#### BEFORE THE 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.

DOCKET NO. 070006-WS ORDER NO. PSC-07-0472-PAA-WS ISSUED: June 1, 2007

The following Commissioners participated in the disposition of this matter:

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

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

BY THE COMMISSION:

### Background

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.

Section 367.081(4)(f), Florida Statutes, authorizes this 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. 060006-WS, we established the current leverage formula by Order No. PSC-06-0476-PAA-WS, issued June 5, 2006.

This Order sets the 2007 leverage formula and continues to use the current leverage formula methodology established in Order No. PSC-01-2514-FOF-WS, issued December 24, 2001, in Docket No. 010006-WS. This methodology uses returns on equity from financial models based upon an index of natural gas utilities that derive at least 60% of their revenue from regulated rates, with adjustments made to reflect the risks faced by Florida WAW utilities.

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

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Return on Common Equity = 7.10% + 1.961/Equity Ratio

Where the Equity Ratio equals: Common Equity/(Common Equity + Preferred Equity + Long-Term and Short-Term Debt)
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;
- 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. 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 nine 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 <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 2007 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 42 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 approved leverage formula using the current methodology with updated financial data is presented in Attachment 1 to this Order.

We have capped returns on common equity at 12.01% for all water and wastewater utilities with equity ratios less than 40%. We believe that this will discourage imprudent financial risk. This cap is consistent with the methodology we used in Order No. PSC-01-2514-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 12.01 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 Office of 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 1st day of June, 2007.

Commission Clerk

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**RRJ** 

### 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 June 22, 2007.

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.

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### SUMMARY OF RESULTS

### Leverage Formula Update

	<u>Updated</u> <u>Results</u>	Currently in Effect
(A) CAPM ROE for Natural Gas Index	10.98%	10.92%
(B) DCF ROE for Natural Gas Index	<u>8.89%</u>	<u>8.74%</u>
AVERAGE	9.93%	9.83%
Bond Yield Differential	0.42%	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	<u>0.66%</u>	<u>0.28%</u>
Cost of Equity for Average Florida WAW		
Utility at a 40% Equity Ratio	<u>12.01%</u>	<u>11.54%</u>
2006 Leverage Formula (Currently in Effect)		
Return on Common Equity =	7.26% + 1.714/F	ER
Range of Returns on Equity =	8.97% - 11.54%	
2007 Leverage Formula (Recommended)		
Return on Common Equity =	7.10% + 1.961/I	ER
Range of Returns on Equity =	9.07% - 12.01%	

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

Capital Component	<u>Ratio</u>	Marginal Cost Rate	Weighted Marginal Cost Rate
Common Equity Total Debt	46.20% 53.80%	11.35% 7.10% *	5.25% 3.82%
101412001	100.00%	772070	$\frac{9.07\%}{9.07\%}$

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 7.10% + 1.961/.40 = 12.01%

# 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%	12.01%	4.80%
Total Debt	60.00%	7.10% *	<u>4.26%</u>
	100.00%		9.07%

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

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

<sup>\*</sup> Assumed Baa3 rate for March 2007 plus a 50 basis point private placement premium and a 50 basis point small utility risk premium.

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### ANNUAL DISCOUNTED CASH FLOW MODEL

INDEX	NATURAL	GAS INDEX										
					VALUE LII	NE ISSUE	: Ed. 3, Marc	th 16, 2007				
											MARC	СН
COMPANY	DIV0	DIVI	DIV2	DIV3	DIV4	EPS4	ROE4	GR1-4	GR4+	HI- PR	LO- PR	AVER-PR
AGL RESOURCES	1.64	1.64	1.69	1.75	1.80	3.10	14.00	1.0315	1.0587	42.99	39.62	41.305
CASCADE NAT. GAS	0.96	0.96	0.97	0.97	0.98	1.40	8.50	1.0069	1.0255	26.42	25.94	26.180
EQUITABLE RESOURCES, INC.	0.91	0.95	0.98	1.00	1.03	2.90	18.00	1.0273	1.1161	50.50	41.19	45.845
KEYSPAN CORP.	1.91	1.95	2.02	2.09	2.16	2.80	8.50	1.0347	1.0194	41.38	40.40	40.890
NICOR INC.	1.90	1.90	1.93	1.97	2.00	2.90	12.00	1.0172	1.0372	49.76	44.76	47.260
NORTHWEST NAT. GAS	1.44	1.50	1.59	1.69	1.80	2.95	12.00	1.0627	1.0468	46.34	42.47	44.405
PIEDMONT NAT. GAS	0.99	1.03	1.07	1.11	1.15	1.55	11.50	1.0374	1.0297	27.31	24.33	25.820
SOUTH JERSEY INDUSTRIES, INC.	0.98	1.05	1.10	1.15	1.20	3.30	17.50	1.0455	1.1114	38.56	33.02	35.790
SOUTHWEST GAS CORP.	0.86	0.86	0.87	0.89	0.90	2.60	10.00	1.0153	1.0654	39.40	35.30	37.350
AVERAGE	1.2878	1.3156	1.3576	1.4012	1.4467	2.6111	12.4444	1.0309	1.0567			38.316

S&P STOCK GUIDE: APRIL 2007 with MARCH Stock Prices

Stock Price w/four Percent Flotation Costs		\$ 36.78		Annual	8.89%	ROE	
Cash Flows	1.1890	1.1184	1.0600	1.0048	0.9585	31.4528	
Present Value of Cash Flows	36.7835						

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, 8.89%, equates the cash flows with the average stock price less flotation cost.

\$36.78 = March 2007 average stock price with a 4% flotation cost.

8.89% = Cost of equity required to match the current stock price with the expected cash flows.

#### Sources:

- 1. Stock Prices S&P Stock Guide, April 2007 Edition.
- 2. DPS, EPS, ROE Value Line Edition 3, March 16, 2007.

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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, 2007)

Beta = Measure of industry-specific risk (Average for water utilities followed by

Value Line)

MR = Market return (Value Line Investment Survey For Windows, April 2007)

 $\underline{10.98\%} = 4.96\% + 0.87(11.63\% - 4.96\%) + 0.20\%$ 

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 2007, the result was 11.63%. Staff also added 20 basis points to the CAPM result to allow for a four-percent flotation cost.

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	P	ublic Utility	y Long	Term Bond	Yield A	Averages			
120 Month Average Spread		0.1043		0.1043		0.1043		0.1043	
MONTH/YEAR	A2	SPREAD	A3	SPREAD	Baal	SPREAD	Baa2	SPREAD	Baa3
Mar-07	5.82	0.06	5.88	0.06	5.94	0.06	6.00	0.06	6.06

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### INDEX STATISTICS AND FACTS

Natural Gas Distribution Proxy <u>Group</u>	S & P Bond	% of Gas Revenue	V/L Market Capital (millions)	Equity Ratio	Value Line Beta
	Rating				
AGL Resources	A-	61%	3,376.52	42.68%	0.95
Cascade Natural Gas	BBB+	100%	301.23	43.36%	0.85
Equitable Resources, Inc.	A-	75%	6,075.29	51.27%	0.80
KeySpan Corp.	A+	71%	7,249.78	50.07%	0.85
NICOR Inc.	AA	86%	2,300.72	50.71%	1.30
Northwest Nat. Gas	AA-	99%	1,246.96	48.11%	0.75
Piedmont Natural Gas	A	82%	1,983.96	46.31%	0.80
South Jersey Industries, Inc.	A	67%	1,103.52	44.39%	0.70
Southwest Gas Corporation	BBB-	85%	1,578.81	38.93%	0.85
Average:				46.20%	0.87
Sources:					

Value Line Investment Survey for Windows, April 2007 S.E.C. Forms 10Q and 10K for Companies

AUS Utility Report, March 2007