## 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.

The following Commissioners participated in the disposition of this matter:

MATTHEW M. CARTER II, Chairman LISA POLAK EDGAR KATRINA J. McMURRIAN NANCY ARGENZIANO NATHAN A. SKOP

#### <u>NOTICE OF PROPOSED AGENCY ACTION ORDER</u> <u>ESTABLISHING AUTHORIZED RANGE OF RETURNS ON COMMON EQUITY</u> <u>FOR WATER AND WASTEWATER UTILITIES</u>

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.

#### Background

Section 367.081(4)(f), Florida Statutes (F.S.), authorizes us 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 Commission staff and from counsel of the Office of Public Counsel (OPC) and Utilities, Inc. (UI), we 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, we approved the leverage formula currently in effect in Order No. PSC-08-0846-FOF-WS, issued December 31, 2008. In that order, we 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 us to establish a range of returns for setting the authorized ROE for WAW utilities, we retain the discretion to set an ROE for WAW utilities based on record evidence in any proceeding. If one or more parties file testimony in

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opposition to the use of the leverage formula, we will determine the appropriate ROE based on the evidentiary record in that proceeding; For example, in the recent case involving Aqua Utilities Florida (AUF), we determined that the record supported an authorized ROE for AUF different from the return indicated by its leverage formula.<sup>1</sup>

This Order 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 our annual review, there is an insufficient number of WAW utilities that meet the requisite criteria to assemble an appropriate proxy group. Therefore, we have 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. We 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 Order, the model results based on natural gas utilities are adjusted to reflect the risks faced by Florida WAW utilities.

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

#### Decision

The current leverage formula methodology was applied using updated financial data, and is calculated as follows:

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

Section 367.081(4)(f), F.S., authorizes us to establish a leverage formula to calculate a reasonable range of returns on equity for WAW utilities. We must establish this leverage formula not less than once a year.

We note 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,

<sup>&</sup>lt;sup>1</sup> <u>See</u> Order No. PSC-09-0385-FOF-WS, issued May 29, 2009, in Docket No. 080121-WS, <u>In re: Application for</u> 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.

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. We 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 <u>Value Line Investment Survey</u> (<u>Value Line</u>). 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 <u>Value Line</u>, 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.

We 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 approved 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, we have applied the same leverage formula to all WAW utilities. As is the case with other regulated companies under the 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.

We find it appropriate to cap returns on common equity at 11.30 percent for all water and wastewater utilities with equity ratios less than 40 percent. We find that this will discourage imprudent financial risk. This cap is consistent with the methodology we approved in Order No. PSC-08-0846-FOF-WS.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the leverage formula methodology, summarized herein and in Attachment 1, used to calculate a range of returns on common equity for water and wastewater utilities, is hereby approved. It is further

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

ORDERED that returns on common equity are hereby capped at 11.30 percent for all water and wastewater utilities with equity ratios of less than 40 percent in order to discourage imprudent financial risk. 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 in the event this Order becomes final, 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 <u>19th</u> day of <u>June</u>, <u>2009</u>.

ANN COLE Commission Clerk

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#### 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 10, 2009.

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.

# Attachment 1

# SUMMARY OF RESULTS

# Leverage Formula Update

	<u>Approved</u> 2009 <u>Results</u>	2008 Results
(A) DCF ROE for Natural Gas Index	9.87%	9.68%
(B) CAPM ROE for Natural Gas Index	<u>9.28%</u>	<u>11.40%</u>
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	<u>0.28%</u>	<u>0.73%</u>
Cost of Equity for Average Florida WAW		÷
Utility at a 40% Equity Ratio	<u>11.30%</u>	<u>12.67%</u>
2008 Leverage Formula		
Return on Common Equity =	7.36% + 2.123/ER	
Range of Returns on Equity =	9.48% - 12.67%	

2009 Leverage Formula (Approved)	
Return on Common Equity =	8.58% + 1.087/ER
Range of Returns on Equity $=$	9.67% - 11.30%

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#### Marginal Cost of Investor Capital Average Water and Wastewater Utility

Capital Component	<u>Ratio</u>	Marginal <u>Cost Rate</u>	Weighted Marginal <u>Cost Rate</u>
Common Equity	44.61%	11.02%	4.91%
Total Debt	<u>55.39%</u>	8.58% *	<u>4.75%</u>
	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 <u>Cost Rate</u>	Weighted Marginal <u>Cost Rate</u>
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

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#### ANNUAL DISCOUNTED CASH FLOW MODEL

INDEX	NATURAL GAS INDEX											
			VALUE LINE ISSUE: Ed. 3, March 13, 2009									
											MARC	ж
COMPANY	DIV0	DIV1	DIV2	DIV3	DIV4	EPS4	ROE4	GR1-4	GR4+	HI- PR	LO- PR	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 Flotz	tock Price w/four Percent Flotation Costs			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.

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# 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)
<u>9.28%</u>	=	3.92% + 0.67(11.66% - 3.92%) + 0.20%

Note: We 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%. We also added 20 basis points to the CAPM result to allow for a four-percent flotation cost.

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	BONE	) YIELI	D DIFFERI	ENTIAI	LS			•
P	ublic Utility	y Long '	Term Bond	Yield A	Averages			
	0.1098		0.1098	]	0.1098		0.1098	]
			-					
A2	SPREAD	A3	SPREAD	Baal	SPREAD	Baa2	SPREAD	Baa3
6.04	0.48	6.52	0.48	6.99	0.48	7.47	0.48	7.95
	P A2 6.04	BONE Public Utility 0.1098 A2 SPREAD 6.04 0.48	BOND YIELI Public Utility Long 0.1098 A2 SPREAD A3 6.04 0.48 6.52	BOND YIELD DIFFERI   Public Utility Long Term Bond   0.1098 0.1098   A2 SPREAD A3 SPREAD   6.04 0.48 6.52 0.48	BOND YIELD DIFFERENTIAL   Public Utility Long Term Bond Yield A   0.1098 0.1098   A2 SPREAD A3 SPREAD Baa1   6.04 0.48 6.52 0.48 6.99	BOND YIELD DIFFERENTIALS   Public Utility Long Term Bond Yield Averages   0.1098 0.1098 0.1098   A2 SPREAD A3 SPREAD Baa1 SPREAD   6.04 0.48 6.52 0.48 6.99 0.48	BOND YIELD DIFFERENTIALS   Public Utility Long Term Bond Yield Averages   0.1098 0.1098 0.1098   A2 SPREAD A3 SPREAD Baa1 SPREAD Baa2   6.04 0.48 6.52 0.48 6.99 0.48 7.47	BOND YIELD DIFFERENTIALS   Public Utility Long Term Bond Yield Averages   0.1098 0.1098 0.1098 0.1098   A2 SPREAD A3 SPREAD Baa1 SPREAD Baa2 SPREAD   6.04 0.48 6.52 0.48 6.99 0.48 7.47 0.48

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

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

# INDEX STATISTICS AND FACTS

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