

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater utilities pursuant to Section 367.081(4)(f), F.S.

DOCKET NO. 120006-WS  
ORDER NO. PSC-12-0339-PAA-WS  
ISSUED: June 28, 2012

The following Commissioners participated in the disposition of this matter:

RONALD A. BRISÉ, Chairman  
LISA POLAK EDGAR  
ART GRAHAM  
EDUARDO E. BALBIS  
JULIE I. BROWN

NOTICE OF PROPOSED AGENCY ACTION  
ORDER ESTABLISHING AUTHORIZED RANGE OF RETURNS ON COMMON EQUITY  
FOR WATER AND WASTEWATER UTILITIES

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code (F.A.C.).

BACKGROUND

Section 367.081(4)(f), Florida Statutes (F.S.), authorizes this Commission to establish, not less than once each year, a leverage formula to calculate a reasonable range of returns on equity (ROE) for water and wastewater (WAW) utilities. The leverage formula methodology currently in use was established in Order No. PSC-01-2514-FOF-WS.<sup>1</sup> On October 23, 2008, this Commission held a formal hearing in Docket No. 080006-WS to allow interested parties to provide testimony regarding the validity of the leverage formula.<sup>2</sup> Based on the record in that proceeding, we approved the 2008 leverage formula in Order No. PSC-08-0846-FOF-WS.<sup>3</sup> In that order, we reaffirmed the methodology that was previously approved in Order No. PSC-01-

<sup>1</sup> See Order No. PSC-01-2514-FOF-WS, issued December 24, 2001, in Docket No. 010006-WS, In re: Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater utilities pursuant to Section 367.081(4)(f), F.S.

<sup>2</sup> At the May 20, 2008, Commission Agenda Conference, upon request of the Office of Public Counsel, this Commission voted to set the establishment of the appropriate leverage formula directly for hearing.

<sup>3</sup> See Order No. PSC-08-0846-FOF-WS, issued December 31, 2008, in Docket No. 080006-WS, In re: Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater utilities pursuant to Section 367.081(4)(f), F.S.

DOCUMENT NUMBER DATE

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FPSC-COMMISSION CLERK

2514-FOF-WS. In 2011, we approved the leverage formula currently in effect by Order No. PSC-11-0287-PAA-WS.<sup>4</sup>

This Order continues to use the leverage formula methodology established in Order No. PSC-01-2514-FOF-WS and reaffirmed in Order No. PSC-08-0846-FOF-WS. This methodology uses returns on equity (ROE) derived from financial models applied to an index of natural gas utilities. Based on the results of our annual review, there is an insufficient number of water and wastewater utilities that meet the requisite criteria to assemble an appropriate proxy group. Therefore, since 2001, we have used natural gas utilities as the proxy companies for the leverage formula. There are many natural gas utilities that have actively traded stocks and forecasted financial data. We use natural gas utilities that derive at least 50 percent of their revenue from regulated rates. These utilities have market power and are influenced significantly by economic regulation. As explained below, the model results based on natural gas utilities are adjusted to reflect the risks faced by Florida water and wastewater utilities.

Although Section 367.081(4)(f), F.S., authorizes us to establish a range of returns for setting the authorized ROE for water and wastewater utilities, we may set an ROE for water and wastewater utilities based on record evidence in any proceeding. If one or more parties file testimony in opposition to the use of the leverage formula, we will determine the appropriate ROE based on the evidentiary record in that proceeding.

We have jurisdiction pursuant to Section 367.081, F.S.

#### DECISION

As stated above, we must establish a leverage formula not less than once a year. For the instant docket, using current financial information and our approved methodology, the upper end of the allowed return on equity range would increase by almost 100-basis points, and the bottom of the range would be decreased by 38-basis points. This results in the widest spread, 378-basis points (8.36 percent to 12.14 percent), for the allowed return on common equity for water and wastewater utilities in the approximately 30 years the leverage formula has been in use in Florida.

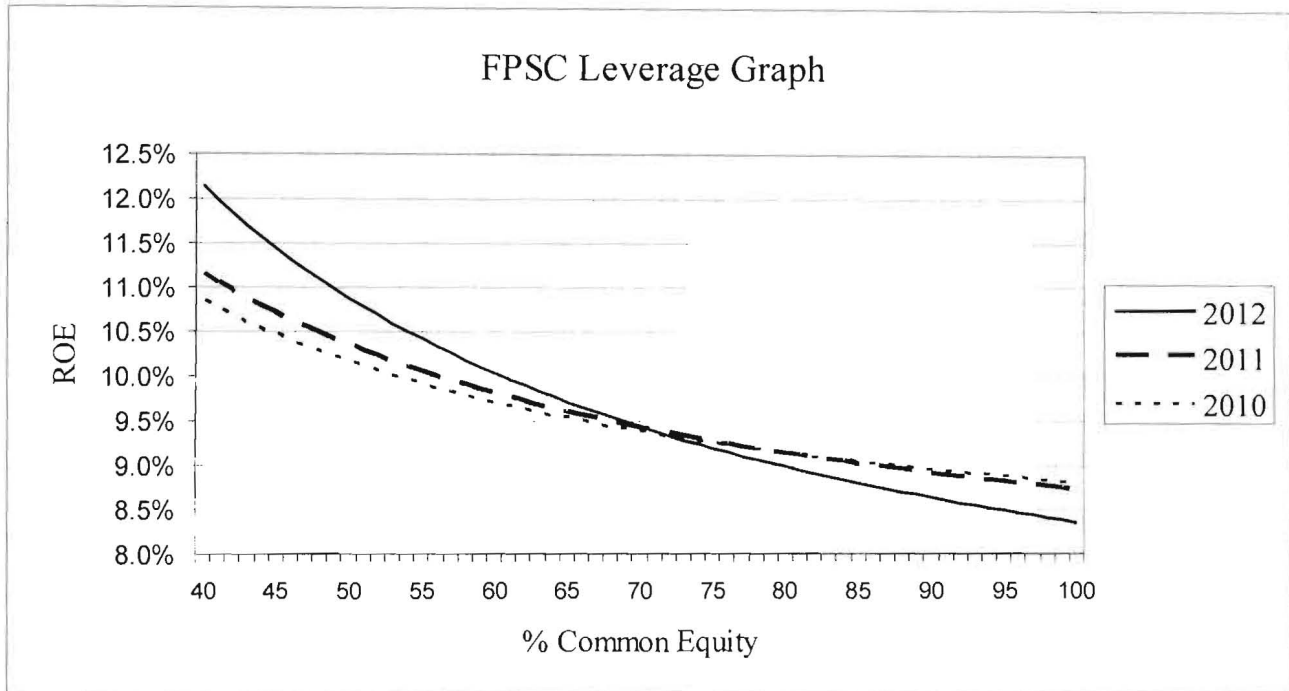
The Federal Reserve Board's various quantitative easing programs have lowered interest rates and bond yields to historically low levels. The Baa3 bond rate of 5.84 percent, which includes a 50-basis point adjustment for small company risk and a 50-basis point adjustment for a private placement premium, is the lowest since the inception of our leverage formula in 1982. In addition, the overall cost of capital for the proxy group used in the leverage formula model declined 38-basis points from 2011 to 2012 (8.36 percent versus 8.74 percent), yet the upper end of the required return on equity increased 98-basis points (12.14 percent versus 11.16 percent). Having the overall cost of capital decline and the cost of debt decline to historically low levels while the cost of equity component in the leverage formula increases is anomalous. Because

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<sup>4</sup> See Order No. PSC-11-0287-PAA-WS, issued July 5, 2011, in Docket No. 110006-WS, In re: Water and wastewater industry annual reestablishment of authorized range of return on common equity for water and wastewater utilities pursuant to Section 367.081(4)(f), F.S.

federal policies have lowered interest rates thereby increasing the slope of the leverage formula relative to previous years, we find the updated leverage formula is not optimal for determining the appropriate authorized ROE for water and wastewater utilities at this time. An increase in the slope of the leverage formula means a given change in the equity ratio will result in a greater change to the cost of equity. Chart 1 illustrates the change in the slope of the leverage formula for the three years 2010 through 2012.

Chart 1



Because the 2011 leverage formula range of 8.74 percent to 11.16 percent appears to be more reasonable for water and wastewater utilities, the current leverage formula shall continue to be used for determining the return on equity for water and wastewater utilities. We find that this is the best alternative until the leverage formula is addressed again in 2013.

We note that in 1996, we decided to continue to base the authorized ROE for water and wastewater utilities on the leverage formula instituted in 1995.<sup>5</sup> In Order No. PSC-96-0729-FOF-WS, we found that the leverage formula range of returns from the prior year were still reasonable and found it appropriate to continue to base the authorized range of returns on common equity for water and wastewater utilities on the leverage formula from the prior year.

We continue to believe the leverage formula is a sound, workable methodology that reduces the costs and administrative burdens in water and wastewater rate cases by eliminating the need for cost of equity testimony. Many of the water and wastewater utilities under our

<sup>5</sup> See Order No. PSC-96-0729-FOF-WS, issued May 31, 1996, in Docket No. 960006-WS, In Re: Annual reestablishment of authorized range of returns on common equity of water and wastewater utilities, pursuant to Section 367.081(4)(f), F.S.

jurisdiction are small operations that find it beneficial to avoid the costs associated with presenting cost of equity testimony.

Although we find the current 2011 leverage formula shall continue to be used, we note that the updated model, using the most recent financial data, would produce the following leverage formula:

$$\text{Return on Common Equity} = 5.84\% + 2.521/\text{Equity Ratio}$$

Where the Equity Ratio = Common Equity/(Common Equity + Preferred Equity + Long-Term and Short-Term Debt)

$$\text{Range: } 8.36\% \text{ @ } 100\% \text{ equity to } 12.14\% \text{ @ } 40\% \text{ equity}$$

Using this model, the returns on common equity would be capped at 12.14 percent for all water and wastewater utilities with equity ratios less than 40 percent to discourage imprudent financial risk. This cap is consistent with the methodology in Order No. PSC-08-0846-FOF-WS.

In developing the updated leverage formula, we used the same methodologies used in the 2011 docket. The leverage formula depends on four basic assumptions:

- 1) Business risk is similar for all water and wastewater utilities;
- 2) The cost of equity is an exponential function of the equity ratio but a linear function of the debt to equity ratio over the relevant range;
- 3) The marginal weighted average cost of investor capital is constant over the equity ratio range of 40 percent to 100 percent; and
- 4) The debt cost rate at an assumed Moody's Baa3 bond rating, plus a 50-basis point private placement premium and a 50-basis point small utility risk premium, represents the average marginal cost of debt to a Florida water and wastewater utility over an equity ratio range of 40 percent to 100 percent.

For these reasons, the leverage formula is assumed to be appropriate for the average Florida water and wastewater utility.

The leverage formula relies on two ROE models. The results of these models were adjusted to reflect differences in risk and debt cost between the index of companies used in the models and the average Florida water and wastewater utility. Both models include a four-percent adjustment for flotation costs. The models are as follows:

- A Discounted Cash Flow (DCF) model applied to an index of natural gas utilities that have publicly traded stock and are followed by the Value Line Investment Survey (Value Line). This DCF model is an annual model and uses prospective growth rates.

- The index consists of eight natural gas companies that derive at least 50 percent of their total revenue from gas distribution service. These companies have a median Standard and Poor's bond rating of A.
- A Capital Asset Pricing Model (CAPM) using a market return for companies followed by Value Line, the average yield on the Treasury's long-term bonds projected by the Blue Chip Financial Forecasts, and the average beta for the index of natural gas utilities. The market return for the 2012 leverage formula was calculated using a quarterly DCF model with stock prices as of May 16, 2012.

We averaged the indicated returns of the above models and adjusted the result as follows:

- A bond yield differential of 59-basis points is added to reflect the difference in yields between an A/A2 rated bond, which is the median bond rating for the natural gas utility index, and a BBB-/Baa3 rated bond. Florida water and wastewater utilities are assumed to be comparable to companies with the lowest investment grade bond rating, which is Baa3. This adjustment compensates for the difference between the credit quality of "A" rated debt and the credit quality of the minimum investment grade rating.
- A private placement premium of 50-basis points is added to reflect the difference in yields on publicly traded debt and privately placed debt, which is illiquid. Investors require a premium for the lack of liquidity of privately placed debt.
- A small utility risk premium of 50-basis points is added because the average Florida water and wastewater utility is too small to qualify for privately placed debt.

After the above adjustments, the resulting cost of equity estimate is included in the average capital structure for the natural gas utilities. The derivation of the leverage formula using the current methodology with updated financial information is presented in Attachment 1.

For administrative efficiency, the leverage formula is used to determine the appropriate return for an average Florida water and wastewater utility. Traditionally, we have applied the same leverage formula to all water and wastewater utilities. As is the case with other regulated companies under our jurisdiction, we have discretion in the determination of the appropriate ROE based on the evidentiary record in any proceeding. If one or more parties file testimony in opposition to the use of the leverage formula, we will determine the appropriate ROE based on the evidentiary record in that proceeding.

Based on the aforementioned, we find that the current range of returns on common equity of 8.74 percent to 11.16 percent is still reasonable for water and wastewater utilities. As such, the current leverage formula authorized by us in Order No. PSC-11-0287-PAA-WS shall remain unchanged until we address the leverage formula in 2013. Accordingly, the following leverage formula is approved:

Return on Common Equity = 7.13% + 1.610/Equity Ratio

Where the Equity Ratio = Common Equity/(Common Equity + Preferred Equity + Long-Term and Short-Term Debt)

Range: 8.74% @ 100% equity to 11.16% @ 40% equity

Further, to discourage imprudent financial risk, the returns on common equity shall be capped at 11.16 percent for all water and wastewater utilities with equity ratios less than 40 percent. This cap is consistent with the methodology in Order No. PSC-08-0846-FOF-WS.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the current 2011 leverage formula authorized by us in Order No. PSC-11-0287-PAA-WS, and as set out above, shall continue to be used until the leverage formula is readdressed in 2013. It is further

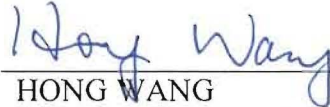
ORDERED that the returns on common equity shall be capped at 11.16 percent for all water and wastewater utilities with equity ratios less than 40 percent in order to discourage financial risk. It is further

ORDERED that Attachment 1 is incorporated herein by reference. It is further

ORDERED that the provisions of this Order, issued as proposed agency action, shall become final and effective upon the issuance of a Consummating Order unless an appropriate petition, in the form provided by Rule 28-106.201, Florida Administrative Code, is received by the Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings" attached hereto. It is further

ORDERED that upon expiration of the protest period, if a timely protest is not received from a substantially affected person, the decision shall become final and effective upon the issuance of a Consummating Order. However, this docket shall remain open to allow our staff to monitor changes in capital market conditions and to readdress the reasonableness of the leverage formula as conditions warrant.

By ORDER of the Florida Public Service Commission this 28th day of June, 2012.



HONG WANG  
Chief Deputy Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399  
(850) 413-6770  
www.floridapsc.com

Copies furnished: A copy of this document is provided to the parties of record at the time of issuance and, if applicable, interested persons.

RRJ

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing that is available under Section 120.57, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, in the form provided by Rule 28-106.201, Florida Administrative Code. This petition must be received by the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on July 19, 2012.

In the absence of such a petition, this order shall become final and effective upon the issuance of a Consummating Order.

Any objection or protest filed in this/these docket(s) before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

SUMMARY OF RESULTS

Leverage Formula Update

	<u>Updated Results</u>	<u>Currently in Effect</u>
(A) DCF ROE for Natural Gas Index	9.08%	8.25%
(B) CAPM ROE for Natural Gas Index	<u>9.70%</u>	<u>9.40%</u>
AVERAGE	9.39%	8.83%
Bond Yield Differential	0.59%	0.57%
Private Placement Premium	0.50%	0.50%
Small-Utility Risk Premium	0.50%	0.50%
Adjustment to Reflect Required Equity		
Return at a 40% Equity Ratio	1.15%	0.76%
Cost of Equity for Average Florida WAW		
Utility at a 40% Equity Ratio	12.14%	11.16%

2011 Leverage Formula (Currently in Effect)

Return on Common Equity =	7.13% + 1.610/ER
Range of Returns on Equity =	8.74% - 11.16%

Proposed 2012 Leverage Formula (Updated)

Return on Common Equity =	5.84% + 2.521/ER
Range of Returns on Equity =	8.36% - 12.14%



Marginal Cost of Investor Capital  
 Average Water and Wastewater Utility

<u>Capital Component</u>	<u>Ratio</u>	<u>Marginal Cost Rate</u>	<u>Weighted Marginal Cost Rate</u>
Common Equity	48.94%	10.99%	5.38%
Total Debt	<u>51.06%</u>	5.84% *	<u>2.98%</u>
	100.00%		8.36%

A 40% equity ratio is the floor for calculating the required return on common equity. The return on equity at a 40% equity ratio is  $5.84\% + 2.521/.40 = 12.14\%$

Marginal Cost of Investor Capital  
 Average Water & Wastewater Utility at 40% Equity Ratio

<u>Capital Component</u>	<u>Ratio</u>	<u>Marginal Cost Rate</u>	<u>Weighted Marginal Cost Rate</u>
Common Equity	40.00%	12.14%	4.86%
Total Debt	<u>60.00%</u>	5.84% *	<u>3.50%</u>
	100.00%		8.36%

Where: ER = Equity Ratio = Common Equity/(Common Equity + Preferred Equity + Long-Term Debt + Short-Term Debt)

\* Assumed Baa3 rate for April 2012 plus a 50 basis point private placement premium and a 50 basis point small utility risk premium.

Sources: Moody's Credit Perspectives and Value Line Selection and Opinion

ANNUAL DISCOUNTED CASH FLOW MODEL

INDEX	NATURAL GAS INDEX									APRIL		
	DIV0	DIV1	DIV2	DIV3	DIV4	EPS4	ROE4	GR1-4	GR4+	HI-PR	LO-PR	AVER-PR.
COMPANY												
AGL RESOURCES INC.	1.84	1.88	1.92	1.96	2.00	4.10	12.00	1.0208	1.0615	39.75	37.75	38.750
ATMOS ENERGY CORPORATION	1.38	1.40	1.43	1.45	1.48	2.70	8.00	1.0187	1.0361	32.65	30.80	31.725
LACLEDE GROUP, INC.	1.65	1.69	1.73	1.76	1.80	3.05	10.00	1.0212	1.0410	39.98	38.45	39.215
NORTHWEST NATURAL GAS CO.	1.78	1.82	1.86	1.90	1.94	3.60	10.50	1.0215	1.0484	46.08	43.90	44.990
PIEDMONT NATURAL GAS CO., INC.	1.19	1.23	1.27	1.31	1.35	1.90	13.00	1.0315	1.0376	31.61	29.05	30.330
SOUTH JERSEY INDUSTRIES, INC.	1.64	1.80	1.94	2.09	2.25	4.50	17.00	1.0772	1.0850	51.03	47.42	49.225
SOUTHWEST GAS CORPORATION	1.18	1.30	1.39	1.49	1.60	3.80	12.00	1.0717	1.0695	43.52	40.76	42.140
WGL HOLDINGS, INC.	1.59	1.63	1.67	1.71	1.75	2.80	10.00	1.0240	1.0375	41.30	38.56	39.930
AVERAGE	1.5313	1.5938	1.6500	1.7092	1.7713	3.3063	11.5625	1.0358	1.0521			39.538

VALUE LINE ISSUE: March 9, 2012

S&P STOCK GUIDE: MAY 2012 with APRIL Stock Prices

Stock Price w/four Percent Flotation Costs	\$37.96	Annual	9.08%	ROE
Cash Flows	1.4181	1.3512	1.2826	1.2180
Present Value of Cash Flows	37.9566	1.1617	31.5251	

NOTE: The cash flows for this multi-stage DCF Model are derived using the average forecasted dividends and the near term and long term growth rates. The discount rate, equates the cash flows with the average stock price less flotation cost.

\$37.96 = April 2012 average stock price with a 4% flotation cost.

9.08% = Cost of equity required to match the current stock price with the expected cash flows

Sources:

1 Stock Prices - S&P Stock Guide, May 2012 Edition.

2 DPS, EPS, ROE - Value Line Issue: March 9, 2012.

Capital Asset Pricing Model Cost of Equity for  
Water and Wastewater Industry

CAPM analysis formula

$$K = RF + \text{Beta} (MR - RF)$$

K = Investor's required rate of return

RF = Risk-free rate (Blue Chip forecast for Long-term Treasury bond,  
May 1, 2012)

Beta = Measure of industry-specific risk (Average for water utilities followed by  
Value Line)

MR = Market return (Value Line Investment Survey For Windows, May 2012)  
 $9.70\% = 3.66\% + 0.68(12.31\% - 3.66\%) + 0.20\%$

Note: The market return was calculated using a quarterly DCF model for a large number of dividend paying stocks followed by Value Line. For May 2012, the result was 12.31%. Also, 20-basis points were added to the CAPM result to allow for a four-percent flotation cost.

BOND YIELD DIFFERENTIALS									
Public Utility Long Term Bond Yield Averages									
120-Month Average Spread		0.1482		0.1482		0.1482		0.1482	
MONTH/YEAR	A2	SPREAD	A3	SPREAD	Baa1	SPREAD	Baa2	SPREAD	Baa3
April 2012	4.23	0.15	4.38	0.15	4.53	0.15	4.68	0.15	4.83
Sources: Moody's Credit Perspectives and Value Line Selection and Opinion									

INDEX STATISTICS AND FACTS

<u>Natural Gas Distribution Proxy Group</u>	<u>S &amp; P Bond Rating</u>	<u>% of Gas Revenue</u>	<u>V/L Market Capital (\$ millions)</u>	<u>Equity Ratio</u>	<u>Value Line Beta</u>
AGL Resources Inc.	BBB+	68%	\$ 3,061.43	40.38%	0.75
Atmos Energy Corporation	BBB+	62%	\$ 2,906.33	46.62%	0.70
Laclede Group, Inc.	A	56%	\$ 887.66	55.26%	0.60
Northwest Natural Gas Co.	A+	56%	\$ 1,205.91	46.46%	0.60
Piedmont Natural Gas Co., Inc.	A	100%	\$ 2,155.24	49.77%	0.70
South Jersey Industries, Inc.	BBB+	58%	\$ 1,463.00	45.49%	0.65
Southwest Gas Corporation	BBB+	74%	\$ 1,918.20	49.43%	0.75
WGL Holdings, Inc.	A+	51%	\$ 2,027.40	58.12%	0.65
Average:	A			48.94%	0.68
Sources: Value Line Investment Survey for Windows, May 2012 S.E.C. Forms 10Q and 10K for Companies AUS Utility Report, May 2012 Standard & Poor's Ratings Direct					