State of Florida

Public Service Commission

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TALLAHASSEE, FLORIDA 32399-0850

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

DATE: May 4, 2006

TO: Director, Division of the Commission Clerk & Administrative Services (Bayó)

FROM: Division of Economic Regulation (Lester, Springer)
Office of the General Counsel (Jaeger)

RE: Docket No. 060006-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: 05/16/06 – Regular Agenda – Proposed Agency Action - Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Carter

CRITICAL DATES: 12/30/06 – Pursuant to Section 367.081(4)(f), Florida Statutes

SPECIAL INSTRUCTIONS: None

FILE NAME AND LOCATION: S:\PSC\ECR\WP\060006.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 for water and wastewater (WAW) utilities. In Docket No. 050006-WS, the Commission established the current leverage formula by Order No. PSC-05-0680-PAA-WS, issued June 20, 2005.

This staff recommendation utilizes the current leverage formula methodology established in Order No. PSC-01-2514-FOF-WS, issued December 24, 2001, in Docket No. 010006-WS. Since then, the Commission has used this methodology in establishing the leverage formula.

This methodology uses returns on equity from financial models based upon an index of natural gas utilities. In establishing the methodology, the Commission found that relatively few WAW utilities have actively traded stocks. Furthermore, the available WAW utilities were heavily influenced by regulation in one state – California – and by merger activity. Therefore, 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 used natural gas utilities that derive at least 60% 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.

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 = 7.26% + 1.714/Equity Ratio

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

Range: 8.97% @ 100% equity to 11.54% @ 40% equity

(Lester, Springer)

Staff Analysis: Section 367.081(4)(f), Florida Statutes, 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% to 100%; 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% to 100%.

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

The leverage formula relies on two return on equity (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 12 companies that derive at least 60% 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 2006 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 43 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% 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.

Staff recommends that the Commission cap returns on common equity at 11.54%, for all water and wastewater utilities with equity ratios less than 40%. Staff believes that this will discourage imprudent financial risk. This cap is consistent with the methodology in Order No. PSC-01-2514-FOF-WS.

Issue 2: Should the Commission close this docket?

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, Lester)

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) CAPM ROE for Natural Gas Index	10.92%	10.61%
(B) DCF ROE for Natural Gas Index	8.74%	9.04%
AVERAGE	9.83%	9.83%
Bond Yield Differential	0.43%	0.43%
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%	0.52%
Cost of Equity for Average Florida WAW Utility at a 40% Equity Ratio	11.54%	11.78%

2005 Leverage Formula (Currently in Effect)

Return on Common Equity = 6.95% + 1.933/ER

Range of Returns on Equity = 8.88% - 11.78%

2006 Leverage Formula (Recommended)

Return on Common Equity = 7.26% + 1.714/ER

Range of Returns on Equity = 8.97% - 11.54%

Marginal Cost of Investor Capital
Average Water and Wastewater Utility

Capital Component	Ratio	Marginal Cost Rate	Weighted Marginal Cost Rate
Common Equity	42.85%	11.26%	4.82%
Total Debt	57.15%	7.26% *	4.15%
	100.00%		8.97%

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 7.26% + 1.714/.40 = 11.54%

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%	11.54%	4.62%
Total Debt	60.00%	7.26% *	4.35%
	100.00%		8.97%

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

* Assumed Baa3 rate for March 2006 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 17, 2006

COMPANY	DIV0	DIV1	DIV2	DIV3	DIV4	EPS4	ROE4	GR1-4	GR4+	MARCH HI-PR	MARCH LO-PR	MARCH AVER-PR
AGL RESOURCES	1.50	1.58	1.63	1.69	1.75	2.90	12.00	1.0347	1.0476	36.28	34.75	35.515
ATMOS ENERGY	1.26	1.28	1.30	1.33	1.35	2.50	10.50	1.0179	1.0483	26.95	25.98	26.465
CASCADE NAT. GAS	0.96	0.96	0.97	0.97	0.98	1.55	8.50	1.0069	1.0313	19.87	18.95	19.410
KEYSPAN CORP	1.87	1.91	1.97	2.03	2.10	2.90	9.50	1.0321	1.0262	41.00	40.49	40.745
LACLEDE GROUP	1.40	1.42	1.45	1.47	1.50	2.80	13.00	1.0184	1.0604	35.55	31.90	33.725
NICOR INC	1.86	1.88	1.93	1.97	2.02	2.80	13.00	1.0242	1.0362	42.93	39.25	41.090
NORTHWEST NAT. GAS	1.38	1.42	1.51	1.60	1.70	2.85	10.50	1.0618	1.0424	35.49	33.08	34.285
PEOPLES ENERGY	2.18	2.18	2.20	2.22	2.24	2.70	13.50	1.0091	1.0230	37.97	35.35	36.660
PIEDMONT NAT. GAS	0.96	1.00	1.05	1.11	1.17	1.75	12.50	1.0537	1.0414	24.66	23.21	23.935
SOUTH JERSEY IND.	0.93	0.98	1.03	1.09	1.15	2.30	13.00	1.0548	1.0650	28.84	26.72	27.780
SOUTHWEST GAS	0.82	0.82	0.82	0.82	0.82	2.30	10.50	1.0000	1.0676	28.97	26.62	27.795
WGL HOLDINGS	1.35	1.38	1.40	1.43	1.45	2.40	11.00	1.0166	1.0435	31.08	29.59	30.335
AVERAGE	1.3725	1.4008	1.4388	1.4782	1.5192 1.5866	2.48	11.4583	1.0275	1.0444			31.478

S&P STOCK GUIDE: APRIL 2006 with MARCH Stock Prices

Stock Price w/four Percent Flotation Costs	**$ 30.22**		Annual	**8.74%**	ROE
Cash Flows	1.2687	1.1928	1.1267	1.0647	1.0104	24.5559
Present Value of Cash Flows	30.2192					

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, 8.74%, equates the cash flows with the average stock price less flotation cost.

$30.22 = March 2006 average stock price with a 4% flotation cost.

8.74% = Cost of equity required to match the current stock price with the expected cash flows.

Sources:
1. Stock Prices - S&P Stock Guide, April 2006 Edition.
2. DPS, EPS, ROE - Value Line Edition 3, March 17, 2006.

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, March 1, 2006)
Beta	=	Measure of industry-specific risk (Average for water utilities followed by Value Line)
MR	=	Market return (Value Line Investment Survey For Windows, March 2006)
10.92%	=	5.04% + 0.81(12.03% - 5.04%) + .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 2006, the result was 12.03%. 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		0.1070		0.1070		0.1070		0.1070	
MONTH/YEAR	A2	SPREAD	A3	SPREAD	Baa1	SPREAD	Baa2	SPREAD	Baa3
Mar-06	5.82	0.11	5.93	0.11	6.04	0.11	6.15	0.11	6.25
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	A-	64%	2,773.89	41.23%	0.90
Atmos Energy	BBB	61%	2,149.05	38.12%	0.70
Cascade Natural Gas	BBB+	93%	7,122.65	39.25%	0.85
KeySpan Corp.	A+	69%	222.26	49.30%	0.80
Laclede Group	A	60%	731.07	37.62%	0.80
NICOR Inc.	AA	85%	1,831.22	41.96%	1.15
Northwest Nat. Gas	A+	98%	935.29	47.21%	0.70
Peoples Energy	A-	65%	1,423.31	42.79%	0.85
Piedmont Natural Gas	A	78%	1,826.18	48.20%	0.75
South Jersey Industry	A	62%	810.63	45.49%	0.65
Southwest Gas Corporation	BBB-	85%	1,081.05	34.40%	0.80
WGL Holdings Inc.	AA-	64%	1,461.62	48.61%	0.80
Average:				42.85%	0.81
Sources:					

Value Line Investment Survey for Windows, March 2006
S.E.C. Forms 10Q and 10K for Companies
C.A. Turner Utilities Report, March 2006