State of Florida

Public Service Commission

-M-E-M-O-R-A-N-D-U-M-

DATE: May 19, 2010

TO: Office of Commission Clerk (Cole)

FROM: Division of Economic Regulation (Buys, Maurey, Salnova, Springer)
Office of the General Counsel (Sayler, Brubaker)

RE: Docket No. 100006-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: 06/01/10 – Regular Agenda – Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Skop

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

FILE NAME AND LOCATION: S:\PSC\ECR\WP\100006.RCM.DOC

Case Background

Section 367.081(4)(f), Florida Statutes, 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 provide testimony regarding the validity of the leverage formula. Based on the record in that proceeding, the Commission approved the 2008 leverage formula in Order No. PSC-08-0846-

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[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.

FOF-WS.[2] In that order, the Commission reaffirmed the methodology that was previously approved in Order No. PSC-01-2514-FOF-WS. In 2009, the Commission established the leverage formula currently in effect in Order No. PSC-09-0430-PAA-WS.[3]

This staff recommendation utilizes the current leverage formula methodology established in Order No. PSC-08-0846-FOF-WS. This methodology uses returns on equity 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, the Commission has used natural gas utilities as the proxy companies for the leverage formula since 2001. There are many natural gas utilities that have actively traded stocks and forecasted financial data. Staff used natural gas utilities that derive at least 52 percent of their revenue from regulated rates. These utilities have market power and are influenced significantly by economic regulation. As explained in the body of this recommendation, the model results based on natural gas utilities are adjusted to reflect the risks faced by Florida WAW utilities.

Although Subsection 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 retains the discretion to 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] 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.

[3] See Order No. PSC-09-0430-PAA-WS, issued June 19, 2009, in Docket No. 090006-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 leverage formula methodology be applied using updated financial data. Staff recommends the following leverage formula:

Return on Common Equity = 7.46% + 1.356/Equity Ratio

Where the Equity Ratio = Common Equity / (Common Equity + Preferred Equity + Long-Term and Short-Term Debt)
Range: 8.82% @ 100% equity to 10.85% @ 40% equity

(Buys, Springer)

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 equity for WAW utilities. The Commission must establish this leverage formula not less than once a year.

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;

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 utilities (NG) 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 9 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 2010 leverage formula was calculated using a quarterly DCF model.

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

- A bond yield differential of 53 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 cost of equity is determined at a 40 percent equity ratio and the leverage formula is derived. The derivation of the recommended leverage formula using the current methodology with updated financial data is presented in Attachment 1.

For administrative efficiency, the leverage formula is derived 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.

Staff recommends that the Commission cap returns on common equity at 10.85 percent for all water and wastewater 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.

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. (Sayler, Buys)

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	8.92%	9.87%
(B) CAPM ROE for Natural Gas Index	8.58%	9.28%
AVERAGE	8.75%	9.58%
Bond Yield Differential	0.53%	0.44%
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	0.57%	0.28%
Cost of Equity for Average Florida WAW Utility at a 40% Equity Ratio	10.85%	11.30%

2009 Leverage Formula (Currently in Effect)

Return on Common Equity	=	8.58% + 1.087/ER
Range of Returns on Equity	=	9.67% - 11.30%

2010 Leverage Formula (Recommended)

Return on Common Equity	=	7.46% + 1.356/ER
Range of Returns on Equity	=	8.82% - 10.85%

Marginal Cost of Investor Capital
Average Water and Wastewater Utility

Capital Component	Ratio	Marginal Cost Rate	Weighted Marginal Cost Rate
Common Equity	48.16%	10.28%	4.95%
Total Debt	51.84%	7.46% *	3.87%
	100.00%		8.82%

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 7.46% + 1.356/.40 = 10.85%

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%	10.85%	4.34%
Total Debt	60.00%	7.46% *	4.48%
	100.00%		8.82%

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

* Assumed Baa3 rate for March 2010 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

Value Line Issue: Ed. 3, March 12, 2010

COMPANY	DIV0	DIV1	DIV2	DIV3	DIV4	EPS4	ROE4	GR1-4	GR4+	MARCH HI-PR	LO-PR	AVER-PR
AGL RESOURCES INC.	1.76	1.80	1.84	1.88	1.92	3.40	11.00	1.0217	1.0479	38.83	36.33	37.580
ATMOS ENERGY CORPORATION	1.34	1.36	1.39	1.42	1.45	2.70	10.00	1.0216	1.0463	29.24	27.48	28.360
LACLEDE GROUP, INC.	1.57	1.61	1.66	1.70	1.75	3.00	11.00	1.0282	1.0458	34.63	32.88	33.755
NICOR INC.	1.86	1.86	1.86	1.86	1.86	3.30	11.50	1.0000	1.0502	43.75	41.82	42.785
NORTHWEST NATURAL GAS CO.	1.68	1.78	1.90	2.03	2.16	3.50	9.00	1.0666	1.0345	47.54	44.23	45.885
PIEDMONT NATURAL GAS CO., INC.	1.11	1.15	1.19	1.23	1.27	1.95	13.00	1.0336	1.0453	28.04	25.95	26.995
SOUTH JERSEY INDUSTRIES, INC.	1.34	1.40	1.46	1.53	1.60	3.30	14.50	1.0455	1.0747	42.50	39.63	41.065
SOUTHWEST GAS CORPORATION	1.00	1.05	1.10	1.15	1.20	2.65	9.00	1.0455	1.0492	30.70	28.83	29.765
WGL HOLDINGS, INC.	1.51	1.55	1.59	1.63	1.67	2.70	11.00	1.0252	1.0420	35.02	32.88	33.950
AVERAGE	1.4633	1.5067	1.5535	1.6024 1.7334	1.6533	2.9444	11.1111	1.0320	1.0484			35.571

S&P STOCK GUIDE: APRIL 2010 with MARCH Stock Prices

Stock Price w/four Percent Flotation Costs	$34.15			Annual	8.92%	ROE
Cash Flows	1.3534	1.2798	1.2117	1.1475	1.0915	28.0643
Present Value of Cash Flows	34.1483					

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, 8.92%, equates the cash flows with the average stock price less flotation cost.

$34.15 = March 2010 average stock price with a 4% flotation cost.

8.92% = Cost of equity required to match the current stock price with the expected cash flows.

Sources:
1. Stock Prices - S&P Stock Guide, April 2010 Edition.
2. DPS, EPS, ROE - Value Line Issue: Ed. 3, March 12, 2010.

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, April 1 2010)

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

MR =   Market return (Value Line Investment Survey For Windows, April 2010)

<u>8.58%</u> = $5.04\% + 0.66(10.09\% - 5.04\%) + 0.20\%$

Note: Staff calculated the market return using a quarterly DCF model for a large number of dividend paying stocks followed by Value Line. For March 2010, the result was 10.09%. 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		0.1319		0.1319		0.1319		0.1319	
MONTH/YEAR	A2	SPREAD	A3	SPREAD	Baa1	SPREAD	Baa2	SPREAD	Baa3
Mar-10	5.85	0.16	6.01	0.16	6.17	0.16	6.33	0.16	6.49
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.	A-	64%	$ 2,956.68	40.86%	0.75
Atmos Energy Corporation	BBB+	60%	$ 2,708.22	49.01%	0.65
Laclede Group, Inc.	A	57%	$ 763.24	49.87%	0.60
NICOR Inc.	AA	82%	$ 1,913.86	51.12%	0.70
Northwest Natural Gas Co.	AA-	98%	$ 1,255.81	47.19%	0.60
Piedmont Natural Gas Co., Inc.	A	86%	$ 1,980.53	45.79%	0.65
South Jersey Industries, Inc.	A	59%	$ 1,255.99	50.00%	0.60
Southwest Gas Corporation	BBB	85%	$ 1,375.45	44.01%	0.75
WGL Holdings, Inc.	AA-	52%	$ 1,742.05	55.60%	0.65
Average:				48.16%	0.66
Sources:					

Value Line Investment Survey for Windows, April 2010
S.E.C. Forms 10Q and 10K for Companies
AUS Utility Report, March 2010