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COMMISSION CLERK

Public Service Commission

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

DATE: May 20, 2009

TO: Office of Commission Clerk (Cole)

FROM: Division of Economic Regulation (Springer, Bulecza-Banks, Buys)
Office of the General Counsel (Hartman)

RE: Docket No. 090006-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: 06/02/09 – Regular Agenda – Proposed Agency Action - Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Argenziano

CRITICAL DATES: 12/30/2009 – Pursuant to Section 367.081(4)(f), Florida Statutes

SPECIAL INSTRUCTIONS: Place before Docket No. 080249-WS

FILE NAME AND LOCATION: S:\PSC\ECR\WP\090006.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. At the May 20, 2008, Agenda Conference, after hearing from staff and from counsel of the Office of Public Counsel (OPC) and Utilities, Inc. (UI), the Commission decided that it would be appropriate and administratively efficient to set the establishment of the 2008 leverage formula for WAW utilities directly for hearing. The formal hearing was held on October 23, 2008. OPC and UI sponsored witnesses and participated at the hearing. Based on the record from this proceeding, the Commission approved the leverage

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formula currently in effect in Order No. PSC-08-0846-FOF-WS, issued December 31, 2008. In this order, the Commission reaffirmed the methodology that was previously approved in Order No. PSC-01-2514-FOF-WS, issued December 24, 2001, in Docket No. 010006-WS.

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. In the recent case involving Aqua Utilities Florida (AUF), the Commission determined that the record supported an authorized ROE for AUF different from the return indicated by its leverage formula.[1]

This staff recommendation utilizes the current leverage formula methodology established in Order No. PSC-08-0846-FOF-WS. This methodology uses returns on equity 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 50 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.

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

[1] The Commission voted on Docket No. 080121-WS regarding AUF at the Agenda Conference held on February 24, 2009, In re: Application for increase in water and wastewater rates in Alachua, Brevard, DeSoto, Highlands, Lake, Lee, Marion, Orange, Palm Beach, Pasco, Polk, Putnam, Seminole, Sumter, Volusia, and Washington Counties by Aqua Utilities Florida, Inc.

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 = 8.58% + 1.087/Equity Ratio

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

Range: 9.67% @ 100% equity to 11.30% @ 40% equity

(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 2009 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 44 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 11.30 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. (Hartman, Springer)

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	9.87%	9.68%
(B) CAPM ROE for Natural Gas Index	9.28%	11.40%
AVERAGE	9.58%	10.54%
Bond Yield Differential	0.44%	0.39%
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	0.28%	0.73%
Cost of Equity for Average Florida WAW Utility at a 40% Equity Ratio	11.30%	12.67%

2008 Leverage Formula (Currently in Effect)

Return on Common Equity	=	7.36% + 2.123/ER
Range of Returns on Equity	=	9.48% - 12.67%

2009 Leverage Formula (Recommended)

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

Marginal Cost of Investor Capital
Average Water and Wastewater Utility

Capital Component	Ratio	Marginal Cost Rate	Weighted Marginal Cost Rate
Common Equity	44.61%	11.02%	4.91%
Total Debt	55.39%	8.58% *	4.75%
	100.00%		9.67%

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 8.58% + 1.087/.40 = 11.30%

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%	11.30%	4.52%
Total Debt	60.00%	8.58% *	5.15%
	100.00%		9.67%

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

* Assumed Baa3 rate for March 2009 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 13, 2009

COMPANY	DIV0	DIV1	DIV2	DIV3	DIV4	EPS4	ROE4	GR1-4	GR4+	MARCH HI-PR	MARCH LO-PR	MARCH AVER-PR
AGL RESOURCES INC.	1.72	1.76	1.80	1.84	1.88	3.20	14.50	1.0222	1.0598	27.97	24.02	25.995
ATMOS ENERGY CORPORATION	1.32	1.34	1.36	1.38	1.40	2.50	9.50	1.0147	1.0418	23.94	20.07	22.005
LACLEDE GROUP, INC.	1.53	1.57	1.61	1.66	1.70	3.00	11.00	1.0269	1.0477	41.00	35.23	38.115
NICOR INC.	1.86	1.86	1.86	1.86	1.86	3.30	12.00	1.0000	1.0524	34.46	27.50	30.980
NORTHWEST NATURAL GAS CO.	1.58	1.66	1.77	1.88	2.00	3.45	11.00	1.0641	1.0462	45.19	37.71	41.450
PIEDMONT NATURAL GAS CO., INC.	1.05	1.10	1.15	1.20	1.25	2.15	13.50	1.0435	1.0565	26.74	20.68	23.710
SOUTH JERSEY INDUSTRIES, INC.	1.20	1.28	1.35	1.42	1.50	3.10	14.50	1.0543	1.0748	35.93	31.98	33.955
SOUTHWEST GAS CORPORATION	0.95	1.00	1.05	1.10	1.15	2.30	9.00	1.0477	1.0450	22.28	17.08	19.680
WGL HOLDINGS, INC.	1.45	1.50	1.53	1.57	1.60	2.75	11.00	1.0217	1.0460	34.32	28.89	31.605
AVERAGE	1.4067	1.4522	1.4972	1.5442	1.5933	2.8611	11.7778	1.0328	1.0522			29.722
				1.6766								

S&P STOCK GUIDE: APRIL 2009 with MARCH Stock Prices

Stock Price w/four Percent Flotation Costs		$28.53		Annual	9.87%	ROE
Cash Flows	1.2906	1.2123	1.1376	1.0680	1.0080	22.8162
Present Value of Cash Flows	28.5328					

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, 9.87%, equates the cash flows with the average stock price less flotation cost.

= March 2009 average stock price with a 4% flotation cost.

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

Sources:
1. Stock Prices - S&P Stock Guide, April 2009 Edition.
2. DPS, EPS, ROE - Value Line Edition 3, March 13, 2009.

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, 2009)
Beta	=	Measure of industry-specific risk (Average for water utilities followed by Value Line)
MR	=	Market return (Value Line Investment Survey For Windows, April 2009)
9.28%	=	3.92% + 0.67(11.66% - 3.92%) + 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 2009, the result was 11.66%. 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		0.1098		0.1098		0.1098		0.1098	
MONTH/YEAR	A2	SPREAD	A3	SPREAD	Baa1	SPREAD	Baa2	SPREAD	Baa3
Mar-09	6.04	0.48	6.52	0.48	6.99	0.48	7.47	0.48	7.95
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-	56%	$ 2,050.56	39.40%	0.75
Atmos Energy Corporation	BBB+	52%	$ 2,114.11	45.58%	0.60
Laclede Group, Inc.	A	50%	$ 828.07	43.77%	0.65
NICOR Inc.	AA	84%	$ 1,481.13	44.00%	0.75
Northwest Natural Gas Co.	AA-	98%	$ 1,129.21	45.26%	0.60
Piedmont Natural Gas Co., Inc.	A	75%	$ 1,889.70	42.82%	0.65
South Jersey Industries, Inc.	A	59%	$ 1,033.60	47.46%	0.65
Southwest Gas Corporation	BBB-	83%	$ 942.43	43.49%	0.70
WGL Holdings, Inc.	AA-	59%	$ 1,570.98	49.72%	0.65
Average:				44.61%	0.67
Sources:					

Value Line Investment Survey for Windows, April 2009
S.E.C. Forms 10Q and 10K for Companies
AUS Utility Report, March 2009