

Exhibit No. __ (AEB-5)
Docket No. UG-200568
Witness: Ann E. Bulkley

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,
Complainant,

v.

CASCADE NATURAL GAS
CORPORATION,

Respondent.

DOCKET UG-200568

CASCADE NATURAL GAS CORPORATION EXHIBIT OF

ANN E. BULKLEY

RETURN ON EQUITY UPDATED MODELING RESULTS

January 8, 2021

SUMMARY OF ROE ANALYSES RESULTS¹

Constant Growth DCF			
	Median Low	Median	Median High
30-Day Average	8.77%	9.74%	12.49%
90-Day Average	8.82%	9.70%	12.58%
180-Day Average	9.35%	9.68%	12.46%
Constant Growth Average	8.98%	9.71%	12.51%
Constant Growth DCF - NWN Adjusted Value Line Growth Rate			
	Median Low	Median	Median High
30-Day Average	8.77%	9.44%	10.16%
90-Day Average	8.82%	9.52%	10.45%
180-Day Average	9.35%	9.41%	10.33%
Constant Growth Average	8.98%	9.46%	10.31%
CAPM			
	Current 30-day Average Treasury Bond Yield	Near-Term Blue Chip Forecast Yield	Long-Term Blue Chip Forecast Yield
Value Line Beta	12.67%	12.70%	12.81%
Bloomberg Beta	11.72%	11.76%	11.95%
ECAPM			
Value Line Beta	13.03%	13.05%	13.13%
Bloomberg Beta	12.32%	12.35%	12.49%
Treasury Yield Plus Risk Premium			
	Current 30-day Average Treasury Bond Yield	Near-Term Blue Chip Forecast Yield	Long-Term Blue Chip Forecast Yield
Risk Premium Analysis	9.20%	9.29%	9.70%
Risk Premium Mean Result	9.40%		
Expected Earnings Analysis			
	Mean	Median	
Expected Earnings Analysis	9.59%	9.46%	

Notes:

[1] The analytical results included in the table reflect the results of the Constant Growth DCF analysis excluding the results for individual companies that did not meet the minimum threshold of 7 percent.

30-DAY CONSTANT GROWTH DCF -- CASCADE NATURAL GAS PROXY GROUP

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	All Proxy Group		With Exclusions		
		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Low ROE	Mean ROE	High ROE	Low ROE	Mean ROE	High ROE
Atmos Energy Corporation	ATO	\$2.50	\$96.87	2.58%	2.67%	7.00%	7.10%	7.10%	7.07%	9.67%	9.74%	9.77%	9.67%	9.74%	9.77%
New Jersey Resources Corporation	NJR	\$1.33	\$32.93	4.04%	4.13%	2.00%	6.00%	6.00%	4.67%	6.08%	8.80%	10.16%		8.80%	10.16%
Northwest Natural Gas Company	NWN	\$1.92	\$47.43	4.05%	4.26%	24.50%	3.10%	3.10%	10.23%	7.21%	14.49%	29.04%	7.21%	14.49%	29.04%
ONE Gas Inc.	OGS	\$2.16	\$74.83	2.89%	2.97%	6.50%	5.00%	5.50%	5.67%	7.96%	8.63%	9.48%	7.96%	8.63%	9.48%
South Jersey Industries, Inc.	SJI	\$1.18	\$21.63	5.46%	5.76%	12.50%	10.40%	10.40%	11.10%	16.14%	16.86%	18.30%	16.14%	16.86%	18.30%
Southwest Gas Corporation	SWX	\$2.28	\$68.21	3.34%	3.44%	9.00%	4.00%	5.00%	6.00%	7.41%	9.44%	12.49%	7.41%	9.44%	12.49%
Spire, Inc.	SR	\$2.49	\$60.72	4.10%	4.29%	5.50%	5.37%	16.50%	9.12%	9.58%	13.41%	20.94%	9.58%	13.41%	20.94%
Median				4.04%	4.13%	7.00%	5.37%	6.00%	7.07%	7.96%	9.74%	12.49%	8.77%	9.74%	12.49%

Notes:

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, equals 30-day average as of November 30, 2020.
- [3] Equals [1] / [2]
- [4] Equals [3] x (1 + 0.50 x [8])
- [5] Source: Value Line
- [6] Source: Yahoo! Finance
- [7] Source: Zacks
- [8] Equals Average ([5], [6], [7])
- [9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7]))
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7]))
- [12] - [14] Excludes companies with ROEs less than the a 7.00% return.

90-DAY CONSTANT GROWTH DCF -- CASCADE NATURAL GAS PROXY GROUP

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	All Proxy Group		With Exclusions		
		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Low ROE	Mean ROE	High ROE	Low ROE	Mean ROE	High ROE
Atmos Energy Corporation	ATO	\$2.50	\$98.14	2.55%	2.64%	7.00%	7.10%	7.10%	7.07%	9.64%	9.70%	9.74%	9.64%	9.70%	9.74%
New Jersey Resources Corporation	NJR	\$1.33	\$30.78	4.32%	4.42%	2.00%	6.00%	6.00%	4.67%	6.36%	9.09%	10.45%		9.09%	10.45%
Northwest Natural Gas Company	NWN	\$1.92	\$48.79	3.94%	4.14%	24.50%	3.10%	3.10%	10.23%	7.10%	14.37%	28.92%	7.10%	14.37%	28.92%
ONE Gas Inc.	OGS	\$2.16	\$73.51	2.94%	3.02%	6.50%	5.00%	5.50%	5.67%	8.01%	8.69%	9.53%	8.01%	8.69%	9.53%
South Jersey Industries, Inc.	SJI	\$1.18	\$21.60	5.46%	5.77%	12.50%	10.40%	10.40%	11.10%	16.15%	16.87%	18.30%	16.15%	16.87%	18.30%
Southwest Gas Corporation	SWX	\$2.28	\$66.63	3.42%	3.52%	9.00%	4.00%	5.00%	6.00%	7.49%	9.52%	12.58%	7.49%	9.52%	12.58%
Spire, Inc.	SR	\$2.49	\$58.44	4.26%	4.46%	5.50%	5.37%	16.50%	9.12%	9.75%	13.58%	21.11%	9.75%	13.58%	21.11%
Median				3.94%	4.14%	7.00%	5.37%	6.00%	7.07%	8.01%	9.70%	12.58%	8.82%	9.70%	12.58%

Notes:

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, equals 90-day average as of November 30, 2020
- [3] Equals [1] / [2]
- [4] Equals [3] x (1 + 0.50 x [8])
- [5] Source: Value Line
- [6] Source: Yahoo! Finance
- [7] Source: Zacks
- [8] Equals Average ([5], [6], [7])
- [9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7]))
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7]))
- [12] - [14] Excludes companies with ROEs less than the a 7.00% return.

180-DAY CONSTANT GROWTH DCF -- CASCADE NATURAL GAS PROXY GROUP

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	All Proxy Group		With Exclusions		
		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Low ROE	Mean ROE	High ROE	Low ROE	Mean ROE	High ROE
Atmos Energy Corporation	ATO	\$2.50	\$99.18	2.52%	2.61%	7.00%	7.10%	7.10%	7.07%	9.61%	9.68%	9.71%	9.61%	9.68%	9.71%
New Jersey Resources Corporation	NJR	\$1.33	\$31.66	4.20%	4.30%	2.00%	6.00%	6.00%	4.67%	6.24%	8.97%	10.33%		8.97%	10.33%
Northwest Natural Gas Company	NWN	\$1.92	\$54.28	3.54%	3.72%	24.50%	3.10%	3.10%	10.23%	6.69%	13.95%	28.47%		13.95%	28.47%
ONE Gas Inc.	OGS	\$2.16	\$76.42	2.83%	2.91%	6.50%	5.00%	5.50%	5.67%	7.90%	8.57%	9.42%	7.90%	8.57%	9.42%
South Jersey Industries, Inc.	SJI	\$1.18	\$23.63	4.99%	5.27%	12.50%	10.40%	10.40%	11.10%	15.65%	16.37%	17.80%	15.65%	16.37%	17.80%
Southwest Gas Corporation	SWX	\$2.28	\$68.80	3.31%	3.41%	9.00%	4.00%	5.00%	6.00%	7.38%	9.41%	12.46%	7.38%	9.41%	12.46%
Spire, Inc.	SR	\$2.49	\$64.30	3.87%	4.05%	5.50%	5.37%	16.50%	9.12%	9.35%	13.17%	20.69%	9.35%	13.17%	20.69%
Median				3.54%	3.72%	7.00%	5.37%	6.00%	7.07%	7.90%	9.68%	12.46%	9.35%	9.68%	12.46%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals 180-day average as of November 30, 2020

[3] Equals [1] / [2]

[4] Equals [3] x (1 + 0.50 x [8])

[5] Source: Value Line

[6] Source: Yahoo! Finance

[7] Source: Zacks

[8] Equals Average ([5], [6], [7])

[9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7]))

[10] Equals [4] + [8]

[11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7]))

[12] - [14] Excludes companies with ROEs less than the a 7.00% return.

30-DAY CONSTANT GROWTH DCF -- CASCADE NATURAL GAS PROXY GROUP - NWN ADJUSTED VALUE LINE GROWTH RATE

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	All Proxy Group			With Exclusions		
		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Low ROE	Mean ROE	High ROE	Low ROE	Mean ROE	High ROE
Atmos Energy Corporation	ATO	\$2.50	\$96.87	2.58%	2.67%	7.00%	7.10%	7.10%	7.07%	9.67%	9.74%	9.77%	9.67%	9.74%	9.77%
New Jersey Resources Corporation	NJR	\$1.33	\$32.93	4.04%	4.13%	2.00%	6.00%	6.00%	4.67%	6.08%	8.80%	10.16%		8.80%	10.16%
Northwest Natural Gas Company [15]	NWN	\$1.92	\$47.43	4.05%	4.13%	5.97%	3.10%	3.10%	4.06%	7.21%	8.19%	10.14%	7.21%	8.19%	10.14%
ONE Gas Inc.	OGS	\$2.16	\$74.83	2.89%	2.97%	6.50%	5.00%	5.50%	5.67%	7.96%	8.63%	9.48%	7.96%	8.63%	9.48%
South Jersey Industries, Inc.	SJI	\$1.18	\$21.63	5.46%	5.76%	12.50%	10.40%	10.40%	11.10%	16.14%	16.86%	18.30%	16.14%	16.86%	18.30%
Southwest Gas Corporation	SWX	\$2.28	\$68.21	3.34%	3.44%	9.00%	4.00%	5.00%	6.00%	7.41%	9.44%	12.49%	7.41%	9.44%	12.49%
Spire, Inc.	SR	\$2.49	\$60.72	4.10%	4.29%	5.50%	5.37%	16.50%	9.12%	9.58%	13.41%	20.94%	9.58%	13.41%	20.94%
Median				4.04%	4.13%	6.50%	5.37%	6.00%	6.00%	7.96%	9.44%	10.16%	8.77%	9.44%	10.16%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals 30-day average as of November 30, 2020.

[3] Equals [1] / [2]

[4] Equals [3] x (1 + 0.50 x [8])

[5] Source: Value Line

[6] Source: Yahoo! Finance

[7] Source: Zacks

[8] Equals Average ([5], [6], [7])

[9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7]))

[10] Equals [4] + [8]

[11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7]))

[12] - [14] Excludes companies with ROEs less than the a 7.00% return.

[15] The Value Line Growth Rate for NWN was adjusted to exclude the negative EPS data for 2017 which resulted in an adjusted projected EPS growth rate of 5.97% (Source: Schedule 3, page 4).

90-DAY CONSTANT GROWTH DCF -- CASCADE NATURAL GAS PROXY GROUP - NWN ADJUSTED VALUE LINE GROWTH RATE

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	All Proxy Group		With Exclusions		
		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Low ROE	Mean ROE	High ROE	Low ROE	Mean ROE	High ROE
Atmos Energy Corporation	ATO	\$2.50	\$98.14	2.55%	2.64%	7.00%	7.10%	7.10%	7.07%	9.64%	9.70%	9.74%	9.64%	9.70%	9.74%
New Jersey Resources Corporation	NJR	\$1.33	\$30.78	4.32%	4.42%	2.00%	6.00%	6.00%	4.67%	6.36%	9.09%	10.45%		9.09%	10.45%
Northwest Natural Gas Company [15]	NWN	\$1.92	\$48.79	3.94%	4.02%	5.97%	3.10%	3.10%	4.06%	7.10%	8.07%	10.02%	7.10%	8.07%	10.02%
ONE Gas Inc.	OGS	\$2.16	\$73.51	2.94%	3.02%	6.50%	5.00%	5.50%	5.67%	8.01%	8.69%	9.53%	8.01%	8.69%	9.53%
South Jersey Industries, Inc.	SJI	\$1.18	\$21.60	5.46%	5.77%	12.50%	10.40%	10.40%	11.10%	16.15%	16.87%	18.30%	16.15%	16.87%	18.30%
Southwest Gas Corporation	SWX	\$2.28	\$66.63	3.42%	3.52%	9.00%	4.00%	5.00%	6.00%	7.49%	9.52%	12.58%	7.49%	9.52%	12.58%
Spire, Inc.	SR	\$2.49	\$58.44	4.26%	4.46%	5.50%	5.37%	16.50%	9.12%	9.75%	13.58%	21.11%	9.75%	13.58%	21.11%
Median				3.94%	4.02%	6.50%	5.37%	6.00%	6.00%	8.01%	9.52%	10.45%	8.82%	9.52%	10.45%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals 90-day average as of November 30, 2020

[3] Equals [1] / [2]

[4] Equals [3] x (1 + 0.50 x [8])

[5] Source: Value Line

[6] Source: Yahoo! Finance

[7] Source: Zacks

[8] Equals Average ([5], [6], [7])

[9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7]))

[10] Equals [4] + [8]

[11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7]))

[12] - [14] Excludes companies with ROEs less than the a 7.00% return.

[15] The Value Line Growth Rate for NWN was adjusted to exclude the negative EPS data for 2017 which resulted in an adjusted projected EPS growth rate of 5.97% (Source: Schedule 3, page 4).

180-DAY CONSTANT GROWTH DCF -- CASCADE NATURAL GAS PROXY GROUP - NWN ADJUSTED VALUE LINE GROWTH RATE

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	All Proxy Group			With Exclusions		
		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Low ROE	Mean ROE	High ROE	Low ROE	Mean ROE	High ROE
Atmos Energy Corporation	ATO	\$2.50	\$99.18	2.52%	2.61%	7.00%	7.10%	7.10%	7.07%	9.61%	9.68%	9.71%	9.61%	9.68%	9.71%
New Jersey Resources Corporation	NJR	\$1.33	\$31.66	4.20%	4.30%	2.00%	6.00%	6.00%	4.67%	6.24%	8.97%	10.33%		8.97%	10.33%
Northwest Natural Gas Company [15]	NWN	\$1.92	\$54.28	3.54%	3.61%	5.97%	3.10%	3.10%	4.06%	6.69%	7.66%	9.61%		7.66%	9.61%
ONE Gas Inc.	OGS	\$2.16	\$76.42	2.83%	2.91%	6.50%	5.00%	5.50%	5.67%	7.90%	8.57%	9.42%	7.90%	8.57%	9.42%
South Jersey Industries, Inc.	SJI	\$1.18	\$23.63	4.99%	5.27%	12.50%	10.40%	10.40%	11.10%	15.65%	16.37%	17.80%	15.65%	16.37%	17.80%
Southwest Gas Corporation	SWX	\$2.28	\$68.80	3.31%	3.41%	9.00%	4.00%	5.00%	6.00%	7.38%	9.41%	12.46%	7.38%	9.41%	12.46%
Spire, Inc.	SR	\$2.49	\$64.30	3.87%	4.05%	5.50%	5.37%	16.50%	9.12%	9.35%	13.17%	20.69%	9.35%	13.17%	20.69%
Median				3.54%	3.61%	6.50%	5.37%	6.00%	6.00%	7.90%	9.41%	10.33%	9.35%	9.41%	10.33%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals 180-day average as of November 30, 2020

[3] Equals [1] / [2]

[4] Equals [3] x (1 + 0.50 x [8])

[5] Source: Value Line

[6] Source: Yahoo! Finance

[7] Source: Zacks

[8] Equals Average ([5], [6], [7])

[9] Equals [3] x (1 + 0.50 x Minimum ([5], [6], [7]) + Minimum ([5], [6], [7]))

[10] Equals [4] + [8]

[11] Equals [3] x (1 + 0.50 x Maximum ([5], [6], [7]) + Maximum ([5], [6], [7]))

[12] - [14] Excludes companies with ROEs less than the a 7.00% return.

[15] The Value Line Growth Rate for NWN was adjusted to exclude the negative EPS data for 2017 which resulted in an adjusted projected EPS growth rate of 5.97% (Source: Schedule 3, page 4).

**Actual and Adjusted Calculation of Northwest Natural's
 Projected Earnings Growth Rate from Value Line**

	[1]	[2]	[3]
	Actual Earnings Per Share	Projected Earnings Per Share (2023-2025)	Projected Earnings Growth Rate
2017	-1.94		
2018	2.33		
2019	2.19		
Mean (2017-2019)	0.86	3.2	24.48%
Mean (2018-2019)	2.26	3.2	5.97%

Notes:

[1] Source: Value Line, November 27, 2020

[2] Source: Value Line, November 27, 2020

[3] Equals $([2] / [1])^{(1/6)} - 1$

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & VL BETA

		[1]	[2]	[3]	[4]	[5]	[6]
		Current 30-day average of 30-year U.S. Treasury bond			Market	Market Risk	ECAPM
Company	Ticker	yield	Beta	Return	Premium	CAPM ROE	ROE
Atmos Energy Corporation	ATO	1.61%	0.80	14.10%	12.49%	11.60%	12.23%
New Jersey Resources Corporation	NJR	1.61%	0.95	14.10%	12.49%	13.48%	13.63%
Northwest Natural Gas Company	NWN	1.61%	0.80	14.10%	12.49%	11.60%	12.23%
ONE Gas Inc.	OGS	1.61%	0.80	14.10%	12.49%	11.60%	12.23%
South Jersey Industries, Inc.	SJI	1.61%	1.05	14.10%	12.49%	14.73%	14.57%
Southwest Gas Corporation	SWX	1.61%	0.95	14.10%	12.49%	13.48%	13.63%
Spire, Inc.	SR	1.61%	0.85	14.10%	12.49%	12.23%	12.70%
Mean						12.67%	13.03%

Notes:

- [1] Source: Bloomberg Professional
 [2] Source: Value Line; dated November 27, 2020
 [3] Source: Schedule-4, page 3
 [4] Equals [3] - [1]
 [5] Equals [1] + [2] x [4]
 [6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & VL BETA

		[1]	[2]	[3]	[4]	[5]	[6]
		Near-term projected 30-year U.S. Treasury bond yield			Market	Market Risk	ECAPM
Company	Ticker	(Q1 2021 - Q1 2022)	Beta	Return	Premium	CAPM ROE	ROE
Atmos Energy Corporation	ATO	1.82%	0.80	14.10%	12.28%	11.65%	12.26%
New Jersey Resources Corporation	NJR	1.82%	0.95	14.10%	12.28%	13.49%	13.64%
Northwest Natural Gas Company	NWN	1.82%	0.80	14.10%	12.28%	11.65%	12.26%
ONE Gas Inc.	OGS	1.82%	0.80	14.10%	12.28%	11.65%	12.26%
South Jersey Industries, Inc.	SJI	1.82%	1.05	14.10%	12.28%	14.72%	14.56%
Southwest Gas Corporation	SWX	1.82%	0.95	14.10%	12.28%	13.49%	13.64%
Spire, Inc.	SR	1.82%	0.85	14.10%	12.28%	12.26%	12.72%
Mean						12.70%	13.05%

Notes:

- [1] Source: Blue Chip Financial Forecasts, Vol. 39, No. 12, December 1, 2020, at 2
 [2] Source: Value Line; dated November 27, 2020
 [3] Source: Schedule-4, page 3
 [4] Equals [3] - [1]
 [5] Equals [1] + [2] x [4]
 [6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & VL BETA

		[1]	[2]	[3]	[4]	[5]	[6]
		Projected 30-year U.S. Treasury bond			Market	Market Risk	ECAPM
Company	Ticker	yield (2022 - 2026)	Beta	Return	Premium	CAPM ROE	ROE
Atmos Energy Corporation	ATO	2.80%	0.80	14.10%	11.30%	11.84%	12.41%
New Jersey Resources Corporation	NJR	2.80%	0.95	14.10%	11.30%	13.54%	13.68%
Northwest Natural Gas Company	NWN	2.80%	0.80	14.10%	11.30%	11.84%	12.41%
ONE Gas Inc.	OGS	2.80%	0.80	14.10%	11.30%	11.84%	12.41%
South Jersey Industries, Inc.	SJI	2.80%	1.05	14.10%	11.30%	14.67%	14.53%
Southwest Gas Corporation	SWX	2.80%	0.95	14.10%	11.30%	13.54%	13.68%
Spire, Inc.	SR	2.80%	0.85	14.10%	11.30%	12.41%	12.83%
Mean						12.81%	13.13%

Notes:

- [1] Source: Blue Chip Financial Forecasts, Vol. 39, No. 12, December 1, 2020, at 14
 [2] Source: Value Line; dated November 27, 2020
 [3] Source: Schedule-4, page 3
 [4] Equals [3] - [1]
 [5] Equals [1] + [2] x [4]
 [6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- CURRENT RISK-FREE RATE & BLOOMBERG BETA

		[1]	[2]	[3]	[4]	[5]	[6]
		Current 30-day average of 30-year U.S. Treasury bond yield		Beta	Market Return	Market Risk Premium	ECAPM ROE
Company	Ticker	yield				CAPM ROE	ROE
Atmos Energy Corporation	ATO	1.61%	0.76	14.10%	12.49%	11.08%	11.84%
New Jersey Resources Corporation	NJR	1.61%	0.83	14.10%	12.49%	12.00%	12.52%
Northwest Natural Gas Company	NWN	1.61%	0.74	14.10%	12.49%	10.86%	11.67%
ONE Gas Inc.	OGS	1.61%	0.85	14.10%	12.49%	12.21%	12.68%
South Jersey Industries, Inc.	SJI	1.61%	0.85	14.10%	12.49%	12.29%	12.74%
Southwest Gas Corporation	SWX	1.61%	0.87	14.10%	12.49%	12.45%	12.86%
Spire, Inc.	SR	1.61%	0.77	14.10%	12.49%	11.17%	11.90%
Mean						11.72%	12.32%

Notes:

- [1] Source: Bloomberg Professional
 [2] Source: Bloomberg Professional
 [3] Source: Schedule-4, page 3
 [4] Equals [3] - [1]
 [5] Equals [1] + [2] x [4]
 [6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- NEAR-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA

		[1]	[2]	[3]	[4]	[5]	[6]
		Near-term projected 30-year U.S. Treasury bond yield		Beta	Market Return	Market Risk Premium	ECAPM ROE
Company	Ticker	(Q1 2021 - Q1 2022)				CAPM ROE	ROE
Atmos Energy Corporation	ATO	1.82%	0.76	14.10%	12.28%	11.13%	11.87%
New Jersey Resources Corporation	NJR	1.82%	0.83	14.10%	12.28%	12.03%	12.55%
Northwest Natural Gas Company	NWN	1.82%	0.74	14.10%	12.28%	10.92%	11.71%
ONE Gas Inc.	OGS	1.82%	0.85	14.10%	12.28%	12.24%	12.71%
South Jersey Industries, Inc.	SJI	1.82%	0.85	14.10%	12.28%	12.32%	12.76%
Southwest Gas Corporation	SWX	1.82%	0.87	14.10%	12.28%	12.48%	12.89%
Spire, Inc.	SR	1.82%	0.77	14.10%	12.28%	11.22%	11.94%
Mean						11.76%	12.35%

Notes:

- [1] Source: Blue Chip Financial Forecasts, Vol. 39, No. 12, December 1, 2020, at 2
 [2] Source: Bloomberg Professional
 [3] Source: Schedule-4, page 3
 [4] Equals [3] - [1]
 [5] Equals [1] + [2] x [4]
 [6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL -- LONG-TERM PROJECTED RISK-FREE RATE & BLOOMBERG BETA

		[1]	[2]	[3]	[4]	[5]	[6]
		Projected 30-year U.S. Treasury bond yield		Beta	Market Return	Market Risk Premium	ECAPM ROE
Company	Ticker	(2022 - 2026)				CAPM ROE	ROE
Atmos Energy Corporation	ATO	2.80%	0.76	14.10%	11.30%	11.37%	12.05%
New Jersey Resources Corporation	NJR	2.80%	0.83	14.10%	11.30%	12.20%	12.67%
Northwest Natural Gas Company	NWN	2.80%	0.74	14.10%	11.30%	11.17%	11.90%
ONE Gas Inc.	OGS	2.80%	0.85	14.10%	11.30%	12.39%	12.82%
South Jersey Industries, Inc.	SJI	2.80%	0.85	14.10%	11.30%	12.46%	12.87%
Southwest Gas Corporation	SWX	2.80%	0.87	14.10%	11.30%	12.61%	12.98%
Spire, Inc.	SR	2.80%	0.77	14.10%	11.30%	11.45%	12.11%
Mean						11.95%	12.49%

Notes:

- [1] Source: Blue Chip Financial Forecasts, Vol. 39, No. 12, December 1, 2020, at 14
 [2] Source: Bloomberg Professional
 [3] Source: Schedule-4, page 3
 [4] Equals [3] - [1]
 [5] Equals [1] + [2] x [4]
 [6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

MARKET RISK PREMIUM DERIVED FROM S&P EARNINGS AND ESTIMATE REPORT

[7] S&P's estimate of the S&P 500 Dividend Yield	1.58%
[8] S&P's estimate of the S&P 500 Growth Rate	12.43%
[9] S&P 500 Estimated Required Market Return	14.10%

Notes:

[7] Source: S&P Dow Jones Indices, S&P 500 Earnings and Estimate Report, November 30, 2020

[8] Source: S&P Dow Jones Indices, S&P 500 Earnings and Estimate Report, November 30, 2020

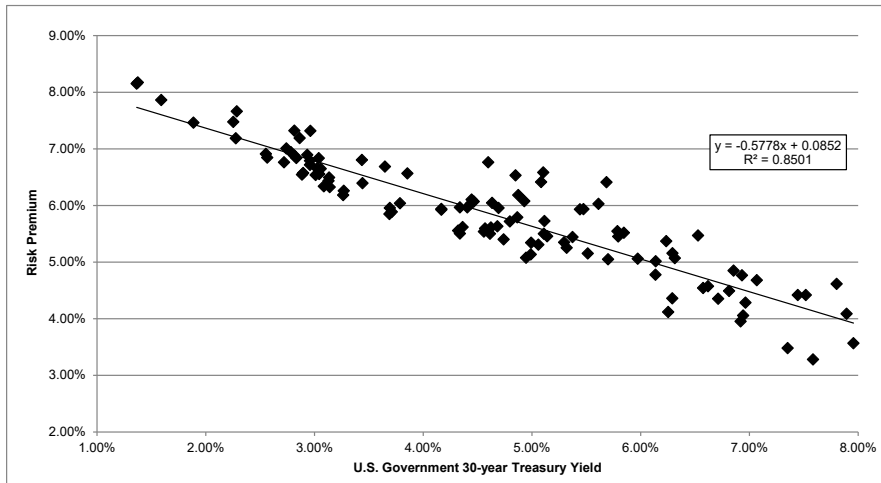
[9] Equals $([7] \times (1 + (0.5 \times [8]))) + [8]$

BOND YIELD PLUS RISK PREMIUM

	[1] Average Authorized Gas ROE	[2] U.S. Govt. 30-year Treasury	[3] Risk Premium
1992.1	12.42%	7.80%	4.62%
1992.2	11.98%	7.89%	4.09%
1992.3	11.87%	7.45%	4.42%
1992.4	11.94%	7.52%	4.42%
1993.1	11.75%	7.07%	4.68%
1993.2	11.71%	6.86%	4.85%
1993.3	11.39%	6.31%	5.07%
1993.4	11.16%	6.14%	5.02%
1994.1	11.12%	6.57%	4.55%
1994.2	10.84%	7.35%	3.48%
1994.3	10.87%	7.58%	3.28%
1994.4	11.53%	7.96%	3.57%
1995.2	11.00%	6.94%	4.06%
1995.3	11.07%	6.71%	4.35%
1995.4	11.61%	6.23%	5.37%
1996.1	11.45%	6.29%	5.16%
1996.2	10.88%	6.92%	3.96%
1996.3	11.25%	6.96%	4.29%
1996.4	11.19%	6.62%	4.58%
1997.1	11.31%	6.81%	4.49%
1997.2	11.70%	6.93%	4.77%
1997.3	12.00%	6.53%	5.47%
1997.4	10.92%	6.14%	4.78%
1998.2	11.37%	5.85%	5.52%
1998.3	11.41%	5.47%	5.94%
1998.4	11.69%	5.10%	6.59%
1999.1	10.82%	5.37%	5.44%
1999.2	11.25%	5.79%	5.46%
1999.4	10.38%	6.25%	4.12%
2000.1	10.66%	6.29%	4.36%
2000.2	11.03%	5.97%	5.06%
2000.3	11.33%	5.79%	5.55%
2000.4	12.10%	5.69%	6.41%
2001.1	11.38%	5.44%	5.93%
2001.2	10.75%	5.70%	5.05%
2001.4	10.65%	5.30%	5.35%
2002.1	10.67%	5.51%	5.15%
2002.2	11.64%	5.61%	6.03%
2002.3	11.50%	5.08%	6.42%
2002.4	11.01%	4.93%	6.08%
2003.1	11.38%	4.85%	6.53%
2003.2	11.36%	4.60%	6.76%
2003.3	10.61%	5.11%	5.50%
2003.4	10.84%	5.11%	5.73%
2004.1	11.06%	4.88%	6.18%
2004.2	10.57%	5.32%	5.25%
2004.3	10.37%	5.06%	5.31%
2004.4	10.66%	4.86%	5.79%
2005.1	10.65%	4.69%	5.96%
2005.2	10.54%	4.47%	6.07%
2005.3	10.47%	4.44%	6.03%
2005.4	10.32%	4.68%	5.63%
2006.1	10.68%	4.63%	6.05%
2006.2	10.60%	5.14%	5.46%
2006.3	10.34%	4.99%	5.34%
2006.4	10.14%	4.74%	5.40%
2007.1	10.52%	4.80%	5.72%
2007.2	10.13%	4.99%	5.14%
2007.3	10.03%	4.95%	5.08%
2007.4	10.12%	4.61%	5.50%
2008.1	10.38%	4.41%	5.97%
2008.2	10.17%	4.57%	5.60%
2008.3	10.55%	4.44%	6.11%
2008.4	10.34%	3.65%	6.69%
2009.1	10.24%	3.44%	6.81%
2009.2	10.11%	4.17%	5.94%
2009.3	9.88%	4.32%	5.56%
2009.4	10.31%	4.34%	5.97%
2010.1	10.24%	4.62%	5.61%
2010.2	9.99%	4.36%	5.62%
2010.3	10.43%	3.86%	6.57%
2010.4	10.09%	4.17%	5.93%
2011.1	10.10%	4.56%	5.54%
2011.2	9.85%	4.34%	5.51%
2011.3	9.65%	3.69%	5.96%
2011.4	9.88%	3.04%	6.84%
2012.1	9.63%	3.14%	6.50%
2012.2	9.83%	2.93%	6.90%
2012.3	9.75%	2.74%	7.01%
2012.4	10.06%	2.86%	7.19%
2013.1	9.57%	3.13%	6.44%
2013.2	9.47%	3.14%	6.33%

BOND YIELD PLUS RISK PREMIUM

	[1]	[2]	[3]
	Average Authorized Gas ROE	U.S. Govt. 30-year Treasury	Risk Premium
2013.3	9.60%	3.71%	5.89%
2013.4	9.83%	3.79%	6.04%
2014.1	9.54%	3.69%	5.85%
2014.2	9.84%	3.44%	6.39%
2014.3	9.45%	3.26%	6.19%
2014.4	10.28%	2.96%	7.32%
2015.1	9.47%	2.55%	6.91%
2015.2	9.43%	2.88%	6.55%
2015.3	9.75%	2.96%	6.79%
2015.4	9.68%	2.96%	6.72%
2016.1	9.48%	2.72%	6.76%
2016.2	9.42%	2.57%	6.85%
2016.3	9.47%	2.28%	7.19%
2016.4	9.67%	2.83%	6.84%
2017.1	9.60%	3.04%	6.56%
2017.2	9.47%	2.90%	6.58%
2017.3	10.14%	2.82%	7.32%
2017.4	9.70%	2.82%	6.88%
2018.1	9.68%	3.02%	6.66%
2018.2	9.43%	3.09%	6.34%
2018.3	9.71%	3.06%	6.65%
2018.4	9.53%	3.27%	6.26%
2019.1	9.55%	3.01%	6.54%
2019.2	9.73%	2.78%	6.94%
2019.3	9.95%	2.29%	7.66%
2019.4	9.73%	2.25%	7.48%
2020.1	9.35%	1.89%	7.46%
2020.2	9.55%	1.38%	8.17%
2020.3	9.52%	1.37%	8.15%
2020.4	9.46%	1.59%	7.86%
AVERAGE	10.48%	4.63%	5.85%
MEDIAN	10.37%	4.63%	5.93%



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.921999
R Square	0.850082
Adjusted R Square	0.848719
Standard Error	0.003927
Observations	112

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.009618	0.009618	623.736077	0.000000
Residual	110	0.001696	0.000015		
Total	111	0.011314			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.0852	0.0011340	75.14	0.000000	0.082966	0.087461	0.082966	0.087461
U.S. Govt. 30-year Treasury	(0.5778)	0.0231356	(24.97)	0.000000	(0.623655)	(0.531956)	(0.623655)	(0.531956)

	[7]	[8]	[9]
	U.S. Govt. 30-year Treasury	Risk Premium	ROE
Current 30-day average of 30-year U.S. Treasury bond yield [4]	1.61%	7.59%	9.20%
Blue Chip Consensus Forecast (Q1 2021 - Q1 2022) [5]	1.82%	7.47%	9.29%
Blue Chip Consensus Forecast (2022-2026) [6]	2.80%	6.90%	9.70%
AVERAGE			9.40%

Notes:

- [1] Source: Regulatory Research Associates, rate cases through November 30, 2020
- [2] Source: Bloomberg Professional, quarterly bond yields are the average of each trading day in the quarter
- [3] Equals Column [1] - Column [2]
- [4] Source: Bloomberg Professional, 30-day average as of November 30, 2020
- [5] Source: Blue Chip Financial Forecasts, Vol. 39, No. 12, December 1, 2020, at 2
- [6] Source: Blue Chip Financial Forecasts, Vol. 39, No. 12, December 1, 2020, at 14
- [7] See notes [4], [5] & [6]
- [8] Equals $0.084369 + (-0.562291 \times \text{Column [7]})$
- [9] Equals Column [7] + Column [8]

EXPECTED EARNINGS ANALYSIS

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
		Value Line ROE 2023-2025	Value Line Total Capital 2019	Value Line Common Equity Ratio 2019	Total Equity 2019	Value Line Total Capital 2023-2025	Value Line Common Equity Ratio 2023-2025	Total Equity 2023-2025	Compound Annual Growth Rate	Adjustment Factor	Adjusted Return on Common Equity
Atmos Energy Corporation	ATO	9.00%	9,279.70	62.00%	5,753	16,000	60.00%	9,600	10.78%	1.051	9.46%
New Jersey Resources Corporation	NJR	9.50%	3,088.90	50.20%	1,551	4,580	56.50%	2,588	10.79%	1.051	9.99%
Northwest Natural Gas Company	NWN	8.50%	1,672.00	51.80%	866	1,825	52.50%	958	2.04%	1.010	8.59%
One Gas Inc.	OGS	8.50%	3,415.50	62.30%	2,128	4,800	62.00%	2,976	6.94%	1.034	8.79%
South Jersey Industries, Inc.	SJI	12.00%	3,493.90	40.80%	1,426	5,500	41.00%	2,255	9.61%	1.046	12.55%
Southwest Gas Corporation	SWX	10.00%	4,806.40	52.10%	2,504	7,200	55.50%	3,996	9.80%	1.047	10.47%
Spire, Inc.	SR	7.00%	4,625.60	55.00%	2,544	7,200	55.00%	3,960	9.25%	1.044	7.31%
Mean											9.59%
Median											9.46%

Notes:

[1] Source: Value Line, November 27, 2020

[2] Source: Value Line, November 27, 2020

[3] Source: Value Line, November 27, 2020

[4] Equals [2] x [3]

[5] Source: Value Line, November 27, 2020

[6] Source: Value Line, November 27, 2020

[7] Equals [5] x [6]

[8] Equals $([7] / [4])^{(1/5)} - 1$

[9] Equals $2 \times (1 + [8]) / (2 + [8])$

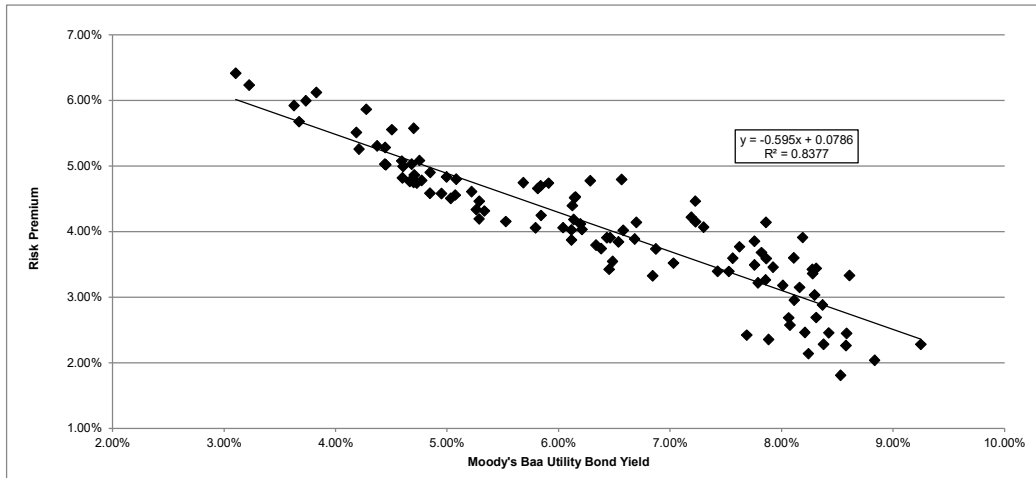
[10] Equals [1] x [9]

BOND YIELD PLUS RISK PREMIUM

	[1]	[2]	[3]
	Average Authorized Gas ROE	Moody's Baa Utility Bond Yield	Risk Premium
1992.4	11.94%	8.61%	3.33%
1993.1	11.75%	8.31%	3.44%
1993.2	11.71%	8.11%	3.60%
1993.3	11.39%	7.62%	3.77%
1993.4	11.16%	7.56%	3.60%
1994.1	11.12%	7.86%	3.26%
1994.2	10.84%	8.58%	2.26%
1994.3	10.87%	8.83%	2.04%
1994.4	11.53%	9.25%	2.28%
1995.2	11.00%	8.31%	2.69%
1995.3	11.07%	8.11%	2.96%
1995.4	11.61%	7.76%	3.85%
1996.1	11.45%	7.86%	3.59%
1996.2	10.88%	8.42%	2.46%
1996.3	11.25%	8.37%	2.88%
1996.4	11.19%	8.01%	3.18%
1997.1	11.31%	8.16%	3.15%
1997.2	11.70%	8.27%	3.43%
1997.3	12.00%	7.86%	4.14%
1997.4	10.92%	7.53%	3.39%
1998.2	11.37%	7.30%	4.07%
1998.3	11.41%	7.19%	4.22%
1998.4	11.69%	7.23%	4.46%
1999.1	10.82%	7.43%	3.39%
1999.2	11.25%	7.76%	3.49%
1999.4	10.38%	8.24%	2.14%
2000.1	10.66%	8.38%	2.28%
2000.2	11.03%	8.58%	2.45%
2000.3	11.33%	8.30%	3.03%
2000.4	12.10%	8.19%	3.91%
2001.1	11.38%	7.92%	3.46%
2001.2	10.75%	8.06%	2.69%
2001.4	10.65%	8.08%	2.57%
2002.1	10.67%	8.21%	2.46%
2002.2	11.64%	8.28%	3.36%
2002.3	11.50%	7.82%	3.68%
2002.4	11.01%	7.79%	3.22%
2003.1	11.38%	7.23%	4.15%
2003.2	11.36%	6.57%	4.79%
2003.3	10.61%	6.87%	3.74%
2003.4	10.84%	6.70%	4.14%
2004.1	11.06%	6.28%	4.78%
2004.2	10.57%	6.68%	3.89%
2004.3	10.37%	6.46%	3.91%
2004.4	10.66%	6.14%	4.52%
2005.1	10.65%	5.91%	4.74%
2005.2	10.54%	5.84%	4.70%
2005.3	10.47%	5.81%	4.66%
2005.4	10.32%	6.14%	4.18%
2006.1	10.68%	6.15%	4.53%
2006.2	10.60%	6.58%	4.02%
2006.3	10.34%	6.43%	3.91%
2006.4	10.14%	6.11%	4.03%
2007.1	10.52%	6.12%	4.40%
2007.2	10.13%	6.34%	3.79%
2007.3	10.03%	6.49%	3.54%
2007.4	10.12%	6.38%	3.74%
2008.1	10.38%	6.54%	3.84%
2008.2	10.17%	6.84%	3.33%
2008.3	10.55%	7.03%	3.52%
2008.4	10.34%	8.53%	1.81%
2009.1	10.24%	7.88%	2.36%
2009.2	10.11%	7.69%	2.42%
2009.3	9.88%	6.45%	3.43%
2009.4	10.31%	6.19%	4.12%
2010.1	10.24%	6.21%	4.03%
2010.2	9.99%	6.12%	3.87%
2010.3	10.43%	5.68%	4.75%
2010.4	10.09%	5.84%	4.25%
2011.1	10.10%	6.04%	4.06%
2011.2	9.85%	5.79%	4.06%
2011.3	9.65%	5.34%	4.31%
2011.4	9.88%	5.08%	4.80%
2012.1	9.63%	5.07%	4.56%
2012.2	9.83%	4.99%	4.84%
2012.3	9.75%	4.85%	4.90%
2012.4	10.06%	4.51%	5.55%
2013.1	9.57%	4.71%	4.86%
2013.2	9.47%	4.73%	4.74%
2013.3	9.60%	5.26%	4.34%
2013.4	9.83%	5.22%	4.61%
2014.1	9.54%	5.03%	4.51%
2014.2	9.84%	4.75%	5.09%
2014.3	9.45%	4.70%	4.75%
2014.4	10.28%	4.70%	5.58%
2015.1	9.47%	4.45%	5.02%

BOND YIELD PLUS RISK PREMIUM

	[1]	[2]	[3]
	Average Authorized Gas ROE	Moody's Baa Utility Bond Yield	Risk Premium
2015.2	9.43%	4.85%	4.58%
2015.3	9.75%	5.29%	4.46%
2015.4	9.68%	5.53%	4.15%
2016.1	9.48%	5.29%	4.19%
2016.2	9.42%	4.60%	4.82%
2016.3	9.47%	4.21%	5.26%
2016.4	9.67%	4.59%	5.08%
2017.1	9.60%	4.60%	5.00%
2017.2	9.47%	4.44%	5.03%
2017.3	10.14%	4.28%	5.87%
2017.4	9.70%	4.19%	5.51%
2018.1	9.68%	4.37%	5.31%
2018.2	9.43%	4.67%	4.76%
2018.3	9.71%	4.68%	5.03%
2018.4	9.53%	4.95%	4.58%
2019.1	9.55%	4.77%	4.78%
2019.2	9.73%	4.45%	5.28%
2019.3	9.95%	3.83%	6.12%
2019.4	9.73%	3.74%	6.00%
2020.1	9.35%	3.67%	5.68%
2020.2	9.55%	3.63%	5.92%
2020.3	9.52%	3.11%	6.41%
2020.4	9.46%	3.23%	6.23%
AVERAGE	10.43%	6.35%	4.08%
MEDIAN	10.34%	6.34%	4.12%



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.915167
R Square	0.837531
Adjusted R Square	0.836012
Standard Error	0.004074
Observations	109

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.009154	0.009154	551.585728	0.000000
Residual	107	0.001776	0.000017		
Total	108	0.010930			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.0786	0.0016567	47.44	0.000000	0.075315	0.081884	0.075315	0.081884
Moody's Baa Utility Bond Yield	(-0.5951)	0.0253396	(23.49)	0.000000	(0.645356)	(0.544891)	(0.645356)	(0.544891)

	[7]	[8]	[9]	[10]	[11]
	Unadjusted Interest Rate	Average 30-Year Treasury - Baa Utility Yield Spread	Adjusted Interest Rate	Risk Premium	ROE
Current 30-day average of Moody's Baa Utility Bond yield [4]	3.21%		3.21%	5.95%	9.16%
Blue Chip 30-Year Treasury Yield Near-Term Projected Forecast (Q1 2021 - Q1 2022) [5]	1.82%	1.68%	3.50%	5.78%	9.28%
Blue Chip 30-Year Treasury Yield Long-Term Projected Forecast (2022-2026) [6]	2.80%	1.68%	4.48%	5.20%	9.67%
AVERAGE					9.37%

Notes:

- [1] Source: Regulatory Research Associates, rate cases through November 30, 2020
- [2] Source: Bloomberg Professional, quarterly bond yields are the average of each trading day in the quarter
- [3] Equals Column [1] - Column [2]
- [4] Source: Bloomberg Professional, 30-day average as of November 30, 2020
- [5] Source: Blue Chip Financial Forecasts, Vol. 39, No. 12, December 1, 2020, at 2
- [6] Source: Blue Chip Financial Forecasts, Vol. 39, No. 12, December 1, 2020, at 14
- [7] See notes [4], [5] & [6]
- [8] Source: Bloomberg Professional, average spread between 30-Year Treasury Bond Yield & Moody's Baa Utility Bond Yield since January 1, 2018
- [9] Equals Column [7] + Column [8]
- [10] Equals $0.078599 + (-0.595123 \times \text{Column [9]})$

ADJUSTMENTS TO WOOLRIDGE INTERNAL GROWTH RATE MEASURES
 GAS PROXY GROUP

<i>Value Line</i>								
Sustainable Growth								
Company	Ticker	Return on Equity	Retention Rate	Internal Growth	Shares Out	Value Change	S x V	BR + SV
Atmos Energy Company (NYSE-ATO)	ATO	9.00%	50.00%	4.50%	8.70%	54.34%	4.73%	9.23%
Chesapeake Utilities (NYSE-CPK)	CPK	9.50%	58.00%	5.51%	9.25%	56.23%	5.20%	10.71%
New Jersey Resources Corp. (NYSE-NJR)	NJR	9.50%	35.00%	3.33%	3.53%	35.50%	1.25%	4.58%
Nisource Inc (NYSE-NI)	NI	11.00%	39.00%	4.29%	0.32%	53.71%	0.17%	4.46%
Northwest Natural Gas Co. (NYSE-NWN)	NWN	8.50%	39.00%	3.32%	1.99%	50.45%	1.00%	4.32%
ONE Gas, Inc. (NYSE-OGS)	OGS	8.50%	41.00%	3.49%	1.92%	56.72%	1.09%	4.57%
South Jersey Industries, Inc. (NYSE-SJI)	SJI	12.00%	44.00%	5.28%	6.95%	48.88%	3.39%	8.67%
Southwest Gas Company (NYSE-SWX)	SWX	10.00%	56.00%	5.60%	5.55%	38.85%	2.16%	7.76%
Spire (NYSE-SR)	SR	7.00%	40.00%	2.80%	2.24%	31.43%	0.70%	3.50%
Mean		9.44%	44.67%	4.23%	4.49%	47.35%	2.19%	6.42%
Median		9.50%	41.00%	4.29%	3.53%	50.45%	1.25%	4.58%

Notes:

Data Source: *Value Line Investment Survey, dated August 28, 2020.*

30-Day Constant Growth DCF - Woolridge Gas Proxy Group

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Company	Annualized Dividend	Dividend Yield	Expected Dividend Yield	Value Line Earnings Growth	Yahoo Earnings Growth	Zacks Earnings Growth	Average Growth Rate	Mean ROE
Atmos Energy Company (NYSE-ATO)	\$ 2.30	2.41%	2.50%	7.00%	7.25%	7.20%	7.15%	9.65%
Chesapeake Utilities (NYSE-CPK)	\$ 1.69	1.85%	1.92%	9.00%	4.74%	na	6.87%	8.79%
New Jersey Resources Corp. (NYSE-NJR)	\$ 1.33	4.60%	4.70%	2.00%	6.00%	6.00%	4.67%	9.37%
Nisource Inc (NYSE-NI)	\$ 0.84	3.67%	3.79%	13.00%	1.65%	5.58%	6.74%	10.53%
Northwest Natural Gas Co. (NYSE-NWN)	\$ 1.92	4.23%	4.44%	24.50%	3.10%	3.12%	10.24%	14.68%
ONE Gas, Inc. (NYSE-OGS)	\$ 2.16	3.01%	3.09%	6.50%	5.00%	5.50%	5.67%	8.76%
South Jersey Industries, Inc. (NYSE-SJI)	\$ 1.18	5.92%	6.25%	12.50%	10.40%	10.44%	11.11%	17.36%
Southwest Gas Company (NYSE-SWX)	\$ 2.28	3.44%	3.54%	9.00%	4.00%	5.00%	6.00%	9.54%
Spire (NYSE-SR)	\$ 2.49	4.44%	4.55%	5.50%	4.78%	4.86%	5.05%	9.60%
Median [9]:								9.60%

Notes:

[1] JRW-8.2

[2] JRW-8.2

[3] Equals [2] X (1 + .5 X [7])

[4] JRW-8.4

[5] JRW-8.5

[6] JRW-8.5

[7] Equals average of [4], [5], and [6]

[8] Equals [3] + [7]

[9] Excludes companies with ROEs less than 7%.

90-Day Constant Growth DCF - Woolridge Gas Proxy Group

Company	[1] Annualized Dividend	[2] Dividend Yield	[3] Expected Dividend Yield	[4] Value Line Earnings Growth	[5] Yahoo Earnings Growth	[6] Zacks Earnings Growth	[7] Average Growth Rate	[8] Mean ROE
Atmos Energy Company (NYSE-ATO)	\$ 2.30	2.34%	2.42%	7.00%	7.25%	7.20%	7.15%	9.57%
Chesapeake Utilities (NYSE-CPK)	\$ 1.69	1.99%	2.06%	9.00%	4.74%	na	6.87%	8.93%
New Jersey Resources Corp. (NYSE-NJR)	\$ 1.33	4.46%	4.56%	2.00%	6.00%	6.00%	4.67%	9.23%
Nisource Inc (NYSE-NI)	\$ 0.84	3.66%	3.78%	13.00%	1.65%	5.58%	6.74%	10.52%
Northwest Natural Gas Co. (NYSE-NWN)	\$ 1.92	3.93%	4.13%	24.50%	3.10%	3.12%	10.24%	14.37%
ONE Gas, Inc. (NYSE-OGS)	\$ 2.16	2.96%	3.04%	6.50%	5.00%	5.50%	5.67%	8.71%
South Jersey Industries, Inc. (NYSE-SJI)	\$ 1.18	5.49%	5.80%	12.50%	10.40%	10.44%	11.11%	16.91%
Southwest Gas Company (NYSE-SWX)	\$ 2.28	3.42%	3.52%	9.00%	4.00%	5.00%	6.00%	9.52%
Spire (NYSE-SR)	\$ 2.49	4.28%	4.38%	5.50%	4.78%	4.86%	5.05%	9.43%
Median [9]:								9.52%

Notes:

[1] JRW-8.2

[2] JRW-8.2

[3] Equals [2] X (1 + .5 X [7])

[4] JRW-8.4

[5] JRW-8.5

[6] JRW-8.5

[7] Equals average of [4], [5], and [6]

[8] Equals [3] + [7]

[9] Excludes companies with ROEs less than 7%.

180-Day Constant Growth DCF - Woolridge Gas Proxy Group

Company	[1] Annualized Dividend	[2] Dividend Yield	[3] Expected Dividend Yield	[4] Value Line Earnings Growth	[5] Yahoo Earnings Growth	[6] Zacks Earnings Growth	[7] Average Growth Rate	[8] Mean ROE
Atmos Energy Company (NYSE-ATO)	\$ 2.30	2.32%	2.40%	7.00%	7.25%	7.20%	7.15%	9.55%
Chesapeake Utilities (NYSE-CPK)	\$ 1.69	1.97%	2.04%	9.00%	4.74%	na	6.87%	8.91%
New Jersey Resources Corp. (NYSE-NJR)	\$ 1.33	4.27%	4.37%	2.00%	6.00%	6.00%	4.67%	9.04%
Nisource Inc (NYSE-NI)	\$ 0.84	3.57%	3.69%	13.00%	1.65%	5.58%	6.74%	10.44%
Northwest Natural Gas Co. (NYSE-NWN)	\$ 1.92	3.51%	3.69%	24.50%	3.10%	3.12%	10.24%	13.93%
ONE Gas, Inc. (NYSE-OGS)	\$ 2.16	2.83%	2.91%	6.50%	5.00%	5.50%	5.67%	8.58%
South Jersey Industries, Inc. (NYSE-SJI)	\$ 1.18	5.00%	5.28%	12.50%	10.40%	10.44%	11.11%	16.40%
Southwest Gas Company (NYSE-SWX)	\$ 2.28	3.35%	3.45%	9.00%	4.00%	5.00%	6.00%	9.45%
Spire (NYSE-SR)	\$ 2.49	3.86%	3.96%	5.50%	4.78%	4.86%	5.05%	9.01%
Median [9]:								9.45%

Notes:

[1] JRW-8.2

[2] JRW-8.2

[3] Equals [2] X (1 + .5 X [7])

[4] JRW-8.4

[5] JRW-8.5

[6] JRW-8.5

[7] Equals average of [4], [5], and [6]

[8] Equals [3] + [7]

[9] Excludes companies with ROEs less than 7%.

S&P 500 - HISTORICAL EARNINGS PER SHARE

	[1]	[2]
Year	EPS	EPS - Annual Growth Rate
2009	59.65	
2010	83.66	40.25%
2011	97.05	16.01%
2012	102.47	5.58%
2013	107.45	4.86%
2014	113.01	5.17%
2015	106.32	-5.92%
2016	108.86	2.39%
2017	124.94	14.77%
2018	148.34	18.73%
2019	156.27	5.35%
CAGR [3]	10.11%	
Average Annual Growth Rate [4]		10.72%

Notes:

[1] Source: JRW-11.1

[2] Equals (Current Year [1] / Previous Year [1]) - 1

[3] Equals ((2019 / 2009) ^ (1/10)) - 1

[4] Equals average ([2])