State of Florida

Public Service Commission

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COMMISSION CLERK

DATE: June 7, 2012

TO: Office of Commission Clerk (Cole)

DRB MC ALM

FROM: Division of Economic Regulation (Buys, Cicchetti)
Office of the General Counsel (Jaeger) JSC

RE: Docket No. 120006-WS – 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.

AGENDA: 06/19/12 – Regular Agenda – Proposed Agency Action - Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Balbis

CRITICAL DATES: 12/31/2012 – Pursuant to Section 367.081(4)(f), F.S.

SPECIAL INSTRUCTIONS: None

FILE NAME AND LOCATION: S:\PSC\ECR\WP\120006.RCM.DOC

Case Background

Section 367.081(4)(f), Florida Statutes (F.S.), authorizes the 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.[1] On October 23, 2008, the Commission held a formal hearing in Docket No. 080006-WS to allow interested parties to

[1] 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.

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provide testimony regarding the validity of the leverage formula.[2] Based on the record in that proceeding, the Commission approved the 2008 leverage formula in Order No. PSC-08-0846-FOF-WS.[3] In that order, the Commission reaffirmed the methodology that was previously approved in Order No. PSC-01-2514-FOF-WS. In 2011, the Commission approved the leverage formula currently in effect by Order No. PSC-11-0287-PAA-WS.[4]

Staff 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 staff's annual review, there is an insufficient number of WAW utilities that meet the requisite criteria to assemble an appropriate proxy group. Therefore, since 2001, the Commission has 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. Staff uses 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 WAW utilities.

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

The Commission has jurisdiction pursuant to Section 367.081, F.S.

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[2] At the May 20, 2008, Commission Agenda Conference, upon request of the Office of Public Counsel, the Commission voted to set the establishment of the appropriate leverage formula directly for hearing.

[3] 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.

[4] 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.

Discussion of Issues

Issue 1: What is the appropriate range of returns on common equity for water and wastewater (WAW) utilities pursuant to Section 367.081(4)(f), Florida Statutes?

Recommendation: Staff recommends that the current 2011 leverage formula authorized by the Commission in Order No. PSC-11-0287-PAA-WS continue to be used until the leverage formula is readdressed in 2013. Accordingly, staff recommends the following leverage formula:

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

Additionally, staff recommends that the Commission cap returns on common equity at 11.16 percent for all WAW utilities with equity ratios less than 40 percent. Staff believes that this will discourage imprudent financial risk. This cap is consistent with the methodology in Order No. PSC-08-0846-FOF-WS.

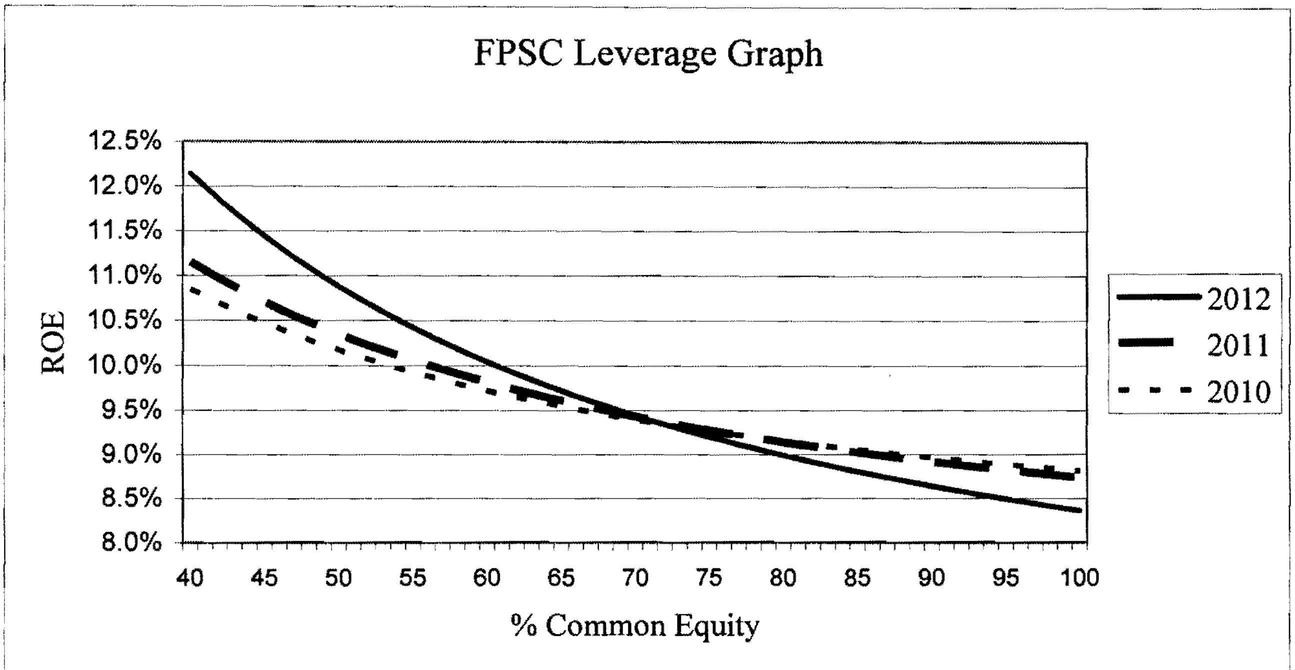
(Buys, Cicchetti)

Staff Analysis: Section 367.081(4)(f), F.S., authorizes the Commission to establish a leverage formula to calculate a reasonable range of returns on common equity for WAW utilities. The Commission must establish this leverage formula not less than once a year.

For the instant docket, staff updated the leverage formula using current financial information and the Commission approved methodology. However, the 2012 updated leverage formula increases the upper end of the allowed return on equity range by almost 100 basis points while lowering the bottom of the range 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 WAW 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 the Commission's 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 federal policies have lowered interest rates thereby increasing the slope of the leverage formula relative to previous years, staff believes the updated leverage formula is not optimal for determining the appropriate authorized ROE for WAW 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



In staff's opinion, the 2011 leverage formula range of 8.74 percent to 11.16 percent is still reasonable for WAW utilities. Therefore, staff recommends that the current leverage formula continue to be used for determining the return on equity for WAW utilities. Staff believes retaining the use of the current in-place leverage formula until the leverage formula is addressed again in 2013 is a reasonable alternative to updating the formula using current financial information.

In 1996, the staff recommended, and the Commission voted, to continue to base the authorized ROE for WAW utilities on the leverage formula instituted in 1995.[5] In Order No. PSC-96-0729-FOF-WS, the Commission 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 WAW utilities on the leverage formula from the prior year.

Staff continues to believe the leverage formula is a sound, workable methodology that reduces the costs and administrative burdens in WAW rate cases by eliminating the need for cost of equity testimony. Many of the WAW utilities under the Commission's jurisdiction are small

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[5] 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.

Although staff recommends the current 2011 leverage formula should remain in place, staff has provided the updated 2012 leverage formula using the most recent financial information. The updated model produced the following leverage formula:

Return on Common Equity = 5.84% + 2.521/Equity Ratio

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

Range: 8.36% @ 100% equity to 12.14% @ 40% equity

In conjunction with the 2012 leverage formula, the returns on common equity should be capped at 12.14 percent for all WAW 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, staff used the same methodologies used in the 2011 docket. Staff notes that the leverage formula depends on four basic assumptions:

1) Business risk is similar for all WAW 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 WAW 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 WAW utility.

The leverage formula relies on two ROE models. Staff adjusted the results of these models to reflect differences in risk and debt cost between the index of companies used in the models and the average Florida WAW 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 (NG) 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 NG 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 NG utilities. The market return for the 2012 leverage formula was calculated using a quarterly DCF model with stock prices as of May 16, 2012.

Staff 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 NG utility index, and a BBB-/Baa3 rated bond. Florida WAW 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 WAW 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 NG 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 WAW utility. Traditionally, the Commission has applied the same leverage formula to all WAW utilities. As is the case with other regulated companies under the Commission's jurisdiction, the Commission has 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, the Commission will determine the appropriate ROE based on the evidentiary record in that proceeding.

Based on the aforementioned, staff believes that the current range of returns on common equity of 8.74 percent to 11.16 percent is still reasonable for WAW utilities. As such, staff recommends the current leverage formula authorized by the Commission in Order No. PSC-11-0287-PAA-WS remain unchanged until the leverage formula is readdressed in 2013.

Issue 2: Should this docket be closed?

Recommendation: No. Upon expiration of the protest period, if a timely protest is not received from a substantially affected person, the decision should become final and effective upon the issuance of a Consummating Order. However, this docket should remain open to allow staff to monitor changes in capital market conditions and to readdress the reasonableness of the leverage formula as conditions warrant. (Jaeger, Buys, Cicchetti)

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

SUMMARY OF RESULTS

Leverage Formula Update

	Updated Results	Currently in Effect
(A) DCF ROE for Natural Gas Index	9.08%	8.25%
(B) CAPM ROE for Natural Gas Index	9.70%	9.40%
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

Capital Component	Ratio	Marginal Cost Rate	Weighted Marginal Cost Rate
Common Equity	48.94%	10.99%	5.38%
Total Debt	51.06%	5.84% *	2.98%
	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

Capital Component	Ratio	Marginal Cost Rate	Weighted Marginal Cost Rate
Common Equity	40.00%	12.14%	4.86%
Total Debt	60.00%	5.84% *	3.50%
	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

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Attachment 1
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ANNUAL DISCOUNTED CASH FLOW MODEL

INDEX NATURAL GAS INDEX

VALUE LINE ISSUE: March 9, 2012

COMPANY	DIV0	DIV1	DIV2	DIV3	DIV4	EPS4	ROE4	GR1-4	GR4+	APRIL HI-PR	APRIL LO-PR	APRIL AVER-PR
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

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	1.1617	31.5251
Present Value of Cash Flows	37.9566					

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 + 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: Staff calculated the market return 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%. Staff also added 20 basis points 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

Natural Gas Distribution Proxy Group	S & P Bond Rating	% of Gas Revenue	V/L Market Capital ($ millions)	Equity Ratio	Value Line Beta
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 RatingsDirect