the price of natural gas reverses course and increases, FPL's rates may, once again, be above the national average.

A.

Q. HOW DO YOU RESPOND TO MR. BARRETT'S COMMENTS ABOUT FPL'S LOW NON-FUEL O&M COSTS?

As was the case with Mr. Barrett's claim of low FPL rates, I believe he should have provided more of an explanation as to exactly why FPL's non-fuel O&M costs are lower than comparable utilities. In **Exhibit KWO-4**, I have provided a table that compares non-fuel O&M costs per MWH for companies for which I could obtain the necessary data from S&P Global. There are a total of 46 companies for which the data was available.

Exhibit KWO-4 shows that companies with a high portion of natural gas in the total portfolio mix generally have lower non-fuel O&M costs. One potential explanation is that natural gas plants require fewer employees, for example, than do coal plants. *The Wall Street Journal* noticed how fewer employees were needed at natural gas plants when it stated the following in its January 16, 2018 edition:

"Natural gas, solar and wind are all less job intensive for ongoing operations," says Philip Jordan, a vice president at the Carlsbad, Calif., based group, which has analyzed worker data for the U.S. Energy Department.

2	rocks, sort them into piles and prepare them to be pulverized into a fine mist, which is then blown into boilers. Once the coal is burned,
ł	the resulting ash needs to be collected and disposed.
5	Natural gas is typically delivered straight to power plants by
5	pipeline—no unloading required. It combusts completely, so it
7	doesn't need people or machines to handle the residue. 62
3	So, while Mr. Barrett is correct in that FPL does have low non-fuel O&M costs, he
)	has not mentioned that FPL's generation mix is a major reason for the lower costs.

⁶² The Wall Street Journal, Jan. 16, 2018.

IX. <u>SUMMARY</u>

2 O. MR. O'DONNELL, PLEASE SUMMARIZE YOUR TES	U.		O. I	VIK. 9	U'D	UNI	NELI	L, t	'Li	LAS.	E S	$\mathbf{U}\mathbf{N}$	LI VL A	AK.	IZE	YU	UK	TES	TIN	4O	IN:	Y.
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- A. FPL's requested rate increase in this case is excessive, unnecessary, and burdensome on the ratepayers of Florida. My specific recommendations in this case are as follows:
 - FPL's requested capital structure is unnecessarily expensive to consumers in Florida. Relative to a 50% common equity ratio, Florida consumers are being asked to pay an additional \$511 million per year for the excessive capital structure requested by FPL in this case. This \$511 million cost equates to an annual average cost increase of approximately \$50 to the typical residential consumer and \$312,000 (Exhibit KWO-1 page 1) for a typical industrial consumer;
 - Relative to the OPC recommendation of a 55% common equity ratio, Florida consumers are being asked to pay an additional \$245 million per year for the excessive capital structure requested by FPL in this case. This \$245 million cost equates to an annual average cost increase of approximately \$24 to the typical residential consumer and \$149,000 (Exhibit KWO-1 page 2) for a typical industrial consumer;
 - The proper capital structure using investor-only sources of capital in this proceeding is 43.37% long-term debt, 1.63% short-term debt, and 55.00% common equity; and
 - Mr. Barrett's remarks regarding FPL's relatively low electric rates and low
 O&M expenses can be misleading as to the underlying cause for the lower

costs. The reality of the situation is that FPL's low costs can, largely, be explained by the fact that the Company sources a very large amount of its generation mix from natural gas fired electric plants that, due to the advent of fracking and lower gas prices, have allowed the Company to offer rates below the national average, have allowed the Company to operate at relatively low O&M costs per MWH produced.

8 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

9 A. Yes.

Kevin W. O'Donnell, CFA

Nova Energy Consultants, Inc. (Nova)

1350-101 SE Maynard Rd. Cary, NC 919-461-0270 919-461-0570 (fax)

kodonnell@novaenergyconsultants.com

Kevin W. O'Donnell, is the founder of Nova Energy Consultants, Inc. in Cary, NC. Mr. O'Donnell's academic credentials include a B.S. in Civil Engineering - Construction Option from North Carolina State University as well as a MBA in Finance from Florida State University. Mr. O'Donnell is also a Chartered Financial Analyst (CFA).

Mr. O'Donnell has over thirty-four years of experience working in the electric, natural gas, and water/sewer industries. He is very active in municipal power projects and has assisted numerous southeastern U.S. municipalities cut their wholesale cost of power by as much as 67%. On Dec. 12, 1998, *The Wilson Daily Times* made the following statement about O'Donnell.

Although we were skeptical of O'Donnell's efforts at first, he has shown that he can deliver on promises to cut electrical rates.

Mr. O'Donnell has completed close to 30 wholesale power projects for municipal and university-owned electric systems throughout North and South Carolina. In May of 1996 Mr. O'Donnell testified before the U.S. House of Representatives, Committee on Commerce, Subcommittee on Energy and Power regarding the restructuring of the electric utility industry.

Mr. O'Donnell has appeared as an expert witness in over 110 regulatory proceedings before the North Carolina Utilities Commission, the South Carolina Public Service Commission, the Virginia Corporation Commission, the Minnesota Public Service Commission, the New Jersey Board of Public Utilities, the Colorado Public Service Commission, the Wisconsin Public Service Commission, the Maryland Public Service Commission, the District of Columbia Public Service Commission, the Pennsylvania Public Utility Commission, the Indiana Public Utility Commission, the California Public Service Commission, and the Florida Public Service Commission. His area of expertise has included rate design, cost of service, rate of return, capital structure, asset valuation analyses, fuel adjustments, merger transactions, holding company applications, as well as numerous other accounting, financial, and utility rate-related issues.

Mr. O'Donnell is the author of the following two articles: "Aggregating Municipal Loads: The Future is Today" which was published in the Oct. 1, 1995 edition of *Public Utilities Fortnightly*; and "Worth the Wait, But Still at Risk" which was published in the May 1, 2000 edition of *Public Utilities Fortnightly*. Mr. O'Donnell is also the co-author of "Small Towns, Big Rate Cuts" which was published in the January, 1997 edition of *Energy Buyers Guide*. All of these articles discuss how rural electric systems can use the wholesale power markets to procure wholesale power supplies.

Regulatory Cases of Kevin W. O'Donnell, CFA Nova Energy Consultants, Inc.

	N. C	Gt t	D 1.	CP: 41	
**	Name of	State	Docket	Client/	Case
Year	Applicant	Jusrisdiction	No.	Employer	Issues
1005	Dable Comics Comment of NC	NC	C 5 C1 200	DLE- C4-66 - CNCUC	D
1985	Public Service Company of NC	NC NC	G-5, Sub 200	Public Staff of NCUC	Return on equity, capital structure
1985	Piedmont Natural Gas Company	NC NC	G-9, Sub 251	Public Staff of NCUC	Return on equity, capital structure
1986	General Telephone of the South	NC NC	P-19, Sub 207 G-5, Sub 207	Public Staff of NCUC	Return on equity, capital structure
1987	Public Service Company of NC		· ·	Public Staff of NCUC	Return on equity, capital structure
1988	Piedmont Natural Gas Company	NC NC	G-9, Sub 278	Public Staff of NCUC	Return on equity, capital structure
1989	Public Service Company of NC		G-5, Sub 246	Public Staff of NCUC	Return on equity, capital structure
1990	North Carolina Power	NC NC	E-22, Sub 314	Public Staff of NCUC	Return on equity, capital structure
1991	Duke Energy	NC NC	E-7, Sub 487	Public Staff of NCUC	Return on equity, capital structure
1991	North Carolina Natural Gas		G-21, Sub 306	Public Staff of NCUC	Natural gas expansion fund
1991	North Carolina Natural Gas	NC NC	G-21, Sub 307	Public Staff of NCUC	Natural gas expansion fund
1991	Penn & Southern Gas Company		G-3, Sub 186	Public Staff of NCUC	Return on equity, capital structure
1995	North Carolina Natural Gas	NC NC	G-21, Sub 334	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1995	Carolina Power & Light Company	NC	E-2, Sub 680	Carolina Utility Customers Assoc.	Fuel adjustment proceeding
1995	Duke Power	NC	E-7, Sub 559	Carolina Utility Customers Assoc.	Fuel adjustment proceeding
1996	Piedmont Natural Gas Company	NC	G-9, Sub 378	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1996	Piedmont Natural Gas Company	NC	G-9, Sub 382	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1996	Public Service Company of NC	NC	G-5, Sub 356	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1996	Cardinal Extension Company	NC	G-39, Sub 0	Carolina Utility Customers Assoc.	Capital structure, cost of capital
1997	Public Service Company of NC	NC	G-5, Sub 327	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1998	Public Service Company of NC	NC	G-5, Sub 386	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1998	Public Service Company of NC	NC	G-5, Sub 386	Carolina Utility Customers Assoc.	Natural gas transporation rates
1999	Public Service Company of NC/SCANA Corp	NC	G-5, Sub 400	Carolina Utility Customers Assoc.	Merger case
1999	Public Service Company of NC/SCANA Corp	NC	G-43	Carolina Utility Customers Assoc.	Merger Case
1999	Carolina Power & Light Company	NC	E-2, Sub 753	Carolina Utility Customers Assoc.	Holding company application
1999	Carolina Power & Light Company	NC	G-21, Sub 387	Carolina Utility Customers Assoc.	Holding company application
1999	Carolina Power & Light Company	NC	P-708, Sub 5	Carolina Utility Customers Assoc.	Holding company application
2000	Piedmont Natural Gas Company	NC	G-9, Sub 428	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2000	NUI Corporation	NC	G-3, Sub 224	Carolina Utility Customers Assoc.	Holding company application
2000	NUI Corporation/Virginia Gas Company	NC	G-3, Sub 232	Carolina Utility Customers Assoc.	Merger application
2001	Duke Power	NC	E-7, Sub 685	Carolina Utility Customers Assoc.	Emission allowances and environmental compliance costs
2001	NUI Corporation	NC	G-3, Sub 235	Carolina Utility Customers Assoc.	Tariff change request.
2001	Carolina Power & Light Company/Progress E		E-2, Sub 778	Carolina Utility Customers Assoc.	Asset transfer case
2001	Duke Power	NC	E-7, Sub 694	Carolina Utility Customers Assoc.	Restructuring application
2002	Piedmont Natural Gas Company	NC	G-9, Sub 461	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2002	Cardinal Pipeline Company	NC	G-39, Sub 4	Carolina Utility Customers Assoc.	Cost of capital, capital structure
2002	South Carolina Public Service Commission	SC	2002-63-G	South Carolina Energy Users Committee	Rate of return, accounting, rate design, cost of service
2003	Piedmont Natural Gas/North Carolina Natura		G-9, Sub 470	Carolina Utility Customers Assoc.	Merger application
2003	Piedmont Natural Gas/North Carolina Natura		G-9, Sub 430	Carolina Utility Customers Assoc.	Merger application
2003	Piedmont Natural Gas/North Carolina Natura		E-2, Sub 825	Carolina Utility Customers Assoc.	Merger application
2003	Carolina Power & Light Company	NC	E-2, Sub 833	Carolina Utility Customers Assoc.	Fuel case
2004	South Carolina Electric & Gas	SC	2004-178-E	South Carolina Energy Users Committee	Return on equity, capital structure, rate design, cost of service
2005	Carolina Power & Light Company	NC	E-2, Sub 868	Carolina Utility Customers Assoc.	Fuel case
2005	Piedmont Natural Gas Company	NC	G-9, Sub 499	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2005	South Carolina Electric & Gas	SC	2005-2-Е	South Carolina Energy Users Committee	Fuel application
2005	Carolina Power & Light Company	SC	2006-1-E	South Carolina Energy Users Committee	Fuel application
2006	IRP in North Carolina	NC	E-100, Sub 103	Carolina Utility Customers Assoc.	Submitted rebuttal testimony in investigation of IRP in NC.
2006	Piedmont Natural Gas Company	NC	G-9, Sub 519	Carolina Utility Customers Assoc.	Creditworthiness issue
2006	Public Service Company of NC	NC	G-5, Sub 481	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2006	Duke Power	NC	E-7, 751	Carolina Utility Customers Assoc.	App to share net revenues from certain wholesale pwr trans

Regulatory Cases of Kevin W. O'Donnell, CFA Nova Energy Consultants, Inc.

	Name of	State	Docket	Client/	Case
Year	Applicant	Jusrisdiction	No.	Employer	Issues
2006	South Carolina Electric & Gas	SC	2006-192-Е	South Carolina Energy Users Committee	Fuel application
2007	Duke Power	NC	E-7, Sub 790	Carolina Utility Customers Assoc.	Application to construct generation
2007	South Carolina Electric & Gas	SC	2007-229-Е	South Carolina Energy Users Committee	Rate of return, accounting, rate design, cost of service
2008	South Carolina Electric & Gas	SC	2008-196-E	South Carolina Energy Users Committee	Base load review act proceeding
2009	Western Carolina University	NC	E-35, Sub 37	Western Carolina University	Rate of return, accounting, rate design, cost of service
2009	Duke Power	NC	E-7, Sub 909	Carolina Utility Customers Assoc.	Cost of service, rate design, return on equity, capital structure
2009	South Carolina Electric & Gas	SC	2009-261-E	South Carolina Energy Users Committee	DSM/EE rate filing
2009	Duke Power	SC	2009-226-Е	South Carolina Energy Users Committee	Return on equity, capital structure, rate design, cost of service
2009	Tampa Electric	FL	080317-EI	Florida Retail Federation	Return on equity, capital structure
2010	Duke Power	SC	2010-3-E	South Carolina Energy Users Committee	Fuel application - assisted in settlement
2010	South Carolina Electric & Gas	SC	2009-489-E	South Carolina Energy Users Committee	Return on equity, capital structure, rate design, cost of service
2010	Virginia Power	VA	PUE-2010-00006	Mead Westvaco	Rate design
2011	Duke Energy	SC	2011-20-E	South Carolina Energy Users Committee	Nuclear construction financing
2011	Northern States Power	MN	E002/GR-10-971	Xcel Large Industrials	Return on equity, capital structure
2011	Virginia Power	VA	PUE-2011-0027	Mead Westvaco	Capital structure, revenue requirement
2011	Duke Energy	NC	E-7, Sub 989	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2011	Duke Energy	SC	2011-271-E	South Carolina Energy Users Committee	Accounting, cost of service, rate design, ROE, capital structure
2011	Dominion Virginia Power	VA	PUE-2011-00073	Mead Westvaco	Rate design
2012	Town of Smithfield/Partners Equity Group	NC	ES-160, Sub 0	Partners Equity Group	Rate design, asset valuation
2012	Florida Power & Light	FL	120015-EI	Florida Office of Public Counsel	Capital structure
2012	South Carolina Electric & Gas	SC	2012-218-E	South Carolina Energy Users Committee	Accounting, cost of service, rate design, ROE, capital structure
2013	Progress Energy Carolinas	NC	E-2, Sub 1023	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2013	Duke Energy Carolinas	NC	E-7, Sub 1026	Carolina Utility Customers Assoc.	Rate design
2013	Jersey Central Power & Light	NJ	BPU ER12111052	Gerdau Ameristeel	Return on equity, capital structure
2013	Duke Energy Carolinas	SC	2013-59-E	South Carolina Energy Users Committee	Accounting, cost of service, rate design, ROE, capital structure
2013	Tampa Electric	FL	130040-EI	Florida Office of Public Counsel	Capital structure and financial integrity
2013	Piedmont Natural Gas	NC	G-9, Sub 631	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2014	Dominion Virginia Power	VA	PUE-2014-00033	Mead Westvaco	Recoverable fuel costs, hedging strategies
2014	Public Service Company of Colorado	CO	14AL-0660E	Colorado Healthcare Electric Coordinating Council	Return on equity, capital structure
2015	WEC Acquisition of Integrys	WI	9400-YO-100	Staff of Wisconsin Public Service Commission	Merger analysis
2015	Dominion Virginia Power	VA	PUE-2015-00027	Federal Executive Agencies	Return on equity
2015	South Carolina Electric & Gas	SC	2015-103-E	South Carolina Energy Users Committee	Return on equity
2015	Western Carolina University	NC	E-35, Sub 45	Western Carolina University	Accounting, cost of service, rate design, ROE, capital structure
2016	Sandpiper Energy	MD	9410	Maryland Office of People's Counsel	Return on equity, capital structure
2016	Washington Gas Light	DC	FC 1137	Washington, DC Office of People's Counsel	Return on equity, capital structure
2016	Florida Power & Light	FL	160021-EI	Florida Office of Public Counsel	Capital Structure
2016	Jersey Central Power & Light	NJ	EM15060733	NJ Division of Rate Counsel	Asset valuation
2016	Rockland Electric Company	NJ	ER16050428	NJ Division of Rate Counsel	Rate design
2016	Dominon NC Power	NC	E-22, Sub 532	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
				Healthcare Council of the National Capitol Area	
2017	Potomac Electric Power	DC	FC 1139	(HCNCA)	ROE and capital structure
2017	Columbia Gas of Maryland	MD	FC 9447	Maryland Office of People's Counsel	ROE and capital structure
2017	Washington Gas Light	DC	FC 1142	Washington, DC Office of People's Counsel	Merger analysis
2017	Duke Energy Progress	NC	E-2, Sub 1142	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2018	Public Service Electric & Gas	NJ	GR17070776	NJ Division of Rate Counsel	ROE and capital structure
2018	Duke Energy Carolinas	NC	E-7, Sub 1146	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2018	Elkton Gas/SJI	MD	FC 9475	Maryland Office of People's Counsel	Merger analysis
2018	Entergy Texas	TX	PUC 48371	Entergy Texas Cities	ROE
2018	Duke Energy Carolinas	SC	2018-3-E	South Carolina Energy Users Committee	Fuel case

Regulatory Cases of Kevin W. O'Donnell, CFA Nova Energy Consultants, Inc.

	Name of	State	Docket	Client/	Case
Year	Applicant	Jusrisdiction	No.	Employer	Issues
2018	Elkton Gas Company	MD	FC 9488	Maryland Office of People's Counsel	Accounting, ROE, capital structure
2018	Baltimore Gas & Electric	MD	FC9484	Maryland Office of People's Counsel	ROE, capital structure
2018	South Carolina Electric & Gas	SC	2017-370-E	South Carolina Energy Users Committee	Creditworthiness issue
2018	Jersey Central Power & Light	NJ	EO18070728	NJ Division of Rate Counsel	ROE and capital structure
2019	Duke Energy Carolinas	SC	2018-319-E	South Carolina Energy Users Committee	Accounting, rate design
2019	Duke Energy Progress	SC	2018-318-E	South Carolina Energy Users Committee	Accounting, rate design
2019	Public Service Electric and Gas	NJ	EO18060629	NJ Division of Rate Counsel	ROE and capital structure
2019	Potomac Electric Power	MD	FC 9602	Maryland Office of People's Counsel	ROE, capital structure
2019	Oklahoma Gas and Electric	OK	PUD 201800140	Sierra Club	Creditworthiness issue
2019	Peoples Natural Gas	PA	R-2018-3006818	Pennsylvania Office of Consumer Advocate	ROE, capital structure
2019	UGI Natural Gas	PA	R-2018-3006814	Pennsylvania Office of Consumer Advocate	ROE, capital structure
2019	Dominion Virginia Power	VA	PUR-2019-00050	Federal Executive Agencies	Return on Equity
2019	Piedmont Natural Gas	NC	G-9, Sub 743	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE
	Pacific Gas & Electric, Southern California				
2019	Edison, San Diego Gas & Electric	CA	A-1904014, et al	Federal Executive Agencies	ROE, capital structure
2019	Duke Energy Indiana	IN	Cause 45253	Federal Executive Agencies	ROE, capital structure
2020	Duke Energy Carolinas	NC	E-7 Sub 1214	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE
2020	Duke Energy Progress	NC	E-2 Sub 1219	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE
2020	Dominion Virginia Power	VA	PUR-2019-00154	Southern Environmental Law Center	Financial analysis of plant investment
2020	Southwest Electric Power Company	LA	U-35324	Alliance for Affordable Energy	Financial analysis of plant investment
2020	Texas Gas Company	TX	PUC 10928	Texas Gas Cities	ROE, capital structure
2020	Potomac Electric Power	DC	FC 1156	District of Columbia Office of Peoples Counsel	ROE, capital structure
2020	UGI Gas	PA	R-2019-3015162	Pennsylvania Office of Consumer Advocate	ROE, capital structure, creditworthiness
2020	Columbia Gas of Maryland	MD	FC 9644	Maryland Office of People's Counsel	ROE, capital structure
2020	Columbia Gas of Pennsylvania	PA	R-2020-3018835	Pennsylvania Office of Consumer Advocate	ROE, capital structure
2020	New Mexico Gas Company	NM	19-00317-UT	Federal Executive Agencies	ROE, capital structure, accounting, rate design, cost of service
2020	Washington Gas Light	DC	FC 1162	District of Columbia Office of Peoples Counsel	ROE, capital structure
2020	Dominion Energy South Carolina	SC	2020-125-E	South Carolina Energy Users Committee	Accounting, rate design
2021	Suez Water Company	NJ	BPU WR2011	NJ Division of Rate Counsel	ROE, capital structure, rate design

		FPL All-Sources Requested Cap Struc			
Source of Capital	Ratio	Cost Rate	Post-Tax Cost Rate	Tax Gross-up	Pre-Tax Cost Rate
	FPL Minimum Filing Requi	rement ("MFR"), Schedule D-1a (without			
		RSAM)			
	a	b, Below	$\mathbf{R}\mathbf{x}, \mathbf{c} = \mathbf{a} * \mathbf{b}$	d	Rx, e = c * d
Long-Term Debt	31.37%	3.61%	1.13%	1.00000	1.13%
Preferred Stock	0.00%	0.00%	0.00%	1.00000	0.00%
Customer Deposits	0.82%	2.03%	0.02%	1.00000	0.02%
Short-Term Debt	1.18%	0.94%	0.01%	1.00000	0.01%
Deferred Income Taxes	10.63%	0.00%	0.00%	1.00000	0.00%
AS 109 Deferred Income tax	6.08%	0.00%	0.00%	1.00000	0.00%
nvestment Tax Credits	1.89%	8.38%	0.16%	1.00000	0.16%
Common Equity	48.03%	11.50%	5.52%	1.34153	7.41%
Total	100.00%		6.84%		8.73%

FPL Investor-Sourced Requested Cap Structure						
Source of Capital	Ratio	Investor-Sourced				
	Above, f	$\mathbf{R}\mathbf{x}, \mathbf{h} = \mathbf{f} / \mathbf{g}$				
Long-Term Debt	31.37%	38.93%				
Preferred Stock	0.00%	0.00%				
Short-Term Debt	1.18%	1.46%				
Common Equity	48.03%	59.61%				
Total	80.58%	100.00%				

	Above, i	k = i / j	50% Scenario, l	m = k * l
Short-Term Debt	1.18%	3.63%	50.00%	1.81%
Long-Term Debt	31.37%	96.37%	50.00%	48.19%
Total Debt	32.55%	100.00%		Below
	j			

Source of Capital	Investor-Sourced	Cost Rate	Post-Tax Cost Rate	Tax Gross-up	Pre-Tax Cost Rate
	Above, n	Above, o	$\mathbf{R}\mathbf{x}, \mathbf{p} = \mathbf{n} * \mathbf{o}$	q	Rx, r = p * q
Long-Term Debt	48.19%	3.61%	1.74%	1.00000	1.74%
Preferred Stock	0.00%	0.00%	0.00%	1.00000	0.00%
Short-Term Debt	1.81%	0.94%	0.02%	1.00000	0.02%
Common Equity	50.00%	11.50%	5.75%	1.34153	7.71%
Total	100.00%		7.51%		9.47%

Source of Capital	Ratio (%)		Cost Rate (%)	Post-Tax Cost Rate	Tax Gross-up	Pre-Tax Cost Rate
	s		Above, t	u = s * t	v	$\mathbf{w} = \mathbf{u} * \mathbf{v}$
Long-Term Debt	38.83%	= n / g	3.61%	1.40%	1.00000	1.40%
Short-Term Debt	1.46%		0.94%	0.01%	1.00000	0.01%
Common Equity	40.29%	+	11.50%	4.63%	1.34153	6.22%
Preferred Stock	0.00%	Above	0.00%	0.00%	1.00000	0.00%
Customer Deposits	0.82%		2.03%	0.02%	1.00000	0.02%
Deferred Income Taxes	10.63%		0.00%	0.00%	1.00000	0.00%
FAS 109 Deferred Income tax	6.08%		0.00%	0.00%	1.00000	0.00%
Investment Tax Credits	1.89%	+	8.38%	0.16%	1.00000	0.16%
Total	100.00%			6.22%		7.81%
		<u>.</u>	<u> </u>	<u>.</u>		Below

Sample Residential Consumer Cost for Requested FPL Equity Ratio Under 50% CE Ratio Scenario							
FPL Requested Pre-Tax Cost of Capital	8.73%	Above, x					
OPC Recommended Pre-Tax Cost of Capital	7.81%	Above, y					
Difference	0.92%	$\mathbf{R}\mathbf{x}, \mathbf{z} = \mathbf{x} - \mathbf{y}$					
Rate Base	\$55,395,402	(\$000s), FPL MFR Schedule B-1 without RSAM,aa					
Impact of Higher Rates for Single Year	\$510,842	(\$000s), ab = z * aa, Exhibit KWO-3					
Retail Sales (kWhs)	122,096,501,415	FPL MFR Schedule E-6a,ac					
Impact per kWh	\$0.00418	ad = (ab * 1000) / ac, Below					
Annual Impact Using 1,000 kWhs/month	\$50.21	= 12,000 kWh / year * ac					

Sample Industrial Cost f	Sample Industrial Cost for Requested FPL Equity Ratio Under 50% CE Ratio Scenario						
Load size	10,000 kW, ae						
Hours in year	8,760 af						
Load factor	85.0% ag						
Impact per kWh	\$0.00418 ad, Above						
Total Cost Impact	\$ 311,535 = ae * af * ag * ad						

		FPL All-Sources Requested Cap Struct	ire		
Source of Capital	Ratio	Cost Rate	Post-Tax Cost Rate	Tax Gross-up	Pre-Tax Cost Rate
	FPL Minimum Filing Req	uirement ("MFR"), Schedule D-1a (without			
		RSAM)			
	a	b, Below	Rx, c = a * b	d	Rx, e = c * d
Long-Term Debt	31.37%	3.61%	1.13%	1.00000	1.13%
Preferred Stock	0.00%	0.00%	0.00%	1.00000	0.00%
Customer Deposits	0.82%	2.03%	0.02%	1.00000	0.02%
Short-Term Debt	1.18%	0.94%	0.01%	1.00000	0.01%
Deferred Income Taxes	10.63%	0.00%	0.00%	1.00000	0.00%
FAS 109 Deferred Income tax	6.08%	0.00%	0.00%	1.00000	0.00%
Investment Tax Credits	1.89%	8.38%	0.16%	1.00000	0.16%
Common Equity	48.03%	11.50%	5.52%	1.34153	7.41%
Total	100.00%		6.84%		8.73%

FPI	Investor-Sourced Requested Ca	p Structure
Source of Capital	Ratio	Investor-Sourced
	Above, f	$\mathbf{R}\mathbf{x}, \mathbf{h} = \mathbf{f} / \mathbf{g}$
Long-Term Debt	31.37%	38.93%
Preferred Stock	0.00%	0.00%
Short-Term Debt	1.18%	1.46%
Common Equity	48.03%	59.61%
Total	80.58%	100.00%

	Above, i	k = i / j	OPC Recommendation 55% Scenario I	m = k * l
Short-Term Debt	1.18%	3.63%	45.00%	1.63%
Long-Term Debt	31.37%	96.37%	45.00%	43.37%
Total Debt	32.55%	100.00%		Below

Source of Capital	Investor-Sourced	Cost Rate	Post-Tax Cost Rate	Tax Gross-up	Pre-Tax Cost Rate
	Above, n	Above, o	$\mathbf{R}\mathbf{x}, \mathbf{p} = \mathbf{n} * \mathbf{o}$	q	Rx, r = p * q
Long-Term Debt	43.37%	3.61%	1.57%	1.00000	1.57%
Preferred Stock	0.00%	0.00%	0.00%	1.00000	0.00%
Short-Term Debt	1.63%	0.94%	0.02%	1.00000	0.02%
Common Equity	55.00%	11.50%	6.33%	1.34153	8.49%
Total	100.00%		7.91%		10.07%

		Capital Structure Using All Sources	of Capital Under the 55% Common Equity Ratio Recommendation			
Source of Capital	Ratio (%)		Cost Rate (%)	Post-Tax Cost Rate	Tax Gross-up	Pre-Tax Cost Rate
	s		Above, t	u = s * t	v	$\mathbf{w} = \mathbf{u} * \mathbf{v}$
Long-Term Debt	34.95%	= n / g	3.61%	1.26%	1.00000	1.26%
Short-Term Debt	1.31%		0.94%	0.01%	1.00000	0.01%
Common Equity	44.32%	\ \	11.50%	5.10%	1.34153	6.84%
Preferred Stock	0.00%	Above	0.00%	0.00%	1.00000	0.00%
Customer Deposits	0.82%		2.03%	0.02%	1.00000	0.02%
Deferred Income Taxes	10.63%		0.00%	0.00%	1.00000	0.00%
FAS 109 Deferred Income tax	6.08%		0.00%	0.00%	1.00000	0.00%
Investment Tax Credits	1.89%	+	8.38%	0.16%	1.00000	0.16%
Total	100.00%			6.55%		8.29%

Sample Residential Consumer Cost for	Requested FPL Equit	y Ratio Under 55% CE Ratio Recommendation
FPL Requested Pre-Tax Cost of Capital	8.73%	Above, x
OPC Recommended Pre-Tax Cost of Capital	8.29%	Above, y
Difference	0.44%	Rx, z = x - y
Rate Base	\$55,395,402	(\$000s), FPL MFR Schedule B-1 without RSAM, aa
Impact of Higher Rates for Single Year	\$244,927	(\$000s), ab = z * aa, Exhibit KWO-3
Retail Sales (kWhs)	122,096,501,415	FPL MFR Schedule E-6a, ac
Impact per kWh	\$0.00201	ad = (ab * 1000) / ac, Below
Annual Impact Using 1,000 kWhs/month	\$24.07	= 12,000 kWh / year * ac

Sample Industrial Cost	for Requested FPL Equity Ratio Under 55% CE Ratio Recommendation
Load size	10,000 kW, ae
Hours in year	8,760 af
Load factor	85.0% ag
Impact per kWh	\$0.00201 ad, Above
Total Cost Impact	\$ 140 368 = ae * af * ag * ad

Below

	77.110	10011	1 2020
		ead 2011 thro	Public Utility Bonds
Year	Month	A	Baa
2011	Jan	5.57	6.06
	Feb	5.68	6.10
	March	5.56	5.97
	April	5.55	5.98
	May	5.32	5.74
	June	5.26	5.67
	July	5.27	5.70
	August	4.69 4.48	5.22 5.11
	Sept. Oct.	4.52	5.24
	Nov.	4.25	4.93
	Dec.	4.33	5.07
2012	Jan	4.34	5.06
	Feb	4.36	5.02
	March	4.48	5.13
	April	4.40	5.11
	May	4.20	4.97
	June	4.08	4.91
	July	3.93	4.85
	August	4.00	4.88
	Sept.	4.02	4.81
	Oct.	3.91	4.54
	Nov.	3.84	4.42
	Dec.	4.00	4.56
2013	Jan	4.15	4.66
	Feb	4.18	4.74
	March	4.20	4.72
	April	4.00	4.49
	May	4.17	4.65
	June	4.53	5.08
	July	4.68	5.21
	August	4.73	5.28
	Sept.	4.80	5.31
	Oct.	4.70	5.17
	Nov.	4.77	5.24
	Dec.	4.81	5.25
2014	Jan	4.63	5.09
	Feb	4.53	5.01
	March	4.51	5.00
	April	4.41	4.85
	May	4.26	4.69
	June	4.29	4.73
	July	4.23	4.66
	August	4.13	4.65
	Sept.	4.24	4.79
	Oct.	4.06	4.67
	Nov.	4.09	4.75
	Dec.	3.95	4.70
2015	Jan	3.58	4.39 4.44
	Feb March	3.67 3.74	4.51
	April	3.75	4.51
	May	4.17	4.91
	June	4.39	5.13
	July	4.40	5.22
	August	4.25	5.23
	Sept.	4.39	5.42
	Oct.	4.29	5.47
	Nov.	4.40	5.57
2016	Dec.	4.35	5.55
	Jan	4.27	5.49
	Feb	4.11	5.28
	March	4.16	5.12
	April	4.00	4.75
	May	3.93	4.60
	June	3.78	4.47
	July	3.57	4.16
	August	3.59	4.20
	Sept.	3.66	4.27
	Oct.	3.77	4.34
	Nov.	4.08	4.64
2017	Dec.	4.27	4.79
	Jan	4.14	4.62
	Feb	4.18	4.58
	March	4.23	4.62
	April	4.12	4.51
	May	4.12	4.50
	June	3.94	4.32
	July	3.99	4.36
	August	3.86	4.23
	Sept.	3.87 3.91	4.24
	Oct. Nov.	3.83	4.26 4.16
2018	Dec. Jan	3.79	4.14 4.18
	Feb	4.09	4.42
	March	4.13	4.52
	April	4.17	4.58
	May	4.28	4.73
	June	4.27	4.71
	July	4.27 4.26	4.67
	August Sept.	4.32	4.64 4.74
	Oct.	4.45	4.91
	Nov.	4.52	5.03
2019	Dec.	4.37 4.35	4.92 4.91
2019	Jan Feb	4.25	4.76
	March	4.16	4.65
	April	4.08	4.55
	May	3.98	4.47
	June	3.82	4.31
	July	3.69	4.13
	August	3.29	3.63
	Sept.	3.37	3.71
	Oct. Nov.	3.39 3.43	3.72
	Dec.	3.40	3.76 3.73
2020	Jan	3.29	3.60
	Feb	3.11	3.42
	March	3.50	3.96
	April	3.19	3.82
	May	3.14	3.63
	June	3.07	3.44
	July	2.74	3.09
	August	2.73	3.06
	Sept.	2.84	3.17
	Oct.	2.95	3.27
	Nov.	2.85	3.17
	Dec.	2.77	3.05
Average 2011 - 2020		a 4.10	b 4.65
		c	d
Average 2020		3.02	3.39
Difference across 2011 - 2020		0.55	e = b - a

Difference across 2011 - 2020 Difference across 2020 alone Average One-notch downgrade estimate

0.55 e = b - a0.38 f = d - c0.46 g = (e + f) / 2, Three-notch downgrade estimate 0.15 = g / 3, Exhibit KWO-3

Source for data: Mergent Bond Record, May 2021

Interest Cost Differential from Possible Downgrade Under 50% CE Ratio Scenario

% Total (\$000s)	Rx	!	\$ 3,792	\$ 12,140	\$ 17,389	\$ 23,163	\$ 29,515	\$ 36,502	\$ 44,187	\$ 52,641	\$ 61,941	\$ 72,170	900
To Be Financed 50% With Debt (\$000s)	Rx	!	2,527,751	8,093,160	11,592,689	15,442,171	19,676,601	24,334,475	29,458,136	35,094,163	41,293,792	48,113,385	
Cumulative Capex	Rx	!	5,055,501	16,186,319	23,185,378	30,884,342	39,353,203	48,668,950	58,916,272	70,188,326	82,587,585	96,226,770	
CapEx (\$000's)	Rx	1	5,055,501	11,130,818	6,999,059	7,698,964	8,468,861	9,315,747	10,247,322	11,272,054	12,399,259	13,639,185	
Total Assets (\$000's)	Rx	53,804,267	\$ 859,768 \$	\$ 985,066,69	76,989,645 \$	84,688,609 \$	93,157,470 \$	102,473,217 \$	112,720,539 \$	123,992,593 \$	136,391,852 \$	150,031,037 \$	
		S	S	S	S	S	S	S	S	S	S	S	
Year		Reported Total Assets from EOY books from FPL MFR Schedule B-1	Estimated Total Assets from FPL MFR Schedule B-1 2021	Estimated Total Assets from FPL MFR Schedule B-1 2022	Estimated - Previous Year Inflated at 10% per year	Estimated - Previous Year Inflated at 10% per year	Estimated - Previous Year Inflated at 10% per year	Estimated - Previous Year Inflated at 10% per year	Estimated - Previous Year Inflated at 10% per year	Estimated - Previous Year Inflated at 10% per year	Estimated - Previous Year Inflated at 10% per year	Estimated - Previous Year Inflated at 10% per year	1
Year		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	

	Impact of Higher Rates for Ten Years	S	5,108,417,741 = a * 10, b
0.15% Exhibit KWO-2	Impact of Possible Downgrade	s	353,439,483 Above, c
	Net Difference	s	$4,754,978,258 = \mathbf{b} - \mathbf{c}$

Basis Point Differential

Interest Cost Differential from Possible Downgrade Under 55% CE Ratio Recommendation

Total (\$000s)	Rx	1	3,412	10,926	15,650	20,847	26,563	32,852	39,768	47,377	55,747	64,953	318,096
			S	S	69	69	9	8	8	69	69	99	S
To Be Financed 45% With Debt (\$000s)	Rx	ı	2,274,975	7,283,844	10,433,420	13,897,954	17,708,941	21,901,027	26,512,322	31,584,746	37,164,413	43,302,046	
Cumulative Capex (\$000s)	Ŗŗ		5,055,501	16,186,319	23,185,378	30,884,342	39,353,203	48,668,950	58,916,272	70,188,326	82,587,585	96,226,770	
CapEx (\$000's)	Rx	1	5,055,501	11,130,818	6,999,059	7,698,964	8,468,861	9,315,747	10,247,322	11,272,054	12,399,259	13,639,185	
Total Assets (\$000's)	Rx	53,804,267	\$ 892,688	\$ 985'066'69	76,989,645 \$	84,688,609 \$	93,157,470 \$	102,473,217 \$	112,720,539 \$	123,992,593 \$	136,391,852 \$	150,031,037 \$	
		S	S	S	S	S	S	S	S	S	S	S	
Year		Reported Total Assets from EOY books from FPL MFR Schedule B-1	Estimated Total Assets from FPL MFR Schedule B-1 2021	Estimated Total Assets from FPL MFR Schedule B-1 2022	Estimated - Previous Year Inflated at 10% per year	Estimated - Previous Year Inflated at 10% per year	Estimated - Previous Year Inflated at 10% per year	Estimated - Previous Y ear Inflated at 10% per year	Estimated - Previous Y ear Inflated at 10% per year	Estimated - Previous Year Inflated at 10% per year	Estimated - Previous Year Inflated at 10% per year	Estimated - Previous Year Inflated at 10% per year	Average
Year		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	

	Impact of Higher Rates for Ten Years	\$ 2,449,268,50	2,449,268,506 = a * 10, b
0.15% Exhibit KWO-2	Impact of Possible Downgrade	\$ 318,095,53	18,095,535 Above, c
	Net Difference	\$ $2,131,172,971 = \mathbf{b} - \mathbf{c}$	1 = b - c
	Residential Impact of Higher Rates for Single Year	\$ 244.926.85	44.926.851 Exhibit KWO-1. a

Basis Point Differential

O&M Costs per MWH Compared to Amount of Mix of Natural Gas Generation

	Non-Fuel O&M % of Gas in		
Ranking	Company	per MWH	Total Gen
Kalikilig	Company	per ivi witi	Total Gell
1	UNS Electric, Inc.	3.71	100.0%
2	Duke Energy Florida, LLC	4.20	87.9%
3	Nevada Power Company	4.22	92.7%
4	Florida Power & Light Company	4.35	71.8%
5	Entergy Mississippi, LLC	4.83	84.6%
6	Tampa Electric Company	5.62	76.6%
7	Southwestern Public Service Company	6.21	50.6%
8	Upper Michigan Energy Resources Corporat	6.23	100.0%
9	Gulf Power Company	6.33	47.1%
10	Idaho Power Company	6.40	13.9%
11	Cleco Power LLC	6.49	68.0%
12	Mississippi Power Company	6.50	94.4%
13	Entergy Texas, Inc.	6.92	89.5%
14	Oklahoma Gas and Electric Company	7.21	65.5%
15	Empire District Electric Company	7.70	57.5%
16	Portland General Electric Company	8.23	53.3%
17	Kentucky Utilities Company	8.26	24.6%
18	Minnesota Power Enterprises, Inc.	8.55	0.3%
19	PacifiCorp	8.82	24.1%
20	Appalachian Power Company	8.84	19.8%
20	Monongahela Power Company	9.12	0.0%
21 22		9.12	23.3%
23	Southwestern Electric Power Company	9.23 9.55	16.5%
23	Duke Energy Carolinas, LLC Black Hills Power, Inc.	9.33 9.87	15.4%
2 4 25	•	10.51	35.0%
26	Duke Energy Progress, LLC AES Indiana	10.65	33.0%
			49.6%
27 28	Virginia Electric and Power Company	10.95 11.06	49.0%
28 29	Georgia Power Company		
30	Tucson Electric Power Company	11.14	49.5%
	Otter Tail Power Company	11.37	1.8%
31	Alabama Power Company	11.86	28.1%
32 33	Entergy Arkansas, LLC Wheeling Power Company	12.39	31.2% 0.0%
	2 1 2	13.06	
34	Kentucky Power Company	13.23	29.7%
35 36	Consolidated Water Power Company	13.72	0.0%
36 37	Public Service Company of Oklahoma Public Service Company of New Mexico	13.83	94.1%
	1 2	14.28	22.4% 32.5%
38	Arizona Public Service Company	14.64 14.99	
39 40	El Paso Electric Company Duke Energy Indiana, LLC		50.6%
40	.	15.91	29.5%
41	Indiana Michigan Power Company	16.97	0.0%
42	Upper Peninsula Power Company	17.32	0.0%
43	DTE Electric Company	18.20	5.8%
44	Alaska Electric Light and Power Company	18.96	0.0%
45 46	Southern California Edison Company	21.07	24.8%
46	Green Mountain Power Corporation	23.22	0.0%

Source: S&P Global