

**OFFICIAL COPY**

INFORMATION SHEET

PRESIDING: Commissioner Brown-Bland, Chairman Finley, Commissioners Beatty, Bailey, Dockham,  
Patterson, Gray

PLACE: Dobbs Building, Raleigh, North Carolina

DATE: August 30, 2016

TIME: 1:35 p.m. to 4:35 p.m.

DOCKET NO.: G-5, Sub 565

COMPANY: Public Service Company of North Carolina, Inc.

DESCRIPTION: Application of Public Service Company of North Carolina, Inc.,  
for a General Increase in its Rates and Charges

Vol. 6  
APPEARANCES

FOR PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC

William R. Pittman, Esq.

B. Craig Collins, Esq.

Mary Lynne Grigg, Esq.

FOR THE NORTH CAROLINA ATTORNEY GENERAL

Margaret A. Force, Esq.

FOR EVERGREEN PACKAGING

Adam Olls, Esq.

Jeffrey D. McKinney, Esq.

FOR THE USING AND CONSUMING PUBLIC

Gina C. Holt, Esq.

William Grantmyre, Esq.

Heather Fennell, Esq.

WITNESSES

Robert B. Hevert (continued)

George B. Ratchford

Candace A. Paton

Sharon D. Boone

Rose M. Jackson

Prefiled Testimony of Julie G. Perry Entered - no live testimony

Michelle M. Boswell

Jan A. Larsen

**FILED**

**SEP 02 2016**

Clerk's Office  
N.C. Utilities Commission

EXHIBITS

- ✓ Attorney General Hevert Cross Examination Exhibits 1-3 --/A
- ✓ Attorney General Hevert Cross Examination Exhibit 4 I/A
- ✓ Attorney General Hevert Cross Examination Exhibit 5 I/A
- ✓ Attorney General Hevert Cross Examination Exhibit 6 I/A
- ✓ Exhibits RBH 1-13 --/A
- ✓ Supplemental RBH 1-2 --/A
- ✓ Ratchford Exhibit 1 I/A
- ✓ Paton Exhibits 1-13 I/A
- ✓ Paton Supplemental Exhibits 1-2 I/A
- ✓ Attorney General Paton Cross Examination Exhibit 1 I/--
- ✓ Attorney General Paton Cross Examination Exhibit 2 I/---
- ✓ Boone Exhibits 1-7. I/A
- ✓ Public Service Company of North Carolina, Inc. Application ---/A
- ✓ Revised Boswell Exhibit 1 I/--
- ✓ Larson Exhibits A, B, Revised C I/A

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COPIES ORDERED: Email:- Force, Boswell, Perry, Hoard, Larsen, Patel, Grantmyre, Holt, Fennell

REPORTED BY: Linda Garrett  
TRANSCRIBED BY: Linda Garrett  
DATE TRANSCRIBED: September 1, 2016

TRANSCRIPT PAGES: 135  
PREFILED PAGES: 97-



# NORTH CAROLINA UTILITIES COMMISSION

## APPEARANCE SLIP

DATE 8/30/16 DOCKET #: G.S., Sub 565  
 NAME AND TITLE OF ATTORNEY William R. Pittman  
 FIRM NAME \_\_\_\_\_  
 ADDRESS PO Box 706  
 CITY Raleigh ZIP 27602

APPEARING FOR: \_\_\_\_\_

APPLICANT <u>X</u>	COMPLAINANT _____	INTERVENOR _____
PROTESTANT _____	RESPONDENT _____	DEFENDANT _____

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Signature: \_\_\_\_\_

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Signature: \_\_\_\_\_

NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 8/29/16 DOCKET #: G-5 SUB 565  
NAME AND TITLE OF ATTORNEY CRAIG COLLINS, ASSOC. GEN. COUNSEL  
FIRM NAME SCANA  
ADDRESS MC 0222 220 OPERATION WAY  
CITY CAYCE, SC ZIP 29033

APPEARING FOR:

APPLICANT	<input checked="" type="checkbox"/>	COMPLAINANT	_____	INTERVENER	_____
PROTESTANT	_____	RESPONDENT	_____	DEFENDANT	_____

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Name: \_\_\_\_\_

Phone #: \_\_\_\_\_

Email: \_\_\_\_\_

Signature: \_\_\_\_\_

*B. Craig Collins*

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Signature: \_\_\_\_\_

NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE 3/29/16 DOCKET # G-5 Sub 565  
NAME AND TITLE OF ATTORNEY Mary Lynne Grigg  
FIRM NAME McGuire Woods LLP  
ADDRESS 2600 Two Harrows Sq  
CITY Raleigh ZIP 27601

APPEARING FOR:

APPLICANT <input checked="" type="checkbox"/>	COMPLAINANT <input type="checkbox"/>	INTERVIEWER <input type="checkbox"/>
PROTESTANT <input type="checkbox"/>	RESPONDENT <input type="checkbox"/>	DEFENDANT <input type="checkbox"/>

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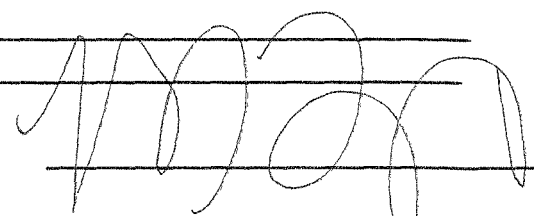
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Signature: \_\_\_\_\_

NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE Aug 29, 2015 DOCKET #: G-5, Sub 565  
NAME AND TITLE OF ATTORNEY Margaret Force  
FIRM NAME Attorney General's Office  
ADDRESS P O Box 629  
CITY Raleigh ZIP 27602

APPEARING FOR: The Using and Consuming Public

APPLICANT	COMPLAINANT	INTERVIEWED
PROTESTANT	RESPONDENT	DEFENDANT

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Name: Margaret Force  
Phone #: 919-716-6053  
Email: Pforce@ncdcr.gov

Signature: Margaret Force

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Signature: Margaret Force

NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE August 30, 2016 DOCKET #: 6-5, Sub 565  
NAME AND TITLE OF ATTORNEY Adam Olls, Attorney for Evergreen Packaging  
FIRM NAME Barley & Dixon, LLP  
ADDRESS 434 Fayetteville Street, Suite 2500  
CITY Raleigh ZIP 27601

APPEARING FOR: Blue Ridge Paper & Products, Inc. & b/c Evergreen Packaging

APPLICANT	COMPLAINANT	INTERVIEWER
PROTESTANT	RESPONDENT	DEFENDANT

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NORTH CAROLINA UTILITIES COMMISSION  
APPEARANCE SLIP

DATE AUG 30, 2016 DOCKET #: G-8, SUB 565  
NAME AND TITLE OF ATTORNEY JEFFREY D. MCKINNEY  
FIRM NAME BAILEY & DIXON, LLP  
ADDRESS PO Box 1351  
CITY RALIGH ZIP 27602

APPEARING FOR: BLUE RIDGE PAPER PRODUCTS INC., D/B/A  
EVERGREEN PACKAGING  
APPLICANT \_\_\_\_\_ COMPLAINANT \_\_\_\_\_ INTERVENER X  
PROTESTANT \_\_\_\_\_ RESPONDENT \_\_\_\_\_ DEFENDANT \_\_\_\_\_

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Signature: \_\_\_\_\_

NORTH CAROLINA UTILITIES COMMISSION  
PUBLIC STAFF - APPEARANCE SLIP

DATE August 29, 2016 DOCKET #: G-5, Sub 565

PUBLIC STAFF MEMBER Gina C. Holt */William Grantmyre/ Heather Fennell*

ORDER FOR TRANSCRIPT OF TESTIMONY TO BE **EMAILED** TO THE  
PUBLIC STAFF - PLEASE INDICATE YOUR DIVISION AS WELL AS  
YOUR EMAIL ADDRESS BELOW:

ACCOUNTING michelle.boswell@psncuc.nc.gov;  
julie.perry@psncuc.nc.gov; jim.hoard@psncuc.nc.gov  
WATER \_\_\_\_\_  
COMMUNICATIONS \_\_\_\_\_  
ELECTRIC \_\_\_\_\_  
GAS jan.larsen@psncuc.nc.gov; neha.patel@psncuc.nc.gov  
TRANSPORTATION \_\_\_\_\_  
ECONOMICS \_\_\_\_\_  
LEGAL william.grantmyre@psncuc.nc.gov;  
gina.holt@psncuc.nc.gov; heather.fennell@psncuc.nc.gov;  
CONSUMER SERVICES \_\_\_\_\_

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Signature of Public Staff Member

Public Service Company of North Carolina, Inc  
Docket No G-5, Sub 565  
Public Staff Cost of Capital Data Request No 2  
Response 2-21

Dec-10			Mar-11		Jun-11		Sep-11	
SCANA	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
Long-Term Debt	\$4,464,958,333	51.99%	\$4,558,291,667	51.39%	\$4,647,556,667	51.65%	\$4,646,306,667	51.25%
Short-Term Debt	419,732,000	4.89%	512,154,000	5.77%	546,024,000	6.07%	580,471,000	6.40%
Preferred Stock	100,000	0.00%	100,000	0.00%	100,000	0.00%	100,000	0.00%
Common Equity	3,703,383,882	43.12%	3,800,105,524	42.84%	3,804,844,715	42.28%	3,838,390,170	42.34%
Total Capitalization	\$8,588,174,215	100.00%	\$8,870,651,190	100.00%	\$8,998,525,382	100.00%	\$9,065,267,836	100.00%

Dec-11			Mar-12		Jun-12		Sep-12	
SCANA	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
Long-Term Debt	\$4,638,106,667	50.52%	\$4,880,995,000	51.69%	\$4,873,395,000	51.01%	\$5,122,145,000	53.30%
Short-Term Debt	653,184,000	7.12%	585,041,000	6.20%	670,058,000	7.01%	393,662,000	4.10%
Preferred Stock	100,000	0.00%	100,000	0.00%	100,000	0.00%	100,000	0.00%
Common Equity	3,888,857,698	42.36%	3,977,283,360	42.12%	4,010,130,619	41.97%	4,094,809,722	42.61%
Total Capitalization	\$9,180,248,364	100.00%	\$9,443,419,360	100.00%	\$9,553,683,619	100.00%	\$9,610,716,722	100.00%

Dec-12			Mar-13		Jun-13		Sep-13	
SCANA	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
Long-Term Debt	\$5,088,630,000	51.58%	\$5,079,268,333	50.43%	\$5,324,868,333	52.54%	\$5,323,618,333	51.69%
Short-Term Debt	622,968,000	6.31%	529,731,000	5.26%	303,590,000	3.00%	378,289,000	3.67%
Preferred Stock	100,000	0.00%	100,000	0.00%	100,000	0.00%	100,000	0.00%
Common Equity	4,154,707,319	42.11%	4,462,848,637	44.31%	4,506,233,720	44.46%	4,597,483,352	44.64%
Total Capitalization	\$9,866,405,319	100.00%	\$10,071,947,970	100.00%	\$10,134,792,053	100.00%	\$10,299,490,685	100.00%



Public Service Company of North Carolina, Inc  
Docket No G-5, Sub 565  
Public Staff Cost of Capital Data Request No. 2  
Response 2-21

Dec-13			Mar-14		Jun-14		Sep-14	
SCANA	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
Long-Term Debt	\$5,323,618,333	51.37%	\$5,316,951,667	49.76%	\$5,612,551,667	51.66%	\$5,612,551,667	50.80%
Short-Term Debt	376,164,000	3.63%	560,181,000	5.24%	397,112,000	3.66%	487,360,000	4.41%
Preferred Stock	100,000	0.00%	100,000	0.00%	100,000	0.00%	100,000	0.00%
Common Equity	4,664,291,321	45.00%	4,808,512,285	45.00%	4,854,138,516	44.68%	4,947,491,566	44.78%
Total Capitalization	\$10,364,173,655	100.00%	\$10,685,744,952	100.00%	\$10,863,902,183	100.00%	\$11,047,503,233	100.00%

Dec-14			Mar-15		Jun-15		Sep-15	
SCANA	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
Long-Term Debt	\$5,576,701,667	48.57%	\$5,420,035,000	47.67%	\$5,915,635,000	51.26%	\$5,915,635,000	51.00%
Short-Term Debt	917,997,000	8.00%	625,218,000	5.50%	272,759,000	2.36%	263,759,000	2.27%
Preferred Stock	100,000	0.00%	100,000	0.00%	100,000	0.00%	100,000	0.00%
Common Equity	4,986,591,238	43.43%	5,324,293,601	46.83%	5,351,800,801	46.37%	5,418,702,576	46.72%
Total Capitalization	\$11,481,389,905	100.00%	\$11,369,646,601	100.00%	\$11,540,294,801	100.00%	\$11,598,196,576	100.00%

Dec-15			Mar-16		Jun-16	
SCANA	Amount	Ratio	Amount	Ratio	Amount	Ratio
Long-Term Debt	\$5,915,635,000	49.75%	\$5,908,968,333	47.79%	\$6,504,568,333	51.05%
Short-Term Debt	531,404,000	4.47%	916,806,000	7.41%	668,527,000	5.25%
Preferred Stock	100,000	0.00%	100,000	0.00%	100,000	0.00%
Common Equity	5,443,508,331	45.78%	5,539,531,675	44.80%	5,568,067,807	43.70%
Total Capitalization	\$11,890,647,331	100.00%	\$12,365,406,008	100.00%	\$12,741,263,140	100.00%

Public Service Company of North Carolina, Inc  
Docket No G-5, Sub 565  
Public Staff Cost of Capital Data Request No 2  
Response 2-21

	Dec-10		Mar-11		Jun-11		Sep-11	
PSNC	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
Long-Term Debt	\$54,075,652	6.26%	\$353,838,884	34.12%	\$349,610,059	34.11%	\$349,668,973	34.53%
* Short-Term Debt	154,089,652	17.85%	4,101,760	0.40%	4,428,448	0.43%	4,286,329	0.42%
Preferred Stock	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Common Equity	655,255,551	75.89%	679,041,578	65.48%	670,884,856	65.46%	658,740,340	65.05%
Total Capitalization	\$863,420,855	100.00%	\$1,036,982,222	100.00%	\$1,024,923,363	100.00%	\$1,012,695,642	100.00%

	Dec-11		Mar-12		Jun-12		Sep-12	
PSNC	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
Long-Term Debt	\$349,501,742	34.11%	\$349,242,618	33.66%	\$352,263,417	34.21%	\$352,000,814	34.53%
* Short-Term Debt	14,215,434	1.39%	4,231,743	0.41%	964,825	0.09%	977,958	0.10%
Preferred Stock	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Common Equity	660,881,312	64.50%	684,121,619	65.93%	676,575,212	65.70%	666,303,221	65.37%
Total Capitalization	\$1,024,598,488	100.00%	\$1,037,595,980	100.00%	\$1,029,803,454	100.00%	\$1,019,281,993	100.00%

	Dec-12		Mar-13		Jun-13		Sep-13	
PSNC	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
Long-Term Debt	\$351,734,636	32.73%	\$351,464,837	32.98%	\$351,191,364	33.10%	\$350,914,170	33.50%
* Short-Term Debt	33,291,270	3.10%	1,004,762	0.09%	1,018,439	0.10%	1,032,301	0.10%
Preferred Stock	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Common Equity	689,618,076	64.17%	713,080,748	66.92%	708,804,832	66.80%	695,627,336	66.40%
Total Capitalization	\$1,074,643,982	100.00%	\$1,065,550,347	100.00%	\$1,061,014,635	100.00%	\$1,047,573,807	100.00%

\* Short-term debt includes current portion of long-term debt

Public Service Company of North Carolina, Inc  
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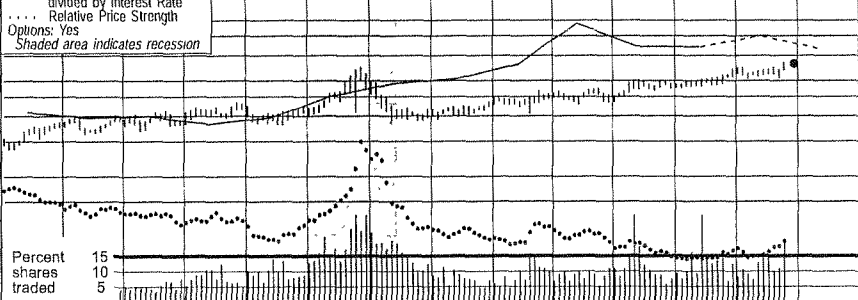
Dec-13			Mar-14		Jun-14		Sep-14	
PSNC	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
Long-Term Debt	\$350,633,206	33.14%	\$350,348,415	32.31%	\$350,059,747	32.40%	\$349,767,149	32.70%
* Short-Term Debt	1,046,350	0.10%	1,060,592	0.10%	1,075,028	0.10%	1,089,661	0.10%
Preferred Stock	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Common Equity	706,511,147	66.77%	733,000,314	67.59%	729,197,779	67.50%	718,910,258	67.20%
Total Capitalization	\$1,058,190,703	100.00%	\$1,084,409,321	100.00%	\$1,080,332,554	100.00%	\$1,069,767,068	100.00%

Dec-14			Mar-15		Jun-15		Sep-15	
PSNC	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
Long-Term Debt	\$349,470,568	31.40%	\$349,169,949	31.53%	\$348,865,225	31.71%	\$349,143,190	31.65%
* Short-Term Debt	31,104,494	2.79%	1,119,529	0.10%	1,134,775	0.10%	16,856,810	1.53%
Preferred Stock	-	0.00%	-	0.00%	-	0.00%	-	0.00%
Common Equity	732,485,835	65.81%	757,002,188	68.37%	750,254,197	68.19%	737,055,692	66.82%
Total Capitalization	\$1,113,060,897	100.00%	\$1,107,291,666	100.00%	\$1,100,254,197	100.00%	\$1,103,055,692	100.00%

Dec-15			Mar-16		Jun-16	
PSNC	Amount	Ratio	Amount	Ratio	Amount	Ratio
Long-Term Debt	\$349,424,938	29.70%	\$349,710,522	29.97%	\$450,000,000	36.85%
* Short-Term Debt	74,394,062	6.32%	37,389,478	3.20%	0	0.00%
Preferred Stock	-	0.00%	-	0.00%	-	0.00%
Common Equity	752,513,413	63.97%	779,696,058	66.82%	771,186,591	63.15%
Total Capitalization	\$1,176,332,413	100.00%	\$1,166,796,058	100.00%	\$1,221,186,591	100.00%

<p>(A) Diluted eps. Excl. nonrec. gains (losses): 199, 29¢; '00, 28¢; '01, \$3.00; '02, (\$3.72); '03, 31¢; '04, (23¢); '05, 3¢; '06, 9¢; '15, \$1.41. '12 &amp; '13 EPS don't add due to rounding. Next earnings report due mid-Feb. (B) Div'ds historically paid in early Jan., Apr., July, &amp; Oct. * Div'd reinvestment plan avail. (C) Incl. intang. in '14: \$12.78/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in SC: 10.25% elec. in '13, 10.25% gas in '05; in NC: 10.8% in '08; earned on avg. com. eq., '14: 11.1%. Regulatory Climate: Above Average.</p>		<p><b>Company's Financial Strength</b> B++  <b>Stock's Price Stability</b> 100  <b>Price Growth Persistence</b> 55  <b>Earnings Predictability</b> 100</p>
<p>© 2015 Value Line. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.</p>		<p><b>To subscribe call 1-800-VALUELINE</b></p>

ATMOS ENERGY CORP. NYSE-ATO										RECENT PRICE	62.38	P/E RATIO	19.4	(Trailing: 20.2 Median: 15.0)	RELATIVE P/E RATIO	1.08	DIV'D YLD	2.7%	VALUE LINE													
TIMELINESS	2	Raised 10/30/15	High: 27.6	30.0	33.1	33.5	29.3	30.3	32.0	35.6	37.3	47.4	58.2	63.8					Target Price Range	2018	2019	2020										
SAFETY	1	Raised 6/6/14	Low: 23.4	25.0	25.5	23.9	19.7	20.1	25.9	28.5	30.4	34.9	44.2	50.8																		
TECHNICAL	3	Raised 10/23/15	LEGENDS																													
BETA	.80	(1.00 = Market)	1.00 x Dividends p sh divided by Interest Rate																													
2018-20 PROJECTIONS																																
Price	75	Gain (+20%)																														
Low	60	Return (-5%)																														
Insider Decisions																																
J	F	M	A	M	J	J	A	S																								
to Buy	0	0	0	0	0	0	0	0	0																							
Options	0	0	0	0	0	0	0	0	0																							
to Sell	0	1	0	0	0	0	0	0	0																							
Institutional Decisions																																
Q4 2014	Q4 2015	Q4 2016																														
to Buy	133	157	136																													
to Sell	142	132	134																													
Hld's(000)	68718	69286	68505																													
Atmos Energy's history dates back to 1906 in the Texas Panhandle. Over the years, through various mergers, it became part of Pioneer Corporation, and, in 1981, Pioneer named its gas distribution division Energas. In 1983, Pioneer organized Energas as a separate subsidiary and distributed the outstanding shares of Energas to Pioneer shareholders. Energas changed its name to Atmos in 1988. Atmos acquired Trans Louisiana Gas in 1986, Western Kentucky Gas Utility in 1987, Greeley Gas in 1993, United Cities Gas in 1997, and others.																																
CAPITAL STRUCTURE as of 6/30/15																																
Total Debt \$2707.3 mill. Due in 5 Yrs \$950.0 mill.																																
LT Debt \$2455.3 mill. LT Interest \$145.0 mill.																																
(LT interest earned: 4.7x; total interest coverage: 4.7x)																																
Leases, Uncapitalized Annual rentals \$16.7 mill.																																
Pfd Stock None																																
Pension Assets-9/14 \$434.8 mill.																																
Common Stock 101,369,699 shs.																																
as of 7/31/15																																
MARKET CAP: \$6.3 billion (Large Cap)																																
CURRENT POSITION																																
(SMILL)																																
Cash Assets	66.2	42.3	43.2																													
Other	617.1	733.5	573.4																													
Current Assets	683.3	775.8	616.6																													
Accts Payable	241.6	311.6	227.3																													
Debt Due	368.0	196.7	252.0																													
Other	368.9	402.4	437.3																													
Current Liab.	978.5	910.7	916.6																													
Fix. Chg. Cov.	537%	637%	645%																													
ANNUAL RATES																																
of change (per sh)																																
Revenues	5%	8.0%	4.0%																													
"Cash Flow"	5.0%	4.0%	4.5%																													
Earnings	5.0%	5.0%	7.0%																													
Dividends	1.5%	2.0%	5.0%																													
Book Value	6.0%	4.5%	4.5%																													
QUARTERLY REVENUES (\$mill.) <sup>A</sup>																																
Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year																											
2012	1084.0	1225.5	576.4	552.6	3438.5																											
2013	1034.2	1309.0	857.9	685.2	3886.3																											
2014	1255.1	1964.3	942.7	778.8	4940.9																											
2015	1258.8	1540.1	686.4	656.8	4142.1																											
2016	1275	1675	725	765	4440																											
EARNINGS PER SHARE <sup>A B E</sup>																																
Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year																											
2012	.68	1.12	.31	-.08	2.10																											
2013	.85	1.23	.36	.08	2.50																											
QUARTERLY DIVIDENDS PAID <sup>C</sup>																																
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																											
2011	.34	.34	.34	.34	1.37																											
2012	.345	.345	.345	.35	1.39																											
2013	.35	.35	.35	.37	1.42																											
2014	.37	.37	.37	.39	1.50																											
BUSINESS: Atmos Energy Corporation is engaged primarily in the distribution and sale of natural gas to roughly three million customers through six regulated natural gas utility operations: Louisiana Division, West Texas Division, Mid-Tex Division, Mississippi Division, Colorado-Kansas Division, and Kentucky/Mid-States Division. Gas sales breakdown for 2014: 65%, residential; 30%, commercial; 3%, industrial; and 2% other. 2014 depreciation rate 3.0%. Has around 4,760 employees. Officers and directors own 1.6% of common stock (12/14 Proxy). President and Chief Executive Officer: Kim R. Cocklin. Incorporated: Texas. Address: Three Lincoln Centre, Suite 1800, 5430 LBJ Freeway, Dallas, Texas 75240. Telephone: 972-934-9227. Internet: www.atmosenergy.com.																																
Good things appear to be in store for Atmos Energy Corporation in fiscal 2016 (began October 1st). The natural gas distribution operation, generating the biggest portion of revenues, stands to benefit from a rise in throughput, assuming that both the weather and economic climate are generally favorable (resulting in a boost in consumption levels). Furthermore, if natural gas prices remain persistently low, purchasing costs could go down, which may lead to less bad-debt expense. Meanwhile, we look for reasonably decent showings from the Dallas-based company's other segments, including the regulated pipeline unit. At this juncture, full-year earnings might advance around 5%, to \$3.25 a share, versus the fiscal 2015 total of \$3.09. Regarding fiscal 2017, the bottom line stands to grow at a similar percentage rate, to \$3.40 a share, as operating margins expand. The fiscal 2016 capital expenditures budget is anticipated to be between \$1 billion and \$1.1 billion. That would be almost 8% higher than the previous year's figure, assuming the midpoint of that range is used. A meaningful portion of the resources will continue to be deployed to improve the safety and reliability of Atmos' distribution and transportation systems. The quarterly common stock dividend was increased a few pennies, to \$0.42 a share. Furthermore, our 2018-2020 projections indicate that additional, steady hikes in the distribution will probably take place. The payout ratio over that span ought to be in the 50% vicinity, which should not put a major financial strain on the company. The equity has climbed to its highest level ever in recent months. We attribute that movement partly to takeover activity in the pipeline and utility space. Fundamentally, though, Atmos is on track to achieve the type of steady earnings and dividend growth it has set out for itself. Overall, the Timeliness rank of these shares has been raised one notch, to 2 (Above Average). Other good qualities include the 1 (Highest) Safety rank and excellent score for Price Stability. All things considered, we think various kinds of investors will find something to like here. Frederick L. Harris, III December 4, 2015																																

LACLEDE GROUP NYSE-LG				RECENT PRICE	58.27	P/E RATIO	17.8 (Trailing: 18.4 Median: 14.0)	RELATIVE P/E RATIO	0.99	DIV'D YLD	3.4%	VALUE LINE								
TIMELINESS	3	Raised 10/16/15	High: 32.5 34.3 37.5 36.0 55.8 48.3 37.8 42.8 44.0 48.5 55.2 59.4	Low: 26.0 26.9 29.1 28.8 31.9 29.3 30.8 32.9 36.5 37.4 44.0 49.1	Target Price	Range	2018	2019	2020											
SAFETY	2	Raised 6/20/03	LEGENDS 1.00 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																	
TECHNICAL	3	Lowered 11/27/15																		
BETA	.70	(1.00 = Market)																		
2018-20 PROJECTIONS				Price	Gain	Ann'l Total														
High	75	(+30%)	10%																	
Low	55	(-5%)	2%																	
Insider Decisions				J F M A M J J A S																
to Buy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Options	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
to Sell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Institutional Decisions				4Q2014	1Q2015	2Q2015	Percent													
to Buy	85	116	115	15																
to Sell	99	69	77	10																
Hld's(000)	34804	35230	35958	5																
1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	© VALUE LINE PUB. LLC	18-20	
26.04	29.99	53.08	39.84	54.95	59.59	75.43	93.51	93.40	100.44	85.49	77.83	71.48	49.90	31.10	37.68	46.64	53.50	Revenues per sh <sup>A</sup>	60.00	
2.56	2.68	3.00	2.56	3.15	2.79	2.98	3.81	3.87	4.22	4.56	4.11	4.82	4.58	3.12	3.87	5.07	5.30	"Cash Flow" per sh	6.35	
1.47	1.37	1.61	1.18	1.82	1.82	1.90	2.37	2.31	2.64	2.92	2.43	2.86	2.79	2.02	2.35	3.16	3.40	Earnings per sh <sup>A B</sup>	4.20	
1.34	1.34	1.34	1.34	1.34	1.35	1.37	1.40	1.45	1.49	1.53	1.57	1.61	1.66	1.70	1.76	1.84	1.96	Div'ds Decl'd per sh <sup>C</sup>	2.20	
2.58	2.77	2.51	2.80	2.67	2.45	2.84	2.97	2.72	2.57	2.36	2.56	3.02	4.83	4.00	3.96	4.59	7.00	Cap'l Spending per sh	6.65	
14.96	14.99	15.26	15.07	15.65	16.96	17.31	18.85	19.79	22.12	23.32	24.02	25.56	26.67	32.00	34.93	36.34	39.60	Book Value per sh <sup>D</sup>	48.10	
18.88	18.88	18.88	18.96	19.11	20.98	21.17	21.36	21.65	21.99	22.17	22.29	22.43	22.55	32.70	43.18	43.30	43.00	Common Shs Outst'g <sup>E</sup>	45.00	
15.8	14.9	14.5	20.0	13.6	15.7	16.2	13.6	14.2	14.3	13.4	13.7	13.0	14.5	21.3	19.8	16.5		Avg Ann'l P/E Ratio	15.5	
.90	.97	.74	1.09	.78	.83	.86	.73	.75	.86	.89	.87	.82	.92	1.20	1.04	.83		Relative P/E Ratio	.95	
5.8%	6.6%	5.7%	5.7%	5.4%	4.7%	4.4%	4.3%	4.4%	3.9%	3.9%	4.7%	4.3%	4.1%	4.0%	3.8%	3.5%		Avg Ann'l Div'd Yield	3.5%	
CAPITAL STRUCTURE as of 9/30/15				1597.0	1997.6	2021.6	2209.0	1895.2	1735.0	1603.3	1125.5	1017.0	1627.2	1976.4	2300	Revenues (\$mill) <sup>A</sup>	2700			
Total Debt \$2189.5 mill. Due in 5 Yrs \$525.0 mill.				40.1	50.5	49.8	57.6	64.3	54.0	63.8	62.6	52.8	84.6	136.9	145	Net Profit (\$mill)	190			
LT Debt \$1771.5 mill. LT Interest \$70.0 mill.				34.1%	32.5%	33.4%	31.3%	33.6%	33.4%	31.4%	29.6%	25.0%	27.6%	28.0%	28.0%	Income Tax Rate	30.0%			
(Total interest coverage: 4.1x)				2.5%	2.5%	2.5%	2.6%	3.4%	3.1%	4.0%	5.6%	5.2%	5.2%	6.9%	6.4%	Net Profit Margin	7.0%			
Leases, Uncapitalized Annual rentals \$12.0 mill.				48.1%	49.5%	45.3%	44.4%	42.9%	40.5%	38.9%	36.1%	46.6%	55.1%	54.5%	53.0%	Long-Term Debt Ratio	51.0%			
Pension Assets-9/14 \$506.6 mill.				51.8%	50.4%	54.6%	55.5%	57.1%	59.5%	61.1%	63.9%	53.4%	44.9%	45.5%	47.0%	Common Equity Ratio	49.0%			
Oblig. \$692.5 mill.				707.9	798.9	784.5	876.1	906.3	899.9	937.7	941.0	1959.0	3359.4	3345.1	3645	Total Capital (\$mill)	4400			
Pfd Stock None				679.5	763.8	793.8	823.2	855.9	884.1	928.7	1019.3	1776.6	2759.7	2927.5	3045	Net Plant (\$mill)	3520			
Common Stock 43,350,411 shs.				7.6%	8.4%	8.5%	8.1%	8.7%	7.4%	8.1%	7.9%	3.3%	3.1%	4.0%	4.5%	Return on Total Cap'l	5.0%			
as of 10/20/15				10.9%	12.5%	11.6%	11.8%	12.4%	10.1%	11.1%	10.4%	5.0%	5.6%	8.7%	8.5%	Return on Shr. Equity	8.5%			
MARKET CAP: \$2.5 billion (Mid Cap)				10.9%	12.5%	11.6%	11.8%	12.4%	10.1%	11.1%	10.4%	5.0%	5.6%	8.7%	8.5%	Return on Com Equity	8.5%			
CURRENT POSITION				3.1%	5.1%	4.3%	5.2%	5.9%	3.6%	4.9%	4.3%	1.0%	1.5%	3.7%	3.5%	Retained to Com Eq	4.0%			
(\$MILL.)				72%	59%	63%	56%	53%	64%	56%	59%	81%	73%	58%	56%	All Div'ds to Net Prof	52%			
Cash Assets				53.0	16.1	13.8														
Other				422.9	588.8	516.3														
Current Assets				475.9	604.9	530.1														
Accts Payable				140.2	176.7	146.5														
Debt Due				74.0	287.1	418.0														
Other				139.0	319.0	289.3														
Current Liab.				353.2	782.8	853.8														
Fix. Chg. Cov.				337%	423%	409%														
ANNUAL RATES				Past	Past	Est'd	12-14													
of change (per sh)				10 Yrs.	5 Yrs.	to 18-20														
Revenues				-2.5%	-15.5%	7.0%														
"Cash Flow"				3.0%	-2.0%	8.5%														
Earnings				4.0%	-2.0%	10.0%														
Dividends				2.5%	3.0%	4.5%														
Book Value				7.0%	7.5%	7.5%														
FISCAL YEAR ENDS				Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year												
QUARTERLY REVENUES (\$mill.) <sup>A</sup>				2012	410.9	358.2	186.9	169.5	1125.5											
				2013	307.0	397.6	165.3	147.1	1017.0											
				2014	468.6	694.5	241.8	222.3	1627.2											
				2015	619.6	877.4	275.2	204.2	1976.4											
				2016	700	900	350	350	2300											
FISCAL YEAR ENDS				Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year												
EARNINGS PER SHARE <sup>A B F</sup>				2012	1.12	1.32	.38	d.03	2.79											
				2013	1.14	1.34	.25	d.30	2.02											
				2014	1.09	1.59	.33	d.35	2.35											
				2015	1.09	2.18	.32	d.43	3.16											
				2016	1.15	2.20	.35	d.30	3.40											
Cal-endar				Mar.31	Jun.30	Sep.30	Dec.31	Full Year												
QUARTERLY DIVIDENDS PAID <sup>C</sup>				2012	.415	.415	.415	.415	1.66											
				2013	.425	.425	.425	.425	1.70											
				2014	.44	.44	.44	.44	1.76											
				2015	.46	.46	.46	.46												
				2016	.49															

**Business:** Laclede Group, Inc., is a holding company for Laclede Gas, which distributes natural gas across Missouri, including the cities of St. Louis and Kansas City. Has roughly 1.6 million customers. Purchased SM&P Utility Resources, 1/02; divested, 3/08. Acquired Missouri Gas 9/13, Alabama Gas Co 9/14. Utility terms sold and transported in fiscal 2014; 2.0 bill. Revenue mix for regulated operations: residential, 66%; commercial and industrial, 24%; transportation, 2%; other, 8%. Has around 3,152 employees. Officers and directors own 3.2% of common shares (1/15 proxy). Chairman: William E. Nasser; CEO: Suzanne Sitherwood. Inc.: Missouri. Address: 700 Market Street, St. Louis, Missouri 63101. Telephone: 314-342-0500. Internet: [www.thelacledegroup.com](http://www.thelacledegroup.com).

**Laclede Group had worse-than-expected fiscal year-end results (ended September 30th).** Fourth-quarter revenues fell to \$204.2 million, hurt by lower natural gas prices and a severe decrease in gas marketing revenues. However, the Alagasco purchase helped to partially offset warmer fall weather conditions. Losses expanded to \$0.43 a share, hurt by lower gross contributions and a sizable increase in maintenance and depreciation expense. **Fiscal 2016 should be a banner year for the company.** Laclede has received positive outcomes for rate cases, which went into effect December 1st. These include \$4.4 million in new Laclede Gas spending and \$1.9 million at Missouri Gas. These should boost recoveries and allow for better system reliability. Capital expenditures are expected to be around \$315 million this year, with recovery methods in place that should allow for better earnings. This should total around \$1.6 billion in capital spending out to decade's end. Laclede has ample liquidity to fund spending plans. The company will look to capitalize on natural gas conversions for industrial processes, including more volume in its Spire natural gas fuel station. In addition, Laclede could look to purchase municipal gas utilities over the coming quarters, though nothing specific has been mentioned as of yet. All told, we believe the company will be able to earn \$3.40 a share in fiscal 2016.

**The dividend remains a top draw.** Indeed, management at Laclede recently raised the quarterly dividend by 6.5%, to \$0.49 a share. This remains well covered by earnings, and dividend increases appear poised to outgrow others in the industry over the coming years, as management has set a target a payout ratio of around 55%-65%. We think that payouts will reach \$2.20 a share over the long haul.

**Shares of Laclede Group are neutrally ranked for Timeliness.** These shares do not stand out for total-return potential, but maintain a solid yield with ample room for growth over the coming years. Laclede has an Above-Average Safety rank and a below-market-average Beta. Conservative, long-term investors would be best served waiting for a dip in price.

*John E. Seibert III* *December 4, 2015*

(A) Fiscal year ends Sept. 30th. (B) Based on diluted shares outstanding. Excludes nonrecurring loss: '06, 7¢. Excludes gain from discontinued operations: '08, 94¢. Next earnings report

due late January. (C) Dividends historically paid in early January, April, July, and October. Dividend reinvestment plan available. (D) Incl. deferred charges. In '14: \$383.8 mill.,

\$8.85/sh. (E) In millions. (F) Qly. egs. may not sum due to rounding or change in shares outstanding.

Company's Financial Strength B++  
Stock's Price Stability 100  
Price Growth Persistence 40  
Earnings Predictability 80

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related operations: residential, 66%; commercial and industrial, 24%; transportation, 2%; other, 8%. Has around 3,152 employees. Officers and directors own 3.2% of common shares (1/15 proxy). Chairman: William E. Nasser; CEO: Suzanne Sitherwood, Inc.: Missouri. Address: 700 Market Street, St. Louis, Missouri 63101. Telephone: 314-342-0500. Internet: www.thelacledegroup.com.

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John E. Seibert III

December 4, 2015

<p>(A) Fiscal year ends Sept. 30th.</p> <p>(B) Diluted earnings. Qly eqs may not sum to total due to change in shares outstanding. Next earnings report due late Jan.</p>		<p>(C) Dividends historically paid in early Jan., April, July, and October. 1Q '13 div'd paid in 4Q '12. ■ Dividend reinvestment plan available.</p> <p>(D) Includes regulatory assets in 2014: \$377.6</p>	<p>million, \$4.48/share.</p> <p>(E) In millions, adjusted for splits.</p>	<p>Company's Financial Strength A+</p> <p>Stock's Price Stability 90</p> <p>Price Growth Persistence 55</p> <p>Earnings Predictability 60</p>
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Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	30
Earnings Predictability	95



<p>(A) Based on GAAP egs. through 2006, economic egs. thereafter. GAAP EPS: '07, \$1.05; '08, \$1.29; '09, \$0.97; '10, \$1.11; '11, \$1.49; '12, \$1.49; '13, \$1.28; '14, \$1.46. Excl. non-</p>		<p>recur. gain (loss): '01, \$0.07; '08, \$0.16; '09, (\$0.22); '10, (\$0.24); '11, \$0.04; '12, (\$0.03); '13, (\$0.24); '14, (\$0.11). Earnings may not sum due to rounding. Next egs. report due late</p>	<p>February. (B) Div'ds paid early April, July, Oct., and late Dec. = Div. reinvest. plan avail. (C) Incl. reg. assets. In 2014: \$357.2 mill., \$5.23 per shr. (D) In mill., adj. for split.</p>	<p><b>Company's Financial Strength</b> <b>Stock's Price Stability</b> <b>Price Growth Persistence</b> <b>Earnings Predictability</b></p>	<p><b>A</b> <b>95</b> <b>50</b> <b>80</b></p>
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<p><b>To subscribe call 1-800-VALUELINE</b></p>					

SOUTHWEST GAS NYSE-SMX				RECENT PRICE	56.73	P/E RATIO	18.8	(Trailing: 20.4 Median: 16.0)	RELATIVE P/E RATIO	1.05	DIV'D YLD	3.0%	VALUE LINE													
TIMELINESS	3	Lowered 6/12/15	High: 26.2 28.1 39.4 39.9 33.3 29.5 37.3 43.2 46.1 56.0 64.2 63.7	Low: 21.5 23.5 26.0 26.5 21.1 17.1 26.3 32.1 39.0 42.0 47.2 51.3									Target Price Range													
SAFETY	3	Lowered 1/4/91												2018 2019 2020												
TECHNICAL	1	Raised 11/20/15												128												
BETA	80	(1.00 = Market)												96												
2018-20 PROJECTIONS														80												
Price Gain Ann'l Total														64												
High 80 (+40%) 11%														48												
Low 55 (-5%) 3%														40												
Insider Decisions														32												
J F M A M J J A S														24												
to Buy 0 0 0 0 0 0 0 0 0														16												
Options 0 0 0 0 0 0 0 0 0														12												
to Sell 0 0 5 0 0 0 0 0 0																										
Institutional Decisions																										
4Q2014 1Q2015 2Q2015																										
to Buy 83 94 109																										
to Sell 87 81 80																										
Hld's(000) 35979 36094 36799																										
Percent shares traded																										
15 10 5																										
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016																		© VALUE LINE PUBL. LLC 18-20								
30.24 32.61 42.98 39.68 35.96 40.14 43.59 48.47 50.28 48.53 42.00 40.18 41.07 41.77 42.08 45.61 50.50 51.55																		Revenues per sh								
4.45 4.57 4.79 5.07 5.11 5.57 5.20 5.97 6.21 5.76 6.16 6.46 6.81 7.73 8.24 8.47 8.45 9.00																		"Cash Flow" per sh								
1.27 1.21 1.15 1.16 1.13 1.66 1.25 1.98 1.95 1.39 1.94 2.27 2.43 2.86 3.11 3.01 2.85 3.20																		Earnings per sh <sup>A</sup>								
.82 .82 .82 .82 .82 .82 .82 .82 .86 .90 .95 1.00 1.06 1.18 1.32 1.46 1.62 1.74																		Div'ds Decl'd per sh <sup>B</sup>								
7.41 7.04 8.17 8.50 7.03 8.23 7.49 8.27 7.96 6.79 4.81 4.73 8.29 8.57 7.86 8.53 9.40 9.80																		Cap'l Spending per sh								
16.31 16.82 17.27 17.91 18.42 19.18 19.10 21.58 22.98 23.49 24.44 25.62 26.66 28.35 30.47 31.95 33.35 34.70																		Book Value per sh								
30.99 31.71 32.49 33.29 34.23 36.79 39.33 41.77 42.81 44.19 45.09 45.56 45.96 46.15 46.36 46.52 48.00 49.00																		Common Shs Outst'g <sup>C</sup>								
21.1 16.0 19.0 19.9 19.2 14.3 20.6 15.9 17.3 20.3 12.2 14.0 15.7 15.0 15.8 17.9 17.9 17.9																		Avg Ann'l P/E Ratio								
1.20 1.04 .97 1.09 1.09 1.09 1.10 .86 .92 1.22 .81 .89 .98 .95 .89 .94 .94																		Relative P/E Ratio								
3.1% 4.2% 3.8% 3.6% 3.8% 3.5% 3.2% 2.6% 2.6% 3.2% 4.0% 3.2% 2.8% 2.8% 2.7% 2.7%																		Avg Ann'l Div'd Yield								
CAPITAL STRUCTURE as of 9/30/15																										
Total Debt \$1560.2 mill. Due in 5 Yrs \$405.0 mill.																		Revenues (\$mill)								
LT Debt \$1540.4 mill. LT Interest \$72.0 mill.																		Net Profit (\$mill)								
(Total interest coverage: 3.8x) (50% of Cap'l)																		Income Tax Rate								
Leases, Uncapitalized Annual rentals \$6.0 mill.																		Net Profit Margin								
Pension Assets-12/14 \$799.7 mill.																		Long-Term Debt Ratio								
Oblig. \$1132.4 mill.																		Common Equity Ratio								
Pfd Stock None																		Total Capital (\$mill)								
Common Stock 47,375,398 shs.																		Net Plant (\$mill)								
as of 10/28/15																		Return on Total Cap'l								
MARKET CAP: \$2.7 billion (Mid Cap)																		Return on Shr. Equity								
CURRENT POSITION																		Return on Com Equity								
(SMILL)																		Retained to Com Eq								
Cash Assets 41.1 39.6 33.0																		All Div'ds to Net Prof								
Other 453.6 567.2 445.6																										
Current Assets 494.7 606.8 478.6																										
Accts Payable 183.5 168.0 129.3																										
Debt Due 11.1 24.2 19.8																										
Other 239.6 277.9 345.6																										
Current Liab. 434.2 470.1 494.7																										
Fix. Chg. Cov. 430% 395% 383%																										
ANNUAL RATES																										
Past 10 Yrs. Past 5 Yrs. Est'd '12-'14																										
of change (per sh)																										
Revenues 1.0% -1.5% 4.5%																										
"Cash Flow" 4.5% 6.0% 5.5%																										
Earnings 8.5% 11.0% 7.0%																										
Dividends 5.0% 8.0% 8.0%																										
Book Value 5.0% 5.0% 4.5%																										
Cal- QUARTERLY REVENUES (\$mill) <sup>D</sup> Full																										
endar Mar.31 Jun.30 Sep.30 Dec.31 Year																										
2012 657.6 409.8 371.8 488.6 1927.8																										
2013 613.5 411.6 387.3 538.4 1950.8																										
2014 608.4 453.2 432.5 627.7 2121.7																										
2015 734.2 538.6 505.4 646.8 2425																										
2016 760 560 520 685 2525																										
Cal- EARNINGS PER SHARE <sup>A</sup> Full																										
endar Mar.31 Jun.30 Sep.30 Dec.31 Year																										
2012 1.70 d.08 d.09 1.33 2.86																										
2013 1.73 .22 d.06 1.22 3.11																										
2014 1.51 .21 .04 1.25 3.01																										
2015 1.53 .10 d.10 1.32 2.85																										
2016 1.60 .20 Nil 1.40 3.20																										
Cal- QUARTERLY DIVIDENDS PAID <sup>B</sup> Full																										
endar Mar.31 Jun.30 Sep.30 Dec.31 Year																										
2011 .250 .265 .265 .265 1.05																										
2012 .265 .295 .295 .295 1.15																										
2013 .295 .330 .330 .330 1.29																										
2014 .330 .365 .365 .365 1.43																										
2015 .365 .405 .405 .405																										

**BUSINESS:** Southwest Gas Corporation is a regulated gas distributor serving approximately 1.9 million customers in sections of Arizona, Nevada, and California. Comprised of two business segments: natural gas operations and construction services. 2014 margin mix: residential and small commercial, 85%; large commercial and industrial, 4%; transportation, 11%. Total throughput: 1.9 billion

**Shares of Southwest Gas have pulled back in price in recent weeks, following a nice rally in September and October.** The company reported mixed results for the September interim. Revenues advanced roughly 17%, on a year-to-year basis. Construction services revenue increased significantly, thanks to additional pipe replacement work and acquisitions completed in the fourth quarter of last year. This business reported net income of \$14.2 million, up about 6% from the prior-year figure. But despite support from growth in the customer base and rate relief, utility revenues decreased roughly 3%. Moreover, performance here was hurt by a reduction in the cash surrender value of company-owned life insurance policies, due to weakness in equity markets during the quarter. Greater employee-related costs also affected results, and the utility reported a net loss of \$18.9 million. Overall, Southwest Gas posted a deficit of \$0.10 per share for the recent period.

**We envision solid performance in the coming quarters.** The construction services line appears well positioned for growth with a strong base of utility clients

and multiyear pipeline replacement programs. This line ought to experience healthy demand, given the need to replace aging infrastructure. Strength in the U.S. dollar may present a near-term headwind for this unit's Canadian business, though. Elsewhere, the natural gas utility operation should continue to benefit from customer growth, infrastructure tracker mechanisms, and expansion projects. Greater operating expenses may well be at least a partial offset here, though. Overall, we anticipate further top-line growth and a nice share-earnings rebound for Southwest Gas in 2016.

**This issue is neutrally ranked for year-ahead performance.** However, we do anticipate decent total returns for the stock over the pull to late decade. This should be supported by healthy growth in revenues and share earnings for the company in the coming years. The dividend yield is decent for a gas utility, and prospects for growth in the payout are very good. Moreover, Southwest Gas earns good marks for Price Stability, Price Growth Persistence, and Earnings Predictability.

Michael Napoli, CFA December 4, 2015

WGL HOLDINGS NYSE-WGL										RECENT PRICE	61.03	P/E RATIO	19.6	Trailing: 19.3 Median: 15.0	RELATIVE P/E RATIO	1.09	DIV'D YLD	3.0%	VALUE LINE
TIMELINESS	3	Raised 3/27/15	High: 31.4	34.8	33.6	35.9	37.1	35.5	40.0	45.0	45.0	47.0	56.8	63.2					Target Price Range
SAFETY	1	Raised 4/2/93	Low: 26.7	28.8	27.0	29.8	22.4	28.6	31.0	34.7	36.0	38.0	35.4	50.9					2018 2019 2020
TECHNICAL	2	Raised 11/20/15	LEGENDS 1.00 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																
BETA	.75	(1.00 = Market)																	
2018-20 PROJECTIONS																			
High	Price	Gain	Ann'l Total																
Low	60	(Nil)	3%																
	50	(-20%)	-1%																
Insider Decisions																			
to Buy	J	F	M	A	M	J	J	A	S										
Options	0	0	0	0	0	0	0	0	0										
to Sell	0	0	1	0	0	0	0	0	0										
Institutional Decisions																			
to Buy	4Q2014	1Q2015	2Q2015																
to Sell	94	116	117																
Hld's(000)	116	99	104																
	31806	31712	32440																
Percent shares traded																			
	18	12	6																
% TOT. RETURN 10/15																			
	1 yr.	36.8	-1.3																
	3 yr.	73.7	49.3																
	5 yr.	93.9	73.5																
© VALUE LINE PUB. LLC 18-20																			
20.92	22.19	29.80	32.63	42.45	42.93	44.94	53.96	53.51	52.65	53.98	53.60	53.75	47.07	47.70	53.73	53.42	54.00	Revenues per sh <sup>A</sup>	59.00
2.74	3.20	3.24	2.63	4.00	3.87	3.97	3.84	3.89	4.34	4.44	4.11	4.01	4.53	4.29	4.83	5.60	5.30	"Cash Flow" per sh	5.80
1.47	1.79	1.88	1.14	2.30	1.98	2.13	1.94	2.09	2.44	2.53	2.27	2.25	2.68	2.31	2.68	3.16	3.10	Earnings per sh <sup>B</sup>	3.55
1.22	1.24	1.26	1.27	1.28	1.30	1.32	1.35	1.37	1.41	1.47	1.50	1.55	1.59	1.66	1.72	1.83	1.87	Div's Decl'd per sh <sup>C</sup>	1.99
3.42	2.67	2.68	3.34	2.65	2.33	3.27	3.33	3.27	3.33	2.70	2.77	2.57	3.94	4.87	6.04	7.63	9.32	Cap'l Spending per sh	20.00
14.72	15.31	16.24	15.78	16.25	16.95	17.80	18.86	19.83	20.99	21.89	22.82	23.49	24.64	24.65	24.08	24.97	26.35	Book Value per sh <sup>D</sup>	30.55
46.47	46.47	48.54	48.56	48.83	48.67	48.65	48.89	49.45	49.92	50.14	50.54	51.20	51.52	51.70	51.76	49.79	50.00	Common Shs Outst'g <sup>E</sup>	50.00
17.3	14.6	14.7	23.1	11.1	14.2	14.7	15.5	15.6	13.2	12.6	15.1	17.0	15.3	18.2	15.2	17.0		Avg Ann'l P/E Ratio	15.0
.99	.95	.75	1.26	.63	.75	.78	.84	.83	.87	.84	.96	1.07	.97	1.02	.80	.93		Relative P/E Ratio	.95
4.8%	4.8%	4.6%	4.8%	5.0%	4.6%	4.2%	4.5%	4.2%	4.2%	4.6%	4.4%	4.1%	3.9%	3.9%	4.2%	3.4%		Avg Ann'l Div'd Yield	4.0%
CAPITAL STRUCTURE as of 9/30/15																			
Total Debt \$1301.2 mill. Due in 5 Yrs \$95.0 mill.																			
LT Debt \$944.2 mill. LT Interest \$37.7 mill.																			
(LT interest earned: 6.2%; total interest coverage: 5.7x)																			
(43% of Total Capital)																			
Pension Assets-9/14 \$1,218.7 mill.																			
Obliq. \$1,247.4 mill.																			
Preferred Stock \$28.2 mill. Prfd. Div'd \$1.3 mill.																			
Common Stock 49,831,775 shs. as of 10/31/15																			
MARKET CAP: \$3.0 billion (Mid Cap)																			
CURRENT POSITION 2013 2014 9/30/15																			
(MILL.)																			
Cash Assets	3.5	8.8	6.7																
Other	816.5	826.7	774.7																
Current Assets	820.0	835.5	781.4																
Accts Payable	270.7	313.2	325.1																
Debt Due	440.1	473.5	357.0																
Other	239.3	233.6	300.8																
Current Liab.	950.1	1020.3	982.9																
Fix. Chg. Cov.	535%	535%	535%																
ANNUAL RATES Past Past Est'd '12-'14																			
of change (per sh)	10 Yrs.	5 Yrs.	to '18-'20																
Revenues	2.5%	-1.5%	3.0%																
"Cash Flow"	2.5%	1.5%	4.0%																
Earnings	3.5%	1.5%	5.5%																
Dividends	2.5%	3.0%	3.0%																
Book Value	4.0%	3.0%	4.0%																
FISCAL YEAR ENDS																			
Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year															
2012	727.7	839.4	438.3	419.8	2425.3														
2013	686.7	891.4	478.1	409.9	2466.1														
2014	680.5	1174.0	467.5	458.9	2780.9														
2015	749.2	1001.7	441.2	467.7	2659.8														
2016	760	1010	450	480	2700														
FISCAL YEAR ENDS																			
Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year															
2012	1.13	1.58	.08	d.11	2.68														
2013	1.14	1.75	d.03	d.55	2.31														
2014	.99	1.84	.02	d.17	2.68														
2015	1.16	2.02	.22	d.23	3.16														
2016	1.14	2.00	.20	d.24	3.10														
Cal-endar																			
Mar.31	Jun.30	Sep.30	Dec.31	Full Year															
2011	.378	.39	.39	.39	1.55														
2012	.39	.40	.40	.40	1.59														
2013	.40	.42	.42	.42	1.66														
2014	.42	.44	.44	.44	1.74														
2015	.44	.463	.463	.463															
BUSINESS: WGL Holdings, Inc. is the parent of Washington Gas Light, a natural gas distributor in Washington, D.C. and adjacent areas of VA and MD to residential and comm'l users (1,126,300 meters). Hampshire Gas, a federally regulated sub., operates an underground gas-storage facility in WV. Non-regulated subs.: Wash. Gas Energy Svcs. sells and delivers natural gas and pro-																			
vides energy-related products in the D.C. metro area; Wash. Gas Energy Sys. designs/installs comm'l heating, ventilating, and air cond. systems. American Century owns 9.4% of common stock; Off/dir. less than 1% (1/15 proxy). Chrmn. & CEO: Terry D. McCallister, Inc.: D.C. and VA. Addr.: 101 Const. Ave., N.W., Washington, D.C. 20080. Tel.: 202-624-6410. Internet: www.wgholdings.com.																			
Since our September review, shares of WGL Holdings are trading 10% higher in price. This advance likely reflects WGL's healthy bottom-line gain for fiscal 2015 (ended September 30th). At the same time, the broader market averages also staged a nice rebound.																			
Annual results for the recently completed year were a bit mixed. Indeed, the top line declined roughly 4.5%, to \$2.65 billion. This stemmed from an 8% decline in utility revenues and a 0.5% reduction in nonutility volumes. That said, we do view this as a technicality due to lower year-over-year natural gas prices, and not a result of reduced system throughput. In fact, the utility segment added 12,800 active customer meters last year. Overall operating expenses declined 270 basis points as a function of revenues. Combined, these factors equated to a solid, almost 18% earnings increase, to \$3.16 a share, last year. This was markedly above our earlier expectation.																			
Nonetheless, we have left our fiscal 2016 top- and bottom-line estimates unchanged for the time being. WGL Holdings' utility operations should contin-																			
ue to benefit from rising customer accounts and increased volumes as a result of its accelerated investment program, which should boost system capacity and reliability. However, depressed commodity prices will likely continue to make for difficult year-to-year comparisons.																			
A healthy capital budget augurs well for prospects. The company has about \$835 million worth of growth projects budgeted for 2016. Moreover, that figure jumps to \$3.3 billion for all projects planned from 2016-2020. Some of the most notable ones are the Constitution Pipeline, Central Penn Line, and Mountain Valley Pipeline projects. New compressed natural gas fueling stations and an expansion of its solar capabilities should also complement existing operations.																			
At the moment, these neutrally ranked shares are an average selection for income generation. WGL's dividend yield is in line with the industry average. However, the issue was trading above our Target Price Range, suggesting little-to-no capital appreciation potential for the pull to 2018-2020.																			
Bryan J. Fong December 4, 2015																			



MONEY

Attorney General Hebert  
Cross Exhibit 4  
EIA

AMERICA'S MARKETS WHAT TO WATCH MARKETS STORY STOCKS PRO TALK TECH STOCKS

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### Today's Markets

DOW JONES

120 98 (0.66%)

18 516 38

Last Close 18 395

NASDAQ

19 57 (0.37%)

Last Close 5 219

S&P 500

12 79 (0.59%)

Last Close 2 169

### Today's Stock Movers

Gainers Losers

Macrocare Ltd	89 26%
Skypeople Fruit Juice Inc	43 17%
Conatus Pharmaceuticals Inc	15 79%
Joint Corp	14 10%
Staffing 360 Solutions Inc	12 74%

Market

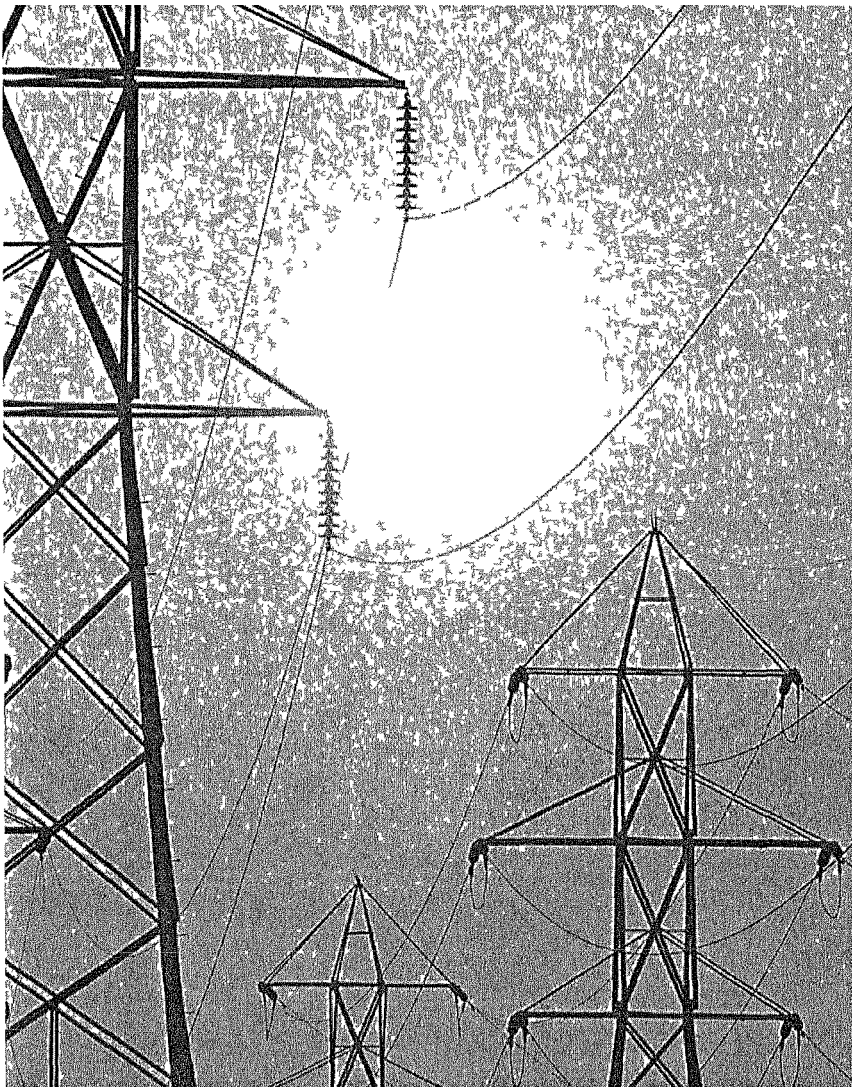
## Utility stocks, um, party like it's 1999

By Adam Shell November 10, 2014 9:49 am

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### DOW to Drop 80% in 2016

theoverseerinvestor.com  
50% Stock Market Crash to strike in 2016, Economist Warns

### Biotech Stocks to Double Which Companies Made the List?

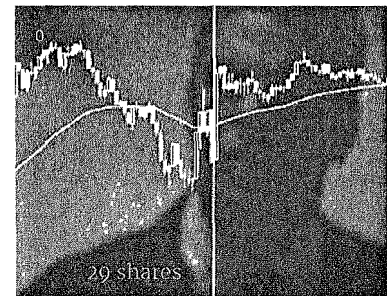
investmonthly.com/hottest/biotech  
See Which Companies Could Double in 2016

### Trump Betrayed?

aporafinancial.com  
Sept 30 Will Go Down As the Day That Ruins His Presidency, Set Wily

### Ask Matt

Ask Matt: How to be calm during corrections



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## Duff & Phelps Increases Recommended U.S. Equity Risk Premium from 5.0% to 5.5%

Duff & Phelps regularly reviews fluctuations in global economic and financial market conditions that warrant periodic reassessments of the recommended Equity Risk Premium (ERP). Based upon current market conditions, Duff & Phelps recommends an increase in the U.S. ERP to 5.5% when developing discount rates as of **January 31, 2016** and thereafter (until further guidance is issued). The prior Duff & Phelps recommended U.S. ERP was 5.0%, established as of February 28, 2013. Both of these ERP estimates were measured relative to a normalized yield of 4.0% on 20-year U.S. Treasury bonds. Click here to read the report.

Note that for valuations performed as of **December 31, 2015**, the Duff & Phelps U.S. ERP recommendation remained at 5.0% matched with a normalized risk-free rate of 4.0%.

The ERP is a key input used to calculate the cost of equity capital within the context of the Capital Asset Pricing Model (CAPM) and other models. The ERP is used as a building block when estimating a company's discount rate and is an essential ingredient of any business valuation.

### Services

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Alternative Asset Advisory

Compliance and Regulatory Consulting

Disputes and Investigations

Legal Management Consulting

M&A Advisory

Real Estate Advisory Group

PSNC Rate Case  
Docket No. G-5 Sub 565

## CAPM using Duff & Phelps

[1] Risk Free Rate	[2] Avg Beta	[3] Duff & Phelps	[4] MRP
4.00%	0.634	5.50%	7.49%
4.00%	0.757	5.50%	8.16%

I/A

Constant Growth Discounted Cash Flow Model  
30 Day Average Stock Price

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Ticker	Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Retention Growth Estimate	Average Earnings Growth	Low ROE	Mean ROE	High ROE
Atmos Energy Corporation	ATO	\$1.68	\$65.65	2.56%	2.65%	6.60%	6.40%	7.00%	8.21%	7.05%	9.04%	9.70%	10.87%
Laclede Group, Inc. (The)	LG	\$1.96	\$61.14	3.21%	3.30%	4.80%	4.78%	10.00%	4.90%	6.12%	8.06%	9.42%	13.37%
New Jersey Resources Corporation	NJR	\$0.96	\$34.36	2.79%	2.87%	6.50%	6.50%	4.00%	5.81%	5.70%	6.85%	8.58%	9.38%
Northwest Natural Gas Company	NWN	\$1.87	\$51.25	3.65%	3.73%	4.00%	4.00%	7.00%	3.73%	4.68%	7.45%	8.42%	10.78%
South Jersey Industries, Inc.	SJI	\$1.06	\$24.21	4.36%	4.50%	NA	6.00%	7.00%	6.56%	6.52%	10.49%	11.02%	11.51%
Southwest Gas Corporation	SWX	\$1.62	\$57.43	2.82%	2.90%	5.00%	4.00%	7.00%	7.53%	5.88%	6.88%	8.78%	10.45%
WGL Holdings, Inc.	WGL	\$1.95	\$64.08	3.04%	3.14%	7.30%	8.00%	5.50%	5.11%	6.48%	8.23%	9.62%	11.16%
Proxy Group Mean				3.20%	3.30%	5.70%	5.67%	6.79%	5.98%	6.06%	8.14%	9.36%	11.08%
Proxy Group Median				3.04%	3.14%	5.75%	6.00%	7.00%	5.81%	6.12%	8.06%	9.42%	10.87%

## Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals indicated number of trading day average as of February 12, 2016

[3] Equals [1] / [2]

[4] Equals [3] x (1 + 0.5 x [9])

[5] Source: Zacks

[6] Source: Yahoo! Finance

[7] Source: Value Line

[8] Source: Exhibit RBH-2, Value Line

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

[10] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7], [8])) + Minimum([5], [6], [7], [8])

[11] Equals [4] + [9]

[12] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7], [8])) + Maximum([5], [6], [7], [8])



Constant Growth Discounted Cash Flow Model  
90 Day Average Stock Price

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Ticker	Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Retention Growth Estimate	Average Earnings Growth	Low ROE	Mean ROE	High ROE
Atmos Energy Corporation	ATO	\$1.68	\$62.93	2.67%	2.76%	6.60%	6.40%	7.00%	8.21%	7.05%	9.16%	9.82%	10.99%
Laclede Group, Inc. (The)	LG	\$1.96	\$58.86	3.33%	3.43%	4.80%	4.78%	10.00%	4.90%	6.12%	8.19%	9.55%	13.50%
New Jersey Resources Corporation	NJR	\$0.96	\$31.87	3.01%	3.10%	6.50%	6.50%	4.00%	5.81%	5.70%	7.07%	8.80%	9.61%
Northwest Natural Gas Company	NWN	\$1.87	\$49.19	3.80%	3.89%	4.00%	4.00%	7.00%	3.73%	4.68%	7.61%	8.57%	10.93%
South Jersey Industries, Inc.	SJI	\$1.06	\$24.38	4.33%	4.47%	NA	6.00%	7.00%	6.56%	6.52%	10.46%	10.99%	11.48%
Southwest Gas Corporation	SWX	\$1.62	\$57.11	2.84%	2.92%	5.00%	4.00%	7.00%	7.53%	5.88%	6.89%	8.80%	10.47%
WGL Holdings, Inc.	WGL	\$1.95	\$62.07	3.14%	3.24%	7.30%	8.00%	5.50%	5.11%	6.48%	8.33%	9.72%	11.27%
Proxy Group Mean				3.30%	3.40%	5.70%	5.67%	6.79%	5.98%	6.06%	8.24%	9.46%	11.18%
Proxy Group Median				3.14%	3.24%	5.75%	6.00%	7.00%	5.81%	6.12%	8.19%	9.55%	10.99%

## Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals indicated number of trading day average as of February 12, 2016

[3] Equals [1] / [2]

[4] Equals [3] x (1 + 0.5 x [9])

[5] Source: Zacks

[6] Source: Yahoo! Finance

[7] Source: Value Line

[8] Source: Exhibit RBH-2, Value Line

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

[10] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7], [8])) + Minimum([5], [6], [7], [8])

[11] Equals [4] + [9]

[12] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7], [8])) + Maximum([5], [6], [7], [8])



Constant Growth Discounted Cash Flow Model  
180 Day Average Stock Price

Company	Ticker	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
		Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield	Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Retention Growth Estimate	Average Earnings Growth	Low ROE	Mean ROE	High ROE
Atmos Energy Corporation	ATO	\$1.68	\$58.64	2.86%	2.97%	6.60%	6.40%	7.00%	8.21%	7.05%	9.36%	10.02%	11.19%
Laclede Group, Inc. (The)	LG	\$1.96	\$55.96	3.50%	3.61%	4.80%	4.78%	10.00%	4.90%	6.12%	8.37%	9.73%	13.68%
New Jersey Resources Corporation	NJR	\$0.96	\$30.17	3.18%	3.27%	6.50%	6.50%	4.00%	5.81%	5.70%	7.25%	8.98%	9.79%
Northwest Natural Gas Company	NWN	\$1.87	\$46.50	4.02%	4.12%	4.00%	4.00%	7.00%	3.73%	4.68%	7.83%	8.80%	11.16%
South Jersey Industries, Inc.	SJI	\$1.06	\$24.55	4.30%	4.44%	NA	6.00%	7.00%	6.56%	6.52%	10.43%	10.96%	11.45%
Southwest Gas Corporation	SWX	\$1.62	\$56.04	2.89%	2.98%	5.00%	4.00%	7.00%	7.53%	5.88%	6.95%	8.86%	10.53%
WGL Holdings, Inc.	WGL	\$1.95	\$58.67	3.32%	3.43%	7.30%	8.00%	5.50%	5.11%	6.48%	8.51%	9.91%	11.46%
Proxy Group Mean				3.44%	3.54%	5.70%	5.67%	6.79%	5.98%	6.06%	8.38%	9.61%	11.32%
Proxy Group Median				3.32%	3.43%	5.75%	6.00%	7.00%	5.81%	6.12%	8.37%	9.73%	11.19%

## Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, equals indicated number of trading day average as of February 12, 2016

[3] Equals [1] / [2]

[4] Equals [3] x (1 + 0.5 x [9])

[5] Source: Zacks

[6] Source: Yahoo! Finance

[7] Source: Value Line

[8] Source: Exhibit RBH-2, Value Line

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

[10] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7], [8])) + Minimum([5], [6], [7], [8])

[11] Equals [4] + [9]

[12] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7], [8])) + Maximum([5], [6], [7], [8])

I/A

Retention Growth Estimate

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Company	Ticker	Projected Earnings per share 2018 20	Projected Dividend Declared per share 2018 20	Retention Ratio (R)	Projected Book Value per Share 2018 20	Return on Book Value (R)	B x R	Projected Common Shares Outstanding 2016	Projected Common Shares Outstanding 2018 20	Common Shares Growth Rate	2015 High Price	2015 Low Price	2015 price midpoint	Projected Book Value per Share 2015	Market/ Book Ratio	"S	V	S x V	BR + SV
Atmos Energy Corporation	ATO	3.80	1.95	48.68%	36.85	10.37%	5.05%	107.00	120.00	3.86%	\$ 63.80	\$ 50.80	\$ 57.30	31.50	1.82	7.01%	45.03%	3.16%	8.21%
Laclede Group Inc (The)	LG	4.20	2.20	47.62%	48.10	8.73%	4.16%	43.00	45.00	1.51%	\$ 59.40	\$ 49.10	\$ 54.25	36.34	1.49	2.26%	33.01%	0.74%	4.90%
New Jersey Resources Corporation	NJR	1.95	1.00	48.72%	16.35	11.93%	5.81%	85.00	85.00	0.00%	\$ 33.70	\$ 26.80	\$ 30.25	12.99	2.33	0.00%	57.06%	0.00%	5.81%
Northwest Natural Gas Company	NWN	3.30	2.10	36.36%	33.85	9.75%	3.55%	27.75	28.00	0.30%	\$ 52.30	\$ 42.00	\$ 47.15	28.75	1.64	0.49%	39.02%	0.19%	3.73%
South Jersey Industries Inc	SJI	2.30	1.35	41.30%	18.40	12.50%	5.16%	72.00	76.00	1.80%	\$ 30.40	\$ 22.90	\$ 26.65	15.00	1.78	3.20%	43.71%	1.40%	6.58%
Southwest Gas Corporation	SWX	4.50	2.10	53.33%	39.40	11.42%	6.09%	49.00	52.00	1.98%	\$ 63.70	\$ 51.30	\$ 57.50	33.35	1.72	3.41%	42.00%	1.43%	7.53%
WGL Holdings Inc	WGL	3.55	1.99	43.94%	30.55	11.62%	5.11%	50.00	50.00	0.00%	\$ 63.20	\$ 50.90	\$ 57.05	24.97	2.28	0.00%	56.23%	0.00%	5.11%
																		Average	5.98%

Notes

- [1] Source Value Line
- [2] Source Value Line
- [3] Equals 1 - [2] / [1]
- [4] Source Value Line
- [5] Equals [1] / [4]
- [6] Equals [3] x [5]
- [7] Source Value Line
- [8] Source Value Line
- [9] Equals ([8] / [7]) ^ 0.25 - 1
- [10] Source Value Line
- [11] Source Value Line
- [12] Equals Average ([10] [11])
- [13] Source Value Line
- [14] Equals [12] / [13]
- [15] Equals [9] x [14]
- [16] Equals 1 - (1 / [14])
- [17] Equals [15] x [16]
- [18] Equals [6] + [17]

IIA

Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
	Stock	EPS Growth Rate Estimates					Long-Term	Payout Ratio			Iterative Solution	Terminal	Terminal	
					Value	Retention								
Company	Ticker	Price	Zacks	First Call	Line	Growth	Average	Growth	2016	2019	2025	Proof	IRR	P/E Ratio PEG Ratio
Atmos Energy Corporation	ATO	\$65.65	6.60%	6.40%	7.00%	8.21%	7.05%	5.31%	51.00%	51.00%	67.67%	(\$0.00)	9.14%	18.84 3.51
Laclede Group Inc (The)	LG	\$61.14	4.80%	4.78%	10.00%	4.90%	6.12%	5.31%	58.00%	52.00%	67.67%	(\$0.00)	8.40%	23.11 4.35
New Jersey Resources Corporation	NJR	\$34.36	6.50%	6.50%	4.00%	5.81%	5.70%	5.31%	58.00%	51.00%	67.67%	(\$0.00)	10.01%	15.17 2.85
Northwest Natural Gas Company	NWN	\$51.25	4.00%	4.00%	7.00%	3.73%	4.68%	5.31%	87.00%	84.00%	67.67%	(\$0.00)	8.51%	22.31 4.20
South Jersey Industries Inc	SJI	\$24.21	NA	6.00%	7.00%	6.55%	6.52%	5.31%	69.00%	59.00%	67.67%	(\$0.00)	10.78%	13.03 2.45
Southwest Gas Corporation	SWX	\$57.43	5.00%	4.00%	7.00%	7.53%	5.88%	5.31%	55.00%	48.00%	67.67%	(\$0.00)	9.35%	17.64 3.32
WGL Holdings, Inc	WGL	\$64.08	7.30%	8.00%	5.50%	5.11%	6.48%	5.31%	60.00%	56.00%	67.67%	(\$0.00)	8.75%	20.51 3.85
												Mean	9.28%	
												Max	10.78%	
												Min	8.40%	

Projected Annual Earnings per Share		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Atmos Energy Corporation	ATO	\$2.98	\$3.17	\$3.39	\$3.63	\$3.89	\$4.16	\$4.46	\$4.78	\$5.06	\$5.38	\$5.69	\$6.01	\$6.33	\$6.67	\$7.02	\$7.40	\$7.79
Laclede Group Inc (The)	LG	\$2.35	\$2.49	\$2.65	\$2.81	\$2.98	\$3.16	\$3.36	\$3.56	\$3.77	\$3.98	\$4.20	\$4.43	\$4.67	\$4.92	\$5.18	\$5.45	\$5.74
New Jersey Resources Corporation	NJR	\$2.10	\$2.22	\$2.35	\$2.48	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.63	\$3.83	\$4.03	\$4.25	\$4.47	\$4.71	\$4.96
Northwest Natural Gas Company	NWN	\$2.16	\$2.26	\$2.37	\$2.48	\$2.59	\$2.72	\$2.84	\$2.98	\$3.12	\$3.28	\$3.45	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70
South Jersey Industries, Inc	SJI	\$1.57	\$1.67	\$1.78	\$1.90	\$2.02	\$2.16	\$2.29	\$2.44	\$2.59	\$2.74	\$2.90	\$3.06	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96
Southwest Gas Corporation	SWX	\$3.01	\$3.19	\$3.37	\$3.57	\$3.78	\$4.01	\$4.24	\$4.49	\$4.74	\$5.01	\$5.28	\$5.57	\$5.86	\$6.18	\$6.50	\$6.85	\$7.21
WGL Holdings, Inc	WGL	\$2.68	\$2.85	\$3.04	\$3.24	\$3.44	\$3.67	\$3.91	\$4.15	\$4.40	\$4.66	\$4.93	\$5.20	\$5.48	\$5.77	\$6.07	\$6.40	\$6.74

Projected Annual Dividend Payout Ratio		[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Atmos Energy Corporation	ATO	51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%
Laclede Group Inc (The)	LG	56.00%	54.07%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%
New Jersey Resources Corporation	NJR	58.00%	56.67%	55.33%	54.00%	56.24%	58.48%	60.72%	62.96%	65.20%	67.44%	69.68%	71.92%	74.16%	76.40%	78.64%
Northwest Natural Gas Company	NWN	87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%
South Jersey Industries Inc	SJI	69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%
Southwest Gas Corporation	SWX	55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%
WGL Holdings, Inc	WGL	60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%

Projected Annual Cash Flows	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Atmos Energy Corporation	ATO	\$1.73	\$1.85	\$1.96	\$2.12	\$2.38	\$2.65	\$2.94	\$3.25	\$3.58	\$3.93	\$4.29	\$4.61	\$4.95	\$5.31	\$5.67
Laclede Group Inc (The)	LG	\$1.48	\$1.54	\$1.59	\$1.64	\$1.82	\$2.01	\$2.21	\$2.43	\$2.66	\$2.90	\$3.16	\$3.43	\$3.70	\$3.99	\$4.27
New Jersey Resources Corporation	NJR	\$1.36	\$1.38	\$1.40	\$1.41	\$1.56	\$1.73	\$1.90	\$2.09	\$2.29	\$2.50	\$2.73	\$2.97	\$3.21	\$3.46	\$3.71
Northwest Natural Gas Company	NWN	\$2.06	\$1.97	\$1.86	\$1.74	\$1.83	\$1.94	\$2.05	\$2.17	\$2.30	\$2.44	\$2.59	\$2.72	\$2.87	\$3.02	\$3.18
South Jersey Industries, Inc	SJI	\$1.23	\$1.25	\$1.26	\$1.27	\$1.38	\$1.50	\$1.62	\$1.75	\$1.89	\$2.03	\$2.18	\$2.32	\$2.47	\$2.62	\$2.77
Southwest Gas Corporation	SWX	\$1.86	\$1.86	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.34	\$4.71	\$5.08	\$5.45
WGL Holdings, Inc	WGL	\$1.82	\$1.90	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$3.99	\$4.27	\$4.55	\$4.83

Projected Annual Data																		
Investor Cash Flows		[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker	Initial	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
Atmos Energy Corporation	ATO	(\$65.65)	\$0.00	\$1.63	\$1.79	\$1.98	\$2.12	\$2.38	\$2.65	\$2.94	\$3.25	\$3.58	\$3.93	\$4.29	\$4.61	\$4.95	\$5.31	\$5.67
Laclede Group Inc (The)	LG	(\$61.14)	\$0.00	\$1.31	\$1.53	\$1.59	\$1.64	\$1.82	\$2.01	\$2.21	\$2.43	\$2.66	\$2.90	\$3.16	\$3.43	\$3.70	\$3.99	\$4.27
New Jersey Resources Corporation	NJR	(\$34.36)	\$0.00	\$1.20	\$1.40	\$1.40	\$1.41	\$1.56	\$1.73	\$1.90	\$2.09	\$2.29	\$2.50	\$2.73	\$2.97	\$3.21	\$3.46	\$3.71
Northwest Natural Gas Company	NWN	(\$51.25)	\$0.00	\$1.82	\$2.11	\$1.86	\$1.74	\$1.83	\$1.94	\$2.05	\$2.17	\$2.30	\$2.44	\$2.59	\$2.72	\$2.87	\$3.02	\$3.18
South Jersey Industries, Inc	SJI	(\$24.21)	\$0.00	\$1.09	\$1.27	\$1.26	\$1.27	\$1.38	\$1.50	\$1.62	\$1.75	\$1.89	\$2.03	\$2.18	\$2.32	\$2.47	\$2.62	\$2.77
Southwest Gas Corporation	SWX	(\$57.43)	\$0.00	\$1.64	\$1.91	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.34	\$4.71	\$5.08	\$5.45
WGL Holdings Inc	WGL	(\$64.08)	\$0.00	\$1.61	\$1.88	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$3.99	\$4.27	\$4.55	\$4.83

Multi-Stage Growth Discounted Cash Flow Model  
30 Day Average Stock Price  
Low EPS Growth Rate Estimate In First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]				
		Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio		Iterative Solution		Terminal						
Company	Ticker	Price	Zacks	First Call	Value Line	Retention	Low Growth	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio				
Atmos Energy Corporation	ATO	\$65.65	6.60%	6.40%	7.00%	8.21%	6.40%	5.31%	51.00%	51.00%	67.67%	(\$0.00)	8.96%	19.53	3.68				
Laclede Group, Inc (The)	LG	\$81.14	4.80%	4.78%	10.00%	4.90%	4.78%	5.31%	56.00%	52.00%	67.67%	(\$0.00)	8.11%	25.51	4.80				
New Jersey Resources Corporation	NJR	\$34.36	6.50%	6.50%	4.00%	5.81%	4.00%	5.31%	58.00%	51.00%	67.67%	(\$0.00)	9.47%	17.13	3.22				
Northwest Natural Gas Company	NWN	\$51.25	4.00%	4.00%	7.00%	3.73%	3.73%	5.31%	87.00%	64.00%	67.67%	(\$0.00)	8.28%	23.98	4.51				
South Jersey Industries, Inc	SJI	\$24.21	NA	6.00%	7.00%	6.55%	6.00%	5.31%	69.00%	59.00%	67.67%	(\$0.00)	10.59%	13.52	2.54				
Southwest Gas Corporation	SWX	\$57.43	5.00%	4.00%	7.00%	7.53%	4.00%	5.31%	55.00%	46.00%	67.67%	(\$0.00)	8.84%	20.20	3.80				
WGL Holdings, Inc	WGL	\$94.08	7.30%	8.00%	5.50%	5.11%	5.11%	5.31%	60.00%	56.00%	67.67%	(\$0.00)	8.46%	22.67	4.27				
													Mean	8.96%					
													Max	10.59%					
													Min	8.11%					
Projected Annual Earnings per Share																			
		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]	
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Atmos Energy Corporation	ATO	\$2.96	\$3.15	\$3.35	\$3.57	\$3.79	\$4.04	\$4.29	\$4.56	\$4.84	\$5.12	\$5.41	\$5.71	\$6.01	\$6.33	\$6.67	\$7.02	\$7.39	
Laclede Group, Inc (The)	LG	\$2.35	\$2.46	\$2.58	\$2.70	\$2.83	\$2.97	\$3.11	\$3.26	\$3.42	\$3.60	\$3.78	\$3.98	\$4.19	\$4.41	\$4.65	\$4.89	\$5.15	
New Jersey Resources Corporation	NJR	\$2.10	\$2.18	\$2.27	\$2.36	\$2.46	\$2.55	\$2.66	\$2.77	\$2.89	\$3.03	\$3.17	\$3.34	\$3.51	\$3.70	\$3.90	\$4.10	\$4.32	
Northwest Natural Gas Company	NWN	\$2.16	\$2.24	\$2.32	\$2.41	\$2.50	\$2.59	\$2.69	\$2.80	\$2.92	\$3.05	\$3.20	\$3.36	\$3.54	\$3.72	\$3.92	\$4.13	\$4.35	
South Jersey Industries, Inc	SJI	\$1.57	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.23	\$2.36	\$2.49	\$2.64	\$2.78	\$2.93	\$3.09	\$3.25	\$3.42	\$3.61	\$3.80	
Southwest Gas Corporation	SWX	\$3.01	\$3.13	\$3.26	\$3.39	\$3.52	\$3.66	\$3.81	\$3.97	\$4.15	\$4.34	\$4.55	\$4.78	\$5.04	\$5.30	\$5.59	\$5.88	\$6.19	
WGL Holdings, Inc	WGL	\$2.68	\$2.82	\$2.98	\$3.11	\$3.27	\$3.44	\$3.61	\$3.80	\$4.00	\$4.20	\$4.42	\$4.66	\$4.91	\$5.17	\$5.44	\$5.73	\$6.03	
Projected Annual Dividend Payout Ratio																			
		[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]			
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030			
Atmos Energy Corporation	ATO	51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%			
Laclede Group, Inc (The)	LG	56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.96%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%			
New Jersey Resources Corporation	NJR	58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%			
Northwest Natural Gas Company	NWN	87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%			
South Jersey Industries, Inc	SJI	69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%			
Southwest Gas Corporation	SWX	55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%			
WGL Holdings, Inc	WGL	60.00%	58.67%	57.33%	56.00%	57.87%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%			
Projected Annual Cash Flows																			
		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]		
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value		
Atmos Energy Corporation	ATO	\$1.71	\$1.82	\$1.93	\$2.06	\$2.29	\$2.54	\$2.81	\$3.10	\$3.40	\$3.73	\$4.07	\$4.42	\$4.78	\$5.15	\$5.50	\$144.4		
Laclede Group, Inc (The)	LG	\$1.44	\$1.48	\$1.51	\$1.54	\$1.69	\$1.84	\$2.01	\$2.19	\$2.39	\$2.60	\$2.83	\$2.99	\$3.14	\$3.31	\$3.48	\$131.48		
New Jersey Resources Corporation	NJR	\$1.32	\$1.31	\$1.31	\$1.30	\$1.42	\$1.54	\$1.68	\$1.83	\$2.00	\$2.18	\$2.38	\$2.50	\$2.64	\$2.78	\$2.92	\$76.95		
Northwest Natural Gas Company	NWN	\$2.02	\$1.91	\$1.79	\$1.66	\$1.74	\$1.82	\$1.91	\$2.02	\$2.13	\$2.25	\$2.39	\$2.52	\$2.65	\$2.80	\$2.94	\$104.31		
South Jersey Industries, Inc	SJI	\$1.22	\$1.23	\$1.24	\$1.24	\$1.34	\$1.45	\$1.56	\$1.69	\$1.81	\$1.95	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$51.34		
Southwest Gas Corporation	SWX	\$1.79	\$1.76	\$1.73	\$1.68	\$1.87	\$2.07	\$2.29	\$2.53	\$2.80	\$3.09	\$3.41	\$3.76	\$4.11	\$4.46	\$4.81	\$125.13		
WGL Holdings, Inc	WGL	\$1.78	\$1.83	\$1.88	\$1.93	\$2.08	\$2.25	\$2.44	\$2.63	\$2.85	\$3.07	\$3.32	\$3.59	\$3.88	\$4.18	\$4.48	\$139.82		
Projected Annual Data Investor Cash Flows																			
		[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	
Company	Ticker	Outflow	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	
Atmos Energy Corporation	ATO	(\$65.65)	\$0.00	\$0.00	\$1.51	\$1.76	\$1.93	\$2.06	\$2.29	\$2.54	\$2.81	\$3.10	\$3.40	\$3.73	\$4.07	\$4.42	\$4.78	\$149.41	
Laclede Group, Inc (The)	LG	(\$81.14)	\$0.00	\$0.00	\$1.28	\$1.48	\$1.51	\$1.54	\$1.69	\$1.84	\$2.01	\$2.19	\$2.39	\$2.60	\$2.83	\$2.99	\$3.14	\$134.96	
New Jersey Resources Corporation	NJR	(\$34.36)	\$0.00	\$0.00	\$1.17	\$1.34	\$1.31	\$1.30	\$1.42	\$1.54	\$1.68	\$1.83	\$2.00	\$2.18	\$2.38	\$2.50	\$2.64	\$76.95	
Northwest Natural Gas Company	NWN	(\$51.25)	\$0.00	\$0.00	\$1.79	\$2.06	\$1.79	\$1.66	\$1.74	\$1.82	\$1.91	\$2.02	\$2.13	\$2.25	\$2.39	\$2.52	\$2.65	\$107.26	
South Jersey Industries, Inc	SJI	(\$24.21)	\$0.00	\$0.00	\$1.08	\$1.25	\$1.24	\$1.24	\$1.34	\$1.45	\$1.56	\$1.69	\$1.81	\$1.95	\$2.09	\$2.20	\$2.32	\$2.44	\$53.91
Southwest Gas Corporation	SWX	(\$57.43)	\$0.00	\$0.00	\$1.58	\$1.83	\$1.73	\$1.68	\$1.87	\$2.07	\$2.29	\$2.53	\$2.80	\$3.09	\$3.41	\$3.76	\$4.11	\$129.32	
WGL Holdings, Inc	WGL	(\$94.08)	\$0.00	\$0.00	\$1.57	\$1.82	\$1.88	\$1.93	\$2.08	\$2.25	\$2.44	\$2.63	\$2.85	\$3.07	\$3.32	\$3.59	\$3.88	\$140.90	

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]					
		Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio			Iterative Solution		Terminal	Terminal					
Company	Ticker	Price	Zacks	First Call	Value Line	Retention Growth	High Growth	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio					
Atmos Energy Corporation	ATO	\$65.65	6.60%	6.40%	7.00%	8.21%	8.21%	5.31%	51.00%	51.00%	67.67%	(\$0.00)	9.46%	17.20	3.24					
Laclede Group Inc (The)	LG	\$61.14	4.80%	4.78%	10.00%	4.90%	10.00%	5.31%	58.00%	52.00%	67.67%	(\$0.00)	9.37%	17.57	3.31					
New Jersey Resources Corporation	NJR	\$34.36	6.50%	6.50%	4.00%	5.81%	6.50%	5.31%	58.00%	51.00%	67.67%	(\$0.00)	10.28%	14.35	2.70					
Northwest Natural Gas Company	NWN	\$51.25	4.00%	4.00%	7.00%	3.73%	7.00%	5.31%	87.00%	64.00%	67.67%	(\$0.00)	9.11%	18.79	3.54					
South Jersey Industries Inc	SJI	\$24.21	NA	6.00%	7.00%	6.56%	7.00%	5.31%	69.00%	59.00%	67.67%	\$0.00	10.97%	12.61	2.37					
Southwest Gas Corporation	SWX	\$57.43	5.00%	4.00%	7.00%	7.53%	7.53%	5.31%	55.00%	46.00%	67.67%	(\$0.00)	9.84%	15.73	2.96					
WGL Holdings, Inc	WGL	\$64.08	7.30%	8.00%	5.50%	5.11%	8.00%	5.31%	60.00%	56.00%	67.67%	(\$0.00)	9.18%	18.39	3.46					
												Mean	9.74%							
												Max	10.97%							
												Min	9.11%							
Projected Annual Earnings per Share																				
		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]		
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO	\$2.96	\$3.20	\$3.47	\$3.75	\$4.06	\$4.39	\$4.76	\$5.12	\$5.49	\$5.86	\$6.23	\$6.59	\$6.94	\$7.31	\$7.70	\$8.10	\$8.54		
Laclede Group Inc (The)	LG	\$2.35	\$2.59	\$2.84	\$3.13	\$3.44	\$3.78	\$4.16	\$4.55	\$4.93	\$5.31	\$5.67	\$6.02	\$6.34	\$6.68	\$7.03	\$7.40	\$7.80		
New Jersey Resources Corporation	NJR	\$2.10	\$2.24	\$2.38	\$2.54	\$2.70	\$2.86	\$3.06	\$3.26	\$3.46	\$3.66	\$3.87	\$4.08	\$4.30	\$4.53	\$4.77	\$5.02	\$5.29		
Northwest Natural Gas Company	NWN	\$2.16	\$2.31	\$2.47	\$2.65	\$2.83	\$3.03	\$3.24	\$3.46	\$3.68	\$3.91	\$4.14	\$4.37	\$4.60	\$4.85	\$5.10	\$5.38	\$5.66		
South Jersey Industries Inc	SJI	\$1.57	\$1.68	\$1.80	\$1.92	\$2.06	\$2.20	\$2.36	\$2.51	\$2.68	\$2.84	\$3.01	\$3.18	\$3.35	\$3.52	\$3.71	\$3.91	\$4.11		
Southwest Gas Corporation	SWX	\$3.01	\$3.24	\$3.48	\$3.74	\$4.02	\$4.33	\$4.65	\$4.98	\$5.32	\$5.66	\$6.01	\$6.35	\$6.69	\$7.04	\$7.42	\$7.81	\$8.22		
WGL Holdings, Inc	WGL	\$2.68	\$2.89	\$3.13	\$3.38	\$3.65	\$3.94	\$4.25	\$4.57	\$4.90	\$5.23	\$5.55	\$5.87	\$6.18	\$6.51	\$6.86	\$7.22	\$7.60		
Projected Annual Dividend Payout Ratio																				
				[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]		
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO			51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Laclede Group Inc (The)	LG			58.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.96%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
New Jersey Resources Corporation	NJR			58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Northwest Natural Gas Company	NWN			87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%		
South Jersey Industries Inc	SJI			69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.96%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
Southwest Gas Corporation	SWX			55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.36%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%		
WGL Holdings, Inc	WGL			60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%		
Projected Annual Cash Flows																				
				[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	
Atmos Energy Corporation	ATO			\$1.77	\$1.91	\$2.07	\$2.24	\$2.64	\$2.85	\$3.19	\$3.55	\$3.92	\$4.30	\$4.70	\$4.94	\$5.21	\$5.48	\$5.78	\$146.8	
Laclede Group Inc (The)	LG			\$1.59	\$1.71	\$1.84	\$1.97	\$2.26	\$2.57	\$2.90	\$3.24	\$3.58	\$3.94	\$4.29	\$4.62	\$4.76	\$5.01	\$5.28	\$137.01	
New Jersey Resources Corporation	NJR			\$1.38	\$1.41	\$1.44	\$1.47	\$1.64	\$1.82	\$2.01	\$2.22	\$2.43	\$2.67	\$2.91	\$3.06	\$3.23	\$3.40	\$3.58	\$75.87	
Northwest Natural Gas Company	NWN			\$2.15	\$2.10	\$2.03	\$1.94	\$2.09	\$2.25	\$2.41	\$2.58	\$2.76	\$2.93	\$3.11	\$3.28	\$3.45	\$3.64	\$3.83	\$106.35	
South Jersey Industries Inc	SJI			\$1.24	\$1.26	\$1.28	\$1.30	\$1.42	\$1.55	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.38	\$2.51	\$2.64	\$2.78	\$51.68	
Southwest Gas Corporation	SWX			\$1.91	\$1.95	\$1.97	\$1.99	\$2.28	\$2.60	\$2.94	\$3.31	\$3.69	\$4.10	\$4.52	\$4.77	\$5.02	\$5.28	\$5.57	\$129.40	
WGL Holdings, Inc	WGL			\$1.88	\$1.98	\$2.09	\$2.21	\$2.45	\$2.71	\$2.99	\$3.27	\$3.57	\$3.87	\$4.18	\$4.40	\$4.64	\$4.89	\$5.14	\$139.85	
Projected Annual Data Investor Cash Flows																				
				[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker		Initial	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	
Atmos Energy Corporation	ATO		(\$65.65)	\$0.00	\$1.66	\$1.84	\$2.07	\$2.24	\$2.64	\$2.85	\$3.19	\$3.55	\$3.92	\$4.30	\$4.70	\$4.94	\$5.21	\$5.48	\$152.56	
Laclede Group Inc (The)	LG		(\$61.14)	\$0.00	\$1.41	\$1.67	\$1.84	\$1.97	\$2.26	\$2.57	\$2.90	\$3.24	\$3.58	\$3.94	\$4.29	\$4.52	\$4.76	\$5.01	\$142.28	
New Jersey Resources Corporation	NJR		(\$34.36)	\$0.00	\$1.22	\$1.43	\$1.44	\$1.47	\$1.64	\$1.82	\$2.01	\$2.22	\$2.43	\$2.67	\$2.91	\$3.06	\$3.23	\$3.40	\$79.45	
Northwest Natural Gas Company	NWN		(\$51.25)	\$0.00	\$1.90	\$2.23	\$2.03	\$1.94	\$2.09	\$2.25	\$2.41	\$2.58	\$2.76	\$2.93	\$3.11	\$3.28	\$3.45	\$3.64	\$110.18	
South Jersey Industries Inc	SJI		(\$24.21)	\$0.00	\$1.10	\$1.28	\$1.28	\$1.30	\$1.42	\$1.55	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.38	\$2.51	\$2.64	\$54.66	
Southwest Gas Corporation	SWX		(\$57.43)	\$0.00	\$1.69	\$1.99	\$1.97	\$1.99	\$2.28	\$2.60	\$2.94	\$3.31	\$3.69	\$4.10	\$4.52	\$4.77	\$5.02	\$5.28	\$134.96	
WGL Holdings Inc	WGL		(\$64.08)	\$0.00	\$1.65	\$1.95	\$2.09	\$2.21	\$2.45	\$2.71	\$2.99	\$3.27	\$3.57	\$3.87	\$4.18	\$4.40	\$4.64	\$4.89	\$145.00	

Multi Stage Growth Discounted Cash Flow Model																		
80 Day Average Stock Price																		
Average EPS Growth Rate Estimate in First Stage																		
Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]				
	Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio			Iterative Solution		Terminal	Terminal				
Company	Ticker	Price	Zacks	First Call	Value Line	Retention Growth	Average	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio			
Atmos Energy Corporation	ATO	\$62.93	6.60%	6.40%	7.00%	8.21%	7.05%	5.31%	51.00%	51.00%	67.67%	(\$0.00)	9.29%	17.90	3.37			
Laclede Group Inc (The)	LG	\$58.86	4.80%	4.78%	10.00%	4.90%	6.12%	5.31%	56.00%	52.00%	67.67%	(\$0.00)	8.51%	22.27	4.19			
New Jersey Resources Corporation	NJR	\$31.87	6.50%	6.50%	4.00%	5.81%	5.70%	5.31%	59.00%	51.00%	67.67%	(\$0.00)	10.37%	14.10	2.65			
Northwest Natural Gas Company	NWN	\$49.19	4.00%	4.00%	7.00%	3.73%	4.68%	5.31%	87.00%	64.00%	67.67%	\$0.00	8.65%	21.38	4.02			
South Jersey Industries Inc	SJI	\$24.38	NA	6.00%	7.00%	6.56%	6.52%	5.31%	69.00%	59.00%	67.67%	\$0.00	10.74%	13.13	2.47			
Southwest Gas Corporation	SWX	\$57.11	5.00%	4.00%	7.00%	7.53%	5.88%	5.31%	55.00%	48.00%	67.67%	(\$0.00)	9.38%	17.54	3.30			
WGL Holdings, Inc	WGL	\$52.07	7.30%	8.00%	5.50%	5.11%	6.46%	5.31%	60.00%	56.00%	67.67%	(\$0.00)	8.90%	19.88	3.74			
													Mean	9.41%				
													Max	10.74%				
													Min	8.51%				
Projected Annual Earnings per Share	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]	
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Atmos Energy Corporation	ATO	\$2.96	\$3.17	\$3.39	\$3.63	\$3.89	\$4.16	\$4.46	\$4.76	\$5.06	\$5.38	\$5.69	\$6.01	\$6.33	\$6.67	\$7.02	\$7.40	\$7.79
Laclede Group Inc (The)	LG	\$2.35	\$2.49	\$2.65	\$2.81	\$2.98	\$3.16	\$3.36	\$3.56	\$3.77	\$3.98	\$4.20	\$4.43	\$4.67	\$4.92	\$5.18	\$5.45	\$5.74
New Jersey Resources Corporation	NJR	\$2.10	\$2.22	\$2.35	\$2.48	\$2.67	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.63	\$3.83	\$4.03	\$4.25	\$4.47	\$4.71	\$4.96
Northwest Natural Gas Company	NWN	\$2.16	\$2.26	\$2.37	\$2.48	\$2.59	\$2.72	\$2.84	\$2.98	\$3.12	\$3.28	\$3.45	\$3.63	\$3.82	\$4.02	\$4.24	\$4.48	\$4.70
South Jersey Industries Inc	SJI	\$1.57	\$1.67	\$1.78	\$1.90	\$2.02	\$2.15	\$2.29	\$2.44	\$2.59	\$2.74	\$2.90	\$3.06	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96
Southwest Gas Corporation	SWX	\$3.01	\$3.19	\$3.37	\$3.57	\$3.78	\$4.01	\$4.24	\$4.49	\$4.74	\$5.01	\$5.28	\$5.57	\$5.86	\$6.18	\$6.50	\$6.85	\$7.21
WGL Holdings, Inc	WGL	\$2.68	\$2.85	\$3.04	\$3.24	\$3.44	\$3.67	\$3.91	\$4.15	\$4.40	\$4.65	\$4.93	\$5.20	\$5.48	\$5.77	\$6.07	\$6.40	\$6.74
Projected Annual Dividend Payout Ratio			[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]	
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporat on	ATO	51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Laclede Group Inc (The)	LG	56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
New Jersey Resources Corporation	NJR	58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Northwest Natural Gas Company	NWN	87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%		
South Jersey Industries Inc	SJI	69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
Southwest Gas Corporation	SWX	55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%		
WGL Holdings, Inc	WGL	60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%		
Projected Annual Cash Flows			[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	
Atmos Energy Corporation	ATO	\$1.73	\$1.85	\$1.98	\$2.12	\$2.38	\$2.65	\$2.94	\$3.25	\$3.58	\$3.93	\$4.29	\$4.51	\$4.75	\$5.01	\$5.27	\$139.5	
Laclede Group Inc (The)	LG	\$1.48	\$1.54	\$1.59	\$1.64	\$1.82	\$2.01	\$2.21	\$2.43	\$2.66	\$2.90	\$3.16	\$3.33	\$3.50	\$3.69	\$3.89	\$127.85	
New Jersey Resources Corporation	NJR	\$1.36	\$1.38	\$1.40	\$1.41	\$1.56	\$1.73	\$1.90	\$2.09	\$2.29	\$2.50	\$2.73	\$2.87	\$3.03	\$3.19	\$3.36	\$69.95	
Northwest Natural Gas Company	NWN	\$2.05	\$1.97	\$1.86	\$1.74	\$1.63	\$1.94	\$2.05	\$2.17	\$2.30	\$2.44	\$2.59	\$2.72	\$2.87	\$3.02	\$3.18	\$100.49	
South Jersey Industries Inc	SJI	\$1.23	\$1.25	\$1.26	\$1.27	\$1.38	\$1.50	\$1.62	\$1.75	\$1.89	\$2.03	\$2.18	\$2.29	\$2.42	\$2.54	\$2.68	\$51.88	
Southwest Gas Corporation	SWX	\$1.86	\$1.86	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.18	\$4.40	\$4.64	\$4.88	\$126.56	
WGL Holdings, Inc	WGL	\$1.82	\$1.90	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$3.90	\$4.11	\$4.33	\$4.56	\$133.91	
Projected Annual Data Investor Cash Flows	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	
Company	Ticker	Initial	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
Atmos Energy Corporation	ATO	(\$62.93)	\$0.00	\$1.53	\$1.79	\$1.98	\$2.12	\$2.38	\$2.65	\$2.94	\$3.25	\$3.58	\$3.93	\$4.29	\$4.51	\$4.75	\$5.01	\$144.72
Laclede Group, Inc (The)	LG	(\$58.86)	\$0.00	\$1.31	\$1.53	\$1.59	\$1.64	\$1.82	\$2.01	\$2.21	\$2.43	\$2.66	\$2.90	\$3.16	\$3.33	\$3.50	\$3.69	\$131.74
New Jersey Resources Corporation	NJR	(\$31.87)	\$0.00	\$1.20	\$1.40	\$1.40	\$1.41	\$1.56	\$1.73	\$1.90	\$2.09	\$2.29	\$2.50	\$2.73	\$2.87	\$3.03	\$3.19	\$73.31
Northwest Natural Gas Company	NWN	(\$49.19)	\$0.00	\$1.82	\$2.11	\$1.85	\$1.74	\$1.63	\$1.94	\$2.05	\$2.17	\$2.30	\$2.44	\$2.59	\$2.72	\$2.87	\$3.02	\$103.67
South Jersey Industries Inc	SJI	(\$24.38)	\$0.00	\$1.09	\$1.27	\$1.26	\$1.27	\$1.38	\$1.50	\$1.62	\$1.75	\$1.89	\$2.03	\$2.18	\$2.29	\$2.42	\$2.54	\$54.66
Southwest Gas Corporation	SWX	(\$57.11)	\$0.00	\$1.64	\$1.91	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.18	\$4.40	\$4.64	\$131.44
WGL Holdings Inc	WGL	(\$52.07)	\$0.00	\$1.81	\$1.88	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$3.90	\$4.11	\$4.33	\$138.47

Multi-Stage Growth Discounted Cash Flow Model 90 Day Average Stock Price Low EPS Growth Rate Estimate in First Stage																		
Inputs	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]				
	Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio			Iterative Solution		Terminal	Terminal				
		Value	Retention	Low														
Company	Ticker	Price	Zacks	First Call	Line	Growth	Growth	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio			
Atmos Energy Corporation	ATO	\$62.93	6.60%	6.40%	7.00%	6.21%	6.40%	5.31%	51.00%	51.00%	67.67%	(\$0.00)	9.11%	18.75	3.63			
Laclede Group, Inc. (The)	LG	\$58.86	4.80%	4.78%	10.00%	4.90%	4.78%	5.31%	56.00%	52.00%	67.67%	(\$0.00)	8.21%	24.58	4.63			
New Jersey Resources Corporation	NJR	\$31.87	6.50%	6.50%	4.00%	5.81%	4.00%	5.31%	58.00%	51.00%	67.67%	(\$0.00)	9.79%	15.91	2.99			
Northwest Natural Gas Company	NWN	\$49.19	4.00%	4.00%	7.00%	3.73%	3.73%	5.31%	87.00%	64.00%	67.67%	\$0.00	8.41%	22.98	4.33			
South Jersey Industries, Inc.	SJI	\$24.38	NA	6.00%	7.00%	6.56%	6.00%	5.31%	69.00%	59.00%	67.67%	(\$0.00)	10.55%	13.61	2.56			
Southwest Gas Corporation	SWX	\$57.11	5.00%	4.00%	7.00%	7.53%	4.00%	5.31%	55.00%	46.00%	67.67%	(\$0.00)	8.86%	20.09	3.78			
WGL Holdings, Inc.	WGL	\$62.07	7.30%	8.00%	5.50%	5.11%	5.11%	5.31%	60.00%	56.00%	67.67%	(\$0.00)	8.56%	21.97	4.14			
												Mean	9.07%					
												Max	10.55%					
												Min	8.21%					
Projected Annual Earnings per Share		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Atmos Energy Corporation	ATO	\$2.98	\$3.15	\$3.35	\$3.57	\$3.79	\$4.04	\$4.29	\$4.56	\$4.84	\$5.12	\$5.41	\$5.71	\$6.01	\$6.33	\$6.67	\$7.02	\$7.39
Laclede Group, Inc. (The)	LG	\$2.35	\$2.46	\$2.58	\$2.70	\$2.83	\$2.97	\$3.11	\$3.26	\$3.42	\$3.60	\$3.78	\$3.98	\$4.19	\$4.41	\$4.65	\$4.89	\$5.15
New Jersey Resources Corporation	NJR	\$2.10	\$2.18	\$2.27	\$2.36	\$2.46	\$2.55	\$2.66	\$2.77	\$2.89	\$3.03	\$3.17	\$3.34	\$3.51	\$3.70	\$3.90	\$4.10	\$4.32
Northwest Natural Gas Company	NWN	\$2.16	\$2.24	\$2.32	\$2.41	\$2.50	\$2.59	\$2.69	\$2.80	\$2.92	\$3.05	\$3.20	\$3.36	\$3.54	\$3.72	\$3.92	\$4.13	\$4.35
South Jersey Industries, Inc.	SJI	\$1.57	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.23	\$2.36	\$2.49	\$2.64	\$2.78	\$2.93	\$3.09	\$3.25	\$3.42	\$3.61	\$3.80
Southwest Gas Corporation	SWX	\$3.01	\$3.13	\$3.26	\$3.39	\$3.52	\$3.66	\$3.81	\$3.97	\$4.15	\$4.34	\$4.55	\$4.78	\$5.04	\$5.30	\$5.59	\$5.88	\$6.19
WGL Holdings, Inc.	WGL	\$2.68	\$2.82	\$2.96	\$3.11	\$3.27	\$3.44	\$3.61	\$3.80	\$4.00	\$4.20	\$4.42	\$4.66	\$4.91	\$5.17	\$5.44	\$5.73	\$6.03
Projected Annual Dividend Payout Ratio		[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]		
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO	51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Laclede Group, Inc. (The)	LG	56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
New Jersey Resources Corporation	NJR	58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Northwest Natural Gas Company	NWN	87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%		
South Jersey Industries, Inc.	SJI	69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
Southwest Gas Corporation	SWX	55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%		
WGL Holdings, Inc.	WGL	60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%		
Projected Annual Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	Terminal Value
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO	\$1.71	\$1.82	\$1.93	\$2.06	\$2.29	\$2.54	\$2.81	\$3.10	\$3.40	\$3.73	\$4.07	\$4.28	\$4.51	\$4.75	\$5.00	\$138.6	
Laclede Group, Inc. (The)	LG	\$1.44	\$1.48	\$1.51	\$1.54	\$1.69	\$1.84	\$2.01	\$2.19	\$2.39	\$2.60	\$2.83	\$2.99	\$3.14	\$3.31	\$3.49	\$126.66	
New Jersey Resources Corporation	NJR	\$1.32	\$1.31	\$1.31	\$1.30	\$1.42	\$1.54	\$1.68	\$1.83	\$2.00	\$2.18	\$2.38	\$2.50	\$2.64	\$2.78	\$2.92	\$68.75	
Northwest Natural Gas Company	NWN	\$2.02	\$1.91	\$1.79	\$1.66	\$1.74	\$1.82	\$1.91	\$2.02	\$2.13	\$2.25	\$2.39	\$2.52	\$2.65	\$2.80	\$2.94	\$99.97	
South Jersey Industries, Inc.	SJI	\$1.22	\$1.23	\$1.24	\$1.24	\$1.34	\$1.45	\$1.56	\$1.69	\$1.81	\$1.95	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$51.71	
Southwest Gas Corporation	SWX	\$1.79	\$1.76	\$1.73	\$1.68	\$1.87	\$2.07	\$2.29	\$2.53	\$2.80	\$3.09	\$3.41	\$3.59	\$3.78	\$3.98	\$4.19	\$124.43	
WGL Holdings, Inc.	WGL	\$1.78	\$1.83	\$1.88	\$1.93	\$2.08	\$2.25	\$2.44	\$2.63	\$2.85	\$3.07	\$3.32	\$3.50	\$3.68	\$3.88	\$4.08	\$132.57	
Projected Annual Data Investor Cash Flows		[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker	Initial Outflow	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
Atmos Energy Corporation	ATO	(\$62.93)	\$0.00	\$1.51	\$1.76	\$1.93	\$2.06	\$2.28	\$2.54	\$2.81	\$3.10	\$3.40	\$3.73	\$4.07	\$4.28	\$4.51	\$4.75	\$143.64
Laclede Group, Inc. (The)	LG	(\$58.86)	\$0.00	\$1.28	\$1.48	\$1.51	\$1.54	\$1.69	\$1.84	\$2.01	\$2.19	\$2.39	\$2.60	\$2.83	\$2.99	\$3.14	\$3.31	\$130.14
New Jersey Resources Corporation	NJR	(\$31.87)	\$0.00	\$1.17	\$1.34	\$1.31	\$1.30	\$1.42	\$1.54	\$1.68	\$1.83	\$2.00	\$2.18	\$2.38	\$2.50	\$2.64	\$2.78	\$71.68
Northwest Natural Gas Company	NWN	(\$49.19)	\$0.00	\$1.79	\$2.06	\$1.79	\$1.66	\$1.74	\$1.82	\$1.91	\$2.02	\$2.13	\$2.25	\$2.39	\$2.52	\$2.65	\$2.80	\$102.92
South Jersey Industries, Inc.	SJI	(\$24.38)	\$0.00	\$1.08	\$1.25	\$1.24	\$1.24	\$1.34	\$1.45	\$1.56	\$1.69	\$1.81	\$1.95	\$2.09	\$2.20	\$2.32	\$2.44	\$54.28
Southwest Gas Corporation	SWX	(\$57.11)	\$0.00	\$1.58	\$1.83	\$1.73	\$1.68	\$1.87	\$2.07	\$2.29	\$2.53	\$2.80	\$3.09	\$3.41	\$3.59	\$3.78	\$3.98	\$128.63
WGL Holdings, Inc.	WGL	(\$62.07)	\$0.00	\$1.57	\$1.82	\$1.88	\$1.93	\$2.08	\$2.25	\$2.44	\$2.63	\$2.85	\$3.07	\$3.32	\$3.50	\$3.68	\$3.88	\$136.66

Multi-Stage Growth Discounted Cash Flow Model  
90 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]			
		Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio			Iterative Solution		Terminal	Terminal			
Company	Ticker	Price	Zacks	First Call	Value Line	Retention Growth	High Growth	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio			
Atmos Energy Corporation	ATO	\$62.93	6.60%	6.40%	7.00%	8.21%	8.21%	5.31%	51.00%	51.00%	67.67%	(\$0.00)	9.63%	16.52	3.11			
Laclede Group, Inc. (The)	LG	\$58.86	4.80%	4.78%	10.00%	4.90%	10.00%	5.31%	56.00%	52.00%	67.67%	(\$0.00)	9.52%	16.95	3.19			
New Jersey Resources Corporation	NJR	\$31.67	6.50%	6.50%	4.00%	5.81%	6.50%	5.31%	58.00%	51.00%	67.67%	(\$0.00)	10.65%	13.34	2.61			
Northwest Natural Gas Company	NWN	\$49.19	4.00%	4.00%	7.00%	3.73%	7.00%	5.31%	87.00%	64.00%	67.67%	(\$0.00)	9.27%	18.02	3.39			
South Jersey Industries, Inc.	SJI	\$24.38	NA	6.00%	7.00%	6.56%	7.00%	5.31%	69.00%	59.00%	67.67%	\$0.00	10.93%	12.70	2.39			
Southwest Gas Corporation	SWX	\$57.11	5.00%	4.00%	7.00%	7.53%	7.53%	5.31%	55.00%	46.00%	67.67%	(\$0.00)	9.87%	15.65	2.95			
WGL Holdings, Inc.	WGL	\$62.07	7.30%	8.00%	5.50%	5.11%	8.00%	5.31%	60.00%	56.00%	67.67%	(\$0.00)	9.31%	17.83	3.36			
												Mean	9.88%					
												Max	10.93%					
												Min	9.27%					
Projected Annual Earnings per Share		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Atmos Energy Corporation	ATO	\$2.96	\$3.20	\$3.47	\$3.75	\$4.06	\$4.39	\$4.76	\$5.12	\$5.49	\$5.86	\$6.23	\$6.59	\$6.94	\$7.31	\$7.70	\$8.10	\$8.54
Laclede Group, Inc. (The)	LG	\$2.35	\$2.59	\$2.84	\$3.13	\$3.44	\$3.78	\$4.15	\$4.55	\$4.93	\$5.31	\$5.67	\$6.02	\$6.34	\$6.68	\$7.03	\$7.40	\$7.80
New Jersey Resources Corporation	NJR	\$2.10	\$2.24	\$2.38	\$2.54	\$2.70	\$2.88	\$3.05	\$3.26	\$3.46	\$3.66	\$3.87	\$4.08	\$4.30	\$4.53	\$4.77	\$5.02	\$5.29
Northwest Natural Gas Company	NWN	\$2.16	\$2.31	\$2.47	\$2.65	\$2.83	\$3.03	\$3.24	\$3.46	\$3.68	\$3.91	\$4.14	\$4.37	\$4.60	\$4.85	\$5.10	\$5.38	\$5.66
South Jersey Industries, Inc.	SJI	\$1.57	\$1.68	\$1.80	\$1.92	\$2.06	\$2.20	\$2.36	\$2.51	\$2.68	\$2.84	\$3.01	\$3.18	\$3.35	\$3.52	\$3.71	\$3.91	\$4.11
Southwest Gas Corporation	SWX	\$3.01	\$3.24	\$3.48	\$3.74	\$4.02	\$4.33	\$4.65	\$4.98	\$5.32	\$5.66	\$6.01	\$6.35	\$6.69	\$7.04	\$7.42	\$7.81	\$8.22
WGL Holdings, Inc.	WGL	\$2.68	\$2.89	\$3.13	\$3.38	\$3.65	\$3.94	\$4.25	\$4.57	\$4.90	\$5.23	\$5.55	\$5.87	\$6.18	\$6.51	\$6.86	\$7.22	\$7.60
Projected Annual Dividend Payout Ratio																		
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO	51.00%	51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%		
Laclede Group, Inc. (The)	LG	56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
New Jersey Resources Corporation	NJR	58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Northwest Natural Gas Company	NWN	87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%		
South Jersey Industries, Inc.	SJI	69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
Southwest Gas Corporation	SWX	55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%		
WGL Holdings, Inc.	WGL	60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%		
Projected Annual Cash Flows		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	Terminal Value
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO	\$1.77	\$1.91	\$2.07	\$2.24	\$2.54	\$2.85	\$3.19	\$3.55	\$3.92	\$4.30	\$4.70	\$4.94	\$5.21	\$5.48	\$5.78	\$141.0	
Laclede Group, Inc. (The)	LG	\$1.59	\$1.71	\$1.84	\$1.97	\$2.26	\$2.57	\$2.90	\$3.24	\$3.58	\$3.94	\$4.29	\$4.52	\$4.76	\$5.01	\$5.28	\$132.16	
New Jersey Resources Corporation	NJR	\$1.38	\$1.41	\$1.44	\$1.47	\$1.64	\$1.82	\$2.01	\$2.22	\$2.43	\$2.67	\$2.91	\$3.06	\$3.23	\$3.40	\$3.58	\$70.57	
Northwest Natural Gas Company	NWN	\$2.15	\$2.10	\$2.03	\$1.94	\$2.09	\$2.25	\$2.41	\$2.58	\$2.76	\$2.93	\$3.11	\$3.28	\$3.45	\$3.64	\$3.83	\$102.00	
South Jersey Industries, Inc.	SJI	\$1.24	\$1.26	\$1.28	\$1.30	\$1.42	\$1.55	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.38	\$2.51	\$2.64	\$2.78	\$52.24	
Southwest Gas Corporation	SWX	\$1.91	\$1.95	\$1.97	\$1.99	\$2.28	\$2.60	\$2.94	\$3.31	\$3.69	\$4.10	\$4.52	\$4.77	\$5.02	\$5.28	\$5.57	\$128.70	
WGL Holdings, Inc.	WGL	\$1.88	\$1.98	\$2.09	\$2.21	\$2.45	\$2.71	\$2.99	\$3.27	\$3.57	\$3.87	\$4.18	\$4.40	\$4.64	\$4.89	\$5.14	\$135.60	
Projected Annual Data Investor Cash Flows		[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker	Initial	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
Atmos Energy Corporation	ATO	(\$62.93)	\$0.00	\$1.56	\$1.84	\$2.07	\$2.24	\$2.54	\$2.85	\$3.19	\$3.55	\$3.92	\$4.30	\$4.70	\$4.94	\$5.21	\$5.48	\$146.78
Laclede Group, Inc. (The)	LG	(\$58.86)	\$0.00	\$1.41	\$1.67	\$1.84	\$1.97	\$2.26	\$2.57	\$2.90	\$3.24	\$3.58	\$3.94	\$4.29	\$4.52	\$4.76	\$5.01	\$137.43
New Jersey Resources Corporation	NJR	(\$31.87)	\$0.00	\$1.22	\$1.43	\$1.44	\$1.47	\$1.64	\$1.82	\$2.01	\$2.22	\$2.43	\$2.67	\$2.91	\$3.06	\$3.23	\$3.40	\$74.15
Northwest Natural Gas Company	NWN	(\$49.19)	\$0.00	\$1.90	\$2.23	\$2.03	\$1.94	\$2.09	\$2.25	\$2.41	\$2.58	\$2.76	\$2.93	\$3.11	\$3.28	\$3.45	\$3.64	\$105.83
South Jersey Industries, Inc.	SJI	(\$24.38)	\$0.00	\$1.10	\$1.28	\$1.28	\$1.30	\$1.42	\$1.55	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.38	\$2.51	\$2.64	\$55.03
Southwest Gas Corporation	SWX	(\$57.11)	\$0.00	\$1.69	\$1.98	\$1.97	\$1.99	\$2.28	\$2.60	\$2.94	\$3.31	\$3.69	\$4.10	\$4.52	\$4.77	\$5.02	\$5.28	\$134.26
WGL Holdings, Inc.	WGL	(\$62.07)	\$0.00	\$1.66	\$1.95	\$2.09	\$2.21	\$2.45	\$2.71	\$2.99	\$3.27	\$3.57	\$3.87	\$4.18	\$4.40	\$4.64	\$4.89	\$140.74



Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]					
		Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio			Iterative Solution		Terminal	Terminal					
			Value	Retention																
Company	Ticker	Price	Zacks	First Call	Lme	Growth	Average	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio					
Atmos Energy Corporation	ATO	\$58.64	6.60%	6.40%	7.00%	8.21%	7.05%	5.31%	51.00%	51.00%	67.67%	(\$0.00)	9.57%	16.73	3.15					
Laclede Group, Inc (The)	LG	\$55.96	4.80%	4.78%	10.00%	4.90%	6.12%	5.31%	56.00%	52.00%	67.67%	(\$0.00)	8.67%	21.20	3.99					
New Jersey Resources Corporation	NJR	\$30.17	6.50%	6.50%	4.00%	5.81%	5.70%	5.31%	58.00%	51.00%	67.67%	(\$0.00)	10.64%	13.37	2.52					
Northwest Natural Gas Company	NWN	\$46.50	4.00%	4.00%	7.00%	3.73%	4.68%	5.31%	87.00%	64.00%	67.67%	\$0.00	8.84%	20.18	3.80					
South Jersey Industries, Inc	SJI	\$24.55	NA	6.00%	7.00%	6.56%	6.52%	5.31%	69.00%	59.00%	67.67%	\$0.00	10.71%	13.22	2.49					
Southwest Gas Corporation	SWX	\$56.04	5.00%	4.00%	7.00%	7.53%	5.88%	5.31%	55.00%	48.00%	67.67%	(\$0.00)	9.46%	17.23	3.24					
WGL Holdings, Inc	WGL	\$58.67	7.30%	8.00%	5.50%	5.11%	6.48%	5.31%	60.00%	56.00%	67.67%	(\$0.00)	9.10%	18.81	3.54					
												Mean	9.57%							
												Max	10.71%							
												Min	8.67%							
Projected Annual Earnings per Share		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]		
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO	\$2.96	\$3.17	\$3.39	\$3.63	\$3.89	\$4.16	\$4.46	\$4.76	\$5.06	\$5.38	\$5.69	\$6.01	\$6.33	\$6.67	\$7.02	\$7.40	\$7.79		
Laclede Group, Inc (The)	LG	\$2.35	\$2.49	\$2.65	\$2.81	\$2.98	\$3.16	\$3.36	\$3.56	\$3.77	\$3.98	\$4.20	\$4.43	\$4.67	\$4.92	\$5.18	\$5.45	\$5.74		
New Jersey Resources Corporation	NJR	\$2.10	\$2.22	\$2.35	\$2.48	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.63	\$3.83	\$4.03	\$4.25	\$4.47	\$4.71	\$4.96		
Northwest Natural Gas Company	NWN	\$2.16	\$2.26	\$2.37	\$2.48	\$2.59	\$2.72	\$2.84	\$2.98	\$3.12	\$3.28	\$3.45	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70		
South Jersey Industries, Inc	SJI	\$1.57	\$1.67	\$1.78	\$1.90	\$2.02	\$2.15	\$2.29	\$2.44	\$2.59	\$2.74	\$2.90	\$3.06	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96		
Southwest Gas Corporation	SWX	\$3.01	\$3.19	\$3.37	\$3.57	\$3.78	\$4.01	\$4.24	\$4.49	\$4.74	\$5.01	\$5.28	\$5.57	\$5.86	\$6.18	\$6.50	\$6.85	\$7.21		
WGL Holdings, Inc	WGL	\$2.68	\$2.85	\$3.04	\$3.24	\$3.44	\$3.67	\$3.91	\$4.15	\$4.40	\$4.66	\$4.93	\$5.20	\$5.48	\$5.77	\$6.07	\$6.40	\$6.74		
Projected Annual Dividend Payout Ratio				[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]		
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO			51.00%	61.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Laclede Group, Inc (The)	LG			56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.96%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
New Jersey Resources Corporation	NJR			58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Northwest Natural Gas Company	NWN			87.00%	79.33%	71.67%	64.00%	64.62%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%		
South Jersey Industries, Inc	SJI			69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
Southwest Gas Corporation	SWX			55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.28%	58.36%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%		
WGL Holdings, Inc	WGL			60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%		
Projected Annual Cash Flows				[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	
Atmos Energy Corporation	ATO			\$1.73	\$1.85	\$1.96	\$2.12	\$2.38	\$2.65	\$2.94	\$3.25	\$3.58	\$3.93	\$4.29	\$4.61	\$4.75	\$5.01	\$5.27	\$130.3	
Laclede Group, Inc (The)	LG			\$1.48	\$1.54	\$1.59	\$1.64	\$1.82	\$2.01	\$2.21	\$2.43	\$2.66	\$2.90	\$3.16	\$3.33	\$3.50	\$3.69	\$3.89	\$121.70	
New Jersey Resources Corporation	NJR			\$1.36	\$1.38	\$1.40	\$1.41	\$1.65	\$1.73	\$1.90	\$2.09	\$2.29	\$2.50	\$2.73	\$2.87	\$3.03	\$3.19	\$3.36	\$66.33	
Northwest Natural Gas Company	NWN			\$2.06	\$1.97	\$1.86	\$1.74	\$1.83	\$1.94	\$2.05	\$2.17	\$2.30	\$2.44	\$2.59	\$2.72	\$2.87	\$3.02	\$3.18	\$94.85	
South Jersey Industries, Inc	SJI			\$1.23	\$1.25	\$1.26	\$1.27	\$1.38	\$1.50	\$1.62	\$1.75	\$1.89	\$2.03	\$2.18	\$2.29	\$2.42	\$2.54	\$2.68	\$52.34	
Southwest Gas Corporation	SWX			\$1.86	\$1.86	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.18	\$4.40	\$4.64	\$4.88	\$124.29	
WGL Holdings, Inc	WGL			\$1.82	\$1.90	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$3.90	\$4.11	\$4.33	\$4.56	\$126.73	
Projected Annual Data Investor Cash Flows				[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker	Initial	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30		
Atmos Energy Corporation	ATO	(\$58.64)	\$0.00	\$1.63	\$1.79	\$1.98	\$2.12	\$2.38	\$2.65	\$2.94	\$3.25	\$3.58	\$3.93	\$4.29	\$4.61	\$4.75	\$5.01	\$5.27	\$135.62	
Laclede Group, Inc (The)	LG	(\$55.96)	\$0.00	\$1.31	\$1.53	\$1.59	\$1.64	\$1.82	\$2.01	\$2.21	\$2.43	\$2.66	\$2.90	\$3.16	\$3.33	\$3.50	\$3.69	\$3.89	\$125.69	
New Jersey Resources Corporation	NJR	(\$30.17)	\$0.00	\$1.20	\$1.40	\$1.40	\$1.41	\$1.66	\$1.73	\$1.90	\$2.09	\$2.29	\$2.50	\$2.73	\$2.87	\$3.03	\$3.19	\$3.36	\$69.69	
Northwest Natural Gas Company	NWN	(\$46.50)	\$0.00	\$1.82	\$2.11	\$1.86	\$1.74	\$1.83	\$1.94	\$2.05	\$2.17	\$2.30	\$2.44	\$2.59	\$2.72	\$2.87	\$3.02	\$3.18	\$98.03	
South Jersey Industries, Inc	SJI	(\$24.55)	\$0.00	\$1.09	\$1.27	\$1.26	\$1.27	\$1.38	\$1.50	\$1.62	\$1.75	\$1.89	\$2.03	\$2.18	\$2.29	\$2.42	\$2.54	\$2.68	\$55.02	
Southwest Gas Corporation	SWX	(\$56.04)	\$0.00	\$1.64	\$1.91	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.18	\$4.40	\$4.64	\$4.88	\$129.17	
WGL Holdings, Inc	WGL	(\$58.67)	\$0.00	\$1.61	\$1.88	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$3.90	\$4.11	\$4.33	\$4.56	\$131.29	

Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

Inputs	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14]																			
	Stock	EPS Growth Rate Estimates					Long-Term	Payout Ratio			Iterative Solution		Terminal	Terminal						
		Value	Line	Retention	Low Growth	Growth		2016	2019	2025	Proof	IRR			P/E Rat	PEG Ratio				
Company	Ticker	Price	Zacks	First Call	Value	Retention	Low Growth	Growth	2016	2019	2025	Proof	IRR	P/E Rat	PEG Ratio					
Atmos Energy Corporation	ATO	\$58.64	6.60%	6.40%	7.00%	8.21%	6.40%	5.31%	51.00%	51.00%	67.67%	(\$0.00)	9.38%	17.52	3.30					
Laclede Group, Inc. (The)	LG	\$55.96	4.80%	4.78%	10.00%	4.90%	4.78%	5.31%	56.00%	52.00%	67.67%	(\$0.00)	8.36%	23.39	4.40					
New Jersey Resources Corporation	NJR	\$30.17	6.50%	6.50%	4.00%	5.81%	4.00%	5.31%	58.00%	51.00%	67.67%	(\$0.00)	10.04%	15.07	2.84					
Northwest Natural Gas Company	NWN	\$46.50	4.00%	4.00%	7.00%	3.73%	3.73%	5.31%	87.00%	64.00%	67.67%	\$0.00	8.60%	21.69	4.08					
South Jersey Industries, Inc	SJI	\$24.55	NA	6.00%	7.00%	6.56%	6.00%	5.31%	69.00%	59.00%	67.67%	(\$0.00)	10.51%	13.71	2.58					
Southwest Gas Corporation	SWX	\$58.04	5.00%	4.00%	7.00%	7.53%	4.00%	5.31%	55.00%	48.00%	67.67%	(\$0.00)	8.93%	19.72	3.71					
WGL Holdings, Inc	WGL	\$58.67	7.30%	8.00%	5.50%	5.11%	5.11%	5.31%	60.00%	58.00%	67.67%	(\$0.00)	8.74%	20.78	3.91					
												Mean	9.22%							
												Max	10.51%							
												Min	8.93%							
Projected Annual Earnings per Share																				
		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]		
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO	\$2.66	\$3.15	\$3.35	\$3.67	\$3.79	\$4.04	\$4.29	\$4.56	\$4.84	\$5.12	\$5.41	\$5.71	\$6.01	\$6.33	\$6.67	\$7.02	\$7.39		
Laclede Group, Inc. (The)	LG	\$2.35	\$2.46	\$2.58	\$2.70	\$2.83	\$2.97	\$3.11	\$3.26	\$3.42	\$3.60	\$3.78	\$3.98	\$4.19	\$4.41	\$4.65	\$4.89	\$5.15		
New Jersey Resources Corporation	NJR	\$2.10	\$2.18	\$2.27	\$2.36	\$2.46	\$2.55	\$2.66	\$2.77	\$2.89	\$3.03	\$3.17	\$3.34	\$3.51	\$3.70	\$3.90	\$4.10	\$4.32		
Northwest Natural Gas Company	NWN	\$2.16	\$2.24	\$2.32	\$2.41	\$2.50	\$2.59	\$2.69	\$2.80	\$2.92	\$3.05	\$3.20	\$3.36	\$3.54	\$3.72	\$3.92	\$4.13	\$4.35		
South Jersey Industries, Inc	SJI	\$1.57	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.23	\$2.36	\$2.49	\$2.64	\$2.78	\$2.93	\$3.09	\$3.25	\$3.42	\$3.61	\$3.80		
Southwest Gas Corporation	SWX	\$3.01	\$3.13	\$3.26	\$3.39	\$3.52	\$3.66	\$3.81	\$3.97	\$4.15	\$4.34	\$4.55	\$4.78	\$5.04	\$5.30	\$5.59	\$5.88	\$6.19		
WGL Holdings, Inc	WGL	\$2.66	\$2.82	\$2.96	\$3.11	\$3.27	\$3.44	\$3.61	\$3.80	\$4.00	\$4.20	\$4.42	\$4.66	\$4.91	\$5.17	\$5.44	\$5.73	\$6.03		
Projected Annual Dividend Payout Ratio																				
				[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]		
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO			51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Laclede Group, Inc. (The)	LG			56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
New Jersey Resources Corporation	NJR			58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Northwest Natural Gas Company	NWN			87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%		
South Jersey Industries, Inc	SJI			69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
Southwest Gas Corporation	SWX			55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%		
WGL Holdings, Inc	WGL			60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%		
Projected Annual Cash Flows																				
				[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	
Atmos Energy Corporation	ATO			\$1.71	\$1.82	\$1.93	\$2.08	\$2.28	\$2.54	\$2.81	\$3.10	\$3.40	\$3.73	\$4.07	\$4.28	\$4.51	\$4.75	\$5.00	\$129.5	
Laclede Group, Inc. (The)	LG			\$1.44	\$1.48	\$1.51	\$1.54	\$1.66	\$1.84	\$2.01	\$2.19	\$2.39	\$2.60	\$2.83	\$2.99	\$3.14	\$3.31	\$3.49	\$120.62	
New Jersey Resources Corporation	NJR			\$1.32	\$1.31	\$1.31	\$1.30	\$1.42	\$1.54	\$1.68	\$1.83	\$2.00	\$2.18	\$2.38	\$2.50	\$2.64	\$2.78	\$2.92	\$65.15	
Northwest Natural Gas Company	NWN			\$2.02	\$1.91	\$1.79	\$1.66	\$1.74	\$1.82	\$1.91	\$2.02	\$2.13	\$2.25	\$2.39	\$2.52	\$2.65	\$2.80	\$2.94	\$94.33	
South Jersey Industries, Inc	SJI			\$1.22	\$1.23	\$1.24	\$1.24	\$1.34	\$1.45	\$1.56	\$1.69	\$1.81	\$1.95	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$52.07	
Southwest Gas Corporation	SWX			\$1.79	\$1.76	\$1.73	\$1.68	\$1.87	\$2.07	\$2.29	\$2.53	\$2.80	\$3.09	\$3.41	\$3.59	\$3.78	\$3.98	\$4.19	\$122.17	
WGL Holdings, Inc	WGL			\$1.78	\$1.83	\$1.86	\$1.93	\$2.08	\$2.25	\$2.44	\$2.63	\$2.85	\$3.07	\$3.32	\$3.50	\$3.68	\$3.88	\$4.08	\$125.40	
Projected Annual Data Investor Cash Flows																				
				[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker			Initial Outflow	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
Atmos Energy Corporation	ATO			(\$58.64)	\$0.00	\$1.51	\$1.76	\$1.93	\$2.06	\$2.29	\$2.54	\$2.81	\$3.10	\$3.40	\$3.73	\$4.07	\$4.28	\$4.51	\$4.75	\$134.54
Laclede Group, Inc. (The)	LG			(\$55.96)	\$0.00	\$1.28	\$1.48	\$1.51	\$1.54	\$1.66	\$1.84	\$2.01	\$2.19	\$2.39	\$2.60	\$2.83	\$2.99	\$3.14	\$3.31	\$124.00
New Jersey Resources Corporation	NJR			(\$30.17)	\$0.00	\$1.17	\$1.34	\$1.31	\$1.30	\$1.42	\$1.54	\$1.68	\$1.83	\$2.00	\$2.18	\$2.38	\$2.50	\$2.64	\$2.78	\$68.07
Northwest Natural Gas Company	NWN			(\$46.50)	\$0.00	\$1.79	\$2.06	\$1.79	\$1.66	\$1.74	\$1.82	\$1.91	\$2.02	\$2.13	\$2.25	\$2.39	\$2.52	\$2.65	\$2.80	\$97.27
South Jersey Industries, Inc	SJI			(\$24.55)	\$0.00	\$1.08	\$1.25	\$1.24	\$1.24	\$1.34	\$1.45	\$1.56	\$1.69	\$1.81	\$1.95	\$2.09	\$2.20	\$2.32	\$2.44	\$54.64
Southwest Gas Corporation	SWX			(\$56.04)	\$0.00	\$1.58	\$1.83	\$1.73	\$1.68	\$1.87	\$2.07	\$2.29	\$2.53	\$2.80	\$3.09	\$3.41	\$3.59	\$3.78	\$3.98	\$126.36
WGL Holdings, Inc	WGL			(\$58.67)	\$0.00	\$1.57	\$1.82	\$1.86	\$1.93	\$2.08	\$2.25	\$2.44	\$2.63	\$2.85	\$3.07	\$3.32	\$3.50	\$3.68	\$3.88	\$129.48

Multi-Stage Growth Discounted Cash Flow Model  
180 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]				
		Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio		Iterative Solution		Terminal						
Company	Ticker	Price	Zacks	First Call	Line	Retention	High Growth	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio				
Atmos Energy Corporation	ATO	\$58.64	6.00%	6.40%	7.00%	8.21%	8.21%	5.31%	51.00%	51.00%	67.67%	(\$0.00)	9.93%	15.45	2.91				
Laclede Group Inc (The)	LG	\$55.96	4.80%	4.78%	10.00%	4.90%	10.00%	5.31%	56.00%	52.00%	67.67%	(\$0.00)	9.72%	16.16	3.04				
New Jersey Resources Corporation	NJR	\$30.17	6.50%	6.50%	4.00%	5.81%	6.50%	5.31%	58.00%	51.00%	67.67%	(\$0.00)	10.94%	12.66	2.38				
Northwest Natural Gas Company	NWN	\$46.50	4.00%	4.00%	7.00%	3.73%	7.00%	5.31%	87.00%	64.00%	67.67%	(\$0.00)	9.50%	17.02	3.20				
South Jersey Industries Inc	SJI	\$24.55	NA	6.00%	7.00%	6.56%	7.00%	5.31%	69.00%	59.00%	67.67%	\$0.00	10.89%	12.78	2.41				
Southwest Gas Corporation	SWX	\$56.04	5.00%	4.00%	7.00%	7.53%	7.53%	5.31%	55.00%	46.00%	67.67%	(\$0.00)	9.95%	15.37	2.89				
WGL Holdings, Inc	WGL	\$58.67	7.30%	8.00%	5.50%	5.11%	8.00%	5.31%	60.00%	56.00%	67.67%	(\$0.00)	9.53%	16.89	3.18				
													Mean	10.07%					
													Max	10.94%					
													Mn	9.50%					
Projected Annual Earnings per Share		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]	
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Atmos Energy Corporation	ATO	\$2.96	\$3.20	\$3.47	\$3.75	\$4.06	\$4.39	\$4.75	\$5.12	\$5.49	\$5.86	\$6.23	\$6.59	\$6.94	\$7.31	\$7.70	\$8.10	\$8.54	
Laclede Group Inc (The)	LG	\$2.35	\$2.69	\$2.84	\$3.13	\$3.44	\$3.78	\$4.16	\$4.55	\$4.93	\$5.31	\$5.67	\$6.02	\$6.34	\$6.68	\$7.03	\$7.40	\$7.80	
New Jersey Resources Corporation	NJR	\$2.10	\$2.24	\$2.38	\$2.54	\$2.70	\$2.88	\$3.06	\$3.26	\$3.46	\$3.65	\$3.87	\$4.08	\$4.30	\$4.53	\$4.77	\$5.02	\$5.29	
Northwest Natural Gas Company	NWN	\$2.16	\$2.31	\$2.47	\$2.65	\$2.83	\$3.03	\$3.24	\$3.46	\$3.68	\$3.91	\$4.14	\$4.37	\$4.60	\$4.85	\$5.10	\$5.38	\$5.66	
South Jersey Industries, Inc	SJI	\$1.57	\$1.68	\$1.80	\$1.92	\$2.05	\$2.20	\$2.36	\$2.51	\$2.68	\$2.84	\$3.01	\$3.18	\$3.35	\$3.52	\$3.71	\$3.91	\$4.11	
Southwest Gas Corporation	SWX	\$3.01	\$3.24	\$3.48	\$3.74	\$4.02	\$4.33	\$4.65	\$4.98	\$5.32	\$5.66	\$6.01	\$6.35	\$6.69	\$7.04	\$7.42	\$7.81	\$8.22	
WGL Holdings, Inc	WGL	\$2.68	\$2.89	\$3.13	\$3.38	\$3.65	\$3.94	\$4.25	\$4.57	\$4.90	\$5.23	\$5.55	\$5.87	\$6.18	\$6.51	\$6.86	\$7.22	\$7.60	
Projected Annual Dividend Payout Ratio			[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]		
Company	Ticker		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporat on	ATO		51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Laclede Group, Inc (The)	LG		56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
New Jersey Resources Corporation	NJR		58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Northwest Natural Gas Company	NWN		87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%		
South Jersey Industries Inc	SJI		69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
Southwest Gas Corporation	SWX		55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%		
WGL Holdings, Inc	WGL		60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%		
Projected Annual Cash Flows			[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	
Company	Ticker		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	
Atmos Energy Corporation	ATO		\$1.77	\$1.91	\$2.07	\$2.24	\$2.54	\$2.85	\$3.19	\$3.55	\$3.92	\$4.30	\$4.70	\$4.94	\$5.21	\$5.48	\$5.78	\$131.9	
Laclede Group Inc (The)	LG		\$1.69	\$1.71	\$1.84	\$1.97	\$2.26	\$2.57	\$2.90	\$3.24	\$3.58	\$3.94	\$4.29	\$4.52	\$4.76	\$5.01	\$5.28	\$125.98	
New Jersey Resources Corporation	NJR		\$1.38	\$1.41	\$1.44	\$1.47	\$1.64	\$1.82	\$2.01	\$2.22	\$2.43	\$2.67	\$2.91	\$3.06	\$3.23	\$3.40	\$3.58	\$66.95	
Northwest Natural Gas Company	NWN		\$2.15	\$2.10	\$2.03	\$1.94	\$2.09	\$2.25	\$2.41	\$2.58	\$2.76	\$2.93	\$3.11	\$3.28	\$3.45	\$3.64	\$3.83	\$86.34	
South Jersey Industries Inc	SJI		\$1.24	\$1.26	\$1.28	\$1.30	\$1.42	\$1.55	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.38	\$2.51	\$2.64	\$2.78	\$52.60	
Southwest Gas Corporation	SWX		\$1.91	\$1.95	\$1.97	\$1.99	\$2.28	\$2.60	\$2.94	\$3.31	\$3.69	\$4.10	\$4.52	\$4.77	\$5.02	\$5.28	\$5.57	\$126.42	
WGL Holdings, Inc	WGL		\$1.68	\$1.98	\$2.09	\$2.21	\$2.45	\$2.71	\$2.99	\$3.27	\$3.57	\$3.87	\$4.18	\$4.40	\$4.64	\$4.89	\$5.14	\$128.40	
Projected Annual Data Investor Cash Flows			[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker		Initial	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
Atmos Energy Corporation	ATO		(\$58.64)	\$0.00	\$1.56	\$1.84	\$2.07	\$2.24	\$2.54	\$2.85	\$3.19	\$3.55	\$3.92	\$4.30	\$4.70	\$4.94	\$5.21	\$5.48	\$137.65
Laclede Group Inc (The)	LG		(\$55.96)	\$0.00	\$1.41	\$1.67	\$1.84	\$1.97	\$2.26	\$2.57	\$2.90	\$3.24	\$3.58	\$3.94	\$4.29	\$4.52	\$4.76	\$5.01	\$131.25
New Jersey Resources Corporation	NJR		(\$30.17)	\$0.00	\$1.22	\$1.43	\$1.44	\$1.47	\$1.64	\$1.82	\$2.01	\$2.22	\$2.43	\$2.67	\$2.91	\$3.06	\$3.23	\$3.40	\$70.53
Northwest Natural Gas Company	NWN		(\$46.50)	\$0.00	\$1.90	\$2.23	\$2.03	\$1.94	\$2.09	\$2.25	\$2.41	\$2.58	\$2.76	\$2.93	\$3.11	\$3.28	\$3.45	\$3.64	\$100.18
South Jersey Industries, Inc	SJI		(\$24.55)	\$0.00	\$1.10	\$1.28	\$1.28	\$1.30	\$1.42	\$1.55	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.38	\$2.51	\$2.64	\$55.39
Southwest Gas Corporation	SWX		(\$56.04)	\$0.00	\$1.69	\$1.99	\$1.97	\$1.99	\$2.28	\$2.60	\$2.94	\$3.31	\$3.69	\$4.10	\$4.52	\$4.77	\$5.02	\$5.28	\$131.98
WGL Holdings Inc	WGL		(\$58.67)	\$0.00	\$1.66	\$1.95	\$2.09	\$2.21	\$2.45	\$2.71	\$2.99	\$3.27	\$3.57	\$3.87	\$4.18	\$4.40	\$4.64	\$4.89	\$133.54

Multi-Stage DCF Notes

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- [1] Source Bloomberg, based on 30-, 90-, and 180-day historical average as of February 12, 2016
  - [2] Source Zacks
  - [3] Source Yahoo! Finance
  - [4] Source Value Line
  - [5] Source Exhibit RBH-2, Value Line
  - [6] Equals indicated value (average, minimum, maximum) from Columns [2], [3], [4], [5]
  - [7] Source Federal Reserve, Bureau of Economic Analysis
  - [8] Source Value Line
  - [9] Source Value Line
  - [10] Source Bloomberg Professional
  - [11] Equals Column [1] + Column [65]
  - [12] Equals result of Excel Solver function, goal Column [11] equals \$0.00
  - [13] Equals Column [64] / Column [31]
  - [14] Equals Column [13] / (Column [7] x 100)
  - [15] Source Value Line
  - [16] Equals Column [15] x (1 + Column [6])
  - [17] Equals Column [16] x (1 + Column [6])
  - [18] Equals Column [17] x (1 + Column [6])
  - [19] Equals Column [18] x (1 + Column [6])
  - [20] Equals Column [19] x (1 + Column [6])
  - [21] Equals Column [20] x (1 + Column [6])
  - [22] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2025 - 2020 + 1)) x (2021 - 2019)))) x Column [21]
  - [23] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2025 - 2020 + 1)) x (2022 - 2019)))) x Column [22]
  - [24] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2025 - 2020 + 1)) x (2023 - 2019)))) x Column [23]
  - [25] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2025 - 2020 + 1)) x (2024 - 2019)))) x Column [24]
  - [26] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2025 - 2020 + 1)) x (2024 - 2019)))) x Column [25]
  - [27] Equals Column [26] x (1 + Column [7])
  - [28] Equals Column [27] x (1 + Column [7])
  - [29] Equals Column [28] x (1 + Column [7])
  - [30] Equals Column [29] x (1 + Column [7])
  - [31] Equals Column [30] x (1 + Column [7])
  - [32] Equals Column [8]
  - [33] Equals Column [32] + ((Column [35] - Column [32]) / 3)
  - [34] Equals Column [33] + ((Column [35] - Column [32]) / 3)
  - [35] Equals Column [9]
  - [36] Equals Column [35] + ((Column [42] - Column [35]) / 7)
  - [37] Equals Column [36] + ((Column [42] - Column [35]) / 7)
  - [38] Equals Column [37] + ((Column [42] - Column [35]) / 7)
  - [39] Equals Column [38] + ((Column [42] - Column [35]) / 6)
  - [40] Equals Column [39] + ((Column [42] - Column [35]) / 6)
  - [41] Equals Column [40] + ((Column [42] - Column [35]) / 7)
  - [42] Equals Column [10]
  - [43] Equals Column [10]
  - [44] Equals Column [10]
  - [45] Equals Column [10]
  - [46] Equals Column [10]
  - [47] Equals Column [17] x Column [32]
  - [48] Equals Column [18] x Column [33]
  - [49] Equals Column [19] x Column [34]
  - [50] Equals Column [20] x Column [35]
  - [51] Equals Column [21] x Column [36]
  - [52] Equals Column [22] x Column [37]
  - [53] Equals Column [23] x Column [38]
  - [54] Equals Column [24] x Column [39]
  - [55] Equals Column [25] x Column [40]
  - [56] Equals Column [26] x Column [41]
  - [57] Equals Column [27] x Column [42]
  - [58] Equals Column [28] x Column [43]
  - [59] Equals Column [29] x Column [44]
  - [60] Equals Column [30] x Column [45]
  - [61] Equals Column [31] x Column [46]
  - [62] Equals (Column [61] x (1 + Column [7])) / (Column [12] - Column [7])
  - [63] Equals negative net present value, discount rate equals Column [12], cash flows equal Column [64] through Column [79]
  - [64] Equals \$0.00
  - [65] Equals Column [47] x (12/31/2016 - 2/12/2016) / 365
  - [66] Equals Column [47] x (1 + (0.5 x Column [6]))
  - [67] Equals Column [49]
  - [68] Equals Column [50]
  - [69] Equals Column [51]
  - [70] Equals Column [52]
  - [71] Equals Column [53]
  - [72] Equals Column [54]
  - [73] Equals Column [55]
  - [74] Equals Column [56]
  - [75] Equals Column [57]
  - [76] Equals Column [58]
  - [77] Equals Column [59]
  - [78] Equals Column [60]
  - [79] Equals Column [61] + [62]

Multi-Stage Growth Discounted Cash Flow Model - Setting Terminal P/E at 21.12  
30 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]			
		Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio		Iterative Solution		Terminal		Terminal			
Company	Ticker	Price	Zacks	First Call	Line	Growth	Average	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio			
Atmos Energy Corporation	ATO	\$65.65	6.60%	6.40%	7.00%	8.21%	7.05%	5.31%	51.00%	51.00%	67.67%	\$0.00	9.87%	21.12	3.98			
Laclede Group Inc (The)	LG	\$61.14	4.80%	4.78%	10.00%	4.90%	6.12%	5.31%	56.00%	52.00%	67.67%	\$0.00	7.86%	21.12	3.98			
New Jersey Resources Corporation	NJR	\$34.36	6.50%	6.50%	4.00%	5.81%	5.70%	5.31%	58.00%	51.00%	67.67%	\$0.00	11.90%	21.12	3.98			
Northwest Natural Gas Company	NWN	\$51.25	4.00%	4.00%	7.00%	3.73%	4.68%	5.31%	87.00%	84.00%	67.67%	\$0.00	8.18%	21.12	3.98			
South Jersey Industries Inc	SJI	\$24.21	NA	6.00%	7.00%	6.56%	6.52%	5.31%	69.00%	59.00%	67.67%	\$0.00	13.45%	21.12	3.98			
Southwest Gas Corporation	SWX	\$57.43	5.00%	4.00%	7.00%	7.53%	5.88%	5.31%	55.00%	46.00%	67.67%	\$0.00	10.41%	21.12	3.98			
WGL Holdings, Inc	WGL	\$64.08	7.30%	8.00%	5.50%	5.11%	6.48%	5.31%	60.00%	56.00%	67.67%	\$0.00	8.96%	21.12	3.98			
												Mean	10.09%					
												Max	13.45%					
												Min	7.86%					
Projected Annual Earnings per Share																		
		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Atmos Energy Corporation	ATO	\$2.96	\$3.17	\$3.39	\$3.63	\$3.89	\$4.16	\$4.46	\$4.76	\$5.06	\$5.38	\$5.69	\$6.01	\$6.33	\$6.67	\$7.02	\$7.40	\$7.79
Laclede Group Inc (The)	LG	\$2.35	\$2.49	\$2.65	\$2.81	\$2.98	\$3.16	\$3.36	\$3.56	\$3.77	\$3.98	\$4.20	\$4.43	\$4.67	\$4.92	\$5.18	\$5.45	\$5.74
New Jersey Resources Corporation	NJR	\$2.10	\$2.22	\$2.35	\$2.48	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.63	\$3.83	\$4.03	\$4.25	\$4.47	\$4.71	\$4.96
Northwest Natural Gas Company	NWN	\$2.16	\$2.26	\$2.37	\$2.48	\$2.59	\$2.72	\$2.84	\$2.98	\$3.12	\$3.28	\$3.45	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70
South Jersey Industries Inc	SJI	\$1.57	\$1.67	\$1.78	\$1.90	\$2.02	\$2.15	\$2.29	\$2.44	\$2.59	\$2.74	\$2.90	\$3.06	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96
Southwest Gas Corporation	SWX	\$3.01	\$3.19	\$3.37	\$3.57	\$3.78	\$4.01	\$4.24	\$4.49	\$4.74	\$5.01	\$5.28	\$5.57	\$5.86	\$6.18	\$6.50	\$6.85	\$7.21
WGL Holdings, Inc	WGL	\$2.88	\$2.85	\$3.04	\$3.24	\$3.44	\$3.67	\$3.91	\$4.15	\$4.40	\$4.65	\$4.93	\$5.20	\$5.48	\$5.77	\$6.07	\$6.40	\$6.74
Projected Annual Dividend Payout Ratio																		
				[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Atmos Energy Corporation	ATO			51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.28%	67.67%	67.67%	67.67%	67.67%	67.67%
Laclede Group Inc (The)	LG			56.00%	54.67%	53.33%	52.00%	64.24%	58.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%
New Jersey Resources Corporation	NJR			58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%
Northwest Natural Gas Company	NWN			87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%
South Jersey Industries Inc	SJI			69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%
Southwest Gas Corporation	SWX			55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%
WGL Holdings, Inc	WGL			60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%
Projected Annual Cash Flows																		
		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	Terminal
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Atmos Energy Corporation	ATO			\$1.73	\$1.85	\$1.98	\$2.12	\$2.28	\$2.45	\$2.64	\$2.84	\$3.05	\$3.28	\$3.53	\$3.79	\$4.06	\$4.34	\$4.63
Laclede Group Inc (The)	LG			\$1.48	\$1.54	\$1.59	\$1.64	\$1.82	\$2.01	\$2.21	\$2.43	\$2.66	\$2.90	\$3.16	\$3.43	\$3.70	\$3.98	\$4.26
New Jersey Resources Corporation	NJR			\$1.36	\$1.38	\$1.40	\$1.41	\$1.56	\$1.73	\$1.90	\$2.09	\$2.29	\$2.50	\$2.73	\$2.97	\$3.23	\$3.49	\$3.76
Northwest Natural Gas Company	NWN			\$2.06	\$1.97	\$1.86	\$1.74	\$1.83	\$1.94	\$2.05	\$2.17	\$2.30	\$2.44	\$2.59	\$2.72	\$2.87	\$3.02	\$3.18
South Jersey Industries Inc	SJI			\$1.23	\$1.25	\$1.26	\$1.27	\$1.38	\$1.50	\$1.62	\$1.75	\$1.89	\$2.03	\$2.18	\$2.32	\$2.47	\$2.62	\$2.78
Southwest Gas Corporation	SWX			\$1.86	\$1.86	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.38	\$4.80	\$5.23	\$5.67
WGL Holdings, Inc	WGL			\$1.82	\$1.90	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$4.00	\$4.31	\$4.63	\$4.96
Projected Annual Data Investor Cash Flows																		
		[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker	Initial	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
Atmos Energy Corporation	ATO	(\$85.65)	\$0.00	\$1.63	\$1.79	\$1.98	\$2.12	\$2.28	\$2.45	\$2.64	\$2.84	\$3.05	\$3.28	\$3.53	\$3.79	\$4.06	\$4.34	\$4.63
Laclede Group Inc (The)	LG	(\$61.14)	\$0.00	\$1.31	\$1.53	\$1.59	\$1.64	\$1.82	\$2.01	\$2.21	\$2.43	\$2.66	\$2.90	\$3.16	\$3.43	\$3.70	\$3.98	\$4.26
New Jersey Resources Corporation	NJR	(\$34.36)	\$0.00	\$1.20	\$1.40	\$1.40	\$1.41	\$1.56	\$1.73	\$1.90	\$2.09	\$2.29	\$2.50	\$2.73	\$2.97	\$3.23	\$3.49	\$3.76
Northwest Natural Gas Company	NWN	(\$51.25)	\$0.00	\$1.82	\$2.11	\$1.86	\$1.74	\$1.83	\$1.94	\$2.05	\$2.17	\$2.30	\$2.44	\$2.59	\$2.72	\$2.87	\$3.02	\$3.18
South Jersey Industries Inc	SJI	(\$24.21)	\$0.00	\$1.09	\$1.27	\$1.26	\$1.27	\$1.38	\$1.50	\$1.62	\$1.75	\$1.89	\$2.03	\$2.18	\$2.32	\$2.47	\$2.62	\$2.78
Southwest Gas Corporation	SWX	(\$57.43)	\$0.00	\$1.64	\$1.91	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.38	\$4.80	\$5.23	\$5.67
WGL Holdings Inc	WGL	(\$64.08)	\$0.00	\$1.61	\$1.88	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$4.00	\$4.31	\$4.63	\$4.96

Multi-Stage Growth Discounted Cash Flow Model - Setting Terminal P/E at 21.12  
30 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]				
		Stock	EPS Growth Rate Estimates				Low	Long Term	Payout Ratio			Iterative Solution	Terminal	Terminal					
					Value	Retention													
Company	Ticker	Price	Zacks	First Call	Line	Growth	Growth	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio				
Atmos Energy Corporation	ATO	\$65.65	6.60%	6.40%	7.00%	8.21%	6.40%	5.31%	51.00%	51.00%	67.67%	\$0.00	9.43%	21.12	3.98				
Laclede Group Inc (The)	LG	\$61.14	4.80%	4.78%	10.00%	4.90%	4.78%	5.31%	56.00%	52.00%	67.67%	\$0.00	6.96%	21.12	3.98				
New Jersey Resources Corporation	NJR	\$34.36	6.50%	6.50%	4.00%	5.81%	4.00%	5.31%	58.00%	51.00%	67.67%	\$0.00	10.69%	21.12	3.98				
Northwest Natural Gas Company	NWN	\$51.25	4.00%	4.00%	7.00%	3.73%	3.73%	5.31%	87.00%	64.00%	67.67%	\$0.00	7.53%	21.12	3.98				
South Jersey Industries Inc	SJI	\$24.21	NA	6.00%	7.00%	6.56%	6.00%	5.31%	69.00%	59.00%	67.67%	\$0.00	13.06%	21.12	3.98				
Southwest Gas Corporation	SWX	\$57.43	5.00%	4.00%	7.00%	7.53%	4.00%	5.31%	55.00%	46.00%	67.67%	\$0.00	9.11%	21.12	3.98				
WGL Holdings, Inc	WGL	\$64.08	7.30%	8.00%	5.50%	5.11%	5.11%	5.31%	60.00%	56.00%	67.67%	\$0.00	8.03%	21.12	3.98				
												Mean	9.26%						
												Max	13.06%						
												Min	6.96%						
Projected Annual Earnings per Share			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Atmos Energy Corporation	ATO	\$2.96	\$3.15	\$3.35	\$3.57	\$3.79	\$4.04	\$4.29	\$4.56	\$4.84	\$5.12	\$5.41	\$5.71	\$6.01	\$6.33	\$6.67	\$7.02	\$7.39	
Laclede Group Inc (The)	LG	\$2.35	\$2.46	\$2.58	\$2.70	\$2.83	\$2.97	\$3.11	\$3.26	\$3.42	\$3.60	\$3.78	\$3.98	\$4.19	\$4.41	\$4.65	\$4.89	\$5.15	
New Jersey Resources Corporation	NJR	\$2.10	\$2.18	\$2.27	\$2.36	\$2.46	\$2.55	\$2.66	\$2.77	\$2.89	\$3.03	\$3.17	\$3.34	\$3.51	\$3.70	\$3.90	\$4.10	\$4.32	
Northwest Natural Gas Company	NWN	\$2.16	\$2.24	\$2.32	\$2.41	\$2.50	\$2.59	\$2.69	\$2.80	\$2.92	\$3.05	\$3.20	\$3.36	\$3.54	\$3.72	\$3.92	\$4.13	\$4.35	
South Jersey Industries Inc	SJI	\$1.57	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.23	\$2.36	\$2.49	\$2.64	\$2.78	\$2.93	\$3.09	\$3.25	\$3.42	\$3.61	\$3.80	
Southwest Gas Corporation	SWX	\$3.01	\$3.13	\$3.26	\$3.39	\$3.52	\$3.66	\$3.81	\$3.97	\$4.15	\$4.34	\$4.55	\$4.78	\$5.04	\$5.30	\$5.59	\$5.88	\$6.19	
WGL Holdings, Inc	WGL	\$2.68	\$2.82	\$2.96	\$3.11	\$3.27	\$3.44	\$3.61	\$3.80	\$4.00	\$4.20	\$4.42	\$4.66	\$4.91	\$5.17	\$5.44	\$5.73	\$6.03	
Projected Annual Dividend Payout Ratio				[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]	
Company	Ticker		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO		51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Laclede Group Inc (The)	LG		58.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
New Jersey Resources Corporation	NJR		58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Northwest Natural Gas Company	NWN		87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%		
South Jersey Industries Inc	SJI		69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
Southwest Gas Corporation	SWX		55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%		
WGL Holdings, Inc	WGL		60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%		
Projected Annual Cash Flows			[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	
Company	Ticker		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	
Atmos Energy Corporation	ATO		\$1.71	\$1.82	\$1.93	\$2.06	\$2.29	\$2.54	\$2.81	\$3.10	\$3.40	\$3.73	\$4.07	\$4.48	\$4.91	\$5.36	\$5.83	\$166.2	
Laclede Group Inc (The)	LG		\$1.44	\$1.48	\$1.51	\$1.54	\$1.69	\$1.84	\$2.01	\$2.19	\$2.39	\$2.60	\$2.83	\$3.09	\$3.34	\$3.61	\$3.89	\$108.8	
New Jersey Resources Corporation	NJR		\$1.32	\$1.31	\$1.31	\$1.30	\$1.42	\$1.54	\$1.68	\$1.83	\$2.00	\$2.18	\$2.38	\$2.50	\$2.64	\$2.78	\$2.92	\$91.3	
Northwest Natural Gas Company	NWN		\$2.02	\$1.91	\$1.79	\$1.66	\$1.74	\$1.82	\$1.91	\$2.02	\$2.13	\$2.25	\$2.39	\$2.52	\$2.65	\$2.80	\$2.94	\$91.9	
South Jersey Industries Inc	SJI		\$1.22	\$1.23	\$1.24	\$1.24	\$1.34	\$1.45	\$1.56	\$1.69	\$1.81	\$1.95	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$80.2	
Southwest Gas Corporation	SWX		\$1.79	\$1.76	\$1.73	\$1.68	\$1.87	\$2.07	\$2.29	\$2.53	\$2.80	\$3.09	\$3.41	\$3.76	\$4.13	\$4.51	\$4.90	\$130.8	
WGL Holdings, Inc	WGL		\$1.78	\$1.83	\$1.88	\$1.93	\$2.08	\$2.25	\$2.44	\$2.63	\$2.85	\$3.07	\$3.32	\$3.50	\$3.68	\$3.88	\$4.08	\$127.4	
Projected Annual Data Investor Cash Flows			[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker	Initial	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	
Atmos Energy Corporation	ATO	(\$65.65)	\$0.00	\$1.51	\$1.76	\$1.93	\$2.06	\$2.29	\$2.54	\$2.81	\$3.10	\$3.40	\$3.73	\$4.07	\$4.48	\$4.91	\$5.36	\$161.18	
Laclede Group Inc (The)	LG	(\$61.14)	\$0.00	\$1.28	\$1.48	\$1.51	\$1.54	\$1.69	\$1.84	\$2.01	\$2.19	\$2.39	\$2.60	\$2.83	\$3.09	\$3.34	\$3.61	\$112.32	
New Jersey Resources Corporation	NJR	(\$34.36)	\$0.00	\$1.17	\$1.34	\$1.31	\$1.30	\$1.42	\$1.54	\$1.68	\$1.83	\$2.00	\$2.18	\$2.38	\$2.50	\$2.64	\$2.78	\$94.20	
Northwest Natural Gas Company	NWN	(\$51.25)	\$0.00	\$1.79	\$2.06	\$1.79	\$1.66	\$1.74	\$1.82	\$1.91	\$2.02	\$2.13	\$2.25	\$2.39	\$2.52	\$2.65	\$2.80	\$94.81	
South Jersey Industries Inc	SJI	(\$24.21)	\$0.00	\$1.08	\$1.25	\$1.24	\$1.24	\$1.34	\$1.45	\$1.56	\$1.69	\$1.81	\$1.95	\$2.09	\$2.20	\$2.32	\$2.44	\$82.80	
Southwest Gas Corporation	SWX	(\$57.43)	\$0.00	\$1.68	\$1.83	\$1.73	\$1.68	\$1.87	\$2.07	\$2.29	\$2.53	\$2.80	\$3.09	\$3.41	\$3.76	\$4.13	\$4.51	\$135.02	
WGL Holdings, Inc	WGL	(\$64.08)	\$0.00	\$1.57	\$1.82	\$1.88	\$1.93	\$2.08	\$2.25	\$2.44	\$2.63	\$2.85	\$3.07	\$3.32	\$3.50	\$3.68	\$3.88	\$131.52	

Multi-Stage Growth Discounted Cash Flow Model - Setting Terminal P/E at 21.12  
30 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]				
		Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio			Iterative Solution		Terminal	Terminal				
				Value	Retention	High													
Company	Ticker	Price	Zacks	First Call	Line	Growth	Growth	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio				
Atmos Energy Corporation	ATO	\$65.65	6.60%	6.40%	7.00%	8.21%	8.21%	5.31%	51.00%	51.00%	67.67%	\$0.00	10.66%	21.12	3.98				
Laclede Group Inc (The)	LG	\$81.14	4.80%	4.78%	10.00%	4.90%	10.00%	5.31%	56.00%	52.00%	67.67%	\$0.00	10.45%	21.12	3.98				
New Jersey Resources Corporation	NJR	\$34.36	6.50%	6.50%	4.00%	5.81%	6.50%	5.31%	58.00%	51.00%	67.67%	\$0.00	12.47%	21.12	3.98				
Northwest Natural Gas Company	NWN	\$51.25	4.00%	4.00%	7.00%	3.73%	7.00%	5.31%	87.00%	84.00%	67.67%	\$0.00	9.79%	21.12	3.98				
South Jersey Industries, Inc	SJI	\$24.21	NA	6.00%	7.00%	6.56%	7.00%	5.31%	69.00%	59.00%	67.67%	\$0.00	13.80%	21.12	3.98				
Southwest Gas Corporation	SWX	\$57.43	5.00%	4.00%	7.00%	7.53%	7.53%	5.31%	55.00%	46.00%	67.67%	\$0.00	11.55%	21.12	3.98				
WGL Holdings, Inc.	WGL	\$64.08	7.30%	8.00%	5.50%	5.11%	8.00%	5.31%	60.00%	56.00%	67.67%	\$0.00	10.03%	21.12	3.98				
													Mean						
													Max						
													Min						
													9.79%						
Projected Annual Earnings per Share																			
			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Atmos Energy Corporation	ATO	\$2.96	\$3.20	\$3.47	\$3.75	\$4.06	\$4.39	\$4.75	\$5.12	\$5.49	\$5.86	\$6.23	\$6.59	\$6.94	\$7.31	\$7.70	\$8.10	\$8.54	
Laclede Group Inc (The)	LG	\$2.35	\$2.59	\$2.84	\$3.13	\$3.44	\$3.78	\$4.16	\$4.55	\$4.93	\$5.31	\$5.67	\$6.02	\$6.34	\$6.68	\$7.03	\$7.40	\$7.80	
New Jersey Resources Corporation	NJR	\$2.10	\$2.24	\$2.38	\$2.54	\$2.70	\$2.88	\$3.06	\$3.28	\$3.46	\$3.66	\$3.87	\$4.08	\$4.30	\$4.53	\$4.77	\$5.02	\$5.29	
Northwest Natural Gas Company	NWN	\$2.16	\$2.31	\$2.47	\$2.65	\$2.83	\$3.03	\$3.24	\$3.46	\$3.68	\$3.91	\$4.14	\$4.37	\$4.60	\$4.85	\$5.10	\$5.38	\$5.66	
South Jersey Industries, Inc	SJI	\$1.57	\$1.68	\$1.80	\$1.92	\$2.06	\$2.20	\$2.36	\$2.51	\$2.68	\$2.84	\$3.01	\$3.18	\$3.35	\$3.52	\$3.71	\$3.91	\$4.11	
Southwest Gas Corporation	SWX	\$3.01	\$3.24	\$3.48	\$3.74	\$4.02	\$4.33	\$4.65	\$4.98	\$5.32	\$5.65	\$6.01	\$6.35	\$6.69	\$7.04	\$7.42	\$7.81	\$8.22	
WGL Holdings, Inc.	WGL	\$2.68	\$2.89	\$3.13	\$3.38	\$3.65	\$3.94	\$4.25	\$4.57	\$4.90	\$5.23	\$5.55	\$5.87	\$6.18	\$6.51	\$6.86	\$7.22	\$7.60	
Projected Annual Dividend Payout Ratio																			
				[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]	
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Atmos Energy Corporation	ATO			51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%	
Laclede Group Inc (The)	LG			56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%	
New Jersey Resources Corporation	NJR			58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%	
Northwest Natural Gas Company	NWN			87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%	
South Jersey Industries, Inc	SJI			69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%	
Southwest Gas Corporation	SWX			55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%	
WGL Holdings, Inc.	WGL			60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%	
Projected Annual Cash Flows																			
				[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value
Atmos Energy Corporation	ATO			\$1.77	\$1.91	\$2.07	\$2.24	\$2.54	\$2.85	\$3.19	\$3.55	\$3.92	\$4.30	\$4.70	\$4.94	\$5.21	\$5.48	\$5.78	\$180.3
Laclede Group, Inc (The)	LG			\$1.59	\$1.71	\$1.84	\$1.97	\$2.26	\$2.57	\$2.90	\$3.24	\$3.58	\$3.94	\$4.29	\$4.62	\$4.76	\$5.01	\$5.28	\$164.7
New Jersey Resources Corporation	NJR			\$1.38	\$1.41	\$1.44	\$1.47	\$1.64	\$1.82	\$2.01	\$2.22	\$2.43	\$2.67	\$2.91	\$3.06	\$3.23	\$3.40	\$3.58	\$111.7
Northwest Natural Gas Company	NWN			\$2.15	\$2.10	\$2.03	\$1.94	\$2.09	\$2.25	\$2.41	\$2.58	\$2.76	\$2.93	\$3.11	\$3.28	\$3.45	\$3.64	\$3.83	\$119.6
South Jersey Industries, Inc	SJI			\$1.24	\$1.26	\$1.28	\$1.30	\$1.42	\$1.55	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.38	\$2.51	\$2.64	\$2.78	\$86.9
Southwest Gas Corporation	SWX			\$1.91	\$1.95	\$1.97	\$1.99	\$2.28	\$2.60	\$2.94	\$3.31	\$3.69	\$4.10	\$4.52	\$4.77	\$5.02	\$5.28	\$5.57	\$173.7
WGL Holdings, Inc.	WGL			\$1.88	\$1.98	\$2.09	\$2.21	\$2.45	\$2.71	\$2.99	\$3.27	\$3.57	\$3.87	\$4.18	\$4.40	\$4.64	\$4.89	\$5.14	\$160.6
Projected Annual Data Investor Cash Flows																			
			[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker		Initial																
Atmos Energy Corporation	ATO		(\$65.65)	\$0.00	\$1.56	\$1.84	\$2.07	\$2.24	\$2.54	\$2.85	\$3.19	\$3.55	\$3.92	\$4.30	\$4.70	\$4.94	\$5.21	\$5.48	\$186.04
Laclede Group, Inc (The)	LG		(\$81.14)	\$0.00	\$1.41	\$1.67	\$1.84	\$1.97	\$2.26	\$2.57	\$2.90	\$3.24	\$3.58	\$3.94	\$4.29	\$4.62	\$4.76	\$5.01	\$169.95
New Jersey Resources Corporation	NJR		(\$34.36)	\$0.00	\$1.22	\$1.43	\$1.44	\$1.47	\$1.64	\$1.82	\$2.01	\$2.22	\$2.43	\$2.67	\$2.91	\$3.06	\$3.23	\$3.40	\$116.27
Northwest Natural Gas Company	NWN		(\$51.25)	\$0.00	\$1.90	\$2.23	\$2.03	\$1.94	\$2.09	\$2.25	\$2.41	\$2.58	\$2.76	\$2.93	\$3.11	\$3.28	\$3.45	\$3.64	\$123.39
South Jersey Industries, Inc	SJI		(\$24.21)	\$0.00	\$1.10	\$1.28	\$1.28	\$1.30	\$1.42	\$1.55	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.38	\$2.51	\$2.64	\$89.69
Southwest Gas Corporation	SWX		(\$57.43)	\$0.00	\$1.69	\$1.99	\$1.97	\$1.99	\$2.28	\$2.60	\$2.94	\$3.31	\$3.69	\$4.10	\$4.52	\$4.77	\$5.02	\$5.28	\$179.27
WGL Holdings Inc	WGL		(\$64.08)	\$0.00	\$1.66	\$1.95	\$2.09	\$2.21	\$2.45	\$2.71	\$2.99	\$3.27	\$3.57	\$3.87	\$4.18	\$4.40	\$4.64	\$4.89	\$165.72

90 Day Average Stock Price

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]					
		Stock			EPS Growth Rate Estimates			Long-Term		Payout Ratio		Iterative Solution		Terminal						
						Value	Retention													
Company	Ticker	Price	Zacks	First Call	Line	Growth	Average	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio					
Atmos Energy Corporation	ATO	\$62.83	6.60%	8.40%	7.00%	8.21%	7.05%	5.31%	51.00%	51.00%	67.67%	\$0.00	10.26%	21.12	3.98					
Laclede Group, Inc (The)	LG	\$58.86	4.60%	4.78%	10.00%	4.90%	6.12%	5.31%	56.00%	52.00%	67.67%	\$0.00	8.20%	21.12	3.98					
New Jersey Resources Corporation	NJR	\$31.87	6.50%	6.50%	4.00%	5.81%	5.70%	5.31%	56.00%	51.00%	67.67%	\$0.00	12.65%	21.12	3.98					
Northwest Natural Gas Company	NWN	\$49.19	4.00%	4.00%	7.00%	3.73%	4.68%	5.31%	87.00%	64.00%	67.67%	\$0.00	8.57%	21.12	3.98					
South Jersey Industries, Inc	SJI	\$24.38	NA	6.00%	7.00%	6.56%	6.52%	5.31%	69.00%	59.00%	67.67%	\$0.00	13.37%	21.12	3.98					
Southwest Gas Corporation	SWX	\$57.11	5.00%	4.00%	7.00%	7.53%	5.88%	5.31%	55.00%	46.00%	67.67%	\$0.00	10.46%	21.12	3.98					
WGL Holdings, Inc	WGL	\$62.07	7.30%	8.00%	5.50%	5.11%	6.48%	5.31%	60.00%	56.00%	67.67%	\$0.00	9.26%	21.12	3.98					
												Mean	10.40%							
												Max	13.37%							
												Min	8.20%							
Projected Annual Earnings per Share		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]		
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO	\$2.98	\$3.17	\$3.39	\$3.63	\$3.89	\$4.16	\$4.46	\$4.76	\$5.06	\$5.38	\$5.69	\$6.01	\$6.33	\$6.67	\$7.02	\$7.40	\$7.79		
Laclede Group, Inc (The)	LG	\$2.35	\$2.49	\$2.65	\$2.81	\$2.98	\$3.16	\$3.36	\$3.56	\$3.77	\$3.98	\$4.20	\$4.43	\$4.67	\$4.92	\$5.18	\$5.45	\$5.74		
New Jersey Resources Corporation	NJR	\$2.10	\$2.22	\$2.35	\$2.48	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.63	\$3.83	\$4.03	\$4.25	\$4.47	\$4.71	\$4.96		
Northwest Natural Gas Company	NWN	\$2.16	\$2.26	\$2.37	\$2.48	\$2.59	\$2.72	\$2.84	\$2.98	\$3.12	\$3.28	\$3.45	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70		
South Jersey Industries, Inc	SJI	\$1.57	\$1.67	\$1.78	\$1.90	\$2.02	\$2.15	\$2.29	\$2.44	\$2.59	\$2.74	\$2.93	\$3.06	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96		
Southwest Gas Corporation	SWX	\$3.01	\$3.19	\$3.37	\$3.57	\$3.78	\$4.01	\$4.24	\$4.49	\$4.74	\$5.01	\$5.28	\$5.57	\$5.86	\$6.18	\$6.50	\$6.85	\$7.21		
WGL Holdings, Inc	WGL	\$2.68	\$2.85	\$3.04	\$3.24	\$3.44	\$3.67	\$3.91	\$4.15	\$4.40	\$4.66	\$4.93	\$5.20	\$5.48	\$5.77	\$6.07	\$6.40	\$6.74		
Projected Annual Dividend Payout Ratio				[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]		
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO			51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Laclede Group, Inc (The)	LG			56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
New Jersey Resources Corporation	NJR			58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Northwest Natural Gas Company	NWN			87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%		
South Jersey Industries, Inc	SJI			69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
Southwest Gas Corporation	SWX			55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.39%	61.49%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%		
WGL Holdings, Inc	WGL			60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%		
Projected Annual Cash Flows				[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	
Atmos Energy Corporation	ATO			\$1.73	\$1.85	\$1.98	\$2.12	\$2.38	\$2.65	\$2.94	\$3.25	\$3.58	\$3.93	\$4.29	\$4.51	\$4.75	\$5.01	\$5.27	\$164.5	
Laclede Group, Inc (The)	LG			\$1.48	\$1.64	\$1.69	\$1.64	\$1.82	\$2.01	\$2.21	\$2.43	\$2.68	\$2.90	\$3.16	\$3.33	\$3.50	\$3.69	\$3.89	\$121.3	
New Jersey Resources Corporation	NJR			\$1.36	\$1.38	\$1.40	\$1.41	\$1.68	\$1.73	\$1.80	\$2.09	\$2.29	\$2.50	\$2.73	\$2.87	\$3.03	\$3.19	\$3.36	\$104.8	
Northwest Natural Gas Company	NWN			\$2.06	\$1.97	\$1.86	\$1.74	\$1.83	\$1.94	\$2.05	\$2.17	\$2.30	\$2.44	\$2.59	\$2.72	\$2.87	\$3.02	\$3.18	\$99.3	
South Jersey Industries, Inc	SJI			\$1.23	\$1.25	\$1.26	\$1.27	\$1.38	\$1.50	\$1.62	\$1.75	\$1.89	\$2.03	\$2.18	\$2.29	\$2.42	\$2.54	\$2.66	\$83.6	
Southwest Gas Corporation	SWX			\$1.86	\$1.86	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.18	\$4.40	\$4.64	\$4.88	\$152.4	
WGL Holdings, Inc	WGL			\$1.82	\$1.90	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$3.90	\$4.11	\$4.33	\$4.56	\$142.3	
Projected Annual Data Investor Cash Flows				[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker			Initial Outflow	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
Atmos Energy Corporation	ATO			(\$62.53)	\$0.00	\$1.53	\$1.79	\$1.98	\$2.12	\$2.38	\$2.65	\$2.94	\$3.25	\$3.58	\$3.93	\$4.29	\$4.51	\$4.75	\$5.01	\$169.78
Laclede Group, Inc (The)	LG			(\$58.86)	\$0.00	\$1.31	\$1.53	\$1.69	\$1.64	\$1.82	\$2.01	\$2.21	\$2.43	\$2.68	\$2.90	\$3.16	\$3.33	\$3.50	\$3.69	\$125.14
New Jersey Resources Corporation	NJR			(\$31.87)	\$0.00	\$1.20	\$1.40	\$1.40	\$1.41	\$1.56	\$1.73	\$1.90	\$2.09	\$2.29	\$2.50	\$2.73	\$2.87	\$3.03	\$3.19	\$108.13
Northwest Natural Gas Company	NWN			(\$49.19)	\$0.00	\$1.82	\$2.11	\$1.86	\$1.74	\$1.83	\$1.94	\$2.05	\$2.17	\$2.30	\$2.44	\$2.59	\$2.72	\$2.87	\$3.02	\$102.43
South Jersey Industries, Inc	SJI			(\$24.38)	\$0.00	\$1.06	\$1.27	\$1.26	\$1.27	\$1.38	\$1.50	\$1.62	\$1.75	\$1.89	\$2.03	\$2.18	\$2.29	\$2.42	\$2.54	\$96.32
Southwest Gas Corporation	SWX			(\$57.11)	\$0.00	\$1.64	\$1.91	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.18	\$4.40	\$4.64	\$157.23
WGL Holdings, Inc	WGL			(\$62.07)	\$0.00	\$1.81	\$1.88	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$3.90	\$4.11	\$4.33	\$146.83

Projected Annual Data		Investor Cash Flows																
		[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
	Initial																	
Company	Ticker	Outflow	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
Atmos Energy Corporation	ATO	(\$62.93)	\$0.00	\$1.93	\$1.79	\$1.98	\$2.12	\$2.82	\$2.65	\$2.94	\$3.26	\$3.58	\$3.93	\$4.29	\$4.61	\$4.75	\$5.01	\$169.78
Laclede Group Inc (The)	LG	(\$58.86)	\$0.00	\$1.31	\$1.53	\$1.59	\$1.64	\$1.82	\$2.01	\$2.21	\$2.43	\$2.68	\$2.93	\$3.19	\$3.45	\$3.68	\$3.91	\$126.10
New Jersey Resources Corporation	NJR	(\$51.97)	\$0.00	\$1.20	\$1.40	\$1.41	\$1.50	\$1.73	\$1.90	\$2.09	\$2.25	\$2.50	\$2.73	\$2.87	\$3.03	\$3.19	\$138.93	
NextEra Natural Gas Company	NGL	(\$49.19)	\$0.00	\$1.62	\$2.11	\$1.86	\$1.74	\$1.83	\$1.94	\$2.05	\$2.17	\$2.30	\$2.44	\$2.59	\$2.72	\$2.87	\$3.02	\$102.43
South Jersey Industries, Inc	SJI	(\$24.38)	\$0.00	\$1.09	\$1.27	\$1.26	\$1.27	\$1.38	\$1.50	\$1.62	\$1.75	\$1.89	\$2.03	\$2.18	\$2.29	\$2.42	\$4.54	\$96.32
Southwest Gas Corporation	SWX	(\$57.11)	\$0.00	\$1.64	\$1.91	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.18	\$4.40	\$4.64	\$157.23
WGL Holdings Inc	WGL	(\$62.07)	\$0.00	\$1.81	\$1.88	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$3.90	\$4.11	\$4.33	\$146.83



Multi-Stage Growth Discounted Cash Flow Model - Setting Terminal P/E at 21 12  
90 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]					
		Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio		Iterative Solution		Terminal							
			Value	Retention	Low															
Company	Ticker	Price	Zacks	First Call	Line	Growth	Growth	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio					
Atmos Energy Corporation	ATO	\$62.93	6.60%	6.40%	7.00%	8.21%	6.40%	5.31%	51.00%	51.00%	67.67%	\$0.00	9.82%	21.12	3.98					
Laclede Group, Inc. (The)	LG	\$58.86	4.80%	4.78%	10.00%	4.90%	4.78%	5.31%	56.00%	52.00%	67.67%	\$0.00	7.30%	21.12	3.98					
New Jersey Resources Corporation	NJR	\$31.87	6.50%	6.50%	4.00%	5.81%	4.00%	5.31%	58.00%	51.00%	67.67%	\$0.00	11.42%	21.12	3.98					
Northwest Natural Gas Company	NWN	\$49.19	4.00%	4.00%	7.00%	3.73%	3.73%	5.31%	87.00%	64.00%	67.67%	\$0.00	7.91%	21.12	3.98					
South Jersey Industries, Inc	SJI	\$24.38	NA	6.00%	7.00%	6.56%	6.00%	5.31%	69.00%	59.00%	67.67%	\$0.00	12.99%	21.12	3.98					
Southwest Gas Corporation	SWX	\$57.11	5.00%	4.00%	7.00%	7.53%	4.00%	5.31%	55.00%	46.00%	67.67%	\$0.00	9.16%	21.12	3.98					
WGL Holdings, Inc	WGL	\$62.07	7.30%	8.00%	5.50%	5.11%	5.11%	5.31%	60.00%	58.00%	67.67%	\$0.00	8.32%	21.12	3.98					
												Mean	9.56%							
												Max	12.99%							
												Min	7.30%							
Projected Annual Earnings per Share																				
		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]		
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO	\$2.96	\$3.15	\$3.35	\$3.57	\$3.79	\$4.04	\$4.29	\$4.58	\$4.84	\$5.12	\$5.41	\$5.71	\$6.01	\$6.33	\$6.67	\$7.02	\$7.39		
Laclede Group, Inc. (The)	LG	\$2.35	\$2.46	\$2.58	\$2.70	\$2.83	\$2.97	\$3.11	\$3.26	\$3.42	\$3.60	\$3.78	\$3.96	\$4.19	\$4.41	\$4.65	\$4.89	\$5.15		
New Jersey Resources Corporation	NJR	\$2.10	\$2.18	\$2.27	\$2.36	\$2.46	\$2.55	\$2.66	\$2.77	\$2.89	\$3.03	\$3.17	\$3.34	\$3.51	\$3.70	\$3.90	\$4.10	\$4.32		
Northwest Natural Gas Company	NWN	\$2.16	\$2.24	\$2.32	\$2.41	\$2.50	\$2.59	\$2.69	\$2.80	\$2.92	\$3.05	\$3.20	\$3.36	\$3.54	\$3.72	\$3.92	\$4.13	\$4.35		
South Jersey Industries Inc	SJI	\$1.57	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.23	\$2.36	\$2.49	\$2.64	\$2.78	\$2.93	\$3.09	\$3.25	\$3.42	\$3.61	\$3.80		
Southwest Gas Corporation	SWX	\$3.01	\$3.13	\$3.26	\$3.39	\$3.52	\$3.66	\$3.81	\$3.97	\$4.15	\$4.34	\$4.55	\$4.78	\$5.04	\$5.30	\$5.59	\$5.88	\$6.19		
WGL Holdings, Inc	WGL	\$2.68	\$2.82	\$2.96	\$3.11	\$3.27	\$3.44	\$3.61	\$3.80	\$4.00	\$4.20	\$4.42	\$4.66	\$4.91	\$5.17	\$5.44	\$5.73	\$6.03		
Projected Annual Dividend Payout Ratio																				
				[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]		
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO			51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Laclede Group, Inc. (The)	LG			56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
New Jersey Resources Corporation	NJR			58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Northwest Natural Gas Company	NWN			87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%		
South Jersey Industries, Inc	SJI			69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
Southwest Gas Corporation	SWX			55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%		
WGL Holdings, Inc	WGL			60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%		
Projected Annual Cash Flows																				
				[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	Terminal Value
Company	Ticker			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO			\$1.71	\$1.82	\$1.93	\$2.06	\$2.29	\$2.54	\$2.81	\$3.10	\$3.40	\$3.73	\$4.07	\$4.42	\$4.81	\$5.20	\$5.60	\$156.2	
Laclede Group, Inc. (The)	LG			\$1.44	\$1.48	\$1.51	\$1.54	\$1.69	\$1.84	\$2.01	\$2.19	\$2.39	\$2.60	\$2.83	\$3.09	\$3.34	\$3.61	\$3.89	\$108.8	
New Jersey Resources Corporation	NJR			\$1.32	\$1.31	\$1.31	\$1.30	\$1.42	\$1.54	\$1.68	\$1.83	\$2.00	\$2.18	\$2.38	\$2.50	\$2.64	\$2.78	\$2.92	\$91.3	
Northwest Natural Gas Company	NWN			\$2.02	\$1.91	\$1.79	\$1.66	\$1.74	\$1.82	\$1.91	\$2.02	\$2.13	\$2.25	\$2.39	\$2.52	\$2.65	\$2.80	\$2.94	\$91.9	
South Jersey Industries, Inc	SJI			\$1.22	\$1.23	\$1.24	\$1.24	\$1.34	\$1.45	\$1.56	\$1.69	\$1.81	\$1.95	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$80.2	
Southwest Gas Corporation	SWX			\$1.79	\$1.76	\$1.73	\$1.68	\$1.87	\$2.07	\$2.29	\$2.53	\$2.80	\$3.09	\$3.41	\$3.79	\$4.19	\$4.60	\$5.02	\$130.8	
WGL Holdings, Inc	WGL			\$1.78	\$1.83	\$1.88	\$1.93	\$2.08	\$2.25	\$2.44	\$2.63	\$2.85	\$3.07	\$3.32	\$3.50	\$3.68	\$3.86	\$4.06	\$127.4	
Projected Annual Data Investor Cash Flows																				
				[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker			Initial	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
Atmos Energy Corporation	ATO			(\$62.93)	\$0.00	\$1.51	\$1.76	\$1.93	\$2.06	\$2.29	\$2.54	\$2.81	\$3.10	\$3.40	\$3.73	\$4.07	\$4.42	\$4.81	\$5.20	\$161.18
Laclede Group, Inc. (The)	LG			(\$58.86)	\$0.00	\$1.28	\$1.48	\$1.51	\$1.54	\$1.69	\$1.84	\$2.01	\$2.19	\$2.39	\$2.60	\$2.83	\$3.09	\$3.34	\$3.61	\$112.32
New Jersey Resources Corporation	NJR			(\$31.87)	\$0.00	\$1.17	\$1.34	\$1.31	\$1.30	\$1.42	\$1.54	\$1.68	\$1.83	\$2.00	\$2.18	\$2.38	\$2.50	\$2.64	\$2.78	\$94.20
Northwest Natural Gas Company	NWN			(\$49.19)	\$0.00	\$1.79	\$2.06	\$1.79	\$1.66	\$1.74	\$1.82	\$1.91	\$2.02	\$2.13	\$2.25	\$2.39	\$2.52	\$2.65	\$2.80	\$94.81
South Jersey Industries, Inc	SJI			(\$24.38)	\$0.00	\$1.08	\$1.25	\$1.24	\$1.24	\$1.34	\$1.45	\$1.56	\$1.69	\$1.81	\$1.95	\$2.09	\$2.20	\$2.32	\$2.44	\$82.80
Southwest Gas Corporation	SWX			(\$57.11)	\$0.00	\$1.58	\$1.83	\$1.73	\$1.68	\$1.87	\$2.07	\$2.29	\$2.53	\$2.80	\$3.09	\$3.41	\$3.79	\$4.19	\$4.60	\$135.02
WGL Holdings, Inc	WGL			(\$62.07)	\$0.00	\$1.57	\$1.82	\$1.88	\$1.93	\$2.08	\$2.25	\$2.44	\$2.63	\$2.85	\$3.07	\$3.32	\$3.50	\$3.68	\$3.86	\$131.52

Multi-Stage Growth Discounted Cash Flow Model - Setting Terminal P/E at 21 12  
90 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]			
		Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio		Iterative Solution		Terminal					
Company	Ticker	Price	Zacks	First Call	Value Line	Retention Growth	High Growth	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio			
Atmos Energy Corporation	ATO	\$62.93	6.60%	6.40%	7.00%	8.21%	8.21%	5.31%	51.00%	51.00%	67.67%	\$0.00	11.05%	21.12	3.98			
Laclede Group, Inc. (The)	LG	\$58.86	4.80%	4.78%	10.00%	4.90%	10.00%	5.31%	56.00%	52.00%	67.67%	\$0.00	10.80%	21.12	3.98			
New Jersey Resources Corporation	NJR	\$31.87	6.50%	6.50%	4.00%	5.81%	6.50%	5.31%	58.00%	51.00%	67.67%	\$0.00	13.23%	21.12	3.98			
Northwest Natural Gas Company	NWN	\$49.19	4.00%	4.00%	7.00%	3.73%	7.00%	5.31%	87.00%	64.00%	67.67%	\$0.00	10.19%	21.12	3.98			
South Jersey Industries Inc	SJI	\$24.38	NA	6.00%	7.00%	6.66%	7.00%	5.31%	69.00%	59.00%	67.67%	\$0.00	13.73%	21.12	3.98			
Southwest Gas Corporation	SWX	\$57.11	5.00%	4.00%	7.00%	7.53%	7.53%	5.31%	55.00%	46.00%	67.67%	\$0.00	11.60%	21.12	3.98			
WGL Holdings, Inc	WGL	\$62.07	7.30%	8.00%	5.50%	5.11%	8.00%	5.31%	60.00%	56.00%	67.67%	\$0.00	10.30%	21.12	3.98			
												Mean	11.56%					
												Max	13.73%					
												Min	10.19%					
Projected Annual Earnings per Share																		
		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Atmos Energy Corporation	ATO	\$2.96	\$3.20	\$3.47	\$3.75	\$4.08	\$4.39	\$4.75	\$5.12	\$5.49	\$5.86	\$6.23	\$6.59	\$6.94	\$7.31	\$7.70	\$8.10	\$8.54
Laclede Group, Inc. (The)	LG	\$2.35	\$2.59	\$2.84	\$3.13	\$3.44	\$3.78	\$4.16	\$4.55	\$4.93	\$5.31	\$5.67	\$6.02	\$6.34	\$6.68	\$7.03	\$7.40	\$7.80
New Jersey Resources Corporation	NJR	\$2.10	\$2.24	\$2.38	\$2.54	\$2.70	\$2.88	\$3.06	\$3.26	\$3.46	\$3.66	\$3.87	\$4.08	\$4.30	\$4.53	\$4.77	\$5.02	\$5.29
Northwest Natural Gas Company	NWN	\$2.16	\$2.31	\$2.47	\$2.65	\$2.83	\$3.03	\$3.24	\$3.46	\$3.68	\$3.91	\$4.14	\$4.37	\$4.60	\$4.85	\$5.10	\$5.38	\$5.66
South Jersey Industries, Inc	SJI	\$1.57	\$1.68	\$1.80	\$1.92	\$2.08	\$2.20	\$2.36	\$2.51	\$2.68	\$2.84	\$3.01	\$3.18	\$3.35	\$3.52	\$3.71	\$3.91	\$4.11
Southwest Gas Corporation	SWX	\$3.01	\$3.24	\$3.48	\$3.74	\$4.02	\$4.33	\$4.65	\$4.98	\$5.32	\$5.66	\$6.01	\$6.35	\$6.69	\$7.04	\$7.42	\$7.81	\$8.22
WGL Holdings, Inc	WGL	\$2.68	\$2.89	\$3.13	\$3.38	\$3.65	\$3.94	\$4.25	\$4.57	\$4.90	\$5.23	\$5.55	\$5.87	\$6.18	\$6.51	\$6.86	\$7.22	\$7.60
Projected Annual Dividend Payout Ratio																		
		[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]		
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Atmos Energy Corporation	ATO	51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Laclede Group, Inc. (The)	LG	56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.96%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
New Jersey Resources Corporation	NJR	58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%		
Northwest Natural Gas Company	NWN	87.00%	79.33%	71.67%	64.00%	64.62%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%		
South Jersey Industries, Inc	SJI	69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%		
Southwest Gas Corporation	SWX	55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%		
WGL Holdings, Inc	WGL	60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%		
Projected Annual Cash Flows																		
		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value	
Atmos Energy Corporation	ATO	\$1.77	\$1.91	\$2.07	\$2.24	\$2.54	\$2.85	\$3.19	\$3.55	\$3.92	\$4.30	\$4.70	\$5.21	\$5.48	\$5.76	\$6.03	\$180.3	
Laclede Group, Inc. (The)	LG	\$1.59	\$1.71	\$1.84	\$1.97	\$2.26	\$2.57	\$2.90	\$3.24	\$3.58	\$3.94	\$4.29	\$4.52	\$4.76	\$5.01	\$5.28	\$164.7	
New Jersey Resources Corporation	NJR	\$1.38	\$1.41	\$1.44	\$1.47	\$1.64	\$1.82	\$2.01	\$2.22	\$2.43	\$2.67	\$2.91	\$3.06	\$3.23	\$3.40	\$3.58	\$111.7	
Northwest Natural Gas Company	NWN	\$2.15	\$2.10	\$2.03	\$1.94	\$2.09	\$2.25	\$2.41	\$2.58	\$2.76	\$2.93	\$3.11	\$3.28	\$3.45	\$3.64	\$3.83	\$119.6	
South Jersey Industries, Inc	SJI	\$1.24	\$1.26	\$1.28	\$1.30	\$1.42	\$1.55	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.38	\$2.51	\$2.64	\$2.78	\$86.9	
Southwest Gas Corporation	SWX	\$1.91	\$1.95	\$1.97	\$1.99	\$2.28	\$2.60	\$2.94	\$3.31	\$3.69	\$4.10	\$4.52	\$4.77	\$5.02	\$5.28	\$5.57	\$173.7	
WGL Holdings, Inc	WGL	\$1.88	\$1.98	\$2.09	\$2.21	\$2.45	\$2.71	\$2.99	\$3.27	\$3.57	\$3.87	\$4.18	\$4.40	\$4.64	\$4.89	\$5.14	\$160.6	
Projected Annual Data Investor Cash Flows																		
		[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker	Initial	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
Atmos Energy Corporation	ATO	(\$62.93)	\$0.00	\$1.56	\$1.84	\$2.07	\$2.24	\$2.54	\$2.85	\$3.19	\$3.55	\$3.92	\$4.30	\$4.70	\$5.21	\$5.48	\$5.76	\$180.3
Laclede Group, Inc. (The)	LG	(\$58.86)	\$0.00	\$1.41	\$1.67	\$1.84	\$1.97	\$2.26	\$2.57	\$2.90	\$3.24	\$3.58	\$3.94	\$4.29	\$4.52	\$4.76	\$5.01	\$169.95
New Jersey Resources Corporation	NJR	(\$31.87)	\$0.00	\$1.22	\$1.43	\$1.44	\$1.47	\$1.64	\$1.82	\$2.01	\$2.22	\$2.43	\$2.67	\$2.91	\$3.06	\$3.23	\$3.40	\$115.27
Northwest Natural Gas Company	NWN	(\$49.19)	\$0.00	\$1.90	\$2.23	\$2.03	\$1.94	\$2.09	\$2.25	\$2.41	\$2.58	\$2.76	\$2.93	\$3.11	\$3.28	\$3.45	\$3.64	\$123.39
South Jersey Industries, Inc	SJI	(\$24.38)	\$0.00	\$1.10	\$1.28	\$1.28	\$1.30	\$1.42	\$1.55	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.38	\$2.51	\$2.64	\$89.69
Southwest Gas Corporation	SWX	(\$57.11)	\$0.00	\$1.69	\$1.99	\$1.97	\$1.99	\$2.28	\$2.60	\$2.94	\$3.31	\$3.69	\$4.10	\$4.52	\$4.77	\$5.02	\$5.28	\$175.27
WGL Holdings, Inc	WGL	(\$62.07)	\$0.00	\$1.66	\$1.95	\$2.09	\$2.21	\$2.45	\$2.71	\$2.99	\$3.27	\$3.57	\$3.87	\$4.18	\$4.40	\$4.64	\$4.89	\$165.72

Multi-Stage Growth Discounted Cash Flow Model - Setting Terminal P/E at 21.12  
180 Day Average Stock Price  
Average EPS Growth Rate Estimate in First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]				
		Stock	EPS Growth Rate Estimates				Long Term		Payout Ratio			Iterative Solution		Terminal Terminal					
					Value	Growth	Retent on												
Company	Ticker	Price	Zacks	First Call	Line	Average	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio					
Almos Energy Corporation	ATO	\$58.64	6.60%	6.40%	7.00%	8.21%	7.05%	5.31%	51.00%	51.00%	67.67%	\$0.00	10.92%	21.12	3.98				
Laclede Group Inc (The)	LG	\$55.96	4.80%	4.78%	10.00%	4.90%	6.12%	5.31%	56.00%	52.00%	67.67%	\$0.00	8.65%	21.12	3.98				
New Jersey Resources Corporation	NJR	\$30.17	6.50%	6.50%	4.00%	5.81%	5.70%	5.31%	58.00%	51.00%	67.67%	\$0.00	13.20%	21.12	3.98				
Northwest Natural Gas Company	NWN	\$46.50	4.00%	4.00%	7.00%	3.73%	4.68%	5.31%	87.00%	64.00%	67.67%	\$0.00	9.11%	21.12	3.98				
South Jersey Industries Inc	SJI	\$24.55	NA	6.00%	7.00%	6.58%	6.52%	5.31%	69.00%	59.00%	67.67%	\$0.00	13.30%	21.12	3.98				
Southwest Gas Corporation	SWX	\$56.04	5.00%	4.00%	7.00%	7.53%	5.88%	5.31%	55.00%	46.00%	67.67%	\$0.00	10.64%	21.12	3.98				
WGL Holdings, Inc	WGL	\$58.67	7.30%	8.00%	5.50%	5.11%	5.48%	5.31%	60.00%	58.00%	67.67%	\$0.00	9.78%	21.12	3.98				
													Mean	10.80%					
													Max	13.30%					
													Min	8.65%					
Projected Annual Earnings per Share																			
		[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]	
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Almos Energy Corporation	ATO	\$2.98	\$3.17	\$3.39	\$3.63	\$3.89	\$4.16	\$4.46	\$4.76	\$5.06	\$5.38	\$5.69	\$6.01	\$6.33	\$6.67	\$7.02	\$7.40	\$7.79	
Laclede Group Inc (The)	LG	\$2.35	\$2.49	\$2.65	\$2.81	\$2.98	\$3.16	\$3.36	\$3.56	\$3.77	\$3.98	\$4.20	\$4.43	\$4.67	\$4.92	\$5.18	\$5.45	\$5.74	
New Jersey Resources Corporation	NJR	\$2.10	\$2.22	\$2.35	\$2.48	\$2.62	\$2.77	\$2.93	\$3.09	\$3.27	\$3.45	\$3.63	\$3.83	\$4.03	\$4.25	\$4.47	\$4.71	\$4.96	
Northwest Natural Gas Company	NWN	\$2.16	\$2.26	\$2.37	\$2.48	\$2.59	\$2.72	\$2.84	\$2.98	\$3.12	\$3.28	\$3.45	\$3.63	\$3.82	\$4.02	\$4.24	\$4.46	\$4.70	
South Jersey Industries Inc	SJI	\$1.57	\$1.67	\$1.78	\$1.90	\$2.02	\$2.15	\$2.29	\$2.44	\$2.59	\$2.74	\$2.90	\$3.06	\$3.22	\$3.39	\$3.57	\$3.76	\$3.96	
Southwest Gas Corporation	SWX	\$3.01	\$3.19	\$3.37	\$3.57	\$3.78	\$4.01	\$4.24	\$4.49	\$4.74	\$5.01	\$5.28	\$5.57	\$5.85	\$6.18	\$6.50	\$6.85	\$7.21	
WGL Holdings, Inc	WGL	\$2.68	\$2.85	\$3.04	\$3.24	\$3.44	\$3.67	\$3.91	\$4.15	\$4.40	\$4.65	\$4.93	\$5.20	\$5.48	\$5.77	\$6.07	\$6.40	\$6.74	
Projected Annual Dividend Payout Ratio																			
		[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]			
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030			
Almos Energy Corporation	ATO	51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%			
Laclede Group Inc (The)	LG	56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%			
New Jersey Resources Corporation	NJR	58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%			
Northwest Natural Gas Company	NWN	87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%			
South Jersey Industries Inc	SJI	69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%			
Southwest Gas Corporation	SWX	55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%			
WGL Holdings, Inc	WGL	60.00%	56.67%	53.33%	50.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%			
Projected Annual Cash Flows																			
		[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]		
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value		
Almos Energy Corporation	ATO	\$1.73	\$1.85	\$1.98	\$2.12	\$2.28	\$2.45	\$2.64	\$2.84	\$3.05	\$3.28	\$3.53	\$3.79	\$4.06	\$4.35	\$4.65	\$5.27		
Laclede Group Inc (The)	LG	\$1.48	\$1.54	\$1.59	\$1.64	\$1.69	\$1.74	\$1.79	\$1.84	\$1.89	\$1.94	\$1.99	\$2.04	\$2.09	\$2.14	\$2.19	\$2.24		
New Jersey Resources Corporation	NJR	\$1.36	\$1.38	\$1.40	\$1.41	\$1.42	\$1.43	\$1.44	\$1.45	\$1.46	\$1.47	\$1.48	\$1.49	\$1.50	\$1.51	\$1.52	\$1.53		
Northwest Natural Gas Company	NWN	\$2.06	\$1.97	\$1.88	\$1.74	\$1.63	\$1.54	\$1.45	\$1.36	\$1.27	\$1.18	\$1.09	\$1.00	\$0.91	\$0.82	\$0.73	\$0.64		
South Jersey Industries Inc	SJI	\$1.23	\$1.25	\$1.26	\$1.27	\$1.28	\$1.29	\$1.30	\$1.31	\$1.32	\$1.33	\$1.34	\$1.35	\$1.36	\$1.37	\$1.38	\$1.39		
Southwest Gas Corporation	SWX	\$1.86	\$1.86	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.38	\$4.80	\$5.23	\$5.66	\$6.10		
WGL Holdings, Inc	WGL	\$1.82	\$1.90	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$4.00	\$4.31	\$4.63	\$4.96	\$5.30		
Projected Annual Data Investor Cash Flows																			
		[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	
Company	Ticker	Initial	Outflow	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30
Almos Energy Corporation	ATO	(\$58.64)	\$0.00	\$0.00	\$1.63	\$1.79	\$1.98	\$2.12	\$2.28	\$2.45	\$2.64	\$2.84	\$3.05	\$3.28	\$3.53	\$3.79	\$4.06	\$4.35	\$4.65
Laclede Group Inc (The)	LG	(\$55.96)	\$0.00	\$0.00	\$1.31	\$1.53	\$1.59	\$1.64	\$1.69	\$1.74	\$1.79	\$1.84	\$1.89	\$1.94	\$1.99	\$2.04	\$2.09	\$2.14	\$2.19
New Jersey Resources Corporation	NJR	(\$30.17)	\$0.00	\$0.00	\$1.20	\$1.40	\$1.40	\$1.41	\$1.42	\$1.43	\$1.44	\$1.45	\$1.46	\$1.47	\$1.48	\$1.49	\$1.50	\$1.51	\$1.52
Northwest Natural Gas Company	NWN	(\$46.50)	\$0.00	\$0.00	\$1.82	\$2.11	\$1.88	\$1.74	\$1.63	\$1.54	\$1.45	\$1.36	\$1.27	\$1.18	\$1.09	\$1.00	\$0.91	\$0.82	\$0.73
South Jersey Industries Inc	SJI	(\$24.55)	\$0.00	\$0.00	\$1.09	\$1.27	\$1.26	\$1.27	\$1.28	\$1.29	\$1.30	\$1.31	\$1.32	\$1.33	\$1.34	\$1.35	\$1.36	\$1.37	\$1.38
Southwest Gas Corporation	SWX	(\$56.04)	\$0.00	\$0.00	\$1.64	\$1.91	\$1.85	\$1.84	\$2.08	\$2.34	\$2.62	\$2.92	\$3.25	\$3.60	\$3.97	\$4.38	\$4.80	\$5.23	\$5.66
WGL Holdings Inc	WGL	(\$58.67)	\$0.00	\$0.00	\$1.61	\$1.88	\$1.97	\$2.05	\$2.25	\$2.46	\$2.69	\$2.92	\$3.17	\$3.43	\$3.71	\$4.00	\$4.31	\$4.63	\$4.96

Multi-Stage Growth Discounted Cash Flow Model - Setting Terminal P/E at 21.12  
180 Day Average Stock Price  
Low EPS Growth Rate Estimate in First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]				
		Stock	EPS Growth Rate Estimates				Value	Long-Term		Payout Ratio		Iterative Solution		Terminal	Terminal				
Company	Ticker	Price	Zacks	First Call	Line	Retention	Low Growth	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio				
Atmos Energy Corporation	ATO	\$58.64	6.60%	6.40%	7.00%	8.21%	6.40%	5.31%	51.00%	51.00%	67.67%	\$0.00	10.47%	21.12	3.98				
Laclede Group Inc (The)	LG	\$55.96	4.80%	4.78%	10.00%	4.90%	4.78%	5.31%	56.00%	52.00%	67.67%	\$0.00	7.75%	21.12	3.98				
New Jersey Resources Corporation	NJR	\$30.17	6.50%	6.50%	4.00%	5.81%	4.00%	5.31%	58.00%	51.00%	67.67%	\$0.00	11.96%	21.12	3.98				
Northwest Natural Gas Company	NWN	\$46.50	4.00%	4.00%	7.00%	3.73%	3.73%	5.31%	87.00%	64.00%	67.67%	\$0.00	8.44%	21.12	3.98				
South Jersey Industries Inc	SJI	\$24.55	NA	6.00%	7.00%	6.58%	6.00%	5.31%	69.00%	59.00%	67.67%	\$0.00	12.92%	21.12	3.98				
Southwest Gas Corporation	SWX	\$56.04	5.00%	4.00%	7.00%	7.53%	4.00%	5.31%	55.00%	46.00%	67.67%	\$0.00	9.33%	21.12	3.98				
WGL Holdings, Inc	WGL	\$58.67	7.30%	8.00%	5.50%	5.11%	5.11%	5.31%	60.00%	56.00%	67.67%	\$0.00	8.84%	21.12	3.98				
												Mean	9.98%						
												Max	12.92%						
												Min	7.75%						
Projected Annual Earnings per Share																			
Company	Ticker	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]	
Atmos Energy Corporation	ATO	\$2.96	\$3.15	\$3.35	\$3.67	\$3.79	\$4.04	\$4.29	\$4.56	\$4.84	\$5.12	\$5.41	\$5.71	\$6.01	\$6.33	\$6.67	\$7.02	\$7.39	
Laclede Group Inc (The)	LG	\$2.35	\$2.46	\$2.58	\$2.70	\$2.83	\$2.97	\$3.11	\$3.26	\$3.42	\$3.60	\$3.78	\$3.98	\$4.19	\$4.41	\$4.65	\$4.89	\$5.15	
New Jersey Resources Corporation	NJR	\$2.10	\$2.18	\$2.27	\$2.36	\$2.46	\$2.55	\$2.66	\$2.77	\$2.89	\$3.03	\$3.17	\$3.34	\$3.51	\$3.70	\$3.90	\$4.10	\$4.32	
Northwest Natural Gas Company	NWN	\$2.16	\$2.24	\$2.32	\$2.41	\$2.50	\$2.59	\$2.69	\$2.80	\$2.92	\$3.05	\$3.20	\$3.36	\$3.54	\$3.72	\$3.92	\$4.13	\$4.35	
South Jersey Industries, Inc	SJI	\$1.57	\$1.66	\$1.76	\$1.87	\$1.98	\$2.10	\$2.23	\$2.36	\$2.49	\$2.64	\$2.78	\$2.93	\$3.09	\$3.25	\$3.42	\$3.61	\$3.80	
Southwest Gas Corporation	SWX	\$3.01	\$3.13	\$3.25	\$3.39	\$3.52	\$3.66	\$3.81	\$3.97	\$4.15	\$4.34	\$4.55	\$4.78	\$5.04	\$5.30	\$5.59	\$5.88	\$6.19	
WGL Holdings, Inc	WGL	\$2.68	\$2.82	\$2.96	\$3.11	\$3.27	\$3.44	\$3.61	\$3.80	\$4.00	\$4.20	\$4.42	\$4.66	\$4.91	\$5.17	\$5.44	\$5.73	\$6.03	
Projected Annual Dividend Payout Ratio																			
Company	Ticker	[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]			
Atmos Energy Corporat on	ATO	51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%			
Laclede Group Inc (The)	LG	56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%			
New Jersey Resources Corporation	NJR	58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%			
Northwest Natural Gas Company	NWN	87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%			
South Jersey Industries Inc	SJI	69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%			
Southwest Gas Corporation	SWX	55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%			
WGL Holdings, Inc	WGL	60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%			
Projected Annual Cash Flows																			
Company	Ticker	[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]		
Atmos Energy Corporation	ATO	\$1.71	\$1.82	\$1.93	\$2.06	\$2.29	\$2.54	\$2.81	\$3.10	\$3.40	\$3.73	\$4.07	\$4.28	\$4.51	\$4.75	\$5.00	\$156.2		
Laclede Group Inc (The)	LG	\$1.44	\$1.48	\$1.51	\$1.54	\$1.69	\$1.84	\$2.01	\$2.19	\$2.39	\$2.60	\$2.83	\$2.99	\$3.14	\$3.31	\$3.49	\$108.8		
New Jersey Resources Corporation	NJR	\$1.32	\$1.31	\$1.31	\$1.30	\$1.42	\$1.54	\$1.68	\$1.83	\$2.00	\$2.18	\$2.38	\$2.50	\$2.64	\$2.78	\$2.92	\$91.3		
Northwest Natural Gas Company	NWN	\$2.02	\$1.91	\$1.79	\$1.66	\$1.74	\$1.82	\$1.91	\$2.02	\$2.13	\$2.25	\$2.39	\$2.52	\$2.65	\$2.80	\$2.94	\$91.9		
South Jersey Industries Inc	SJI	\$1.22	\$1.23	\$1.24	\$1.24	\$1.34	\$1.45	\$1.56	\$1.69	\$1.81	\$1.95	\$2.09	\$2.20	\$2.32	\$2.44	\$2.57	\$80.2		
Southwest Gas Corporation	SWX	\$1.79	\$1.76	\$1.73	\$1.68	\$1.87	\$2.07	\$2.29	\$2.53	\$2.80	\$3.09	\$3.41	\$3.69	\$3.78	\$3.98	\$4.19	\$130.8		
WGL Holdings, Inc	WGL	\$1.78	\$1.83	\$1.88	\$1.93	\$2.08	\$2.25	\$2.44	\$2.63	\$2.85	\$3.07	\$3.32	\$3.50	\$3.68	\$3.88	\$4.08	\$127.4		
Projected Annual Data Investor Cash Flows																			
Company	Ticker	Initial Outflow	[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Atmos Energy Corporation	ATO	(\$58.64)	\$0.00	\$1.51	\$1.76	\$1.93	\$2.06	\$2.29	\$2.54	\$2.81	\$3.10	\$3.40	\$3.73	\$4.07	\$4.28	\$4.51	\$4.75	\$161.18	\$181.18
Laclede Group Inc (The)	LG	(\$55.96)	\$0.00	\$1.28	\$1.46	\$1.51	\$1.54	\$1.69	\$1.84	\$2.01	\$2.19	\$2.39	\$2.60	\$2.83	\$2.99	\$3.14	\$3.31	\$112.32	\$122.32
New Jersey Resources Corporation	NJR	(\$30.17)	\$0.00	\$1.17	\$1.34	\$1.31	\$1.30	\$1.42	\$1.54	\$1.68	\$1.83	\$2.00	\$2.18	\$2.38	\$2.50	\$2.64	\$2.78	\$94.20	\$104.20
Northwest Natural Gas Company	NWN	(\$46.50)	\$0.00	\$1.79	\$2.06	\$1.79	\$1.66	\$1.74	\$1.82	\$1.91	\$2.02	\$2.13	\$2.25	\$2.39	\$2.52	\$2.65	\$2.80	\$94.81	\$104.81
South Jersey Industries Inc	SJI	(\$24.55)	\$0.00	\$1.08	\$1.25	\$1.24	\$1.24	\$1.34	\$1.45	\$1.56	\$1.69	\$1.81	\$1.95	\$2.09	\$2.20	\$2.32	\$2.44	\$82.80	\$92.80
Southwest Gas Corporation	SWX	(\$56.04)	\$0.00	\$1.58	\$1.83	\$1.73	\$1.68	\$1.87	\$2.07	\$2.29	\$2.53	\$2.80	\$3.09	\$3.41	\$3.69	\$3.78	\$3.98	\$135.02	\$145.02
WGL Holdings, Inc	WGL	(\$58.67)	\$0.00	\$1.57	\$1.82	\$1.88	\$1.93	\$2.08	\$2.25	\$2.44	\$2.63	\$2.85	\$3.07	\$3.32	\$3.50	\$3.68	\$3.88	\$131.52	\$141.52

Multi-Stage Growth Discounted Cash Flow Model - Setting Terminal P/E at 21.12  
180 Day Average Stock Price  
High EPS Growth Rate Estimate in First Stage

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]				
		Stock	EPS Growth Rate Estimates				Long-Term		Payout Ratio			Iterative Solution		Terminal	Terminal				
			Value	Retention	High														
Company	Ticker	Price	Zacks	First Call	Line	Growth	Growth	Growth	2016	2019	2025	Proof	IRR	P/E Ratio	PEG Ratio				
Atmos Energy Corporation	ATO	\$58.64	6.60%	6.40%	7.00%	8.21%	8.21%	5.31%	51.00%	51.00%	67.67%	\$0.00	11.73%	21.12	3.98				
Laclede Group, Inc (The)	LG	\$55.96	4.80%	4.78%	10.00%	4.90%	10.00%	5.31%	58.00%	52.00%	67.67%	\$0.00	11.28%	21.12	3.98				
New Jersey Resources Corporation	NJR	\$30.17	6.50%	6.50%	4.00%	5.81%	6.50%	5.31%	58.00%	51.00%	67.67%	\$0.00	13.79%	21.12	3.98				
Northwest Natural Gas Company	NWN	\$46.50	4.00%	4.00%	7.00%	3.73%	7.00%	5.31%	87.00%	64.00%	67.67%	\$0.00	10.74%	21.12	3.98				
South Jersey Industries, Inc	SJI	\$24.55	NA	6.00%	7.00%	6.56%	7.00%	5.31%	69.00%	59.00%	67.67%	\$0.00	13.65%	21.12	3.98				
Southwest Gas Corporation	SWX	\$58.04	5.00%	4.00%	7.00%	7.53%	7.53%	5.31%	55.00%	46.00%	67.67%	\$0.00	11.78%	21.12	3.98				
WGL Holdings, Inc	WGL	\$58.67	7.30%	8.00%	5.50%	5.11%	8.00%	5.31%	60.00%	56.00%	67.67%	\$0.00	10.83%	21.12	3.98				
												Mean	11.97%						
												Max	13.79%						
												Min	10.74%						
Projected Annual Earnings per Share																			
			[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]
Company	Ticker	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Atmos Energy Corporation	ATO	\$2.96	\$3.20	\$3.47	\$3.75	\$4.06	\$4.39	\$4.75	\$5.12	\$5.49	\$5.86	\$6.23	\$6.59	\$6.94	\$7.31	\$7.70	\$8.10	\$8.54	
Laclede Group, Inc (The)	LG	\$2.35	\$2.59	\$2.84	\$3.13	\$3.44	\$3.78	\$4.16	\$4.55	\$4.93	\$5.31	\$5.67	\$6.02	\$6.34	\$6.68	\$7.03	\$7.40	\$7.80	
New Jersey Resources Corporation	NJR	\$2.10	\$2.24	\$2.38	\$2.54	\$2.70	\$2.88	\$3.06	\$3.26	\$3.46	\$3.66	\$3.87	\$4.08	\$4.30	\$4.53	\$4.77	\$5.02	\$5.29	
Northwest Natural Gas Company	NWN	\$2.16	\$2.31	\$2.47	\$2.65	\$2.83	\$3.03	\$3.24	\$3.46	\$3.68	\$3.91	\$4.14	\$4.37	\$4.60	\$4.85	\$5.10	\$5.38	\$5.66	
South Jersey Industries, Inc	SJI	\$1.57	\$1.68	\$1.80	\$1.92	\$2.06	\$2.20	\$2.36	\$2.51	\$2.68	\$2.84	\$3.01	\$3.18	\$3.35	\$3.52	\$3.71	\$3.91	\$4.11	
Southwest Gas Corporation	SWX	\$3.01	\$3.24	\$3.48	\$3.74	\$4.02	\$4.33	\$4.65	\$4.98	\$5.32	\$5.66	\$6.01	\$6.35	\$6.69	\$7.04	\$7.42	\$7.81	\$8.22	
WGL Holdings, Inc	WGL	\$2.69	\$2.89	\$3.13	\$3.38	\$3.65	\$3.94	\$4.25	\$4.57	\$4.90	\$5.23	\$5.55	\$5.87	\$6.18	\$6.51	\$6.86	\$7.22	\$7.60	
Projected Annual Dividend Payout Ratio																			
				[32]	[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]	
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030			
Atmos Energy Corporation	ATO	51.00%	51.00%	51.00%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%			
Laclede Group, Inc (The)	LG	56.00%	54.67%	53.33%	52.00%	54.24%	56.48%	58.72%	60.95%	63.19%	65.43%	67.67%	67.67%	67.67%	67.67%	67.67%			
New Jersey Resources Corporation	NJR	58.00%	55.67%	53.33%	51.00%	53.38%	55.76%	58.14%	60.53%	62.91%	65.29%	67.67%	67.67%	67.67%	67.67%	67.67%			
Northwest Natural Gas Company	NWN	87.00%	79.33%	71.67%	64.00%	64.52%	65.05%	65.57%	66.10%	66.62%	67.15%	67.67%	67.67%	67.67%	67.67%	67.67%			
South Jersey Industries Inc	SJI	69.00%	65.67%	62.33%	59.00%	60.24%	61.48%	62.72%	63.95%	65.19%	66.43%	67.67%	67.67%	67.67%	67.67%	67.67%			
Southwest Gas Corporation	SWX	55.00%	52.00%	49.00%	46.00%	49.10%	52.19%	55.29%	58.38%	61.48%	64.57%	67.67%	67.67%	67.67%	67.67%	67.67%			
WGL Holdings, Inc	WGL	60.00%	58.67%	57.33%	56.00%	57.67%	59.33%	61.00%	62.67%	64.34%	66.00%	67.67%	67.67%	67.67%	67.67%	67.67%			
Projected Annual Cash Flows																			
			[47]	[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	
Company	Ticker	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Terminal Value		
Atmos Energy Corporation	ATO	(\$58.64)	\$0.00	\$1.56	\$1.84	\$2.07	\$2.24	\$2.54	\$2.85	\$3.19	\$3.55	\$3.92	\$4.30	\$4.70	\$5.09	\$5.48	\$5.78	\$180.3	
Laclede Group, Inc (The)	LG	(\$55.96)	\$0.00	\$1.41	\$1.67	\$1.84	\$1.97	\$2.26	\$2.57	\$2.90	\$3.24	\$3.58	\$3.94	\$4.29	\$4.62	\$4.96	\$5.30	\$164.7	
New Jersey Resources Corporation	NJR	(\$30.17)	\$0.00	\$1.22	\$1.43	\$1.44	\$1.47	\$1.64	\$1.82	\$2.01	\$2.22	\$2.43	\$2.67	\$2.91	\$3.06	\$3.23	\$3.40	\$58.8	
Northwest Natural Gas Company	NWN	(\$46.50)	\$0.00	\$1.90	\$2.23	\$2.03	\$1.94	\$2.09	\$2.25	\$2.41	\$2.58	\$2.76	\$2.93	\$3.11	\$3.28	\$3.45	\$3.64	\$119.6	
South Jersey Industries Inc	SJI	(\$24.55)	\$0.00	\$1.10	\$1.28	\$1.28	\$1.30	\$1.42	\$1.55	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.38	\$2.51	\$2.64	\$88.9	
Southwest Gas Corporation	SWX	(\$56.04)	\$0.00	\$1.69	\$1.99	\$1.97	\$1.99	\$2.28	\$2.60	\$2.94	\$3.31	\$3.69	\$4.10	\$4.52	\$4.77	\$5.02	\$5.28	\$173.7	
WGL Holdings, Inc	WGL	(\$58.67)	\$0.00	\$1.66	\$1.95	\$2.09	\$2.21	\$2.45	\$2.71	\$2.99	\$3.27	\$3.57	\$3.87	\$4.18	\$4.40	\$4.64	\$4.89	\$150.6	
Projected Annual Data Investor Cash Flows																			
			[63]	[64]	[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]
Company	Ticker	Initial	2/12/16	12/31/16	6/30/17	6/30/18	6/30/19	6/30/20	6/30/21	6/30/22	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	
Atmos Energy Corporation	ATO	(\$58.64)	\$0.00	\$1.56	\$1.84	\$2.07	\$2.24	\$2.54	\$2.85	\$3.19	\$3.55	\$3.92	\$4.30	\$4.70	\$5.09	\$5.48	\$5.78	\$180.4	
Laclede Group, Inc (The)	LG	(\$55.96)	\$0.00	\$1.41	\$1.67	\$1.84	\$1.97	\$2.26	\$2.57	\$2.90	\$3.24	\$3.58	\$3.94	\$4.29	\$4.62	\$4.96	\$5.30	\$169.95	
New Jersey Resources Corporation	NJR	(\$30.17)	\$0.00	\$1.22	\$1.43	\$1.44	\$1.47	\$1.64	\$1.82	\$2.01	\$2.22	\$2.43	\$2.67	\$2.91	\$3.06	\$3.23	\$3.40	\$115.27	
Northwest Natural Gas Company	NWN	(\$46.50)	\$0.00	\$1.90	\$2.23	\$2.03	\$1.94	\$2.09	\$2.25	\$2.41	\$2.58	\$2.76	\$2.93	\$3.11	\$3.28	\$3.45	\$3.64	\$123.39	
South Jersey Industries, Inc	SJI	(\$24.55)	\$0.00	\$1.10	\$1.28	\$1.28	\$1.30	\$1.42	\$1.55	\$1.68	\$1.82	\$1.96	\$2.11	\$2.26	\$2.38	\$2.51	\$2.64	\$89.69	
Southwest Gas Corporation	SWX	(\$56.04)	\$0.00	\$1.69	\$1.99	\$1.97	\$1.99	\$2.28	\$2.60	\$2.94	\$3.31	\$3.69	\$4.10	\$4.52	\$4.77	\$5.02	\$5.28	\$179.27	
WGL Holdings, Inc	WGL	(\$58.67)	\$0.00	\$1.66	\$1.95	\$2.09	\$2.21	\$2.45	\$2.71	\$2.99	\$3.27	\$3.57	\$3.87	\$4.18	\$4.40	\$4.64	\$4.89	\$165.72	

Multi-Stage DCF Notes

- 
- [1] Source Bloomberg, based on 30-, 90-, and 180-day historical average as of February 12, 2016
  - [2] Source Zacks
  - [3] Source Yahoo! Finance
  - [4] Source Value Line
  - [5] Source Exhibit RBH-2, Value Line
  - [6] Equals indicated value (average, minimum, maximum) from Columns [2], [3], [4], [5]
  - [7] Source Federal Reserve, Bureau of Economic Analysis
  - [8] Source Value Line
  - [9] Source Value Line
  - [10] Source Bloomberg Professional
  - [11] Equals Column [1] + Column [65]
  - [12] Equals result of Excel Solver function, goal Column [11] equals \$0.00
  - [13] Source SNL Financial Equals 21, 12, 30-day Average PE for the Proxy Group as of February 12, 2016
  - [14] Equals Column [13] / (Column [7] x 100)
  - [15] Source Value Line
  - [16] Equals Column [15] x (1 + Column [6])
  - [17] Equals Column [16] x (1 + Column [6])
  - [18] Equals Column [17] x (1 + Column [6])
  - [19] Equals Column [18] x (1 + Column [6])
  - [20] Equals Column [19] x (1 + Column [6])
  - [21] Equals Column [20] x (1 + Column [6])
  - [22] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2025 - 2020 + 1)) x (2021 - 2019)))) x Column [21]
  - [23] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2025 - 2020 + 1)) x (2022 - 2019)))) x Column [22]
  - [24] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2025 - 2020 + 1)) x (2023 - 2019)))) x Column [23]
  - [25] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2025 - 2020 + 1)) x (2024 - 2019)))) x Column [24]
  - [26] Equals (1 + (Column [6] + (((Column [7] - Column [6]) / (2025 - 2020 + 1)) x (2024 - 2019)))) x Column [25]
  - [27] Equals Column [26] x (1 + Column [7])
  - [28] Equals Column [27] x (1 + Column [7])
  - [29] Equals Column [28] x (1 + Column [7])
  - [30] Equals Column [29] x (1 + Column [7])
  - [31] Equals Column [30] x (1 + Column [7])
  - [32] Equals Column [8]
  - [33] Equals Column [32] + ((Column [35] - Column [32]) / 3)
  - [34] Equals Column [33] + ((Column [35] - Column [32]) / 3)
  - [35] Equals Column [9]
  - [36] Equals Column [35] + ((Column [42] - Column [35]) / 7)
  - [37] Equals Column [36] + ((Column [42] - Column [35]) / 7)
  - [38] Equals Column [37] + ((Column [42] - Column [35]) / 7)
  - [39] Equals Column [38] + ((Column [42] - Column [35]) / 6)
  - [40] Equals Column [39] + ((Column [42] - Column [35]) / 6)
  - [41] Equals Column [40] + ((Column [42] - Column [35]) / 7)
  - [42] Equals Column [10]
  - [43] Equals Column [10]
  - [44] Equals Column [10]
  - [45] Equals Column [10]
  - [46] Equals Column [10]
  - [47] Equals Column [17] x Column [32]
  - [48] Equals Column [18] x Column [33]
  - [49] Equals Column [19] x Column [34]
  - [50] Equals Column [20] x Column [35]
  - [51] Equals Column [21] x Column [36]
  - [52] Equals Column [22] x Column [37]
  - [53] Equals Column [23] x Column [38]
  - [54] Equals Column [24] x Column [39]
  - [55] Equals Column [25] x Column [40]
  - [56] Equals Column [26] x Column [41]
  - [57] Equals Column [27] x Column [42]
  - [58] Equals Column [28] x Column [43]
  - [59] Equals Column [29] x Column [44]
  - [60] Equals Column [30] x Column [45]
  - [61] Equals Column [31] x Column [46]
  - [62] Equals (Column [13] x Column [31])
  - [63] Equals negative net present value, discount rate equals Column [12], cash flows equal Column [64] through Column [79]
  - [64] Equals \$0.00
  - [65] Equals Column [47] x (12/31/2016 - 2/12/2016) / 365
  - [66] Equals Column [47] x (1 + (0.5 x Column [6]))
  - [67] Equals Column [49]
  - [68] Equals Column [50]
  - [69] Equals Column [51]
  - [70] Equals Column [52]
  - [71] Equals Column [53]
  - [72] Equals Column [54]
  - [73] Equals Column [55]
  - [74] Equals Column [56]
  - [75] Equals Column [57]
  - [76] Equals Column [58]
  - [77] Equals Column [59]
  - [78] Equals Column [60]
  - [79] Equals Column [61] + [62]

Ex-Ante Market Risk Premium  
Market DCF Method Based - Bloomberg

[1]	[2]	[3]
S&P 500	Current 30-Year	
Est Required	Treasury (30-	Implied Market
Market Return	day average)	Risk Premium
13.45%	2.79%	10.66%

		[4]	[5]	[6]	[7]	[8]	[9]
Company	Ticker	Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
AGILENT TECHNOLOGIES INC	A	11,871.79	0.07%	1.31%	9.60%	10.97%	0.0076%
ALCOA INC	AA	10,075.13	0.06%	1.56%	9.77%	11.40%	0.0067%
AMERICAN AIRLINES GROUP INC	AAL	23,838.91	0.14%	1.15%	9.17%	10.37%	0.0144%
ADVANCE AUTO PARTS INC	AAP	10,309.52	0.06%	0.17%	11.80%	11.98%	0.0072%
APPLE INC	AAPL	521,135.36	3.04%	2.30%	14.40%	16.87%	0.5125%
ABBVIE INC	ABBV	85,954.99	0.50%	4.32%	12.10%	16.68%	0.0836%
AMERISOURCEBERGEN CORP	ABC	17,589.64	0.10%	1.55%	12.50%	14.14%	0.0145%
ABBOTT LABORATORIES	ABT	55,387.55	0.32%	2.81%	11.59%	14.56%	0.0470%
ACCENTURE PLC-CL A	ACN	62,308.34	0.36%	2.31%	9.85%	12.28%	0.0446%
ADOBE SYSTEMS INC	ADBE	38,206.99	0.22%	0.00%	21.33%	21.33%	0.0475%
ANALOG DEVICES INC	ADI	15,418.66	0.09%	3.28%	11.00%	14.46%	0.0130%
ARCHER-DANIELS-MIDLAND CO	ADM	19,364.21	0.11%	3.68%	7.72%	11.54%	0.0130%
AUTOMATIC DATA PROCESSING	ADP	37,392.06	0.22%	2.51%	10.29%	12.92%	0.0282%
ALLIANCE DATA SYSTEMS CORP	ADS	11,166.91	0.07%	0.00%	14.00%	14.00%	0.0091%
AUTODESK INC	ADSK	10,121.52	0.06%	0.00%	15.83%	15.83%	0.0093%
ADT CORP/THE	ADT	4,441.92	0.03%	3.21%	6.47%	9.78%	0.0025%
AMEREN CORPORATION	AEE	10,979.22	0.06%	3.67%	6.61%	10.40%	0.0067%
AMERICAN ELECTRIC POWER	AEP	29,743.53	0.17%	3.72%	5.56%	9.38%	0.0163%
AES CORP	AES	8,170.15	0.04%	4.36%	3.95%	8.39%	0.0030%
AETNA INC	AET	34,625.91	0.20%	1.04%	11.83%	12.93%	0.0261%
AFLAC INC	AFL	24,456.39	0.14%	2.91%	8.70%	11.74%	0.0167%
ALLERGAN PLC	AGN	110,544.05	0.64%	0.00%	12.01%	12.01%	0.0774%
AMERICAN INTERNATIONAL GROUP	AIG	65,561.66	0.38%	2.38%	9.50%	11.99%	0.0459%
APARTMENT INVT & MGMT CO -A	AIV	5,639.07	0.03%	3.67%	11.91%	15.79%	0.0052%
ASSURANT INC	AIZ	4,415.83	0.03%	3.08%	7.08%	10.27%	0.0026%
AKAMAI TECHNOLOGIES INC	AKAM	9,032.18	0.05%	0.00%	16.83%	16.83%	0.0089%
ALLSTATE CORP	ALL	24,752.74	0.14%	2.00%	10.02%	12.12%	0.0175%
ALLEGION PLC	ALLE	5,514.94	0.03%	0.82%	13.72%	14.59%	0.0047%
ALEXION PHARMACEUTICALS INC	ALXN	31,790.86	0.19%	0.00%	23.90%	23.90%	0.0443%
APPLIED MATERIALS INC	AMAT	18,322.65	0.11%	2.57%	14.06%	16.81%	0.0180%
AMETEK INC	AME	10,854.58	0.06%	0.87%	8.59%	9.49%	0.0060%
AFFILIATED MANAGERS GROUP	AMG	6,723.28	0.04%	0.00%	13.06%	13.06%	0.0051%
AMGEN INC	AMGN	108,842.62	0.63%	2.77%	8.70%	11.59%	0.0736%
AMERIPRISE FINANCIAL INC	AMP	13,955.04	0.08%	3.66%	13.00%	16.89%	0.0137%
AMERICAN TOWER CORP	AMT	36,287.26	0.21%	2.10%	13.81%	16.06%	0.0340%
AMAZON COM INC	AMZN	238,754.58	1.39%	0.00%	41.88%	41.88%	0.5830%
AUTONATION INC	AN	5,163.95	0.03%	0.00%	8.74%	8.74%	0.0026%
ANTHEM INC	ANTM	31,722.56	0.18%	2.10%	9.06%	11.25%	0.0208%
AON PLC	AON	25,693.40	0.15%	1.36%	11.17%	12.60%	0.0189%
APACHE CORP	APA	13,808.86	0.08%	2.74%	0.60%	3.35%	0.0027%
ANADARKO PETROLEUM CORP	APC	19,212.88	0.11%	2.86%	2.17%	5.06%	0.0057%
AIR PRODUCTS & CHEMICALS INC	APD	28,110.02	0.16%	2.53%	6.11%	8.72%	0.0143%
AMPHENOL CORP-CL A	APH	15,271.26	0.09%	1.17%	9.27%	10.49%	0.0093%
AIRGAS INC	ARG	10,147.23	0.06%	1.70%	10.00%	11.79%	0.0070%
ACTIVISION BLIZZARD INC	ATVI	20,560.89	0.12%	0.92%	12.00%	12.98%	0.0156%
AVALONBAY COMMUNITIES INC	AVB	22,505.35	0.13%	3.28%	6.18%	9.56%	0.0126%
BROADCOM LTD	AVGO	50,052.57	0.29%	1.45%	17.86%	19.44%	0.0567%
AVERY DENNISON CORP	AVY	5,828.72	0.03%	2.46%	6.55%	9.09%	0.0031%
AMERICAN EXPRESS CO	AXP	51,830.39	0.30%	2.29%	8.57%	10.96%	0.0331%
AUTOZONE INC	AZO	22,040.58	0.13%	0.00%	12.37%	12.37%	0.0159%
BOEING CO/THE	BA	71,967.79	0.42%	3.83%	11.39%	15.43%	0.0648%
BANK OF AMERICA CORP	BAC	124,429.13	0.73%	2.27%	24.88%	27.43%	0.1980%
BAXTER INTERNATIONAL INC	BAX	20,026.32	0.12%	1.26%	10.50%	11.83%	0.0138%
BED BATH & BEYOND INC	BBBY	7,024.45	0.04%	0.00%	6.23%	6.23%	0.0026%
BB&T CORP	BBT	24,637.14	0.14%	3.60%	10.69%	14.49%	0.0208%
BEST BUY CO INC	BBY	9,637.28	0.06%	4.28%	9.60%	14.08%	0.0079%
CR BARD INC	BCR	13,545.08	0.08%	0.53%	14.08%	14.65%	0.0116%
BECTON DICKINSON AND CO	BDX	29,614.07	0.17%	1.89%	11.26%	13.26%	0.0229%
FRANKLIN RESOURCES INC	BEN	19,154.32	0.11%	2.30%	3.99%	6.33%	0.0071%
BROWN-FORMAN CORP-CLASS B	BF/B	20,369.85	0.12%	1.38%	8.28%	9.71%	0.0115%
BAKER HUGHES INC	BHI	17,399.86	0.10%	1.66%	-4.10%	-2.48%	-0.0025%
BIOGEN INC	BIIB	54,060.27	0.32%	0.00%	9.61%	9.61%	0.0303%
BANK OF NEW YORK MELLON CORP	BK	36,974.59	0.22%	2.19%	9.95%	12.25%	0.0264%
BLACKROCK INC	BLK	50,967.95	0.30%	2.99%	11.53%	14.69%	0.0437%
BALL CORP	BLL	9,237.50	0.05%	0.67%	8.27%	8.96%	0.0048%
BRISTOL-MYERS SQUIBB CO	BMJ	100,501.44	0.59%	2.56%	19.53%	22.33%	0.1309%
BERKSHIRE HATHAWAY INC-CL B	BRK/B	317,235.55	1.85%	0.00%	6.05%	6.05%	0.1119%
BOSTON SCIENTIFIC CORP	BSX	22,384.05	0.13%	0.00%	10.51%	10.51%	0.0137%
BORGWARNER INC	BWA	6,939.59	0.04%	1.70%	9.45%	11.23%	0.0045%
BAXALTA INC	BXLT	26,268.05	N/A	0.72%	N/A	N/A	N/A
BOSTON PROPERTIES INC	BXP	16,679.92	0.10%	2.84%	6.51%	9.43%	0.0092%
CITIGROUP INC	C	111,831.30	0.65%	1.11%	14.48%	15.67%	0.1022%
CA INC	CA	11,544.33	0.07%	3.62%	8.50%	12.27%	0.0083%

Company	Ticker	[4]	[5]	[6]	[7]	[8]	[9]
		Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
CONAGRA FOODS INC	CAG	18,059.79	0.11%	2.41%	8.17%	10.68%	0.0112%
CARDINAL HEALTH INC	CAH	25,967.59	0.15%	1.81%	11.70%	13.61%	0.0206%
CAMERON INTERNATIONAL CORP	CAM	12,331.31	0.07%	0.00%	5.05%	5.05%	0.0036%
CATERPILLAR INC	CAT	36,768.06	0.21%	4.92%	9.00%	14.14%	0.0303%
CHUBB LTD	CB	52,712.10	0.31%	2.45%	10.00%	12.57%	0.0386%
CBRE GROUP INC - A	CBG	8,133.61	0.05%	0.00%	12.50%	12.50%	0.0059%
CBS CORP-CLASS B NON VOTING	CBS	20,024.82	0.12%	1.55%	14.36%	16.02%	0.0187%
COCA-COLA ENTERPRISES	CCE	10,955.43	0.06%	2.37%	6.55%	9.00%	0.0057%
CROWN CASTLE INTL CORP	CCI	27,746.44	0.16%	4.32%	15.50%	20.16%	0.0326%
CARNIVAL CORP	CCL	34,730.93	0.20%	2.80%	17.70%	20.74%	0.0420%
CELGENE CORP	CELG	80,081.53	0.47%	0.00%	21.32%	21.32%	0.0996%
CERNER CORP	CERN	18,781.55	0.11%	0.00%	17.28%	17.28%	0.0189%
CF INDUSTRIES HOLDINGS INC	CF	6,992.26	0.04%	4.00%	20.00%	24.40%	0.0099%
CITIZENS FINANCIAL GROUP	CFG	9,967.06	0.06%	2.55%	10.00%	12.67%	0.0074%
CHURCH & DWIGHT CO INC	CHD	11,614.87	0.07%	1.61%	9.11%	10.79%	0.0073%
CHESAPEAKE ENERGY CORP	CHK	1,057.46	0.01%	12.96%	0.62%	13.61%	0.0008%
C H ROBINSON WORLDWIDE INC	CHRW	10,076.72	0.06%	2.41%	9.68%	12.21%	0.0072%
CIGNA CORP	CI	33,565.27	0.20%	0.03%	11.21%	11.25%	0.0220%
CINCINNATI FINANCIAL CORP	CINF	10,121.13	N/A	0.00%	N/A	N/A	N/A
COLGATE-PALMOLIVE CO	CL	58,927.78	0.34%	2.43%	8.25%	10.78%	0.0370%
CLOROX COMPANY	CLX	16,509.49	0.10%	2.43%	6.57%	9.08%	0.0087%
COMERICA INC	CMA	5,818.11	0.03%	2.65%	8.60%	11.36%	0.0039%
COMCAST CORP-CLASS A	CMCSA	138,679.38	0.81%	1.96%	12.62%	14.71%	0.1189%
CME GROUP INC	CME	30,830.25	0.18%	5.71%	12.79%	18.86%	0.0339%
CHIPOTLE MEXICAN GRILL INC	CMG	14,438.37	0.08%	0.00%	17.57%	17.57%	0.0148%
CUMMINS INC	CMI	16,910.86	0.10%	4.18%	4.45%	8.73%	0.0086%
CMS ENERGY CORP	CMS	10,893.65	0.06%	3.16%	6.31%	9.58%	0.0061%
CENTERPOINT ENERGY INC	CNP	7,731.81	0.05%	5.51%	5.33%	10.99%	0.0050%
CONSOL ENERGY INC	CNX	1,784.33	0.01%	0.51%	20.55%	21.12%	0.0022%
CAPITAL ONE FINANCIAL CORP	COF	33,274.11	0.19%	2.71%	6.55%	9.34%	0.0181%
CABOT OIL & GAS CORP	COG	8,174.02	0.05%	0.41%	36.06%	36.54%	0.0174%
COACH INC	COH	9,588.85	0.06%	3.91%	10.17%	14.28%	0.0080%
ROCKWELL COLLINS INC	COL	10,615.09	0.06%	1.63%	8.89%	10.59%	0.0066%
CONOCOPHILLIPS	COP	40,619.72	0.24%	3.04%	6.00%	9.13%	0.0216%
COSTCO WHOLESALE CORP	COST	65,372.89	0.38%	1.12%	9.55%	10.73%	0.0409%
CAMPBELL SOUP CO	CPB	18,056.18	0.11%	2.33%	3.85%	6.22%	0.0066%
COLUMBIA PIPELINE GROUP	CPGX	6,334.81	N/A	2.13%	N/A	N/A	N/A
SALESFORCE COM INC	CRM	39,627.52	0.23%	0.00%	29.70%	29.70%	0.0686%
CISCO SYSTEMS INC	CSCO	127,460.35	0.74%	3.74%	7.56%	11.44%	0.0850%
CSRA INC	CSRA	4,177.43	0.02%	41.55%	10.00%	53.63%	0.0131%
CSX CORP	CSX	23,298.60	0.14%	3.10%	5.96%	9.15%	0.0124%
CINTAS CORP	CTAS	8,975.91	0.05%	1.25%	12.18%	13.51%	0.0071%
CENTURYLINK INC	CTL	15,707.01	0.09%	7.55%	-0.95%	6.57%	0.0060%
COGNIZANT TECH SOLUTIONS-A	CTSH	32,756.67	0.19%	0.00%	15.87%	15.87%	0.0303%
CITRIX SYSTEMS INC	CTXS	9,892.45	0.06%	0.00%	19.98%	19.98%	0.0115%
CABLEVISION SYSTEMS-NY GRP-A	CVC	8,974.02	0.05%	1.57%	8.25%	9.89%	0.0052%
CVS HEALTH CORP	CVS	105,301.33	0.61%	1.75%	14.17%	16.04%	0.0985%
CHEVRON CORP	CVX	160,782.40	0.94%	5.06%	-3.58%	1.39%	0.0131%
DOMINION RESOURCES INC/A	D	41,042.30	0.24%	4.03%	6.56%	10.72%	0.0256%
DELTA AIR LINES INC	DAL	33,468.09	0.20%	1.40%	23.70%	25.27%	0.0493%
DU PONT (E I) DE NEMOURS	DD	50,906.17	0.30%	2.69%	8.30%	11.10%	0.0330%
DEERE & CO	DE	24,750.86	0.14%	3.13%	5.52%	8.73%	0.0126%
DISCOVER FINANCIAL SERVICES	DFS	19,031.58	0.11%	2.69%	7.28%	10.07%	0.0112%
DOLLAR GENERAL CORP	DG	20,499.25	0.12%	1.25%	12.95%	14.27%	0.0171%
QUEST DIAGNOSTICS INC	DGX	8,873.35	0.05%	2.53%	8.78%	11.42%	0.0059%
DR HORTON INC	DHI	8,952.10	0.05%	1.32%	14.06%	15.47%	0.0081%
DANAHER CORP	DHR	58,194.43	0.34%	0.68%	12.15%	12.87%	0.0437%
WALT DISNEY CO/THE	DIS	148,717.62	0.87%	1.60%	10.15%	11.83%	0.1026%
DISCOVERY COMMUNICATIONS-A	DISCA	16,077.25	0.09%	0.00%	15.17%	15.17%	0.0142%
DELPHI AUTOMOTIVE PLC	DLPH	16,996.16	0.10%	1.88%	10.54%	12.52%	0.0124%
DOLLAR TREE INC	DLTR	17,663.70	0.10%	0.00%	20.67%	20.67%	0.0213%
DUN & BRADSTREET CORP	DNB	3,448.90	0.02%	1.98%	7.35%	9.40%	0.0019%
DIAMOND OFFSHORE DRILLING	DO	2,320.73	0.01%	0.92%	14.27%	15.25%	0.0021%
DOVER CORP	DOV	9,175.01	0.05%	2.92%	10.68%	13.75%	0.0074%
DOW CHEMICAL CO/THE	DOW	51,398.34	0.30%	3.97%	6.00%	10.09%	0.0302%
DR PEPPER SNAPPLE GROUP INC	DPS	17,372.40	0.10%	2.09%	7.70%	9.86%	0.0100%
DARDEN RESTAURANTS INC	DRI	7,523.63	0.04%	3.49%	12.39%	16.09%	0.0071%
DTE ENERGY COMPANY	DTE	15,025.70	0.09%	3.55%	5.29%	8.93%	0.0078%
DUKE ENERGY CORP	DUK	52,478.61	0.31%	4.29%	4.41%	8.79%	0.0269%
DAVITA HEALTHCARE PARTNERS I	DVA	13,200.16	0.08%	0.00%	11.15%	11.15%	0.0086%
DEVON ENERGY CORP	DVN	8,914.59	0.05%	4.43%	5.40%	9.94%	0.0052%
ELECTRONIC ARTS INC	EA	18,326.59	0.11%	0.00%	11.70%	11.70%	0.0125%
EBAY INC	EBAY	26,509.08	0.15%	0.00%	7.25%	7.25%	0.0112%
ECOLAB INC	ECL	31,488.21	0.18%	1.22%	13.22%	14.52%	0.0267%
CONSOLIDATED EDISON INC	ED	20,734.56	0.12%	3.68%	2.99%	6.72%	0.0081%
EQUIFAX INC	EFX	11,547.82	0.07%	1.35%	9.37%	10.78%	0.0073%
EDISON INTERNATIONAL	EIX	20,122.10	0.12%	2.73%	5.10%	7.90%	0.0093%
ESTEE LAUDER COMPANIES-CL A	EL	32,548.96	0.19%	1.29%	11.69%	13.05%	0.0248%
EMC CORP/MA	EMC	46,805.69	0.27%	2.00%	10.94%	13.05%	0.0356%
EASTMAN CHEMICAL CO	EMN	9,014.53	0.05%	2.79%	5.70%	8.57%	0.0045%
EMERSON ELECTRIC CO	EMR	29,596.19	0.17%	4.15%	7.20%	11.50%	0.0198%
ENDO INTERNATIONAL PLC	ENDP	11,342.85	0.07%	0.00%	11.03%	11.03%	0.0073%
EOG RESOURCES INC	EOG	37,216.96	0.22%	0.88%	1.26%	2.14%	0.0047%
EQUINIX INC	EQIX	17,653.69	0.10%	2.37%	17.00%	19.57%	0.0201%



		[4]	[5]	[6]	[7]	[8]	[9]
Company	Ticker	Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
EQUITY RESIDENTIAL	EQR	25,968 23	0 15%	15 59%	6 26%	22 34%	0 0338%
EQT CORP	EQT	9,018 29	0 05%	3 57%	25 00%	29 01%	0 0153%
EVERSOURCE ENERGY	ES	16,972 90	0 10%	3 33%	6 67%	10 12%	0 0100%
EXPRESS SCRIPTS HOLDING CO	ESRX	45,540 43	0 27%	0 00%	13 60%	13 60%	0 0361%
ESSEX PROPERTY TRUST INC	ESS	12,912 51	0 08%	3 22%	5 84%	9 15%	0 0069%
ENSCO PLC-CL A	ESV	1,973 28	0 01%	7 16%	-4 00%	3 02%	0 0003%
E*TRADE FINANCIAL CORP	ETFC	6,196 27	0 04%	0 04%	19 10%	19 14%	0 0089%
EATON CORP PLC	ETN	25,083 76	0 15%	4 39%	8 40%	12 97%	0 0190%
ENTERGY CORP	ETR	12,565 57	0 07%	4 75%	2 76%	7 58%	0 0056%
EDWARDS LIFESCIENCES CORP	EW	17,481 11	0 10%	0 00%	16 40%	16 40%	0 0167%
EXELON CORP	EXC	28,020 91	0 16%	4 12%	6 36%	10 62%	0 0173%
EXPEDITORS INTL WASH INC	EXPD	8,519 09	0 05%	1 56%	9 16%	10 79%	0 0054%
EXPEDIA INC	EXPE	15,396 85	0 09%	0 88%	24 01%	25 00%	0 0224%
EXTRA SPACE STORAGE INC	EXR	10,048 16	0 06%	2 75%	7 06%	9 91%	0 0058%
FORD MOTOR CO	F	45,847 88	0 27%	6 08%	10 85%	17 25%	0 0461%
FASTENAL CO	FAST	12,412 90	0 07%	2 89%	13 68%	16 77%	0 0121%
FACEBOOK INC-A	FB	290,349 07	1 69%	0 00%	29 67%	29 67%	0 5023%
FREEPORT-MCMORAN INC	FCX	6,391 96	0 04%	0 74%	-38 33%	-37 73%	-0 0141%
FEDEX CORP	FDX	35,444 12	0 21%	0 78%	13 50%	14 33%	0 0286%
FIRSTENERGY CORP	FE	13,909 61	0 08%	4 38%	2 89%	7 33%	0 0059%
FS NETWORKS INC	FFIV	6,038 63	0 04%	0 00%	12 77%	12 77%	0 0045%
FIDELITY NATIONAL INFO SERV	FIS	16,243 58	0 09%	1 90%	12 75%	14 77%	0 0140%
FISERV INC	FISV	21,270 10	0 12%	0 00%	12 25%	12 25%	0 0152%
FIFTH THIRD BANCORP	FITB	11,811 70	0 07%	3 77%	4 20%	8 05%	0 0055%
FLIR SYSTEMS INC	FLIR	4,109 28	0 02%	1 57%	12 50%	14 17%	0 0034%
FLUOR CORP	FLR	6,179 97	0 04%	1 92%	5 73%	7 71%	0 0028%
FLOWSERVE CORP	FLS	5,342 08	0 03%	1 76%	7 54%	9 36%	0 0029%
FMC CORP	FMC	4,682 15	0 03%	1 90%	10 30%	12 30%	0 0034%
TWENTY-FIRST CENTURY FOX-A	FOXA	47,181 94	0 28%	1 30%	14 39%	15 78%	0 0434%
FEDERAL REALTY INVS TRUST	FRT	10,094 47	0 06%	2 68%	5 32%	8 07%	0 0047%
FIRST SOLAR INC	FSLR	6,155 12	0 04%	0 00%	1 67%	1 67%	0 0006%
FMC TECHNOLOGIES INC	FTI	5,270 91	0 03%	0 00%	-11 80%	-11 80%	-0 0036%
FRONTIER COMMUNICATIONS CORP	FTR	4,953 22	0 03%	9 91%	3 00%	13 05%	0 0038%
AGL RESOURCES INC	GAS	7,780 44	0 05%	3 28%	7 00%	10 40%	0 0047%
GENERAL DYNAMICS CORP	GD	40,507 04	0 24%	2 25%	8 93%	11 28%	0 0266%
GENERAL ELECTRIC CO	GE	266,714 27	1 56%	3 37%	8 58%	12 09%	0 1880%
GENERAL GROWTH PROPERTIES	GGP	22,556 57	0 13%	3 03%	7 49%	10 63%	0 0140%
GILEAD SCIENCES INC	GILD	128,899 16	0 75%	2 10%	3 26%	5 40%	0 0406%
GENERAL MILLS INC	GIS	33,755 41	0 20%	3 15%	7 54%	10 81%	0 0213%
CORNING INC	GLW	20,465 08	0 12%	2 88%	6 38%	9 35%	0 0112%
GENERAL MOTORS CO	GM	42,797 89	0 25%	5 40%	9 66%	15 31%	0 0382%
KEURIG GREEN MOUNTAIN INC	GMCR	13,461 91	0 08%	1 43%	15 00%	16 53%	0 0130%
GAMESTOP CORP-CLASS A	GME	2,824 01	0 02%	3 56%	11 78%	15 55%	0 0026%
ALPHABET INC-CL C	GOOG	476,820 49	2 78%	0 00%	16 54%	16 54%	0 4599%
GENUINE PARTS CO	GPC	13,246 06	N/A	2 92%	N/A	N/A	N/A
GAP INC/THE	GPS	9,537 14	0 06%	3 87%	8 01%	12 04%	0 0067%
GARMIN LTD	GRMN	6,540 15	0 04%	5 85%	5 07%	11 07%	0 0042%
GOLDMAN SACHS GROUP INC	GS	65,077 99	0 38%	1 86%	15 20%	17 20%	0 0653%
GOODYEAR TIRE & RUBBER CO	GT	7,928 49	0 05%	0 96%	7 00%	7 99%	0 0037%
VW GRAINGER INC	GWW	13,254 03	0 08%	2 34%	9 92%	12 37%	0 0096%
HALLIBURTON CO	HAL	24,986 34	0 15%	2 51%	12 46%	15 13%	0 0220%
HARMAN INTERNATIONAL	HAR	4,995 63	0 03%	2 02%	16 00%	18 18%	0 0053%
HASBRO INC	HAS	8,733 62	0 05%	2 82%	9 97%	12 92%	0 0066%
HUNTINGTON BANCSHARES INC	HBAN	6,723 81	0 04%	3 48%	6 48%	10 08%	0 0040%
HANESBRANDS INC	HBI	10,410 61	0 06%	1 64%	15 58%	17 34%	0 0105%
HCA HOLDINGS INC	HCA	26,910 14	0 16%	0 00%	10 75%	10 75%	0 0169%
WELLTOWER INC	HCN	19,251 05	0 11%	6 07%	4 43%	10 63%	0 0119%
HCP INC	HCP	12,224 86	0 07%	8 79%	2 58%	11 49%	0 0082%
HOME DEPOT INC	HD	147,479 95	0 86%	2 02%	14 07%	16 24%	0 1396%
HESS CORP	HES	12,624 83	0 07%	2 50%	-16 88%	-14 59%	-0 0107%
HARTFORD FINANCIAL SVCS GRP	HIG	16,707 99	0 10%	2 17%	9 00%	11 27%	0 0110%
HARLEY-DAVIDSON INC	HOG	7,428 82	0 04%	3 46%	11 38%	15 03%	0 0065%
HONEYWELL INTERNATIONAL INC	HON	79,609 53	0 46%	2 34%	9 19%	11 64%	0 0540%
STARWOOD HOTELS & RESORTS	HOT	10,817 34	0 06%	2 34%	8 23%	10 67%	0 0067%
HELMERICH & PAYNE	HP	5,120 78	0 03%	5 80%	10 00%	16 09%	0 0048%
HEWLETT PACKARD ENTERPRIS	HPE	21,381 04	0 12%	1 79%	4 51%	6 34%	0 0079%
HP INC	HPQ	16,265 11	0 09%	5 23%	2 58%	7 88%	0 0075%
H&R BLOCK INC	HRB	7,956 23	0 05%	2 39%	11 00%	13 52%	0 0063%
HORMEL FOODS CORP	HRL	21,930 99	0 13%	1 30%	7 15%	8 49%	0 0109%
HARRIS CORP	HRS	8,982 58	N/A	2 80%	N/A	N/A	N/A
HENRY SCHEIN INC	HSIC	13,027 97	0 08%	0 00%	10 78%	10 78%	0 0082%
HOST HOTELS & RESORTS INC	HST	10,838 23	0 06%	5 55%	5 67%	11 37%	0 0072%
HERSHEY CO/THE	HSY	19,446 36	0 11%	2 70%	8 18%	10 98%	0 0125%
HUMANA INC	HUM	23,770 67	0 14%	0 74%	12 94%	13 73%	0 0190%
INTL BUSINESS MACHINES CORP	IBM	117,422 13	0 68%	4 38%	6 75%	11 28%	0 0772%
INTERCONTINENTAL EXCHANGE INC	ICE	28,090 78	0 16%	1 44%	14 37%	15 91%	0 0261%
INTL FLAVORS & FRAGRANCES	IFF	8,566 71	0 05%	2 11%	9 10%	11 31%	0 0056%
ILLUMINA INC	ILMN	20,894 21	0 12%	0 00%	17 52%	17 52%	0 0213%
INTEL CORP	INTC	135,295 36	0 79%	3 60%	8 69%	12 44%	0 0982%
INTUIT INC	INTU	24,964 25	0 15%	1 27%	17 21%	18 59%	0 0271%
INTERNATIONAL PAPER CO	IP	14,161 61	0 08%	5 23%	6 90%	12 31%	0 0102%
INTERPUBLIC GROUP OF COS INC	IPG	8,289 50	0 05%	2 70%	6 50%	9 28%	0 0045%
INGERSOLL-RAND PLC	IR	13,181 44	0 08%	2 51%	8 78%	11 40%	0 0088%
IRON MOUNTAIN INC	IRM	5,785 59	0 03%	6 98%	7 30%	14 54%	0 0049%

Company	Ticker	[4]	[5]	[6]	[7]	[8]	[9]
		Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
INTUITIVE SURGICAL INC	ISRG	19,859.39	0.12%	0.00%	12.31%	12.31%	0.0143%
ILLINOIS TOOL WORKS	ITW	33,422.90	0.19%	2.42%	7.70%	10.22%	0.0199%
INVESCO LTD	IVZ	11,232.35	0.07%	4.29%	9.53%	14.02%	0.0092%
HUNT (JB) TRANSPRT SVCS INC	JBHT	8,529.83	0.05%	1.19%	15.60%	16.88%	0.0084%
JOHNSON CONTROLS INC	JCI	22,565.07	0.13%	3.27%	9.28%	12.70%	0.0167%
JACOBS ENGINEERING GROUP INC	JEC	4,421.14	0.03%	0.00%	8.45%	8.45%	0.0022%
JOHNSON & JOHNSON	JNJ	281,730.20	1.64%	3.05%	6.07%	9.20%	0.1512%
JUNIPER NETWORKS INC	JNPR	8,427.01	0.05%	1.88%	9.57%	11.54%	0.0057%
JPMORGAN CHASE & CO	JPM	211,628.15	1.23%	3.23%	7.70%	11.06%	0.1364%
NORDSTROM INC	JWN	8,992.98	0.05%	12.86%	7.78%	21.14%	0.0111%
KELLOGG CO	K	26,569.20	0.15%	2.77%	5.50%	8.35%	0.0129%
KEYCORP	KEY	8,674.44	0.05%	3.22%	6.44%	9.77%	0.0049%
KRAFT HEINZ CO/THE	KHC	87,271.74	0.51%	2.67%	16.75%	19.64%	0.1000%
KIMCO REALTY CORP	KIM	10,865.93	0.06%	3.91%	4.90%	8.91%	0.0056%
KLA-TENCOR CORP	KLAC	9,929.85	0.06%	3.26%	13.12%	16.59%	0.0096%
KIMBERLY-CLARK CORP	KMB	46,422.53	0.27%	2.84%	7.79%	10.74%	0.0291%
KINDER MORGAN INC	KMI	33,384.08	0.19%	3.35%	6.47%	9.92%	0.0193%
CARMAX INC	KMX	8,539.67	0.05%	0.00%	13.53%	13.53%	0.0067%
COCA-COLA CO/THE	KO	187,484.75	1.09%	3.25%	6.16%	9.51%	0.1039%
MICHAEL KORS HOLDINGS LTD	KORS	8,894.39	0.05%	0.00%	4.63%	4.63%	0.0024%
KROGER CO	KR	37,361.12	0.22%	1.07%	10.39%	11.51%	0.0251%
KOHL'S CORP	KSS	7,746.56	0.05%	4.41%	6.52%	11.07%	0.0050%
KANSAS CITY SOUTHERN	KSU	8,614.80	0.05%	1.74%	8.30%	10.11%	0.0051%
LOEWS CORP	L	12,706.73	N/A	0.74%	N/A	N/A	N/A
L BRANDS INC	LB	23,695.99	0.14%	4.95%	11.03%	16.26%	0.0225%
LEGGITT & PLATT INC	LEG	5,760.93	N/A	3.04%	N/A	N/A	N/A
LENNAR CORP-A	LEN	8,151.52	0.05%	0.40%	12.13%	12.56%	0.0060%
LABORATORY CRP OF AMER HLDGS	LH	10,425.62	0.06%	0.00%	10.26%	10.26%	0.0062%
L-3 COMMUNICATIONS HOLDINGS	LLL	9,040.46	0.05%	2.46%	5.02%	7.55%	0.0040%
LINEAR TECHNOLOGY CORP	LLTC	9,968.75	0.06%	2.97%	6.66%	9.73%	0.0057%
ELI LILLY & CO	LLY	78,972.62	0.46%	2.87%	12.87%	15.92%	0.0733%
LEGG MASON INC	LM	2,869.34	0.02%	3.01%	14.95%	18.19%	0.0030%
LOCKHEED MARTIN CORP	LMT	63,327.46	0.37%	3.26%	7.21%	10.58%	0.0391%
LINCOLN NATIONAL CORP	LNC	8,079.93	0.05%	3.07%	10.30%	13.53%	0.0064%
LOWE'S COS INC	LOW	59,362.84	0.35%	1.64%	17.02%	18.79%	0.0651%
LAM RESEARCH CORP	LRCX	10,494.94	0.06%	1.80%	8.34%	10.21%	0.0063%
LEUCADIA NATIONAL CORP	LUK	5,355.36	0.03%	1.69%	18.00%	19.84%	0.0062%
SOUTHWEST AIRLINES CO	LUV	23,123.66	0.13%	0.91%	15.07%	16.04%	0.0216%
LEVEL 3 COMMUNICATIONS INC	LVL	16,623.42	0.10%	0.00%	-1.51%	-1.51%	-0.0015%
LYONDELLBASELL INDU-CL A	LYB	34,364.47	0.20%	4.19%	4.18%	8.46%	0.0169%
MACY'S INC	M	12,338.93	0.07%	3.51%	6.60%	10.23%	0.0074%
MASTERCARD INC-CLASS A	MA	94,290.61	0.55%	0.90%	15.23%	16.20%	0.0890%
MACERICH CO/THE	MAC	11,920.49	0.07%	6.30%	5.86%	12.34%	0.0086%
MARRIOTT INTERNATIONAL -CL A	MAR	16,404.82	0.10%	1.49%	12.23%	13.81%	0.0132%
MASCO CORP	MAS	8,622.11	0.05%	1.47%	13.40%	14.97%	0.0075%
MATTEL INC	MAT	10,438.53	0.06%	5.00%	8.97%	14.19%	0.0086%
MCDONALD'S CORP	MCD	108,286.84	0.63%	3.09%	9.81%	13.06%	0.0825%
MICROCHIP TECHNOLOGY INC	MCHP	8,223.48	0.05%	3.49%	7.81%	11.44%	0.0055%
MCKESSON CORP	MCK	34,523.49	0.20%	0.69%	12.78%	13.51%	0.0272%
MOODY'S CORP	MCO	16,272.69	0.09%	1.81%	13.00%	14.93%	0.0142%
MONDELEZ INTERNATIONAL INC-A	MDLZ	60,547.28	0.35%	1.83%	11.80%	13.73%	0.0485%
MEDTRONIC PLC	MDT	103,211.83	0.60%	2.07%	8.84%	11.00%	0.0662%
METLIFE INC	MET	41,608.18	0.24%	4.38%	8.60%	13.17%	0.0320%
MCGRAW HILL FINANCIAL INC	MHFI	22,688.46	0.13%	1.69%	10.88%	12.66%	0.0167%
MOHAWK INDUSTRIES INC	MHK	11,474.17	N/A	0.00%	N/A	N/A	N/A
MEAD JOHNSON NUTRITION CO	MJN	13,146.79	0.08%	2.57%	9.15%	11.84%	0.0091%
MCCORMICK & CO-NON VGT SHRS	MKC	11,392.14	0.07%	1.92%	6.50%	8.48%	0.0056%
MARTIN MARIETTA MATERIALS	MLM	8,787.43	0.05%	1.26%	21.93%	23.33%	0.0120%
MARSH & MCLENNAN COS	MMC	29,254.03	0.17%	2.33%	11.69%	14.16%	0.0242%
3M CO	MMM	93,151.68	0.54%	2.90%	9.13%	12.15%	0.0660%
MALLINCKRODT PLC	MNK	6,977.89	0.04%	0.00%	8.44%	8.44%	0.0034%
MONSTER BEVERAGE CORP	MNST	24,987.14	0.15%	0.00%	19.38%	19.38%	0.0282%
ALTRIA GROUP INC	MO	117,581.95	0.69%	3.97%	7.64%	11.76%	0.0806%
MONSANTO CO	MON	38,324.13	0.22%	2.50%	9.74%	12.36%	0.0276%
MOSAIC CO/THE	MOS	8,076.12	0.05%	4.85%	13.40%	18.57%	0.0087%
MARATHON PETROLEUM CORP	MPC	16,911.27	0.10%	4.20%	2.34%	6.59%	0.0065%
MERCK & CO INC	MRK	136,967.42	0.80%	3.76%	7.28%	11.17%	0.0892%
MARATHON OIL CORP	MRO	5,072.68	0.03%	9.08%	7.67%	17.09%	0.0051%
MORGAN STANLEY	MS	44,707.41	0.26%	3.00%	16.32%	19.56%	0.0510%
MICROSOFT CORP	MSFT	399,419.79	2.33%	2.79%	9.60%	12.52%	0.2916%
MOTOROLA SOLUTIONS INC	MSI	10,907.98	0.06%	2.25%	9.00%	11.36%	0.0072%
M & T BANK CORP	MTB	18,831.20	0.11%	2.72%	3.75%	6.52%	0.0072%
MICRON TECHNOLOGY INC	MU	10,395.31	0.06%	0.00%	-0.14%	-0.14%	-0.0001%
MURPHY OIL CORP	MUR	2,888.30	N/A	8.30%	N/A	N/A	N/A
MYLAN NV	MYL	20,566.98	0.12%	0.00%	9.92%	9.92%	0.0119%
NAVIENT CORP	NAVI	3,307.88	N/A	7.19%	N/A	N/A	N/A
NOBLE ENERGY INC	NBL	12,297.41	0.07%	2.52%	0.92%	3.46%	0.0025%
NASDAQ INC	NDAQ	10,069.34	0.06%	1.67%	7.90%	9.63%	0.0057%
NEXTERA ENERGY INC	NEE	51,428.04	0.30%	3.11%	6.42%	9.63%	0.0289%
NEWMONT MINING CORP	NEM	13,640.65	0.08%	0.40%	1.83%	1.83%	0.0015%
NETFLIX INC	NFLX	37,414.30	0.22%	0.00%	39.63%	39.63%	0.0864%
NEWFIELD EXPLORATION CO	NFX	3,949.68	0.02%	0.00%	4.68%	4.68%	0.0011%
NISOURCE INC	NI	6,781.32	0.04%	3.90%	4.00%	7.98%	0.0032%
NIKE INC -CL B	NKE	96,091.63	0.56%	1.08%	13.98%	15.14%	0.0848%

Company	Ticker	[4]	[5]	[6]	[7]	[8]	[9]
		Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
NIELSEN HOLDINGS PLC	NLSN	17,216 30	0 10%	2 50%	12 33%	14 98%	0 0150%
NORTHROP GRUMMAN CORP	NOC	32,795 96	0 19%	1 86%	6 90%	8 83%	0 0169%
NATIONAL OILWELL VARCO INC	NOV	10,351 85	0 06%	6 67%	-11 14%	-4 84%	-0 0029%
NRG ENERGY INC	NRG	3,009 81	0 02%	6 10%	-24 70%	-19 36%	-0 0034%
NORFOLK SOUTHERN CORP	NSC	21,637 29	0 13%	3 33%	5 00%	8 42%	0 0106%
NETAPP INC	NTAP	6,399 41	0 04%	3 29%	8 87%	12 30%	0 0046%
NORTHERN TRUST CORP	NTRS	13,144 87	0 08%	2 64%	11 48%	14 28%	0 0109%
NUCOR CORP	NUE	12,794 18	0 07%	3 75%	11 63%	15 61%	0 0116%
NVIDIA CORP	NVDA	13,842 74	0 08%	1 53%	8 53%	10 13%	0 0082%
NEWELL RUBBERMAID INC	NWL	9,292 41	0 05%	2 35%	8 48%	10 93%	0 0059%
NEWS CORP - CLASS A	NWSA	6,343 33	0 04%	1 86%	11 45%	13 42%	0 0050%
REALTY INCOME CORP	O	15,152 55	0 09%	3 88%	4 41%	8 38%	0 0074%
OWENS-ILLINOIS INC	OI	2,099 21	0 01%	0 00%	9 09%	9 09%	0 0011%
ONEOK INC	OKE	4,223 22	0 02%	12 10%	8 25%	20 85%	0 0051%
OMNICOM GROUP	OMC	17,573 97	0 10%	2 87%	5 75%	8 70%	0 0089%
ORACLE CORP	ORCL	149,311 36	0 87%	1 71%	7 75%	9 53%	0 0829%
O'REILLY AUTOMOTIVE INC	ORLY	24,957 88	0 15%	0 00%	15 69%	15 69%	0 0228%
OCCIDENTAL PETROLEUM CORP	OXY	51,216 13	0 30%	4 51%	8 00%	12 69%	0 0379%
PAYCHEX INC	PAYX	17,664 71	0 10%	3 43%	9 33%	12 52%	0 0133%
PEOPLE'S UNITED FINANCIAL	PBCT	4,454 95	0 03%	4 71%	12 40%	17 40%	0 0045%
PITNEY BOWES INC	PBI	3,326 21	0 02%	4 44%	14 00%	18 75%	0 0036%
PACCAR INC	PCAR	17,672 79	0 10%	4 10%	8 60%	12 87%	0 0133%
P G & E CORP	PCG	27,077 96	0 16%	3 30%	5 75%	9 14%	0 0144%
PLUM CREEK TIMBER CO	PCL	6,269 21	0 04%	4 94%	22 48%	27 98%	0 0102%
PRICELINE GROUP INC/THE	PCLN	52,671 85	0 31%	0 00%	18 62%	18 62%	0 0572%
PATTERSON COS INC	PDCCO	4,223 79	0 02%	2 15%	9 93%	12 19%	0 0030%
PUBLIC SERVICE ENTERPRISE GP	PEG	21,194 74	0 12%	3 72%	3 76%	7 55%	0 0093%
PEPSICO INC	PEP	142,358 70	0 83%	3 01%	6 57%	9 68%	0 0804%
PFIZER INC	PFE	181,239 34	1 06%	4 07%	5 37%	9 55%	0 1009%
PRINCIPAL FINANCIAL GROUP	PFG	10,317 71	0 06%	4 56%	9 02%	13 79%	0 0063%
PROCTER & GAMBLE CO/THE	PG	219,042 76	1 28%	3 34%	7 35%	10 81%	0 1381%
PROGRESSIVE CORP	PGR	18,343 00	0 11%	2 08%	9 25%	11 43%	0 0122%
PARKER HANNIFIN CORP	PH	13,138 73	0 08%	2 59%	8 57%	11 27%	0 0086%
PULTEGROUP INC	PHM	5,589 87	0 03%	2 25%	12 20%	14 59%	0 0048%
PERKINELMER INC	PKI	4,971 00	0 03%	0 63%	11 51%	12 18%	0 0035%
PROLOGIS INC	PLD	18,902 38	0 11%	4 60%	4 11%	8 80%	0 0097%
PHILIP MORRIS INTERNATIONAL	PM	137,980 27	0 80%	4 69%	7 49%	12 35%	0 0994%
PNC FINANCIAL SERVICES GROUP	PNC	41,096 72	0 24%	2 64%	7 66%	10 40%	0 0249%
PENTAIR PLC	PNR	8,003 26	0 05%	3 02%	8 06%	11 20%	0 0052%
PINNACLE WEST CAPITAL	PNW	7,451 32	0 04%	3 59%	4 87%	8 55%	0 0037%
PEPCO HOLDINGS INC	POM	6,743 68	0 04%	4 06%	6 00%	10 18%	0 0040%
PPG INDUSTRIES INC	PPG	24,713 53	0 14%	1 61%	8 40%	10 08%	0 0145%
PPL CORP	PPL	24,047 50	0 14%	4 27%	4 66%	9 03%	0 0127%
PERRIGO CO PLC	PRGO	20,291 33	0 12%	0 37%	12 57%	12 96%	0 0153%
PRUDENTIAL FINANCIAL INC	PRU	27,676 36	0 16%	4 61%	10 67%	15 52%	0 0250%
PUBLIC STORAGE	PSA	40,450 88	N/A	2 78%	N/A	N/A	N/A
PHILLIPS 66	PSX	40,114 71	0 23%	3 15%	7 61%	10 88%	0 0254%
PVH CORP	PVH	6,010 75	0 04%	0 20%	7 47%	7 68%	0 0027%
QUANTA SERVICES INC	PWR	2,821 33	0 02%	0 00%	8 00%	8 00%	0 0013%
PRAXAIR INC	PX	29,575 51	0 17%	2 86%	8 23%	11 21%	0 0193%
PIONEER NATURAL RESOURCES CO	PXD	18,631 53	0 11%	0 09%	0 15%	0 24%	0 0003%
PAYPAL HOLDINGS INC	PYPL	41,937 78	0 24%	0 00%	16 67%	16 67%	0 0408%
QUALCOMM INC	QCOM	66,612 18	0 39%	4 35%	10 80%	15 39%	0 0598%
QORVO INC	QRVO	5,148 28	0 03%	0 00%	14 64%	14 64%	0 0044%
RYDER SYSTEM INC	R	2,896 15	0 02%	3 14%	7 63%	10 88%	0 0018%
REYNOLDS AMERICAN INC	RAI	68,226 92	0 40%	3 53%	10 08%	13 78%	0 0548%
ROYAL CARIBBEAN CRUISES LTD	RCL	15,129 08	0 09%	2 23%	26 52%	29 04%	0 0256%
REGENERON PHARMACEUTICALS	REGN	39,715 75	0 23%	0 00%	20 92%	20 92%	0 0484%
REGIONS FINANCIAL CORP	RF	9,921 56	0 06%	3 49%	4 47%	8 03%	0 0046%
ROBERT HALF INTL INC	RHI	4,954 50	0 03%	2 27%	11 45%	13 84%	0 0040%
RED HAT INC	RHT	11,708 10	0 07%	0 00%	18 03%	18 03%	0 0123%
TRANSOCEAN LTD	RIG	3,286 77	0 02%	11 85%	10 02%	22 47%	0 0043%
RALPH LAUREN CORP	RL	7,304 24	0 04%	2 31%	12 77%	15 23%	0 0065%
ROCKWELL AUTOMATION INC	ROK	12,659 98	0 07%	3 00%	6 82%	9 92%	0 0073%
ROPER TECHNOLOGIES INC	ROP	16,490 72	0 10%	0 70%	11 53%	12 27%	0 0118%
ROSS STORES INC	ROST	21,769 02	0 13%	0 87%	10 63%	11 55%	0 0147%
RANGE RESOURCES CORP	RRC	4,645 81	0 03%	0 59%	3 25%	3 85%	0 0010%
REPUBLIC SERVICES INC	RSG	15,243 24	0 09%	2 77%	5 97%	8 82%	0 0078%
RAYTHEON COMPANY	RTN	35,951 52	0 21%	2 37%	7 65%	10 11%	0 0212%
STARBUCKS CORP	SBUX	82,566 67	0 48%	1 47%	17 91%	19 51%	0 0939%
SCANA CORP	SCG	9,203 85	0 05%	3 38%	5 55%	9 02%	0 0048%
SCHWAB (CHARLES) CORP	SCHW	30,043 06	0 18%	1 27%	18 63%	20 01%	0 0351%
SPECTRA ENERGY CORP	SE	19,128 49	0 11%	5 71%	5 40%	11 27%	0 0126%
SEALED AIR CORP	SEE	8,538 61	0 05%	1 26%	6 58%	7 88%	0 0039%
SHERWIN-WILLIAMS CO/THE	SHW	23,894 25	0 14%	1 23%	15 15%	16 47%	0 0229%
SIGNET JEWELERS LTD	SIG	7,844 24	0 05%	0 86%	15 20%	16 13%	0 0074%
JM SMUCKER CO/THE	SJM	15,189 14	0 09%	2 12%	11 37%	13 61%	0 0121%
SCHLUMBERGER LTD	SLB	88,227 98	0 51%	2 92%	11 40%	14 49%	0 0745%
SL GREEN REALTY CORP	SLG	8,181 97	0 05%	3 63%	4 26%	7 97%	0 0038%
SNAP-ON INC	SNA	8,133 46	0 05%	2 21%	3 40%	5 64%	0 0027%
SANDISK CORP	SNDK	13,566 46	0 08%	1 63%	9 75%	11 46%	0 0091%
SCRIPPS NETWORKS INTER-CL A	SNI	6,906 61	0 04%	1 69%	10 08%	11 86%	0 0048%
SOUTHERN CO/THE	SO	43,547 26	0 25%	4 66%	3 92%	8 67%	0 0220%
SIMON PROPERTY GROUP INC	SPG	56,787 50	0 33%	3 61%	7 55%	11 29%	0 0374%

Company	Ticker	[4]	[5]	[6]	[7]	[8]	[9]
		Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
STAPLES INC	SPLS	5,354 94	0 03%	5 77%	3 21%	9 07%	0 0028%
STERICYCLE INC	SRCL	9,086 57	0 05%	0 00%	15 60%	15 60%	0 0083%
SEMPRA ENERGY	SRE	23,200 23	0 14%	2 97%	8 94%	12 04%	0 0163%
SUNTRUST BANKS INC	STI	17,087 32	0 10%	3 05%	10 57%	13 79%	0 0137%
ST JUDE MEDICAL INC	STJ	14,246 08	0 08%	2 43%	11 17%	13 74%	0 0114%
STATE STREET CORP	STT	22,062 62	0 13%	2 63%	7 83%	10 67%	0 0136%
SEAGATE TECHNOLOGY	STX	8,857 09	0 05%	7 77%	5 42%	13 41%	0 0069%
CONSTELLATION BRANDS INC-A	STZ	27,474 65	0 16%	0 90%	13 68%	14 64%	0 0234%
STANLEY BLACK & DECKER INC	SWK	13,738 89	0 08%	2 40%	10 67%	13 20%	0 0106%
SKYWORKS SOLUTIONS INC	SWKS	11,045 85	0 06%	1 85%	17 69%	19 70%	0 0127%
SOUTHWESTERN ENERGY CO	SWN	3,433 39	0 02%	0 00%	5 61%	5 61%	0 0011%
SYNCHRONY FINANCIAL	SYF	21,154 16	0 12%	0 98%	5 84%	6 84%	0 0084%
STRYKER CORP	SYK	36,302 36	0 21%	1 55%	12 11%	13 76%	0 0291%
SYMATEC CORP	SYMC	12,490 06	0 07%	3 16%	7 37%	10 65%	0 0078%
SYSCO CORP	SYU	24,396 51	0 14%	2 84%	8 75%	11 71%	0 0167%
AT&T INC	T	224,363 44	1 31%	5 28%	3 80%	9 19%	0 1202%
MOLSON COORS BREWING CO -B	TAP	18,016 83	0 11%	2 03%	13 30%	15 47%	0 0162%
TERADATA CORP	TDC	3,068 31	0 02%	0 00%	7 69%	7 69%	0 0014%
TECO ENERGY INC	TE	6,393 57	0 04%	3 39%	6 02%	9 51%	0 0035%
TE CONNECTIVITY LTD	TEL	20,143 73	0 12%	2 55%	10 00%	12 68%	0 0149%
TEGNA INC	TGNA	4,914 93	N/A	2 53%	N/A	N/A	N/A
TARGET CORP	TGT	43,092 81	0 25%	3 07%	10 49%	13 71%	0 0345%
TENET HEALTHCARE CORP	THC	2,392 06	0 01%	0 00%	18 95%	18 95%	0 0026%
TIFFANY & CO	TIF	7,914 52	0 05%	2 55%	9 05%	11 72%	0 0054%
TJX COMPANIES INC	TJX	46,780 00	0 27%	1 20%	10 89%	12 15%	0 0332%
TORCHMARK CORP	TMK	6,181 31	0 04%	1 14%	7 56%	8 74%	0 0032%
THERMO FISHER SCIENTIFIC INC	TMO	50,477 88	0 29%	0 49%	12 57%	13 09%	0 0385%
TRIPADVISOR INC	TRIP	8,636 78	0 05%	0 00%	17 66%	17 66%	0 0089%
T ROWE PRICE GROUP INC	TROW	16,764 51	0 10%	3 30%	9 24%	12 69%	0 0124%
TRAVELERS COS INC/THE	TRV	31,707 12	0 18%	2 36%	8 25%	10 71%	0 0198%
TRACTOR SUPPLY COMPANY	TSCO	11,214 20	0 07%	0 99%	15 41%	16 47%	0 0108%
TYSON FOODS INC-CL A	TSN	23,767 41	0 14%	1 06%	10 53%	11 65%	0 0161%
TESORO CORP	TSO	8,556 15	0 05%	2 87%	5 39%	8 33%	0 0042%
TOTAL SYSTEM SERVICES INC	TSS	7,245 50	0 04%	1 03%	10 00%	11 08%	0 0047%
TIME WARNER CABLE	TWC	52,402 19	0 31%	1 67%	7 73%	9 47%	0 0289%
TIME WARNER INC	TWX	49,775 63	0 29%	2 52%	13 06%	15 75%	0 0457%
TEXAS INSTRUMENTS INC	TXN	51,877 03	0 30%	3 00%	9 58%	12 72%	0 0385%
TEXTRON INC	TXT	8,779 35	0 05%	0 34%	9 59%	9 95%	0 0051%
TYCO INTERNATIONAL PLC	TYC	14,233 21	0 08%	2 60%	10 60%	13 34%	0 0111%
UNDER ARMOUR INC-CLASS A	UA	16,464 59	0 10%	0 00%	22 74%	22 74%	0 0218%
UNITED CONTINENTAL HOLDINGS	UAL	18,469 77	0 11%	0 00%	19 92%	19 92%	0 0215%
UNIVERSAL HEALTH SERVICES-B	UHS	10,286 33	0 06%	0 38%	10 35%	10 76%	0 0065%
UNITEDHEALTH GROUP INC	UNH	106,304 37	0 62%	1 82%	13 35%	15 29%	0 0948%
UNUM GROUP	UNM	6,120 27	0 04%	3 04%	9 00%	12 18%	0 0043%
UNION PACIFIC CORP	UNP	65,343 19	0 38%	2 95%	8 34%	11 42%	0 0435%
UNITED PARCEL SERVICE-CL B	UPS	86,592 83	0 50%	3 19%	9 93%	13 28%	0 0670%
URBAN OUTFITTERS INC	URBN	2,910 74	0 02%	0 00%	12 69%	12 69%	0 0022%
UNITED RENTALS INC	URI	4,134 60	0 02%	0 00%	12 64%	12 64%	0 0030%
US BANCORP	USB	68,565 55	0 40%	2 74%	5 40%	8 22%	0 0329%
UNITED TECHNOLOGIES CORP	UTX	71,891 33	0 42%	3 14%	9 01%	12 30%	0 0516%
VISA INC-CLASS A SHARES	V	169,110 53	0 99%	0 80%	17 12%	17 99%	0 1774%
VARIAN MEDICAL SYSTEMS INC	VAR	7,244 82	0 04%	0 00%	15 00%	15 00%	0 0063%
VF CORP	VFC	25,062 71	0 15%	2 25%	10 68%	13 05%	0 0191%
VIACOM INC-CLASS B	VIAB	13,178 02	0 08%	4 90%	9 50%	14 63%	0 0112%
VALERO ENERGY CORP	VLO	27,808 82	0 16%	4 11%	4 49%	8 69%	0 0141%
VULCAN MATERIALS CO	VMC	12,268 01	0 07%	0 58%	28 41%	29 08%	0 0208%
VORNADO REALTY TRUST	VNO	15,296 32	N/A	3 11%	N/A	N/A	N/A
VERISK ANALYTICS INC	VRSK	11,531 29	0 07%	0 00%	12 00%	12 00%	0 0081%
VERISIGN INC	VRSN	8,582 71	0 05%	0 00%	9 75%	9 75%	0 0049%
VERTEX PHARMACEUTICALS INC	VRTX	20,451 05	0 12%	0 00%	45 07%	45 07%	0 0537%
VENTAS INC	VTR	16,275 89	0 09%	6 21%	2 57%	8 86%	0 0084%
VERIZON COMMUNICATIONS INC	VZ	203,891 23	1 19%	4 56%	5 30%	9 98%	0 1186%
WATERS CORP	WAT	9,669 81	0 06%	0 00%	9 39%	9 39%	0 0053%
WALGREENS BOOTS ALLIANCE INC	WBA	83,149 81	0 48%	1 89%	12 27%	14 27%	0 0692%
WESTERN DIGITAL CORP	WDC	9,562 20	0 06%	4 96%	10 00%	15 20%	0 0085%
WEC ENERGY GROUP INC	WEC	17,574 15	0 10%	3 51%	5 54%	9 15%	0 0094%
WELLS FARGO & CO	WFC	241,650 63	1 41%	3 30%	9 14%	12 59%	0 1775%
WHOLE FOODS MARKET INC	WFM	10,054 42	0 06%	1 78%	9 75%	11 62%	0 0068%
WHIRLPOOL CORP	WHR	10,336 52	0 06%	2 93%	16 71%	19 88%	0 0120%
WILLIS TOWERS WATSON PLC	WLTW	14,891 11	0 09%	1 65%	10 00%	11 73%	0 0102%
WASTE MANAGEMENT INC	WM	24,101 82	0 14%	2 83%	8 33%	11 29%	0 0159%
WILLIAMS COS INC	WMB	10,099 33	0 06%	18 19%	-3 60%	14 26%	0 0084%
WAL-MART STORES INC	WMT	211,901 29	1 24%	2 96%	0 36%	3 33%	0 0411%
WESTROCK CO	WRK	7,876 95	0 05%	4 83%	1 63%	6 51%	0 0030%
WESTERN UNION CO	WU	8,872 73	0 05%	3 62%	5 85%	9 58%	0 0050%
WEYERHAEUSER CO	WY	11,536 80	0 07%	5 69%	5 33%	11 17%	0 0075%
WYNDHAM WORLDWIDE CORP	WYN	7,379 40	0 04%	2 93%	8 75%	11 81%	0 0051%
WYNN RESORTS LTD	WYNN	7,022 45	0 04%	2 95%	8 93%	12 02%	0 0049%
CIMAREX ENERGY CO	XEC	8,006 36	0 05%	0 76%	-6 02%	-5 29%	-0 0025%
XCEL ENERGY INC	XEL	19,701 03	0 11%	3 48%	5 13%	8 70%	0 0100%
XL GROUP PLC	XL	10,296 52	0 06%	2 40%	9 50%	12 01%	0 0072%
XILINX INC	XLNX	12,176 48	0 07%	2 60%	8 87%	11 58%	0 0082%
EXXON MOBIL CORP	XOM	337,322 91	1 97%	3 66%	13 22%	17 13%	0 3369%
DENTSPLY INTERNATIONAL INC	XRAY	7,668 88	0 04%	0 51%	10 30%	10 84%	0 0048%

		[4]	[5]	[6]	[7]	[8]	[9]
Company	Ticker	Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
XEROX CORP	XRX	8,878.77	0.05%	3.59%	8.55%	12.30%	0.0064%
XYLEM INC	XYL	6,643.72	0.04%	1.65%	11.30%	13.04%	0.0051%
YAHOO! INC	YHOO	25,535.36	0.15%	0.00%	8.97%	8.97%	0.0134%
YUM! BRANDS INC	YUM	29,039.81	0.17%	2.81%	11.85%	14.83%	0.0251%
ZIMMER BIOMET HOLDINGS INC	ZBH	18,485.76	0.11%	0.99%	10.61%	11.66%	0.0126%
ZIONS BANCORPORATION	ZION	4,288.14	0.03%	1.45%	9.00%	10.51%	0.0026%
ZOETIS INC	ZTS	20,130.92	N/A	0.92%	N/A	N/A	N/A
Total Market Capitalization		17,150,140.71					13.45%

Notes

[1] Equals sum of Col [9]

[2] Source: Bloomberg Professional

[3] Equals [1] - [2]

[4] Source: Bloomberg Professional

[5] Equals weight in S&P 500 based on market capitalization

[6] Source: Bloomberg Professional

[7] Source: Bloomberg Professional

[8] Equals  $([6] \times (1 + (0.5 \times [7]))) + [7]$

[9] Equals Col [5] x Col [8]

Ex-Ante Market Risk Premium  
Market DCF Method Based - Value Line

[1]	[2]	[3]
S&P 500	Current 30-Year	
Est Required	Treasury (30-	Implied Market
Market Return	day average)	Risk Premium
12.78%	2.79%	9.99%

Company	Ticker	[4] Market Capitalization	[5] Weight in Index	[6] Estimated Dividend Yield	[7] Long-Term Growth Est	[8] DCF Result	[9] Weighted DCF Result
AGILENT TECHNOLOGIES INC	A	11,710.45	0.08%	1.30%	2.50%	3.82%	0.0029%
ALCOA INC	AA	9,602.48	0.06%	1.64%	17.00%	18.78%	0.0117%
AMERICAN AIRLINES GROUP INC	AAL	23,357.54	N/A	1.10%	N/A	N/A	N/A
ADVANCE AUTO PARTS INC	AAP	10,136.32	0.07%	0.17%	13.50%	13.68%	0.0090%
APPLE INC	AAPL	519,518.40	3.37%	2.38%	14.00%	16.55%	0.5570%
ABBVIE INC	ABBV	85,301.10	N/A	4.37%	N/A	N/A	N/A
AMERISOURCEBERGEN CORP	ABC	17,444.02	0.11%	1.61%	13.50%	15.22%	0.0172%
ABBOTT LABORATORIES	ABT	54,209.10	0.35%	2.86%	1.00%	3.87%	0.0136%
ACCENTURE PLC-CL A	ACN	60,594.11	0.39%	2.42%	8.00%	10.52%	0.0413%
ADOBE SYSTEMS INC	ADBE	37,305.81	0.24%	0.00%	37.50%	37.50%	0.0906%
ANALOG DEVICES INC	ADI	15,241.06	0.10%	3.28%	13.00%	16.49%	0.0163%
ARCHER-DANIELS-MIDLAND CO	ADM	19,009.63	0.12%	3.79%	8.00%	11.94%	0.0147%
AUTOMATIC DATA PROCESSING	ADP	36,792.33	0.24%	2.87%	9.00%	12.00%	0.0286%
ALLIANCE DATA SYSTEMS CORP	ADS	11,029.65	0.07%	0.00%	15.00%	15.00%	0.0107%
AUTODESK INC	ADSK	9,747.47	0.06%	0.00%	13.50%	13.50%	0.0085%
ADT CORP/THE	ADT	4,358.80	0.03%	3.34%	10.50%	14.02%	0.0040%
AMEREN CORPORATION	AEE	11,006.76	0.07%	3.79%	7.00%	10.92%	0.0078%
AMERICAN ELECTRIC POWER	AEP	30,091.25	0.19%	3.70%	5.00%	8.79%	0.0171%
AES CORP	AES	6,070.15	0.04%	4.89%	8.00%	13.09%	0.0051%
AETNA INC	AET	34,109.84	0.22%	1.02%	11.00%	12.08%	0.0267%
AFLAC INC	AFL	23,772.72	0.15%	2.99%	4.50%	7.56%	0.0116%
ALLERGAN PLC	AGN	108,172.70	0.70%	0.00%	17.00%	17.00%	0.1191%
AMERICAN INTERNATIONAL GROUP	AIG	62,988.08	0.41%	2.22%	5.00%	7.28%	0.0297%
APARTMENT INVT & MGMT CO -A	AIV	-	N/A	3.69%	N/A	N/A	N/A
ASSURANT INC	AIZ	4,466.04	0.03%	2.99%	3.50%	6.54%	0.0019%
AKAMAI TECHNOLOGIES INC	AKAM	8,743.87	0.06%	0.00%	15.50%	15.50%	0.0088%
ALLSTATE CORP	ALL	24,304.80	0.16%	1.93%	7.50%	9.50%	0.0150%
ALLEGION PLC	ALLE	5,442.05	N/A	0.85%	N/A	N/A	N/A
ALEXION PHARMACEUTICALS INC	ALXN	30,589.33	0.20%	0.00%	25.50%	25.50%	0.0505%
APPLIED MATERIALS INC	AMAT	18,142.40	0.12%	2.56%	18.50%	21.30%	0.0250%
AMETEK INC	AME	10,711.87	0.07%	0.80%	7.50%	8.33%	0.0058%
AFFILIATED MANAGERS GROUP	AMG	6,573.24	0.04%	0.00%	13.00%	13.00%	0.0055%
AMGEN INC	AMGN	106,788.10	0.69%	2.83%	9.50%	12.46%	0.0862%
AMERIPRISE FINANCIAL INC	AMP	13,348.85	0.09%	3.51%	13.50%	17.25%	0.0149%
AMERICAN TOWER CORP	AMT	35,429.76	0.23%	2.44%	14.50%	17.12%	0.0393%
AMAZON COM INC	AMZN	236,291.60	N/A	0.00%	N/A	N/A	N/A
AUTONATION INC	AN	5,193.84	0.03%	0.00%	11.50%	11.50%	0.0039%
ANTHEM INC	ANTM	31,318.26	0.20%	2.08%	9.00%	11.17%	0.0227%
AON PLC	AON	25,387.79	0.16%	1.30%	13.50%	14.89%	0.0245%
APACHE CORP	APA	12,996.12	0.08%	2.91%	-3.00%	-0.13%	-0.0001%
ANADARKO PETROLEUM CORP	APC	18,129.01	0.12%	0.56%	10.00%	10.59%	0.0124%
AIR PRODUCTS & CHEMICALS INC	APD	27,432.84	0.18%	2.55%	13.00%	15.72%	0.0279%
AMPHENOL CORP-CL A	APH	15,104.88	0.10%	1.14%	9.50%	10.69%	0.0105%
AIRGAS INC	ARG	10,072.34	0.07%	1.80%	10.00%	11.89%	0.0078%
ACTIVISION BLIZZARD INC	ATVI	22,308.41	0.14%	0.85%	10.00%	10.89%	0.0157%
AVALONBAY COMMUNITIES INC	AVB	-	N/A	3.34%	N/A	N/A	N/A
BROADCOM LTD	AVGO	31,974.55	0.21%	1.51%	15.50%	17.13%	0.0355%
AVERY DENNISON CORP	AVY	5,673.83	0.04%	2.41%	7.50%	10.00%	0.0037%
AMERICAN EXPRESS CO	AXP	50,304.76	0.33%	2.45%	3.50%	5.99%	0.0195%
AUTOZONE INC	AZO	21,530.75	0.14%	0.00%	13.00%	13.00%	0.0181%
BOEING CO/THE	BA	72,759.02	0.47%	4.02%	11.00%	15.24%	0.0718%
BANK OF AMERICA CORP	BAC	116,368.70	0.75%	2.15%	27.00%	29.44%	0.2220%
BAXTER INTERNATIONAL INC	BAX	19,619.86	0.13%	1.28%	-7.00%	-5.76%	-0.0073%
BED BATH & BEYOND INC	BBBY	6,901.74	0.04%	0.00%	4.00%	4.00%	0.0018%
BB&T CORP	BBT	23,622.94	0.15%	3.86%	6.50%	10.49%	0.0160%
BEST BUY CO INC	BBY	9,287.16	0.06%	3.42%	6.50%	10.03%	0.0060%
CR BARD INC	BCR	13,410.31	0.09%	0.56%	9.00%	9.59%	0.0083%
BECTON DICKINSON AND CO	BDX	28,513.49	0.18%	2.04%	9.50%	11.64%	0.0215%
FRANKLIN RESOURCES INC	BEN	18,719.95	0.12%	2.39%	8.50%	10.99%	0.0133%
BROWN-FORMAN CORP-CLASS B	BF/B	19,244.27	0.12%	1.44%	9.00%	10.50%	0.0131%
BAKER HUGHES INC	BHI	17,347.64	0.11%	1.71%	2.00%	3.73%	0.0042%
BIAGEN INC	BIIB	54,635.75	0.35%	0.00%	16.50%	16.50%	0.0584%
BANK OF NEW YORK MELLON CORP	BK	35,783.28	0.23%	2.08%	11.50%	13.70%	0.0318%
BLACKROCK INC	BLK	48,227.50	0.31%	3.11%	8.50%	11.74%	0.0367%
BALL CORP	BLI	8,678.87	0.06%	0.81%	9.50%	10.35%	0.0058%
BRISTOL-MYERS SQUIBB CO	BMY	99,296.38	0.64%	2.55%	14.50%	17.23%	0.1109%
BERKSHIRE HATHAWAY INC-CL B	BRK/B	156.11	N/A	0.00%	N/A	N/A	N/A
BOSTON SCIENTIFIC CORP	BSX	22,297.83	0.14%	0.00%	15.00%	15.00%	0.0217%
BORGWARNER INC	BWA	6,766.94	0.04%	1.72%	8.50%	10.29%	0.0045%
BAXALTA INC	BXLT	N/A	N/A	0.00%	N/A	N/A	N/A
BOSTON PROPERTIES INC	BXP	-	N/A	2.59%	N/A	N/A	N/A
CITIGROUP INC	C	104,205.10	0.68%	0.57%	13.50%	14.11%	0.0953%
CA INC	CA	11,197.80	0.07%	3.83%	5.00%	8.93%	0.0065%

Company	Ticker	[4]	[5]	[6]	[7]	[8]	[9]
		Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
CONAGRA FOODS INC	CAG	17,478 07	0 11%	2 48%	6 50%	9 06%	0 0103%
CARDINAL HEALTH INC	CAH	25,449 60	0 16%	2 27%	14 00%	16 43%	0 0271%
CAMERON INTERNATIONAL CORP	CAM	12,007 86	0 08%	0 00%	3 50%	3 50%	0 0027%
CATERPILLAR INC	CAT	35,754 99	0 23%	5 02%	2 50%	7 58%	0 0176%
CHUBB LTD	CB	35,919 03	0 23%	2 42%	8 00%	10 52%	0 0245%
CBRE GROUP INC - A	CBG	7,862 95	0 05%	0 00%	12 50%	12 50%	0 0064%
CBS CORP-CLASS B NON VOTING	CBS	20,652 18	0 13%	1 38%	12 50%	13 97%	0 0187%
COCA-COLA ENTERPRISES	CCE	10,714 40	0 07%	2 54%	5 00%	7 60%	0 0053%
CROWN CASTLE INTL CORP	CCI	27,205 67	0 18%	4 34%	23 50%	28 35%	0 0500%
CARNIVAL CORP	CCL	33,601 82	0 22%	2 78%	14 00%	16 97%	0 0370%
CELGENE CORP	CELG	78,397 24	0 51%	0 00%	16 50%	16 50%	0 0838%
CERNER CORP	CERN	18,456 51	0 12%	0 00%	17 00%	17 00%	0 0203%
CF INDUSTRIES HOLDINGS INC	CF	6,768 44	0 04%	4 82%	6 50%	11 48%	0 0050%
CITIZENS FINANCIAL GROUP	CFG	9,571 34	N/A	2 21%	N/A	N/A	N/A
CHURCH & DWIGHT CO INC	CHD	11,346 61	0 07%	1 64%	8 50%	10 21%	0 0075%
CHESAPEAKE ENERGY CORP	CHK	1,180 98	0 01%	0 00%	7 00%	7 00%	0 0005%
C H ROBINSON WORLDWIDE INC	CHRW	9,918 95	0 06%	2 50%	6 50%	9 08%	0 0058%
CIGNA CORP	CI	32,972 67	0 21%	0 03%	14 50%	14 53%	0 0310%
CINCINNATI FINANCIAL CORP	CINF	9,911 54	0 06%	3 17%	7 50%	10 79%	0 0069%
COLGATE-PALMOLIVE CO	CL	57,797 66	0 37%	2 50%	11 00%	13 64%	0 0511%
CLOROX COMPANY	CLX	16,425 75	0 11%	2 47%	8 00%	10 57%	0 0112%
COMERICA INC	CMA	5,495 32	0 04%	2 71%	7 50%	10 31%	0 0037%
COMCAST CORP-CLASS A	CMCSA	137,703 20	0 89%	1 96%	10 00%	12 06%	0 1076%
CME GROUP INC	CME	30,077 53	0 19%	2 69%	10 00%	12 82%	0 0250%
CHIPOTLE MEXICAN GRILL INC	CMG	14,392 14	0 09%	0 00%	16 50%	16 50%	0 0154%
CUMMINS INC	CMI	16,918 40	0 11%	4 09%	6 50%	10 72%	0 0118%
CMS ENERGY CORP	CMS	10,881 72	0 07%	3 16%	5 50%	8 75%	0 0062%
CENTERPOINT ENERGY INC	CNP	7,594 13	N/A	5 84%	N/A	N/A	N/A
CONSOL ENERGY INC	CNX	1,681 26	0 01%	0 55%	8 00%	8 57%	0 0009%
CAPITAL ONE FINANCIAL CORP	COF	32,174 60	0 21%	2 66%	3 50%	6 21%	0 0129%
CABOT OIL & GAS CORP	COG	8,223 68	0 05%	0 40%	30 50%	30 96%	0 0165%
COACH INC	COH	9,339 05	0 06%	4 01%	2 00%	6 05%	0 0037%
ROCKWELL COLLINS INC	COL	10,272 96	0 07%	1 72%	7 00%	8 78%	0 0058%
CONOCOPHILLIPS	COP	39,360 39	0 26%	3 14%	2 50%	5 68%	0 0145%
COSTCO WHOLESALE CORP	COST	64,493 29	0 42%	1 12%	10 50%	11 68%	0 0488%
CAMPBELL SOUP CO	CPB	17,772 30	0 12%	2 18%	4 50%	6 73%	0 0077%
COLUMBIA PIPELINE GROUP	CPGX	N/A	N/A	0 00%	N/A	N/A	N/A
SALESFORCE COM INC	CRM	39,335 36	N/A	0 00%	N/A	N/A	N/A
CISCO SYSTEMS INC	CSCO	125,423 80	0 81%	4 21%	6 50%	10 85%	0 0881%
CSRA INC	CSRA	-	N/A	1 62%	N/A	N/A	N/A
CSX CORP	CSX	22,823 44	0 15%	3 08%	9 00%	12 22%	0 0181%
CINTAS CORP	CTAS	8,879 64	0 06%	1 28%	13 50%	14 87%	0 0086%
CENTURYLINK INC	CTL	15,121 12	0 10%	7 92%	15 00%	23 51%	0 0230%
COGNIZANT TECH SOLUTIONS-A	CTSH	31,682 88	0 21%	0 00%	15 50%	15 50%	0 0318%
CITRIX SYSTEMS INC	CTXS	18,596 23	0 12%	0 00%	14 00%	14 00%	0 0169%
CABLEVISION SYSTEMS-NY GRP-A	CVC	8,861 84	0 06%	0 00%	13 00%	13 00%	0 0075%
CVS HEALTH CORP	CVS	104,195 70	0 68%	1 81%	13 00%	14 93%	0 1008%
CHEVRON CORP	CVX	156,190 30	1 01%	5 16%	2 50%	7 72%	0 0782%
DOMINION RESOURCES INC/A	D	41,203 00	0 27%	4 13%	8 00%	12 30%	0 0328%
DELTA AIR LINES INC	DAL	33,647 60	0 22%	1 59%	16 00%	17 72%	0 0386%
DU PONT (E I ) DE NEMOURS	DD	49,616 45	0 32%	2 79%	6 00%	8 87%	0 0285%
DEERE & CO	DE	24,198 05	N/A	3 14%	N/A	N/A	N/A
DISCOVER FINANCIAL SERVICES	DFS	18,576 61	0 12%	2 59%	4 00%	6 64%	0 0080%
DOLLAR GENERAL CORP	DG	20,001 78	0 13%	1 46%	14 00%	15 56%	0 0202%
QUEST DIAGNOSTICS INC	DGX	8,827 20	0 06%	2 61%	9 00%	11 73%	0 0067%
DR HORTON INC	DHI	8,688 76	0 06%	1 38%	15 00%	16 48%	0 0092%
DANAHER CORP	DHR	57,275 86	0 37%	0 65%	13 00%	13 69%	0 0508%
WALT DISNEY CO/THE	DIS	144,496 00	0 94%	1 57%	12 00%	13 66%	0 1279%
DISCOVERY COMMUNICATIONS-A	DISCA	10,473 65	0 07%	0 00%	18 00%	18 00%	0 0122%
DELPHI AUTOMOTIVE PLC	DLPH	16,452 46	0 11%	1 98%	15 50%	17 63%	0 0188%
DOLLAR TREE INC	DLTR	17,241 36	0 11%	0 00%	17 50%	17 50%	0 0195%
DUN & BRADSTREET CORP	DNB	3,225 17	0 02%	2 07%	4 50%	6 62%	0 0014%
DIAMOND OFFSHORE DRILLING	DO	2,363 25	0 02%	0 00%	-2 00%	-2 00%	-0 0003%
DOVER CORP	DOV	8,871 75	0 06%	2 93%	2 50%	5 47%	0 0031%
DOW CHEMICAL CO/THE	DOW	51,905 96	0 34%	4 11%	12 50%	16 87%	0 0567%
DR PEPPER SNAPPLE GROUP INC	DPS	16,942 63	0 11%	2 23%	9 00%	11 33%	0 0124%
DARDEN RESTAURANTS INC	DRI	7,327 41	0 05%	3 50%	11 50%	15 20%	0 0072%
DTE ENERGY COMPANY	DTE	15,090 34	0 10%	3 57%	5 00%	8 66%	0 0085%
DUKE ENERGY CORP	DUK	52,838 40	0 34%	4 41%	5 00%	9 52%	0 0326%
DAVITA HEALTHCARE PARTNERS I	DVA	13,202 90	0 09%	0 00%	11 50%	11 50%	0 0098%
DEVON ENERGY CORP	DVN	8,733 75	0 06%	4 52%	6 00%	10 66%	0 0060%
ELECTRONIC ARTS INC	EA	18,097 09	0 12%	0 00%	16 50%	16 50%	0 0193%
EBAY INC	EBAY	26,510 42	0 17%	0 00%	3 00%	3 00%	0 0052%
ECOLAB INC	ECL	30,504 49	0 20%	1 36%	11 00%	12 43%	0 0246%
CONSOLIDATED EDISON INC	ED	19,471 34	0 13%	3 74%	2 50%	6 29%	0 0079%
EQUIFAX INC	EFX	11,055 13	0 07%	1 41%	9 00%	10 47%	0 0075%
EDISON INTERNATIONAL	EIX	20,314 31	0 13%	3 13%	3 50%	6 68%	0 0088%
ESTEE LAUDER COMPANIES-CL A	EL	32,153 65	0 21%	1 38%	9 00%	10 44%	0 0218%
EMC CORP/MA	EMC	46,846 24	0 30%	1 90%	3 50%	5 43%	0 0165%
EASTMAN CHEMICAL CO	EMN	8,681 67	0 06%	3 15%	9 50%	12 80%	0 0072%
EMERSON ELECTRIC CO	EMR	29,216 03	0 19%	4 18%	2 00%	6 22%	0 0118%
ENDO INTERNATIONAL PLC	ENDP	10,978 96	N/A	0 00%	N/A	N/A	N/A
EOG RESOURCES INC	EOG	36,036 30	0 23%	1 11%	2 00%	3 12%	0 0073%
EQUINIX INC	EQIX	15,756 51	0 10%	2 46%	25 50%	28 27%	0 0289%

		[4]	[5]	[6]	[7]	[8]	[9]
Company	Ticker	Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
EQUITY RESIDENTIAL	EQR	-	N/A	3.37%	N/A	N/A	N/A
EQT CORP	EQT	8,714.61	0.06%	0.21%	14.00%	14.22%	0.0080%
EVERSOURCE ENERGY	ES	17,096.60	0.11%	3.36%	7.00%	10.48%	0.0116%
EXPRESS SCRIPTS HOLDING CO	ESRX	44,886.03	0.29%	0.00%	17.50%	17.50%	0.0509%
ESSEX PROPERTY TRUST INC	ESS	-	N/A	3.33%	N/A	N/A	N/A
ENSCO PLC-CL A	ESV	1,896.18	0.01%	7.45%	-18.50%	-11.74%	-0.0014%
E*TRADE FINANCIAL CORP	ETFC	5,875.36	0.04%	0.00%	32.50%	32.50%	0.0124%
EATON CORP PLC	ETN	24,574.68	0.16%	4.14%	5.00%	9.24%	0.0147%
ENTERGY CORP	ETR	12,583.42	0.08%	4.85%	-1.00%	3.83%	0.0031%
EDWARDS LIFESCIENCES CORP	EW	17,025.21	0.11%	0.00%	15.00%	15.00%	0.0165%
EXELON CORP	EXC	27,871.99	0.18%	4.19%	6.50%	10.83%	0.0196%
EXPEDITORS INTL WASH INC	EXPD	8,320.52	0.05%	1.61%	10.50%	12.19%	0.0066%
EXPEDIA INC	EXPE	13,418.56	0.09%	0.93%	22.00%	23.03%	0.0200%
EXTRA SPACE STORAGE INC	EXR	N/A	N/A	0.00%	N/A	N/A	N/A
FORD MOTOR CO	F	43,538.18	0.28%	5.91%	7.00%	13.12%	0.0370%
FASTENAL CO	FAST	12,168.37	0.08%	2.86%	8.50%	11.48%	0.0091%
FACEBOOK INC-A	FB	287,997.70	1.87%	0.00%	34.50%	34.50%	0.6438%
FREEPORT-MCMORAN INC	FCX	5,564.82	0.04%	0.00%	-0.50%	-0.50%	-0.0002%
FEDEX CORP	FDX	34,292.02	0.22%	0.80%	15.00%	15.86%	0.0352%
FIRSTENERGY CORP	FE	13,879.97	0.09%	4.39%	7.50%	12.05%	0.0108%
F5 NETWORKS INC	FFIV	5,978.59	0.04%	0.00%	9.00%	9.00%	0.0035%
FIDELITY NATIONAL INFO SERV	FIS	15,921.72	0.10%	1.84%	12.50%	14.46%	0.0149%
FISERV INC	FISV	21,040.56	0.14%	0.00%	10.50%	10.50%	0.0143%
FIFTH THIRD BANCORP	FITB	11,088.42	0.07%	4.02%	4.00%	8.10%	0.0058%
FLIR SYSTEMS INC	FLIR	3,953.22	0.03%	1.68%	6.50%	8.23%	0.0021%
FLUOR CORP	FLR	5,936.22	0.04%	2.01%	7.50%	9.59%	0.0037%
FLOWERVE CORP	FLS	5,187.12	0.03%	1.81%	10.00%	11.90%	0.0040%
FMC CORP	FMC	4,480.38	0.03%	2.15%	4.50%	6.70%	0.0019%
TWENTY-FIRST CENTURY FOX-A	FOXA	48,768.96	0.32%	1.22%	6.50%	7.76%	0.0245%
FEDERAL REALTY INVS TRUST	FRT	-	N/A	2.65%	N/A	N/A	N/A
FIRST SOLAR INC	FSLR	6,192.39	0.04%	0.00%	7.50%	7.50%	0.0030%
FMC TECHNOLOGIES INC	FTI	5,193.84	0.03%	0.00%	3.00%	3.00%	0.0010%
FRONTIER COMMUNICATIONS CORP	FTR	4,871.47	0.03%	10.07%	18.00%	28.98%	0.0091%
AGL RESOURCES INC	GAS	7,777.70	0.05%	3.28%	6.50%	9.89%	0.0050%
GENERAL DYNAMICS CORP	GD	40,009.08	0.26%	2.15%	9.00%	11.25%	0.0292%
GENERAL ELECTRIC CO	GE	277,498.60	1.80%	3.35%	9.00%	12.50%	0.2248%
GENERAL GROWTH PROPERTIES	GGP	-	N/A	3.07%	N/A	N/A	N/A
GILEAD SCIENCES INC	GILD	126,584.60	0.82%	1.97%	22.50%	24.69%	0.2025%
GENERAL MILLS INC	GIS	33,212.94	0.22%	3.23%	5.50%	8.82%	0.0190%
CORNING INC	GLW	21,087.04	0.14%	3.03%	6.00%	9.12%	0.0125%
GENERAL MOTORS CO	GM	43,040.00	0.28%	5.35%	10.00%	15.62%	0.0436%
KEURIG GREEN MOUNTAIN INC	GMCR	13,406.03	0.09%	1.45%	8.50%	10.01%	0.0087%
GAMESTOP CORP-CLASS A	GME	2,797.68	0.02%	5.40%	7.50%	13.10%	0.0024%
ALPHABET INC-CL C	GOOG	469,770.00	3.04%	0.00%	16.50%	16.50%	0.5022%
GENUINE PARTS CO	GPC	13,031.95	0.08%	2.85%	7.00%	9.95%	0.0084%
GAP INC/THE	GPS	9,061.72	0.06%	4.24%	4.00%	8.32%	0.0049%
GARMIN LTD	GRMN	6,441.17	0.04%	6.12%	-2.00%	4.06%	0.0017%
GOLDMAN SACHS GROUP INC	GS	60,009.35	0.39%	1.85%	7.00%	8.91%	0.0347%
GOODYEAR TIRE & RUBBER CO	GT	7,696.09	0.05%	0.98%	10.50%	11.53%	0.0058%
VWV GRAINGER INC	GWVW	12,832.19	0.08%	2.29%	9.00%	11.39%	0.0095%
HALLIBURTON CO	HAL	24,624.00	0.16%	2.50%	2.00%	4.53%	0.0072%
HARMAN INTERNATIONAL	HAR	4,809.64	0.03%	2.07%	20.00%	22.28%	0.0069%
HASBRO INC	HAS	8,674.69	0.06%	2.93%	10.00%	13.08%	0.0073%
HUNTINGTON BANCSHARES INC	HBAN	6,381.24	0.04%	3.50%	9.00%	12.66%	0.0052%
HANESBRANDS INC	HBI	9,871.12	0.06%	1.75%	16.50%	18.39%	0.0118%
HCA HOLDINGS INC	HCA	26,511.99	0.17%	0.00%	12.50%	12.50%	0.0215%
WELLTOWER INC	HCN	-	N/A	6.41%	N/A	N/A	N/A
HCP INC	HCP	-	0.00%	8.80%	89.00%	101.72%	0.0000%
HOME DEPOT INC	HD	143,626.40	0.93%	2.23%	13.50%	15.88%	0.1478%
HESS CORP	HES	11,137.76	0.07%	2.57%	-10.00%	-7.56%	-0.0055%
HARTFORD FINANCIAL SVCS GRP	HIG	15,889.06	0.10%	2.17%	13.50%	15.82%	0.0163%
HARLEY-DAVIDSON INC	HOG	7,313.70	0.05%	3.67%	10.50%	14.36%	0.0068%
HONEYWELL INTERNATIONAL INC	HON	78,255.96	0.51%	2.34%	8.50%	10.94%	0.0555%
STARWOOD HOTELS & RESORTS	HOT	10,515.66	0.07%	2.42%	6.50%	9.00%	0.0061%
HELMERICH & PAYNE	HP	4,930.39	0.03%	6.01%	-10.00%	-4.29%	-0.0014%
HEWLETT PACKARD ENTERPRIS	HPE	N/A	N/A	0.00%	N/A	N/A	N/A
HP INC	HPQ	N/A	N/A	0.00%	N/A	N/A	N/A
H&R BLOCK INC	HRB	7,824.07	0.05%	2.41%	9.50%	12.02%	0.0061%
HORMEL FOODS CORP	HRL	22,029.50	0.14%	1.39%	14.50%	15.99%	0.0228%
HARRIS CORP	HRS	8,921.51	0.06%	2.85%	7.00%	9.95%	0.0058%
HENRY SCHEIN INC	HSIC	13,167.33	0.09%	0.00%	9.00%	9.00%	0.0077%
HOST HOTELS & RESORTS INC	HST	-	N/A	5.98%	N/A	N/A	N/A
HERSHEY CO/THE	HSY	19,184.01	0.12%	2.63%	7.00%	9.72%	0.0121%
HUMANA INC	HUM	23,422.20	0.15%	0.73%	10.00%	10.77%	0.0163%
INTL BUSINESS MACHINES CORP	IBM	114,327.50	N/A	4.41%	N/A	N/A	N/A
INTERCONTINENTAL EXCHANGE IN	ICE	25,650.90	0.17%	1.46%	13.50%	15.06%	0.0250%
INTL FLAVORS & FRAGRANCES	IFF	8,074.98	0.05%	2.23%	6.50%	8.80%	0.0046%
ILLUMINA INC	ILMN	20,270.54	0.13%	0.00%	27.50%	27.50%	0.0361%
INTEL CORP	INTC	133,480.60	0.86%	3.69%	10.00%	13.87%	0.1200%
INTUIT INC	INTU	24,163.78	0.16%	1.31%	14.00%	15.40%	0.0241%
INTERNATIONAL PAPER CO	IP	13,730.00	0.09%	5.31%	15.50%	21.22%	0.0189%
INTERPUBLIC GROUP OF COS INC	IPG	8,498.26	0.06%	2.75%	12.50%	15.42%	0.0085%
INGERSOLL-RAND PLC	IR	12,788.79	0.08%	2.61%	9.50%	12.23%	0.0101%
IRON MOUNTAIN INC	IRM	5,616.92	0.04%	7.29%	6.50%	14.03%	0.0051%



Company	Ticker	[4]	[5]	[6]	[7]	[8]	[9]
		Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
INTUITIVE SURGICAL INC	ISRG	19,088.73	0.12%	0.00%	9.50%	9.50%	0.0117%
ILLINOIS TOOL WORKS	ITW	32,568.88	0.21%	2.46%	10.00%	12.58%	0.0266%
INVESCO LTD	IVZ	10,757.62	0.07%	4.26%	14.00%	18.56%	0.0129%
HUNT (JB) TRANSPRT SVCS INC	JBHT	8,362.51	0.05%	1.21%	12.00%	13.28%	0.0072%
JOHNSON CONTROLS INC	JCI	22,176.12	0.14%	3.39%	10.00%	13.56%	0.0195%
JACOBS ENGINEERING GROUP INC	JEC	4,304.56	0.03%	0.00%	6.00%	6.00%	0.0017%
JOHNSON & JOHNSON	JNJ	281,432.50	1.82%	3.15%	5.50%	8.74%	0.1593%
JUNIPER NETWORKS INC	JNPR	8,350.16	0.05%	2.12%	16.00%	18.29%	0.0099%
JPMORGAN CHASE & CO	JPM	195,357.60	1.27%	3.43%	7.00%	10.55%	0.1335%
NORDSTROM INC	JWN	9,119.83	0.06%	3.17%	4.50%	7.74%	0.0046%
KELLOGG CO	K	26,115.52	0.17%	2.82%	4.00%	6.88%	0.0116%
KEYCORP	KEY	8,352.85	0.05%	3.40%	6.50%	10.01%	0.0054%
KRAFT HEINZ CO/THE	KHC	28,430.26	N/A	3.22%	N/A	N/A	N/A
KIMCO REALTY CORP	KIM	-	N/A	3.96%	N/A	N/A	N/A
KLA-TENCOR CORP	KLAC	9,788.22	0.06%	3.31%	12.50%	16.02%	0.0102%
KIMBERLY-CLARK CORP	KMB	45,889.70	0.30%	2.78%	7.00%	9.88%	0.0294%
KINDER MORGAN INC	KMI	31,101.40	0.20%	3.58%	13.00%	16.81%	0.0339%
CARMAX INC	KMX	8,327.28	0.05%	0.00%	12.50%	12.50%	0.0067%
COCA-COLA CO/THE	KO	184,398.70	1.19%	3.30%	4.50%	7.87%	0.0941%
MICHAEL KORS HOLDINGS LTD	KORS	8,816.01	0.06%	0.00%	10.50%	10.50%	0.0060%
KROGER CO	KR	35,191.38	0.23%	1.26%	11.50%	12.83%	0.0293%
KOHL'S CORP	KSS	7,533.96	0.05%	4.84%	6.50%	11.50%	0.0056%
KANSAS CITY SOUTHERN	KSU	8,462.41	0.05%	1.70%	13.00%	14.81%	0.0081%
LOEWS CORP	L	12,683.94	0.08%	0.70%	11.00%	11.74%	0.0096%
L BRANDS INC	LB	24,444.00	0.16%	2.86%	9.00%	11.99%	0.0190%
LEGGETT & PLATT INC	LEG	5,604.43	0.04%	3.11%	11.50%	14.79%	0.0054%
LENNAR CORP-A	LEN	7,941.37	0.05%	0.42%	19.50%	19.96%	0.0103%
LABORATORY CRP OF AMER HDGS	LH	10,261.68	0.07%	0.00%	9.00%	9.00%	0.0060%
L-3 COMMUNICATIONS HOLDINGS	LLL	9,064.13	0.06%	2.44%	6.00%	8.51%	0.0050%
LINEAR TECHNOLOGY CORP	LLTC	9,852.90	0.06%	3.11%	6.50%	9.71%	0.0062%
ELI LILLY & CO	LLY	79,138.86	0.51%	2.86%	8.00%	10.97%	0.0563%
LEGG MASON INC	LM	2,714.04	0.02%	3.18%	12.00%	15.37%	0.0027%
LOCKHEED MARTIN CORP	LMT	63,665.38	0.41%	3.26%	9.00%	12.41%	0.0512%
LINCOLN NATIONAL CORP	LNC	7,616.97	0.05%	3.41%	8.00%	11.55%	0.0057%
LOWE'S COS INC	LOW	58,137.80	0.38%	1.86%	15.50%	17.50%	0.0659%
LAM RESEARCH CORP	LRCX	10,181.65	0.07%	1.87%	19.50%	21.55%	0.0142%
LEUCADIA NATIONAL CORP	LUK	N/A	N/A	0.00%	N/A	N/A	N/A
SOUTHWEST AIRLINES CO	LUV	22,886.25	0.15%	0.85%	29.00%	29.97%	0.0444%
LEVEL 3 COMMUNICATIONS INC	LVL	16,323.09	N/A	0.00%	N/A	N/A	N/A
LYONDELLBASELL INDU-CL A	LYB	33,252.41	0.22%	4.25%	10.50%	14.97%	0.0323%
MACY'S INC	M	11,914.55	0.08%	3.80%	3.50%	7.37%	0.0057%
MASTERCARD INC-CLASS A	MA	92,317.34	0.60%	0.93%	12.50%	13.49%	0.0807%
MACERICH CO/THE	MAC	-	N/A	3.74%	N/A	N/A	N/A
MARRIOTT INTERNATIONAL -CL A	MAR	15,836.57	0.10%	1.62%	16.00%	17.75%	0.0182%
MASCO CORP	MAS	8,287.54	0.05%	1.52%	18.50%	20.16%	0.0108%
MATTEL INC	MAT	10,165.43	0.07%	5.07%	4.00%	9.17%	0.0080%
MCDONALD'S CORP	MCD	107,181.50	0.69%	3.05%	4.50%	7.62%	0.0529%
MICROCHIP TECHNOLOGY INC	MCHP	8,051.01	0.05%	3.63%	9.50%	13.30%	0.0069%
MCKESSON CORP	MCK	34,294.91	0.22%	0.75%	12.00%	12.80%	0.0284%
MOODY'S CORP	MCO	15,512.70	0.10%	1.89%	10.00%	11.98%	0.0120%
MONDELEZ INTERNATIONAL INC-A	MDLZ	59,956.08	0.39%	1.91%	11.00%	13.02%	0.0506%
MEDTRONIC PLC	MDT	102,115.00	0.66%	2.18%	7.00%	9.26%	0.0612%
METLIFE INC	MET	39,250.84	0.25%	4.66%	6.00%	10.80%	0.0275%
MCGRAW HILL FINANCIAL INC	MHFI	22,234.88	N/A	1.75%	N/A	N/A	N/A
MOHAWK INDUSTRIES INC	MHK	11,295.84	0.07%	0.00%	15.50%	15.50%	0.0113%
MEAD JOHNSON NUTRITION CO	MJN	13,643.26	0.09%	2.38%	6.50%	8.96%	0.0079%
MCCORMICK & CO-NON VTG SHRS	MKC	11,567.67	0.07%	1.90%	8.50%	10.48%	0.0079%
MARTIN MARIETTA MATERIALS	MLM	8,558.65	0.06%	1.24%	26.50%	27.90%	0.0155%
MARSH & MCLENNAN COS	MMC	28,700.38	0.19%	2.26%	10.50%	12.88%	0.0239%
3M CO	MMM	92,769.48	0.60%	2.95%	8.00%	11.07%	0.0665%
MALLINCKRODT PLC	MNK	6,811.83	N/A	0.00%	N/A	N/A	N/A
MONSTER BEVERAGE CORP	MNST	24,104.71	0.16%	0.00%	16.50%	16.50%	0.0258%
ALTRIA GROUP INC	MO	117,621.10	0.76%	3.77%	9.50%	13.45%	0.1025%
MONSANTO CO	MON	37,728.65	0.24%	2.52%	6.50%	9.10%	0.0222%
MOSAIC CO/THE	MOS	8,724.18	0.06%	4.77%	5.50%	10.40%	0.0059%
MARATHON PETROLEUM CORP	MPC	16,463.22	0.11%	4.15%	9.00%	13.34%	0.0142%
MERCK & CO INC	MRK	136,889.10	0.89%	3.77%	4.00%	7.85%	0.0696%
MARATHON OIL CORP	MRO	4,779.62	0.03%	2.83%	1.00%	3.84%	0.0012%
MORGAN STANLEY	MS	41,996.68	0.27%	2.77%	24.50%	27.61%	0.0751%
MICROSOFT CORP	MSFT	393,793.30	2.55%	2.90%	8.00%	11.02%	0.2811%
MOTOROLA SOLUTIONS INC	MSI	10,687.83	0.07%	2.81%	4.50%	7.37%	0.0051%
M & T BANK CORP	MTB	13,435.08	0.09%	2.78%	5.50%	8.36%	0.0073%
MICRON TECHNOLOGY INC	MU	10,533.03	0.07%	0.00%	1.00%	1.00%	0.0007%
MURPHY OIL CORP	MUR	2,747.24	0.02%	8.77%	-4.00%	4.59%	0.0008%
MYLAN NV	MYL	20,367.70	0.13%	0.00%	21.00%	21.00%	0.0277%
NAVIENT CORP	NAVI	3,047.01	N/A	7.61%	N/A	N/A	N/A
NOBLE ENERGY INC	NBL	12,029.21	0.08%	1.43%	4.50%	5.96%	0.0046%
NASDAQ INC	NDAQ	9,839.70	0.06%	1.67%	9.00%	10.75%	0.0069%
NEXTERA ENERGY INC	NEE	51,585.90	0.33%	3.24%	7.00%	10.35%	0.0346%
NEWMONT MINING CORP	NEM	13,249.12	0.09%	0.40%	-12.00%	-11.62%	-0.0100%
NETFLIX INC	NFLX	36,952.62	0.24%	0.00%	37.50%	37.50%	0.0898%
NEWFIELD EXPLORATION CO	NFX	4,410.30	0.03%	0.00%	9.50%	9.50%	0.0027%
NISOURCE INC	NI	6,719.82	0.04%	2.94%	-1.50%	1.42%	0.0006%
NIKE INC -CL B	NKE	95,592.00	0.62%	1.14%	16.00%	17.23%	0.1067%

Company	Ticker	[4]	[5]	[6]	[7]	[8]	[9]
		Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
NIELSEN HOLDINGS PLC	NLSN	17,230 87	0 11%	2 37%	10 50%	12 99%	0 0145%
NORTHROP GRUMMAN CORP	NOC	33,622 98	0 22%	1 74%	7 50%	9 31%	0 0203%
NATIONAL OILWELL VARCO INC	NOV	9,896 86	0 06%	6 99%	-10 50%	-3 88%	-0 0025%
NRG ENERGY INC	NRG	3,066 26	0 02%	6 05%	23 50%	30 26%	0 0060%
NORFOLK SOUTHERN CORP	NSC	21,398 44	0 14%	3 29%	8 00%	11 42%	0 0158%
NETAPP INC	NTAP	6,345 16	0 04%	3 31%	5 50%	8 90%	0 0037%
NORTHERN TRUST CORP	NTRS	12,601 49	0 08%	2 64%	9 50%	12 27%	0 0100%
NUCOR CORP	NUE	12,257 20	0 08%	3 91%	22 50%	26 85%	0 0213%
NVIDIA CORP	NVDA	13,611 40	0 09%	1 82%	9 00%	10 90%	0 0096%
NEWELL RUBBERMAID INC	NWL	9,017 30	0 06%	2 25%	14 00%	16 41%	0 0096%
NEWS CORP - CLASS A	NWSA	6,046 58	0 04%	1 92%	33 50%	35 74%	0 0140%
REALTY INCOME CORP	O	-	N/A	3 96%	N/A	N/A	N/A
OWENS-ILLINOIS INC	OI	2,023 34	0 01%	0 00%	5 50%	5 50%	0 0007%
ONEOK INC	OKE	4,105 94	0 03%	13 41%	9 50%	23 55%	0 0063%
OMNICOM GROUP	OMC	17,415 71	0 11%	2 99%	9 00%	12 12%	0 0137%
ORACLE CORP	ORCL	146,606 70	0 95%	1 72%	7 00%	8 78%	0 0834%
O'REILLY AUTOMOTIVE INC	ORLY	24,632 10	0 16%	0 00%	13 50%	13 50%	0 0215%
OCCIDENTAL PETROLEUM CORP	OXY	50,559 32	0 33%	4 53%	-4 00%	0 44%	0 0014%
PAYCHEX INC	PAYX	17,229 37	0 11%	3 71%	9 50%	13 39%	0 0149%
PEOPLE'S UNITED FINANCIAL	PBCT	4,289 35	0 03%	4 91%	11 00%	16 18%	0 0045%
PITNEY BOWES INC	PBI	3,243 23	0 02%	4 56%	4 00%	8 65%	0 0018%
PACCAR INC	PCAR	17,075 34	0 11%	4 56%	7 00%	11 72%	0 0130%
P G & E CORP	PCG	27,038 22	0 18%	3 30%	10 50%	13 97%	0 0245%
PLUM CREEK TIMBER CO	PCL	6 136 76	0 04%	4 98%	9 50%	14 72%	0 0059%
PRICELINE GROUP INC/THE	PCLN	52,950 89	0 34%	0 00%	16 50%	16 50%	0 0566%
PATTERSON COS INC	PDCO	4 122 37	0 03%	2 32%	9 50%	11 93%	0 0032%
PUBLIC SERVICE ENTERPRISE GP	PEG	21,167 77	0 14%	3 92%	4 00%	8 00%	0 0110%
PEPSICO INC	PEP	141,667 80	0 92%	2 96%	6 00%	9 05%	0 0831%
PFIZER INC	PFE	179,819 50	1 17%	4 12%	9 50%	13 82%	0 1610%
PRINCIPAL FINANCIAL GROUP	PFG	10,078 79	0 07%	4 43%	6 50%	11 07%	0 0072%
PROCTER & GAMBLE CO/THE	PG	216,094 80	1 40%	3 32%	7 50%	10 94%	0 1532%
PROGRESSIVE CORP	PGR	17,672 46	0 11%	2 28%	11 50%	13 91%	0 0159%
PARKER HANNIFIN CORP	PH	13,090 13	0 08%	2 60%	6 50%	9 18%	0 0078%
PULTEGROUP INC	PHM	5,362 75	0 03%	2 34%	14 00%	16 50%	0 0057%
PERKINELMER INC	PKI	4,857 80	0 03%	0 65%	6 50%	7 17%	0 0023%
PROLOGIS INC	PLD	-	N/A	4 50%	N/A	N/A	N/A
PHILIP MORRIS INTERNATIONAL	PM	136 864 70	0 89%	4 62%	2 00%	6 67%	0 0591%
PNC FINANCIAL SERVICES GROUP	PNC	42,368 14	0 27%	2 61%	4 50%	7 17%	0 0197%
PENTAIR PLC	PNR	7,765 30	0 05%	3 06%	15 00%	18 29%	0 0092%
PINNACLE WEST CAPITAL	PNW	7,491 04	0 05%	3 79%	4 00%	7 87%	0 0038%
PEPCO HOLDINGS INC	POM	6 674 49	0 04%	4 10%	8 50%	12 77%	0 0055%
PPG INDUSTRIES INC	PPG	24,037 64	0 16%	1 61%	12 50%	14 21%	0 0221%
PPL CORP	PPL	24,117 33	0 16%	4 23%	3 00%	7 29%	0 0114%
PERRIGO CO PLC	PRGO	19,774 25	0 13%	0 37%	14 50%	14 90%	0 0191%
PRUDENTIAL FINANCIAL INC	PRU	26,647 75	0 17%	4 83%	4 50%	9 44%	0 0163%
PUBLIC STORAGE	PSA	-	N/A	2 95%	N/A	N/A	N/A
PHILLIPS 66	PSX	38,887 77	0 25%	3 28%	5 00%	8 36%	0 0211%
PVH CORP	PVH	5,783 43	0 04%	0 21%	6 00%	6 22%	0 0023%
QUANTA SERVICES INC	PWR	2,705 14	0 02%	0 00%	10 00%	10 00%	0 0018%
PRAXAIR INC	PX	29,071 38	0 19%	2 94%	7 50%	10 55%	0 0199%
PIONEER NATURAL RESOURCES CO	PXD	16,543 61	0 11%	0 07%	11 50%	11 57%	0 0124%
PAYPAL HOLDINGS INC	PYPL	40,927 91	N/A	0 00%	N/A	N/A	N/A
QUALCOMM INC	QCOM	64,285 00	0 42%	4 88%	4 50%	9 49%	0 0395%
QORVO INC	QRVO	4,867 90	N/A	0 00%	N/A	N/A	N/A
RYDER SYSTEM INC	R	2,803 21	0 02%	3 13%	11 50%	14 81%	0 0027%
REYNOLDS AMERICAN INC	RAI	69,311 40	0 45%	2 97%	13 50%	16 67%	0 0749%
ROYAL CARIBBEAN CRUISES LTD	RCL	14,952 52	0 10%	2 21%	21 50%	23 95%	0 0232%
REGENERON PHARMACEUTICALS	REGN	37,508 43	0 24%	0 00%	24 50%	24 50%	0 0595%
REGIONS FINANCIAL CORP	RF	9,527 19	0 06%	3 81%	6 00%	9 92%	0 0061%
ROBERT HALF INTL INC	RHI	4,861 70	0 03%	2 29%	12 50%	14 93%	0 0047%
RED HAT INC	RHT	11,316 90	0 07%	0 00%	15 50%	15 50%	0 0114%
TRANSOCEAN LTD	RIG	3 131 63	0 02%	0 00%	-15 50%	-15 50%	-0 0031%
RALPH LAUREN CORP	RL	7,045 35	0 05%	2 65%	6 50%	9 24%	0 0042%
ROCKWELL AUTOMATION INC	ROK	12,350 29	0 08%	3 09%	6 00%	9 18%	0 0073%
ROPER TECHNOLOGIES INC	ROP	16,125 78	0 10%	0 75%	8 00%	8 78%	0 0092%
ROSS STORES INC	ROST	21,287 06	0 14%	1 03%	9 00%	10 08%	0 0139%
RANGE RESOURCES CORP	RRC	4,556 13	0 03%	0 60%	10 00%	10 63%	0 0031%
REPUBLIC SERVICES INC	RSG	15,215 97	0 10%	2 78%	8 00%	10 89%	0 0107%
RAYTHEON COMPANY	RTN	36,776 18	0 24%	2 19%	8 50%	10 78%	0 0257%
STARBUCKS CORP	SBUX	81,589 15	0 53%	1 46%	17 00%	18 58%	0 0982%
SCANA CORP	SCG	9 224 20	0 06%	3 50%	4 50%	8 08%	0 0048%
SCHWAB (CHARLES) CORP	SCHW	29,250 12	0 19%	1 08%	14 50%	15 66%	0 0297%
SPECTRA ENERGY CORP	SE	18,512 89	0 12%	5 87%	5 00%	11 02%	0 0132%
SEALED AIR CORP	SEE	8,360 64	0 05%	1 23%	19 50%	20 85%	0 0113%
SHERWIN-WILLIAMS CO/THE	SHW	23,077 88	0 15%	1 29%	13 00%	14 37%	0 0215%
SIGNET JEWELERS LTD	SIG	7,529 45	0 05%	1 06%	14 50%	15 64%	0 0076%
JM SMUCKER CO/THE	SJM	15,097 25	0 10%	2 17%	7 50%	9 75%	0 0095%
SCHLUMBERGER LTD	SLB	86,801 79	0 56%	2 91%	7 00%	10 01%	0 0563%
SL GREEN REALTY CORP	SLG	-	N/A	3 58%	N/A	N/A	N/A
SNAP-ON INC	SNA	8,015 26	0 05%	1 77%	9 50%	11 35%	0 0059%
SANDISK CORP	SNDK	13,504 50	0 09%	0 00%	1 50%	1 50%	0 0013%
SCRIPPS NETWORKS INTER-CL A	SNI	6,830 71	0 04%	1 73%	9 00%	10 81%	0 0048%
SOUTHERN CO/THE	SO	43,663 04	0 28%	4 66%	2 50%	7 22%	0 0204%
SIMON PROPERTY GROUP INC	SPG	-	N/A	3 53%	N/A	N/A	N/A

		[4]	[5]	[6]	[7]	[8]	[9]
Company	Ticker	Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
STAPLES INC	SPLS	5,271 10	0 03%	5 86%	-2 00%	3 80%	0 0013%
STERICYCLE INC	SRCL	9 008 10	0 06%	0 00%	10 00%	10 00%	0 0058%
SEMPRA ENERGY	SRE	23,443 43	0 15%	2 97%	9 50%	12 61%	0 0192%
SUNTRUST BANKS INC	STI	16,122 36	0 10%	3 70%	9 00%	12 87%	0 0134%
ST JUDE MEDICAL INC	STJ	13,969 93	0 09%	2 51%	5 00%	7 57%	0 0069%
STATE STREET CORP	STT	21,150 62	0 14%	2 71%	6 50%	9 30%	0 0127%
SEAGATE TECHNOLOGY	STX	8,600 37	0 06%	8 68%	2 00%	10 77%	0 0060%
CONSTELLATION BRANDS INC-A	STZ	27,016 90	0 18%	1 00%	17 00%	18 09%	0 0317%
STANLEY BLACK & DECKER INC	SWK	13,496 30	0 09%	2 44%	10 00%	12 56%	0 0110%
SKYWORKS SOLUTIONS INC	SWKS	10,700 86	0 07%	1 86%	21 00%	23 06%	0 0160%
SOUTHWESTERN ENERGY CO	SWN	3,133 72	0 02%	0 00%	-4 00%	-4 00%	-0 0008%
SYNCHRONY FINANCIAL	SYF	20,428 69	N/A	0 00%	N/A	N/A	N/A
STRYKER CORP	SYK	36,156 16	0 23%	1 58%	15 50%	17 20%	0 0403%
SYMANTEC CORP	SYMC	12,331 89	0 08%	3 20%	-3 50%	-0 36%	-0 0003%
SYSCO CORP	SYI	24,143 76	0 16%	2 91%	12 00%	15 08%	0 0236%
AT&T INC	T	222,772 60	1 44%	5 30%	5 50%	10 95%	0 1580%
MOLSON COORS BREWING CO -B	TAP	15,479 91	0 10%	1 96%	8 50%	10 54%	0 0106%
TERADATA CORP	TDC	3,028 82	0 02%	0 00%	3 50%	3 50%	0 0007%
TECO ENERGY INC	TE	6,371 57	0 04%	3 43%	5 50%	9 02%	0 0037%
TE CONNECTIVITY LTD	TEL	20,159 74	0 13%	2 46%	9 00%	11 57%	0 0151%
TEGNA INC	TGNA	4,806 28	0 03%	2 58%	-0 50%	2 07%	0 0006%
TARGET CORP	TGT	42,095 73	0 27%	3 38%	9 00%	12 53%	0 0342%
TENET HEALTHCARE CORP	THC	2 329 46	0 02%	0 00%	28 00%	28 00%	0 0042%
TIFFANY & CO	TIF	7,788 15	0 05%	2 73%	12 50%	15 40%	0 0078%
TJX COMPANIES INC	TJX	45,467 72	0 29%	1 24%	10 00%	11 30%	0 0333%
TORCHMARK CORP	TMK	6 010 17	0 04%	1 11%	7 50%	8 65%	0 0034%
THERMO FISHER SCIENTIFIC INC	TMO	49,208 79	0 32%	0 49%	12 50%	13 02%	0 0415%
TRIPADVISOR INC	TRIP	8 804 34	0 06%	0 00%	18 50%	18 50%	0 0106%
T ROWE PRICE GROUP INC	TROW	16,481 58	0 11%	3 36%	9 50%	13 02%	0 0139%
TRAVELERS COS INC/THE	TRV	31,566 84	0 20%	2 35%	4 50%	6 90%	0 0141%
TRACTOR SUPPLY COMPANY	TSCO	10,999 15	0 07%	1 13%	15 50%	16 72%	0 0119%
TYSON FOODS INC-CL A	TSN	22,158 45	0 14%	1 00%	12 50%	13 56%	0 0195%
TESORO CORP	TSO	8,696 22	0 06%	2 78%	12 50%	15 45%	0 0087%
TOTAL SYSTEM SERVICES INC	TSS	7,075 79	0 05%	1 04%	11 50%	12 60%	0 0058%
TIME WARNER CABLE	TWC	50,791 92	0 33%	1 67%	6 00%	7 72%	0 0254%
TIME WARNER INC	TWX	50,042 96	0 32%	2 58%	12 00%	14 73%	0 0478%
TEXAS INSTRUMENTS INC	TXN	51 368 96	0 33%	3 02%	11 50%	14 69%	0 0489%
TEXTRON INC	TXT	8,519 85	0 06%	0 26%	17 00%	17 28%	0 0085%
TYCO INTERNATIONAL PLC	TYC	14,103 25	0 09%	2 47%	11 50%	14 11%	0 0129%
UNDER ARMOUR INC-CLASS A	UA	15,663 93	0 10%	0 00%	23 50%	23 50%	0 0239%
UNITED CONTINENTAL HOLDINGS	UAL	17,557 84	0 11%	0 00%	24 50%	24 50%	0 0279%
UNIVERSAL HEALTH SERVICES-B	UHS	10,009 78	0 06%	0 39%	12 00%	12 41%	0 0081%
UNITEDHEALTH GROUP INC	UNH	105,420 90	0 68%	1 81%	12 50%	14 42%	0 0985%
UNUM GROUP	UNM	5,859 17	0 04%	3 07%	11 00%	14 24%	0 0054%
UNION PACIFIC CORP	UNP	64,640 86	0 42%	2 91%	10 00%	13 06%	0 0547%
UNITED PARCEL SERVICE-CL B	UPS	84 725 19	0 55%	3 32%	10 50%	13 99%	0 0768%
URBAN OUTFITTERS INC	URBN	2,904 95	0 02%	0 00%	15 00%	15 00%	0 0028%
UNITED RENTALS INC	URI	4,023 12	0 03%	0 00%	16 00%	16 00%	0 0042%
US BANCORP	USB	65,672 13	0 43%	2 72%	5 50%	8 29%	0 0353%
UNITED TECHNOLOGIES CORP	UTX	75,095 20	0 49%	3 02%	7 00%	10 13%	0 0493%
VISA INC-CLASS A SHARES	V	149,949 30	0 97%	0 88%	13 00%	13 94%	0 1354%
VARIAN MEDICAL SYSTEMS INC	VAR	7,373 88	0 05%	0 00%	7 50%	7 50%	0 0036%
VF CORP	VFC	24 215 26	0 16%	2 61%	12 00%	14 77%	0 0232%
VIACOM INC-CLASS B	VIAB	12,838 72	0 08%	4 96%	9 00%	14 18%	0 0118%
VALERO ENERGY CORP	VLO	26,841 59	0 17%	4 32%	10 00%	14 54%	0 0253%
VULCAN MATERIALS CO	VMC	11,997 02	0 08%	0 44%	47 50%	48 04%	0 0373%
VORNADO REALTY TRUST	VNO	15,111 56	0 10%	3 14%	6 50%	9 74%	0 0095%
VERISK ANALYTICS INC	VRSK	11,220 05	0 07%	0 00%	12 50%	12 50%	0 0091%
VERISIGN INC	VRSN	8 297 84	0 05%	0 00%	11 00%	11 00%	0 0059%
VERTEX PHARMACEUTICALS INC	VRTX	19,580 44	N/A	0 00%	N/A	N/A	N/A
VENTAS INC	VTR	-	N/A	6 49%	N/A	N/A	N/A
VERIZON COMMUNICATIONS INC	VZ	200,967 90	1 30%	4 58%	5 50%	10 21%	0 1329%
WATERS CORP	WAT	9,509 43	0 06%	0 00%	8 00%	8 00%	0 0049%
WALGREENS BOOTS ALLIANCE INC	WBA	81,999 59	0 53%	1 91%	15 00%	17 05%	0 0906%
WESTERN DIGITAL CORP	WDC	9,263 10	0 06%	4 99%	2 00%	7 04%	0 0042%
WEC ENERGY GROUP INC	WEC	17,596 22	0 11%	3 55%	6 00%	9 66%	0 0110%
WELLS FARGO & CO	WFC	230,698 70	1 49%	3 50%	5 50%	9 10%	0 1360%
WHOLE FOODS MARKET INC	WFM	10,093 68	0 07%	1 87%	8 50%	10 45%	0 0068%
WHIRLPOOL CORP	WHR	10,119 72	0 07%	2 78%	13 50%	16 47%	0 0108%
WILLIS TOWERS WATSON PLC	WLTW	N/A	N/A	0 00%	N/A	N/A	N/A
WASTE MANAGEMENT INC	WM	23,644 73	0 15%	2 97%	7 00%	10 07%	0 0154%
WILLIAMS COS INC	WMB	9,954 21	0 06%	19 26%	16 00%	36 80%	0 0237%
WAL-MART STORES INC	WMT	209,677 20	1 36%	3 06%	1 50%	4 58%	0 0623%
WESTROCK CO	WRK	7,694 58	N/A	5 01%	N/A	N/A	N/A
WESTERN UNION CO	WU	8,541 28	0 06%	3 79%	6 00%	9 90%	0 0055%
WEYERHAEUSER CO	WY	11,355 15	0 07%	5 58%	12 50%	18 43%	0 0136%
WYNDHAM WORLDWIDE CORP	WYN	7,385 27	0 05%	2 64%	8 50%	11 25%	0 0054%
WYNN RESORTS LTD	WYNN	6,061 10	0 04%	3 35%	3 50%	6 91%	0 0027%
CIMAREX ENERGY CO	XEC	7,674 41	0 05%	0 79%	4 00%	4 81%	0 0024%
XCEL ENERGY INC	XEL	19,778 34	0 13%	3 49%	4 50%	8 07%	0 0103%
XL GROUP PLC	XL	8,472 08	0 05%	2 41%	9 00%	11 52%	0 0063%
XILINX INC	XLNX	12,074 26	0 08%	2 62%	17 00%	19 84%	0 0155%
EXXON MOBIL CORP	XOM	331,374 80	2 15%	3 67%	2 50%	6 22%	0 1335%
DENTSPLY INTERNATIONAL INC	XRAY	7,900 10	0 05%	0 51%	9 00%	9 53%	0 0049%

		[4]	[5]	[6]	[7]	[8]	[9]
Company	Ticker	Market Capitalization	Weight in Index	Estimated Dividend Yield	Long-Term Growth Est	DCF Result	Weighted DCF Result
XEROX CORP	XRX	8,797.78	0.06%	3.57%	1.50%	5.10%	0.0029%
XYLEM INC	XYL	6,494.84	0.04%	1.71%	9.50%	11.29%	0.0048%
YAHOO! INC	YHOO	25,248.81	0.16%	0.00%	1.50%	1.50%	0.0025%
YUM! BRANDS INC	YUM	28,118.44	0.18%	2.88%	8.50%	11.50%	0.0210%
ZIMMER BIOMET HOLDINGS INC	ZBH	18,611.04	0.12%	0.98%	10.50%	11.53%	0.0139%
ZIONS BANCORPORATION	ZION	4,065.15	0.03%	1.31%	10.00%	11.38%	0.0030%
ZOETIS INC	ZTS	19,614.39	N/A	0.97%	N/A	N/A	N/A
Total Market Capitalization		15,433,945.18					12.78%

Notes

[1] Equals sum of Col [9]

[2] Source: Bloomberg Professional

[3] Equals [1] - [2]

[4] Source: Value Line

[5] Equals weight in S&P 500 based on market capitalization

[6] Source: Value Line

[7] Source: Value Line

[8] Equals  $([6] \times (1 + (0.5 \times [7]))) + [7]$

[9] Equals Col [5] x Col [8]

I/A

Bloomberg, Value Line, and Calculated Beta Coefficients

Company	Ticker	[1]	[2]
		Bloomberg	Value Line
Atmos Energy Corporation	ATO	0.633	0.80
Laclede Group, Inc. (The)	LG	0.657	0.70
New Jersey Resources Corporation	NJR	0.680	0.80
Northwest Natural Gas Company	NWN	0.611	0.65
South Jersey Industries, Inc.	SJI	0.644	0.80
Southwest Gas Corporation	SWX	0.554	0.80
WGL Holdings, Inc.	WGL	0.663	0.75
Mean		0.634	0.76

Notes:

[1] Source: Bloomberg Professional

[2] Source: Value Line

IIA

Capital Asset Pricing Model Results  
Bloomberg, and Value Line Derived Market Risk Premium

	[1]	[2]	[3]	[4]	[5]	[6]
	Risk-Free Rate	Average Beta Coefficient	Bloomberg Market DCF Derived	Value Line Market DCF Derived	Bloomberg MRP	Value Line MRP
<b>PROXY GROUP AVERAGE BLOOMBERG BETA COEFFICIENT</b>						
Current 30-Year Treasury [7]	2.79%	0.634	10.66%	9.99%	9.55%	9.13%
Projected 30-Year Treasury [8]	3.35%	0.634	10.66%	9.99%	10.11%	9.69%
Mean					9.83%	9.41%
	Risk-Free Rate	Average Beta Coefficient	Bloomberg Market DCF Derived	Value Line Market DCF Derived	Bloomberg MRP	Value Line MRP
<b>PROXY GROUP AVERAGE VALUE LINE AVERAGE BETA COEFFICIENT</b>						
Current 30-Year Treasury [7]	2.79%	0.757	10.66%	9.99%	10.86%	10.35%
Projected 30-Year Treasury [8]	3.35%	0.757	10.66%	9.99%	11.42%	10.92%
Mean					11.14%	10.63%

Notes:

[1] See Note [7]

[2] Source: Exhibit RBH-5

[3] Source: Exhibit RBH-4

[4] Source: Exhibit RBH-4

[5] Equals Col. [1] + (Col. [2] x Col. [3])

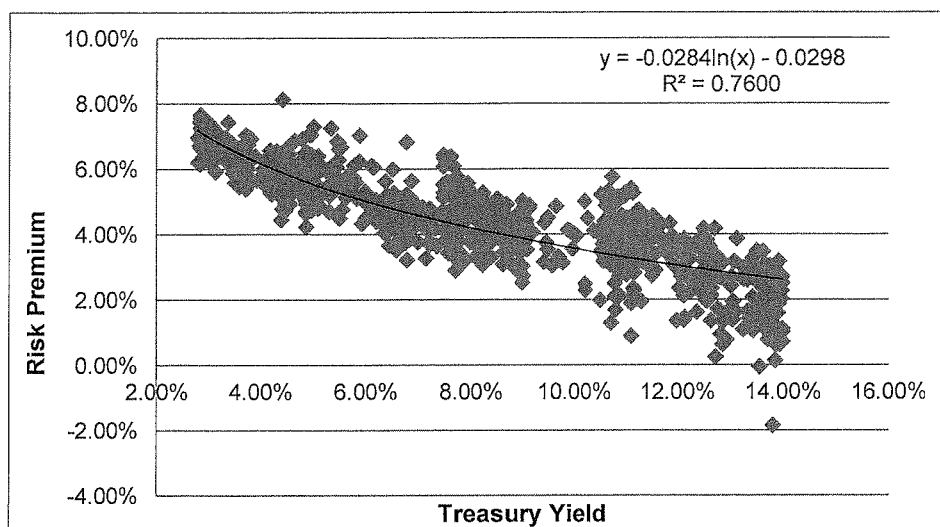
[6] Equals Col. [1] + (Col. [2] x Col. [4])

[7] Source: Bloomberg Professional

[8] Source: Blue Chip Financial Forecasts, Vol. 35, No. 2, February 1, 2016, at 2

Bond Yield Plus Risk Premium

[1]	[2]	[3]	[4]	[5]
Constant	Slope	30-Year Treasury Yield	Risk Premium	Return on Equity
-2.98%	-2.84%			
Current 30-Year Treasury		2.79%	7.20%	9.98%
Near-Term Projected 30-Year Treasury		3.35%	6.67%	10.02%
Long-Term Projected 30-Year Treasury		4.65%	5.74%	10.39%



Notes:

[1] Constant of regression equation

[2] Slope of regression equation

[3] Source: Current = Bloomberg Professional,

Near Term Projected = Blue Chip Financial Forecasts, Vol. 35, No. 2, February 1, 2016, at 2

Long Term Projected = Blue Chip Financial Forecasts, Vol. 34, No. 12, December 1, 2015, at 14

[4] Equals [1] +  $\ln([3]) \times [2]$

[5] Equals [3] + [4]

[6] Source: SNL Financial

[7] Source: SNL Financial

[8] Source: Bloomberg Professional, equals 188-trading day average (i.e. lag period) as of August 14, 2015

[9] Equals [7] - [8]

[6]	[7]	[8]	[9]
Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
1/3/1980	12.55%	9.39%	3.16%
1/4/1980	13.75%	9.40%	4.35%
1/14/1980	13.20%	9.44%	3.76%
1/18/1980	14.00%	9.47%	4.53%
1/31/1980	12.61%	9.56%	3.05%
2/8/1980	14.50%	9.63%	4.87%
2/14/1980	13.00%	9.67%	3.33%
2/15/1980	13.00%	9.69%	3.31%
2/29/1980	14.00%	9.86%	4.14%
3/5/1980	14.00%	9.91%	4.09%
3/7/1980	13.50%	9.95%	3.55%
3/14/1980	14.00%	10.04%	3.96%
3/27/1980	12.69%	10.20%	2.49%
4/1/1980	14.75%	10.26%	4.49%
4/29/1980	12.50%	10.51%	1.99%
5/7/1980	14.27%	10.56%	3.71%
5/8/1980	13.75%	10.56%	3.19%
5/19/1980	15.50%	10.62%	4.88%
5/27/1980	14.60%	10.65%	3.95%
5/29/1980	16.00%	10.67%	5.33%
6/10/1980	13.78%	10.71%	3.07%
6/25/1980	14.25%	10.74%	3.51%
7/9/1980	14.51%	10.77%	3.74%
7/17/1980	12.90%	10.79%	2.11%
7/18/1980	13.80%	10.79%	3.01%
7/22/1980	14.10%	10.79%	3.31%
7/23/1980	14.19%	10.79%	3.40%
8/1/1980	12.50%	10.80%	1.70%
8/11/1980	14.85%	10.81%	4.04%
8/21/1980	13.03%	10.84%	2.19%
8/28/1980	13.61%	10.87%	2.74%
8/28/1980	14.00%	10.87%	3.13%
9/4/1980	14.00%	10.90%	3.10%
9/24/1980	15.00%	10.98%	4.02%
10/9/1980	14.50%	11.05%	3.45%
10/9/1980	14.50%	11.05%	3.45%
10/24/1980	14.00%	11.09%	2.91%
10/27/1980	15.20%	11.10%	4.10%
10/27/1980	15.20%	11.10%	4.10%
10/28/1980	12.00%	11.10%	0.90%
10/28/1980	13.00%	11.10%	1.90%
10/31/1980	14.50%	11.12%	3.38%
11/4/1980	15.00%	11.12%	3.88%
11/6/1980	14.35%	11.13%	3.22%
11/10/1980	13.25%	11.14%	2.11%
11/17/1980	15.50%	11.15%	4.35%
11/19/1980	13.50%	11.14%	2.36%
12/5/1980	14.60%	11.13%	3.47%
12/8/1980	16.40%	11.13%	5.27%
12/12/1980	15.45%	11.15%	4.30%



Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
12/17/1980	14.20%	11.16%	3.04%
12/17/1980	14.40%	11.16%	3.24%
12/18/1980	14.00%	11.16%	2.84%
12/22/1980	13.45%	11.16%	2.29%
12/26/1980	14.00%	11.15%	2.85%
12/30/1980	14.50%	11.14%	3.36%
12/31/1980	14.56%	11.14%	3.42%
1/7/1981	14.30%	11.13%	3.17%
1/12/1981	14.95%	11.14%	3.81%
1/26/1981	15.25%	11.20%	4.05%
1/30/1981	13.25%	11.23%	2.02%
2/11/1981	14.50%	11.33%	3.17%
2/20/1981	14.50%	11.40%	3.10%
3/12/1981	15.65%	11.60%	4.05%
3/25/1981	15.30%	11.74%	3.56%
4/1/1981	15.30%	11.82%	3.48%
4/9/1981	15.00%	11.91%	3.09%
4/29/1981	13.50%	12.12%	1.38%
4/29/1981	14.25%	12.12%	2.13%
4/30/1981	13.60%	12.14%	1.46%
4/30/1981	15.00%	12.14%	2.86%
5/21/1981	14.00%	12.37%	1.63%
6/3/1981	14.67%	12.46%	2.21%
6/22/1981	16.00%	12.57%	3.43%
6/25/1981	14.75%	12.60%	2.15%
7/2/1981	14.00%	12.64%	1.36%
7/10/1981	16.00%	12.69%	3.31%
7/14/1981	16.90%	12.71%	4.19%
7/21/1981	15.78%	12.78%	3.00%
7/27/1981	13.77%	12.82%	0.95%
7/27/1981	15.50%	12.82%	2.68%
7/31/1981	13.50%	12.86%	0.64%
7/31/1981	14.20%	12.86%	1.34%
8/12/1981	13.72%	12.93%	0.79%
8/12/1981	13.72%	12.93%	0.79%
8/12/1981	14.41%	12.93%	1.48%
8/25/1981	15.45%	13.02%	2.43%
8/27/1981	14.43%	13.04%	1.39%
8/28/1981	15.00%	13.05%	1.95%
9/23/1981	14.34%	13.24%	1.10%
9/24/1981	16.25%	13.26%	2.99%
9/29/1981	14.50%	13.31%	1.19%
9/30/1981	15.94%	13.32%	2.62%
10/2/1981	14.80%	13.36%	1.44%
10/12/1981	16.25%	13.43%	2.82%
10/20/1981	15.25%	13.50%	1.75%
10/20/1981	16.50%	13.50%	3.00%
10/20/1981	17.00%	13.50%	3.50%
10/23/1981	15.50%	13.54%	1.96%
10/26/1981	13.50%	13.56%	-0.06%
10/29/1981	16.50%	13.60%	2.90%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
11/4/1981	15.33%	13.62%	1.71%
11/6/1981	15.17%	13.64%	1.53%
11/12/1981	15.00%	13.65%	1.35%
11/25/1981	15.25%	13.66%	1.59%
11/25/1981	16.10%	13.66%	2.44%
11/25/1981	16.10%	13.66%	2.44%
11/30/1981	16.75%	13.66%	3.09%
12/1/1981	15.70%	13.66%	2.04%
12/1/1981	16.00%	13.66%	2.34%
12/15/1981	15.81%	13.69%	2.12%
12/17/1981	14.75%	13.70%	1.05%
12/22/1981	15.70%	13.72%	1.98%
12/22/1981	16.00%	13.72%	2.28%
12/30/1981	16.00%	13.74%	2.26%
12/30/1981	16.25%	13.74%	2.51%
1/4/1982	15.50%	13.75%	1.75%
1/14/1982	11.95%	13.80%	-1.85%
1/25/1982	16.25%	13.84%	2.41%
1/27/1982	16.84%	13.85%	2.99%
1/31/1982	14.00%	13.86%	0.14%
2/2/1982	16.24%	13.86%	2.38%
2/8/1982	15.50%	13.87%	1.63%
2/9/1982	14.95%	13.88%	1.07%
2/9/1982	15.75%	13.88%	1.87%
2/11/1982	16.00%	13.89%	2.11%
3/1/1982	15.96%	13.91%	2.05%
3/3/1982	15.00%	13.91%	1.09%
3/8/1982	17.10%	13.92%	3.18%
3/26/1982	16.00%	13.97%	2.03%
3/31/1982	16.25%	13.98%	2.27%
4/1/1982	16.50%	13.98%	2.52%
4/6/1982	15.00%	13.99%	1.01%
4/9/1982	16.50%	13.99%	2.51%
4/12/1982	15.10%	13.99%	1.11%
4/12/1982	16.70%	13.99%	2.71%
4/18/1982	14.70%	13.99%	0.71%
4/27/1982	15.00%	13.97%	1.03%
5/10/1982	14.57%	13.94%	0.63%
5/14/1982	15.80%	13.92%	1.88%
5/20/1982	15.82%	13.91%	1.91%
5/21/1982	15.50%	13.90%	1.60%
5/25/1982	16.25%	13.90%	2.35%
6/2/1982	14.50%	13.87%	0.63%
6/7/1982	16.00%	13.85%	2.15%
6/23/1982	15.50%	13.81%	1.69%
6/25/1982	16.50%	13.81%	2.69%
7/1/1982	15.55%	13.79%	1.76%
7/1/1982	16.00%	13.79%	2.21%
7/2/1982	15.10%	13.79%	1.31%
7/13/1982	16.80%	13.75%	3.05%
7/22/1982	14.50%	13.71%	0.79%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
7/28/1982	16.10%	13.68%	2.42%
7/30/1982	14.82%	13.66%	1.16%
8/4/1982	15.58%	13.64%	1.94%
8/6/1982	16.50%	13.63%	2.87%
8/11/1982	17.11%	13.62%	3.49%
8/25/1982	16.00%	13.59%	2.41%
8/30/1982	16.25%	13.58%	2.67%
9/3/1982	15.50%	13.57%	1.93%
9/9/1982	16.04%	13.55%	2.49%
9/15/1982	16.04%	13.52%	2.52%
9/17/1982	15.25%	13.51%	1.74%
9/29/1982	14.50%	13.43%	1.07%
9/30/1982	14.74%	13.42%	1.32%
9/30/1982	15.50%	13.42%	2.08%
9/30/1982	16.50%	13.42%	3.08%
9/30/1982	16.70%	13.42%	3.28%
10/1/1982	16.50%	13.41%	3.09%
10/8/1982	15.00%	13.33%	1.67%
10/15/1982	15.90%	13.26%	2.64%
10/19/1982	15.90%	13.22%	2.68%
10/27/1982	17.00%	13.12%	3.88%
10/28/1982	14.75%	13.11%	1.64%
11/2/1982	16.25%	13.07%	3.18%
11/4/1982	15.75%	13.03%	2.72%
11/5/1982	14.73%	13.01%	1.72%
11/17/1982	16.00%	12.86%	3.14%
11/23/1982	15.50%	12.79%	2.71%
11/24/1982	14.50%	12.77%	1.73%
11/24/1982	16.02%	12.77%	3.25%
11/30/1982	12.98%	12.72%	0.26%
11/30/1982	15.50%	12.72%	2.78%
11/30/1982	15.50%	12.72%	2.78%
11/30/1982	15.65%	12.72%	2.93%
11/30/1982	16.00%	12.72%	3.28%
11/30/1982	16.10%	12.72%	3.38%
12/3/1982	15.33%	12.68%	2.65%
12/8/1982	15.75%	12.63%	3.12%
12/13/1982	16.00%	12.58%	3.42%
12/14/1982	16.40%	12.57%	3.83%
12/17/1982	16.25%	12.52%	3.73%
12/20/1982	15.00%	12.51%	2.49%
12/21/1982	15.70%	12.49%	3.21%
12/28/1982	15.25%	12.42%	2.83%
12/28/1982	15.25%	12.42%	2.83%
12/29/1982	16.25%	12.41%	3.84%
12/29/1982	16.25%	12.41%	3.84%
1/11/1983	15.90%	12.26%	3.64%
1/12/1983	15.50%	12.24%	3.26%
1/18/1983	15.00%	12.18%	2.82%
1/24/1983	15.50%	12.13%	3.37%
1/24/1983	16.00%	12.13%	3.87%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
1/28/1983	14.90%	12.08%	2.82%
1/31/1983	15.00%	12.07%	2.93%
2/10/1983	15.00%	11.97%	3.03%
2/25/1983	15.70%	11.84%	3.86%
3/2/1983	15.25%	11.79%	3.46%
3/16/1983	16.00%	11.62%	4.38%
3/21/1983	14.96%	11.57%	3.39%
3/23/1983	15.40%	11.53%	3.87%
3/23/1983	16.10%	11.53%	4.57%
3/24/1983	15.00%	11.51%	3.49%
4/12/1983	13.25%	11.30%	1.95%
4/29/1983	15.05%	11.09%	3.96%
5/3/1983	15.40%	11.06%	4.34%
5/9/1983	15.50%	11.00%	4.50%
5/19/1983	14.85%	10.90%	3.95%
5/31/1983	14.00%	10.84%	3.16%
6/2/1983	14.50%	10.82%	3.68%
6/7/1983	14.50%	10.80%	3.70%
6/9/1983	14.85%	10.79%	4.06%
6/20/1983	14.15%	10.74%	3.41%
6/20/1983	16.50%	10.74%	5.76%
6/27/1983	14.50%	10.71%	3.79%
6/30/1983	14.80%	10.70%	4.10%
6/30/1983	15.90%	10.70%	5.20%
7/1/1983	14.80%	10.70%	4.10%
7/5/1983	15.00%	10.69%	4.31%
7/8/1983	15.50%	10.69%	4.81%
7/19/1983	15.00%	10.70%	4.30%
7/19/1983	15.10%	10.70%	4.40%
8/18/1983	15.30%	10.81%	4.49%
8/19/1983	15.79%	10.82%	4.97%
8/29/1983	16.00%	10.85%	5.15%
8/31/1983	14.75%	10.87%	3.88%
8/31/1983	15.25%	10.87%	4.38%
9/8/1983	14.75%	10.89%	3.86%
9/16/1983	15.51%	10.93%	4.58%
9/26/1983	14.50%	10.96%	3.54%
9/28/1983	14.25%	10.97%	3.28%
9/30/1983	16.15%	10.98%	5.17%
9/30/1983	16.25%	10.98%	5.27%
10/1/1983	16.25%	10.98%	5.27%
10/13/1983	15.52%	11.02%	4.50%
10/19/1983	15.20%	11.04%	4.16%
10/26/1983	14.75%	11.06%	3.69%
10/27/1983	14.88%	11.07%	3.81%
10/27/1983	15.33%	11.07%	4.26%
11/9/1983	14.82%	11.10%	3.72%
11/9/1983	16.51%	11.10%	5.41%
11/9/1983	16.51%	11.10%	5.41%
12/1/1983	14.50%	11.17%	3.33%
12/8/1983	15.90%	11.20%	4.70%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
12/9/1983	15.30%	11.21%	4.09%
12/12/1983	14.50%	11.22%	3.28%
12/12/1983	15.50%	11.22%	4.28%
12/20/1983	15.40%	11.26%	4.14%
12/20/1983	16.00%	11.26%	4.74%
12/22/1983	15.75%	11.27%	4.48%
12/29/1983	15.00%	11.30%	3.70%
12/30/1983	15.00%	11.30%	3.70%
1/10/1984	15.90%	11.34%	4.56%
1/13/1984	15.50%	11.36%	4.14%
1/18/1984	15.53%	11.38%	4.15%
1/26/1984	15.90%	11.42%	4.48%
2/14/1984	14.25%	11.51%	2.74%
2/28/1984	14.50%	11.58%	2.92%
3/20/1984	16.00%	11.70%	4.30%
3/23/1984	15.50%	11.72%	3.78%
4/9/1984	15.20%	11.81%	3.39%
4/18/1984	16.20%	11.86%	4.34%
4/27/1984	15.85%	11.90%	3.95%
5/15/1984	13.35%	11.99%	1.36%
5/16/1984	15.00%	12.00%	3.00%
5/22/1984	14.40%	12.04%	2.36%
6/13/1984	15.50%	12.18%	3.32%
7/10/1984	16.00%	12.37%	3.63%
8/7/1984	16.69%	12.51%	4.18%
8/9/1984	15.33%	12.51%	2.82%
8/17/1984	14.82%	12.54%	2.28%
8/21/1984	14.64%	12.54%	2.10%
8/27/1984	14.52%	12.56%	1.96%
8/28/1984	14.75%	12.57%	2.18%
8/30/1984	15.60%	12.58%	3.02%
9/12/1984	15.60%	12.60%	3.00%
9/12/1984	15.90%	12.60%	3.30%
9/25/1984	16.25%	12.61%	3.64%
10/2/1984	14.80%	12.62%	2.18%
10/9/1984	14.75%	12.63%	2.12%
10/10/1984	15.50%	12.63%	2.87%
10/18/1984	15.00%	12.65%	2.35%
10/24/1984	15.50%	12.65%	2.85%
11/7/1984	15.00%	12.64%	2.36%
11/20/1984	15.92%	12.63%	3.29%
11/30/1984	15.50%	12.60%	2.90%
12/18/1984	15.00%	12.55%	2.45%
12/20/1984	15.00%	12.54%	2.46%
12/28/1984	15.75%	12.51%	3.24%
12/28/1984	16.25%	12.51%	3.74%
1/2/1985	16.00%	12.50%	3.50%
1/31/1985	14.75%	12.37%	2.38%
2/7/1985	14.85%	12.33%	2.52%
2/15/1985	15.00%	12.27%	2.73%
2/20/1985	14.50%	12.25%	2.25%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
2/22/1985	14.86%	12.25%	2.61%
3/14/1985	15.50%	12.16%	3.34%
3/28/1985	14.80%	12.08%	2.72%
4/9/1985	15.50%	12.02%	3.48%
4/16/1985	15.70%	11.96%	3.74%
6/10/1985	15.75%	11.58%	4.17%
6/26/1985	14.82%	11.46%	3.36%
7/9/1985	15.00%	11.38%	3.62%
7/26/1985	14.50%	11.26%	3.24%
8/29/1985	14.50%	11.11%	3.39%
8/30/1985	14.38%	11.11%	3.27%
9/12/1985	15.25%	11.07%	4.18%
9/23/1985	15.30%	11.03%	4.27%
9/25/1985	14.50%	11.02%	3.48%
9/26/1985	13.80%	11.02%	2.78%
9/26/1985	14.50%	11.02%	3.48%
10/25/1985	15.25%	10.91%	4.34%
11/8/1985	12.94%	10.85%	2.09%
11/20/1985	14.90%	10.81%	4.09%
11/25/1985	13.30%	10.79%	2.51%
12/6/1985	12.00%	10.71%	1.29%
12/11/1985	14.90%	10.68%	4.22%
12/20/1985	14.88%	10.59%	4.29%
12/20/1985	15.00%	10.59%	4.41%
12/20/1985	15.00%	10.59%	4.41%
12/30/1985	15.75%	10.53%	5.22%
12/31/1985	14.00%	10.51%	3.49%
12/31/1985	14.50%	10.51%	3.99%
1/17/1986	14.50%	10.38%	4.12%
2/11/1986	12.50%	10.20%	2.30%
2/12/1986	15.20%	10.19%	5.01%
3/11/1986	14.00%	9.98%	4.02%
4/2/1986	12.90%	9.76%	3.14%
4/28/1986	13.01%	9.47%	3.54%
5/21/1986	13.25%	9.18%	4.07%
5/28/1986	14.00%	9.12%	4.88%
5/29/1986	13.90%	9.10%	4.80%
6/2/1986	13.00%	9.08%	3.92%
6/11/1986	14.00%	8.97%	5.03%
6/13/1986	13.55%	8.94%	4.61%
6/27/1986	11.88%	8.77%	3.11%
7/14/1986	12.60%	8.59%	4.01%
7/30/1986	13.30%	8.38%	4.92%
8/14/1986	13.50%	8.22%	5.28%
9/5/1986	13.30%	8.02%	5.28%
9/23/1986	12.75%	7.91%	4.84%
10/30/1986	13.00%	7.67%	5.33%
10/31/1986	13.75%	7.66%	6.09%
11/10/1986	14.00%	7.61%	6.39%
11/19/1986	13.75%	7.56%	6.19%
11/25/1986	13.15%	7.54%	5.61%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
12/22/1986	13.80%	7.47%	6.33%
12/30/1986	13.90%	7.47%	6.43%
1/20/1987	12.75%	7.47%	5.28%
1/23/1987	13.55%	7.47%	6.08%
1/27/1987	12.16%	7.47%	4.69%
2/13/1987	12.60%	7.47%	5.13%
2/24/1987	12.00%	7.47%	4.53%
3/30/1987	12.20%	7.46%	4.74%
3/31/1987	13.00%	7.47%	5.53%
5/5/1987	12.85%	7.60%	5.25%
5/28/1987	13.50%	7.73%	5.77%
6/15/1987	13.20%	7.80%	5.40%
6/30/1987	12.60%	7.85%	4.75%
7/10/1987	12.90%	7.88%	5.02%
7/27/1987	13.50%	7.93%	5.57%
8/25/1987	11.40%	8.09%	3.31%
9/18/1987	13.00%	8.27%	4.73%
10/20/1987	12.60%	8.55%	4.05%
10/20/1987	12.98%	8.55%	4.43%
11/12/1987	12.75%	8.68%	4.07%
11/13/1987	12.75%	8.68%	4.07%
11/24/1987	12.50%	8.73%	3.77%
12/8/1987	12.50%	8.81%	3.69%
12/22/1987	12.00%	8.90%	3.10%
12/31/1987	12.85%	8.94%	3.91%
12/31/1987	13.25%	8.94%	4.31%
1/15/1988	13.15%	8.99%	4.16%
1/20/1988	12.75%	8.99%	3.76%
1/29/1988	13.20%	8.99%	4.21%
2/4/1988	12.60%	8.99%	3.61%
3/23/1988	13.00%	8.95%	4.05%
5/27/1988	13.18%	9.02%	4.16%
6/14/1988	13.50%	9.00%	4.50%
6/17/1988	11.72%	8.99%	2.73%
6/24/1988	11.50%	8.97%	2.53%
7/1/1988	12.75%	8.95%	3.80%
7/8/1988	12.00%	8.93%	3.07%
7/18/1988	12.00%	8.91%	3.09%
7/20/1988	13.40%	8.90%	4.50%
8/8/1988	12.74%	8.90%	3.84%
9/20/1988	12.90%	8.93%	3.97%
9/26/1988	12.40%	8.93%	3.47%
9/27/1988	13.65%	8.93%	4.72%
9/30/1988	13.25%	8.94%	4.31%
10/13/1988	13.10%	8.93%	4.17%
10/21/1988	12.80%	8.94%	3.86%
10/25/1988	13.25%	8.94%	4.31%
10/26/1988	13.50%	8.94%	4.56%
10/27/1988	12.95%	8.94%	4.01%
10/28/1988	13.00%	8.95%	4.05%
11/15/1988	12.00%	8.98%	3.02%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
11/29/1988	12.75%	9.01%	3.74%
12/19/1988	13.00%	9.05%	3.95%
12/21/1988	12.90%	9.05%	3.85%
12/22/1988	13.50%	9.05%	4.45%
1/26/1989	12.60%	9.06%	3.54%
1/27/1989	13.00%	9.06%	3.94%
2/8/1989	13.37%	9.05%	4.32%
3/8/1989	13.00%	9.04%	3.96%
5/4/1989	13.00%	9.04%	3.96%
6/8/1989	13.50%	8.96%	4.54%
7/19/1989	11.80%	8.84%	2.96%
7/25/1989	12.80%	8.82%	3.98%
7/31/1989	13.00%	8.81%	4.19%
8/14/1989	12.50%	8.76%	3.74%
8/22/1989	12.80%	8.73%	4.07%
8/23/1989	12.90%	8.72%	4.18%
9/21/1989	12.10%	8.62%	3.48%
10/6/1989	13.00%	8.58%	4.42%
10/17/1989	12.41%	8.54%	3.87%
10/18/1989	13.25%	8.54%	4.71%
10/20/1989	12.90%	8.53%	4.37%
10/31/1989	13.60%	8.50%	5.10%
11/3/1989	12.93%	8.48%	4.45%
11/5/1989	13.20%	8.48%	4.72%
11/9/1989	12.60%	8.45%	4.15%
11/9/1989	13.00%	8.45%	4.55%
11/28/1989	12.75%	8.37%	4.38%
12/7/1989	13.25%	8.32%	4.93%
12/15/1989	13.00%	8.28%	4.72%
12/20/1989	12.90%	8.26%	4.64%
12/21/1989	12.80%	8.25%	4.55%
12/21/1989	12.90%	8.25%	4.65%
12/27/1989	12.50%	8.23%	4.27%
1/9/1990	13.00%	8.19%	4.81%
1/18/1990	12.50%	8.16%	4.34%
1/26/1990	12.10%	8.14%	3.96%
3/21/1990	12.80%	8.15%	4.65%
3/28/1990	13.00%	8.16%	4.84%
4/5/1990	12.20%	8.17%	4.03%
4/12/1990	13.25%	8.19%	5.06%
4/30/1990	12.45%	8.24%	4.21%
5/31/1990	12.40%	8.31%	4.09%
6/15/1990	13.20%	8.33%	4.87%
6/27/1990	12.90%	8.34%	4.56%
6/29/1990	13.25%	8.35%	4.90%
7/6/1990	12.10%	8.36%	3.74%
7/19/1990	11.70%	8.38%	3.32%
8/31/1990	12.50%	8.53%	3.97%
8/31/1990	12.50%	8.53%	3.97%
9/13/1990	12.50%	8.58%	3.92%
9/18/1990	12.75%	8.60%	4.15%



Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
9/20/1990	12.50%	8.61%	3.89%
10/2/1990	13.00%	8.65%	4.35%
10/17/1990	11.90%	8.68%	3.22%
10/31/1990	12.95%	8.70%	4.25%
11/9/1990	13.25%	8.70%	4.55%
11/19/1990	13.00%	8.70%	4.30%
11/21/1990	12.10%	8.70%	3.40%
11/21/1990	12.50%	8.70%	3.80%
11/28/1990	12.75%	8.70%	4.05%
11/29/1990	12.75%	8.70%	4.05%
12/18/1990	13.10%	8.68%	4.42%
12/20/1990	12.50%	8.67%	3.83%
12/21/1990	12.50%	8.67%	3.83%
12/21/1990	13.00%	8.67%	4.33%
12/21/1990	13.60%	8.67%	4.93%
1/3/1991	13.02%	8.66%	4.36%
1/16/1991	13.25%	8.63%	4.62%
1/25/1991	11.70%	8.61%	3.09%
2/15/1991	12.70%	8.56%	4.14%
2/15/1991	12.80%	8.56%	4.24%
4/3/1991	13.00%	8.51%	4.49%
4/30/1991	12.45%	8.48%	3.97%
4/30/1991	13.00%	8.48%	4.52%
6/25/1991	11.70%	8.34%	3.36%
6/28/1991	12.50%	8.34%	4.16%
7/1/1991	11.70%	8.34%	3.36%
7/19/1991	12.10%	8.31%	3.79%
7/19/1991	12.30%	8.31%	3.99%
7/22/1991	12.90%	8.30%	4.60%
8/15/1991	12.25%	8.28%	3.97%
8/29/1991	13.30%	8.26%	5.04%
9/27/1991	12.50%	8.23%	4.27%
9/30/1991	12.40%	8.23%	4.17%
10/3/1991	11.30%	8.22%	3.08%
10/9/1991	11.70%	8.21%	3.49%
10/15/1991	13.40%	8.20%	5.20%
11/1/1991	12.90%	8.20%	4.70%
11/8/1991	12.75%	8.20%	4.55%
11/26/1991	11.60%	8.18%	3.42%
11/26/1991	12.00%	8.18%	3.82%
11/27/1991	12.70%	8.18%	4.52%
12/6/1991	12.70%	8.16%	4.54%
12/10/1991	11.75%	8.15%	3.60%
12/19/1991	12.60%	8.14%	4.46%
12/19/1991	12.80%	8.14%	4.66%
12/30/1991	12.10%	8.11%	3.99%
1/22/1992	12.84%	8.05%	4.79%
1/31/1992	12.00%	8.03%	3.97%
2/20/1992	13.00%	8.00%	5.00%
2/27/1992	11.75%	7.98%	3.77%
3/18/1992	12.50%	7.94%	4.56%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
5/15/1992	12.75%	7.86%	4.89%
6/24/1992	12.20%	7.85%	4.35%
6/29/1992	11.00%	7.85%	3.15%
7/14/1992	12.00%	7.83%	4.17%
7/22/1992	11.20%	7.82%	3.38%
8/10/1992	12.10%	7.79%	4.31%
8/26/1992	12.43%	7.75%	4.68%
9/30/1992	11.60%	7.72%	3.88%
10/6/1992	12.25%	7.72%	4.53%
10/13/1992	12.75%	7.71%	5.04%
10/23/1992	11.65%	7.71%	3.94%
10/28/1992	12.25%	7.71%	4.54%
10/29/1992	12.75%	7.70%	5.05%
10/30/1992	11.40%	7.70%	3.70%
11/9/1992	10.60%	7.70%	2.90%
11/25/1992	11.00%	7.68%	3.32%
11/25/1992	12.00%	7.68%	4.32%
12/3/1992	11.85%	7.66%	4.19%
12/16/1992	11.90%	7.64%	4.26%
12/22/1992	12.30%	7.62%	4.68%
12/22/1992	12.40%	7.62%	4.78%
12/30/1992	12.00%	7.61%	4.39%
12/31/1992	12.00%	7.61%	4.39%
1/12/1993	12.00%	7.59%	4.41%
1/12/1993	12.00%	7.59%	4.41%
2/2/1993	11.40%	7.53%	3.87%
2/22/1993	11.60%	7.48%	4.12%
4/23/1993	11.75%	7.27%	4.48%
5/3/1993	11.50%	7.25%	4.25%
5/3/1993	11.75%	7.25%	4.50%
6/3/1993	12.00%	7.20%	4.80%
6/7/1993	11.50%	7.20%	4.30%
6/22/1993	11.75%	7.16%	4.59%
7/21/1993	11.78%	7.06%	4.72%
7/21/1993	11.90%	7.06%	4.84%
7/23/1993	11.50%	7.05%	4.45%
7/29/1993	11.50%	7.03%	4.47%
8/12/1993	10.75%	6.97%	3.78%
8/24/1993	11.50%	6.92%	4.58%
8/31/1993	11.90%	6.88%	5.02%
9/1/1993	11.25%	6.87%	4.38%
9/1/1993	11.47%	6.87%	4.60%
9/27/1993	10.50%	6.74%	3.76%
9/29/1993	11.00%	6.72%	4.28%
9/30/1993	11.60%	6.72%	4.88%
10/8/1993	11.50%	6.67%	4.83%
10/14/1993	11.20%	6.65%	4.55%
10/15/1993	11.75%	6.64%	5.11%
10/25/1993	11.55%	6.60%	4.95%
10/28/1993	11.50%	6.58%	4.92%
10/29/1993	10.10%	6.57%	3.53%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
10/29/1993	10.20%	6.57%	3.63%
10/29/1993	11.25%	6.57%	4.68%
11/2/1993	10.80%	6.56%	4.24%
11/12/1993	11.80%	6.53%	5.27%
11/23/1993	12.50%	6.51%	5.99%
11/26/1993	11.00%	6.50%	4.50%
12/1/1993	11.45%	6.49%	4.96%
12/16/1993	10.60%	6.45%	4.15%
12/16/1993	11.20%	6.45%	4.75%
12/21/1993	11.30%	6.44%	4.86%
12/22/1993	11.00%	6.44%	4.56%
12/23/1993	10.10%	6.44%	3.66%
1/5/1994	11.50%	6.41%	5.09%
1/10/1994	11.00%	6.40%	4.60%
1/25/1994	12.00%	6.37%	5.63%
2/2/1994	10.40%	6.35%	4.05%
2/9/1994	10.70%	6.34%	4.36%
4/6/1994	11.24%	6.35%	4.89%
4/25/1994	11.00%	6.39%	4.61%
6/16/1994	10.50%	6.63%	3.87%
6/23/1994	10.60%	6.67%	3.93%
7/19/1994	10.70%	6.83%	3.87%
9/29/1994	10.90%	7.20%	3.70%
9/29/1994	11.00%	7.20%	3.80%
10/7/1994	11.87%	7.26%	4.61%
10/18/1994	11.50%	7.32%	4.18%
10/18/1994	11.50%	7.32%	4.18%
10/24/1994	11.00%	7.35%	3.65%
11/22/1994	12.12%	7.52%	4.60%
11/29/1994	11.30%	7.55%	3.75%
12/1/1994	11.00%	7.56%	3.44%
12/8/1994	11.50%	7.59%	3.91%
12/8/1994	11.70%	7.59%	4.11%
12/12/1994	11.82%	7.60%	4.22%
12/14/1994	11.50%	7.61%	3.89%
12/19/1994	11.50%	7.62%	3.88%
4/19/1995	11.00%	7.72%	3.28%
9/11/1995	11.30%	7.16%	4.14%
9/15/1995	10.40%	7.13%	3.27%
9/29/1995	11.50%	7.06%	4.44%
10/13/1995	10.76%	6.98%	3.78%
11/7/1995	12.50%	6.86%	5.64%
11/8/1995	11.10%	6.85%	4.25%
11/8/1995	11.30%	6.85%	4.45%
11/17/1995	10.90%	6.81%	4.09%
11/20/1995	11.40%	6.80%	4.60%
11/27/1995	13.60%	6.77%	6.83%
12/14/1995	11.30%	6.68%	4.62%
12/20/1995	11.60%	6.65%	4.95%
1/31/1996	11.30%	6.45%	4.85%
3/11/1996	11.60%	6.40%	5.20%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
4/3/1996	11.13%	6.41%	4.72%
4/15/1996	10.50%	6.41%	4.09%
4/17/1996	10.77%	6.40%	4.37%
4/26/1996	10.60%	6.40%	4.20%
5/10/1996	11.00%	6.40%	4.60%
5/13/1996	11.25%	6.41%	4.84%
7/3/1996	11.25%	6.49%	4.76%
7/22/1996	11.25%	6.54%	4.71%
10/3/1996	10.00%	6.77%	3.23%
10/29/1996	11.30%	6.84%	4.46%
11/26/1996	11.30%	6.86%	4.44%
11/27/1996	11.30%	6.86%	4.44%
11/29/1996	11.00%	6.86%	4.14%
12/12/1996	11.96%	6.85%	5.11%
12/17/1996	11.50%	6.85%	4.65%
1/22/1997	11.30%	6.83%	4.47%
1/27/1997	11.25%	6.83%	4.42%
1/31/1997	11.25%	6.83%	4.42%
2/13/1997	11.00%	6.82%	4.18%
2/13/1997	11.80%	6.82%	4.98%
2/20/1997	11.80%	6.81%	4.99%
3/27/1997	10.75%	6.79%	3.96%
4/29/1997	11.70%	6.81%	4.89%
7/17/1997	12.00%	6.77%	5.23%
10/29/1997	10.75%	6.70%	4.05%
10/31/1997	11.25%	6.70%	4.55%
12/24/1997	10.75%	6.53%	4.22%
4/28/1998	10.90%	6.11%	4.79%
4/30/1998	12.20%	6.10%	6.10%
6/30/1998	11.00%	5.94%	5.06%
8/26/1998	10.93%	5.82%	5.11%
9/3/1998	11.40%	5.80%	5.60%
9/15/1998	11.90%	5.77%	6.13%
10/7/1998	11.06%	5.70%	5.36%
10/30/1998	11.40%	5.63%	5.77%
12/10/1998	12.20%	5.52%	6.68%
12/17/1998	12.10%	5.49%	6.61%
2/19/1999	11.15%	5.32%	5.83%
3/1/1999	10.65%	5.31%	5.34%
3/1/1999	10.65%	5.31%	5.34%
6/8/1999	11.25%	5.35%	5.90%
11/12/1999	10.25%	5.92%	4.33%
12/14/1999	10.50%	5.99%	4.51%
1/28/2000	10.71%	6.16%	4.55%
2/17/2000	10.60%	6.20%	4.40%
5/25/2000	10.80%	6.19%	4.61%
6/19/2000	11.05%	6.18%	4.87%
6/22/2000	11.25%	6.18%	5.07%
7/17/2000	11.06%	6.15%	4.91%
7/20/2000	12.20%	6.14%	6.06%
8/11/2000	11.00%	6.11%	4.89%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
9/27/2000	11.25%	6.00%	5.25%
9/29/2000	11.16%	6.00%	5.16%
10/5/2000	11.30%	5.98%	5.32%
11/28/2000	12.90%	5.87%	7.03%
11/30/2000	12.10%	5.86%	6.24%
2/5/2001	11.50%	5.75%	5.75%
3/15/2001	11.25%	5.66%	5.59%
5/8/2001	10.75%	5.61%	5.14%
10/24/2001	10.30%	5.54%	4.76%
10/24/2001	11.00%	5.54%	5.46%
1/9/2002	10.00%	5.50%	4.50%
1/30/2002	11.00%	5.47%	5.53%
1/31/2002	11.00%	5.47%	5.53%
4/17/2002	11.50%	5.44%	6.06%
4/29/2002	11.00%	5.45%	5.55%
6/11/2002	11.77%	5.48%	6.29%
6/20/2002	12.30%	5.48%	6.82%
8/28/2002	11.00%	5.49%	5.51%
9/11/2002	11.20%	5.45%	5.75%
9/12/2002	12.30%	5.45%	6.85%
10/28/2002	11.30%	5.35%	5.95%
10/30/2002	10.60%	5.34%	5.26%
11/1/2002	12.60%	5.34%	7.26%
11/7/2002	11.40%	5.33%	6.07%
11/8/2002	10.75%	5.33%	5.42%
11/20/2002	10.00%	5.30%	4.70%
11/20/2002	10.50%	5.30%	5.20%
12/4/2002	10.75%	5.27%	5.48%
12/30/2002	11.20%	5.19%	6.01%
1/6/2003	11.25%	5.16%	6.09%
2/28/2003	12.30%	5.01%	7.29%
3/7/2003	9.96%	4.99%	4.97%
3/12/2003	11.40%	4.97%	6.43%
3/20/2003	12.00%	4.95%	7.05%
4/3/2003	12.00%	4.92%	7.08%
5/2/2003	11.40%	4.88%	6.52%
5/15/2003	11.05%	4.87%	6.18%
6/26/2003	11.00%	4.80%	6.20%
7/1/2003	11.00%	4.80%	6.20%
7/29/2003	11.71%	4.78%	6.93%
8/22/2003	10.20%	4.81%	5.39%
9/17/2003	9.90%	4.85%	5.05%
9/25/2003	10.25%	4.85%	5.40%
10/17/2003	10.54%	4.87%	5.67%
10/22/2003	10.46%	4.87%	5.59%
10/22/2003	10.71%	4.87%	5.84%
10/30/2003	11.00%	4.88%	6.12%
10/31/2003	10.20%	4.88%	5.32%
10/31/2003	10.75%	4.88%	5.87%
11/10/2003	10.60%	4.89%	5.71%
12/9/2003	10.50%	4.93%	5.57%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
12/18/2003	10.50%	4.94%	5.56%
12/19/2003	12.00%	4.94%	7.06%
12/19/2003	12.00%	4.94%	7.06%
1/13/2004	10.25%	4.95%	5.30%
1/13/2004	12.00%	4.95%	7.05%
2/9/2004	11.25%	4.98%	6.27%
3/16/2004	10.90%	5.05%	5.85%
3/16/2004	10.90%	5.05%	5.85%
5/25/2004	10.00%	5.06%	4.94%
6/2/2004	11.22%	5.07%	6.15%
6/30/2004	10.50%	5.10%	5.40%
7/8/2004	10.00%	5.10%	4.90%
7/22/2004	10.25%	5.10%	5.15%
8/26/2004	10.50%	5.10%	5.40%
8/26/2004	10.50%	5.10%	5.40%
9/9/2004	10.40%	5.10%	5.30%
9/21/2004	10.50%	5.09%	5.41%
9/27/2004	10.30%	5.09%	5.21%
9/27/2004	10.50%	5.09%	5.41%
10/20/2004	10.20%	5.08%	5.12%
11/30/2004	10.60%	5.08%	5.52%
12/8/2004	9.90%	5.09%	4.81%
12/21/2004	11.50%	5.09%	6.41%
12/22/2004	11.50%	5.09%	6.41%
12/28/2004	10.25%	5.09%	5.16%
2/18/2005	10.30%	4.95%	5.35%
3/29/2005	11.00%	4.86%	6.14%
4/13/2005	10.60%	4.84%	5.76%
4/28/2005	11.00%	4.80%	6.20%
5/17/2005	10.00%	4.77%	5.23%
6/8/2005	10.18%	4.71%	5.47%
6/10/2005	10.90%	4.71%	6.19%
7/6/2005	10.50%	4.65%	5.85%
7/19/2005	11.50%	4.63%	6.87%
8/11/2005	10.40%	4.60%	5.80%
9/19/2005	9.45%	4.53%	4.92%
9/30/2005	10.51%	4.52%	5.99%
10/4/2005	9.90%	4.52%	5.38%
10/4/2005	10.75%	4.52%	6.23%
10/14/2005	10.40%	4.52%	5.88%
10/31/2005	10.25%	4.53%	5.72%
11/2/2005	9.70%	4.53%	5.17%
11/30/2005	10.00%	4.53%	5.47%
12/9/2005	9.70%	4.53%	5.17%
12/12/2005	11.00%	4.53%	6.47%
12/20/2005	10.13%	4.53%	5.60%
12/21/2005	10.40%	4.52%	5.88%
12/21/2005	11.00%	4.52%	6.48%
12/22/2005	10.20%	4.52%	5.68%
12/22/2005	11.00%	4.52%	6.48%
12/28/2005	10.00%	4.52%	5.48%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
1/5/2006	11.00%	4.52%	6.48%
1/25/2006	11.20%	4.52%	6.68%
1/25/2006	11.20%	4.52%	6.68%
2/3/2006	10.50%	4.52%	5.98%
2/15/2006	9.50%	4.53%	4.97%
4/26/2006	10.60%	4.65%	5.95%
7/24/2006	9.60%	4.87%	4.73%
7/24/2006	10.00%	4.87%	5.13%
9/20/2006	11.00%	4.93%	6.07%
9/26/2006	10.75%	4.93%	5.82%
10/20/2006	9.80%	4.96%	4.84%
11/2/2006	9.71%	4.97%	4.74%
11/9/2006	10.00%	4.97%	5.03%
11/21/2006	11.00%	4.98%	6.02%
12/5/2006	10.20%	4.97%	5.23%
1/5/2007	10.40%	4.95%	5.45%
1/9/2007	11.00%	4.94%	6.06%
1/11/2007	10.90%	4.94%	5.96%
1/19/2007	10.80%	4.93%	5.87%
1/26/2007	10.00%	4.92%	5.08%
2/8/2007	10.40%	4.91%	5.49%
3/14/2007	10.10%	4.86%	5.24%
3/20/2007	10.25%	4.84%	5.41%
3/21/2007	11.35%	4.84%	6.51%
3/22/2007	10.50%	4.84%	5.66%
3/29/2007	10.00%	4.83%	5.17%
6/13/2007	10.75%	4.81%	5.94%
6/29/2007	9.53%	4.84%	4.69%
6/29/2007	10.10%	4.84%	5.26%
7/3/2007	10.25%	4.85%	5.40%
7/13/2007	9.50%	4.86%	4.64%
7/24/2007	10.40%	4.87%	5.53%
8/1/2007	10.15%	4.88%	5.27%
8/29/2007	10.50%	4.91%	5.59%
9/10/2007	9.71%	4.91%	4.80%
9/19/2007	10.00%	4.91%	5.09%
9/25/2007	9.70%	4.92%	4.78%
10/8/2007	10.48%	4.92%	5.56%
10/19/2007	10.50%	4.91%	5.59%
10/25/2007	9.65%	4.91%	4.74%
11/15/2007	10.00%	4.89%	5.11%
11/20/2007	9.90%	4.89%	5.01%
11/27/2007	10.00%	4.88%	5.12%
11/29/2007	10.90%	4.88%	6.02%
12/14/2007	10.80%	4.87%	5.93%
12/18/2007	10.40%	4.86%	5.54%
12/19/2007	9.80%	4.86%	4.94%
12/19/2007	9.80%	4.86%	4.94%
12/19/2007	10.20%	4.86%	5.34%
12/21/2007	9.10%	4.86%	4.24%
1/8/2008	10.75%	4.83%	5.92%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
1/17/2008	10.75%	4.81%	5.94%
1/17/2008	10.75%	4.81%	5.94%
2/5/2008	9.99%	4.78%	5.21%
2/5/2008	10.19%	4.78%	5.41%
2/13/2008	10.20%	4.76%	5.44%
3/31/2008	10.00%	4.63%	5.37%
5/28/2008	10.50%	4.53%	5.97%
6/24/2008	10.00%	4.52%	5.48%
6/27/2008	10.00%	4.52%	5.48%
7/31/2008	10.70%	4.50%	6.20%
7/31/2008	10.82%	4.50%	6.32%
8/27/2008	10.25%	4.50%	5.75%
9/2/2008	10.25%	4.50%	5.75%
9/19/2008	10.70%	4.48%	6.22%
9/24/2008	10.68%	4.48%	6.20%
9/24/2008	10.68%	4.48%	6.20%
9/24/2008	10.68%	4.48%	6.20%
9/30/2008	10.20%	4.48%	5.72%
10/3/2008	10.30%	4.48%	5.82%
10/8/2008	10.15%	4.47%	5.68%
10/20/2008	10.06%	4.47%	5.59%
10/24/2008	10.60%	4.46%	6.14%
10/24/2008	10.60%	4.46%	6.14%
11/21/2008	10.50%	4.42%	6.08%
11/21/2008	10.50%	4.42%	6.08%
11/21/2008	10.50%	4.42%	6.08%
11/24/2008	10.50%	4.41%	6.09%
12/3/2008	10.39%	4.37%	6.02%
12/24/2008	10.00%	4.26%	5.74%
12/26/2008	10.10%	4.24%	5.86%
12/29/2008	10.20%	4.23%	5.97%
1/13/2009	10.45%	4.14%	6.31%
2/2/2009	10.05%	4.04%	6.01%
3/9/2009	10.30%	3.89%	6.41%
3/25/2009	10.17%	3.84%	6.34%
4/2/2009	10.75%	3.81%	6.94%
5/5/2009	10.75%	3.71%	7.04%
5/15/2009	10.20%	3.70%	6.50%
5/29/2009	9.54%	3.70%	5.84%
6/3/2009	10.10%	3.71%	6.39%
6/22/2009	10.00%	3.73%	6.27%
6/29/2009	10.21%	3.74%	6.47%
6/30/2009	9.31%	3.74%	5.57%
7/17/2009	9.26%	3.75%	5.51%
7/17/2009	10.50%	3.75%	6.75%
10/16/2009	10.40%	4.09%	6.31%
10/26/2009	10.10%	4.11%	5.99%
10/28/2009	10.15%	4.12%	6.03%
10/28/2009	10.15%	4.12%	6.03%
10/30/2009	9.95%	4.12%	5.83%
11/20/2009	9.45%	4.18%	5.27%



Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
12/14/2009	10.50%	4.24%	6.26%
12/16/2009	10.75%	4.25%	6.50%
12/17/2009	10.30%	4.26%	6.04%
12/18/2009	10.40%	4.26%	6.14%
12/18/2009	10.40%	4.26%	6.14%
12/18/2009	10.50%	4.26%	6.24%
12/22/2009	10.20%	4.27%	5.93%
12/22/2009	10.40%	4.27%	6.13%
12/28/2009	10.85%	4.29%	6.56%
12/29/2009	10.38%	4.30%	6.08%
1/11/2010	10.24%	4.34%	5.90%
1/21/2010	10.23%	4.37%	5.86%
1/21/2010	10.33%	4.37%	5.96%
1/26/2010	10.40%	4.37%	6.03%
2/10/2010	10.00%	4.39%	5.61%
2/23/2010	10.50%	4.40%	6.10%
3/9/2010	9.60%	4.40%	5.20%
3/24/2010	10.13%	4.42%	5.71%
3/31/2010	10.70%	4.43%	6.27%
4/1/2010	9.50%	4.43%	5.07%
4/2/2010	10.10%	4.44%	5.66%
4/8/2010	10.35%	4.44%	5.91%
4/29/2010	9.19%	4.46%	4.73%
4/29/2010	9.40%	4.46%	4.94%
4/29/2010	9.40%	4.46%	4.94%
5/17/2010	10.55%	4.46%	6.09%
5/24/2010	10.05%	4.46%	5.59%
6/3/2010	11.00%	4.46%	6.54%
6/16/2010	10.00%	4.46%	5.54%
6/18/2010	10.30%	4.46%	5.84%
8/9/2010	12.55%	4.41%	8.14%
8/17/2010	10.10%	4.40%	5.70%
9/16/2010	9.60%	4.31%	5.29%
9/16/2010	10.00%	4.31%	5.69%
9/16/2010	10.00%	4.31%	5.69%
9/16/2010	10.30%	4.31%	5.99%
10/21/2010	10.40%	4.20%	6.20%
11/2/2010	9.75%	4.17%	5.58%
11/2/2010	9.75%	4.17%	5.58%
11/3/2010	10.75%	4.17%	6.58%
11/19/2010	10.20%	4.15%	6.05%
12/1/2010	10.00%	4.13%	5.87%
12/6/2010	9.56%	4.12%	5.44%
12/6/2010	10.09%	4.12%	5.97%
12/9/2010	10.25%	4.12%	6.13%
12/14/2010	10.33%	4.11%	6.22%
12/17/2010	10.10%	4.11%	5.99%
12/20/2010	10.10%	4.11%	5.99%
12/23/2010	9.92%	4.10%	5.82%
1/6/2011	10.35%	4.09%	6.26%
1/12/2011	10.30%	4.09%	6.21%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
1/13/2011	10.30%	4.09%	6.21%
3/10/2011	10.10%	4.16%	5.94%
3/31/2011	9.45%	4.20%	5.25%
4/18/2011	10.05%	4.23%	5.82%
5/26/2011	10.50%	4.32%	6.18%
6/21/2011	10.00%	4.36%	5.64%
6/29/2011	8.83%	4.38%	4.45%
8/1/2011	9.20%	4.41%	4.79%
9/1/2011	10.10%	4.33%	5.77%
11/14/2011	9.60%	3.93%	5.67%
12/13/2011	9.50%	3.76%	5.74%
12/20/2011	10.00%	3.72%	6.28%
12/22/2011	10.40%	3.70%	6.70%
1/10/2012	9.06%	3.59%	5.47%
1/10/2012	9.45%	3.59%	5.86%
1/10/2012	9.45%	3.59%	5.86%
1/23/2012	10.20%	3.53%	6.67%
1/31/2012	10.00%	3.49%	6.51%
4/24/2012	9.50%	3.16%	6.34%
4/24/2012	9.75%	3.16%	6.59%
5/7/2012	9.80%	3.13%	6.67%
5/22/2012	9.60%	3.10%	6.50%
5/24/2012	9.70%	3.09%	6.61%
6/7/2012	10.30%	3.06%	7.24%
6/15/2012	10.40%	3.05%	7.35%
6/18/2012	9.60%	3.05%	6.55%
7/2/2012	9.75%	3.04%	6.71%
10/24/2012	10.30%	2.92%	7.38%
10/26/2012	9.50%	2.92%	6.58%
10/31/2012	9.30%	2.92%	6.38%
10/31/2012	9.90%	2.92%	6.98%
10/31/2012	10.00%	2.92%	7.08%
11/1/2012	9.45%	2.91%	6.54%
11/8/2012	10.10%	2.91%	7.19%
11/9/2012	10.30%	2.90%	7.40%
11/26/2012	10.00%	2.89%	7.11%
11/28/2012	10.40%	2.88%	7.52%
11/28/2012	10.50%	2.88%	7.62%
12/4/2012	10.00%	2.87%	7.13%
12/4/2012	10.50%	2.87%	7.63%
12/20/2012	9.50%	2.84%	6.66%
12/20/2012	10.10%	2.84%	7.26%
12/20/2012	10.25%	2.84%	7.41%
12/20/2012	10.30%	2.84%	7.46%
12/20/2012	10.40%	2.84%	7.56%
12/20/2012	10.50%	2.84%	7.66%
12/26/2012	9.80%	2.83%	6.97%
2/22/2013	9.60%	2.86%	6.74%
3/14/2013	9.30%	2.89%	6.41%
3/27/2013	9.80%	2.92%	6.88%
4/23/2013	9.80%	2.96%	6.84%

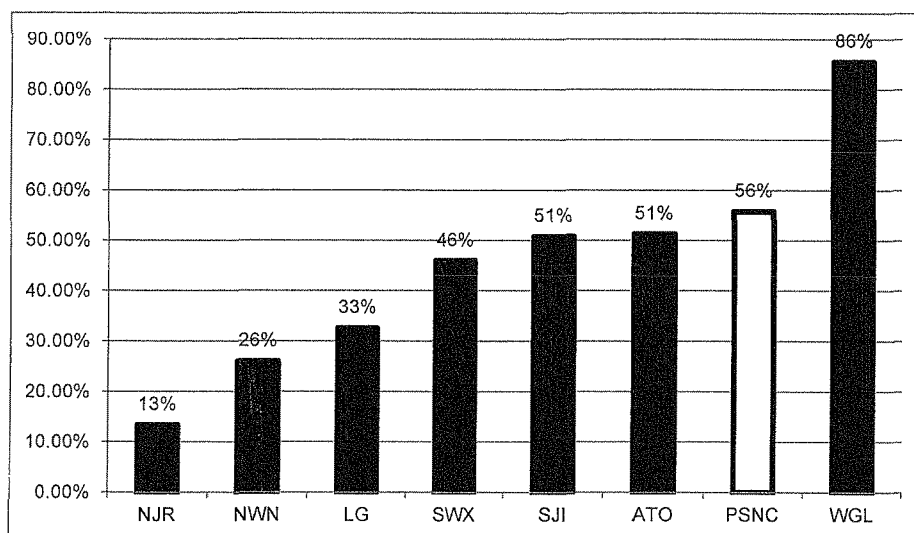
Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
5/10/2013	9.25%	2.96%	6.29%
6/13/2013	9.40%	3.01%	6.39%
6/18/2013	9.28%	3.02%	6.26%
6/18/2013	9.28%	3.02%	6.26%
6/25/2013	9.80%	3.04%	6.76%
9/23/2013	9.60%	3.33%	6.27%
11/6/2013	10.20%	3.42%	6.78%
11/13/2013	9.84%	3.44%	6.40%
11/14/2013	10.25%	3.44%	6.81%
11/22/2013	9.50%	3.47%	6.03%
12/5/2013	10.20%	3.50%	6.70%
12/13/2013	9.60%	3.52%	6.08%
12/16/2013	9.73%	3.53%	6.20%
12/17/2013	10.00%	3.53%	6.47%
12/18/2013	9.08%	3.53%	5.55%
12/23/2013	9.72%	3.55%	6.17%
12/30/2013	10.00%	3.57%	6.43%
1/21/2014	9.65%	3.66%	5.99%
1/22/2014	9.18%	3.66%	5.52%
2/20/2014	9.30%	3.71%	5.59%
2/21/2014	9.85%	3.72%	6.13%
2/28/2014	9.55%	3.73%	5.83%
3/16/2014	9.72%	3.74%	5.98%
4/21/2014	9.50%	3.73%	5.77%
4/22/2014	9.80%	3.73%	6.07%
5/8/2014	9.10%	3.71%	5.39%
5/8/2014	9.59%	3.71%	5.88%
6/6/2014	10.40%	3.66%	6.74%
6/12/2014	10.10%	3.66%	6.44%
6/12/2014	10.10%	3.66%	6.44%
6/12/2014	10.10%	3.66%	6.44%
7/7/2014	9.30%	3.63%	5.67%
7/25/2014	9.30%	3.60%	5.70%
7/31/2014	9.90%	3.59%	6.31%
9/4/2014	9.10%	3.50%	5.60%
9/24/2014	9.35%	3.46%	5.89%
9/30/2014	9.75%	3.44%	6.31%
10/29/2014	10.80%	3.37%	7.43%
11/6/2014	10.20%	3.35%	6.85%
11/14/2014	10.20%	3.33%	6.87%
11/14/2014	10.30%	3.33%	6.97%
11/26/2014	10.20%	3.30%	6.90%
12/3/2014	10.00%	3.29%	6.71%
1/13/2015	10.30%	3.16%	7.14%
1/21/2015	9.05%	3.13%	5.92%
1/21/2015	9.05%	3.13%	5.92%
4/9/2015	9.50%	2.88%	6.62%
5/11/2015	9.80%	2.82%	6.98%
6/17/2015	9.00%	2.79%	6.21%
8/21/2015	9.75%	2.78%	6.97%
10/7/2015	9.55%	2.82%	6.73%

Date of Natural Gas Rate Case	Return on Equity	30-Year Treasury Yield	Risk Premium
10/13/2015	9.75%	2.83%	6.92%
10/15/2015	9.00%	2.83%	6.17%
10/30/2015	9.80%	2.86%	6.94%
11/19/2015	10.00%	2.89%	7.11%
12/3/2015	10.00%	2.91%	7.09%
12/9/2015	9.60%	2.92%	6.68%
12/11/2015	9.90%	2.92%	6.98%
12/18/2015	9.50%	2.93%	6.57%
1/6/2016	9.50%	2.96%	6.54%
1/6/2016	9.50%	2.96%	6.54%
1/28/2016	9.40%	2.97%	6.43%
2/10/2016	9.60%	2.95%	6.65%

Average: 4.52%  
Count: 1,031

I/A

Capital Expenditures  
Capital Expenditures Relative to Net Plant



Company	Ticker	3-Year CAPEX / 2014 Net Plant [1]
Atmos Energy Corporation	ATO	51.27%
Laclede Group, Inc. (The)	LG	32.59%
New Jersey Resources Corporation	NJR	23.91%
Northwest Natural Gas Company	NWN	25.99%
South Jersey Industries, Inc.	SJI	50.79%
Southwest Gas Corporation	SWX	45.96%
WGL Holdings, Inc.	WGL	85.54%
Median		45.96%
Public Service Company of North Carolina [2]		55.76%

Notes:

[1] Source: Value Line; Value Line estimates 2016 and 2018-2020 CAPEX

[2] Source: SCANA 2015 10-K, at 34; PSNC 2014 LDC Gas Filing

I/A

Small Size Premium

	[1]	[2]
	Customers (Mil)	(\$Mil)
Public Service Company of North Carolina Equity	0.539	\$0.508
Median Market to Book for Comp Group		1.85
Public Service Company of North Carolina Implied Market Cap		\$0.938

		[3]	[4]	[5]
Company Name	Ticker	Customers (Mil)	Market Cap (\$Bil)	Market to Book Ratio
Atmos Energy Corporation	ATO	3.2	\$6.70	2.07
Laclede Group, Inc.	LG	1.6	\$2.65	1.68
New Jersey Resources Corporation	NJR	0.5	\$2.95	2.63
Northwest Natural Gas Company	NWN	0.7	\$1.40	1.85
South Jersey Industries, Inc.	SJI	0.4	\$1.68	1.76
Southwest Gas Corporation	SWX	1.9	\$2.72	1.76
WGL Holdings, Inc.	WGL	1.1	\$3.19	2.55
MEDIAN		1.1	\$2.72	1.85
MEAN		1.3	\$3.04	2.04

Market Capitalization (\$Mil) [6]				
Decile	Low	High	Size Premium	
2	\$ 10,170.746	\$ 24,272.837	0.65%	
3	\$ 5,864.266	\$ 10,105.622	0.94%	
4	\$ 3,724.624	\$ 5,844.592	1.05%	
5	\$ 2,552.441	\$ 3,724.186	1.65%	
6	\$ 1,688.895	\$ 2,542.913	1.63%	
7	\$ 1,011.278	\$ 1,686.860	1.77%	
8	\$ 549.056	\$ 1,010.634	2.18%	
9	\$ 300.752	\$ 548.839	2.64%	
10	\$ 3.037	\$ 300.725	5.72%	
Proxy Group Median	\$	2.721	1.63%	
8th Decile Size Premium	\$	0.938	2.18%	
Difference from Proxy Group Median			0.55%	

Notes:

[1] SCANA Corporation SEC Form 10-K for the fiscal year ended December 31, 2015, at 5

[2] Equals Proposed Equity Ratio x Rate Base

[3] Source: SNL Financial

[4] Source: SNL Financial, 30-day average

[5] Source: SNL Financial, 30-day average

[6] Source: Ibbotson Associates, 2015 Ibbotson SBBI Market Report

*I/A*

Infrastructure Recovery Mechanisms

Local Distribution Company	Ticker	State	Mechanism	Mechanism Name
Atmos Energy Corporation	ATO	KS	✓	Gas System Reliability Surcharge
Atmos Energy Corporation	ATO	KY	✓	Pipeline Replacement Rider
Atmos Energy Corporation	ATO	LA	✓	Rate Stabilization Clause
Atmos Energy Corporation	ATO	MS	✓	Formula Rate Plan Rider
Atmos Energy Corporation	ATO	TN	✓	Annual Review Mechanism
Atmos Energy Corporation	ATO	TX	✓	Gas Reliability Infrastructure Program
Atmos Energy Corporation	ATO	VA	✓	Infrastructure Reliability and Replacement Adjustment
Atmos Energy Corporation	ATO	CO		
Alabama Gas Corporation	LG	AL	✓	Rate Stabilization and Equalization Plan
Missouri Gas Energy	LG	MO	✓	Infrastructure System Replacement Surcharge
Laclede Gas Company	LG	MO	✓	Infrastructure System Replacement Surcharge
New Jersey Natural Gas Company	NJR	NJ	✓	NJ RISE
Northwest Natural Gas Company	NWN	OR	✓	System Integrity Program
Northwest Natural Gas Company	NWN	WA		
South Jersey Gas Company	SJI	NJ	✓	SHARP
Southwest Gas Corporation	SWX	AZ	✓	Customer Owned Yard Line Replacement Program, TRIMP rider
Southwest Gas Corporation	SWX	CA	✓	Infrastructure Reliability & Replacement Adjustment Mechanism
Southwest Gas Corporation	SWX	NV	✓	Gas Infrastructure Replacement
Washington Gas Light Company	WGL	DC	✓	ACRP surcharge, VMCREP surcharge
Washington Gas Light Company	WGL	MD	✓	STRIDE Rider
Washington Gas Light Company	WGL	VA	✓	SAVE Rider

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Summary of Recently Authorized ROEs for Natural Gas Distribution Utilities

State	Company	Docket No	Decision Date	Authorized ROE	RRA Ranking
Maryland	Baltimore Gas and Electric Co	C-9299 (gas)	2/22/2013	9 60% Below Average	/ 2
New York	Niagara Mohawk Power Corp	D-12-G-0202	3/14/2013	9 30% Average	/ 2
Idaho	Avista Corp	C-AVU-G-12-07	3/27/2013	9 80% Average	/ 2
Montana	NorthWestern Corp	D-D2012 9 94	4/23/2013	9 80% Below Average	/ 1
District of Columbia	Washington Gas Light Co	FC-1093	5/10/2013	9 25% Below Average	/ 1
New York	Brooklyn Union Gas Co	C-12-G-0544	6/13/2013	9 40% Average	/ 2
Illinois	North Shore Gas Co	D-12-0511	6/18/2013	9 28% Below Average	/ 1
Illinois	Peoples Gas Light & Coke Co	D-12-0512	6/18/2013	9 28% Below Average	/ 1
Washington	Puget Sound Energy Inc	D-UG-130138	6/25/2013	9 80% Average	/ 3
Maryland	Columbia Gas of Maryland Inc	C-9316	9/23/2013	9 60% Below Average	/ 2
Wisconsin	Wisconsin Public Service Corp	D-6690-UR-122 (Gas)	11/6/2013	10 20% Above Average	/ 2
Ohio	Duke Energy Ohio Inc	C-12-1685-GA-AIR	11/13/2013	9 84% Average	/ 2
Michigan	Michigan Gas Utilities Corp	C-U-17273	11/14/2013	10 25% Average	/ 1
Maryland	Washington Gas Light Co	C-9322	11/22/2013	9 50% Below Average	/ 2
Wisconsin	Northern States Power Co - WI	D-4220-UR-119 (Gas)	12/5/2013	10 20% Above Average	/ 2
Maryland	Baltimore Gas and Electric Co	C-9326 (gas)	12/13/2013	9 60% Below Average	/ 2
Nevada	Sierra Pacific Power Co	D-13-06003	12/16/2013	9 73% Average	/ 2
North Carolina	Piedmont Natural Gas Co	D-G-9, Sub 631	12/17/2013	10 00% Average	/ 1
Illinois	Ameren Illinois	D-13-0192	12/18/2013	9 08% Below Average	/ 1
Colorado	Public Service Co of CO	D-12AL-1268G	12/23/2013	9 72% Average	/ 1
North Dakota	MDU Resources Group Inc	C-PU-13-803	12/30/2013	10 00% Average	/ 1
Oregon	Avista Corp	D-UG-246	1/21/2014	9 65% Average	/ 3
Connecticut	CT Natural Gas Corp	D-13-06-08	1/22/2014	9 18% Below Average	/ 2
New York	Consolidated Edison Co of NY	C-13-G-0031	2/20/2014	9 30% Average	/ 2
Utah	Questar Gas Co	D-13-057-05	2/21/2014	9 85% Average	/ 2
Massachusetts	Bay State Gas Company	DPU 13-75	2/28/2014	9 55% Average	/ 3
Colorado	Atmos Energy Corp	D-13AL-0496G	3/16/2014	9 72% Average	/ 1
New Hampshire	Northern Utilities Inc	D-DG-13-086	4/21/2014	9 50% Average	/ 3
Kentucky	Atmos Energy Corp	C-2013-00148	4/22/2014	9 80% Average	/ 1
Minnesota	CenterPoint Energy Resources	D-G-008/GR-13-316	5/8/2014	9 59% Average	/ 2
New York	National Fuel Gas Dist Corp	C-13-G-0136	5/8/2014	9 10% Average	/ 2
Wisconsin	Wisconsin Power and Light Co	D-6680-UR-119 (Gas)	6/6/2014	10 40% Above Average	/ 2
California	Southwest Gas Corp	A-12-12-024 (SoCal)	6/12/2014	10 10% Average	/ 1
California	Southwest Gas Corp	A-12-12-024 (NoCal)	6/12/2014	10 10% Average	/ 1
California	Southwest Gas Corp	A-12-12-024 (LkTah)	6/12/2014	10 10% Average	/ 1
Arkansas	SourceGas Arkansas Inc	D-13-079-U	7/7/2014	9 30% Average	/ 2
Arkansas	Arkansas Oklahoma Gas Corp	D-13-078-U	7/25/2014	9 30% Average	/ 2
Wyoming	Cheyenne Light Fuel Power Co	D-30005-182-GR-13	7/31/2014	9 90% Average	/ 2
Kansas	Atmos Energy Corp	D-14-ATMG-320-RTS	9/4/2014	9 10% Average	/ 2
Minnesota	Minnesota Energy Resources	D-G-011/GR-13-617	9/24/2014	9 35% Average	/ 2
New Jersey	South Jersey Gas Co	D-GR-13111137	9/30/2014	9 75% Average	/ 3
Missouri	Summit Natural Gas of Missouri	C-GR-2014-0086	10/29/2014	10 80% Average	/ 2
Wisconsin	Wisconsin Public Service Corp	D-6690-UR-123 (Gas)	11/6/2014	10 20% Above Average	/ 2
Wisconsin	Wisconsin Electric Power Co	D-05-UR-107 (WEP-Gas)	11/14/2014	10 20% Above Average	/ 2
Wisconsin	Wisconsin Gas LLC	D-05-UR-107 (WG)	11/14/2014	10 30% Above Average	/ 2
Wisconsin	Madison Gas and Electric Co	D-3270-UR-120 (Gas)	11/26/2014	10 20% Above Average	/ 2
Missouri	Liberty Utilities (Midstates)	C-GR-2014-0152	12/3/2014	10 00% Average	/ 2
Michigan	Consumers Energy Co	C-U-17643	1/13/2015	10 30% Average	/ 1
Illinois	North Shore Gas Co	D-14-0224	1/21/2015	9 05% Below Average	/ 1
Illinois	Peoples Gas Light & Coke Co	D-14-0225	1/21/2015	9 05% Below Average	/ 1
Oregon	Avista Corp	D-UG-284	4/9/2015	9 50% Average	/ 3
Tennessee	Atmos Energy Corp	D-14-00146	5/11/2015	9 80% Average	/ 1
New York	Central Hudson Gas & Electric	C-14-G-0319	6/17/2015	9 00% Average	/ 2
Virginia	Columbia Gas of Virginia Inc	C-PUE-2014-00020	8/21/2015	9 75% Above Average	/ 2
Massachusetts	Bay State Gas Company	DPU 15-50	10/7/2015	9 55% Average	/ 3
West Virginia	Mountaineer Gas Company	C-15-0003-G-42T	10/13/2015	9 75% Below Average	/ 1
New York	Orange & Rockland Utilis Inc	C-14-G-0494	10/15/2015	9 00% Average	/ 2
Massachusetts	NSTAR Gas Co	DPU 14-150	10/30/2015	9 80% Average	/ 3
Wisconsin	Wisconsin Public Service Corp	D-6690-UR-124 (Gas)	11/19/2015	10 00% Above Average	/ 2
Wisconsin	Northern States Power Co - WI	D-4220-UR-121 (Gas)	12/3/2015	10 00% Above Average	/ 2
Illinois	Ameren Illinois	D-15-0142	12/9/2015	9 60% Below Average	/ 1
Michigan	Michigan Gas Utilities Corp	C-U-17880	12/11/2015	9 90% Average	/ 1
Idaho	Avista Corp	C-AVU-G-15-01	12/18/2015	9 50% Average	/ 2
Oklahoma	Oklahoma Natural Gas Co	Ca-PUD201500213	1/6/2016	9 50% Average	/ 2
Washington	Avista Corp	D-UG-150205	1/6/2016	9 50% Average	/ 3
Arkansas	SourceGas Arkansas Inc	D-15-011-U	1/28/2016	9 40% Average	/ 2
Massachusetts	Liberty Utilities (NE Nat Gas)	DPU 15-75	2/10/2016	9 60% Average	/ 3

Median Authorized ROE / RRA Ranking

10 20% Above Average  
9 72% Average  
9 39% Below Average

Average Authorized ROE / RRA Ranking

9 98% Average / 1



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## Flotation Cost Adjustment

Two most recent open market common stock issuances per company, if available

Company	Date	Shares Issued	Offering Price	Underwriting Discount	Offering Expense	Net Proceeds Per Share	Total Flotation Costs	Gross Equity Issue Before Costs	Net Proceeds	Flotation Cost Percentage
SCANA Corporation	5/11/2010	7,150,000	\$37.00	\$1.2950	\$350,000	\$35.66	\$9,609,250	\$264,550,000	\$254,940,750	3.632%
SCANA Corporation	12/31/2008	2,500,000	\$35.50	\$0.5325	\$350,000	\$34.83	\$1,681,250	\$88,750,000	\$87,068,750	1.894%
Atmos Energy Corporation	2/11/2014	9,200,000	\$44.00	\$1.5400	\$350,000	\$42.42	\$14,518,000	\$404,800,000	\$390,282,000	3.586%
Atmos Energy Corporation	12/7/2006	6,325,000	\$31.50	\$1.1025	\$400,000	\$30.33	\$7,373,313	\$199,237,500	\$191,864,188	3.701%
Laclede Group, Inc. (The)	6/5/2014	10,350,000	\$48.25	\$1.7113	\$1,000,000	\$44.44	\$18,711,438	\$478,687,500	\$459,976,063	3.909%
Laclede Group, Inc. (The)	5/22/2013	10,005,000	\$44.50	\$1.7244	\$1,000,000	\$42.68	\$18,252,372	\$445,222,500	\$426,970,128	4.100%
Northwest Natural Gas Company	3/30/2004	1,290,000	\$31.00	\$1.0100	\$175,000	\$29.85	\$1,477,900	\$39,990,000	\$38,512,100	3.696%
WGL Holdings, Inc.	6/20/2001	2,058,500	\$26.73	\$0.8950	\$56,218	\$25.81	\$1,898,576	\$55,023,705	\$53,125,130	3.450%
Mean							\$9,190,262	\$247,032,651		
							WEIGHTED AVERAGE FLOTATION COSTS		3.720%	

## Constant Growth Discounted Cash Flow Model Adjusted for Flotation Costs - 30 Day Average Stock Price

		[1]	[2]	[3]	[4]		[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
		Annualized Dividend	Average Stock Price	Dividend Yield	Expected Dividend Yield		Zacks Earnings Growth	First Call Earnings Growth	Value Line Earnings Growth	Retention Growth	Average Earnings Growth	DCF k(e)	Flotation Adjusted DCF k(e)	
Company	Ticker				Current	Adjusted for Flot Costs								
Atmos Energy Corporation	ATO	\$1 68	\$65 65	2 56%	2 65%	2 75%	6 60%	6 40%	7 00%	8 21%	7 05%	9 70%	9 80%	
Laclede Group, Inc (The)	LG	\$1 96	\$61 14	3 21%	3 30%	3 43%	4 80%	4 78%	10 00%	4 90%	6 12%	9 42%	9 55%	
New Jersey Resources Corporation	NJR	\$0 96	\$34 36	2 79%	2 87%	2 98%	6 50%	6 50%	4 00%	5 81%	5 70%	8 58%	8 69%	
Northwest Natural Gas Company	NWN	\$1 87	\$51 25	3 65%	3 73%	3 88%	4 00%	4 00%	7 00%	3 73%	4 68%	8 42%	8 56%	
South Jersey Industries, Inc	SJI	\$1 06	\$24 21	4 36%	4 50%	4 67%	NA	6 00%	7 00%	6 56%	6 52%	11 02%	11 19%	
Southwest Gas Corporation	SWX	\$1 62	\$57 43	2 82%	2 90%	3 02%	5 00%	4 00%	7 00%	7 53%	5 88%	8 78%	8 90%	
WGL Holdings, Inc	WGL	\$1 95	\$64 08	3 04%	3 14%	3 26%	7 30%	8 00%	5 50%	5 11%	6 48%	9 62%	9 74%	
PROXY GROUP MEAN				3 20%	3 30%	3 43%								

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Proxy Group Capital Structure

Company	Ticker	% Common Equity								Average
		2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	2014Q2	2014Q1	
Atmos Energy Corporation	ATO	57.13%	56.54%	56.88%	56.12%	55.52%	55.68%	55.93%	55.99%	56.22%
Laclede Group, Inc. (The)	LG	46.36%	45.94%	46.97%	47.01%	45.31%	44.90%	61.10%	57.06%	49.33%
New Jersey Resources Corporation	NJR	57.11%	56.43%	55.97%	61.02%	59.92%	60.43%	61.42%	61.52%	59.23%
Northwest Natural Gas Company	NWN	56.45%	54.98%	55.55%	54.26%	53.64%	53.20%	51.65%	51.24%	53.87%
South Jersey Industries, Inc	SJI	50.04%	48.26%	50.64%	49.04%	48.02%	46.12%	49.47%	54.19%	49.47%
Southwest Gas Corporation	SWX	50.37%	49.84%	50.16%	50.47%	47.42%	50.09%	51.36%	51.62%	50.17%
WGL Holdings, Inc	WGL	57.05%	56.19%	55.99%	56.70%	55.52%	64.06%	67.15%	67.63%	60.04%
Mean		53.50%	52.60%	53.17%	53.52%	52.19%	53.50%	56.87%	57.03%	54.05%

Company	Ticker	% Long-Term Debt								Average
		2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	2014Q2	2014Q1	
Atmos Energy Corporation	ATO	42.87%	43.46%	43.12%	43.88%	44.48%	44.32%	44.07%	44.01%	43.78%
Laclede Group, Inc. (The)	LG	53.64%	54.06%	53.03%	52.99%	54.69%	55.10%	38.90%	42.94%	50.67%
New Jersey Resources Corporation	NJR	42.89%	43.57%	44.03%	38.98%	40.08%	39.57%	38.58%	38.48%	40.77%
Northwest Natural Gas Company	NWN	43.55%	45.02%	44.45%	45.74%	46.36%	46.80%	48.35%	48.76%	46.13%
South Jersey Industries, Inc	SJI	49.96%	51.74%	49.36%	50.96%	51.98%	53.88%	50.53%	45.81%	50.53%
Southwest Gas Corporation	SWX	49.63%	50.16%	49.84%	49.53%	52.58%	49.91%	48.64%	48.38%	49.83%
WGL Holdings, Inc	WGL	42.95%	43.81%	44.01%	43.30%	44.48%	35.94%	32.85%	32.37%	39.96%
Mean		46.50%	47.40%	46.83%	46.48%	47.81%	46.50%	43.13%	42.97%	45.95%

Source: SNL Financial

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## 2014-2016 Rate Cases Summary of Authorized Return on Equity, Rate of Return

State	Case Identification	Company	Decision Date	Authorized ROR	Authorized ROE	RRA Ranking
New York	C-14-G-0319	Central Hudson Gas & Electric	6/17/2015	6 62%	9 00%	5
New York	C-15-G-0284	NY State Electric & Gas Corp	6/15/2016	6 68%	9 00%	5
New York	C-14-G-0494	Orange & Rockland Utilis Inc	10/15/2015	7 10%	9 00%	5
New York	C-15-G-0286	Rochester Gas & Electric Corp	6/15/2016	7 55%	9 00%	5
Illinois	D-14-0224	North Shore Gas Co	1/21/2015	6 26%	9 05%	3
Illinois	D-14-0225	Peoples Gas Light & Coke Co	1/21/2015	6 56%	9 05%	3
Kansas	D-14-ATMG-320-RTS	Atmos Energy Corp	9/4/2014	7 75%	9 10%	5
New York	C-13-G-0136	National Fuel Gas Dist Corp	5/8/2014	7 56%	9 10%	5
Connecticut	D-13-06-08	CT Natural Gas Corp	1/22/2014	7 88%	9 18%	2
Arkansas	D-13-078-U	Arkansas Oklahoma Gas Corp	7/25/2014	6 18%	9 30%	5
Arkansas	D-13-079-U	SourceGas Arkansas Inc	7/7/2014	5 71%	9 30%	5
New York	C-13-G-0031	Consolidated Edison Co of NY	2/20/2014	7 10%	9 30%	5
Minnesota	D-G-011/GR-13-617	Minnesota Energy Resources	9/24/2014	7 30%	9 35%	5
Arkansas	D-15-011-U	SourceGas Arkansas Inc	1/28/2016	5 33%	9 40%	5
Oregon	D-UG 288	Avista Corp	2/29/2016	7 46%	9 40%	4
Minnesota	D-G-008/GR-15-424	CenterPoint Energy Resources	5/5/2016	7 07%	9 49%	5
Colorado	D-15AL-0135G	Public Service Co of CO	2/16/2016	7 33%	9 50%	6
Idaho	C-AVU-G-15-01	Avista Corp	12/18/2015	7 42%	9 50%	5
New Hampshire	D-DG-13-086	Northern Utilities Inc	4/21/2014	8 28%	9 50%	4
Oklahoma	Ca-PUD201500213	Oklahoma Natural Gas Co	1/6/2016	7 31%	9 50%	5
Oregon	D-UG-284	Avista Corp	4/9/2015	7 52%	9 50%	4
Washington	D UG-150205	Avista Corp	1/6/2016	7 29%	9 50%	4
Massachusetts	DPU 15-50	Bay State Gas Company	10/7/2015	7 75%	9 55%	4
Massachusetts	DPU 13-75	Bay State Gas Company	2/28/2014	7 83%	9 55%	4
Maine	D-2015-00005	Maine Natural Gas	6/1/2016	7 28%	9 55%	5
Minnesota	D-G-008/GR-13-316	CenterPoint Energy Resources	5/8/2014	7 42%	9 59%	5
Illinois	D-15-0142	Ameren Illinois	12/9/2015	7 65%	9 60%	3
Massachusetts	DPU 15-75	Liberty Utilities (NE Nat Gas)	2/10/2016	7 99%	9 60%	4
Maryland	C-9406 (gas)	Baltimore Gas and Electric Co	6/3/2016	7 23%	9 65%	2
Oregon	D-UG-246	Avista Corp	1/21/2014	7 47%	9 65%	4
Colorado	D-13AL-0496G	Atmos Energy Corp	3/16/2014	8 07%	9 72%	6
New Jersey	D-GR-13111137	South Jersey Gas Co	9/30/2014	7 10%	9 75%	4
Virginia	C-PUE-2014-00020	Columbia Gas of Virginia Inc	8/21/2015	7 35%	9 75%	8
West Virginia	C-15-0003-G-42T	Mountaineer Gas Company	10/13/2015	7 96%	9 75%	3
Kentucky	C-2013-00148	Atmos Energy Corp	4/22/2014	7 71%	9 80%	6
Massachusetts	DPU 15-81	Fitchburg Gas & Electric Light	4/29/2016	8 46%	9 80%	4
Massachusetts	DPU 14-150	NSTAR Gas Co	10/30/2015	7 72%	9 80%	4
Tennessee	D-14-00146	Atmos Energy Corp	5/11/2015	7 73%	9 80%	6
Utah	D-13-057-05	Questar Gas Co	2/21/2014	7 64%	9 85%	5
Michigan	C-U-17880	Michigan Gas Utilities Corp	12/11/2015	5 51%	9 90%	6
Wyoming	D-30005-182-GR-13	Cheyenne Light Fuel Power Co	7/31/2014	7 98%	9 90%	5
Missouri	C-GR-2014-0152	Liberty Utilities (Midstates)	12/3/2014	7 22%	10 00%	5
Wisconsin	D-4220-UR-121 (Gas)	Northern States Power Co - WI	12/3/2015	7 81%	10 00%	8
Wisconsin	D-6690-UR-124 (Gas)	Wisconsin Public Service Corp	11/19/2015	7 80%	10 00%	8
California	A-12-12-024 (SoCal)	Southwest Gas Corp	6/12/2014	6 83%	10 10%	6
California	A-12-12-024 (NoCal)	Southwest Gas Corp	6/12/2014	8 18%	10 10%	6
California	A-12-12-024 (LkTah)	Southwest Gas Corp	6/12/2014	8 18%	10 10%	6
Wisconsin	D-3270-UR-120 (Gas)	Madison Gas and Electric Co	11/26/2014	7 98%	10 20%	8
Wisconsin	D-05-UR-107 (WEP-	Wisconsin Electric Power Co	11/14/2014	8 60%	10 20%	8
Wisconsin	D-6690-UR-123 (Gas)	Wisconsin Public Service Corp	11/6/2014	7 95%	10 20%	8
Michigan	C-U-17643	Consumers Energy Co	1/13/2015	NA	10 30%	6
Wisconsin	D-05-UR-107 (WG)	Wisconsin Gas LLC	11/14/2014	8 36%	10 30%	8
Wisconsin	D-6680-UR-119 (Gas)	Wisconsin Power and Light Co	6/6/2014	NA	10 40%	8
Missouri	C-GR-2014-0086	Summit Natural Gas of Missouri	10/29/2014	7 54%	10 80%	5

## Summary of Authorized ROEs since 2014 [1]

	RRA Ranking			
	Above Average	Average	Below Average	Overall
Average	10 13%	9 60%	9 38%	9 65%
Median	10 20%	9 55%	9 39%	9 60%
Maximum	10 40%	10 80%	9 75%	10 80%
Minimum	9 75%	9 00%	9 05%	9 00%
Count	8	40	6	54

## Summary of Authorized RORs since 2014

	RRA Ranking			
	Above Average	Average	Below Average	Overall
Average	7 98%	7 34%	7 26%	7 41%
Median	7 95%	7 46%	7 44%	7 53%
Maximum	8 60%	8 46%	7 96%	8 60%
Minimum	7 35%	5 33%	6 26%	5 33%
Count	7	39	6	52

## Notes

Source SNL Financial

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## Proxy Group Capital Structure

Common Equity												
Company	Ticker	2016Q2	2016Q1	2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	2014Q2	2014Q1	Average
Atmos Energy Corporation	ATO	52.58%	52.04%	50.41%	52.30%	54.47%	53.95%	50.48%	53.77%	55.93%	55.99%	53.19%
New Jersey Resources Corporation	NJR	48.90%	54.49%	51.67%	54.58%	55.97%	56.63%	52.65%	50.85%	55.55%	59.30%	54.06%
Northwest Natural Gas Company	NWN	51.69%	51.51%	47.44%	47.27%	49.14%	49.23%	46.08%	46.90%	49.20%	50.17%	48.86%
South Jersey Industries, Inc.	SJI	51.13%	43.59%	41.57%	40.93%	42.52%	43.11%	42.62%	42.71%	44.28%	45.04%	43.75%
Southwest Gas Corporation	SWX	52.67%	53.47%	50.09%	49.84%	50.16%	50.47%	47.34%	50.09%	51.36%	51.62%	50.71%
Spire Inc	SR	48.04%	44.40%	41.80%	41.82%	44.24%	43.85%	40.55%	41.36%	61.10%	56.02%	46.32%
WGL Holdings, Inc.	WGL	47.61%	47.80%	46.24%	48.86%	52.38%	52.69%	48.01%	51.96%	59.74%	58.21%	51.35%
Mean		50.37%	49.61%	47.03%	47.94%	49.84%	49.99%	46.82%	48.24%	53.88%	53.76%	49.75%
Maximum		52.67%	54.49%	51.67%	54.58%	55.97%	56.63%	52.65%	53.77%	61.10%	59.30%	54.06%
Minimum		47.61%	43.59%	41.57%	40.93%	42.52%	43.11%	40.55%	41.36%	44.28%	45.04%	43.75%

Long Term Debt												
Company	Ticker	2016Q2	2016Q1	2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	2014Q2	2014Q1	Average
Atmos Energy Corporation	ATO	37.25%	38.21%	37.83%	40.20%	41.30%	42.19%	40.45%	42.80%	44.07%	44.01%	40.83%
New Jersey Resources Corporation	NJR	40.89%	38.63%	38.80%	42.15%	44.03%	36.18%	35.22%	33.30%	34.89%	37.09%	38.12%
Northwest Natural Gas Company	NWN	38.44%	37.96%	36.15%	38.71%	38.82%	40.88%	39.82%	41.25%	46.06%	47.74%	40.59%
South Jersey Industries, Inc.	SJI	43.05%	42.88%	41.14%	43.89%	41.44%	44.80%	46.14%	49.90%	45.22%	38.08%	43.65%
Southwest Gas Corporation	SWX	47.33%	46.53%	49.34%	50.16%	49.84%	49.53%	52.50%	49.91%	48.64%	48.38%	49.22%
Spire Inc	SR	49.36%	48.90%	48.36%	49.20%	49.95%	49.42%	48.94%	50.76%	38.90%	42.16%	47.59%
WGL Holdings, Inc.	WGL	40.30%	40.92%	34.82%	38.09%	41.17%	40.23%	38.47%	29.14%	29.23%	27.87%	36.02%
Mean		42.37%	42.00%	40.92%	43.20%	43.79%	43.33%	43.08%	42.44%	41.00%	40.76%	42.29%
Maximum		49.36%	48.90%	49.34%	50.16%	49.95%	49.53%	52.50%	50.76%	48.64%	48.38%	49.22%
Minimum		37.25%	37.96%	34.82%	38.09%	38.82%	36.18%	35.22%	29.14%	29.23%	27.87%	36.02%

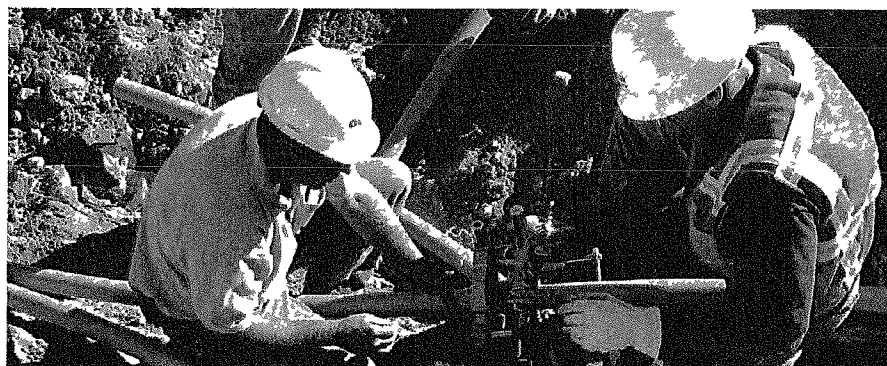
  

Short Term Debt												
Company	Ticker	2016Q2	2016Q1	2015Q4	2015Q3	2015Q2	2015Q1	2014Q4	2014Q3	2014Q2	2014Q1	Average
Atmos Energy Corporation	ATO	10.17%	9.75%	11.76%	7.50%	4.24%	3.87%	9.08%	3.43%	0.00%	0.00%	5.98%
New Jersey Resources Corporation	NJR	10.22%	6.88%	9.53%	3.27%	0.00%	7.18%	12.13%	15.84%	9.57%	3.61%	7.82%
Northwest Natural Gas Company	NWN	9.87%	10.53%	16.40%	14.02%	12.04%	9.80%	14.10%	11.85%	4.74%	2.10%	10.54%
South Jersey Industries, Inc.	SJI	5.82%	13.53%	17.29%	15.19%	16.04%	12.09%	11.23%	7.39%	10.50%	16.88%	12.60%
Southwest Gas Corporation	SWX	0.00%	0.00%	0.57%	0.00%	0.00%	0.00%	0.16%	0.00%	0.00%	0.00%	0.07%
Spire Inc	SR	2.60%	6.70%	9.85%	8.98%	5.81%	6.74%	10.51%	7.87%	0.00%	1.82%	6.09%
WGL Holdings, Inc.	WGL	12.09%	11.28%	18.94%	13.05%	6.45%	7.07%	13.52%	18.90%	11.03%	13.93%	12.63%
Mean		7.25%	8.38%	12.05%	6.86%	6.37%	6.68%	10.10%	9.33%	5.12%	5.48%	7.96%
Maximum		12.09%	13.53%	18.94%	15.19%	16.04%	12.09%	14.10%	18.90%	11.03%	16.88%	12.63%
Minimum		0.00%	0.00%	0.57%	0.00%	0.00%	0.00%	0.16%	0.00%	0.00%	0.00%	0.07%

Source: SNL Financial

# OTD

Operations  
Technology  
Development



As natural gas utilities grapple with an aging infrastructure, new pipeline integrity regulations, climate change, environmental impacts, alternative sources of supply and a continuous effort to improve operating efficiencies, OTD's work has become increasingly important. Initiatives supported by OTD have successfully addressed these growing issues for natural gas distribution utilities.

Since 2003, OTD has focused on infrastructure needs ranging from simple tools like the pavement breaker lift assist that helps utility personnel reduce the risk of personal injury to game-changing technologies like the use of sophisticated GPS devices for sub-foot tracking and tracing of utility assets and an acoustic pipe locator that is able to find plastic pipe without the use of tracer wire.

OTD is a not-for-profit corporation led by its 22 members who serve over 28 million natural gas consumers in 27 states and Canada. Through collaborative research and technology development, OTD member companies pool their resources and leverage available funding to ensure that complex tasks are becoming easier to accomplish, expensive activities are becoming less costly, and risk is becoming more manageable.

One thing that remains constant is change. The energy industry will continue to evolve, and OTD provides its members the ability to anticipate changes and adapt their operations through technology improvements.

What follows is a small sample of the many projects that OTD has sponsored on behalf of the natural gas industry and its customers.

## Technology supporting natural gas infrastructure



Safe  
&  
Secure

# OTD Technology Highlights

## Product Pipeline



“They are clearly strong in collaboration. I think their collaboration model is unique in our industry and they manage that well. They pull together member companies and collaborate effectively to accomplish things these companies couldn’t do individually. We rely on them for shared ideas from all over the country to make the outcome greater.

They’re very aware of what the industry faces and they’re looking at projects that align with that.”

*Hart Gilchrist,  
Intermountain Gas  
OTD Member*

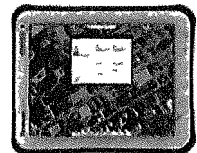
### High-Accuracy GPS for Tablets and Smart Phones

An application developed by OTD and GTI as part of the 3-GIS Mobile 2.1 platform allows users to collect sub-foot accurate GPS data in real time with no need for back-office processing or data conversion. The application provides disconnected editing and barcode scanning to automatically populate the GIS with attribute information. It is compatible with Android devices and modular options allow users to select hardware based on individual needs.

GTI has established LocusView Solutions, a wholly owned subsidiary, to provide mobile mapping and field data collection services, including software configuration, hardware selection and set-up, cloud hosting, deployment and implementation, training, and back-office integration. Visit [www.locusview.com](http://www.locusview.com) to learn more.

### GPS-Enabled Leak Surveying

Automating the leak surveying and pinpointing process with GPS eliminates paper records, providing increased efficiency and reliable compliance documentation. Implementation of the GPS-enabled system with the VeroTrack AST™ software application is under way at several utility companies.



### Keyhole Pipeline Inspection Camera System

The PRX250K keyhole camera is an internal inspection system designed for visual assessment of live mains through conventional pits or small keyholes. The system is easily maneuverable through tight bends, allowing utilities to examine pipe segments without the need to drill additional access holes.

### Lift Assists for Pavement Breakers and Rock Drills

These devices, available from Integrated Tool Solutions, provide two new tools, pavement and rock breakers. They assist workers in lifting the pavement breaker and rock drill after the bit has broken through the surface of the street or concrete and needs to be repositioned for the next penetration. By eliminating the need to manually lift and re-position the heavy tools, these lift assists make pavement and concrete breaking easier and less physically demanding.



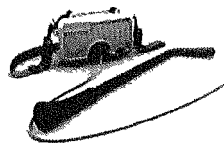
### Metallic Joint Locator (MJL)

The SENSIT Ultra-Trac® MJL accurately locates bell joints, valves, pressure control fittings, repair clamps, mechanical couplings and service connections on metallic piping systems, significantly reducing excavation areas and pavement restoration costs.

# Efficient

### Portable Methane Detector (PMD)

The handheld SENSIT® PMD uses optical-detection technology to provide sensitivity and cost advantages over conventional techniques employing flame ionization detectors. The PMD improves the efficiency of leak surveys, is less costly to maintain than other technologies, and can detect leaks from low ppm to 100% gas.



### Handheld Acoustic Pipe Locator

The acoustic-based pipe locator provides the ability to locate plastic pipes before excavations and construction. Now commercially available, in tests the system was shown to be capable of detecting multiple buried plastic pipes at depths up to five feet. Commercially available from SENSIT Technologies.



## Analytical Tools and Reports

### RFID Marker Technology Implementation Guidelines

A set of guidelines was developed for the implementation and application of integrated Global Positioning Systems (GPS), RFID Marker Technology Implementation Guidelines Geographic Information Systems (GIS), and "Smart Tag" technologies to streamline public-improvement project planning and prevent damage caused by excavations.



### Cross Bores Best Practices Guide & Videos

Significant research was conducted to investigate gas line/ sewer line cross bores. The Guide and "how-to" videos (available through the OTD website) provide recommendations and procedures for preventing and detecting cross bores.

### Underground Facility Pinpointing

Reports from this project present the results of research conducted on several technologies used by utilities to locate underground pipes and facilities. Researchers investigated standard electromagnetic locators, ground-penetrating radar, and alternative imaging tools. The reports provide a comparative, technical evaluation of tools that are currently available.

### Polyurea Coating Testing and Assessment for Gas-Industry Use

A Final Report is available on research into field-applied polyurea coatings for gas industry use. Through a new initiative, long-term field trials will be conducted to evaluate these additional coatings and determine a cost-effective coating application method and process.

### Inspection Technology Strategy Tool

An on-line software tool was developed to assist pipeline operators in evaluating and selecting appropriate inspection tools. A website provides a centralized resource for technical information and expertise related to internal inspection issues and concerns.

### Leak-Rupture Boundary Report and Calculator

This report and associated software allows operators to determine the leak-rupture boundary for a pipe segment based on properties such as the diameter, toughness, and yield strength. Operators can use the calculator for risk modeling and consequence analysis.

Software applications and technical reports can be found on the OTD website at [www.otd-co.org](http://www.otd-co.org) or are available for purchase through Technical Toolboxes at [www.ttoolbox.com/products/OTD](http://www.ttoolbox.com/products/OTD)

"We wouldn't be able to be involved in this level of R&D if we weren't a member of OTD.

I think their technical expertise and their project management skills are two of their strengths. Because they stay abreast of pipeline safety regulations and are very knowledgeable about the gas industry in general, they have the ability to take on many different types of projects.

They have proven that they can get projects completed within a reasonable time-frame and on budget and have gotten numerous products put into service. After the initial R&D, they have the ability to move a product through a 'proof of concept' and have been successful in finding commercializers to get products into the marketplace."

*Mike J. Leger,  
Entergy  
OTD Member*

## **Operations Technology Development, NFP**

▼  
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Des Plaines, Illinois 60018  
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FAX: 847-544-3401  
www.otd-co.org

### **Field-Applied Pipeline Coatings: Short- and Long-Term Performance**

This report presents the culmination of a 10-year research program to assess more than 80 different commercially available field-applied pipeline-coating products. The goal was to establish an unbiased, third-party basis for operators to select the most appropriate coating system for particular applications. field-applied pipeline-coating products.



### **Evaluation of Guided Wave Technology as a Hydrotest Equivalent**



This report details an evaluation conducted to demonstrate and validate the use of Guided Wave Ultrasonic Testing as an equivalent to a hydrotest. A draft standard was developed and is currently under review by the National Association of Corrosion Engineers (NACE) for incorporation into an industry standard.

### **Flaw Acceptance Criteria and Repair Options for Low-Stress Natural Gas Pipelines**

Researchers partnered with pipeline companies and industry organizations to develop modified assessment criteria for low-stress pipelines. The goal, as outlined in this report, was to develop criteria for discriminating flaws that truly affect pipeline integrity from flaws that have no significant impact.

### **Tracer Wire for HDD Applications**

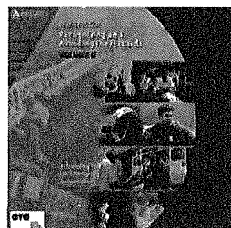
Extensive research and testing culminated in the release of a report that provides valuable information on the properties and performance of various tracer-wire products for use in horizontal directional drilling (HDD) operations.

### **Integrating GPS into Routine Operations**

This report provides a set of recommendations and GPS implementation strategies developed through pilot programs, literature searches, and reviews of existing applications. Operations that were considered included meter reading, leak surveying, new installations, corrosion monitoring, and valve inspections.

### **Electrofusion Coupling Evaluation and Best Practices**

Researchers investigated techniques used to perform electrofusion joining of plastic gas pipe in an effort to develop guidelines for the use and operation of electrofusion coupling. With a detailed set of guidelines, the gas industry can enhance the performance and safety of its plastic piping systems.



### **First Responders DVDs**

To help gas companies better educate first-responding personnel about natural gas emergencies, gas industry researchers and training experts developed DVD-based learning modules with realistic scenarios covering a variety of issues. Designed to enhance public and worker safety, the training product also serves to improve emergency-response effectiveness and coordination.

### **For More Information**

Ron Snedic, OTD President; 847-768-0572; ron.snedic@otd-co.org



I/A

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 565  
PRESENT RATES & CHARGES

Rate No.	Description	Facilities Charge	Billing Rate	CUT Increment/ (Decrement)	Clean Tariff Rate (a)
<b>101</b>	<b>Residential Service</b>				
	Facilities Charge - Per Month	\$10.00			
	Energy Charge - Per Therm				
	Winter - November through April		\$0.74340	\$0.00596	\$0.73744
	Summer- May through October		\$0.67577	\$0.00596	\$0.66981
<b>102</b>	<b>Residential Service</b>				
	Facilities Charge - Per Month	\$10.00			
	Energy Charge - Per Therm				
	Winter - November through April		\$0.69340	\$0.00596	\$0.68744
	Summer- May through October		\$0.62577	\$0.00596	\$0.61981
<b>115</b>	<b>Open Flame Gas Lanterns</b>				
	Facilities Charge - Per Month	\$10.00			
	Energy Charge - Per Therm				
	Winter - November through April		\$0.73744		\$0.73744
	Summer- May through October		\$0.66981		\$0.66981
<b>125</b>	<b>Small General Service</b>				
	Facilities Charge - Per Month	\$17.50			
	Energy Charge - Per Therm				
	First 500		\$0.61179	(\$0.01809)	\$0.62988
	Next 4,500		\$0.55143	(\$0.01809)	\$0.56952
	All Over 5,000		\$0.50750	(\$0.01809)	\$0.52559
<b>126</b>	<b>Small General Service - Cooling</b>				
	Facilities Charge - Per Month	\$30.00			
	Energy Charge - Per Therm		\$0.52559		\$0.52559
<b>127</b>	<b>Small General Service</b>				
	Facilities Charge - Per Month	\$17.50			
	Energy Charge - Per Therm				
	First 500		\$0.56179	(\$0.01809)	\$0.57988
	Next 4,500		\$0.50143	(\$0.01809)	\$0.51952
	All Over 5,000		\$0.45750	(\$0.01809)	\$0.47559
<b>135</b>	<b>Natural Gas Vehicle Fuel</b>				
	Energy Charge - Per Therm		\$0.70130		\$0.70130
	Energy Charge - Per GGE (b)				
<b>145</b>	<b>Large-Quantity General Service</b>				
	Facilities Charge - Per Month	\$300.00			
	Energy Charge - Per Therm				
	First 15,000		\$0.41914		\$0.41914
	Next 15,000		\$0.39732		\$0.39732
	Next 15,000		\$0.37782		\$0.37782
	Next 15,000		\$0.35236		\$0.35236
	All Over 60,000		\$0.33117		\$0.33117

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 565  
PRESENT RATES & CHARGES

Rate No.	Description	Facilities Charge	Billing Rate	CUT Increment/ (Decrement)	Clean Tariff Rate (a)
150	<b>Large-Quantity Interruptible Commercial &amp; Industrial Service</b>				
	Facilities Charge - Per Month	\$600.00			
	Energy Charge - Per Therm				
	First 15,000		\$0.35261		\$0.35261
	Next 15,000		\$0.33171		\$0.33171
	Next 70,000		\$0.31085		\$0.31085
	Next 500,000		\$0.29027		\$0.29027
	All Over 600,000		\$0.26941		\$0.26941
160	<b>Special Sales Rate</b>				
	Facilities Charge - Per Month	\$600.00			
	Energy Charge - Per Therm		See Rate Schedule No. 160		
165	<b>Special Transportation Rate</b>				
	Facilities Charge - Per Month	\$600.00			
	Energy Charge - Per Therm		See Rate Schedule No. 165		
175	<b>Firm Transportation Service For Customers Qualifying For Service On Rate Schedule No. 145</b>				
	Facilities Charge - Per Month	\$300.00			
	Energy Charge - Per Therm				
	First 15,000		\$0.14542		\$0.14542
	Next 15,000		\$0.12360		\$0.12360
	Next 15,000		\$0.10410		\$0.10410
	Next 15,000		\$0.07864		\$0.07864
	All Over 60,000		\$0.05745		\$0.05745
180	<b>Interruptible Transportation Service For Customers Qualifying For Service on Rate Schedule No. 150</b>				
	Facilities Charge - Per Month	\$600.00			
	Energy Charge - Per Therm				
	First 15,000		\$0.10166		\$0.10166
	Next 15,000		\$0.08076		\$0.08076
	Next 70,000		\$0.05990		\$0.05990
	Next 500,000		\$0.03932		\$0.03932
	All Over 600,000		\$0.01846		\$0.01846

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 565  
PRESENT RATES & CHARGES

Rate No.	Description	Facilities Charge	Billing Rate	CUT Increment/ (Decrement)	Clean Tariff Rate
					(a)
	<b>Rider A - Emergency Services</b>				
	Energy Charge - Per Therm				
	Limited Emergency Service		\$1.00000	plus cost of gas	
	On-Peak Emergency Service		\$1.50000	plus cost of gas	
	Unauthorized Gas		\$2.50000	plus cost of gas	
	<b>Miscellaneous Fees</b>				
	Returned Checks and Bank Drafts	\$25.00			
	Reconnection (c)				
	Residential – Regular Hours	\$65.00			
	After 5 p.m., weekends, holidays	\$95.00			
	Non-Residential – Regular Hours	\$95.00			
	After 5 p.m., weekends, holidays	\$125.00			

- (a) Rates do not include applicable sales tax.  
(b) The rate converts 1.26 Therms to 1 Gasoline Gallon Equivalent (GGE).  
(c) All reconnections that exceed one hour shall be billed the indicated rates per hour.

I/A

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 565  
PROPOSED RATES AND CHARGES

Rate No.	Description	Facilities Charge	Billing Rate (a)
<b>101</b>	<b>Residential Service</b>		
	Facilities Charge - Per Month	\$12.00	
	Energy Charge - Per Therm		
	Winter - November through April		\$0.80425
	Summer- May through October		\$0.73662
<b>102</b>	<b>Residential Service</b>		
	Facilities Charge - Per Month	\$12.00	
	Energy Charge - Per Therm		
	Winter - November through April		\$0.75425
	Summer- May through October		\$0.68662
<b>115</b>	<b>Open Flame Gas Lanterns</b>		
	Facilities Charge - Per Month	\$12.00	
	Energy Charge - Per Therm		
	Winter - November through April		\$0.80425
	Summer- May through October		\$0.73662
<b>125</b>	<b>Small General Service</b>		
	Facilities Charge - Per Month	\$25.00	
	Energy Charge - Per Therm		
	First 500		\$0.64869
	Next 4,500		\$0.58833
	All Over 5,000		\$0.54440
<b>126</b>	<b>Small General Service - Cooling</b>		
	Facilities Charge - Per Month	\$30.00	
	Energy Charge - Per Therm		\$0.54440
<b>127</b>	<b>Small General Service</b>		
	Facilities Charge - Per Month	\$25.00	
	Energy Charge - Per Therm		
	First 500		\$0.59869
	Next 4,500		\$0.53833
	All Over 5,000		\$0.49440
<b>135</b>	<b>Natural Gas Vehicle Fuel</b>		
	Energy Charge - Per Therm		\$0.73068
	Energy Charge - Per GGE (b)		\$0.92066

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 565  
PROPOSED RATES AND CHARGES

Rate No.	Description	Facilities Charge	Billing Rate (a)
<b>140</b>	<b>Medium General Service</b>		
	Facilities Charge - Per Month	\$100.00	
	Energy Charge - Per Therm		
	First 1,000		\$0.57869
	All Over 1,000		\$0.51833
<b>145</b>	<b>Large-Quantity General Service</b>		
	Facilities Charge - Per Month	\$300.00	
	Energy Charge - Per Therm		
	First 15,000		\$0.47292
	Next 15,000		\$0.45110
	Next 15,000		\$0.43160
	Next 15,000		\$0.40614
	All Over 60,000		\$0.38495
<b>150</b>	<b>Large-Quantity Interruptible Commercial &amp; Industrial Service</b>		
	Facilities Charge - Per Month	\$600.00	
	Energy Charge - Per Therm		
	First 15,000		\$0.38199
	Next 15,000		\$0.36109
	Next 70,000		\$0.34023
	Next 500,000		\$0.31965
	All Over 600,000		\$0.29879
<b>160</b>	<b>Special Sales Rate</b>		
	Facilities Charge - Per Month	\$600.00	
	Energy Charge - Per Therm		See Rate Schedule No. 160
<b>165</b>	<b>Special Transportation Rate</b>		
	Facilities Charge - Per Month	\$600.00	
	Energy Charge - Per Therm		See Rate Schedule No. 165

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 565  
PROPOSED RATES AND CHARGES

Rate No.	Description	Facilities Charge	Billing Rate (a)
<b>175</b>	<b>Firm Transportation Service For Customers Qualifying For Service On Rate Schedule No. 145</b>		
	Facilities Charge - Per Month	\$300.00	
	Energy Charge - Per Therm		
	First 15,000		\$0.19921
	Next 15,000		\$0.17739
	Next 15,000		\$0.15789
	Next 15,000		\$0.13243
	All Over 60,000		\$0.11124
<b>180</b>	<b>Interruptible Transportation Service For Customers Qualifying For Service on Rate Schedule No. 150</b>		
	Facilities Charge - Per Month	\$600.00	
	Energy Charge - Per Therm		
	First 15,000		\$0.13104
	Next 15,000		\$0.11014
	Next 70,000		\$0.08928
	Next 500,000		\$0.06870
	All Over 600,000		\$0.04784
	<b>Rider A - Emergency Services</b>		
	Energy Charge - Per Dekatherm		
	Emergency Service		\$20.00 plus cost of gas
	Unauthorized Gas		\$50.00 plus cost of gas
	<b>Miscellaneous Fees</b>		
	Late Payments	1% of balance in arrears per month	
	Returned Checks and Bank Drafts	\$25.00	
	Reconnection (c)		
	Residential – Regular Hours	\$80.00	
	After 5 p.m., weekends, holidays	\$120.00	
	Non-Residential – Regular Hours	\$120.00	
	After 5 p.m., weekends, holidays	\$150.00	

- (a) Rates do not include applicable sales tax.  
(b) The rate converts 1.26 Therms to 1 Gasoline Gallon Equivalent (GGE).  
(c) All reconnections that exceed one hour shall be billed the indicated rates per hour.

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 565  
PROPOSED RATE DESIGN

Paton Exhibit 3

Rate	Block	Bills	Therms	Proposed Facilities Charge	Proposed Energy Charge	Facilities Charge Revenue	Energy Charge Revenue	Total Revenue	Present Rates	Change	% Change
<b>101 - Residential Service</b>											
Summer Energy Charge - Per Therm	All	2,902,725	39,468,249	\$12 00	\$0 73662	\$34,832,700	\$29,073,102	\$63,905,802			
Winter Energy Charge - Per Therm	All	2,933,135	251,453,093	\$12 00	\$0 80425	\$35,197,620	\$202,231,150	\$237,428,770			
Total			<u>290,921,342</u>					<u>\$301,334,572</u>	<u>\$281,440,196</u>	<u>\$19,894,376</u>	<u>7 07%</u>
<b>102 - Residential Service</b>											
Summer Energy Charge - Per Therm	All	49,613	680,425	\$12 00	\$0 68662	\$595,356	\$467,193	\$1,062,549			
Winter Energy Charge - Per Therm	All	48,872	3,740,335	\$12 00	\$0 75425	\$586,464	\$2,821,148	\$3,407,612			
Total			<u>4,420,760</u>					<u>\$4,470,161</u>	<u>\$4,275,313</u>	<u>\$194,848</u>	<u>4 56%</u>
<b>115 - Unmetered Lighting Service</b>											
Summer Energy Charge - Per Therm	All	257	32,898	\$12 00	\$0 73662	\$3,084	\$24,233	\$27,317			
Winter Energy Charge - Per Therm	All	258	32,799	\$12 00	\$0 80425	\$3,096	\$26,379	\$29,475			
Total			<u>65,697</u>					<u>\$56,792</u>	<u>\$51,372</u>	<u>\$5,420</u>	<u>10 55%</u>
<b>125 - Small General Service</b>											
Energy Charge - Per Therm	First 500	511,491	72,557,176	\$25 00	\$0 64869	\$12,787,275	\$47,067,114	\$59,854,389			
	Next 4,500		44,807,527		\$0 58833		\$26,361,612	\$26,361,612			
	All Over 5,000		1,229,200		\$0 54440		\$669,176	\$669,176			
Total			<u>118,593,903</u>					<u>\$86,885,178</u>	<u>\$80,701,177</u>	<u>\$6,184,002</u>	<u>7 66%</u>
<b>126 - Small General Service - Cooling</b>											
Energy Charge - Per Therm	All	50	61,972	\$30 00	\$0 54440	\$1,500	\$33,738	\$35,238	\$34,072	\$1,166	3 42%
<b>127 - Small General Service</b>											
Energy Charge - Per Therm	First 500	1,104	349,731	\$25 00	\$0 59869	\$27,600	\$209,380	\$236,980			
	Next 4,500		601,690		\$0 53833		\$323,908	\$323,908			
	All Over 5,000		48,311		\$0 49440		\$23,885	\$23,885			
Total			<u>999,732</u>					<u>\$584,773</u>	<u>\$556,701</u>	<u>\$28,072</u>	<u>5 04%</u>
<b>135 - Natural Gas Vehicle Fuel</b>											
Energy Charge - Per Therm			<u>250,145</u>		\$0 73068		\$182,776	\$182,776	\$175,427	\$7,349	4 19%
<b>140 - Medium General Service</b>											
Energy Charge - Per Therm	First 1,000	10,844	9,091,463	\$100 00	\$0 57869	\$1,064,400	\$5,261,139	\$6,325,539			
	All Over 1,000		21,745,693		\$0 51833		\$11,271,445	\$11,271,445			
			<u>30,837,156</u>					<u>\$17,596,984</u>	<u>\$17,853,879</u>	<u>(\$256,895)</u>	<u>-1 44%</u>
<b>145 - Large-Quantity General Service</b>											
Energy Charge - Per Therm	First 15,000	2,488	19,565,494	\$300 00	\$0 47292	\$748,400	\$9,252,913	\$9,999,313			
	Next 15,000		4 140,335		\$0 45110		\$1,867,705	\$1,867,705			
	Next 15,000		1,739,802		\$0 43160		\$750,899	\$750,899			
	Next 15,000		883,094		\$0 40614		\$358,660	\$358,660			
	All Over 60,000		1,153,367		\$0 38495		\$443,989	\$443,989			
Total			<u>27,482,092</u>					<u>\$13,420,566</u>	<u>\$11,942,579</u>	<u>\$1,477,987</u>	<u>12 38%</u>
<b>150 - Large-Quantity Interruptible Commercial &amp; Industrial Service</b>											
Energy Charge - Per Therm	First 15,000	93	1,181,777	\$600 00	\$0 38199	\$55,800	\$451,427	\$507,227			
	Next 15,000		808,253		\$0 36109		\$291,852	\$291,852			
	Next 70,000		1,940,466		\$0 34023		\$660,205	\$660,205			
	Next 500,000		2,773,747		\$0 31965		\$886,628	\$886,628			
	All Over 600,000		0		\$0 29879		\$0	\$0			
Total			<u>6,704,243</u>					<u>\$2,345,912</u>	<u>\$2,148,942</u>	<u>\$196,970</u>	<u>9 17%</u>
<b>175 - Firm Transportation Service For Customers Qualifying For Service On Rate Schedule No. 145</b>											
Energy Charge - Per Therm	First 15,000	3,764	44,858,552	\$300 00	\$0 19921	\$1,129,200	\$8,936,272	\$10,065,472			
	Next 15,000		23,405,021		\$0 17739		\$4,151,817	\$4,151,817			
	Next 15,000		15,198,266		\$0 15789		\$2,399,654	\$2,399,654			
	Next 15,000		11,009,530		\$0 13243		\$1,457,992	\$1,457,992			
	All Over 600,000		80,431,271		\$0 11124		\$8,947,175	\$8,947,175			
Total			<u>174,902,640</u>					<u>\$27,022,110</u>	<u>\$17,614,097</u>	<u>\$9,408,013</u>	<u>53 41%</u>
<b>180 - Interruptible Transportation Service For Customers Qualifying For Service on Rate Schedule No. 150</b>											
Energy Charge - Per Therm	First 15 000	1,598	21,570,397	\$600 00	\$0 13104	\$958,800	\$2,826 585	\$3,785,385			
	Next 15,000		18,099,962		\$0 11014		\$1,993,530	\$1,993,530			
	Next 70,000		45,277,277		\$0 08928		\$4,042,355	\$4,042,355			
	Next 500,000		42,865,089		\$0 06870		\$2,946,206	\$2,946,206			
	All Over 600,000		13,929,615		\$0 04784		\$666,393	\$666,393			
Total			<u>141,762,340</u>					<u>\$13,433,868</u>	<u>\$9,268,892</u>	<u>\$4,164,976</u>	<u>44 93%</u>
<b>Total Rate Schedule Revenue</b>								<u>\$467,368,929</u>	<u>\$426,062,647</u>	<u>\$41,306,282</u>	
<b>Rounding</b>								<u>\$164</u>	<u>\$0</u>	<u>\$164</u>	
<b>Special Contract Revenue</b>								<u>\$792,254</u>	<u>\$792,254</u>	<u>\$0</u>	
<b>Total Revenues</b>								<u>\$468,161,347</u>	<u>\$426,854,901</u>	<u>\$41,306,446</u>	<u>9 68%</u>

J/A

TARIFF  
OF  
PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
FILED WITH THE  
NORTH CAROLINA UTILITIES COMMISSION



Summary of Rates and Charges			
RATE SCHEDULE NO. AND DESCRIPTION		CHARGES (a)	
101 -	<b>RESIDENTIAL SERVICE</b>		
	Facilities Charge	\$4012.00	per month
	Winter Energy Charge – November through April	\$0.743400	per tTherm
		.80425	
	Summer Energy Charge – May through October	\$0.675770	per tTherm
		.73662	
102 -	<b>HIGH-EFFICIENCY RESIDENTIAL SERVICE</b>		
	Facilities Charge	\$4012.00	per month
	Winter Energy Charge – November through April	\$0.693400	per tTherm
		.75425	
	Summer Energy Charge – May through October	\$0.625770	per tTherm
		.68662	
115 -	<b>UNMETERED LIGHTING SERVICE</b>		
	Facilities Charge	\$4012.00	per month
	Winter Energy Charge – November through April	\$0.737440	per tTherm
		.80425	
	Summer Energy Charge – May through October	\$0.669840	per tTherm
		.73662	
125 -	<b>SMALL GENERAL SERVICE</b>		
	Facilities Charge	\$17.5025.00	per month
	Energy Charge First 500	\$0.641790	per tTherm
		.64869	
	Next 4,500	\$0.551430	per tTherm
		.58833	
	All Over 5,000	\$0.507500	per tTherm
		.54440	
126 -	<b>SMALL GENERAL SERVICE - COOLING</b>		
	Facilities Charge	\$30.00	per month
	Energy Charge	\$0.525590	per therm
		.54440	
127 -	<b>HIGH-EFFICIENCY SMALL GENERAL SERVICE</b>		
	Facilities Charge	\$17.5025.00	per month
	Energy Charge First 500	\$0.564790	per tTherm
		.59869	
	Next 4,500	\$0.504430	per tTherm
		.53833	
	All Over 5,000	\$0.457500	per Ttherm
		.49440	
135 -	<b>NATURAL GAS VEHICLE FUEL</b>		
	Energy Charge	\$0.701300	per tTherm
		.73068	
	Energy Charge	\$0.8840.92066	per GGE (b)
140 -	<b>MEDIUM GENERAL SERVICE</b>		
	Facilities Charge	\$100.00	per month
	Energy Charge First 1,000	\$0.57869	per Therm
	All Over 1,000	\$0.51833	per Therm
145 -	<b>LARGE-QUANTITY GENERAL SERVICE</b>		

PUBLIC SERVICE COMPANY OF N.C., INC.  
N.C.U.C. TARIFF

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Summary of Rates and Charges  
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	Facilities Charge	\$300.00	per month
	Energy Charge First 15,000	<del>\$0.419140</del>	per tTherm
		<u>.47292</u>	
	Next 15,000	<del>\$0.397320</del>	per tTherm
		<u>.45110</u>	
	Next 15,000	<del>\$0.377820</del>	per tTherm
		<u>.43160</u>	
	Next 15,000	<del>\$0.352360</del>	per tTherm
		<u>.40614</u>	
	All Over 60,000	<del>\$0.331170</del>	per tTherm
		<u>.38495</u>	
150 -	<b>LARGE-QUANTITY INTERRUPTIBLE COMMERCIAL AND INDUSTRIAL SERVICE</b>		
	Facilities Charge	\$600.00	per month
	Energy Charge First 15,000	<del>\$0.352640</del>	per tTherm
		<u>.38199</u>	
	Next 15,000	<del>\$0.331740</del>	per tTherm
		<u>.36109</u>	
	Next 70,000	<del>\$0.310860</del>	per tTherm
		<u>.34023</u>	
	Next 500,000	<del>\$0.290270</del>	per tTherm
		<u>.31965</u>	
	All Over 600,000	<del>\$0.269410</del>	per tTherm
		<u>.29879</u>	

Summary of Rates and Charges

<u>RATE SCHEDULE NO. AND DESCRIPTION</u>		<u>CHARGES (a)</u>	
160 -	<b>SPECIAL SALES RATE</b>		
	Facilities Charge	\$600.00	per month
	Energy Charge	See Rate Schedule No. 160	
165 -	<b>SPECIAL TRANSPORTATION RATE</b>		
	Facilities Charge	\$600.00	per month
	Energy Charge	See Rate Schedule No. 165	
175 -	<b>FIRM TRANSPORTATION SERVICE CUSTOMERS QUALIFYING FOR SERVICE ON RATE SCHEDULE NO. 145</b>		
	Facilities Charge	\$300.00	per month
	Transportation Charge First 15,000	<del>\$0.146420</del> .19921	per tTherm
	Next 15,000	<del>\$0.123600</del> .17739	per tTherm
	Next 15,000	<del>\$0.104100</del> .15789	per tTherm
	Next 15,000	<del>\$0.078640</del> .13243	per tTherm
	All Over 60,000	<del>\$0.067450</del> .11124	per therm
180 -	<b>INTERRUPTIBLE TRANSPORTATION SERVICE FOR CUSTOMERS QUALIFYING FOR SERVICE ON RATE SCHEDULE NO. 150</b>		
	Facilities Charge	\$600.00	per month
	Energy Charge First 15,000	<del>\$0.104660</del> .13104	per tTherm
	Next 15,000	<del>\$0.080760</del> .11014	per tTherm
	Next 70,000	<del>\$0.059900</del> .08928	per tTherm
	Next 500,000	<del>\$0.039320</del> .06870	per tTherm
	All Over 600,000	<del>\$0.048460</del> .04784	per tTherm
Rider A -	<b>EMERGENCY SERVICES</b>		
	Limited-Emergency Service	<del>\$1.0020.00</del> plus cost of gas	per Dekatherm
	On-Peak Emergency Service	<del>\$1.50 plus cost of gas</del>	per therm
	Unauthorized Gas	<del>\$2.5050.00</del> plus cost of gas	per Dekatherm
 <u>MISCELLANEOUS FEE SCHEDULE</u>			
	<b><u>LATE PAYMENTS</u></b>	1% of balance in arrears per month	
	<b>RETURNED CHECKS AND BANK DRAFTS</b>	\$25.00	

**RECONNECTION (c)**

Residential – Regular Hours	\$6580.00
--After 5 p.m., weekends, holidays	\$95120.00
Non-Residential – Regular Hours	\$95120.00
--After 5 p.m., weekends, holidays	\$125150.00

- (a) Rates do not include applicable sales tax.
- (b) The rate converts 1.26 Therms to 1 Gasoline Gallon Equivalent (GGE).
- (c) All reconNECTIONs that exceed one hour shall be billed the indicated rates per hour.

RATE SCHEDULE NO. 101

RESIDENTIAL SERVICE

This Rate Schedule is available to residential Customers. Family care homes as defined in G.S. 168-21 may elect Service under this Rate Schedule. Separate Meters, separate Accounts, and separate locations may not be combined for billing under this Rate Schedule.

Rate

The applicable monthly Facilities Charge and the applicable Energy Charge are set forth in the currently effective Summary of Rates and Charges of this Tariff and are incorporated herein by reference. Bills under this Rate Schedule are subject to the Customer Usage Tracker ~~procedure~~ set forth under Rider C of this Tariff and the Integrity Management Tracker set forth in Rider E of this Tariff.

The minimum monthly bill is the Facilities Charge.

Payment of Bills

Bills are due and payable upon receipt and become past due 25 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date ~~at the rate of 1% per month.~~ A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of Customer at the same Premises within the past ~~year~~ 12 months.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules, and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customer or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

RATE SCHEDULE NO. 102

HIGH-EFFICIENCY RESIDENTIAL SERVICE

This Rate Schedule is available to a residential Customer who qualifies for Service on Rate Schedule No. 101 and whose ~~residence-Residence~~ is certified to meet the standards of the Energy Star program of the U.S. Department of Energy and U.S. Environmental Protection Agency. Separate Meters, separate Accounts, and separate locations may not be combined for billing under this Rate Schedule.

Service under this Rate Schedule will begin after Customer has provided PSNC with certification that Customer's ~~residence-Residence~~ meets the Energy Star standards and will continue to be available at such ~~residence-Residence~~ provided the ~~residence-Residence~~ and any modifications thereto continue to meet the applicable standards. PSNC shall have the right to inspect Customer's Premises for compliance with these requirements.

Rate

The applicable monthly Facilities Charge and the applicable Energy Charge are set forth in the currently effective Summary of Rates and Charges of this Tariff and are incorporated herein by reference. Bills under this Rate Schedule are subject to the Customer Usage Tracker ~~procedure~~ set forth under Rider C of this Tariff and the Integrity Management Tracker set forth in Rider E of this Tariff.

The minimum monthly bill is the Facilities Charge.

Payment of Bills

Bills are due and payable upon receipt and become past due 25 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date ~~at the rate of 1% per month~~. A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of Customer at the same Premises within the past ~~year~~ 12 months.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules, and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customer or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

RATE SCHEDULE NO. 115

UNMETERED LIGHTING SERVICE

This Rate Schedule is available for Customer owned unmetered gas lighting Service located wherever Gas is available within the certificated Service territory of PSNC. All Gas delivered is for use exclusively in permanently installed Gas lighting devices, including Gas lanterns, connected to PSNC's distribution system. Monthly consumption for billing under this Rate Schedule is determined based upon the manufacturer's BTU rating for each Gas lighting device according to the following formula:

$$\text{monthly consumption (Therms)} = \frac{\text{BTU rating (BTU/hour)} \times 24 \text{ hours/day} \times 365.25 \text{ days/year}}{12 \text{ months/year} \times 100,000 \text{ BTU/Therm}}$$

Rate

The applicable monthly Facilities Charge and the applicable Energy Charge are set forth in the currently effective Summary of Rates and Charges of this Tariff and are incorporated herein by reference. Bills under this Rate Schedule are subject to the Integrity Management Tracker set forth in Rider E of this Tariff.

One Facilities Charge will be billed per Account. However, if an existing Customer adds a Gas lighting device at Premises currently receiving Service, no additional Facilities Charge will be billed beyond that currently billed to Customer.

The minimum monthly bill is the Facilities Charge.

Payment of Bills

Bills are due and payable upon receipt and become past due 25 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date ~~at the rate of 4% per month~~. A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of the Customer at the same Premises within the past ~~year~~ 12 months.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules, and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customer or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

RATE SCHEDULE NO. 125

SMALL GENERAL SERVICE

This Rate Schedule is available to commercial and small industrial Customers that are primarily engaged in the sale of goods or services, manufacturing, schools, institutions, and governmental agencies, including single-metered health care facilities. This Rate Schedule is available to master metered apartment buildings, but is not available to any individual Customer who qualifies for Service under Rate Schedule No. 101. Family care homes as defined in G.S. 168-21 may elect Service under Rate Schedule No. 101. Separate Meters, separate Accounts, and separate locations may not be combined for billing under this Rate Schedule.

Service under this Rate Schedule is subject to review and possible reclassification to a different Rate Schedule pursuant to Rider B of this Tariff.

Rate

The applicable monthly Facilities Charge and the applicable Energy Charge are set forth in the currently effective Summary of Rates and Charges of this Tariff and are incorporated herein by reference. Bills under this Rate Schedule are subject to the Customer Usage Tracker ~~procedure~~ set forth under Rider C of this Tariff and the Integrity Management Tracker set forth in Rider E of this Tariff.

The rates shown on the Summary of Rates and Charges for this Rate Schedule do not include applicable federal, state, or local highway motor fuel use taxes. Where applicable, bills rendered under this Rate Schedule will include such taxes.

The minimum monthly bill is the Facilities Charge.

Payment of Bills

Bills are due and payable upon receipt and become past due 15 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date ~~at the rate of 1% per month.~~ A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of Customer at the same Premises within the past ~~year~~ 12 months.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customer or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.



RATE SCHEDULE NO. 126

SMALL GENERAL SERVICE - COOLING

This Rate Schedule is available to commercial and small industrial Customers that are primarily engaged in the sale of goods or services, manufacturing, schools, institutions, and governmental agencies, including single-metered health care facilities. This Rate Schedule is available to master metered apartment buildings, but is not available to any individual Customer who qualifies for Service under Rate Schedule No. 101. Family care homes as defined in G.S. 168-21 may elect Service under Rate Schedule No. 101. This Rate Schedule is also available to Customers utilizing Gas-fired desiccant dehumidification systems or Gas-fired absorption or Gas engine-driven air conditioning units. Separate Meters, separate Accounts, and separate locations may not be combined for billing under this Rate Schedule.

Service under this Rate Schedule is subject to review and possible reclassification to a different Rate Schedule pursuant to Rider B of this Tariff.

Rate

The applicable monthly Facilities Charge and the applicable Energy Charge are set forth in the currently effective Summary of Rates and Charges of this Tariff and are incorporated herein by reference. Bills under this Rate Schedule are subject to the Integrity Management Tracker set forth in Rider E of this Tariff.

The minimum monthly bill is the Facilities Charge.

Payment of Bills

Bills are due and payable upon receipt and become past due 15 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date ~~at the rate of 1% per month~~. A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of Customer at the same Premises within the past ~~year~~ 12 months.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules, and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customers or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

RATE SCHEDULE NO. 127

HIGH-EFFICIENCY SMALL GENERAL SERVICE

This Rate Schedule is available to a commercial or small industrial Customer that qualifies for Service on Rate Schedule No. 125 and that occupies a building that is LEED-certified by the U.S. Green Building Council. Separate Meters, separate Accounts, and separate locations may not be combined for billing under this Rate Schedule.

Service under this Rate Schedule will begin after Customer has provided PSNC with the LEED certification for the building that Customer occupies and will continue to be available at such location provided the building and any modifications thereto continue to have LEED certification. PSNC shall have the right to inspect Customer's Premises for compliance with these requirements.

Service under this Rate Schedule is subject to review and possible reclassification to a different Rate Schedule pursuant to Rider B of this Tariff.

Rate

The applicable monthly Facilities Charge and the applicable Energy Charge are set forth in the currently effective Summary of Rates and Charges of this Tariff and are incorporated herein by reference. Bills under this Rate Schedule are subject to the Customer Usage Tracker ~~procedure~~ set forth under Rider C of this Tariff and the Integrity Management Tracker set forth in Rider E of this Tariff.

The minimum monthly bill is the Facilities Charge.

Payment of Bills

Bills are due and payable upon receipt and become past due 15 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date ~~at the rate of 1% per month~~. A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of Customer at the same Premises within the past year ~~12 months~~.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules, and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customer or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

RATE SCHEDULE NO. 135

NATURAL GAS VEHICLE FUEL

This Rate Schedule is available to Customers for the consumption of Gas as a motor fuel. Service under this Rate Schedule shall be metered by PSNC for purposes of providing public access to compressed natural gas fueling facilities. The nature of Service provided under this Rate Schedule is interruptible sales Service.

Rate

The applicable Energy Charge is set forth in the currently effective Summary of Rates and Charges of this Tariff and is incorporated herein by reference. Bills under this Rate Schedule are subject to the Integrity Management Tracker set forth in Rider E of this Tariff.

The rates shown on the Summary of Rates and Charges for this Rate Schedule do not include applicable federal, state, or local highway motor fuel use taxes. Charges at the filling stations will include such taxes.

Payment of Charges

Charges shall be paid at the time of Service with a valid credit or debit card accepted by PSNC, except that Customers who have been issued an access key by PSNC will be billed on a monthly basis. Such bills are due and payable upon receipt and become past due 15 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date ~~at the rate of 1% per month~~. A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for Customers whose Service was discontinued for nonpayment of bill.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules, and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customer or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

RATE SCHEDULE NO. 140

MEDIUM GENERAL SERVICE

This Rate Schedule is available to commercial and industrial Customers using in excess of 25,000 Therms per year. Separate Meters, separate Accounts and separate locations may not be combined for billing under this Rate Schedule.

Service under this Rate Schedule is subject to review and possible reclassification to a different Rate Schedule pursuant to Rider B of this Tariff.

Rate

The applicable monthly Facilities Charge and the applicable Energy Charge are set forth in the currently effective Summary of Rates and Charges of this Tariff and are incorporated herein by reference. Bills under this Rate Schedule are subject to the Customer Usage Tracker set forth under Rider C of this Tariff and the Integrity Management Tracker set forth in Rider E of this Tariff.

The minimum monthly bill is the Facilities Charge.

Payment of Bills

Bills are due and payable upon receipt and become past due 15 days after the billing date. Late payment charges will be added to the total balance in arrears on the next billing date. A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of Customer at the same Premises within the past 12 months.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customer or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

RATE SCHEDULE NO. 145

LARGE-QUANTITY GENERAL SERVICE

This Rate Schedule is available to any large commercial ~~and or~~ industrial Customer using in excess of 60,000 Therms ~~Dekatherms~~ per year, subject to an adequate supply of Gas and delivery capability at the location of the Customer's Premises.

Once a qualified Customer elects Service under this Rate Schedule, Service will be provided for a term extending through the following August 31; provided, however, that a new, qualifying Customer may change its election from this Rate Schedule to Rate Schedule No. 175 one time during the initial twelve-month period of Service. Customer may elect to discontinue Service under this Rate Schedule and receive Service from Rate Schedule No. 175 by giving written notice to PSNC prior to June 1 of any year. Proper notice having been provided, Customer shall discontinue Service under this Rate Schedule effective the first following September 1 ~~following the notice~~.

Customer may switch between this Rate Schedule and Rate Schedule No. 150 one time during any twelve-month period, provided that Customer qualifies for Service under Rate Schedule No. 150 before switching to Service under that Rate Schedule.

All Gas purchased under this Rate Schedule shall be separately measured from any Gas purchased or transported under any other Rate Schedule. Separate Meters, separate Accounts, and separate locations may not be combined in determining quantities for billing purposes.

Service under this Rate Schedule is subject to review and possible reclassification to a different Rate Schedule pursuant to Rider B of this Tariff.

Rate

The applicable monthly Facilities Charge and the applicable Energy Charge are set forth in the currently effective Summary of Rates and Charges of this Tariff and are incorporated herein by reference. Rates expressed in Therms in the Summary of Rates and Charges shall be converted to Dekatherms prior to billing. Bills under this Rate Schedule are subject to the Integrity Management Tracker set forth in Rider E of this Tariff.

The minimum monthly bill is the Facilities Charge.

Payment of Bills

Bills are due and payable upon receipt and become past due 15 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date ~~at the rate of 1% per month~~. A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of Customer at the same Premises within the past ~~year~~ 12 months.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules, and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customers or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

RATE SCHEDULE NO. 150

LARGE-QUANTITY INTERRUPTIBLE COMMERCIAL AND INDUSTRIAL SERVICE

This Rate Schedule is available to any large commercial ~~and or~~ industrial Customer using in excess of 500 Therms Dekatherms per day on an annual basis, adjusted for curtailment, ~~subject to an adequate supply of Gas and delivery capability at the location of the Customer's Premises.~~

Once a qualified Customer elects Service under this Rate Schedule, Service will be provided for a term extending through the following August 31; provided, however, that a new, qualifying Customer may change its election from this Rate Schedule to Rate Schedule No. 180 one time during the initial twelve-month period of Service. Customer may elect to discontinue Service under this Rate Schedule and receive Service from Rate Schedule No. 180 by giving written notice to PSNC prior to June 1 of any year. Proper notice having been provided, Customer shall discontinue Service under this Rate Schedule effective the ~~first following~~ September 1 ~~following the notice.~~

Customer may switch between this Rate Schedule and Rate Schedule No. 145 one time during any twelve-month period, provided that PSNC's consent is obtained before Customer may switch to Service under Rate Schedule No. 145. PSNC will grant such consent if it has, or is able to acquire under commercially reasonable terms and conditions, the necessary Gas supplies and capacity to provide Service to Customer under Rate Schedule No. 145.

All Gas purchased under this Rate Schedule shall be separately measured from any Gas purchased or transported under any other Rate Schedule. Separate Meters, separate Accounts, and separate locations may not be combined in determining quantities for billing.

Service under this Rate Schedule is subject to review and possible reclassification to a different Rate Schedule pursuant to Rider B of this Tariff.

Rate

The applicable monthly Facilities Charge and the applicable Energy Charge are set forth in the currently effective Summary of Rates and Charges of this Tariff and are incorporated herein by reference. Rates expressed in Therms in the Summary of Rates and Charges shall be converted to Dekatherms prior to billing. Bills under this Rate Schedule are subject to the Integrity Management Tracker set forth in Rider E of this Tariff.

When Customer has the installed and operable capability to burn an alternate fuel and the equivalent alternate fuel cost is less than the Energy Charge under this Rate Schedule, Customer may be served under Rate Schedule No. 160. In order to receive Service under Rate Schedule No. 160, Customer must maintain separately metered Accounts for each type of alternate fuel.

The minimum monthly bill is the Facilities Charge. The Facilities Charge will be waived in any month when PSNC is unable to deliver any Gas during that billing month. Service under this Rate Schedule is subject to Rider A of this Tariff.

Curtailment

Although not required to maintain alternate fuel capability in order to receive Service under this Rate Schedule, Customer exclusively bears all business, operational, mechanical, or other risks associated with the interruption or curtailment of Service. PSNC may require curtailment of Service for any reason it deems necessary or appropriate. Customer must be capable of being 100% curtailed, other than an allowance of 10 Therms per day for pilot usage, on two hours' notice. In case of non-compliance with a curtailment order, PSNC shall have the right to valve off Service when necessary, in PSNC's sole opinion, to protect Service to higher margin Customers.

Notice of a curtailment is effective when issued and posted on PSNC's electronic bulletin board. Customer shall provide PSNC with the names, titles, telephone numbers, and email addresses of at least two representatives authorized by Customer to receive curtailment notices and shall promptly notify PSNC of any changes to such information.

RATE SCHEDULE NO. 150 (Continued)

Unauthorized Gas

Emergency Service as defined in Rider A of this Tariff shall be available to Customers served during any curtailment period, up to a maximum of 10 Dekatherms per day, at the rate for Emergency Service set forth in the currently effective Summary of Rates and Charges of this Tariff plus the cost of Gas used, as calculated under Rider A of this Tariff. Emergency Service above 10 Dekatherms per day may be available to Customers at PSNC's sole discretion, and upon prior written notification and approval. If PSNC does not authorize Emergency Service above 10 Dekatherms per day and in the event a Customer fails to discontinue the use of Gas after two hours' notice that Gas under this Rate Schedule is not available, all Gas so used shall be paid for by Customer at the rate for Unauthorized Gas set forth in the currently effective Summary of Rates and Charges of this Tariff plus the cost of Gas used, as calculated under Rider A of this Tariff. In addition, Customer shall reimburse PSNC for any expenses caused by Customer's failure to discontinue use of Gas, including but not limited to any incremental charges, assessments, or penalties imposed by an upstream interstate pipeline and the cost of any Gas used or purchased by PSNC during the day of Customer's failure to the extent that the cost of such Gas per Dekatherm exceeds the cost of Gas calculated under Rider A.

Payment of Bills

Bills are due and payable upon receipt and become past due 15 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date ~~at the rate of 1% per month~~. A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of Customer at the same Premises within the past year 12 months.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules, and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customers or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

RATE SCHEDULE NO. 160

SPECIAL SALES RATE

This Rate Schedule is available to any Rate Schedule No. 150 Customer that has installed and operable alternate fuel capability on those occasions when PSNC has Gas available that is not needed to provide Service under its other Rate Schedules containing fixed rates. PSNC may require Customer to demonstrate that its alternate fuel capability is able to operate prior to providing Service under this Rate Schedule. ~~This Rate Schedule is designed to permit PSNC to sell such Gas.~~ All sales under this Rate Schedule are provided only in accordance with PSNC's guidelines as may be revised from time to time.

All Gas purchased under this Rate Schedule shall be measured separately from Gas purchased or transported under any other Rate Schedule. Service under this Rate Schedule is temporary and PSNC has the right to discontinue such Service on two hours' notice. Service under this Rate Schedule will be provided at PSNC's sole discretion.

In order to receive Service under this Rate Schedule, Customer must maintain separately metered Accounts for each type of alternate fuel. On any given Account, all equipment must be able to accept 100% curtailment on two hours' notice and be capable of burning the same type of alternate fuel. Customer must be capable of being 100% curtailed on two hours' notice. In case of non-compliance with a curtailment order, PSNC shall have the right to valve off Service when it is necessary in PSNC's sole opinion to protect Service to higher margin Customers.

Service under this Rate Schedule is subject to review and possible reclassification to a different Rate Schedule pursuant to Rider B of this Tariff.

Rate

Customer shall pay PSNC for all Service provided under this Rate Schedule at a rate determined prior to delivery, plus the Facilities Charge which is set forth on the currently effective Summary of Rates and Charges of this Tariff and incorporated herein by reference. Bills under this Rate Schedule are subject to the Integrity Management Tracker set forth in Rider E of this Tariff.

Payment of Bills

Bills are due and payable upon receipt and become past due 15 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date ~~at the rate of 1% per month.~~ A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of Customer at the same Premises within the past year ~~12 months.~~

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

Curtailment

Customer exclusively bears all business, operational, mechanical, or other risks associated with the interruption or curtailment of Service. PSNC may require curtailment of Service for any reason it deems necessary or appropriate.

Notice of a curtailment is effective when issued and posted on PSNC's electronic bulletin board. Customer shall provide PSNC with the names, titles, telephone numbers, and email addresses of at least two representatives authorized by Customer to receive curtailment notices and shall promptly notify PSNC of any changes to such information.

Unauthorized Gas

At PSNC's sole discretion, and upon prior written notification and approval, emergency Service as defined in Rider A of this Tariff shall be available to Customers served during any billing period when Customer is served under this Rate Schedule. If PSNC does not authorize emergency Service, and in the event a Customer fails to discontinue the use of Gas after two hours' notice that Service under this Rate Schedule is not available, all Gas so used shall be paid for by Customer at the rate for Unauthorized Gas set forth in the currently effective Summary of Rates and Charges of this Tariff plus the cost of Gas used, as calculated under Rider A of this Tariff. In addition, Customer shall reimburse PSNC for any expenses and liabilities imposed on PSNC caused by Customer's failure to discontinue use of Gas, including but not limited to any incremental charges, assessments, or penalties imposed by an upstream interstate pipeline and



the cost of any Gas used or purchased by PSNC during the day of Customer's failure to the extent that the cost of such Gas per Dekatherm exceeds the cost of Gas calculated under Rider A.

PUBLIC SERVICE COMPANY OF N.C., INC.  
N.C.U.C. TARIFF

Rate Schedule No. 160  
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RATE SCHEDULE NO. 160 (Continued)

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules, and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customer or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

Issued by D. Russell Harris, President and Chief Operating Officer

Issued on , 2016

Effective November 1, 2016

Issued under North Carolina Utilities Commission Docket No. G-5, Sub 565

RATE SCHEDULE NO.165

SPECIAL TRANSPORTATION RATE

This Rate Schedule is available to any Rate Schedule No. 180 Customer that has installed and operable alternate fuel capability on those occasions when PSNC has transportation Service available that is not needed to provide Service under its other Rate Schedules containing fixed rates. PSNC may require Customer to demonstrate that its alternate fuel capability is able to operate prior to providing Service under this Rate Schedule. ~~This Rate Schedule is designed to permit PSNC to sell such transportation Service.~~ All sales under this Rate Schedule are provided only in accordance with PSNC's guidelines as may be revised from time to time.

All transportation Service purchased under this Rate Schedule shall be measured separately from Gas purchased or transported under any other Rate Schedule. Service under this Rate Schedule is temporary and PSNC has the right to discontinue such Service on two hours' notice. Service under this Rate Schedule will be provided at PSNC's sole discretion.

In order to receive Service under this Rate Schedule, Customer must maintain separately metered Accounts for each type of alternate fuel. On any given Account, all equipment must be able to accept 100% curtailment on two hours' notice and be capable of burning the same type of alternate fuel. Customer must be capable of being 100% curtailed on two hours' notice. In case of non-compliance with a curtailment order, PSNC shall have the right to valve off Service when it is necessary in PSNC's sole opinion to protect Service to higher margin Customers.

Service under this Rate Schedule is subject to review and possible reclassification to a different Rate Schedule pursuant to Rider B of this Tariff.

Rate

Customer shall pay PSNC for all Service provided under this Rate Schedule at a rate determined prior to delivery, plus the Facilities Charge which is set forth on the currently effective Summary of Rates and Charges of this Tariff and incorporated herein by reference. Bills under this Rate Schedule are subject to the Integrity Management Tracker set forth in Rider E of this Tariff.

Payment of Bills

Bills are due and payable upon receipt and become past due 15 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date ~~at the rate of 1% per month.~~ A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of Customer at the same Premises within the past year 12 months.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

Curtailment

Customer exclusively bears all business, operational, mechanical, or other risks associated with the interruption or curtailment of Service. PSNC may require curtailment of Service for any reason it deems necessary or appropriate.

Notice of a curtailment is effective when issued and posted on PSNC's electronic bulletin board. Customer shall provide PSNC with the names, titles, telephone numbers, and email addresses of at least two representatives authorized by Customer to receive curtailment notices and shall promptly notify PSNC of any changes to such information.

RATE SCHEDULE NO. 165 (Continued)

Unauthorized Gas

At PSNC's sole discretion, and upon prior written notification and approval, emergency Service as defined in Rider A of this Tariff shall be available to Customers served during any billing period when Customer is served under this Rate Schedule. If PSNC does not authorize emergency Service, and in the event a Customer fails to discontinue the use of Gas after two hours' notice that Service under this Rate Schedule is not available, all Gas so used shall be paid for by Customer at the rate for Unauthorized Gas set forth in the currently effective Summary of Rates and Charges of this Tariff plus the cost of Gas used, as calculated under Rider A of this Tariff. In addition, Customer shall reimburse PSNC for any expenses and liabilities imposed on PSNC caused by Customer's failure to discontinue use of Gas, including but not limited to any incremental charges, assessments, or penalties imposed by an upstream interstate pipeline and the cost of any Gas used or purchased by PSNC during the day of Customer's failure to the extent that the cost of such Gas per Dekatherm exceeds the cost of Gas calculated under Rider A

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules, and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customer or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

RATE SCHEDULE NO. 175

FIRM TRANSPORTATION SERVICE  
FOR CUSTOMERS QUALIFYING FOR SERVICE ON RATE SCHEDULE NO. 145

Firm transportation Service under this Rate Schedule may be offered to a large commercial or industrial Customer that is presently connected to PSNC's system, has qualified for Service on Rate Schedule No. 145, has obtained an independent supply of Gas, and has made arrangements to have Gas delivered to ~~one of PSNC's existing Receipt Points~~ the City Gate through an authorized pooler designated by Customer, and has made accommodation for the installation of telemetry for the purpose of daily measurement readings. All transportation under this Rate Schedule is provided in accordance with PSNC's Transportation Pooling Agreement, as it may be revised from time to time.

Once a qualified Customer elects Service under this Rate Schedule, Service will be provided for a term extending through the following August 31. Subject to the consent of PSNC, Customer may elect to discontinue Service under this Rate Schedule and receive Service from Rate Schedule No. 145 by giving written notice to PSNC prior to June 1 of any year. PSNC will grant such consent if it has, or is able to acquire under commercially reasonable terms and conditions, the necessary Gas supplies and capacity to provide Service to Customer under Rate Schedule No. 145. Proper notice having been provided and consent obtained, Customer shall discontinue Service under this Rate Schedule effective the ~~first following~~ September 1 following the notice.

Customer may switch between this Rate Schedule and Rate Schedule No. 180 one time during any twelve-month period, provided that Customer qualifies for Service under Rate Schedule No. 180 before switching to Service under that Rate Schedule.

Gas transported under this Rate Schedule shall be separately measured from Gas purchased or transported under any other Rate Schedule. Neither separate Accounts nor separate locations may be combined to qualify for the minimum quantity provision of this Rate Schedule.

PSNC may refuse Service under this Rate Schedule if PSNC determines that:

- 1) it does not have Gas delivery capacity in excess of the requirements of its other existing Customers; or
- 2) the requested Service would require an uneconomic enlargement or extension of PSNC's facilities.

Service under this Rate Schedule is subject to review and possible reclassification to a different Rate Schedule pursuant to Rider B of this Tariff.

Rate

The applicable monthly Facilities Charge and the applicable Transportation Charge are set forth in the currently effective Summary of Rates and Charges of this Tariff and are incorporated herein by reference. Rates expressed in Therms in the Summary of Rates and Charges shall be converted to Dekatherms prior to billing. Bills under this Rate Schedule are subject to the Integrity Management Tracker set forth in Rider E of this Tariff.

The minimum monthly bill is the Facilities Charge.

Payment of Bills

Bills are due and payable upon receipt and become past due 15 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date ~~at the rate of 1% per month.~~ A charge will be imposed for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of Customer at the same Premises within the past ~~year~~ 12 months.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.

RATE SCHEDULE NO. 175 (Continued)

Balancing of Transportation Quantities

At any time when Customer is consistently using more or less Gas than is being delivered to PSNC for Customer's Account, it shall be Customer's or its agent's responsibility to bring its supply and requirements into balance in accordance with PSNC's Transportation Pooling Agreement, as it may be revised from time to time. Customer, Customer's agent, and PSNC shall strive to keep the transportation quantities within a reasonable operating balance at all times. Customer or its agent shall notify PSNC immediately in the event of increases or reductions in the quantity of Gas being transported.

Inability to Obtain Independent Supply of Gas

In the event Customer is unable to obtain its independent supply of Gas, PSNC may, at its sole discretion, supply Gas to Customer. The Energy Charge for such Gas will be the Rate Schedule No. 145 Energy Charge set forth in the currently effective Summary of Rates and Charges of this Tariff; provided that, when PSNC is required to purchase incremental quantities of Gas to accommodate Customer's supply requirements, the Energy Charge shall be calculated on a daily basis as the higher of: (a) the Rate Schedule No. 145 Energy Charge or (b) the sum of the daily commodity cost of Gas supplied and the Rate Schedule No. 175 Transportation Charge. The daily commodity cost of Gas shall be the absolute high price for the day of consumption as published in Gas Daily in the "Daily price survey," "Citygates," "Transco, zone 5 delivered," "Absolute," high end of the range. For days of consumption when Gas Daily is not published, the daily price published by Gas Daily on the nearest subsequent day shall be used.

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules, and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customer or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

RATE SCHEDULE NO. 180

INTERRUPTIBLE TRANSPORTATION SERVICE  
FOR CUSTOMERS QUALIFYING FOR SERVICE ON RATE SCHEDULE NO. 150

Interruptible transportation Service under this Rate Schedule may be offered to a large commercial or industrial Customer that is presently connected to PSNC's system, has qualified for Service on Rate Schedule No. 150, has obtained an independent supply of Gas, and has made arrangements to have Gas delivered to one of PSNC's existing Receipt Points the City Gate through an authorized pooler designated by Customer, and has made accommodation for the installation of telemetry for the purpose of daily measurement readings. All transportation under this Rate Schedule is provided in accordance with PSNC's Transportation Pooling Agreement, as may be revised from time to time.

Once a qualified Customer elects Service under this Rate Schedule, Service will be provided for a term extending through the following August 31. Subject to the consent of PSNC, Customer may elect to discontinue Service under this Rate Schedule and receive Service from Rate Schedule No. 150 by giving written notice to PSNC prior to June 1 of any year. PSNC will grant such consent if it has, or is able to acquire under commercially reasonable terms and conditions, the necessary Gas supplies and capacity to provide Service to Customer under Rate Schedule No. 150. Proper notice having been provided and consent obtained, Customer shall discontinue Service under this Rate Schedule effective the first following September 1 following the notice.

Customer may switch between this Rate Schedule and Rate Schedule No. 175 one time during any twelve-month period provided that PSNC's consent is obtained before Customer may switch to Service under Rate Schedule No. 175. PSNC will grant such consent if it has, or is able to acquire under commercially reasonable terms and conditions, the necessary Gas delivery capacity to provide Service to Customer under Rate Schedule No. 175.

Gas transported under this Rate Schedule shall be separately measured from Gas purchased or transported under any other Rate Schedule. Neither separate Accounts nor separate locations may be combined to qualify for the minimum quantity provision of this Rate Schedule.

Service under this Rate Schedule is subject to review and possible reclassification to a different Rate Schedule pursuant to Rider B of this Tariff. PSNC may refuse transportation Service if PSNC determines that:

- ~~1) it does not have Gas delivery capacity in excess of the requirements of its other existing Customers; or~~
- ~~2) the requested Service would require an uneconomic enlargement or extension of PSNC's facilities; or~~
- ~~3) the provision of the requested Service might unreasonably increase the average cost of Gas purchased by PSNC for sales to other Customers due to PSNC's demand charge obligations, minimum bill obligations, or the take or pay obligations of Transcontinental Pipe Line Corporation.~~

~~PSNC will attempt to deliver Gas transported for Customer's Account under this Rate Schedule on a day-to-day basis in accordance with Customer's requirements; however, PSNC reserves the right to suspend Service on any day when, in PSNC's sole opinion, its operating conditions are such that this is necessary.~~

Rate

The applicable monthly Facilities Charge and the applicable Transportation Charge are set forth in the currently effective Summary of Rates and Charges of this Tariff and are incorporated herein by reference. Rates expressed in Therms in the Summary of Rates and Charges shall be converted to Dekatherms prior to billing. Bills under this Rate Schedule are subject to the Integrity Management Tracker set forth in Rider E of this Tariff.

When Customer has the installed and operable capability to burn an alternate fuel and the equivalent alternate fuel cost is less than the combined cost of Gas received from Customer's independent supply and the Transportation Charge applicable under this Rate Schedule, Customer may be served under Rate Schedule No. 165. In order to receive Service under Rate Schedule No. 165, Customer must maintain separately metered Accounts for each type of alternate fuel.

The minimum monthly bill is the Facilities Charge. The Facilities Charge will be waived in any month when PSNC is unable to deliver any Gas during that billing month. Service under this Rate Schedule is subject to Rider A of this Tariff.

Payment of Bills

Bills are due and payable upon receipt and become past due 15 days after the billing date. Late payment charges will be added to the total balances in arrears on the next billing date at the rate of 1% per month. A charge will be imposed

for checks and drafts returned to PSNC. Reconnection charges will be made to restore Service for: (a) Customers whose Service was discontinued for nonpayment of bill or (b) Customers whose Service was discontinued and reconnected at the request of Customer at the same Premises within the past ~~year~~12 months.

The charges above are set forth in the currently effective Summary of Rates and Charges of this Tariff under the heading of Miscellaneous Fee Schedule and are described in PSNC's approved Rules and Regulations.



RATE SCHEDULE NO. 180 (Continued)

Balancing of Transportation Quantities

At any time when Customer is consistently using more or less Gas than is being delivered to PSNC for Customer's Account, it shall be Customer's or its agent's responsibility to bring its supply and requirements into balance in accordance with PSNC's Transportation Pooling Agreement, as it may be revised from time to time. Customer, Customer's agent, and PSNC shall strive to keep the transportation quantities within a reasonable operating balance at all times. Customer or its agent shall notify PSNC immediately in the event of increases or reductions in the quantity of Gas being transported.

Inability to Obtain Independent Supply of Gas

In the event Customer is unable to obtain its independent supply of Gas, PSNC may, at its sole discretion, supply Gas to Customer. The Energy Charge for such Gas will be the Rate Schedule No. 150 Energy Charge set forth in the currently effective Summary of Rates and Charges of this Tariff; provided that, when PSNC is required to purchase incremental quantities of Gas to accommodate Customer's supply requirements, the Energy Charge shall be calculated on a daily basis as the higher of: (a) the Rate Schedule No. 150 Energy Charge or (b) the sum of the daily commodity cost of Gas supplied and the Rate Schedule No. 180 Transportation Charge. The daily commodity cost of Gas shall be the absolute high price for the day of consumption as published in Gas Daily in the "Daily price survey," "Citygates," "Transco, zone 5 delivered," "Absolute," high end of the range. For days of consumption when Gas Daily is not published, the daily price published by Gas Daily on the nearest subsequent day shall be used.

Curtailment

Although not required to maintain alternate fuel capability in order to receive Service under this Rate Schedule, Customer exclusively bears all business, operational, mechanical, or other risks associated with the interruption or curtailment of Service. PSNC may require curtailment of Service for any reason it deems necessary or appropriate. Customer must be capable of being 100% curtailed on two hours' notice. In case of non-compliance with a curtailment order, PSNC shall have the right to valve off Service when necessary, in PSNC's sole opinion, to protect Service to higher margin Customers.

Notice of a curtailment is effective when issued and posted on PSNC's electronic bulletin board. Customer shall provide PSNC with the names, titles, telephone numbers, and email addresses of at least two representatives authorized by Customer to receive curtailment notices and shall promptly notify PSNC of any changes to such information.

Unauthorized Gas

Emergency Service as defined in Rider A of this Tariff shall be available to Customers served during any curtailment period, up to a maximum of 10 Dekatherms per day, at the rate for Emergency Service set forth in the currently effective Summary of Rates and Charges of this Tariff plus the cost of Gas used, as calculated under Rider A of this Tariff. Emergency Service above 10 Dekatherms per day may be available to Customers at PSNC's sole discretion, and upon prior written notification and approval. If PSNC does not authorize Emergency Service above 10 Dekatherms per day, and in the event a Customer fails to discontinue the use of Gas after two hours' notice that Gas under this Rate Schedule is not available, all Gas so used, other than an allowance of 40 Therms per day for pilot usage, shall be paid for by Customer at the rate for Unauthorized Gas set forth in the currently effective Summary of Rates and Charges of this Tariff plus the cost of Gas used, as calculated under Rider A of this Tariff. In addition, Customer shall reimburse PSNC for any expenses or liabilities imposed on PSNC that are caused by Customer's failure to discontinue use of Gas, including but not limited to any incremental charges, assessments, or penalties imposed by an upstream interstate pipeline and the cost of any Gas used or purchased by PSNC during the day of Customer's failure to the extent that the cost of such Gas per Dekatherm exceeds the cost of Gas calculated under Rider A.

Rules and Regulations

Service under this Rate Schedule is subject to all lawful orders, rules, and regulations of duly constituted governmental authorities having jurisdiction over either PSNC or Customer, or both, including any orders of the Commission requiring PSNC to curtail or discontinue Service hereunder or setting priorities for such curtailment or discontinuance of Service. PSNC shall not be liable for any damages that may result to Customer or any other person, firm, or corporation by reason of PSNC's curtailing Service in accordance with any order by a duly constituted governmental authority or in accordance with any order of priorities which may be deemed practicable under existing conditions by PSNC. Service under this Rate Schedule is subject to PSNC's Rules and Regulations as approved by the Commission, which are incorporated herein by reference.

CURTAILMENT OF SERVICE UNDER NCUC RULE R6-19 2  
AND EMERGENCY SERVICES - RIDER A

- 1 PSNC shall curtail service to its Customers in accordance with Rule R6-19 2, as promulgated, and amended from time to time, by the Commission
- 2 PSNC does not maintain metering by priority but shall do so if required by Rule R6-19 2
- 3 Nothing shall be construed to require PSNC to curtail any Customer if such curtailment will not make additional Gas available for Service to higher margin Customers
- 4 The definition of alternate fuel in Rule R6-19 2 applies only to the priority system For purposes of PSNC's Rate Schedules, alternate fuel capability is defined as the actual installed capability to burn any fuel other than Gas An alternate fuel is that fuel which is predominately burned when Service is curtailed and includes the type, grade, and sulfur content of the fuel
- 5 The cost of Gas for Emergency Service under this Rider A and for Unauthorized Gas under PSNC's Rate Schedules is calculated by using the higher of (a) the monthly contract index price for the applicable month as published in Inside F E R C 's Gas Market Report, "Prices of Spot Gas Delivered to Pipelines," "Transcontinental Gas Pipe Line Corp - Zone 3 (pooling points)," " Index," plus the one hundred percent (100%) load factor rate under Transcontinental Gas Pipe Line Corporation's Company LLC's currently effective Rate Schedule FT for deliveries from Zone 3 to Zone 5, including applicable fuel retention and surcharges, or (b) the absolute high price for the day of consumption as published in Gas Daily in the "Daily price survey," "Citygates," "Transco, zone 5 delivered," "Absolute," high end of the range For days of consumption when Gas Daily is not published, the daily price published by Gas Daily on the nearest subsequent day shall be used
- 6 Emergency Service shall be made available to any Customer during a curtailment under this Rider A up to a maximum of 10 Dekatherms per day at the rate for Emergency Service set forth in the currently effective Summary of Rates and Charges of PSNC's Tariff, plus the cost of the Gas supplied as calculated under paragraph 5 of this Rider A
- 7 Limited Additional Emergency Service may be made available to any Customer that would otherwise be curtailed under this Rider A if such Customer is unable to continue operations on its standby or alternate energy source because of some bona fide existing or threatened emergency when and if PSNC has Gas available from its regular allocated storage volumes or some outside source other than its regular services PSNC, in its sole discretion, may furnish such Limited additional Emergency Service for such specific times and for such specific controlled quantities at the rate for this Emergency Service set forth in the currently effective Summary of Rates and Charges of PSNC's Tariff, plus the cost of the Gas supplied as calculated under paragraph 5 of this Rider A
- 7 ~~On Peak Emergency Service may be made available to any Customer, that would otherwise be curtailed, while PSNC is utilizing a peak shaving capability (e.g., liquefied natural Gas) PSNC shall determine the extent and timing of such Service, and Service may be discontinued at the sole discretion of PSNC If, at any time or during any twenty four (24) hour period commencing at 8:00 a.m., PSNC, in its sole opinion, determines to operate a peak shaving facility to inject liquefied natural Gas into the system, then all Emergency Service Gas purchased by the Customer during such day or days shall be considered to be On Peak Emergency Service for billing and operating purposes and shall be provided at the rate for this Service set forth in the currently effective Summary of Rates and Charges, plus the cost of the Gas supplied as calculated under paragraph 5 of this Rider A~~
- 8 ~~All Such Emergency Service is of a discretionary nature and implies no present or future obligation of PSNC to any Customer to provide any such Service on either a temporary or continuing basis Deliveries of Gas hereunder shall be made pursuant only to advance operating arrangements agreed to in writing by PSNC's Gas Dispatching Department Control and the Customer and shall be subject to curtailment and interruption at any time that PSNC in its sole discretion deems such curtailment or interruption necessary~~
- 9 PSNC shall not be liable for any damages that may result to Customer or any other person, firm, or corporation, by reason of PSNC's curtailing regular or emergency Service in accordance with any order of priorities which may be necessary under existing conditions

409. All programs, agreements, contracts, Rate Schedules, and rules and regulations for Service by PSNC are subject to change and modification from time to time by PSNC, as such are approved by the Commission or otherwise imposed by lawful authority.

Issued by D. Russell Harris, President and Chief Operating Officer

Issued on ~~November 1, 2008~~, 2016

Issued under North Carolina Utilities Commission Docket No. G-5, Sub 495565

Effective November 1, 20082016

METHODOLOGY FOR DETERMINING PROPER RATE SERVICE PRIORITY CLASSIFICATION  
PURSUANT TO COMMISSION RULES R6-12 & R6-19.2 – RIDER B

**I. Definitions**

- (a) "Actual Annual Usage" means the actual quantities of Gas sold to or transported for Customer by PSNC for a given Review Period as reflected on PSNC's invoices for that Customer.
- (b) "Classification Usage" means Gas quantities in an amount equal to Actual Annual Usage for a Customer for a Review Period divided by the Service Days for that same period.
- (c) "Involuntary Curtailment Days" means those days or portions of days in a given Review Period when curtailment of Customer's Service was imposed by PSNC's decision to curtail.
- (d) "Prospective Priority Classification" means the then current priority curtailment classification a Customer would otherwise qualify for based solely on the Classification Usage for a given Review Period.
- (e) "Prospective Rate Schedule" means PSNC's then current Rate Schedule that a Customer would otherwise qualify for based solely on the Classification Usage for a given Review Period.
- (f) "Review Period" means the twelve (12) months ended June 30.
- (g) "Service Days" means 365 less the number of Involuntary Curtailment Days.

**II. Procedure**

- (a) During July and August of each year, the Prospective Rate Schedule for each Customer for the Review Period just ended shall be determined.
- (b) If the Prospective Rate Schedule is the same rate schedule on which Customer is currently billed, no further Rate Schedule review is necessary. Customer shall remain on that Rate Schedule.
- (c) If the Prospective Rate Schedule is different from the Rate Schedule on which Customer is currently billed, the Prospective Rate Schedule for Customer for the Review Period immediately preceding the one used in Section (b)(1) shall also be determined.
- (d) If the Prospective Rate Schedule determined in (a) is the same as that determined in (c), Customer shall be reclassified to that Prospective Rate Schedule effective the following September 1.
- (e) The reclassified Customer will be given notice of such reclassification as required by Commission Rule R6 12(7).
- (f) A similar procedure will be followed for determining the proper curtailment priority for each Customer by using Prospective Priority Classification.

**III. Exceptions**

If a Customer adds or retires a major piece of gas-burning equipment, changes the hours of operations, or otherwise materially alters the Customer's business that will clearly increase or decrease the Customer's consumption on an ongoing basis to a level that will change the Customer's ability to qualify for a particular Rate Schedule, the Customer shall report such changes to PSNC and afford PSNC an opportunity to inspect any change in equipment and to meet with the Customer to review and discuss the anticipated future level of consumption. If PSNC is satisfied that reclassification is appropriate, the reclassification will occur within two months after the new equipment is in place and operational, or the retirement is completed, and the first Meter reading reflects the higher anticipated usage resulting from the new equipment or the lower anticipated usage resulting from the retirement. Any reclassification pursuant to this exception is subject to correction if actual experience so warrants.

CUSTOMER USAGE TRACKER - RIDER C

**I. Definitions**

- (a) "Customer Usage Deferred Account" shall mean a deferred account established under this Rider C subject to the Customer Usage Deferred Account Adjustment for such account.
- (b) "Customer Usage Deferred Account Adjustment" shall mean a monthly adjustment to the applicable Customer Usage Deferred Account as calculated under this Rider C.
- (c) "Customer Usage Adjustment" shall mean a per-Therm amount calculated under this Rider C, as a decrement or increment, to refund or recover the balance in the applicable Customer Usage Deferred Account.
- (d) "Relevant Rate Order" shall mean the final Order of the Commission in PSNC's most recent rate case fixing PSNC's rates or the most recent final order of the Commission specifically prescribing the factors and procedures to be used in the application of this Rider C.

**II. Applicable Rate Schedules**

The base rates for Service under PSNC's Rate Schedule Nos. 101, 102, 125, ~~and 127~~, and 140 shall be subject to a Customer Usage Adjustment in accordance with this Rider C.

**III. Computation of Customer Usage Deferred Account Adjustment**

The Customer Usage Deferred Account Adjustment for each of the applicable rate classes shall be computed monthly to the nearest dollar using the following formulas:

$\text{Base Load Therms}_i = \text{Actual Customers}_i \times \text{Base Load}_i$

$\text{Heat Sensitive Therms}_i = \text{Actual Customers}_i \times \text{Heat Sensitivity Factor}_i \times \text{Normal Degree Days}$

$\text{Normalized Therms}_i = \text{Base Load Therms}_i + \text{Heat Sensitive Therms}_i$

$\text{Normalized Margin}_i = \text{Normalized Therms}_i \times \text{R Factor}_i$

$\text{Actual Margin}_i = \text{Actual Therms}_i \times \text{R Factor}_i$

$\text{Customer Usage Deferred Account Adjustment}_i = \text{Normalized Margin}_i - \text{Actual Margin}_i$

Where:

$i =$  any particular rate class

$\text{Actual Customers}_i =$  actual customers billed for the billing cycle month for the  $i^{\text{th}}$  rate class

$\text{Actual Therms}_i =$  actual Therms used for the billing cycle month for the  $i^{\text{th}}$  rate class

$\text{R Factor}_i =$  base rate (approved rate less fixed and commodity cost of Gas) for the  $i^{\text{th}}$  rate class used by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

$\text{Heat Sensitivity Factor}_i =$  heat sensitivity factor for the  $i^{\text{th}}$  rate class used by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

$\text{Normal Degree Days} =$  average normal heating degree days used by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

$\text{Base Load}_i =$  base load sales for the  $i^{\text{th}}$  rate class used by the Commission in the Relevant Rate Order for the purpose of determining normalized test year revenues

#### IV. Monthly Reports

PSNC will file with the Commission monthly reports that include: (a) computation of each Customer Usage Deferred Account Adjustment; (b) a schedule showing the effective date of each Customer Usage Deferred Account Adjustment; and (c) a schedule showing the factors of values derived from the Relevant Rate Order used in calculating each Customer Usage Deferred Account Adjustment. Such reports will be filed within 45 ~~dates~~ days after the end of the applicable month.

#### V. Computation of Customer Usage Adjustment

Effective for the first day of the April billing cycle month and the first day of the October billing cycle month, the Customer Usage Adjustment for each of the applicable Rate Schedules shall be calculated to the nearest one-thousandth of a cent per Therm using the following formula:

$$\text{Customer Usage Adjustment}_i = \text{Customer Usage Deferred Account Balance}_i / \text{Annual Therms}_i$$

Where:

$i =$  any particular rate class

Customer Usage Deferred Account Balance<sub>i</sub> = balance of Customer Usage Deferred Account as of the end of January or July, as applicable

Annual Therms<sub>i</sub> = normalized volumes assigned by the Commission in the Relevant Order

#### VI. Interest

Interest will be applied to the Customer Usage Deferred Account at PSNC's overall rate of return authorized by the Commission in the Relevant Rate Order.

#### VII. Filing with Commission

PSNC will file a revision to its Tariff for Commission approval upon 14 days' notice to implement a decrement or increment each April and October. The filing will include the computation of each Customer Usage Adjustment.

PURCHASED GAS ADJUSTMENT PROCEDURES - RIDER D

**I. Definitions**

- (a) "Gas Costs" shall mean the total delivered cost of gas paid or to be paid to Suppliers, including but not limited to all commodity/gas charges, all direct transaction-related costs arising from PSNC's prudent efforts to stabilize or hedge commodity gas costs, demand charges, peaking charges, surcharges, emergency gas purchases, over-run charges, capacity charges, standby charges, reservation fees, gas inventory charges, minimum bill charges, minimum take charges, take-or-pay charges, take-and-pay charges, storage charges, service fees and transportation charges, and any other similar charges associated with the purchase, storage, or transportation of gas for PSNC's system supply.
- (b) "Suppliers" shall mean any person or entity, including an affiliate of PSNC, who locates, produces, purchases, sells, stores and/or transports gas or its equivalent for or on behalf of PSNC, or who provides hedging tools, including, but not limited to financial tools, designed to stabilize PSNC's commodity prices. Suppliers may include, but are not limited to, interstate pipeline transmission companies, producers, brokers, marketers, associations, intrastate pipeline transmission companies, joint ventures, providers of Liquefied Natural Gas, Liquefied Petroleum Gas, Synthetic Natural Gas and other hydrocarbons used as feed stock, other Local Distribution Companies, and end-users.
- (c) "Benchmark Commodity Gas Costs" shall mean PSNC's estimate of the City Gate Delivered Gas Costs for long-term gas supplies, excluding Demand Charges and Storage Charges as approved in PSNC's last general rate case or gas cost adjustment proceeding.
- (d) "City Gate Delivered Gas Costs" shall mean the total delivered Gas Costs to PSNC at its city gate.
- (e) "Commodity and Other Charges" shall mean all Gas Costs other than Demand Charges and Storage Charges and any other Gas Costs determined by the Commission to be properly recoverable from sales customers.
- (f) "Demand Charges and Storage Charges" shall mean all Gas Costs which are not based on the quantity of gas actually purchased or transported by PSNC and any other Gas Costs determined by the Commission to be properly recoverable from customers.
- (g) "Other Gas Supply Charges" shall mean the per therm supply reservation fees. These charges shall be determined on an annual basis by dividing the total estimated reservation fees to be paid under the firm supply contracts by the total estimated quantities to be purchased under these contracts.

**II. Rate Adjustments Under These Procedures**

- (a) If PSNC anticipates a change in its City Gate Delivered Gas Costs, it may apply and file revised tariffs effective on 14 days' notice in order to increase or decrease its rates to its customers as hereinafter provided. The Commission may issue an order allowing the rate change to become effective simultaneously with the effective date of the change or at any time ordered by the Commission. If the Commission has not issued an order within 120 days after the application, PSNC may place the requested rate adjustment into effect.

- 4.(i) Demand Charges and Storage Charges. Whenever PSNC anticipates a change in the Demand Charges and Storage Charges, it may (as hereinabove provided) change its rates to customers under each applicable Rate Schedule by an amount computed as follows:

(Total Anticipated Demand Charges and Storage  
Charges - Prior Demand Charges and Storage  
Charges) x Rate Schedule Percentage\*

= Increase  
(Decrease) Per Unit

Sales & Transportation Quantities\* (by Rate  
Schedule)

\* Established by the Commission in the last general rate case.



2-(iii) Commodity and Other Charges Whenever PSNC's estimate of its Benchmark Commodity Gas Costs changes, it may (as hereinabove provided) change the rates to its customers purchasing gas under sales rate schedules, incorporating the Benchmark Commodity Gas Costs, by an amount computed as follows

Quantities of gas purchased\* (excluding Company Use  
and Unaccounted For) x (New Benchmark Commodity  
Gas Costs - Old Benchmark Commodity Gas Costs)

= Increase  
(Decrease) Per Unit

Quantities of gas purchased for System Supply\*  
(excluding Company Use and Unaccounted For)

\* Established by the Commission in the last general rate case

3-(iii) Company Use and Unaccounted For Whenever PSNC's estimate of its Benchmark Commodity Gas Costs changes, it may (as hereinabove provided) change the rates to its customers, by an amount computed as follows

Quantities of Company Use and Unaccounted For  
Gas\* x (New Benchmark Commodity Gas Costs - Old  
Benchmark Commodity Gas Costs)

= Increase  
(Decrease) Per Unit

Sales & Transportation Quantities\*

\* Established by the Commission in the last general rate case

4-(b) Other Changes in Purchased Gas Costs The intent of these procedures is to permit PSNC to recover its actual prudently incurred Gas Costs. If any other Gas Costs are incurred, they will be handled as in Section 1 if they are similar to Demand Charges and Storage Charges, or as in Section 2 if they are similar to Commodity and Other Charges

### III. True-up of Gas Costs

(a) Demand Charges and Storage Charges On a monthly basis, PSNC shall determine the difference between (a) Demand Charges and Storage Charges billed to its customers in accordance with the Commission-approved allocation of such costs to PSNC's various Rate Schedules and (b) PSNC's actual Demand Charges and Storage Charges. This difference shall be recorded in PSNC's deferred account for demand and storage charges. Increments and decrements for this deferred account, including the portion of the Commodity and Other Charges true-up calculated under Section 4-(b) and apportioned to this deferred account, flow to applicable sales and transportation rate schedules.

(b) Commodity and Other Charges On a monthly basis, PSNC shall determine with respect to gas sold (including company use and unaccounted for) during the month, the difference between (a) the actual Commodity and Other Charges incurred and (b) the actual Commodity and Other Charges billed to customers. This difference shall be apportioned each month to PSNC's deferred account for commodity and other charges based on the ratio of volumes sold to the volumes purchased for that month. The residual portion of the difference not apportioned to PSNC's deferred account for commodity and other charges shall be apportioned each month to PSNC's deferred account for Demand Charges and Storage Charges. On a monthly basis, PSNC shall determine with respect to gas sold in previous months under its residential and commercial rate schedules, the difference between amounts billed for Gas Costs and the amounts actually recovered from customers for such Gas Costs. Such uncollectible Gas Costs shall be recorded in PSNC's deferred account for commodity and other charges. Any such deferred amounts that are subsequently paid by customers shall be credited to PSNC's deferred account for commodity and other charges. Increments and decrements for Commodity and Other Charges shall flow to all sales rate schedules incorporating the Benchmark Commodity Gas Costs.

(c) Supplier Refunds and Direct Bills If PSNC receives supplier refunds or direct bills with respect to gas previously purchased, the amount of such supplier refunds or direct bills will be recorded in the appropriate deferred Account unless directed otherwise by the Commission.

IV. Other

- (a) Gas Costs changes not tracked concurrently shall be recorded in the appropriate deferred account.
- (b) The Commodity and Other Charges portion of gas inventories shall be recorded at actual cost and the difference in that cost and the Benchmark Commodity Gas Costs most recently approved shall be recorded in the deferred account when the gas is withdrawn from inventory.
- (c) PSNC shall file with the Commission (with a copy to the Public Staff) a complete monthly accounting of the computations under these procedures, including all supporting workpapers, journal entries, etc., within 45 days after the end of each monthly reporting period. All such computations shall be deemed to be in compliance with these procedures unless within 60 days of such filing the Commission or the Public Staff notifies PSNC that the computations may not be in compliance; provided, however, that if the Commission or the Public Staff requests *additional information reasonably required to evaluate such filing*, the running of the 60 day period will be suspended for the number of days taken by PSNC to provide the additional information.
- (d) Periodically, PSNC may file to adjust its rates to refund or collect balances in these deferred accounts through decrements or increments to current rates. In filing for an increment or decrement, PSNC shall state the amount in the deferred account, the time period during which the increment or decrement is expected to be in effect, the rate classes to which the increment or decrement is to apply, and the level of quantities estimated to be delivered to those classes. Any such increments or decrements shall be made on a percentage basis for all affected rate classes as determined in PSNC's most recent general rate case, unless otherwise ordered by the Commission.
- (e) PSNC may negotiate with commercial and industrial customers on its sales and transportation rates to avoid the loss of deliveries to these customers. All margin loss from those customers served under Rate Schedule No. 160 which would otherwise have purchased or transported gas under Rate Schedule Nos. 150 and 180 shall be recorded in the deferred account for Demand Charges and Storage Charges. Such margin loss shall be based on the currently effective rates. PSNC may offset negotiated losses in any manner authorized by the Commission.

INTEGRITY MANAGEMENT TRACKER - RIDER E

**I. Definitions**

- (a) "Integrity Management Adjustment" means a per-Therm amount calculated under this Rider E as an increment and applied to the applicable rate schedules to recover the IMRR biannually for the six-month periods ending June 30th and December 31st.
- (b) "Integrity Management Deferred Account" means a deferred account established under this Rider E subject to the Integrity Management Deferred Account Adjustment for such account.
- (c) "Integrity Management Deferred Account Adjustment" means a monthly adjustment to the Integrity Management Deferred Account as calculated under this Rider E.
- (d) "Integrity Management Deferred Account True-Up Adjustment" means an annual adjustment to recover the balance in the Integrity Management Deferred Account as of January 31st as calculated under this Rider E.
- (e) "Integrity Management Month Factor" means the percentage of annualized and normalized Therms as set forth in the Relevant Rate Order by month for the applicable rate schedules.
- (f) "Integrity Management Plant Investment" means the gross plant and associated costs incurred by PSNC resulting from prevailing federal standards for pipeline integrity and safety and not otherwise included in current base rates. At the time of PSNC's next general rate case proceeding, all prudently incurred Integrity Management Plant Investment associated with this Rider E shall be included in base rates.
- (g) "Integrity Management Revenue Requirement" or "IMRR" means the total annual revenue requirement for the Integrity Management Plant Investment as calculated under this Rider E.
- (h) "Relevant Rate Order" means the final order of the Commission in PSNC's most recent rate case fixing PSNC's rates or the most recent final order of the Commission specifically prescribing the factors and procedures to be used in the application of this Rider E.
- (i) "Vintage year" means the fiscal year during which the Integrity Management Plant Investment is made.

**II. Applicable Rate Schedules**

The base rates for Service under PSNC's Rate Schedule Nos. 101, 102, 115, 125, 126, 127, 135, 140, 145, 150, 160, 165, 175, and 180 shall be subject to an Integrity Management Adjustment in accordance with this Rider E.

**III. Computation of Integrity Management Revenue Requirement**

- (a) PSNC shall file by January 31st and July 31st of each year information showing the computation of the IMRR that forms the basis of the biannual Integrity Management Adjustment for the six-month period ending the prior December 31st and June 30th, respectively.
- (b) The total revenue requirement will be calculated for each Vintage Year of Integrity Management Plant Investment, as follows:

	<u>\$X,XXX,XXX</u>
<u>Integrity Management Plant Investment</u>	
<u>Less: Accumulated Depreciation</u>	<u>XXX,XXX</u>
<u>Less: Accumulated Deferred Income Taxes</u>	<u>XXX,XXX</u>
<u>Net Plant Investment</u>	<u>\$X,XXX,XXX</u>
<u>Pre-Tax ROR set forth in the Relevant Rate Order</u>	<u>X.XX%</u>
<u>Allowed Pre-Tax Return</u>	<u>\$X,XXX,XXX</u>
<u>Plus: Depreciation Expense</u>	<u>XXX,XXX</u>
<u>Total</u>	<u>\$X,XXX,XXX</u>

- (c) The total of the annual revenue requirements for each Vintage Year of Integrity Management Plant Investment is the annual IMRR.
- (d) Each month PSNC will charge its Integrity Management Deferred Account for the portion of the IMRR that corresponds to that month. The monthly IMRR is the product of the annual IMRR and the Integrity Management Month Factor.

#### **IV. Computation of Integrity Management Adjustment**

- (a) PSNC will file for Commission approval by February 15th and August 15th of each year a revision to its Tariff and information showing the computation of the Integrity Management Adjustment for each rate schedule that it proposes to charge during the six-month period beginning the following March 1st and September 1st, respectively. To compute the Integrity Management Adjustment, the IMRR shall first be apportioned to each customer class based on margin apportionment percentages established in the Relevant Rate Order. The amount of the IMRR apportioned to each rate schedule will then be divided by the annual Therms as set forth in the Relevant Rate Order for each rate schedule to determine the Integrity Management Adjustment to the nearest one-thousandth cent per Therm.
- (b) Each month PSNC will credit the Integrity Management Deferred Account for the amount of the Integrity Management Adjustment collected from customers. The amount of the Integrity Management Adjustment collected from Customers will be computed by multiplying the Integrity Management Adjustment for each rate schedule by the corresponding actual Therms of usage billed Customers for the month.

#### **V. Computation of Integrity Management Deferred Account True-Up Adjustment**

- (a) PSNC will file with the Commission by February 15th to recover through an Integrity Management Deferred Account True-Up Adjustment the balance in the Integrity Management Deferred Account as of the prior January 31st.
- (b) The Integrity Management Deferred Account True-Up Adjustment will be computed by multiplying the balance of the Integrity Management Deferred Account as of January 31st by the customer class apportionment percentages determined in Section IV above. The Integrity Management Deferred Account balance apportioned to each customer class shall then be divided by the annual Therms of throughput for each of the applicable rate schedules to determine the Integrity Management Deferred Account True-Up Adjustment applicable to each rate schedule for the following twelve-month period beginning March 1st. The Integrity Management Deferred Account True-Up Adjustment will be computed to the nearest one-thousandth cent per Therm.
- (c) PSNC may, at its discretion, file for further Integrity Management Deferred Account True-Up Adjustments throughout the year, upon 14 days' notice to the Commission

#### **VI. Interest**

Interest will be applied to the Integrity Management Deferred Account at PSNC's overall rate of return authorized by the Commission in the Relevant Rate Order.

#### **VII. Integrity Management Deferred Account**

PSNC shall maintain an Integrity Management Deferred Account for the purpose of recording the monthly (a) IMRR, (b) Integrity Management Adjustment, (c) Integrity Management Deferred Account True-Up Adjustment, and (d) interest on the Integrity Management Deferred Account.

**VIII. Filings with Commission**

- (a) PSNC shall file monthly (a) detail of the current month's Integrity Management Plant Investment, including supporting documentation for the amount incurred, (b) the cumulative Integrity Management Plant Investment subject to this Rider E, and (c) a report of the activity recorded for the month in the Integrity Management Deferred Account. Such reports will be filed within 45 days after the end of the month for which the report is being filed.
- (b) PSNC shall file by January 31st its projected three-year plan of Integrity Management Plant Investment, which will encompass Integrity Management Plant Investment planned for its next three fiscal years.
- (c) PSNC shall file an annual report summarizing the Integrity Management Plant Investment for the prior 12-month period ending December 31st and the data substantiating and supporting its IMRR calculation for the next biannual Integrity Management Adjustment by January 31st.

## 1. APPLICABILITY

- (a) These Rules and Regulations apply to all services provided by Public Service Company of North Carolina, Incorporated ("PSNC") under its rate schedules on file with, and subject to the jurisdiction of, the North Carolina Utilities Commission ("Commission") and are adopted for the mutual protection of both the Customer and PSNC. They provide standards for PSNC's practices, promote safe and adequate service to the public, and establish a reasonable basis for meeting the public's demands for natural gas service.
- (b) The rates, terms and other conditions, and rules and regulations stated in this tariff are subject to change upon PSNC's application to the Commission and approval of such application by the Commission, or upon order of the Commission, in the manner prescribed by law at any time. In the event of such change, the new rates, terms and conditions, and rules and regulations prescribed by the Commission will apply to Service received hereunder from the date such change is made effective. Customer agrees to accept and be bound by all such rates, terms and conditions, and rules and regulations in connection with such Service, which are now or may hereafter be filed with, or issued or promulgated by, the Commission or other governmental bodies having jurisdiction thereof.
- (c) If a conflict exists between these Rules and Regulations and the provisions of the applicable currently effective Rate Schedule, the provisions of the Rate Schedule shall govern. The Rules and Regulations of the Commission shall govern in the event of a conflict with these Rules and Regulations.

## 2. DEFINITIONS

For the purposes of PSNC's Tariff, Rate Schedules, and these Rules and Regulations, the following capitalized terms shall be defined as follows:

- (a) "Account" means ~~service~~ Service provided to any Person at a single location on a single Rate Schedule.
- (b) "Applicant" means any Person applying for Service.
- (c) "British Thermal Unit" or "BTU" means the amount of heat required to raise the temperature of one pound of water from 58.5° to 59.5° Fahrenheit at a pressure of 14.73 pounds per square inch absolute.
- (~~e~~) "BTU Factor" means the factor used to convert a volume of Gas measured in Cubic Feet (e.g. 100 cubic feet ("CCF")) into Therms or Dekatherms, as applicable.
- (~~d~~) "CIAC" means a non-refundable cash contribution in aid of construction made by a Customer to PSNC to defray the cost of construction of Excess Facilities installed by PSNC to provide Service to that Customer.
- (~~e~~) "City Gate" means point(s) where Gas is delivered to PSNC's system.
- (~~f~~) "Commission" means the North Carolina Utilities Commission, which regulates gas utilities operating within the State of North Carolina, including PSNC.
- (h) "Cubic Foot" or "Cubic Feet" is the volume of Gas that occupies one cubic foot at a temperature of 60° Fahrenheit at a pressure of 14.73 pounds per square inch absolute.
- (~~g~~) "Customer" means any Account being supplied Service by PSNC.
- (~~h~~) "Customer Facilities" means any piping, appliances, gas burning devices, regulating, or other gas delivery Facilities located downstream of the Delivery Point.
- (~~i~~) "Customer Usage Tracker" is the mechanism approved by the Commission in Rider C that tracks and trues up variations in average per customer usage from levels approved in PSNC's last general rate case for residential and commercial customers. Customers receiving service on Rate Schedule Nos. 101, 102 and 125, 127, and 140 See Rider C.
- (j) "Dekatherm" or "Dt" means the unit of energy equivalent to 10 Therms, or 1,000,000 British Thermal Units ("BTU"). PSNC's purchases of Gas are measured in Dts.
- (~~k~~) "Delivery Point" means the physical point in the Gas delivery system where Customer Facilities meets the outlet of PSNC's Meter Assembly.

- (ln) "Excess Facilities" means Gas Service Lines and Mains in excess of 100 feet or any additional PSNC Facilities required to supply service different from standard service from a high pressure (above 60 pounds per square inch gauge) Main
- (mo) "Facilities" means all infrastructure to deliver natural gas
- (np) "Facilities Charge" means a fixed amount billed each month to cover the basic cost of providing Service regardless of the amount of Gas used
- (eq) "Farm Tap" means a connection to a high pressure (above 60 pounds per square inch gauge) Main including Facilities to reduce the delivery pressure to supply Service to one or more Customers
- (pr) "Feasibility Test" means an economic test performed by PSNC which compares the ~~Net Present Value ("NPV")~~ net present value of the cost of certain PSNC Facilities to the anticipated ~~NPV~~ net present value of the revenue to be received by PSNC from Service through those same PSNC Facilities
- (qs) "Force Majeure" means any acts of God, strikes, lockouts or other industrial disturbances, acts of the public enemy, acts of sabotage or terrorism, war, blockades, insurrections, riots, epidemics, landslides, unusual conditions of weather or temperature, lightning, earthquakes, fires, storms, floods, washouts, arrests and restraints of governments and people civil disturbances, explosions, breakage of or accidents to PSNC Facilities, supplier's or transporter's Facilities, Customer Facilities, lines of pipe, or PSNC's peak shaving plants, freezing of wells or lines of pipe, partial or complete curtailment of deliveries from PSNC's supplier(s) or transporters as a result of force majeure under the supplier(s) Gas purchase contracts, inability to obtain rights of way, franchises, permits, materials, Facilities, supplies, or an inability to obtain an unlimited supply of gas from PSNC's supplier(s), inadequate delivery pressure from PSNC's transporters, and any other causes, whether of the kind herein enumerated or otherwise, not within the control of PSNC and/or its supplier(s), transporters or the Customer and which by the exercise of due diligence either PSNC and/or its supplier(s), transporters or the Customer is unable to prevent or overcome
- (rt) "Gas" means undiluted natural gas, or a substitute for natural gas, or any mixture of natural gas and a substitute for natural gas, as delivered by PSNC
- (su) "Gas Service Line" means the pipeline, owned by PSNC, that runs between a Main and a Meter
- (v) "Integrity Management Tracker" means the mechanism in Rider E that tracks capital costs of integrity management projects between rate cases and recovers such costs from residential and commercial Customers receiving service on Rate Schedule Nos 101, 102, 115, 125, 126, 127, 135, 140, 145, 150, 160, 165, 175, and 180
- (tw) "Main" means a gas pipeline other than a Gas Service Line, owned, operated or maintained by PSNC, which is used for the purpose of transmission or distribution of Gas
- (ux) "Meter" or "Meter Assembly" means any of PSNC's meter, regulator, piping, valves, vents, relief valves, gauges, and/or other apparatus, including automated or remote meter reading devices, used to measure, communicate, and control flow or pressure of Gas
- (vy) "Person" means an individual, partnership, corporation, trust, governmental agency, or other association
- (wz) "Premises" means the land or real estate, including buildings and other appurtenances thereon, where a Customer receives Service
- (xaa) "PSNC" means Public Service Company of North Carolina, Incorporated, a South Carolina corporation d/b/a PSNC Energy, a natural gas utility operating under the jurisdiction of the Commission
- (ybb) "PSNC Facilities" means any piping, ~~mains~~ Mains, Gas Service Lines, Meters, Meter Assemblies, regulating or other Facilities of whatever nature owned by PSNC, ~~including any such Facilities located downstream of the Delivery Point~~
- (zcc) "Rate Schedule" means the portion of PSNC's approved Tariff on file with the Commission describing the rates and charges, and the terms and conditions, for Service
- (aa) ~~"Receipt Point" means the physical point where PSNC's system connects with its transporter's system-~~

(bbdd) "Residence" means any single or multiple family residence, condominium, townhouse, mobile or modular home, or apartment that is individually metered and has Gas used for any domestic usage such as space heating, air conditioning, water heating, cooking, or any other residential usage

(eeee) "Service" means the delivery, and all other activities incidental to the delivery, of Gas by PSNC to a Customer at its Delivery Point

(dfff) "Therm" means the unit of energy equivalent to 100,000 BTUs ~~PSNC bills on the basis of the Therms used by a Customer~~

(eegg) "Transportation Pooling Agreement" means an agreement executed by PSNC and a Customer or a Customer's agent that details the procedures to be followed when a Customer obtains an independent supply of Gas and arranges to have the Gas delivered to ~~the City Gate~~ ~~one of PSNC's existing Receipt Points~~. The required form of the Transportation Pooling Agreement is Appendix A to these Rules and Regulations

### 3. AGREEMENT

- (a) PSNC shall not be required to provide Service unless and until application for Service has been made and any charges for Excess Facilities have been paid by Customer to PSNC. When no charges for Excess Facilities are involved, an Applicant's application for Service and PSNC's acceptance may be oral. In the absence of a written agreement, such agreement shall be conclusively presumed to exist if Gas is made available by PSNC for use by Customer or on the Customer's Premises. Service will be supplied pursuant to PSNC's standard service agreement, the applicable Rate Schedule(s), these Rules and Regulations, and the rules, regulations, and orders of the Commission.
- (b) PSNC's obligations to provide Service and the Customer's obligations upon receipt of Service are set forth in the applicable provisions of Chapter 62 of the North Carolina General Statutes, the applicable Commission Rules and Regulations, the applicable Rate Schedule(s), these Rules and Regulations, and any written application or other document approved in form by the Commission and executed by PSNC and Customer pertaining to such Service.
- (c) Copies of the Rate Schedules and these Rules and Regulations are available from PSNC. Upon Customer request, PSNC will provide Customer with a copy of the applicable Rate Schedule(s), these Rules and Regulations, any written application for Service, and all or other documents executed by PSNC and Customer pertaining to such Service. No promise, statement, or representation by any PSNC employee, agent, or representative, or by any other Person, shall bind PSNC to provide Service, or to change the terms and conditions upon which Service will be provided, unless the same is in writing and is executed by an authorized PSNC representative and Customer, no amendment, change, or modification to any such document shall be effective unless in writing and signed by an authorized PSNC representative and Customer.

### 4. ESTABLISHMENT AND REESTABLISHMENT OF CREDIT; DEPOSITS

- (a) Establishment and Reestablishment of Credit
  - (1) Before the commencement of Service, the Applicant (whether a former Customer or not) must satisfactorily establish credit in accordance with Commission Rule R12-2. An Applicant for residential Service shall not be denied Service for failure to pay bills for any non-residential Service.
  - (2) If the conditions of Service or the basis on which credit was originally established have materially changed, PSNC may require a Customer to reestablish credit in accordance with Commission Rule R12-2.
  - (3) If a disagreement arises with respect to the establishment or reestablishment of credit with PSNC it shall be the Applicant's or Customer's right to have this problem reviewed and acted upon by PSNC's supervisory personnel. If unresolved after that review, then the Applicant or Customer shall have the right to have the problem reviewed by the Commission pursuant to Commission Rule R12-7.
- (b) Deposits
  - (1) PSNC may require payment of a cash deposit prior to establishing or reestablishing Service to an Applicant or a Customer in accordance with the provisions of Commission Rule R12-2 through R12-4.
  - (2) Interest on deposits will be paid in accordance with Commission Rule R12-4.



(3) Deposits will be refunded in accordance with Commission Rule R12-5.

**5. DENYING OR DISCONTINUING SERVICE**

(a) PSNC shall have the right to discontinue Service or to deny Service for any of the following reasons:

- (1) PSNC determines that a hazardous condition exists;
- (2) Service to Customer adversely affects PSNC Facilities or PSNC's Service to others;
- (3) PSNC Facilities have been tampered with;
- (4) The unauthorized use of Gas by Customer;
- (5) Any material misrepresentation made by Customer or refusal to provide identification in connection with the application for Service;
- (6) Any material breach of these Rules and Regulations or any terms and conditions of the applicable Rate Schedule(s) or service agreement(s), or any violation of any statute, or any order, regulation, or rule of the Commission or any governmental agency;
- (7) Customer's failure to fulfill Customer's agreements and contractual obligations for Service subject to regulation by the Commission;
- (8) Customer's failure either to establish or reestablish satisfactory credit pursuant to Commission Rule R12-2;
- (9) Customer's failure to permit PSNC reasonable access to PSNC Facilities and/or Customer Facilities;
- (10) Nonpayment of bill pursuant to Commission Rules R12-8 and R12-10;
- (11) Customer's failure to furnish such Customer Facilities, permits, certificates, and/or rights-of-way as required by PSNC as a condition to obtaining or continuing Service; or
- (12) Customer Facilities are installed or are in use on Customer's Premises which permits the Gas to be used without passing through the Meter(s), which prevents or interferes with the measuring of the Gas by the Meter(s), or which interconnects fuel systems supplied on separate Rate Schedules.

(b) Prior Indebtedness: PSNC reserves the right to deny service to any Applicant who is found to be indebted to PSNC for Service previously furnished to that Applicant at any Premises served by PSNC until satisfactory arrangements have been made for the payment of all such indebtedness. Further, where the Service has been discontinued to a Premises for nonpayment, PSNC shall have the right to refuse Service at the same Premises where there is clear, documented evidence of action taken by the Applicant with the intent to evade payment for utility services. PSNC may require reasonable proof of identity of the Applicant as a condition to providing Service.

(c) Discontinuing Service:

(1) PSNC may discontinue or suspend Service without notice to Customer under the following circumstances:

- i. In the event of a condition determined by PSNC to be hazardous;
- ii. In the event of Customer use of equipment in such a manner as to adversely affect PSNC equipment or PSNC service to others;
- iii. In the event of tampering with the equipment furnished and owned by PSNC; or
- iv. In the event of unauthorized use.

(2) For any reason not listed in 5(c)(1) above and not otherwise addressed in Commission Rules R12-8 and R12-10, PSNC shall give Customer at least 10 days written notice that ~~his/her service~~ Service is subject to termination. This notice of proposed termination shall, at a minimum, contain the following:

- i. A clear explanation of the reasons which underlie the proposed termination;
- ii. The date of the proposed termination, which shall not be less than 10 days from the date of issuance of such notice;
- iii. Statements advising how Customer can avoid termination; and

- iv. Statements advising Customer that ~~Customer~~he/she should first contact PSNC with any questions he/she may have, and that in cases of dispute, a proposed termination action may thereafter be appealed informally to the Commission either by calling the Public Staff-North Carolina Utilities Commission, Consumer Services Division at (919) 733-9277 or toll free at 1-866-380-9816 or by appearing in person or by writing the Public Staff-North Carolina Utilities Commission, Consumer Services Division, 4326 Mail Service Center, Raleigh, NC 27699-4326.
- (3) Customer is entitled to personal contact prior to termination as detailed in Commission Rule R12-10(i), and Customer retains all his/her rights as detailed in the Commission Rules, with special attention to Rules R6-16, R6-17, R12-8, and R12-10.
- (d) No Liability for Discontinuing or Denying Service: PSNC shall have no liability to Customer or to any other Person for any damages incurred as a result of the discontinuance or denial of Service to the Premises such as, but not limited to, frozen water pipes, damaged Facilities, damages to any building or structure, or any other damage or injury of any type.

#### **6. RECONNECTION TERMS AND FEES**

- (a) Where Service has been discontinued at Customer's request and reconnection of Service is requested by the same Customer at the same Premises within one (1) year after the date of discontinuance, a reconnection fee shown in the Summary of Rates and Charges of PSNC's Tariff shall be charged.
- (b) All reconnections that require more than one hour to complete will be billed the applicable reconnection rate per hour shown in the Summary of Rates and Charges of PSNC's Tariff.
- (c) In cases where Service is discontinued for nonpayment of bills, Customer shall do the following before PSNC is obligated to restore Service:
  - (1) pay the arrears portion of the bill in full;
  - (2) reestablish credit in accordance with Commission Rule R12-3;
  - (3) pay the applicable reconnection fee.

#### **7. ACCESS TO CUSTOMER PREMISES**

Customer shall grant to PSNC the right of ingress and egress to, over, across, and through Customer Premises, for any and all purposes associated with the Service or the exercise of any and all rights under the Rate Schedule, service agreement, or these Rules and Regulations. Customer authorizes PSNC's representatives to enter Customer Premises to inspect Customer lines and appliances that use Gas, and to install, read, inspect, test, maintain, repair, or remove any or all of PSNC Facilities. Customer agrees that if a condition exists on Customer Premises, which, in PSNC's sole opinion, is dangerous to PSNC's representatives or PSNC Facilities, and/or prevents reasonable access to PSNC Facilities, PSNC may remove or relocate PSNC Facilities at Customer's sole expense.

#### **8. RIGHT-OF-WAY**

- (a) PSNC shall not be required to extend its Facilities for the purpose of rendering Service to the Customer until satisfactory rights-of-way, easements, or permits have been obtained from government agencies and property owners, at Customer expense, to permit the installation, operation, and maintenance of PSNC Facilities. Customer in requesting or accepting Service thereby grants PSNC, without charge, necessary rights-of-way and privileges for PSNC Facilities on, along, across, and under property controlled by Customer to the extent that such rights-of-way required or necessary to enable PSNC to supply Service to the Customer and Customer also grants PSNC the right to continue or extend PSNC Facilities on, along, across, or under property, with necessary rights to serve other Customers. Customer shall maintain such right-of-way so as to grant PSNC continued access to PSNC Facilities by PSNC personnel, vehicles, and other power-operated equipment. Customer's application for Service and acceptance of such Service from PSNC shall be deemed to grant to PSNC an implied right-of-way on, along, across, and under the Premises, if Customer has not executed a written right-of-way agreement as requested by PSNC. PSNC shall not be liable to Customer for any failure to provide Service because of PSNC's inability to secure or retain such rights-of-way.
- (b) Customer may make full use and enjoyment of the Premises included within the right-of-way granted by this Section 8 in any manner not inconsistent with the use and purposes of the Premises by PSNC; provided, however,

that Customer, its heirs, successors, and assigns, shall not construct, nor permit to be constructed, any house, structure, or obstruction, nor impound any water, nor permit any water to be impounded, on or over the right-of-way, and Customer, its heirs, successors, and assigns, further agrees that Customer, and its heirs, successors, and assigns, will not change the grade over the pipeline(s) in any manner which will reduce or increase the depth of the pipeline(s) Customer shall also furnish suitable space and satisfactory protection for PSNC Facilities installed on the Premises

#### **9. VACATED PREMISES**

Customer shall notify PSNC at least twenty-four (24) hours before vacating the Premises served and will pay upon presentation all bills due for Service provided to the Premises PSNC shall have no liability to Customer or to any other Person for any damages incurred as a result of Customer vacating the Premises such as, but not limited to, frozen water pipes, damaged Facilities, damages to any building or structure, or any other damage or injury of any type

#### **10. NON-ASSIGNABILITY**

Customer's rights to Service and rights provided under any service agreement are personal and shall not be transferred or assigned by Customer without the prior written consent of PSNC, which PSNC, in its sole discretion, may refuse to grant

#### **11. INTERRUPTIONS**

Except where interruptions of Service are permitted by PSNC's Tariff or in accordance with Commission Rule R6-19 2, PSNC shall make reasonable efforts to avoid interruptions of Service If interruptions occur for any reason, PSNC shall restore Service within the shortest time practical under the conditions PSNC shall not be liable, in any manner to Customer or any other Person, for any loss or damage resulting from such failure or interruptions of Service

#### **12. ACTION TO MAINTAIN SYSTEM INTEGRITY**

If PSNC, in its sole discretion, determines that it is necessary to curtail or interrupt Service to maintain the integrity of its system or to provide for its or the public's safety, PSNC shall have the right to curtail or interrupt delivery of Gas to any Customer PSNC shall not be liable, in any manner to Customer or any other Person, for any loss or damage resulting from such curtailment or interruptions of Service

#### **13. EMERGENCY USES**

It is expressly understood and agreed that PSNC does not furnish uninterruptible Service for pumping water, emergency power generation, or any other emergency use. If Customer uses Gas for emergency uses, Customer, at all times, shall maintain a standby supply of energy so that it shall not be necessary to rely on Gas during a time of emergency PSNC shall not be liable, in any event, to any Customer, any inhabitants of any municipal Customer, or any other Person, for any loss or injury of or to property or persons occasioned by, or resulting directly or indirectly from, the failure of any fire protection or other emergency apparatus to operate, whether said failure shall be due to any act or omission of PSNC or otherwise

#### **14. INTERCONNECTIONS**

If PSNC supplies Service to Customer under more than one of the Rate Schedules in this Tariff, Customer shall not use the higher priority Service as a standby for any lower priority Service, nor shall Customer install, or permit to be installed, any interconnection between the fuel lines supplying Gas delivered under separate Accounts

#### **15. PRESSURE**

PSNC will generally provide Gas at a pressure of approximately 0.25 pounds per square inch gauge ("psig") PSNC and Customer, however, may mutually agree upon a higher pressure at which Gas may be provided PSNC shall supply only one delivery pressure per Account In no event shall PSNC be required to furnish Gas to Customer at a pressure exceeding two (2) psig for residential Service, or five (5) psig for all other classes of Service, except to the extent that PSNC has agreed to do so in writing

#### **16. METERS AND OTHER PSNC FACILITIES; RELOCATION OF PSNC METERS AND FACILITIES; INTERFERENCE OR TAMPERING WITH PSNC PROPERTY**

- (a) **Meters** PSNC shall furnish, install, and maintain on Customer's Premises a Meter or Meters of suitable capacity and design to measure the quantity of Gas used by Customer, and such Meter or Meters shall be and remain the property of PSNC. Customer shall (i) provide suitable space for Meters and other PSNC Facilities, (ii) protect all of PSNC Facilities from damage or injury, and (iii) permit no Person other than PSNC's representative or agent, or a person otherwise lawfully authorized, to disturb or remove the same, and PSNC's representatives are hereby expressly authorized to enter Customer Premises at all hours to inspect Customer lines and appliances that use Gas, and to read, inspect, maintain, repair, or remove Meters and other Facilities. References to Meters do not apply to Rate Schedule No. 115, Unmetered Lighting Service.
- (b) **Other Facilities** PSNC shall also furnish, install, and maintain all other PSNC Facilities required to provide Service. PSNC shall have the right, at its option and at its own expense, to place additional PSNC Facilities on the Premises for billing, testing, system monitoring, or other purposes related to the provision of Service. If PSNC elects to install remote or automated Meter reading devices, Customer shall cooperate with PSNC to effect installation of any power, phone, or other service to the Meter site. Customer shall also provide suitable site(s) for any required communication antennas, batteries, and/or solar panels. All PSNC Facilities shall be and remain the sole property and sole responsibility of PSNC, regardless of whether the Customer was required to make a CIAC.
- (c) **Meter Tests** PSNC shall have the right to test its Meters and PSNC Facilities periodically. Customer shall provide adequate access, including vehicle access, to allow for testing of Facilities.
- (d) **Failure or Inaccuracy of Meter** In case of any failure, inaccuracy or nonregistering of a Meter, Customer's bills for the period of such failure or inaccuracy shall be calculated as provided in Commission Rule R6-15.
- (e) **Relocation of PSNC Facilities and Rights-of-Way** PSNC may change the location of PSNC Facilities and rights-of-way upon Customer's request, but Customer shall bear the expense of the change, provided, however, no change will be made where it will interfere with or jeopardize PSNC's Service, either to Customer requesting the change or to any other Customer(s). All privileges of PSNC incident to the original location shall apply to the new location. When a Meter is relocated at PSNC's option, all expense in connection with such change shall be borne by PSNC. If the relocation is made at Customer's request, all expense will be borne by Customer. If a change in the right-of-way is made, Customer shall be subject to the restrictions set forth in Section 8 of these Rules and Regulations with respect to the new right-of-way.
- (f) If Service is discontinued, PSNC shall have the right to remove all PSNC Facilities from Customer's Premises. Such removal shall be at PSNC's sole expense.

#### 17. INTERFERENCE WITH PSNC PROPERTY

Customer shall not interfere with, alter, or remove PSNC Facilities, or permit the same to be done by others unless authorized in writing by PSNC. Damage or loss to PSNC Facilities caused or permitted by Customer shall be paid by Customer. When unauthorized use of Service is discovered, PSNC may discontinue Service and Customer shall be required to pay for the estimated unauthorized usage and the costs of inspection, investigation, disconnection, and reconnection before Service is restored.

#### 18. UNSAFE CONDITIONS

If Customer creates an unsafe condition for PSNC's Facilities, all expenses to correct the condition shall be borne by Customer. Unsafe conditions include, but are not limited to, erecting structures, and planting trees or bushes over or in close proximity to PSNC Facilities.

#### 19. BILLING

- (a) **Bills** Bills for Service shall be rendered and paid monthly. PSNC or its agent shall read Meters, and PSNC shall render bills monthly on a cycle basis of approximately thirty (30) days. Facilities Charges shall not be prorated unless a billing adjustment is being made that covers more than forty-five (45) days of Service that has been previously provided and billed. Rate changes occurring from general rate cases and purchased gas adjustment proceedings shall be implemented on a "service rendered" or prorated basis.
- (b) **Payment** All bills are due when rendered and are payable by mail, bank draft, other electronic means, or at authorized payment centers. Residential bills become past due twenty-five (25) days after the billing date. All other bills become past due fifteen (15) days after the billing date. If any bill is not paid before becoming past due, a late payment charge of 1% per month will be applied at the next billing date to the balance in arrears and thereafter until the amount due is paid. This charge is applicable to all Customers and all classes of Service.

- (c) **Returned Check Charge** A charge equal to the approved state charge for returned items set forth in North Carolina General Statutes § 25-3-506 and shown in the Summary of Rates and Charges of PSNC's Tariff shall be imposed for checks or drafts tendered on Customer's account and returned to PSNC
- (d) **Valid Billing Address** PSNC will deliver to Customer a monthly bill of the amount due to PSNC by mailing the bill by first class mail to the mailing address furnished by Customer or by electronic billing when agreed to by PSNC and Customer. Customer will be responsible for keeping PSNC informed of the proper billing address. If Customer fails to do so, delivery to the Premises address shall be deemed delivery to Customer. Failure to receive a bill will not entitle Customer to any extension of time for payment beyond the past due date. For a Customer that receives bills electronically, notices regarding rate or Service changes, account status, or other matters shall also be provided electronically.
- (e) **Past Due Balance** If PSNC, with good cause, determines a likelihood that Customer cannot pay the outstanding Gas bill, and Customer's deposit, if one has been provided, does not provide PSNC with adequate security, PSNC may accelerate the past due or delinquent date and proceed with disconnect procedures under Commission Rule R12-8 by issuing a written statement of cause to Customer and filing a copy of such statement with the Commission
- (f) **Estimate** If a Meter is not read for any reason at the regular reading date, PSNC may estimate the amount of Service used by Customer to that date by referring, where possible, to Customer's consumption for a similar prior period. PSNC will bill Customer on the basis of that estimated use and will make any necessary adjustment on the bill when the Meter is next read
- (g) **Multiple Meters** PSNC does not allow the combining of Meters for purposes of billing unless the design of the metering facilities requires the use of multiple Meters. PSNC will set an additional Meter when requested to do so by Customer, and Customer bears all costs of such installation. When PSNC provides an additional Meter, it establishes a separate Account, and Customer is responsible for paying a separate Facilities Charge and separate billing through the steps of the Rate Schedule, if applicable. Some current Customers receiving Service as of October 7, 1994, have been allowed to combine Meters for billing purposes. PSNC will grandfather these Accounts by coding them in its Customer database to allow them to remain as combined Accounts at their current locations and in their present configurations. If, in the future, additional Meters are set for these Customers, new Accounts will be established for such additional Meters and Customer will not be allowed to combine Service provided by such Meters with the existing Accounts
- (h) **Offsets Against Bills** No claim which Customer has, or may claim to have, against PSNC shall be offset or counterclaimed against the payment of any sum of money due PSNC by Customer for Service(s) provided. All sums due PSNC shall be paid in accordance with the terms of the bill, these Rules and Regulations ~~rules and regulations~~, and the service agreement ~~Service Agreement~~ regardless of such claim
- (i) **Equal Payment Plans for Residential and Commercial Customers**
  - (1) An equal payment plan is available to any Customer receiving residential or commercial Service whose Account has not been removed from an equal payment plan for late payment of a bill within the previous three (3) months
  - (2) At the request of an eligible Customer, PSNC will estimate Customer's bills for the next twelve (12) months based on actual consumption during the previous twelve (12) months (adjusted for normal weather), PSNC's currently approved margin rates, an estimated purchased gas adjustment factor for the upcoming twelve (12)-month period, and applicable fees and taxes. If Customer has an outstanding balance, the balance will be added to the estimated annual amount. Customer's monthly payment under the equal payment plan will be calculated by dividing the estimated annual billing amount by twelve (12)
  - (3) At the end of the twelve-(12) month period, Customer's bill will be recalculated based on actual consumption during the period and compared to Customer's payments under the equal payment plan. Any underage may be paid by Customer or added to the estimated annual amount used to calculate Customer's monthly payments for the next twelve (12) months, at Customer's election, and any overage will be deducted from the estimated annual amount. Unless otherwise requested, Customer will remain on the equal payment plan during the next annual period with a new monthly payment based upon the factors set forth above
  - (4) PSNC may adjust Customer's monthly payment under the equal payment plan as necessary to avoid a large balance in Customer's Account

## 20. FORCE MAJEURE

In the event either PSNC or its transporter or supplier or Customer is unable, wholly or in part, by reason of Force Majeure to carry out its obligations, other than to make payments for the Service received, it is agreed that on giving notice of such Force Majeure as soon as possible after the occurrence of the cause relied on, then the obligations of PSNC or Customer so far as they are affected by such Force Majeure, shall be suspended during the continuance of any inability so caused but for no longer period, and such cause shall as far as possible be remedied with all reasonable dispatch.

It is understood and agreed that the settlement of strikes or lockouts shall be entirely within the discretion of the Person affected, and the above requirement that any Force Majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes or lockouts when such course is inadvisable in the discretion of the Person affected thereby.

## 21. POSSESSION OF GAS; GAS QUALITY AND MEASUREMENT

(a) Customer agrees that PSNC is responsible only for Service to the Delivery Point, and PSNC shall not be liable to Customer or any of Customer's agents, contractors or employees, or to any Person(s) whomever, for any loss, damage, or injury to any Person(s) or property resulting from the Gas or its use after it leaves Delivery Point. Customer shall assume all risks downstream of the Delivery Point, except when caused by the exclusive gross negligence or willful acts of the employees of PSNC.

(b) PSNC shall not be responsible for the transmission, use, or control of Gas beyond the Delivery Point. PSNC shall not be liable for any loss, damage, or injury to Person(s) or property whatsoever, accruing or resulting in any manner, from the receipt, use, or discontinuance of the use of the Gas beyond the Delivery Point, defective Customer Facilities, or any cause not resulting from the direct, exclusive gross negligence or willful acts of PSNC.

(c) All Gas delivered to PSNC's system is subject to the quality specifications of the interstate transporter's Federal Energy Regulatory Commission-approved tariff. As such, PSNC shall have no liability for damages of any kind related to or arising from the quality or constituent characteristics of Gas delivered or sold to Customer. **ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE THAT MIGHT OTHERWISE ATTACH OR BE APPLICABLE TO THE SALE OF GAS FOR RESALE IS HEREBY DISCLAIMED AND WAIVED.** PSNC shall further have no responsibility to process, condition, or otherwise modify Gas delivered to its system for transmission or sale to Customers. It is Customer's sole responsibility to install, adjust, maintain, and operate its Gas burning equipment in a manner consistent with the prevailing quality of Gas delivered to PSNC.

(d) PSNC shall measure all Gas in Cubic Feet and convert the volume of gas measured to Therms or Dekatherms, as applicable, for billing purposes by multiplying such volume by the BTU Factor. The BTU Factor shall be based on the weighted average BTU content of Gas entering PSNC's system for the days of Customer's billing cycle.

## 22. REPORTS OF LEAKS

Customer shall give immediate notice to PSNC when any leakage of Gas is discovered or suspected. Customer agrees not to use any potential source of ignition such as flame, electrical source, or other igniting medium, in the proximity of escaping Gas, which could ignite such Gas. PSNC shall not be liable for any leakage of Gas, or any damage or loss arising out of, or caused by, any leakage of Gas, except when due to the exclusive gross negligence or willful acts of the employees of PSNC.

## 23. EXTENSION OF SERVICE; CIAC

(a) PSNC will extend Mains along the route selected by PSNC in streets that are at an established final grade for distances up to 100 feet without charge to Customer. If a Main extension exceeds 100 feet, PSNC will perform a Feasibility Test and may require a CIAC to reimburse PSNC for the cost of any Main extension in excess of 100 feet and any other Excess Facilities necessary to extend service if the anticipated revenue does not produce a reasonable return on the total cost of such Excess Facilities.

(b) PSNC will install up to 100 feet of Gas Service Line (measured from the Premises' property line to the Meter on Customer's Premises) at no charge. For installations requiring more than 100 feet of Gas Service Line, PSNC may require Customer to pay a CIAC based on the results of a Feasibility Test.

- (c) If Excess Facilities are required, PSNC shall perform a Feasibility Test to determine whether or not these additional facilities will require Customer to pay a CIAC
- (d) A CIAC may be required for Facilities located at a point other than that selected by PSNC or deviating from the route selected by PSNC
- (e) If a Feasibility Test is required, PSNC shall also calculate the estimated cost of (i) the Main in excess of the 100 feet of Main for which no CIAC is required and (ii) the Service Line in excess of the 100 feet of Service Line for which no CIAC is required for new Customers occupying existing structures. For proposed new sub-divisions, the allowances for extensions of Mains and Service Lines will be considered only for existing structures that plan to use Gas at the time the Main is to be extended. Any CIAC shall be the lesser of (i) the CIAC calculated in the Feasibility Test, or (ii) the full cost of extending the lines beyond the initial allowances of 100 feet of Main and Service Line. The Feasibility Test shall include all costs directly associated with the Service extension
- (f) Notwithstanding Paragraphs (a), (b), and (e) above, PSNC shall perform a Feasibility Test to determine whether a CIAC is required for all extensions of Service when the Applicant's/Customer's request for Service does not include the use of Gas for either central space heating or water heating. Failure to install or utilize Gas Facilities as agreed upon within ninety (90) days of the time of Facilities extension may result in the Customer being charged for the cost of PSNC Facilities and installation, if Customer has been given written notice that such Customer may be charged for the cost of PSNC Facilities and installation if Gas is not used within ninety (90) days
- (g) Location of Privately Owned Structures. Customer shall locate privately owned structures such as septic tanks, drain lines, water lines, and sprinkler systems prior to PSNC installing a Gas Service Line to Customer's Premises. PSNC and its contractors, if any, are not responsible for damages to privately owned facilities that are not adequately located

#### **24. FARM TAP SERVICE**

- (a) Whenever an Applicant requests Service which can only be supplied from a high pressure (above 60 pounds per square inch gauge) Main, PSNC, subject to the results of a Feasibility Test, may tap the Main, install regulating Facilities, and extend its Facilities to the Delivery Point on Customer's Premises. Customer will provide PSNC with all necessary rights-of-way (including a station site) on its Premises at no expense to PSNC as set forth in Section 8 and shall execute a written right-of-way as requested by PSNC. Whether a CIAC is required of Customer prior to the installation of such Facilities shall be determined by the results of the Feasibility Test
- (b) For a Farm Tap Customer, a Feasibility Test shall be performed which includes all costs less an allowance for the cost of (i) the actual feet of Main required to serve Customer, not to exceed 100 feet, (ii) the actual feet of Gas Service Line required to serve Customer, not to exceed 100 feet, and (iii) the actual number of Meter set(s)
- (c) Charges for Service shall be billed on the applicable PSNC Rate Schedule. All other terms and conditions of the applicable PSNC Rate Schedule(s) apply to Customers using Farm Tap service

#### **25. CUSTOMER FACILITIES**

- (a) An Applicant shall supply PSNC a list of Customer Facilities located on the Premises which may increase Customer's load to enable PSNC to determine the feasibility of providing Service. PSNC shall provide information concerning the availability of Service (including whether PSNC can serve the increased load), delivery pressure, Meter location and size, and other information which may be pertinent to the installation
- (b) Customer Facilities must be installed and maintained in accordance with the manufacturer's instructions, approved installation standards, and the requirements of applicable local, state, and federal agencies. All Customer Facilities shall be maintained by, and be the sole responsibility of, Customer and/or the owner of the Premises
- (c) If Customer Facilities have the potential to create a vacuum, back pressure, or any other condition, which, in PSNC's sole opinion, could cause operating difficulties on PSNC's system, a device meeting PSNC's specifications must be installed and maintained by Customer at Customer's sole expense to protect fully and completely PSNC's system
- (d) Customer shall not introduce and/or store any flammable or combustible material within close proximity to a Gas appliance or other Facilities

#### **26. REQUESTS TO INCREASE LOAD OR PRESSURE**

Customer shall make a request to PSNC, and shall receive PSNC's permission before increasing Gas loads or pressure and before changing the purpose for which Customer uses Gas. The request shall specify, at a minimum, the name of Customer, type of Service needed, estimated monthly Gas consumption, required delivery pressure, and the date needed. If, in PSNC's sole opinion, it has the capability to provide the additional or changed Service without interfering with its ability to provide Service to its other Customers, PSNC shall allow Customer to increase Customer's load and/or pressure or to change the purpose for which Customer uses Gas. A CIAC may be required depending on the nature of the request.

## 27. EXCAVATION NEAR PSNC FACILITIES

Customer shall inform PSNC of any excavation activities near PSNC Facilities located on Customer's Premises by calling The North Carolina One-Call Center 811, Inc. at 811 or 1-800-632-4949 not less than three (3) ~~two (2)~~ working days nor more than twelve (12) ~~ten (10)~~ working days prior to such activities. Customer will give a similar notice to PSNC prior to any additions or changes in Customer's Premises over, under, or near PSNC Facilities. Any damages incurred or losses of Gas resulting from any such activity shall be billed to, and paid by, Customer.

## 28. PROHIBITION AGAINST RESALE OF GAS

Customer shall not directly or indirectly sell, resell, assign, or otherwise transfer Gas to any Person unless such transfer is pursuant to a contract or franchise acceptable to PSNC and, if required, approved by the Commission. This prohibition against resale shall not apply to sales to housing authorities which, on October 1, 1996, purchased Gas from PSNC for resale to the residents of such housing authorities; or to any housing authority which, after October 1, 1996, received authorization to purchase Gas from PSNC for resale to the residents of such housing authority; or to purchases under Rate Schedule No. 195 where Compressed Natural Gas is resold as a vehicular fuel.

## 29. TAXES

Customer is responsible for payment of all taxes or tax liabilities attributable to or due in connection with the provision of Service by PSNC to the Customer, including any excise or sales tax. Customer is also responsible for the payment of any local, state, or federal tax, charge, or fee attributable to or arising out of the utilization of Gas delivered by the Company as a motor vehicle fuel. ~~METHODOLOGY FOR DETERMINING PROPER RATE SERVICE PRIORITY CLASSIFICATION PURSUANT TO COMMISSION RULES R6-12 & R6-19.2~~

### (a) Definitions:

- (1) "Actual Annual Usage" means the actual quantities of Gas sold to or transported for Customer by PSNC for a given Review Period as reflected on PSNC's invoices for that Customer.
- (2) "Classification Usage" means Gas quantities in an amount equal to Actual Annual Usage for a Customer for a Review Period divided by the Service Days for that same period.
- (3) "Involuntary Curtailment Days" means those days or portions of days in a given Review Period when curtailment of Customer's Service was imposed by PSNC's decision to curtail.
- (4) "Prospective Priority Classification" means the then current priority curtailment classification a Customer would otherwise qualify for based solely on the Classification Usage for a given Review Period.
- (5) "Prospective Rate Schedule" means PSNC's then current Rate Schedule that a Customer would otherwise qualify for based solely on the Classification Usage for a given Review Period.
- (6) "Review Period" means the twelve (12) months ended June 30.
- (7) "Service Days" means 365 less the number of Involuntary Curtailment Days.

### (b) Procedure:

- (1) During July and August of each year, the Prospective Rate Schedule for each Customer for the Review Period just ended shall be determined.
- (2) If the Prospective Rate Schedule is the same rate schedule on which Customer is currently billed, no further Rate Schedule review is necessary. Customer shall remain on that Rate Schedule.



~~(3) If the Prospective Rate Schedule is different from the Rate Schedule on which Customer is currently billed, the Prospective Rate Schedule for Customer for the Review Period immediately preceding the one used in Section (b)(1) shall also be determined.~~

~~(4) If the Prospective Rate Schedule determined in Section (b)(1) is the same as that determined in Section (b)(3), Customer shall be reclassified to that Prospective Rate Schedule effective the following September 1.~~

~~(5) The reclassified Customer will be given notice of such reclassification as required by Commission Rule R6-12(7).~~

~~(6) A similar procedure will be followed for determining the proper curtailment priority for each Customer by using Prospective Priority Classification.~~

### 30. NON-WAIVER

No delay or failure of PSNC to exercise any right or remedy provided by these Rules and Regulations, the Rate Schedules, the service agreement, or other documents controlling the terms of Service shall impair any such right or remedy, nor shall it be construed to be a waiver of any breach or default, or an acquiescence therein of any similar breach or default subsequently occurring. No waiver shall be valid unless it is in writing and signed by the party against which it is sought to be enforced. Any written waiver will be effective only to the extent specifically set forth.

## TRANSPORTATION POOLING AGREEMENT

THIS AGREEMENT ("Agreement") is made this \_\_\_\_\_ day of \_\_\_\_\_, by and between PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INCORPORATED, a South Carolina corporation, doing business as, and hereinafter called, "PSNC Energy," with its main office at 800 Gaston Road, Gastonia, North Carolina 28056, and \_\_\_\_\_ (hereinafter "Pooler"), a \_\_\_\_\_ corporation, with its main office at \_\_\_\_\_.

WHEREAS, PSNC Energy is willing to permit its Customers or their agents, which obtain transportation, ~~whether firm, released, or interruptible, or any other form of transportation, on an interstate or a Pipeline,~~ to deliver Gas into PSNC Energy's system for the purpose of enabling PSNC Energy's Customers to satisfy all of their Gas requirements through the use of transportation Services provided by PSNC Energy; and

WHEREAS, Pooling will permit PSNC Energy's Customers or their agents to accumulate various privileges accorded individual transportation Customers for the benefit of a group of transportation Customers; and

WHEREAS, Pooling will benefit all of PSNC Energy's transportation Customers.

NOW, THEREFORE, for and in consideration of mutual covenants and promises contained herein, PSNC Energy agrees to permit Pooling, and Pooler agrees to pool Gas supplies hereunder, in accordance with the following terms and conditions:

#### ARTICLE I Definitions

For the purposes of this Agreement, the following definitions shall apply:

1. "Customer(s)" means any recipient of transportation Service provided by PSNC Energy that procures its supply of Gas from a Pooler's Pool.
2. "Gas" means undiluted natural gas, or a substitute for natural gas, or any mixture of natural gas and a substitute for natural gas, as delivered by PSNC Energy.
3. "Gas Day" means a period of twenty-four (24) consecutive hours as defined by NAESB.
4. "NAESB" means the North American Energy Standards Board, or its successor.
5. "Operational Order" means an order issued by PSNC Energy when, in its sole discretion, PSNC Energy anticipates that an imbalance between Gas quantities delivered by Pooler into a Pool and deliveries to Customers out of the Pool during a Gas Day may threaten the integrity of PSNC Energy's system or operations or may impair service to firm customers.
36. "Pipeline" means any interstate pipeline, including Transco, which establishes a physical interconnection with PSNC Energy's pipeline system.
47. "Pool" shall mean an aggregation of Gas quantities for one or more PSNC Energy transportation Customers which Pooler establishes under this Agreement.
58. "Pooling" is a service provided by PSNC Energy whereby a broker, marketer, producer, or any consumer of Gas qualifying for transportation Service under PSNC Energy's tariffs, which obtains transportation ~~(firm, released, interruptible, or any other form),~~ on a Pipeline and aggregates Gas supplies needed to satisfy the full requirements of one or more transportation Customers of PSNC Energy, and such Customer or Customers have assigned its rights to Pooler as agent, or such Customer is acting on its own behalf, for the purpose of delivering Gas to PSNC Energy.
69. "Transco" means Transcontinental Gas Pipe Line Company, LLC, or its successor Corporation.

Any capitalized terms used herein, which are not defined herein, shall have the meanings set forth in PSNC Energy's Rules and Regulations.

## **ARTICLE II** **Applicability**

All persons and entities that obtain transportation, ~~whether firm, released, interruptible, or any other form of transportation,~~ on a Pipeline for the purpose of delivering Gas to an interconnection between Pipeline and PSNC Energy shall be required to execute a Transportation Pooling Agreement. Unless PSNC Energy agrees otherwise, only a single pooler may sell Gas to a Customer Account in one calendar month.

## **ARTICLE III** **Term**

This Agreement shall commence on the first day of \_\_\_\_\_, 20\_\_\_\_, and shall continue thereafter for twelve (12) calendar months; provided, however, that the term shall be extended from year to year thereafter, subject to cancellation by either party upon expiration of the primary term or any subsequent one (1) year period upon at least thirty (30) days written notice given prior to expiration of the primary term or prior to the expiration of any one year period occurring thereafter. Notwithstanding the foregoing, PSNC Energy may cancel or discontinue service under this Agreement as provided in Articles VIII, IX, and X below.

## **ARTICLE IV** **Transportation Nomination Procedures**

For each month that this Agreement is in effect, Pooler must submit its nomination for each month's transportation to PSNC Energy using PSNC Energy's electronic bulletin board or such other means authorized by PSNC Energy no later than the NAESB deadline for the timely nomination cycle on the fourth business day prior to the beginning of each month, in writing or by facsimile on or before the deadline date indicated on the "Transportation Nomination Schedule" as published periodically by PSNC Energy. Such nominations shall include the following information:

1. ~~Pooler's legal name, Pipeline contract number, and Pipeline transportation activity number;~~
2. ~~daily quantity (Daily MMBTU) to be delivered to PSNC Energy;~~
3. ~~list including the names of all PSNC Energy Customers to be served by Pooler and the corresponding PSNC Energy Customer Account numbers; and~~
4. ~~effective date of transportation Service.~~

~~Intra-month revisions to Gas quantities being delivered. Changes to nominations within the month must be submitted to PSNC Energy using PSNC Energy's electronic bulletin board or such other means authorized must be received by PSNC Energy in writing or by facsimile no later than 5 p.m. Eastern Time two days no later than the NAESB deadline for the timely nomination cycle on the day prior to the day of Gas flow. Nominations should reflect anticipated demand of the Customers to be served by Pooler. PSNC Energy will have no obligation to accommodate intraday nomination changes.~~

## **ARTICLE V** **Pooling Procedures**

For each month that this Agreement is in effect, PSNC Energy will allow Pooler to create a Pool in which Pooler shall aggregate all Gas quantities delivered to PSNC Energy by Pooler for delivery to PSNC Energy's Customer(s) or Pooler pursuant to Article IV above. Pooler agrees to make deliveries into its Pool at daily rates that are reasonably even and constant. Pooler may increase or decrease daily Gas deliveries to PSNC Energy provided that any such change does not impair PSNC Energy's operating ability, as determined by PSNC Energy, in its sole discretion.

Notwithstanding the foregoing, PSNC Energy may from time to time issue an Operational Order notifying Pooler to comply with any restrictions specified by PSNC Energy in the Operational Order. PSNC Energy will provide Pooler at least four (4) hours' advance notice of the effective time of any restrictions in an Operational Order. Pooler shall provide PSNC Energy with the names, titles, telephone numbers, and email addresses of at least two representatives authorized by Pooler to receive such notices and shall promptly notify PSNC Energy of any changes to such information.

When an Operational Order specifies that a Pooler take appropriate actions for any Gas Day to prevent deliveries to Customers out of its Pool from exceeding quantities delivered by Pooler into the Pool ("Under-Delivery"), upon Pooler's failure to comply with the Operational Order, Pooler shall pay PSNC Energy a penalty of \$25 for each Dekatherm that Pooler's Under-Delivery is greater than two percent (2%) of Pooler's approved nomination and less

than or equal to ten percent (10%) of Pooler's approved nomination and \$50 for each Dekatherm that Pooler's Under-Delivery is greater than ten percent (10%) of Pooler's approved nomination, plus the absolute high price for the day of Under-Delivery as published in Gas Daily in the "Daily price survey," "Citygates," "Transco, zone 5 delivered," "Absolute," high end of the range. For days of consumption when Gas Daily is not published, the daily price published by Gas Daily on the nearest subsequent day shall be used.

When an Operational Order specifies that a Pooler take appropriate actions for any Gas Day to prevent Gas quantities delivered by Pooler into its Pool from exceeding deliveries to Customers out of the Pool ("Over-Delivery"), upon Pooler's failure to comply with the Operational Order, Pooler shall pay PSNC Energy a penalty of \$25 for each Dekatherm that Pooler's Over-Delivery is greater than two percent (2%) of Pooler's approved nomination and less than or equal to ten percent (10%) of Pooler's approved nomination and \$50 for each Dekatherm that Pooler's Over-Delivery is greater than ten percent (10%) of Pooler's nomination.

#### ARTICLE VI Gas Measurement

The quantity and heating value of the Gas delivered by Pooler to PSNC Energy shall be determined by the transporting Pipeline(s) in the manner provided in its (their) tariff(s).

#### ARTICLE VII Full Requirements Service

For each month that this Agreement is in effect, Pooler agrees to satisfy the full requirements for Gas for each PSNC Energy Customer Account on Pooler's designated list provided pursuant to Article IV for each such month. Pooler's ability to satisfy all such requirements for Gas in any month shall be determined by subtracting the Customers' actual consumption for the listed Customer Accounts in that month from the total actual deliveries received in that month on the Pooler's account. Any imbalance resulting from an adjustment to actual consumption or deliveries due to meter inaccuracy, billing error, or otherwise, after the month in which such Gas requirements were determined, shall be cashed out under the procedure provided in Article VIII with all adjusted quantities cashed out under either paragraph 1 for shortage quantities or paragraph 1 for excess quantities, as applicable.

#### ARTICLE VIII Pool Balancing Procedures

In the event that Pooler's Pool has insufficient Gas available to satisfy the actual needs of the Customer Account(s) to be served from the Pool in any month, the cashout procedure shall be as follows:

1. If such shortage is less than or equal to ~~five percent (5%)~~ two percent (2%) of the Customers' actual usage, for each Dekatherm of such shortage, PSNC Energy shall sell to Pooler Gas required to cover such shortage quantities at a rate equal to the first of the month price for the month in which such shortage occurred for Transco Station 65 as published in Natural Gas Week, plus the one hundred percent (100%) load factor rate under Transco's currently effective Rate Schedule FT for deliveries from Transco's Zone 3 to Zone 5, plus applicable fuel retention and all applicable surcharges, for each Dekatherm of such shortage.
2. If such shortage is greater than ~~five percent (5%)~~ but less than or equal to ~~ten percent (10%)~~ of the Customers' actual usage, PSNC Energy shall sell to Pooler Gas required to cover such shortage quantities at a rate equal to the higher of the first of the month price or the highest weekly price for any subsequent week for the month in which such shortage occurred for Transco Station 65 as published in Natural Gas Week, multiplied by a factor of one hundred and fifteen percent (115%), plus the one hundred percent (100%) load factor rate under Transco's currently effective Rate Schedule FT for deliveries from Transco's Zone 3 to Zone 5, plus applicable fuel retention and all applicable surcharges, for each Dekatherm of such shortage.
32. If such shortage is greater than ~~ten percent (10%)~~ two percent (2%) of the Customers' actual usage, for each Dekatherm of such shortage, PSNC Energy shall sell to Pooler Gas required to cover such shortage quantities at a rate equal to the higher of the first of the month price or the highest weekly price for any subsequent week for the month in which such shortage occurred for Transco Station 65 as published in Natural Gas Week, multiplied by a factor of one hundred and twenty-five percent (125%) the premium percentage shown below corresponding to the percentage of the shortage, plus the one hundred percent (100%) load factor rate under Transco's currently effective Rate Schedule FT for deliveries from Transco's Zone 3 to Zone 5, plus applicable fuel retention and all applicable surcharges, for each Dekatherm of such shortage.

Shortage Percentage

Premium Percentage

Over 2% & equal to or less than 5%	110%
Over 5% & equal to or less than 10%	120%
Over 10% & equal to or less than 15%	130%
Over 15%	150%

In the event that Pooler's Pool has Gas in excess of the actual needs of the Customer Account(s) in any month, the cashout procedure shall be as follows

- 1 If such excess is less than or equal to ~~five percent (5%)~~ two percent (2%) of the Customers' actual usage, for each Dekatherm of such overage, PSNC Energy shall purchase from Pooler such excess quantities of Gas at a rate equal to the first of the month price for the month in which the excess accumulated for Transco Station 65 as published in Natural Gas Week, plus (a) for the months of November through March, the one hundred percent (100%) load factor rate under Transco's currently effective Rate Schedule FT for deliveries from Transco's Zone 3 to Zone 5, plus applicable fuel retention and all applicable surcharges, or (b) for the months of April through October, the commodity rate under Transco's currently effective Rate Schedule FT for deliveries from Transco's Zone 3 to Zone 5, including applicable fuel retention and surcharges, plus \$ 05
- 2 ~~If such excess is greater than five percent (5%) but less than or equal to ten percent (10%) of the Customers' actual usage, for each Dekatherm of such overage, PSNC Energy shall purchase from Pooler such excess quantities of Gas at a rate equal to the lower of the first of the month price or lowest weekly price for the month in which the excess accumulated for any subsequent week for Transco Station 65 as published in Natural Gas Week, multiplied by a factor of eighty-five percent (85%) plus (a) for the months of November through March, the one hundred percent (100%) load factor rate under Transco's currently effective Rate Schedule FT for deliveries from Transco's Zone 3 to Zone 5, plus applicable fuel retention and all applicable surcharges, or (b) for the months of April through October, the commodity rate under Transco's currently effective Rate Schedule FT for deliveries from Transco's Zone 3 to Zone 5, including applicable fuel retention and surcharges, plus \$ 05.~~
- 32 If such excess is greater than ~~ten percent (10%)~~ two percent of the Customers' actual usage, for each Dekatherm of such overage, PSNC Energy shall purchase from Pooler such excess quantities of Gas at a rate equal to the lower of the first of the month price or lowest weekly price for any subsequent week for the month in which the excess accumulated for Transco Station 65 as published in Natural Gas Week, multiplied by ~~a factor of seventy-five percent (75%)~~ the discount percentage shown below corresponding to the percentage of the excess, plus (a) for the months of November through March, the one hundred percent (100%) load factor rate under Transco's currently effective Rate Schedule FT for deliveries from Transco's Zone 3 to Zone 5, plus applicable fuel retention and all applicable surcharges, or (b) for the months of April through October, the commodity rate under Transco's currently effective Rate Schedule FT for deliveries from Transco's Zone 3 to Zone 5, including applicable fuel retention and surcharges, plus \$ 05

<u>Excess Percentage</u>	<u>Discount Percentage</u>
Over 2% & equal to or less than 5%	90%
Over 5% & equal to or less than 10%	80%
Over 10% & equal to or less than 15%	70%
Over 15%	50%

If, for any month, the imbalance in Pooler's Pool exceeds twenty-five percent (25%), either positive or negative, PSNC Energy shall have the right, in its sole discretion, to cancel this ~~Agreement~~ agreement and to suspend the Pooler's right to establish a Pool for delivery to Customers that transport on PSNC Energy's system for twelve (12) months

#### **ARTICLE IX** **Creditworthiness**

PSNC Energy shall not commence service to Pooler, and has the right to discontinue service upon five (5) days' written notice to Pooler, if Pooler fails to meet PSNC Energy's creditworthiness criteria. PSNC Energy shall apply consistent evaluative practices to determine the acceptability of Pooler's overall financial condition, working capital, and profitability trends. Acceptable creditworthiness is demonstrated by meeting the following criteria

- 1 At PSNC Energy's request, Pooler shall provide current financial statements, annual reports, 10-K reports or other filings with regulatory agencies which discuss the Pooler's financial status, a list of all corporate affiliates, parent companies and subsidiaries, and any reports from credit reporting and bond rating agencies which are available

2. At PSNC Energy's request, Pooler shall provide a bank reference and at least two trade references. Pooler authorizes PSNC Energy to obtain a current credit report on Pooler to determine whether to extend credit and releases generally all creditors to disclose otherwise confidential information. The results of reference checks and any credit reports submitted must show that Pooler's obligations are being paid on a prompt basis.
3. At PSNC Energy's request, Pooler shall provide a guarantee by a person or another entity acceptable to PSNC Energy that satisfies the credit appraisal, or a standby irrevocable letter of credit drawn upon a bank acceptable to PSNC Energy.
4. Pooler must not be operating under any chapter of the bankruptcy laws and must not be subject to liquidation or debt reduction procedures under state laws such as an assignment for the benefit of creditors, or any informal creditors' committee agreement.
5. Pooler shall not be subject to the uncertainty of pending liquidation or regulatory proceedings in state or federal courts or before other governmental or regulatory bodies having jurisdiction, which could cause a substantial deterioration in its financial condition, a condition of insolvency, or an impairment of Pooler's ability to exist as an ongoing business entity.
6. Pooler shall have no significant collection lawsuits or judgments outstanding that might affect Pooler's ability to remain solvent.
7. If any of the events or actions described in paragraphs 4, 5, and 6 above shall be initiated or imposed during the terms of service under this Agreement, Pooler shall provide notification thereof to PSNC Energy within two (2) working days of any such initiated or imposed event or action.
8. If Pooler has an ongoing business relationship with PSNC Energy, no delinquent balances shall be consistently outstanding for undisputed billings made previously by PSNC Energy, and Pooler must have paid its account in the past according to the established terms and not made deductions or withheld payment for claims other than for disputed billings.

#### **ARTICLE X** **Billing and Payment**

No later than three (3) business days following PSNC Energy's end-of-the-month meter reading date for the month of delivery, PSNC Energy will provide Pooler with a statement detailing the total quantities delivered by Pooler into its Pool for the preceding month as well as the total metered consumption in ~~Dekatherms~~ <sup>MMBTU</sup> for each individual PSNC Energy Customer Account served by Pooler. Pooler is responsible for billing each of PSNC Energy's Customer(s) served from Pooler's Pool for all Gas consumed by such Customer(s) determined pursuant to Article VII above with the exception of unauthorized quantities or other penalties assessed directly to a Customer by PSNC Energy. PSNC Energy shall continue to bill its applicable transportation and Facilities Charges directly to the Customer.

If the total quantities present in Pooler's Pool fail to cover the total accumulated usage for PSNC Energy's Customer(s) served by Pooler's Pool in any month, PSNC Energy shall bill Pooler for any shortage quantities pursuant to the procedures described in Article VIII above. Such statement shall be furnished to Pooler by PSNC Energy no later than the fifth (5th) business day following PSNC Energy's end-of-the-month meter reading date for the month of delivery and is due and payable within ten (10) days after the statement date. A bill shall be deemed delinquent when it remains unpaid after the due date set forth on the bill. If Pooler fails to remit the full amount when due, interest on the unpaid portion shall accrue at a rate of one percent (1%) per month. If a Pooler withholds any portion of any amount billed by PSNC Energy as a disputed amount and any portion or all of the amount so withheld is determined to have been properly billed, then interest (as set forth above) shall accrue on the withheld amount that was properly billed from the ~~date due~~ <sup>date due</sup> until the date that PSNC Energy receives it. PSNC Energy may terminate this Agreement when any bill becomes delinquent.

If the total quantities present in Pooler's Pool exceed the total accumulated usage for the Customer(s) served from Pooler's Pool in any month, PSNC Energy shall purchase such Gas pursuant to the procedures described in Article VIII above. PSNC Energy shall furnish Pooler with a statement identifying the quantities purchased from Pooler no later than the fifth (5th) business day following PSNC Energy's end-of-the-month meter reading date for the month of delivery and shall pay Pooler no later than ten (10) days after the statement date.

#### **ARTICLE XI** **Force Majeure**

The term "Force Majeure," as used herein, and as applied to PSNC Energy or Pooler, shall mean acts of law including governmental bodies acting pursuant to law, acts of God, strikes, lockouts or other disturbances, acts of a public enemy, war, blockades, insurrections, riots, epidemics, lightning, fires, floods, washouts, arrests, civil disturbances, explosions, breakage or accidents to machinery or lines of pipe, freezing of wells or pipelines, or any other cause, whether of the kind enumerated or otherwise, not reasonably within the control of the affected party. It is understood and agreed that the settlement of strikes or lockouts shall be entirely within the discretion of the party affected.

Such causes or contingencies affecting the performance of this Agreement by PSNC Energy or the Pooler shall not relieve the affected party of liability unless such party shall give notice and full particulars of such cause or contingency in writing or by facsimile to the other party as soon as reasonably practical after the occurrence of the cause relied upon, nor shall such causes or contingencies affecting this Agreement by either party relieve it of liability in the event of its concurring negligence, nor shall such causes or contingencies affecting the performance of this Agreement relieve either party from its obligations to make payments of amounts due under the Agreement for Gas already allocated to the Customers served by Pooler.

**ARTICLE XII**  
**Miscellaneous**

- 1 No modification of the terms and provisions of this Agreement shall be or become effective except by the execution of a written agreement or by modification of PSNC Energy's Tariff
- 2 No waiver by any party of any one or more defaults by any other party in the performance of any provisions of this Agreement shall operate or be construed as a waiver or any other default or defaults, whether of a like or of a different character
- 3 Any company, which shall succeed by purchase, merger, or consolidation to the properties, substantially as an entirety, of PSNC Energy or of Pooler, as the case may be, shall be entitled to the rights and shall be subject to the obligations of its predecessor in title under this Agreement. Without relieving itself of its obligations under this Agreement, any party may assign any of its rights hereunder to a company with which it is affiliated, but otherwise no assignment of this Agreement or any of the rights or obligations hereunder shall be made unless there first shall have been obtained the consent thereto in writing of the other party, provided that such consent will not be unreasonably withheld
- 4 Except as otherwise provided, any notice, request, demand, statement, or bill provided for in this Agreement, or any notice which any party may desire to give to the other, shall be in writing and shall be considered as duly delivered when delivered to the United States Postal Service to be sent by registered or certified mail to the Post Office address of the parties hereto, as the case may be, or at such address as either party shall designate by formal written notice, as follows

Notices to PSNC Energy

PSNC Energy  
Attention Transportation & Administration  
P O Box 1398  
Gastonia, North Carolina 28053-1398  
Telephone (704) 834-6338  
Facsimile (704) 834-6555

Payments to PSNC Energy

PSNC ~~Treasurer's Account~~Energy  
~~Wells Fargo Bank NAWachovia, Charlotte, North~~  
~~Carolina~~  
Minneapolis, MN 55702  
ABA No 121000240530-0021-9  
Account No 20706-59001624

Notices to Pooler (Enter Applicable Information)

\_\_\_\_\_  
Pooler Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City / State/ Zip Code

\_\_\_\_\_  
Telephone Number

Payments to Pooler (Enter Applicable Information)

\_\_\_\_\_  
Pooler Name

\_\_\_\_\_  
Pooler Bank Name

\_\_\_\_\_  
ABA Number

\_\_\_\_\_  
Account Number

Fax Number \_\_\_\_\_

6. The subject headings of the articles of this Agreement are inserted for the purpose of convenient reference and are not intended to be a part of the Agreement nor considered in any interpretation of the same.
7. The construction, interpretation, and performance of this Agreement shall be in accordance with the laws of the State of North Carolina, excluding any conflicts-of-law rule or principle which might refer the construction, interpretation, or performance of this Agreement to the law of another jurisdiction.
8. In the event of a conflict between the provisions of this Agreement and PSNC Energy's Tariff, PSNC Energy's Tariff shall control.
9. This Agreement supersedes all preexisting agreements for Pooling between PSNC Energy and Pooler.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives as indicated below signed and witnessed, ~~or their respective corporate seals to be hereto affixed and attested, the day and year first above written.~~

ATTEST: PSNC Energy

ATTEST: POOLER

By: \_\_\_\_\_  
(Signature)

By: \_\_\_\_\_  
(Signature)

Name: \_\_\_\_\_  
(Type or Print)

Name: \_\_\_\_\_  
(Type or Print)

Title: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_  
(Signature)

By: \_\_\_\_\_  
(Signature)

Name: \_\_\_\_\_  
(Type or Print)

Name: \_\_\_\_\_  
(Type or Print)

Title: \_\_\_\_\_

Title: \_\_\_\_\_



Per Books

Public Service Company of North Carolina, Inc.  
 Cost of Service Study  
 12 Months Ending 12/31/15

DESCRIPTION	TOTAL	RES	GS	LGS_FIRM	LGS_INT
<b>OPERATING REVENUES</b>					
RATE SCHEDULE REVENUES	407,425,751	283,118,102	106,607,497	14,852,056	2,848,096
RATE 135 & SPECIAL CONTRACT REVENUE	1,093,642	759,966	286,164	39,867	7,645
RATE SCHEDULE REVENUES	408,519,393	283,878,068	106,893,661	14,891,923	2,855,741
TRANSPORTATION REVENUES	27,099,162	0	0	17,646,338	9,452,824
RATE SCHEDULE REVENUES	435,618,555	283,878,068	106,893,661	32,538,261	12,308,565
OTHER GAS REVENUES	3,413,176	2,815,478	487,650	77,564	32,485
TOTAL REVENUES	439,031,731	286,693,546	107,381,311	32,615,825	12,341,050
<b>OPERATING EXPENSES</b>					
COG & OTHER GAS SUPPLY EXP	191,239,573	112,260,803	60,784,835	13,481,945	4,711,990
O&M TOTAL EXPENSES EXCL COG	92,766,695	67,772,511	16,081,538	6,342,687	2,569,958
DEPRECIATION EXPENSE	49,622,105	35,834,085	7,619,561	4,346,376	1,822,083
TAXES OTHER THAN INCOME	12,433,365	8,821,354	1,995,450	1,139,519	477,043
MANUAL ENTRY STATE TAX CURRENT	967,644	639,138	235,961	67,432	25,112
MANUAL ENTRY STATE TAX DEFERRED	1,373,439	907,170	334,915	95,711	35,644
MANUAL ENTRY FEDERAL TAX CURRENT	860,242	568,198	209,771	59,948	22,325
MANUAL ENTRY FEDERAL TAX DEFERRED	23,670,197	15,634,396	5,772,005	1,649,505	614,291
TOTAL EXPENSES	372,933,259	242,437,655	93,034,036	27,183,122	10,278,446
OPERATING RETURN AFTER TAXES	66,098,472	44,255,891	14,347,274	5,432,702	2,062,604
<b>RATE BASE</b>					
GROSS PLANT	1,713,468,229	1,206,599,419	270,941,586	166,519,941	69,407,283
RESERVES FOR DEPRECIATION	(646,571,745)	(468,247,743)	(99,449,084)	(56,112,913)	(22,762,005)
NET PLT IN SERVICE	1,066,896,484	738,351,676	171,492,502	110,407,028	46,645,278
RATE BASE OTHER	(233,850,955)	(161,837,861)	(37,589,106)	(24,199,901)	(10,224,087)
TRANSMISSION RESERVE	9,589,070	4,232,946	(122,948)	5,975,009	(495,937)
RATE BASE	842,634,599	580,746,761	133,780,448	92,182,137	35,925,253
<b>RATE OF RETURN</b>	<b>7.84%</b>	<b>7.62%</b>	<b>10.72%</b>	<b>5.89%</b>	<b>5.74%</b>

2/10

Paton Exhibit 6

Pro Forma

Public Service Company of North Carolina, Inc.  
Cost of Service Study  
12 Months Ending 12/31/15

DESCRIPTION	TOTAL	RES	GS	LGS_FIRM	LGS_INT
<b>OPERATING REVENUES</b>					
RATE SCHEDULE REVENUES	398,780,708	277,110,705	104,345,425	14,536,915	2,787,663
RATE 135 & SPECIAL CONTRACT REVENUE	975,031	677,544	255,128	35,543	6,816
RATE SCHEDULE REVENUES	399,755,739	277,788,249	104,600,553	14,572,458	2,794,479
TRANSPORTATION REVENUES	27,099,162	0	0	17,646,338	9,452,824
RATE SCHEDULE REVENUES	426,854,901	277,788,249	104,600,553	32,218,796	12,247,303
OTHER GAS REVENUES	3,413,176	2,814,693	487,832	77,985	32,666
TOTAL REVENUES	430,268,077	280,602,943	105,088,385	32,296,781	12,279,969
<b>OPERATING EXPENSES</b>					
COG & OTHER GAS SUPPLY EXP	177,117,744	103,971,055	56,296,261	12,486,388	4,364,039
O&M TOTAL EXPENSES EXCL COG	112,901,064	80,483,685	20,036,588	8,903,233	3,477,557
DEPRECIATION EXPENSE	56,496,731	39,566,674	8,971,002	5,601,883	2,357,172
TAXES OTHER THAN INCOME	15,460,055	10,910,110	2,481,679	1,461,246	607,020
MANUAL ENTRY STATE TAX CURRENT	(590,574)	(394,944)	(177,157)	(13,702)	(4,771)
MANUAL ENTRY STATE TAX DEFERRED	2,384,967	1,594,937	715,429	55,335	19,266
MANUAL ENTRY FEDERAL TAX CURRENT	(19,851,491)	(13,275,603)	(5,954,942)	(460,584)	(160,362)
MANUAL ENTRY FEDERAL TAX DEFERRED	34,924,390	23,355,542	10,476,429	810,297	282,123
TOTAL EXPENSES	378,842,885	246,211,456	92,845,288	28,844,096	10,942,045
OPERATING RETURN AFTER TAXES	51,425,192	34,391,486	12,243,096	3,452,685	1,337,924
<b>RATE BASE</b>					
GROSS PLANT	1,854,943,637	1,284,456,172	298,337,328	191,923,732	80,226,405
RESERVES FOR DEPRECIATION	(671,500,106)	(485,628,762)	(103,425,557)	(58,627,611)	(23,818,176)
NET PLT IN SERVICE	1,183,443,531	798,827,410	194,911,771	133,296,122	56,408,228
RATE BASE OTHER	(245,221,650)	(169,444,036)	(39,477,884)	(25,517,690)	(10,782,041)
TOTAL WORKING CAPITAL	8,126,399	3,527,731	(426,066)	5,657,798	(633,064)
RATE BASE	946,348,280	632,911,106	155,007,821	113,436,229	44,993,123
RATE OF RETURN	5.43%	5.43%	7.90%	3.04%	2.97%

I/A

Paton Exhibit 7

After Proposed Increase

Public Service Company of North Carolina, Inc.  
Cost of Service Study  
12 Months Ending 12/31/15

DESCRIPTION	TOTAL	RES	GS	LGS_FIRM	LGS_INT
<b>OPERATING REVENUES</b>					
RATE SCHEDULE REVENUES	440,087,149	305,861,129	105,101,609	22,796,943	6,327,469
RATE 135 & SPECIAL CONTRACT REVENUE	975,031	677,544	255,128	35,543	6,816
RATE SCHEDULE REVENUES	441,062,180	306,538,673	105,356,737	22,832,486	6,334,285
TRANSPORTATION REVENUES	27,099,162	-	-	17,646,338	9,452,824
RATE SCHEDULE REVENUES	468,161,342	306,538,673	105,356,737	40,478,824	15,787,109
OTHER GAS REVENUES	3,689,752	3,015,613	563,488	77,985	32,666
TOTAL OPERATING REVENUES	471,851,094	309,554,286	105,920,225	40,556,809	15,819,775
<b>OPERATING EXPENSES</b>					
COST OF GAS & OTHER GAS SUPPLY EXP	177,117,744	103,971,055	56,296,261	12,486,388	4,364,039
TOTAL O&M EXPENSES EXCLUDING COST OF GAS	113,066,406	80,598,581	20,079,852	8,909,260	3,478,713
DEPRECIATION EXPENSE	56,496,731	39,566,674	8,971,002	5,601,883	2,357,172
TAXES OTHER THAN INCOME	15,460,055	10,910,110	2,481,679	1,461,246	607,020
STATE TAX - CURRENT	1,066,133	727,038	176,127	114,791	48,176
STATE TAX - DEFERRED	2,384,967	1,626,403	394,001	256,791	107,772
FEDERAL TAX - CURRENT	(5,935,154)	(4,047,415)	(980,499)	(639,042)	(268,197)
FEDERAL TAX - DEFERRED	34,924,390	23,816,315	5,769,580	3,760,334	1,578,161
TOTAL OPERATING EXPENSES	394,581,271	257,168,761	93,188,003	31,951,651	12,272,857
OPERATING RETURN AFTER TAXES	77,269,823	52,385,525	12,732,222	8,605,157	3,546,918
<b>RATE BASE</b>					
GROSS PLANT IN SERVICE	1,854,943,637	1,284,456,172	298,337,328	191,923,732	80,226,405
RESERVES FOR DEPRECIATION	(671,500,106)	(485,628,762)	(103,425,557)	(58,627,611)	(23,818,176)
NET PLANT IN SERVICE	1,183,443,531	798,827,410	194,911,771	133,296,122	56,408,228
RATE BASE - OTHER	(245,221,650)	(169,444,036)	(39,477,884)	(25,517,690)	(10,782,041)
TOTAL LEAD LAG	11,119,541	5,548,110	66,901	5,994,928	(490,398)
TOTAL RATE BASE	949,341,422	634,931,484	155,500,788	113,773,359	45,135,790
RATE OF RETURN	8.14%	8.25%	8.19%	7.56%	7.86%

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
SUMMARY OF ADJUSTED TEST YEAR REVENUE  
FOR THE TEST YEAR ENDED DECEMBER 31, 2015  
DOCKET NO. G-5, SUB 565

Paton Exhibit 8

RATE SCHEDULE	PER BOOK			ANNUALIZED RATES			NORMALIZED USAGE		GROWTH ADJUSTED USAGE			CUT ADJUSTMENT	PROFORMA REVENUE
	BILLS	THERMS	AMOUNT	BILLS	THERMS	AMOUNT	THERMS	AMOUNT	BILLS	THERMS	AMOUNT		
101 - Summer	2,829,442	37,829,541	\$57,915,519	2,829,442	37,829,541	\$53,633,025	38,471,818	\$54,063,228	2,902,725	39,468,249	\$55,463,478	\$2,717,885	\$58,181,363
101 - Winter	2,859,086	246,857,091	\$238,581,572	2,859,086	246,857,091	\$210,633,153	245,104,986	\$209,341,081	2,933,135	251,453,093	\$214,762,919	\$8,495,914	\$223,258,833
102 - Summer	43,326	582,810	\$859,072	43,326	582,810	\$794,491	594,204	\$801,554	49,613	680,425	\$917,864	\$39,155	\$957,019
102 - Winter	42,679	3,174,556	\$2,961,926	42,679	3,174,556	\$2,609,107	3,266,363	\$2,672,219	48,872	3,740,335	\$3,059,976	\$258,318	\$3,318,294
115 - Summer	257	32,898	\$26,322	257	32,898	\$24,605	32,898	\$24,605	257	32,898	\$24,605		\$24,605
115 - Winter	258	32,799	\$28,251	258	32,799	\$26,767	32,799	\$26,767	258	32,799	\$26,767		\$26,767
125	513,930	148,718,345	\$111,890,822	503,286	148,718,345	\$79,264,051	116,691,370	\$79,521,735	511,491	118,593,903	\$80,818,245	(\$117,068)	\$80,701,177
126	50	61,972	\$40,722	50	61,972	\$34,072	61,972	\$34,072	50	61,972	\$34,072		\$34,072
127	1,103	945,346	\$618,233	1,103	945,346	\$525,180	997,609	\$556,547	1,104	999,732	\$557,688	(\$987)	\$556,701
135	24	250,145	\$302,157	24	250,145	\$175,427	250,145	\$175,427	24	250,145	\$175,427		\$175,427
140	0	0	\$0	10,644	0	\$18,882,142	30,837,156	\$17,884,319	10,644	30,837,156	\$17,884,319	(\$30,440)	\$17,853,879
145	2,488	27,482,092	\$14,852,056	2,488	27,482,092	\$11,942,579	27,482,092	\$11,942,579	2,488	27,482,092	\$11,942,579		\$11,942,579
150	93	6,704,243	\$2,848,096	93	6,704,243	\$2,148,942	6,704,243	\$2,148,942	93	6,704,243	\$2,148,942		\$2,148,942
175	3,764	174,902,640	\$17,646,338	3,764	174,902,640	\$17,614,097	174,902,640	\$17,614,097	3,764	174,902,640	\$17,614,097		\$17,614,097
180	1,598	141,762,340	\$9,452,824	1,598	141,762,340	\$9,268,892	141,762,340	\$9,268,892	1,598	141,762,340	\$9,268,892		\$9,268,892
200	12	12,778,728	\$290,918	12	12,778,728	\$290,918	12,778,728	\$290,918	12	12,778,728	\$290,918		\$290,918
201	12	10,278,984	\$185,022	12	10,278,984	\$185,022	10,278,984	\$185,022	12	10,278,984	\$185,022		\$185,022
202	12	105,438,138	\$316,314	12	105,438,138	\$316,314	105,438,138	\$316,314	12	105,438,138	\$316,314		\$316,314
Total	6,298,134	917,832,668	\$458,815,395	6,298,134	917,832,668	\$408,168,783	915,688,485	\$406,868,317	6,466,152	925,497,872	\$415,492,123	\$11,362,777	\$426,854,901
Other Revenue			\$3,413,176								\$3,413,176		\$3,413,176
Change in Unbilled		(25,791,130)	(\$23,196,840)										
Total		892,041,538	\$439,031,731								\$418,905,299		\$430,268,077
Total Adjustment to Revenue													(\$8,763,654)

W/T

I/A

Paton Exhibit 9

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 565  
CUSTOMER USAGE TRACKER ADJUSTMENT MECHANISM  
BASE LOAD, HSF AND R FACTORS

DESCRIPTION	RATE SCHEDULE	RATE SCHEDULE	RATE SCHEDULE	RATE SCHEDULE	RATE SCHEDULE
	NO. 101 Residential	NO. 102 Residential	NO. 125 SGS	NO. 127 SGS	NO. 140 MGS
R <sub>i</sub> Value (\$/Therm)	\$0.42180	\$0.37180	\$0.26915	\$0.21915	\$0.21255
Heat Sensitive Factor (Therms/HDD)	0.15726	0.13714	0.51516	2.56345	4.88742
Base Load Factor (Therms/Mo.)	7.23169	7.96191	91.48694	211.05024	1573.13935

Month	NDD
January	745.7430
February	613.4970
March	418.6840
April	173.9540
May	48.3910
June	0.7860
July	0.0270
August	0.0880
September	15.7650
October	180.2180
November	422.3200
December	631.4200
Total	<u>3,250.8930</u>

Paton Exhibit 10  
Page 1 of 2

[illegible]

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
PRO FORMA COST OF GAS  
FOR THE TEST YEAR ENDED DECEMBER 31, 2015  
DOCKET NO. G-5, SUB 565

Paton Exhibit 10  
Page 2 of 2

FACILITY	RATE [\$/DT]	STORAGE QUANTITY	DAILY DEMAND	MONTHS/ DAYS	AMOUNT	SERVICE TOTAL
<b>TRANSCO</b>						
GSS						
DEMAND	\$0.10082		33,218	365	1,222,399	
CAPACITY	\$0.00053	1,835,944		365	355,163	1,577,563
WSS						
DEMAND	\$0.02198		29,416	365	235,996	
CAPACITY	\$0.00023	2,794,500		365	234,598	470,594
LNG						
DEMAND	\$0.03479		5,175	365	65,714	
CAPACITY	\$0.00670	25,875		365	63,277	128,991
ESS						
DEMAND	\$0.03510		37,717	365	483,211	
CAPACITY	\$0.00392	318,271		365	455,382	938,593
Emminence						
DEMAND	\$0.03510		38,545	365	493,819	
CAPACITY	\$0.00392	321,950		365	460,646	954,465
<b>COLUMBIA FSS</b>						
DEMAND	\$1.50100		35,335	12	636,454	
CAPACITY	\$0.02880	3,180,150		12	1,099,060	1,735,514
<b>COVE POINT LNG</b>						
RESV CHG - FPS-1	\$2.42300		25,000	12	726,900	726,900
<b>DTI GSS</b>						
DEMAND	\$1.86180		62,669	12	1,400,126	
CAPACITY	\$0.01450	3,856,000		12	670,944	2,071,070
<b>PINE NEEDLE LNG</b>						
RESV CHG	\$0.11690		103,500	365	4,416,190	4,416,190
<b>SALTVILLE</b>						
DEMAND	\$0.075083	600,000		12	540,600	
INJ RESERV	\$1.495000		13,333	12	239,194	
WD RESERV	\$0.751000		30,000	12	270,360	1,050,154
<b>SALTVILLE - FSS</b>						
DEMAND	\$0.138250	200,000		12	331,800	
INJ RESERV	\$3.322000		10,000	12	398,640	
WD RESERV	\$1.657000		20,000	12	397,680	1,128,120
TOTAL STORAGE						<u>\$15,198,154</u>
TOTAL DEMAND CHARGES						<u>\$92,051,860</u>
SALES VOLUMES		480,337,042	\$0.225			108,075,834
UNACCOUNTED FOR GAS		6,926,930	\$0.225			1,558,559
COMPANY USE GAS		870,521	\$0.225			195,867
PRO FORMA GAS COST						<u>201,882,120</u>
DEFERRED FIXED GAS COST, CO. USE & LAUF						<u>(24,764,376)</u>
TOTAL PRO FORMA GAS COST						177,117,745
PER BOOKS GAS COST						191,239,574
ADJUSTMENT TO GAS COST						<u>(\$14,121,829)</u>

11A

Paton Exhibit 11

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 565  
PROPOSED COMPANY USE AND LOST AND UNACCOUNTED FOR RATES

	Therms	\$/Therm	Amount	Throughput	\$/Therm
Unaccounted For Gas	6,926,930	\$0.2250	1,558,559	797,002,022	\$0.00196
Company Use Gas	870,521	\$0.2250	195,867	797,002,022	\$0.00025
			<u>\$1,754,426</u>		<u>\$0.00220</u>



## Paton Exhibit 12

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 565  
PROPOSED FIXED GAS COST APPORTIONMENT PERCENTAGES

RATE SCHEDULE	FIXED GAS COST APPORTIONMENT	PROFORMA FIXED GAS COST
Total	100.0000%	\$67,431,969 1/
101 & 102 & 115 - Summer	5.232%	\$3,527,941
101 & 102 & 115 - Winter	58.829%	\$39,669,812
125 & 127 -Step 1	16.490%	\$11,119,761
125 & 127 -Step 2	6.206%	\$4,184,913
125 & 127 -Step 3 & 126	0.096%	\$64,603
140	4.416%	\$2,977,625
145	2.497%	\$1,683,828
150 & 135	0.394%	\$265,866
175	3.258%	\$2,196,777
180	2.582%	\$1,740,842

1/ Proforma Fixed Gas Cost to be collected at current rates

I/A

## PATON EXHIBIT 13

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 495  
PROPOSED DECREMENTS TO REFUND EXCESS ADIT

	<u>TOTAL</u>	<u>RES</u>	<u>GS</u>	<u>LGS_FIRM</u>	<u>LGS_INT</u>
Operating Income	\$77,269,823	\$52,385,525	\$12,732,222	\$8,605,157	\$3,546,918
Percent	100.00%	67.80%	16.48%	11.14%	4.59%
Excess ADIT	\$7,305,529	\$4,952,826	\$1,203,777	\$813,581	\$335,346
Sales Volumes	797,002,022	295,407,799	150,492,763	202,384,732	148,716,728
Per Therm Decrement		(\$0.01677)	(\$0.00800)	(\$0.00402)	(\$0.00225)

L/M

Public Service Company of North Carolina  
Docket No G-5, Sub 565  
RECONCILIATION OF GROSS REVENUE INCREASE REQUESTED BY THE COMPANY TO THE  
SETTLEMENT AMOUNT  
For The Test Year Ended December 31, 2015

Line No	Item	Amount
1	Increase in revenue requirement requested by the Company	\$41,583,020
	Settlement Adjustments	
2	Change in equity ratio from 53.75% to 52.00%	(1,614,203)
3	Change in cost of long-term debt from 5.66% to 5.52%	(593,475)
4	Change in cost of short-term debt from 0.82% to 0.77%	(16,056)
5	Change in return on equity from 10.60% to 9.70%	(7,125,357)
6	Plant in Service Updates and Related Items at June 30, 2016	51,324
7	Working Capital Updates at June 30, 2016	(158,131)
8	Update gas in storage through June 2016	(563,311)
9	Update materials and supplies through June 2016	91,901
10	ADIT - updated to June 30, 2016	174,724
11	Adjust working capital for lead lag to reflect Settlement adjustments	196,137
12	Adjustment to end of period revenue - weather, growth, and commodity costs	(1,457,266)
13	Adjustment to other operating revenues	(114,232)
14	Special Contract - remove PIS associated with facilities	(517,243)
15	Payroll and Related Expenses	(288,568)
16	Bonus accruals updated to actuals 6/30/16	(1,183,067)
17	Payroll Benefits Percentage - updated through June 30, 2016	(21,854)
18	Modify the allocation of incentive pay for certain executives to PSNC	(872,982)
19	Executive Compensation Adjustment	(280,405)
20	Remove retired executive compensation	(139,795)
21	Nonutility Adjustment - O&M expense	(262,228)
22	Nonutility Adjustment - effect of change in plant additions	(24,508)
23	Inflation Adjustment - removed certain expenses and updated rate to 2.2%	450,911
24	Rate Case Expenses - updated through June 30, 2016 w/ 5 yr amortization	(77,327)
25	Postage Adjustment - excluded growth since adjusted elsewhere & removed adv	(145,282)
26	Uncollectibles - changes in revenue	(22,533)
27	Regulatory Fee - change for 0.148% to 0.14% per Commission Order	(34,439)
28	MGP Costs - update actual expenses @ 6/30/16	(887,970) [1]
29	PIM Costs - update actual expenses @ 6/30/16	(1,651,192) [1]
30	DIMP Costs - deferral	(1,706,430) [1]
31	SalesForce Adjustment - ongoing level	(37,532)
32	Advertising - remove promotional, image, competitive, & non-recurring	(678,559)
33	Update Interest on Customer Deposits through June 2016	(11,382)
34	Service Company Charges - removed unsupported budgeted charges	(3,228,865)
35	Update GTI to June 2016 actual meters	(6,394)
36	Fuel Costs - adjust to test year fuel costs	(117,471)
37	Adjustment to remove lobbying expenses	(168,417)
38	Change in retention factor - regulatory fee changes	(3,332)
39	Adjust cash working capital for revenue impact of Settlement adjustments	(150,481)
40	Rounding	43
41	Settlement Adjustments	(23,195,245)
42	Recommended Change in Margin	\$18,387,775
43	Fixed Gas Cost Adjustment	643,643
44	LAUF Rate Change	22,742
45	Recommended Change in Revenue Requirement per Settlement	\$19,054,160

I/H

Paton Supplemental Exhibit 2

Public Service Company of North Carolina, Inc.  
Docket No. G-5, Sub 565  
Revised MGP, PIM & DIMP Amortizations

OFFICIAL COPY

Aug 29 2016

	MGP		PIM		DIMP		Total
1 Balance @ 6/30/16	<u>\$6,848,729</u>	[1]	<u>\$20,309,785</u>	[2]	<u>\$1,501,093</u>	[3]	<u>\$28,659,607</u>
2 Years	<u>5</u>		<u>5</u>		<u>5</u>		<u>5</u>
3 Annual amortization	<u>1,369,746</u>		<u>4,061,957</u>		<u>300,219</u>		<u>5,731,921</u>
4 MGP as filed	2,254,255	[4]					2,254,255
5 PIM as filed			5,706,715	[5]			5,706,715
6 DIMP as filed					2,000,000	[6]	2,000,000
7 Total	<u>2,254,255</u>		<u>5,706,715</u>		<u>2,000,000</u>		<u>9,960,970</u>
8 Adjustment	<u>(\$884,509)</u>		<u>(\$1,644,758)</u>		<u>(\$1,699,781)</u>		<u>(\$4,229,049)</u>
9 Revenue requirement	<u>(\$887,970)</u>		<u>(\$1,651,192)</u>		<u>(\$1,706,430)</u>		<u>(\$4,245,592)</u> [7]

- [1] Boswell Exhibit 1, Schedule 3-13, Line 2 plus Line 3
- [2] Boswell Exhibit 1, Schedule 3-12, Line 2 plus Line 3
- [3] Boswell Exhibit 1, Schedule 3-14, Line 3
- [4] Docket No. G-5, Sub 565, N.C.U.C. Form G-1, Item 4, Workpaper 3-I, Line 7
- [5] Docket No. G-5, Sub 565, N.C.U.C. Form G-1, Item 4, Workpaper 3-K, Line 7
- [6] Docket No. G-5, Sub 565, N.C.U.C. Form G-1, Item 4, Workpaper 3-P
- [7] Line 8 ÷ .9961035

PSNC General Rate Case  
Docket No. G-5, Sub 565

## Revenue for the Proposed Weighted Rate of Return in the Stipulation

	<u>Rate of Return</u>	<u>Cap Structure</u>	<u>Weighted Rate of Return</u>	<u>Rate Base</u>	<u>Net Operating Income</u>
LT Debt	5.52%	44.62%	2.46%		\$ 23,317,996
ST Debt	0.77%	3.38%	0.03%		\$ 246,394
Equity	9.70%	52.00%	5.04%		\$ 47,752,670
Overall ROR	7.53%	100.00%	7.53%	\$ 946,722,235	\$ 71,317,059

See Amended Stipulation Exhibit A p 1 for settlement ratebase after increase; Boswell Exhibit 1 Sch 5(a)  
for settlement capital structure, cost rates, retention factor

## RATE OF RETURN INCLUDING TAXES AND OTHER GROSS UP

	<u>Rate of Return</u>	<u>Gross up</u>	<u>Rate of Return With Gross Up</u>
LT Debt	5.52%	0.9961035	5.54%
ST Debt	0.77%	0.9961035	0.77%
Equity	9.70%	0.6215686	15.61%
Overall ROR	7.53%		

See Paton Rebuttal Exhibit 1 Schedules 3 and 4

COMPARISON OF INCREASE TO REVENUE REQUIREMENT - 9.7% ROE and 45% Equity

Dkt G-5, Sub 565                      PSNC 2016 general rate case

Settlement		Return	Retention	Rate of Return w/ gross up	Capital Structure	Weighted cost Return %	Weighted w/ gross up	Ratebase	ROR Revenue Requirement	ROR Revenue Requirement w/ gross up
Paton Sch 3-4	Debt	5.52%	99.61035%	5.54%	44.62%	2.46%	2.47%		\$ 23,317,996	\$ 23,409,210
	ST Debt	0.77%	99.61035%	0.77%	3.38%	0.03%	0.03%		\$ 246,394	\$ 247,358
	Equity	9.70%	62.15686%	15.61%	52.00%	5.04%	8.11%		\$ 47,752,670	\$ 76,826,065
					100.00%	7.53%	10.61%	\$ 946,722,235	\$ 71,317,059	\$ 100,482,632
45% Equity cap structure		Return	Retention	Rate of return w/ gross up	Capital Structure	Weighted cost Return %	Weighted w/ gross up	Ratebase	ROR Revenue Requirement	ROR w/ gross up Revenue requirement
	Debt	5.52%	99.61035%	5.54%	51.62%	2.85%	2.86%	\$ -	\$ 26,976,131	\$ 27,081,654
	ST debt	0.77%	99.61035%	0.77%	3.38%	0.03%	0.03%	\$ -	\$ 246,394	\$ 247,358
	Equity	9.70%	62.15686%	15.61%	45.00%	4.37%	7.02%	\$ -	\$ 41,324,426	\$ 66,484,095
					100.00%	7.24%	9.91%	\$ 946,722,235	\$ 68,546,950	\$ 93,813,107
Difference									\$	(6,669,526)

Notes  
See Amended Stipulation Exhibit A p 1 for settlement ratebase after increase; Boswell Exhibit 1 Sch 5(a) for settlement capital struture, cost rates, retention factor

I/A

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 495  
END OF PERIOD NET INVESTMENT  
December 31, 2015

Plant and properties (Page 3)	\$1,713,468,230
Accumulated depreciation (Boone Exhibit No. 2)	(646,571,744)
Working capital (Boone Exhibit No. 4)	9,589,070
Deferred income taxes (G-1, Item 17c)	<u>(233,850,955)</u>
Total end of period net investment	<u><u>\$842,634,601</u></u>



**PSNC Energy**  
**Plants and Properties at Original Cost**  
**For Test Year Ended December 31, 2015**

Utility Plant Account	Utility Plant in Service (1180210+1180260)
<b>Gas Intangible Plant: 1180210 + 1180260</b>	
4020 - Gas Franchises and Consents	\$3,512.44
4021 - Franchises FPC - Non-Depr	\$196,307.55
4030 - Miscellaneous Intangible Gas	\$137,003.40
4032 - Misc Intangible Midland Stat	\$166,316.74
<b>Total Intangible Plant</b>	<b>\$503,140.13</b>
<b>Liquified Natural Gas Storage Plant: 1180210 + 1180260</b>	
4600 - LNG Land and Land Rights-Gas	\$819,328.67
4610 - LNG Structures&Improvements	\$4,585,696.64
4620 - LNG Gas holders - Gas	\$6,783,413.08
4630 - LNG Purification Equipment Gas	\$3,154,850.33
4631 - LNG Liquefaction Equipment-Gas	\$2,400,999.75
4632 - LNG Vaporizing Equipment - Gas	\$4,021,139.87
4633 - LNG Compressor Equipment-Gas	\$2,044,318.69
4634 - LNG Measuring/Reg Equip - Gas	\$107,998.85
4635 - LNG Other Equipment - Gas	\$421,723.42
<b>Total Storage Plant</b>	<b>\$24,339,469.30</b>
<b>Gas Transmission Plant: 1180210 + 1180260</b>	
4652 - Gas Transmission Land Rights	\$11,985,683.90
4653 - Gas Land-Compressor Stations	\$369,331.32
4654 - Gas Land-Take-Off Station	\$631,593.87
4655 - Gas Land-M & R Station	\$412,686.28
4656 - Gas Land-Regulating Station	\$626,017.47
4657 - Gas Land-Main Line Station	\$0.00
4658 - Gas Land - Farm Tap	\$7,457.16
4659 - Gas Land - Transmission Main	\$0.00
4663 - Stru & Imp Gas-Compress Stat	\$6,119,943.59
4664 - Stru & Impr Gas- Take-Off St	\$1,689,900.08
4665 - Stru & Impr Gas- M & R Stat	\$105,619.57
4666 - Stru & Impr Gas- Reg Station	\$129,346.39
4667 - Stru & Impr Gas- Main Line	\$0.00
4668 - Stru & Impr Gas- Farm Taps	\$7,053.35
4670 - Transmission Mains Gas	\$173,492,122.27
4680 - Compressor Station Equip Gas	\$35,107,195.62
4694 - Take-Off Station Equip Gas	\$10,879,992.22
4695 - M & R Station Equip Gas	\$5,093,197.98
4696 - Regulating Station Equip Gas	\$5,668,954.75
4697 - Main Line Industrial Equip Gas	\$72,342.10
4698 - Farm Tap Equipment Gas	\$4,792,296.76
4700 - Communication Eq Gas Trans	\$1,422,710.19
<b>Total Transmission Plant</b>	<b>\$258,613,444.87</b>
<b>Gas Distribution Plant: 1180210 + 1180260</b>	
4741 - Gas Distribution Land Owned	\$8,690,975.11
4742 - Gas Distribution Land Rights	\$847,371.99
4750 - Gas Distrib Str & Impr MAJOR	\$38,324,036.25

**PSNC Energy**  
**Plants and Properties at Original Cost**  
**For Test Year Ended December 31, 2015**

Utility Plant Account	Utility Plant in Service (1180210+1180260)
4751 - PSNC OTHER Str & Imp Nov 1 06	\$1,002,499.79
4761 - Gas Plastic Distrib Main	\$448,317,025.19
4762 - Gas Cast Iron Distrib Main	\$0.00
4763 - Gas Steel Distribution Main	\$321,161,853.40
4781 - District Regulating Equip Gas	\$15,801,387.76
4801 - Gas Services - PlasticPSNC	\$324,185,024.46
4802 - Gas Services - Steel PSNC	\$28,706,676.00
4810 - Gas Meters Distribution	\$67,108,070.71
4811 - ERTforPSNC	\$34,718,598.19
4820 - Gas Meter InstallationsPSNC	\$36,184,685.87
4850 - Industrial M&R Equip-GasPSNC	\$16,608,324.70
4860 - Other Propty-Cust Prem - Gas	\$0.00
4870 - Other Equipment	\$4,078,959.01
<b>Total Distribution Plant</b>	<b>\$1,345,735,488.43</b>
<b>Gas General Plant: 1180210 + 1180260</b>	
4891 - Gas General Land Owned	233,440.27
4900 - Structures & Improvmnts - Gas	6,574,541.46
4903 - Gas Energy Equipment	0.00
4911 - Office Furn & Equip, Gas	5,769,060.35
4912 - Info Sys (EDP) Equip, Gas	0.00
4914 - Not Valid-PSNC Software	0.00
4915 - Vintage Computer Equipment	2,967,511.07
4916 - Vintage Remote Meter Reading	5,527,053.65
4917 - PSNC Software Balance 10 31 06	0.00
4918 - PSNC Software - Eff Nov 1 06	5,229,388.08
4921 - Automobiles, Gas	122,479.12
4924 - Trucks	29,789,710.33
4927 - Trailers, Gas	1,682,156.79
4930 - Stores Equipment, Gas	286,788.02
4940 - Tools, Shop&Garage Eq - Gas	957,142.14
4945 - CNG Refuel Stat Bal 10 31 2006	123,478.20
4946 - NonSpec Tools/Shop/Gar - Gas	3,187,426.79
4947 - CNG Refuel Eff Nov 1 2006	6,505,768.56
4950 - Laboratory Equipment - Gas	0.00
4960 - Power Operated Equipmnt, Gas	8,858,861.33
4961 - NonSpecific Vintage POE-Gas	525,621.64
4970 - Communication Equipment, Gas	5,805,987.08
4971 - Radio Towers - Gas	288,019.91
4980 - Miscellaneous Equipment, Gas	(184,252 52)
4981 - Energy Audit Equipment	26,504.86
<b>Total General Plant</b>	<b>\$84,276,687.13</b>
<b>Total Utility Plant in Service: 1180210 + 1180260</b>	
	<b>\$1,713,468,229.86</b>

I/A

**PSNC ENERGY**  
**Docket G-5, Sub 565**  
**DEPRECIATION AND AMORTIZATION**  
**Schedule Showing Accumulated Depreciation and Amortization Balances**  
**Annual Rates and Methods of Computing Amounts**

A	B	C
Account Title	Accumulated Depreciation or Amortization (12/31/2015)	Straight- Line Annual Rate %
<b>1 PSNC INTANGIBLE PLANT 1190001</b>		
PSNC 4020 Franchise & Consents	\$2,679 36	non-depr
PSNC 4021 Franchises FPC Non-Depr	\$0 00	non-depr
PSNC 4030 Misc Intangible	\$84,939 87	2.50%
PSNC 4032 Midland Station	\$51,795 39	3 20%
<b>Total Intangible Plant</b>	<b>\$139,414.62</b>	
<b>2 PSNC STORAGE PLANT 1190270</b>		
PSNC 4610 Structures & Improvements	\$2,487,255 84	0.87%
PSNC 4620 Gas Holders	\$6,069,047 58	1 55%
PSNC 4621 Nat Gas Holders Non-Depr	\$0 00	non-depr
PSNC 4630 Purifaction Equipment	\$877,343.61	4 75%
PSNC 4631 Liquefaction Equipment	\$1,266,523.90	1 34%
PSNC 4632 Vaporizing Eq Non-Depr	\$3,558,832.59	0 77%
PSNC 4633 Compressor Equipment	\$1,811,692 97	6 33%
PSNC 4634 M & R Equipment	\$101,879 82	0 48%
PSNC 4635 Other Equipment	\$327,784 86	0.98%
<b>Total Storage Plant</b>	<b>\$16,500,361.17</b>	
<b>3 PSNC TRANSMISSION PLANT 1190270</b>		
PSNC 4652 Rights-of-Way	\$1,663,491.68	0 98%
PSNC 4663 Str & Imp Compressor Stat	\$135,775.96	1 02%
PSNC 4664 Str & Impr City Gate	\$111,235 11	1 67%
PSNC 4665 Str & Impr M & R Station	(\$232,803.86)	0.10%
PSNC 4666 Str & Impr Reg Station	\$8,014 83	1 03%
PSNC 4667 Str & Impr Main Line	(\$408 07)	0 25%
PSNC 4668 Str & Impr Farm Taps	\$20.03	2.64%
PSNC 4670 Transmission Mains	\$36,934,154 58	1.35%
PSNC 4680 Compressor Equipment	\$4,964,510 52	1.75%
PSNC 4694 City Gate Station Equip	\$2,015,848 58	4 32%
PSNC 4695 M & R Station Equip	\$1,629,248 24	2 29%
PSNC 4696 Regulating Station Equip	\$1,130,492 09	3.28%
PSNC 4697 Main Line Industrial Stat	(\$222,216 01)	3 06%
PSNC 4698 Farm Tap Equip	\$1,741,035 41	6.47%
PSNC 4700 Telemetering Equipment	\$350,965 73	5.17%
<b>Total Transmission Plant</b>	<b>\$50,229,364.82</b>	
<b>4 PSNC DISTRIBUTION PLANT 1190270</b>		
PSNC 4742 Land Rights	\$106,378.32	1 53%
PSNC 4750 Structures & Equipment Major	\$9,472,460.35	2 43%
PSNC 4751 Structures & Equipment Other	\$169,650.55	0 88%
PSNC 4761 Plastic Distribution Main	\$148,756,532 95	2.68%

**PSNC ENERGY**  
**Docket G-5, Sub 565**  
**DEPRECIATION AND AMORTIZATION**  
**Schedule Showing Accumulated Depreciation and Amortization Balances**  
**Annual Rates and Methods of Computing Amounts**

A	B	C
Account Title	Accumulated Depreciation or Amortization (12/31/2015)	Straight- Line Annual Rate %
PSNC 4762 Cast Iron Distrn Main	\$0 00	3 59%
PSNC 4763 Steel Distribution Main	\$141,482,757 89	2 75%
PSNC 4781 District Regulator	\$8,436,740 20	8 92%
PSNC 4801 Plastic Services	\$162,169,268.24	3.97%
PSNC 4802 Steel Services	\$29,200,882.86	2 73%
PSNC 4810 Meters & Regulators	\$22,589,076 26	1.93%
PSNC 4811 ERT	\$18,521,506.26	6 72%
PSNC 4820 Meter Installations	\$13,886,753 40	1 65%
PSNC 4850 Industrial M & R Install	\$6,421,665 79	2.14%
PSNC 4870 Other Distribution Equip	\$942,177 72	3 98%
<b>Total Distribution Plant</b>	<b>\$562,155,850.79</b>	
 <b>5 PSNC GENERAL PLANT 1190270</b>		
PSNC 4900 Structures & Improvements	\$1,744,524 23	2 18%
PSNC 4911 Office Furniture & Equip	\$3,030,787 76	4 74%
PSNC 4915 Non-Spec Computer Eq	(\$258,106 31)	13 84%
PSNC 4916 Remote Meter Read-Metretk	\$877,822 95	6 73%
PSNC 4917 Software Balance 10/31/2006	\$0 00	37.45%
PSNC 4918 Software Effective 11/1/2006	\$2,286,115.63	20 00%
PSNC 4921 Automobile Amortization	\$146,563.33	16.00%
PSNC 4924 - Trucks Amortization	\$995,580.82	0 39%
PSNC 4927 - Trailer Amortization	\$523,930.78	0 39%
PSNC 4930 Stores Equipment	\$231,109.55	4 09%
PSNC 4940 Tools/ Shop/Garage Eq	\$105,026 73	7 81%
PSNC 4945 CNG Refueling Stations	\$210,216 70	16 41%
PSNC 4946 Vintage Tools/Shop/Gar	\$1,308,635 34	3 35%
PSNC 4947 CNG Refuel Sta Eff Nov 06	\$764,399.42	6 67%
PSNC 4950 Laboratory Equipment	(\$535 77)	5 40%
PSNC 4960 Specific POE	\$3,323,735 88	5 07%
PSNC 4961 Non-Specific POE	(\$26,699 34)	4 05%
PSNC 4970 Communication Equipment	\$2,328,760 77	8 18%
PSNC 4971 Radio Towers	\$201,011 21	7.36%
PSNC 4980 Miscellaneous Equipment	(\$246,602 50)	0.32%
PSNC 4981 Energy Audit Equipment	\$475.50	0 32%
<b>Total General Plant</b>	<b>\$17,546,752.68</b>	
 <b>Total Accumulated Depreciation</b>	 <b>\$646,571,744.08</b>	

**PSNC ENERGY**  
**Docket G-5, Sub 565**  
**DEPRECIATION AND AMORTIZATION**  
**Schedule Showing Accumulated Depreciation and Amortization Balances**  
**Annual Rates and Methods of Computing Amounts**

A	B	C
Account Title	Accumulated Depreciation or Amortization (12/31/2015)	Straight- Line Annual Rate %

Method Used: The Company Provides for depreciation on a straight-line remaining life basis by the application of specific rates to the various depreciable property accounts. The current rates have been approved by the North Carolina Utilities Commission. Depreciation amounts for transportation, stores and power operated equipment are charged to clearing accounts and allocated to operating expenses, construction and other accounts on the basis of the use of such equipment. Franchises and consents are amortized over their life.

I/A

Boone Exhibit 3

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 495  
MATERIALS AND SUPPLIES

Line No.		Balance 12/31/2015	Thirteen Month Average for the Period Ended 12/31/2015
1	Materials and supplies	\$9,436,890	\$9,465,900
2	Natural gas in storage	41,562,854	38,067,356
3	Total	<u>\$50,999,744</u>	<u>\$47,533,255</u>

## Boone Exhibit 4

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
FOR THE TEST YEAR ENDED DECEMBER 31, 2015

WORKING CAPITAL

Per lead-lag study	\$ 12,042,294
Average materials and supplies (Boone Exhibit 3)	\$9,465,900
Average gas inventories (Boone Exhibit 3)	38,067,356
Average interest on deposits	(185,385)
Average customer deposits	(8,295,675)
Average prepayments	968,023
Average accrued vacation liability - PTO	(582,236)
Average accrued state sales taxes	(712,278)
Average deferred credit Treasury A account	(324,842)
Average deferred Salesforce Cloud License Fees	18,358
Cost-free capital - Transco refunds	(258,000)
Cost-free capital - postretirement benefits other than pensions (FASB 106)	(24,423,034)
Cost-free capital - Pension Accrual	(15,925,419)
Cost-free capital - LT Disability SFAS112	(265,991)
Total working capital	<u>\$9,589,070</u>

7/1A

Boone Exhibit 5

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.  
DOCKET NO. G-5, SUB 495  
STATEMENT OF NET OPERATING INCOME FOR RETURN

	Twelve Months Ended December 31, 2015
Operating Revenues	
Gas Sales	\$ 407,727,910
Transportation	27,890,647
Other operating revenues	3,413,176
Total operating revenues	<u>439,031,733</u>
Operating Expenses	
Purchased gas	191,239,574
Operating and maintenance	92,766,693
Depreciation	49,622,105
Taxes other than income	12,433,363
State income taxes	2,341,083
Federal income taxes	24,530,439
Total operating expenses	<u>372,933,257</u>
Net operating income for return	<u><u>\$ 66,098,476</u></u>



*L/A*

Public Service Company of North Carolina - Incorporated  
Net Operating Income for Return and Rates of Return  
For the Test Year Ended December 31, 2015

Line No.	Twelve Months Ended 12/31/2015	Adjustments	After Adjustments	Interest Synchronization	After Interest Synchronization	Adjustments For Proposed Revenues	After Adjustments For Proposed Changes
	(1)	(2)	(3)			(4)	(5)
Operating Revenues							
1 Gas Sales and Transportation	435,618,557	(8,763,654)	(1)	426,854,903	426,854,903	41,306,445 (12)	468,161,348
2 Other Operating Revenues	3,413,176	0		3,413,176	3,413,176	276,576 (12.1)	3,689,752
3 Total Operating Revenues	439,031,733	(8,763,654)		430,268,079	430,268,079	41,583,021	471,851,100
Operating Expenses							
4 Purchased Gas	191,239,574	(14,121,829)	(2)	177,117,745	177,117,745	0	177,117,744.72
5 Operating and Maintenance	92,766,693	20,134,370	(3)	112,901,063	112,901,063	165,347 (13)	113,066,409.51
6 Depreciation	49,622,105	6,874,626	(4)	56,496,731	56,496,731	0	56,496,730.61
7 General Taxes	12,433,363	3,026,690	(5)	15,460,053	15,460,053	0	15,460,052.89
8 State Income Taxes - Current	967,644	(1,555,260)	(6)	(587,616)	(590,574)	1,656,707 (14)	1,066,133.12
9 State Income Taxes - Deferred	1,373,439	1,011,528	(6.1)	2,384,967	2,384,967	0	2,384,967.00
10 Federal Income Taxes - Current	860,242	(20,686,887)	(7)	(19,826,645)	(19,851,491)	13,916,338 (15)	(5,935,153.19)
11 Federal Income Taxes - Deferred	23,670,197	11,254,193	(7.1)	34,924,390	34,924,390	0	34,924,390.00
12 Total Operating Expenses	372,933,257	5,937,430		378,870,687	(27,804)	15,738,392	394,581,275
13 Net Operating Income	66,098,476	(14,701,084)		51,397,392	27,804	25,844,629	77,269,825
14 Other Adjustments	0	0		0		0	0
15 Net Operating Income for Return	66,098,476	(14,701,084)		51,397,392	27,804	25,844,629	77,269,825
End of Period Net Investment							
16 Utility Plant	1,713,468,230	141,475,409	(8)	1,854,943,639		0	1,854,943,639
17 Accumulated Depreciation	(646,571,744)	(24,928,361)	(9)	(671,500,105)		0	(671,500,105)
18 Construction Work in Progress	0	0		0		0	0
19 Working Capital - Other	(2,453,224)	567,312	(10)	(1,885,912)		0	(1,885,912)
20 Working Capital - Lead lag	12,042,294	2,032,677	(10.1)	10,009,617		2,995,871 (16)	13,005,488
21 Deferred Income Taxes	(233,850,955)	(11,370,696)	(11)	(245,221,651)		0	(245,221,651)
22 End of Period Net Investment	842,634,601	107,776,342		946,345,589		2,995,871	949,341,460
23 Rates of Return	7.84%			5.43%			8.14%

STATEMENT SHOWING RATES OF RETURN  
FOR THE TEST YEAR ENDED DECEMBER 31, 2015  
AFTER ACCOUNTING AND PRO FORMA ADJUSTMENTS

Line No		Per Books Capital Structure	Accounting and Proforma Adjustments	Adjusted Capitalization	Ratio	Cost of Net Investment	Embedded Cost/Return	Overall Cost Rate	Net Operating Income
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Long-term Debt	350,000,000	100,000,000	450,000,000	43 12%	408,065,377	5 66%	2 44%	23,096,500
2	Short-term Debt	22,632,000	12,677,004	35,309,004	3 38%	31,986,572	0 82%	0 03%	262,290
3	Common Equity	538,019,000	20,162,000	558,181,000	53 50%	506,296,328	5 54%	2 96%	28,068,407
4	Total Capitalization	910,651,000	132,839,004	1,043,490,004	100 00%	946,348,277		5 43%	51,425,197

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC  
STATEMENT SHOWING RATES OF RETURN  
FOR THE TEST YEAR ENDED DECEMBER 31, 2015  
AFTER ADJUSTMENTS FOR PROPOSED RATES

Line No		Cost of Net Investment	Embedded Cost/Return	Overall Cost Rate	Net Operating Income
1	Long-term Debt	409,356,037	5 66%	2 44%	23,169,552
2	Short-term Debt	32,087,741	0 82%	0 03%	263,119
3	Common Equity	507,897,882	10 60%	5 67%	53,837,154
4	Total Capitalization	949,341,460		8 14%	77,269,825

Line No		Retention Factor	Pre-tax ROR Gross Rev Factor	Tax Factor	Net of Tax Weighted Cost
5	Long-term Debt	0 996023700	2 45%	0 624	1 53%
6	Short-term Debt	0 996023700	0 03%	0 624	0 02%
7	Common Equity	0 621518790	9 09%	0 624	5 67%
8	Total Capitalization		11 57%		7 22%

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC  
DETAIL OF ACCOUNTING AND PRO FORMA ADJUSTMENTS

Workpaper  
Reference

<u>1 Gas Sales and Transportation Revenues</u>		
Increase gas sales and transportation revenues based on sales quantities and amounts as shown on Paton Exhibit 3	(1) <u>(8,763,654)</u>	1
<u>2 Purchased Gas</u>		
Increase to annualize on end-of-period rates	(2) <u>(14,121,829)</u>	2
<u>3 Operating and Maintenance</u>		
Adjustments to reflect		
A Increased wages (SCANA Services \$294,185)	2,551,385	3-A
B Interest on customer deposits as an operating expense	581,096	3-B
C Regulatory fees decreased for revenue adjustments	(25,482)	3-C
D Increased pension cost	380,477	3-D
E Postretirement costs other than pension decrease	(136,967)	3-E
F Increased 401K expenses and other misc employee benefits	186,594	3-F
G Uncollectibles cost adjustment	196,602	3-G
H Customer accounts expense increase for customer growth	22,304	3-H
I Manufactured gas plant amortization	2,254,255	3-I
J Rate case expense amortization	139,433	3-J
K Transmission pipeline integrity management amortization	5,706,715	3-K
L Inflation adjustment to non-adjusted O&M expenses	155,349	3-L
M Increase SCANA Services chargebacks to the going level	3,216,283	3-M
N Decrease O&M for non-utility allocation	(40,019)	3-N
O Remove CNG excise tax credit	261,017	3-O
P DIMP (Distribution Integrity Management)	1,519,116	3-P
Q Increase in postage	(32,366)	3-Q
R Salesforce amortization	(128,685)	3-R
S Increase expenses for incentive plans	2,437,300	3-S
T Increase in fuel cost of company fleet	378,218	3-T
U Decrease in Employee Mileage Expense	(30,751)	3-U
V Remove LTD medical credit	197,495	3-V
W Gas Technology Institute (GTI) dues	275,000	3-W
X Groundwater monitoring (MGP)	70,000	3-X
	(3) <u>20,134,370</u>	
<u>4 Depreciation Expense</u>		
Increase to reflect depreciation on end of period plant	1,876,942	4-A
Allocation to nonutility on projected June 2016 balance	(325,350)	4-B
Increase to give effect to estimated net plant additions - current rates	3,144,124	4-C
Increase for proposed depreciation rates on 6/16 plant	2,050,689	4-D
Increase to reflect depreciation on end of period Scana Services plant allocated to PSNC	29,457	4-E
Increase to give effect to estimated Scana Services net plant additions	98,764	4-F
	(4) <u>6,874,626</u>	

<u>5 General Taxes</u>		
Property taxes increased for increase in plant	1,221,955	5-A
Franchise tax not in test year	1,609,044	5-B
FICA increase due to wage increase	195,691	3-A
	(5) <u>3,026,690</u>	
<u>6 State Income Taxes - Current</u>		
State income taxes normalized for proforma adjustments	(6) <u>(1,558,218)</u>	
<u>6.1 State Income Taxes - Deferred</u>		
Deferred income tax provision between 1/1/16 and 6/30/16	(6 1) <u>1,011,528</u>	
<u>7 Federal Income Taxes</u>		
Federal income taxes normalized for proforma adjustments	(7) <u>(20,711,734)</u>	
<u>7 1 Federal Income Taxes - Deferred</u>		
Deferred income tax provision between 1/1/16 and 6/30/16	(7 1) <u>11,254,193</u>	
<u>8 Utility Plant</u>		
Estimated net plant additions thru June 30, 2016	147,369,966	4-C
Allocation to nonutility	(5,894,558)	4-B
	(8) <u>141,475,409</u>	
<u>9 Accumulated Depreciation</u>		
Estimated increase to the reserve between test year and June 30, 2016	(26,182,778)	10
Decrease for nonutility	1,254,417	4-B
	(9) <u>(24,928,361)</u>	
<u>10 Working Capital</u>		
Increase for a reduction in expenses related to the postretirement liability	136,967	3-E
Increase to prepayments for 2016 franchise tax not in test year	430,345	5-B
	(10) <u>567,312</u>	
<u>10 Working Capital - Lead Lag</u>		
Increase in lead lag for proforma adjustments	(10 1) <u>(2,029,989)</u>	
<u>11 Deferred Income Taxes</u>		
Estimated increase between test year and June 30, 2016	(12,265,721)	11
Allocated to nonutility	895,026	4-B
	(11) <u>(11,370,696)</u>	
<u>12 Gas Sales and Transportation Revenues</u>		
Increase in revenues following adjustments	(12) <u>41,306,444</u>	
<u>12 1 Other Operating Revenues</u>		
Increase reconnect fees	(12 1) <u>276,576</u>	12 1
<u>13 Operating and Maintenance</u>		
Increase in regulatory fees following increase in revenues	(13) <u>165,347</u>	
<u>14 State Income Taxes</u>		
Increase for effect of previous adjustments	(14) <u>1,656,707</u>	
<u>15 Federal Income Taxes</u>		
Increase for effect of previous adjustments	(15) <u>13,916,338</u>	

16 Working Capital - Lead Lag

Increase in lead lag following increases in revenues

(16) 2,993,183

I/A

Public Service Company of North Carolina, Inc  
Unconsolidated Balance Sheet  
December 31, 2016

<b>Assets and Other Debits</b>	
Gas Utility Plant	1,729,729,703
Less Accum Deprec & Amortization	(649,748,076)
Total	1,079,981,627
Construction Work In Progress	54,000,837
Acquisition Adj, Net	209,823,656
Utility Plant, Net	1,343,806,120
<b>Other Property and Investments</b>	
Investments and Advances to Subsidiaries	12,235,802
Other Investments	6,875
Total Other Prop & Investments	12,242,677
<b>Current Assets</b>	
Cash, Temp Inv & Special Deposits	1,182,032
Accounts Receivable-Customers	60,548,940
Accounts Receivable-Other	3,409,576
Allow for Uncoll Accounts	(631,745)
Accounts Receivable-Associated Co	1,343,000
Inventories-Fuel	41,562,854
Inventories-Material & Supplies	10,820,619
Prepayments	1,559,417
Interest & Dividends Receivable	-
Miscellaneous Current Assets	698,330
Total Current Assets	120,493,023
<b>Deferred Debits</b>	
Environmental	6,904,622
Unamortized Debt Expense	623,429
Other Regulatory Assets	105,771,575
Clearing Accounts	-
Misc Deferred Debits	1,480,224
Due from Affiliates - Employee Benefits	69,371
Accum Deferred Income Taxes	28,922,800
Total Deferred Debits	143,762,021
<b>Total Assets and Other Debits</b>	<b>1,620,303,841</b>
<b>Liabilities and Other Credits</b>	
<b>Stockholders' Investment</b>	
Common Stock	1,000
Other Paid in Capital	634,680,696
Retained Earnings	119,165,074
Accumulated Other Comprehensive Income	(1,333,357)
Total Common Equity	752,513,413
<b>Long-Term Debt</b>	
Other Long-Term Debt	350,575,062
Contra-Current Portion Other LTD	(575,062)
Long-Term Debt, Net	350,000,000
<b>Total Capitalization</b>	<b>1,102,513,413</b>
<b>Current Liabilities</b>	
Notes Payable	73,819,000
Accounts Payable	23,198,452
Accounts Payable-Associated Co	7,147,421
Customer Deposits	8,282,424
Total Current Portion of LTD	575,062
Taxes Accrued-Federal Income	(15,101,798)
Taxes Accrued-State Income	(113,005)
Taxes Accrued-Other	278,766
Interest Accrued-LTD	5,973,001
Interest Accrued-Other	230,119
Dividends Declared	7,400,000
Tax Collections Payable	484,184
Miscellaneous Current Liabilities	15,409,893
Total Current Liabilities	127,581,519
<b>Deferred Credits</b>	
Accum Deferred Income Taxes	261,992,700
Other Regulatory Liabilities	17,073,625
Due to Affiliates - Employee Benefits	73,548,052
Other Asset Retirement Obligations	31,832,832
Other Deferred Credits	5,761,700
Total Deferred Credits	390,208,909
<b>Total Liabilities and Other Credits</b>	<b>1,620,303,841</b>

Public Service Company of North Carolina, Inc.  
Income Statement  
Twelve Months Ended December 31, 2015

Boone Exhibit 7  
Page 2 of 2

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	<u>2015</u>
Operating Revenues	
Gas-Regulated	<u>439,031,733</u>
Total Operating Revenues	<u>439,031,733</u>
Operating Expenses	
Gas for Resale-Regulated	191,239,574
Operating Expense Other	85,311,549
Maintenance Expense	7,455,144
Deprec and Amort Exp	49,622,105
Taxes Other than Income Tax	12,433,363
State Income Taxes	2,341,083
Federal Income Taxes	<u>24,530,439</u>
Total Operating Expenses	<u>372,933,257</u>
Net Operating Income	66,098,476
Other Income	
Subsidiary Equity Earnings, net	2,398,599
Allowance for Equity Funds	2,077,196
Gain/Loss on Sale of Assets	127,337
Other Revenues	22,870,461
Other Expenses	(12,688,277)
Income Tax on Other Income	<u>(4,111,868)</u>
Total Other Income	<u>10,673,448</u>
Income Before Interest Charges	76,771,924
Interest Charges	
Interest on Long-Term Debt	20,679,571
Amort of Debt Disc and Expense	72,158
Interest on Debt to Assoc Co	1,020,359
Other Interest Expense	1,542,624
Allowance for Borrowed Funds	<u>(632,108)</u>
Total Interest Charges	<u>22,682,604</u>
Net Income	<u><u>54,089,320</u></u>

1/A

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. G-5, SUB 565

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of	)	
Application of Public Service Company	)	
of North Carolina, Inc. for a General	)	APPLICATION
Increase in its Rates and Charges	)	

Pursuant to Sections 62-133, 62-133.7A, 62-134, and 62-135 of the North Carolina General Statutes ("N.C. Gen. Stat.") and Rule R1-17 of the North Carolina Utilities Commission's ("Commission") rules and regulations, Public Service Company of North Carolina, Inc., d/b/a PSNC Energy ("PSNC" or the "Company"), respectfully makes this Application for authority to adjust and increase its retail natural gas rates and charges and for other relief as set forth below. In support of this Application, PSNC respectfully shows the Commission the following:

1. The Company's principal office and place of business is located at 800 Gaston Road, Gastonia, North Carolina 28056. The post office address for the Company is P.O. Box 1398, Gastonia, North Carolina, 28053-1398.

2. The attorneys for the Company are:

B. Craig Collins  
SCANA Corporation  
MC-C222  
220 Operation Way  
Cayce, SC 29033-3701  
(803) 217-7513  
[bcollins@scana.com](mailto:bcollins@scana.com)



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3. Copies of all pleadings, testimony, orders, and correspondence in this proceeding should be served upon the attorneys listed above.

4. PSNC is a corporation duly organized and existing under the laws of the State of South Carolina, having its principal office and place of business in Gastonia, North Carolina. PSNC is a wholly owned subsidiary of SCANA Corporation (“SCANA”), a South Carolina holding company. PSNC is a public utility under the laws of North Carolina and its operations in this State are subject to the jurisdiction of this Commission pursuant to N.C. Gen. Stat. § 62-2. PSNC is engaged in the purchase, sale, transportation, and distribution of natural gas to residential, commercial, and industrial customers within a service territory consisting of all or parts of twenty-eight (28) counties in central and western North Carolina as designated in PSNC’s certificates of public convenience and necessity issued by the Commission.

5. PSNC’s last general rate case was eight years ago. The increase in rates and charges approved in that case (Docket No. G-5, Sub 495), which took effect

November 1, 2008, was based on operations during the test year ending December 31, 2007.

6. Since 2008, PSNC's business has been impacted by, among other factors: a heightened awareness of and focus on pipeline safety; low and stable natural gas prices; the opportunity to acquire additional pipeline capacity; the need for PSNC to invest in pipeline enhancement projects on its system; and the expanded use of technology and investments in facilities to more efficiently serve its customers. During this eight-year period, PSNC has greatly expanded natural gas service in its rapidly growing service area. Since January 1, 2008, the Company added 77,025 customers (net of attrition). Between the end of the updated test period in that case (June 30, 2008) and December 31, 2015, the Company installed over 1,424 miles of transmission and distribution mains and 83,866 service lines, and invested approximately \$609 million of capital in its utility property. In addition to the \$609 million in utility plant since the Company's last rate case, the Company estimates that it will add an additional \$149 million in plant by June 30, 2016. The Company also has incurred, as of December 31, 2015, more than \$19 million in deferred environmental and pipeline integrity expenses. These investments have extended service to new customers and strengthened and enhanced the safety and reliability of PSNC's system, to the benefit of its customers and the State of North Carolina.

7. As a result of the significant investments in its system that PSNC has made during the last eight years and the substantial environmental, integrity management, and other expenses incurred during that time, the rates currently approved by the Commission are now insufficient to provide PSNC with a fair and reasonable rate of

return on its investment. In the Company's 2008 rate case, the Commission determined that a reasonable overall rate of return for PSNC was 8.54%; the Company's rate of return at the end of the test year was 7.84%. A general increase in PSNC's rates is therefore necessary and justified in order to allow the Company to continue investing in the growth, safety, and reliability of its system.

8. By this Application, PSNC requests approval of an increase in revenue of \$41,583,020 to permit the Company to earn a fair return on its investment. The revenue increase requested with this Application will allow PSNC to recover the costs associated with the significant investments that the Company has made to improve its system and its service, and will not unduly burden PSNC's customers.

9. The Company seeks approval of a return on equity of 10.60%. Commission approval of this request will permit the Company to access capital markets and maintain its credit quality, is consistent with the returns of businesses with comparable business risk, and will, in light of these considerations as well as the impacts of changing economic conditions on customers, result in fair and reasonable rates.

10. In addition, the Company requests approval of a rider to its rates to track and provide for ongoing recovery of capital expenses related to PSNC's transmission and distribution pipeline integrity management programs. The Company established these programs to ensure the safety of its natural gas transmission and distribution systems in response to pipeline safety requirements of the United States Department of Transportation.

11. PSNC is also seeking authority to include in the Company's cost of service \$2,000,000 related to distribution integrity management program operations and maintenance ("O&M") expenses. In addition, the Company seeks the authority to defer those O&M expenses associated with its distribution integrity management program in excess of \$2,000,000 and the continued deferred accounting treatment for O&M expenses associated with its transmission integrity management program. PSNC proposes to amortize and collect certain deferred pipeline safety O&M expenses, and PSNC also proposes to amortize and collect certain deferred environmental expenses – costs for which the Commission has previously approved deferred accounting.

12. PSNC proposes to include an annual contribution of \$275,000 to the Gas Technology Institute's Operations Technology Development program in the Company's cost of service. In the early 1990s, the Company began remediating its manufactured gas plant sites, which ceased production after the extension of natural gas service through North Carolina. The last remaining site will be fully remediated by May of this year. With the completion of the remediation process, PSNC will no longer need authority to defer expenses associated with the remediation, so the Company proposes to terminate the deferral mechanism related to these costs.

13. Company Witness Spanos conducted a depreciation study pursuant to Commission Rule R6-80, which results in his recommendation of new annual depreciation accrual rates that, when applied to the Company's cost of service, result in an increase of \$3.4 million in depreciation expense. The Company requests that the Commission find the Company in compliance with Rule R6-80 and allow PSNC to implement the new depreciation rates.

14. In addition, PSNC proposes to implement a rate decrement to refund to its customers over a one-year period the Company's excess accumulated deferred income taxes ("ADIT") balance as of December 31, 2015 of \$7,305,529. PSNC has deferred this ADIT balance as a regulatory liability under the Commission's order in Docket No. M-100, Sub 138, dated May 13, 2014.

15. Finally, PSNC seeks through this Application to update and revise certain tariff provisions, including changes to its industrial tariff and pooling agreement, and to implement a new Medium General Service rate. PSNC proposes to place the new rates requested for approval herein into effect on May 1, 2016. On the assumption that the Commission will suspend the proposed rates and set this Application for hearing, PSNC requests that the Commission establish a procedural schedule that permits the proposed rates to become effective November 1, 2016, as permitted by N.C. Gen. Stat. § 62-135.

16. Pursuant to the provisions of Rule R1-17(b), PSNC attaches hereto and makes a part of this Application the following schedules, which are contained in Company Witnesses Paton's and Boone's exhibits:

- (a) Present charges (Paton Exhibit 1);
- (b) Proposed charges (Paton Exhibit 2);
- (c) Statement of end of period net investment at December 31, 2015 (Boone Exhibit 1);
- (d) Statement showing accumulated depreciation balances at December 31, 2015 (Boone Exhibit 2);
- (e) Statement of materials and supplies necessary for operation of PSNC's business (Boone Exhibit 3);

- (f) Statement of cash working capital (Boone Exhibit 4);
- (g) Statement of net operating income for return for the twelve months ended December 31, 2015 (Boone Exhibit 5 );
- (h) Statements showing effect of proposed increase, additional revenues and expenses anticipated, and the rates of return on utility property. Statement showing capital structure and rates of return on equity before and after the proposed increase (Boone Exhibit 6);
- (i) Balance sheet at December 31, 2015, and income statement for the twelve months ended December 31, 2015 (Boone Exhibit 7).

17. Pursuant to Rule R1-17(b)(12), the Application contains the Company's NCUC Form G-1.

18. Pursuant to Rule R1-17 (b)(13), the Company's Application is supported by the direct testimony and related exhibits of Company Witnesses D. Russell Harris, Jimmy E. Addison, Robert B. Hevert, John J. Spanos, George B. Ratchford, Sharon D. Boone, James A. Spaulding, Candace A. Paton, and Rose M. Jackson.

19. As required by Commission Rule R1-17(b)(9)(f), Appendix 1 to this Application contains a one-page summary of all proposed increases and changes affecting customers.

20. PSNC will provide additional relevant, material, and competent evidence as may be permitted by N.C. Gen. Stat. § 62-133(c) or other North Carolina law and consistent with Rule R1-17(b)(11) concerning the Company's costs, revenues, volumes, rate base return, or any other matter relevant to the Commission's determination of the matters raised herein.

WHEREFORE, the Company respectfully requests that the Commission grant the general increase in rates and charges for natural gas services and other requests as set forth herein, and approve the changes in rate designs, costs, revenue and rate base, cost allocations, rate schedules, classifications and practices proposed with this Application, effective not later than November 1, 2016.

Respectfully submitted, this the 31<sup>st</sup> day of March, 2016.

PUBLIC SERVICE COMPANY OF NORTH  
CAROLINA, INC.

/s/Mary Lynne Grigg

Mary Lynne Grigg  
Andrea R. Kells  
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*Counsel for Public Service Company of North  
Carolina, Inc.*

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

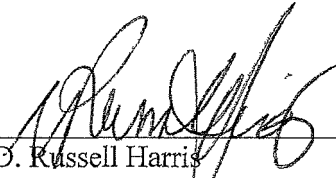
DOCKET NO. G-5, SUB 565

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the matter of: )  
Application of Public Service Company ) **VERIFICATION**  
Of North Carolina, Inc. for a General )  
Increase in its Rates and Charges )

STATE OF NORTH CAROLINA )  
WAKE COUNTY )

D. RUSSELL HARRIS, being first duly sworn, deposes and says that (i) he is an officer, to wit: President, and Chief Operating Officer of Public Service Company of North Carolina, Inc., the Applicant in the above-captioned matter, (ii) he has read the foregoing Application and knows the contents thereof, and (iii) the same are true of his own knowledge except for those matters and things therein alleged on information and belief and as to those matters and things he believes them to be true.

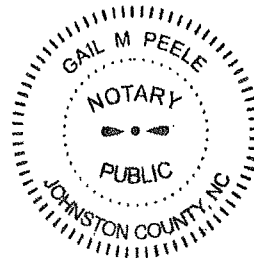
  
\_\_\_\_\_  
D. Russell Harris  
President and Chief Operating Officer

Sworn to and subscribed before me, this 30<sup>th</sup> day of March, 2016.

Gail M. Peele

Notary Public

My Commission expires April 1, 2018





## APPENDIX 1

Public Service Company of North Carolina, Inc.  
Docket No. G-5, Sub 565  
Summary of Proposed Increases and Changes

PSNC seeks an increase in revenue of \$41,583,020.

Proposed changes by customer group are as follows:

<u>Customer Group</u>	<u>Change in Revenue</u>	<u>% Change</u>
Residential	\$20,094,643	7.03%
General Service	\$5,956,344	6.01%
Large General Service – Firm	\$10,885,999	36.83%
Large General Service – Interruptible	\$4,369,295	37.69%
Other Miscellaneous Revenues	\$276,576	8.10%

**CERTIFICATE OF SERVICE**

I hereby certify that on this 31<sup>st</sup> day of March, 2016, copies of the foregoing were hand delivered, mailed first class or sent via overnight delivery to:

Antoinette R. Wike  
Chief Counsel  
Public Staff – North Carolina Utilities Commission  
4326 Mail Service Center  
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/s/Mary Lynne Grigg  
Attorney for Public Service Company of North  
Carolina, Inc.

I/

Revised Boswell Exhibit I  
Schedule 1Public Service Company of North Carolina  
Docket No. G-5, Sub 565RECONCILIATION OF GROSS REVENUE INCREASE REQUESTED BY THE COMPANY TO THE  
SETTLEMENT AMOUNT

For The Test Year Ended December 31, 2015

Line No.	Item	Amount
1	Increase in revenue requirement requested by the Company	\$41,583,020
	Settlement Adjustments:	
2	Change in equity ratio from 53.75% to 52.00%	(1,614,203)
3	Change in cost of long-term debt from 5.66% to 5.52%	(593,475)
4	Change in cost of short-term debt from 0.82% to 0.77%	(16,056)
5	Change in return on equity from 10.60% to 9.70%	(7,125,357)
6	Plant in Service Updates and Related Items at June 30, 2016	51,324
7	Working Capital Updates at June 30, 2016	(158,131)
8	Update gas in storage through June 2016	(563,311)
9	Update materials and supplies through June 2016	91,901
10	ADIT - updated to June 30, 2016	174,724
11	Adjust working capital for lead lag to reflect Settlement adjustments	196,137
12	Adjustment to end of period revenue - weather, growth, and commodity costs	(1,457,266)
13	Adjustment to other operating revenues	(114,232)
14	Special Contract - remove PIS associated with facilities	(517,243)
15	Payroll and Related Expenses	(288,568)
16	Bonus accruals updated to actuals 6/30/16	(1,183,067)
17	Payroll Benefits Percentage - updated through June 30, 2016	(21,854)
18	Modify the allocation of incentive pay for certain executives to PSNC	(872,982)
19	Executive Compensation Adjustment	(280,405)
20	Remove retired executive compensation	(139,795)
21	Nonutility Adjustment - O&M expense	(262,228)
22	Nonutility Adjustment - effect of change in plant additions	(24,508)
23	Inflation Adjustment - removed certain expenses and updated rate to 2.2%	450,911
24	Rate Case Expenses - updated through June 30, 2016 w/ 5 yr amortization	(77,327)
25	Postage Adjustment - excluded growth since adjusted elsewhere & removed adv.	(145,282)
26	Uncollectibles - changes in revenue	(22,533)
27	Regulatory Fee - change for 0.148% to 0.14% per Commission Order	(34,439)
28	MGP Costs - update actual expenses @ 6/30/16	(887,970)
29	PIM Costs - update actual expenses @ 6/30/16	(1,651,192)
30	DIMP Costs - deferral	(1,706,430)
31	SalesForce Adjustment - ongoing level	(37,532)
32	Advertising - remove promotional, image, competitive, & non-recurring	(678,559)
33	Update Interest on Customer Deposits through June 2016	(11,382)
34	Service Company Charges - removed unsupported budgeted charges	(3,228,865)
35	Update GTI to June 2016 actual meters	(6,394)
36	Fuel Costs - adjust to test year fuel costs	(117,471)
37	Adjustment to remove lobbying expenses	(168,417)
38	Change in retention factor - regulatory fee changes	(3,332)
39	Adjust cash working capital for revenue impact of Settlement adjustments	(150,481)
40	Rounding	43
41	Settlement Adjustments	(23,195,245)
42	Recommended Change in Margin	\$18,387,775
43	Fixed Gas Cost Adjustment	643,643
44	LAUF Rate Change	22,742
45	Recommended Change in Revenue Requirement per Settlement	\$19,054,160

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Public Service Company of North Carolina  
Docket No. G-5, Sub 565  
**SUPPORT FOR RECONCILIATION SCHEDULE**  
For The Test Year Ended December 31, 2015

Boswell Exhibit I  
Schedule 1-1

Line No.	Item	Amount
<u><b>Plant in Service Updates and Related Items at June 30, 2016</b></u>		
1	Rate base	\$482,365 [1]
2	Income statement	(431,041) [2]
3	Total (L1 + L2)	<u>\$51,324</u>
 <u><b>Nonutility Adjustment</b></u>		
4	Rate base	(\$21,147) [1]
5	Income statement	(265,589) [2]
6	Total (L4 + L5)	<u>(\$286,736)</u>
 <u><b>Special Contract Adjustment</b></u>		
4	Rate base	(\$359,653) [1]
5	Income statement	(157,590) [2]
6	Total (L4 + L5)	<u>(\$517,243)</u>

[1] Boswell Exhibit I, Schedule 2.

[2] Boswell Exhibit I, Schedule 3.

**Public Service Company of North Carolina**  
Docket No G-5, Sub 565  
**ORIGINAL COST RATE BASE**  
For The Test Year Ended December 31, 2015

Line No	Item	Under Present Rates			After Public Staff Recommended Increase		
		Company Adjusted Per Company	Public Staff Adjustments	After Public Staff Adjustments	Public Staff Adjustments	After Public Staff Adjustments	
		[1] (a)	[2] (b)	[3] (c)	[4] (d)	[5] (e)	
1	Plant in service	\$1,854,943,639	(15,300,074)	\$1,839,643,565		\$1,839,643,565	
2	Accumulated depreciation	(671,500,105)	14,359,017	(657,141,088)		(657,141,088)	
3	Net plant in service (Sum of L1 thru L3)	1,183,443,534	(941,057)	1,182,502,477	0	1,182,502,477	
4	Working Capital - Other	(1,885,912)	(5,931,372)	(7,817,284)		(7,817,284)	
5	Working Capital - Lead Lag	10,009,617	1,903,594	11,913,211	\$1,809,033	\$13,722,244	
6	Deferred Regulatory Assets		15,218,886	15,218,886		15,218,886	
7	Deferred Income Taxes	(245,221,651)	3,544,195	(241,677,456)		(241,677,456)	
8	Original cost rate base (Sum of L4 thru L7)	<u>\$946,345,589</u>	<u>\$13,794,246</u>	<u>\$960,139,834</u>	<u>\$1,809,033</u>	<u>\$961,948,867</u>	

[1] Boone Exhibit 6, Column (5), as adjusted

[2] Boswell Exhibit I, Schedule 2(a)

[3] Column (a) plus Column (b)

[4] Boswell Exhibit I, Schedule 2-4, Column (k), Line 50

[5] Column (c) plus Column (d)

Public Service Company of North Carolina  
Docket No. G-5, Sub 565  
ADJUSTMENTS TO RATE BASE  
For The Test Year Ended December 31, 2015

Boswell Exhibit I  
Schedule 2(a)

Line No	Item	Update PIS & Acc Dep June 30, 2016 [1] (a)	Update Gas in Storage June 30, 2016 [2] (b)	Update Material & Supplies June 30, 2016 [3] (c)	Update Nonutility June 30, 2016 [4] (d)	Special Contracts [5] (e)	ADIT Update [7] (f)	Adjust Cash Working Capital [8] (g)	Deferred PIM Asset (h)	Deferred DIMP Asset (i)	Deferred MGP Asset (j)	Adjust WC for Lead Lag [9] (k)	Total Rate Base Adjustments [10] (l)
1	Plant in service	(\$7,575,199)			(\$183,894)	(\$7,540,981)							(15,300,074)
2	Accumulated depreciation	12,119,925			(15,345)	2,254,438							14,358,017
3	Net plant in service (Sum of L1 thru L2)	4,544,726			(199,240)	(5,286,543)							(941,057)
4	Working Capital - Other		(\$5,307,372)	\$865,868				(\$1,489,868)					(5,931,372)
5	Working Capital - Lead Lag											1,903,594	1,903,594
6	Deferred Regulatory Asset								13,198,443	1,200,875	819,568		15,218,886
7	Deferred Income Taxes					1,897,985	1,646,210						3,544,195
8	Original cost rate base (Sum of L3 thru L6)	4,544,726	(\$5,307,372)	865,868	(199,240)	(3,388,558)	1,646,210	(1,489,868)	13,198,443	1,200,875	819,568	1,903,594	13,794,246
9	Revenue requirement impact	\$462,365	(\$563,311)	\$91,901	(\$21,147)	(\$359,653)	\$174,724	(\$158,131)	\$1,400,848	\$127,458	\$86,987	\$202,043	\$1,464,085

[1] Boswell Exhibit I, Schedule 2-1

[2] Boswell Exhibit I, Schedule 2-2, Column (d), Line 3

[3] Boswell Exhibit I, Schedule 2-2, Column (d), Line 2

[4] Boswell Exhibit I, Schedule 2-1(d), Line 31

[5] Per Company response to accounting DR3-3.

[6] Boswell Exhibit I, Schedule 2-2, Column (e), Line 17

[7] Per Company Response to DR46-3, updated to June 2016

[8] Boswell Exhibit I, Schedule 2-2, Column (d), Line 17

[9] Boswell Exhibit I, Schedule 2-3, Column (a), Line 22

[10] Sum of Columns a through i

Public Service Company of North Carolina  
Docket No G-5, Sub 565  
SUPPORT FOR UPDATED PLANT IN SERVICE  
For The Test Year Ended December 31, 2015

Line No	Item	Amount
	<b><u>Plant in Service.</u></b>	
1	North Carolina plant in service at June 30, 2016	\$1,847,368,440 [1]
2	Less adjusted plant in service per Company	<u>1,854,943,639 [2]</u>
3	Public Staff's adjustment to plant in service (L1 - L2)	<u>(\$7,575,199)</u>
	<b><u>Accumulated Depreciation:</u></b>	
4	North Carolina accumulated depreciation at June 30, 2016	(\$659,847,202) [3]
	End of period depreciation adjustment on June 30, 2008	
5	plant at Company proposed rates	<u>467,022</u>
6	Total accumulated depreciation at June 30, 2016 (L4 + L5)	<u>(659,380,180)</u>
7	Less accumulated depreciation per Company	<u>(671,500,105) [2]</u>
8	Public Staff's adjustment to accumulated depreciation (L6 - L7)	<u>12,119,925</u>
	<b><u>Depreciation Expense:</u></b>	
	<i>PSNC Direct Depreciation - Annualized as of June 30, 2016</i>	
9	Per Public Staff	54,277,172 [4]
10	Per Company	<u>\$54,744,194 [5]</u>
11	End of period depreciation adjustment - PSNC direct plant	<u>(\$467,022)</u>
	<i>SCANA Services Allocated Depreciation - Annualized as of June 30, 2016</i>	
12	Per Public Staff	\$1,913,690 [6]
13	Per Company	<u>\$1,752,537 [7]</u>
14	End of period depreciation adjustment - SCANA allocated plant	<u>\$161,153</u>
	<i>Total Depreciation Expense - Annualized as of June 30, 2016</i>	
15	Per Public Staff	\$56,190,862
16	Per Company	<u>\$56,496,731 [8]</u>
17	Public Staff's adjustment to depreciation expense (L12 - L13)	<u>(\$305,869)</u>
	<b><u>Property Taxes</u></b>	
18	Plant in Service at June 30, 2016	\$1,847,368,440 [1]
19	North Carolina tax rate	<u>\$0.00512 [9]</u>
20	Adjustment to property taxes for additions (L18 x L19 x L20)	\$9,450,952
21	Property Tax for additions per Company Application	<u>9,574,446 [10]</u>
22	Public Staff's adjustment to property taxes (L21 - L22)	<u>(\$123,494)</u>

[1] Boswell Exhibit I, Schedule 2-1(a), Column (c), Line 84

[2] Boone Exhibit 6, Page 1, "After Adjustments" column

[3] Boswell Exhibit I, Schedule 2-1(b), Line 83

[4] Boswell Exhibit I, Schedule 2-1(a), Column (e), Line 84

[5] Boone Exhibit 6, Page 1, "After Adjustments" column minus end of period depreciation for Scana Services, Workpaper 4D, p. 1

[6] Boswell Exhibit I, Schedule 2-1(e), Column (e), Line 16

[7] Item 4, Workpaper 4E, p. 1

[8] Boone Exhibit 6, P. 1, "After Adjustments" column

[9] MFR, Item 4, Workpaper 5-A, Line 3

[10] MFR, Item 4, Workpaper 5-A, Line 8

Public Service Company of North Carolina  
Docket No G-5, Sub 565  
**ADJUSTMENT TO WORKING CAPITAL COMPONENTS**  
For The Test Year Ended December 31, 2015

Line No	Item	Amount Per Company [1] (a)	Company Ratemaking Adjustments (b)	After Company Adjustments (c)	Public Staff Working Capital Adjustments (d)	Amount Per Public Staff [13] (f)
	<b>Lead Lag Study</b>					
1	Lead Lag Study	\$10,012,305	2,993,183	\$13,005,488		
	<b>Average materials and supplies:</b>					
2	Operating and construction supplies	9,465,900		9,465,900	\$865,868 [2]	\$10,331,768
3	Natural gas stored	38,067,356		38,067,356	(5,307,372) [3]	\$32,759,984
4	Totals (L2 + L3)	47,533,256	0	47,533,256	(4,441,504)	43,091,752
	<b>Cash working capital:</b>					
5	Average Customer deposits	(8,295,675)		(8,295,675)	258,805 [5]	(8,036,870)
6	Average Accrued Interest on Customer Deposits	(185,385)		(185,385)	(64,354) [4]	(249,739)
7	Average Accrued Vacation Liability - PTO	(582,236)		(582,236)	(13,301) [10]	(595,537)
8	Average State Sales Tax	(712,278)		(712,278)	421,078 [11]	(291,200)
9	Average of Deferred Credit Treasury A Account	(324,842)		(324,842)	(40,943) [12]	(365,785)
10	Average prepayments	968,023	430,345	1,398,368	(266,648) [6]	1,131,720
11	Average deferred Salesforce Cloud License Fees	18,358		18,358	(18,358) [7]	0
12	Cost-Free Capital - Transco refunds	(258,000)		(258,000)		(258,000)
13	Cost-Free Capital - Postretirement Benefits	(24,423,034)	136,967	(24,286,067)	(486,195) [8]	(24,772,262)
14	Cost-Free Capital - Pension Accrual	(15,925,419)		(15,925,419)	(1,427,237) [9]	(17,352,656)
15	Cost-Free Capital - LT Disability	(265,991)		(265,991)	147,285	(118,706)
16	Totals cash working capital (Sum of L5 thru L15)	(49,986,479)	567,312	(49,419,167)	(1,489,868)	(50,909,035)
17	Total working capital (L1 + L4 + L16)	\$7,559,082	\$3,560,495	\$11,119,577	(\$5,931,372)	(\$7,817,283)

- |  |   |
|--|---|
| [1] Per Boone Exhibit 4                | [8] Boswell Exhibit I, Schedule 2-2(k)    |
| [2] Boswell Exhibit I, Schedule 2-2(a) | [9] Boswell Exhibit I, Schedule 2-2(l)    |
| [3] Boswell Exhibit I, Schedule 2-2(b) | [10] Boswell Exhibit I, Schedule 2-2(e)   |
| [4] Boswell Exhibit I, Schedule 2-2(d) | [11] Boswell Exhibit I, Schedule 2-2(f)   |
| [5] Boswell Exhibit I, Schedule 2-2(c) | [12] Boswell Exhibit I, Schedule 2-2(g)   |
| [6] Boswell Exhibit I, Schedule 2-2(i) | [13] Sum of Column (a) through Column (c) |
| [7] Boswell Exhibit I, Schedule 2-2(h) |   |



Public Service Company of North Carolina  
Docket No G-5, Sub 565  
ADJUSTMENT TO WORKING CAPITAL COMPONENTS  
For The Test Year Ended December 31, 2015

Line No.	Item	Per Books Amounts	Company Ratemaking Adjustments	After Company Adjustments	Public Staff Adjustments	After Public Staff Adjustments	(Lead) / Lag Days	Working Capital From Lead/Lag Study
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
<b>INVESTOR SUPPLIED CASH WORKING CAPITAL (ITEM 26 SCHEDULE A)</b>								
1	Operating Revenues							
2	Gas Sales and Transportation	\$435 616 557	(\$ 763 654)	\$426 854 903	\$4 063 800	\$430 918 703		\$47 271 191
3	Other Operating Revenues	3,413 176		3,413 176	113 788	3,526 964		366 903
	<b>Total Operating Revenues</b>	<b>\$439 031 733</b>	<b>(\$ 763 654)</b>	<b>\$430 268 079</b>	<b>\$4 177 588</b>	<b>\$434 445 667</b>	<b>40 04</b>	<b>\$47 638 094</b>
<b>Operating Expenses</b>								
4	Purchased gas	\$191 239 574	(14 121 829)	\$177 117 745	3 270 310	\$190 388 055	(35 65)	(\$17 616 724)
5	Operating and maintenance	92 796 663	20 134 369	112 931 062	(12 565 355)	100 365 707	(37 33)	(9 232 891)
6	Depreciation	49 622 105	6 874 526	56 496 731	(441 452)	56 055 279	0 00	0
7	General Taxes	12 433 363	3 026 690	15 460 053	(171 956)	15 288 097	(107 41)	(4 498 888)
8	Income taxes - current	1 827 866	(22 242 173)	(20 414 287)	5 545 243	(14 869 044)	(35 50)	1 446 167
9	State income taxes - deferred - net	1 373 439	1 011 528	2 384 967	0	2 384 967	0 00	0
10	Federal income taxes - deferred - net	23 670 197	11 254 193	34 924 390	0	34 924 390	0 00	0
11	Amortization of ITC	0	0	0	0	0	0 00	0
	<b>Total Operating Expenses</b>	<b>\$372 933 257</b>	<b>\$5 937 404</b>	<b>\$378 870 661</b>	<b>(\$4 383 210)</b>	<b>\$374 487 451</b>		<b>(\$29 904 337)</b>
<b>Net Operating Income for Return</b>								
13	Interest on long-term debt	\$20 879 571	\$2 416 929	\$23 096 500	\$243 303	\$23 339 803	(91 25)	(\$5 634 951)
14	Interest on short-term debt	220 858	41 432	262 290	(15 666)	246 624	(8 28)	(5 585)
15	Income available for common equity	45 198 047	(17 159 419)	28 038 628	8 333 160	36 371 788	0 00	0
	<b>Total Operating Income for Return</b>	<b>\$66,098 476</b>	<b>(\$14,701,058)</b>	<b>\$51 397 418</b>	<b>\$5 560 798</b>	<b>\$59 958 216</b>		<b>(\$5 840 548)</b>
17	<b>Total Cost of Service</b>	<b>\$439 031 733</b>	<b>(\$8 763 654)</b>	<b>\$430 268 079</b>	<b>\$4 177 588</b>	<b>\$434 445 667</b>		<b>(\$35 744 683)</b>
18	Investor Supplied Funds							<b>\$11 913,211</b>
19	Working capital from lead / lag study per Public Staff							<b>\$11 913,211</b>
20	Amount per Company application							<b>\$10,009 617</b>
21	Adjustment to working capital from lead / lag study							<b>\$1,903 594</b>
<b>OPERATING &amp; MAINTENANCE EXPENSES (ITEM 26 SCHEDULE D)</b>								
22	Payroll (PSNG)	\$28 660 619	\$2 257 200	\$30 917 819	(\$347 368)	\$30 570 451	(11 77)	(\$695 792)
23	Payroll (Services Co.)	9 974 419	294 185	10 268 604	(3 216 283)	7 052 321	(6 89)	(171 767)
24	Other O&M (A/P invoices)	22 796 620	13 740 596	36 536 716	(6 452 263)	30 084 453	(31 53)	(2 598 802)
25	Transportation Clearing (O&M)	3 873 074	630 235	4 503 309	0	4 512 309	8 69	107 430
26	Uncollectible Accounts	460 967	196 602	657 569	(22 445)	635 144	(197 73)	(344 074)
27	Insurance	6 473 500	197 495	6 670 995	0	6 670 995	22 58	412 686
28	Pension	1 743 607	380 477	2 124 084	0	2 124 084	0 00	0
29	Post Retirement	1 863 205	(136 967)	1 726 238	0	1 726 238	0 00	0
30	401K Plan	2 696 296	196 584	2 892 880	(21 776)	2 871 123	(14 74)	(114 331)
31	Regulatory Fees	660 691	(25 482)	635 209	0	635 209	(79 01)	(137 501)
32	Rent	2 033 434	0	2 033 434	0	2 033 434	5 08	28 301
33	Materials & Supplies	1 706 045	0	1 706 045	0	1 706 045	(18 05)	(84 367)
34	Postage	2 104 270	(32 366)	2 071 904	(144 717)	1 927 187	14 57	76 829
35	Incentive Pay	7 746 923	2 437 300	10 184 223	(2 395 199)	7 801 024	(253 67)	(6 421 805)
36	<b>Totals</b>	<b>\$92 796 663</b>	<b>\$20 134 369</b>	<b>\$112 931 062</b>	<b>(\$12 561 045)</b>	<b>\$100 310 017</b>		<b>(\$9 232 891)</b>
<b>INSURANCE (ITEM 26 SCHEDULE D-6)</b>								
37	Life AD&D & Cobra	\$314 751		\$314 751	\$0	\$314 751	(7 88)	(\$6 795)
<b>Self-insured Items</b>								
38	Health/Dental Insurance*	4 001 570		4 001 570	0	4 001 570	(5 50)	(60 298)
39	Long Term Disability Insurance	518 749	197 495	716 244	0	716 244	14 71	28 896
40	Short-Term Disability Insurance							
41	Salary Hourly	149 272		149 272	0	149 272	(6 46)	(2 642)
		202 785		202 785	0	202 785	(13 45)	(7 478)
42	Property & Liability Insurance	1 110 071		1 110 071	0	1 110 071	172 37	\$24 227
43	Small Claims	183 233		183 233	0	183 233	(136 81)	(69 684)
44	Worker's Compensation	(6 931)		(6 931)	0	(6 931)	(340 56)	6 467
45	<b>Totals</b>	<b>\$6 473 500</b>	<b>\$197 495</b>	<b>\$6 670 995</b>	<b>\$0</b>	<b>\$6 670 995</b>		<b>\$412 686</b>
<b>OTHER TAXES (ITEM 26 SCHEDULE E)</b>								
46	City Occupation	\$43 188		\$43 188	\$0	\$43 188	189 97	\$22 478
47	AD Valorem (City & County taxes)	8 973 838	1 221 955	10 195 793	(151 480)	10 044 313	(145 00)	(3 890 207)
48	Utility Sales Tax	21 319		21 319	0	21 319	(4 79)	(280)
49	Employer FICA & Medicare	3 295 656	195 691	3 491 347	(20 476)	3 470 871	(3 22)	(30 620)
50	Unemployment Tax	89 362		89 362	0	89 362	(62 24)	(16 943)
51	<b>Subtotal</b>	<b>\$12 433 363</b>	<b>\$1 417 646</b>	<b>\$13 851 009</b>	<b>(\$171 956)</b>	<b>\$13 679 053</b>		<b>(\$4 015 572)</b>
52	Franchise Tax	0	1 809 044	1 809 044	0	1 809 044	0 00	0
53	<b>Total Cost of Service Other Taxes</b>	<b>\$12 433 363</b>	<b>\$3 026 690</b>	<b>\$15 660 053</b>	<b>(\$171 956)</b>	<b>\$15 288 097</b>		<b>(\$4 015 572)</b>

(1) G 1 Item 26 Schedule A page 3 and Schedule A page 4 12 months ended 12/31/15 column  
(2) G 1 Item 26 Schedule A page 4 Adjustments column  
(3) G 1 Item 26 Schedule A page 2 and Schedule A page 4 After Adjustments column  
(4) Boswell Exhibit I Schedule 2-3(a) Column as  
(5) Column c plus Column d  
(6) G 1 Item 26 Schedule A page 2  
(7) Column e divided by 365 times column f

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO WORKING CAPITAL COMPONENTS**  
For The Test Year Ended December 31, 2015

Line No	Item	Update Plant in Service (a)	Gas Costs (b) [1]	End of period Revenue Adjustment (c)	LAUF Adjustment (d)	Adjust Uncollectibles [1] (e)
<b>Operating Revenues</b>						
1	Gas Sales and Transportation		\$0	\$4,063,800		
2	Other Operating Revenues					
3	Total Operating Revenues	0	0	4,063,800	0	0
<b>Operating Expenses</b>						
4	Purchased gas		641,134	2,606,522	22,654	
5	Operating and maintenance			5,889		(22,445)
6	Depreciation	(305,869)				
7	General Taxes	(123,494)				
8	Income taxes - current	181,441	(241,066)	545,798	(8,518)	8,439
9	State income taxes - deferred - net					
10	Federal income taxes - deferred - net					
11	Amortization of ITC					
12	Total Operating Expenses	(267,922)	400,068	3,158,009	14,136	(14,006)
<b>Net Operating Income for Return</b>						
13	Interest on long-term debt					
14	Interest on short-term debt					
15	Income available for common equity	267,922	(400,068)	905,791	(14,136)	14,006
16	Total Operating Income for Return	267,922	(400,068)	905,791	(14,136)	14,006
18	Total Cost of Service	0	0	4,063,800	0	0

**OPERATING & MAINTENANCE EXPENSES (ITEM 26 SCHEDULE D)**

19	Payroll (PSNC)					
20	Payroll (Services Co.)					
21	Other O&M (A/P Invoices)					
22	Transportation Clearing (O&M)					
23	Uncollectible Accounts					(22,445)
24	Insurance					
25	Pension					
26	Post Retirement					
27	401K Plan					
28	Regulatory Fees					
29	Rents					
30	Materials & Supplies					
31	Postage					
32	Incentive Pay					
33	Totals	0	0	0	0	(22,445)

**INSURANCE (ITEM 26 SCHEDULE D-5)**

34	Life AD&D & Cobra					
<b>Self insured items</b>						
35	Health/Dental insurance*					
36	Long-Term Disability insurance					
	Short-Term Disability insurance					
37	Salary					
38	Hourly					
39	Property & Liability Insurance					
40	Small Claims					
41	Worker's Compensation					
42	Totals	0	0	0	0	0

**OTHER TAXES (ITEM 26 SCHEDULE E)**

43	City Occupation					
44	AD Valorem (City & County taxes)	(123,494)				
45	Utility Sales Tax					
46	Employer FICA & Medicare					
47	Unemployment Tax					
48	Subtotal	(123,494)	0	0	0	0
49	Franchise Tax					
50	Total Cost of Service Other Taxes	(123,494)	0	0	0	0

[1] Corresponding column on Schedule 3  
[2] Sum of Columns a through cc

Public Service Company of North Carolina  
Docket No G-5, Sub 565  
**ADJUSTMENT TO WORKING CAPITAL COMPONENTS**  
For The Test Year Ended December 31, 2015

Line No	Item	Adjust MGP (f)	Adjust Executive Comp (g)	Adjust Regulatory Fee (h)	Adjust SalesForce (i)	Adjust Postage (j)
<b>Operating Revenues</b>						
1	Gas Sales and Transportation					
2	Other Operating Revenues					
3	Total Operating Revenues	0	0	0	0	0
<b>Operating Expenses</b>						
4	Purchased gas					
5	Operating and maintenance	(2 049 363)	(279 312)	(34 304)	(37 385)	(144 717)
6	Depreciation					
7	General Taxes					
8	Income taxes - current	770 561	431 983	12 898	14 056	54 414
9	State income taxes - deferred - net					
10	Federal income taxes - deferred - net					
11	Amortization of ITC					
12	Total Operating Expenses	(1 278 802)	152 671	(21,406)	(23,329)	(90,303)
<b>Net Operating Income for Return</b>						
13	Interest on long-term debt					
14	Interest on short-term debt					
15	Income available for common equity	1 278 802	(152,671)	21 406	23 329	90 303
16	Total Operating Income for Return	1,278,802	(152,671)	\$21,406	23,329	90,303
18	Total Cost of Service	0	0	0	0	0
<b>OPERATING &amp; MAINTENANCE EXPENSES (ITEM 26 SCHEDULE D)</b>						
19	Payroll (PSNC)		(70 369)			
20	Payroll (Services Co )					
21	Other O&M (A/P Invoices)	(\$2,049,363)		(34 304)	(37,385)	
22	Transportation Cleaning (O&M)					
23	Uncollectible Accounts					
24	Insurance					
25	Pension					
26	Post Retirement					
27	401K Plan					
28	Regulatory Fees					
29	Rents					
30	Materials & Supplies					
31	Postage					(144 717)
32	Incentive Pay		(208,944)			
33	Totals	(2 049 363)	(279 312)	(34 304)	(37,385)	(144,717)
<b>INSURANCE (ITEM 26 SCHEDULE D-5)</b>						
34	Life AD&D & Cobra					
<b>Self Insured Items</b>						
35	Health/Dental Insurance*					
36	Long-Term Disability Insurance					
	Short-Term Disability Insurance					
37	Salary					
38	Hourly					
39	Property & Liability Insurance					
40	Small Claims					
41	Worker's Compensation					
42	Totals	0	0	0	0	0
<b>OTHER TAXES (ITEM 26 SCHEDULE E)</b>						
43	City Occupation					
44	AD Valorem (City & County taxes)					
45	Utility Sales Tax					
46	Employer FICA & Medicare					
47	Unemployment Tax					
48	Subtotal	0	0	0	0	0
49	Franchise Tax					
50	Total Cost of Service Other Taxes	0	0	0	0	0

Public Service Company of North Carolina  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO WORKING CAPITAL COMPONENTS**  
For The Test Year Ended December 31, 2015

Line No	Item	Adjust PIM (k) [1]	Adjust Payroll (l) [1]	Adjust Interest on Customer Deposits (m) [1]	Adjust Rate Case Expense (n) [1]	Adjust Inflation (o) [1]
<b>Operating Revenues</b>						
1	Gas Sales and Transportation					
2	Other Operating Revenues					
3	Total Operating Revenues	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Operating Expenses</b>						
4	Purchased gas					
5	Operating and maintenance	(2,407,104)	(266,967)	(11,337)	(77,026)	449,153
6	Depreciation					
7	General Taxes		(20,476)			
8	Income taxes - current	905,071	108,079	4,262	28,962	(168,881)
9	State income taxes - deferred - net					
10	Federal income taxes - deferred - net					
11	Amortization of ITC					
12	Total Operating Expenses	<u>(1,502,033)</u>	<u>(179,365)</u>	<u>(7,075)</u>	<u>(48,064)</u>	<u>280,272</u>
<b>Net Operating Income for Return</b>						
13	Interest on long-term debt					
14	Interest on short-term debt					
15	Income available for common equity	1,502,033	179,365	7,075	48,064	(280,272)
16	Total Operating Income for Return	<u>1,502,033</u>	<u>179,365</u>	<u>7,075</u>	<u>48,064</u>	<u>(280,272)</u>
18	Total Cost of Service	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>OPERATING &amp; MAINTENANCE EXPENSES (ITEM 26 SCHEDULE D)</b>						
19	Payroll (PSNC)		(266,967)			
20	Payroll (Services Co.)					
21	Other O&M (A/P Invoices)	(2,407,104)		(11,337)	(77,026)	449,153
22	Transportation Cleaning (O&M)					
23	Uncollectible Accounts					
24	Insurance					
25	Pension					
26	Post Retirement					
27	401K Plan					
28	Regulatory Fees					
29	Rents					
30	Materials & Supplies					
31	Postage					
32	Incentive Pay					
33	Totals	<u>(2,407,104)</u>	<u>(266,967)</u>	<u>(11,337)</u>	<u>(77,026)</u>	<u>449,153</u>
<b>INSURANCE (ITEM 26 SCHEDULE D-5)</b>						
34	Life, AD&D & Cobra					
	Self Insured Items					
35	Health/Dental Insurance*					
36	Long-Term Disability Insurance					
	Short-Term Disability Insurance					
37	Salary					
38	Hourly					
39	Property & Liability Insurance					
40	Small Claims					
41	Worker's Compensation					
42	Totals	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>OTHER TAXES (ITEM 26 SCHEDULE E)</b>						
43	City Occupation					
44	AD Valorem (City & County taxes)					
45	Utility Sales Tax					
46	Employer FICA & Medicare		(20,476)			
47	Unemployment Tax					
48	Subtotal	<u>0</u>	<u>(20,476)</u>	<u>0</u>	<u>0</u>	<u>0</u>
49	Franchise Tax					
50	Total Cost of Service Other Taxes	<u>0</u>	<u>(20,476)</u>	<u>0</u>	<u>0</u>	<u>0</u>

Public Service Company of North Carolina  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO WORKING CAPITAL COMPONENTS**  
For The Test Year Ended December 31, 2015

Line No.	Item	Adjust Advertising (p)	Adjust Service Co Charges (q)	Adjust Other Benefit Percentage (r)	Adjust Special Contracts (s)	Adjust GTI Charges (t)
<b>Operating Revenues</b>						
1	Gas Sales and Transportation					
2	Other Operating Revenues					
3	Total Operating Revenues	0	0	0	0	0
<b>Operating Expenses</b>						
4	Purchased gas					
5	Operating and maintenance	(516,898)	(3,216,283)	(21,770)		(6,369)
6	Depreciation				(129,931)	
7	General Taxes				(27,045)	
8	Income taxes - current	194,354	1,209,322	8,186	59,023	2,395
9	State income taxes - deferred - net					
10	Federal income taxes - deferred - net					
11	Amortization of ITC					
12	Total Operating Expenses	(322,544)	(2,006,961)	(13,584)	(97,953)	(3,974)
<b>Net Operating Income for Return</b>						
13	Interest on long-term debt					
14	Interest on short-term debt					
15	Income available for common equity	322,544	2,006,961	13,584	97,953	3,974
16	Total Operating Income for Return	322,544	2,006,961	13,584	97,953	3,974
18	Total Cost of Service	0	0	0	0	0
<b>OPERATING &amp; MAINTENANCE EXPENSES (ITEM 26 SCHEDULE D)</b>						
19	Payroll (PSNC)					
20	Payroll (Services Co.)					
21	Other O&M (A/P Invoices)	(516,898)	(3,216,283)			(6,369)
22	Transportation Clearing (O&M)					
23	Uncollectible Accounts					
24	Insurance					
25	Pension					
26	Post Retirement					
27	401K Plan			(21,770)		
28	Regulatory Fees					
29	Rents					
30	Materials & Supplies					
31	Postage					
32	Incentive Pay					
33	Totals	(516,898)	(3,216,283)	(21,770)	0	(6,369)
<b>INSURANCE (ITEM 26 SCHEDULE D-5)</b>						
34	Life, AD&D & Cobra					
<b>Self Insured items</b>						
35	Health/Dental Insurance*					
36	Long-Term Disability Insurance					
	Short-Term Disability Insurance					
37	Salary					
38	Hourly					
39	Property & Liability Insurance					
40	Small Claims					
41	Worker's Compensation					
42	Totals	0	0	0	0	0
<b>OTHER TAXES (ITEM 26 SCHEDULE E)</b>						
43	City Occupation					
44	AD Valorem (City & County taxes)				(27,045)	
45	Utility Sales Tax					
46	Employer FICA & Medicare					
47	Unemployment Tax					
48	Subtotal	0	0	0	(27,045)	0
49	Franchise Tax					
50	Total Cost of Service Other Taxes	0	0	0	(27,045)	0

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO WORKING CAPITAL COMPONENTS**  
For The Test Year Ended December 31, 2015

Line No.	Item	Adjust Other Operating Income (u)	Adjust Fuel Costs (v)	Adjust DIMP (w)	Adjust for Retirement Compensation (x)	Adjust for Lobbying Exp. (y)
1	Operating Revenues					
2	Gas Sales and Transportation					
3	Other Operating Revenues	113,788				
3	Total Operating Revenues	113,788	0	0	0	0
	Operating Expenses					
4	Purchased gas					
5	Operating and maintenance		(117,012)	(1,218,897)	(139,250)	(167,760)
6	Depreciation					
7	General Taxes					
8	Income taxes - current	42,785	43,996	458,305	52,358	63,078
9	State income taxes - deferred - net					
10	Federal income taxes - deferred - net					
11	Amortization of ITC					
12	Total Operating Expenses	42,785	(73,016)	(760,592)	(86,892)	(104,682)
	Net Operating Income for Return					
13	Interest on long-term debt					
14	Interest on short-term debt					
15	Income available for common equity	71,003	73,016	760,592	86,892	104,682
16	Total Operating Income for Return	71,003	73,016	760,592	86,892	104,682
18	Total Cost of Service	113,788	0	0	0	0
<b>OPERATING &amp; MAINTENANCE EXPENSES (ITEM 26 SCHEDULE D)</b>						
19	Payroll (PSNC)				(10,032)	
20	Payroll (Services Co.)					
21	Other O&M (A/P Invoices)		(117,012)	(1,218,897)		(167,760)
22	Transportation Clearing (O&M)					
23	Uncollectible Accounts					
24	Insurance					
25	Pension					
26	Post Retirement					
27	401K Plan					
28	Regulatory Fees					
29	Rents					
30	Materials & Supplies					
31	Postage					
32	Incentive Pay				(129,218)	
33	Totals	0	(117,012)	(1,218,897)	(139,250)	(167,760)
<b>INSURANCE (ITEM 26 SCHEDULE D-5)</b>						
34	Life, AD&D & Cobra					
	Self Insured Items					
35	Health/Dental Insurance*					
36	Long-Term Disability Insurance					
	Short-Term Disability Insurance					
37	Salary					
38	Hourly					
39	Property & Liability Insurance					
40	Small Claims					
41	Worker's Compensation					
42	Totals	0	0	0	0	0
<b>OTHER TAXES (ITEM 26 SCHEDULE E)</b>						
43	City Occupation					
44	AD Valorem (City & County taxes)					
45	Utility Sales Tax					
46	Employer FICA & Medicare					
47	Unemployment Tax					
48	Subtotal	0	0	0	0	0
49	Franchise Tax					
50	Total Cost of Service Other Taxes	0	0	0	0	0

Public Service Company of North Carolina  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO WORKING CAPITAL COMPONENTS**  
For The Test Year Ended December 31, 2015

Line No.	Item	Adjust Non-utility (z)	Update Bonus (aa)	Adjust Sr Staff Bonus Pay (1) (bb)	Interest Synchronization (cc)	Total Public Staff Adjustments (2) (dd)
<b>Operating Revenues</b>						
1	Gas Sales and Transportation					4,063,800
2	Other Operating Revenues					113,788
3	Total Operating Revenues	0	0	0	0	4,177,588
<b>Operating Expenses</b>						
4	Purchased gas					3,270,310
5	Operating and maintenance	(257,961)	(1,178,457)	(869,580)		(12,585,355)
6	Depreciation	(5,652)				(441,452)
7	General Taxes	(941)				(171,956)
8	Income taxes - current	99,472	443,100	326,962	(85,592)	5,545,243
9	State income taxes - deferred - net					0
10	Federal income taxes - deferred - net					0
11	Amortization of ITC					0
12	Total Operating Expenses	(165,082)	(735,357)	(542,618)	(85,592)	(4,383,210)
<b>Net Operating Income for Return</b>						
13	Interest on long-term debt				243,303	243,303
14	Interest on short-term debt				(15,666)	(15,666)
15	Income available for common equity	165,082	735,357	542,618	(142,046)	8,333,160
16	Total Operating Income for Return	165,082	735,357	542,618	85,592	8,560,798
18	Total Cost of Service	0	0	0	0	4,177,588

**OPERATING & MAINTENANCE EXPENSES (ITEM 26 SCHEDULE D)**

19	Payroll (PSNC)					(347,368)
20	Payroll (Services Co.)					(3,216,283)
21	Other O&M (A/P Invoices)	(257,961)				(6,452,263)
22	Transportation Clearing (O&M)					0
23	Uncollectible Accounts					(22,445)
24	Insurance					0
25	Pension					0
26	Post Retirement					0
27	401K Plan					(21,770)
28	Regulatory Fees					0
29	Rents					0
30	Materials & Supplies					0
31	Postage					(144,717)
32	Incentive Pay		(1,178,457)	(869,580)		(2,386,199)
33	Totals	(257,961)	(1,178,457)	(869,580)	0	(12,591,045)

**INSURANCE (ITEM 26 SCHEDULE D-5)**

34	Life, AD&D & Cobra					0
<b>Self Insured Items</b>						
35	Health/Dental Insurance*					0
36	Long-Term Disability Insurance					0
	Short-Term Disability Insurance					0
37	Salary					0
38	Hourly					0
39	Property & Liability Insurance					0
40	Small Claims					0
41	Worker's Compensation					0
42	Totals	0	0	0	0	0

**OTHER TAXES (ITEM 26 SCHEDULE E)**

43	City Occupation					0
44	AD Valorem (City & County taxes)	(941)				(151,480)
45	Utility Sales Tax					0
46	Employer FICA & Medicare					(20,476)
47	Unemployment Tax					0
48	Subtotal	(941)	0	0	0	(171,956)
49	Franchise Tax					0
50	Total Cost of Service Other Taxes	(941)	0	0	0	(171,956)

Public Service Company of North Carolina  
Docket No. G-5, Sub 565  
ADJUSTMENT TO WORKING CAPITAL COMPONENTS  
For The Test Year Ended December 31, 2015  
After Rate Increase

Boswell Exhibit I  
Schedule 2-4

		Under Present Rates		Iteration 1				Iteration 2				Iteration 3				After Increase	
Line No.	Item	After Adjustments	Lead/Lag Days	Increase	With Increase	CWC Change	Increase	With Increase	CWC Change	Increase	With Increase	CWC Change	Increase	Cumulative Increase	After Increase		
INVESTOR SUPPLIED CASH WORKING CAPITAL (ITEM 26 SCHEDULE A)																	
	Operating Revenues																
1	Gas Sales and Transportation (L3 L2)	\$426,854,903		\$19,122,191													
2	Other Operating Revenues	3,413,175		2,657,576	(1)												
3	Total Operating Revenues	\$430,268,079	40.04	\$19,398,767	\$449,666,846	1111	\$2,128,018	\$452,128,121	\$454,234,966	1131	\$307,699	\$52,590	\$454,347,556	5.789	\$24,079,479		
Operating Expenses																	
4	Purchased gas	\$180,388,055	(36.65)		\$180,388,055	0		\$180,388,055				\$180,388,055		0	\$180,388,055		
5	Operating and maintenance (Line 33)	100,315,707	(37.33)	74,856	100,390,603	(51,761)		542	100,391,144	(230)		205	100,391,349	(8.7)	75,642		
6	Depreciation	56,055,279	0.00		56,055,279	0			56,055,279				56,055,279		56,055,279		
7	General Taxes	15,288,097	(107.41)		15,288,097	0			15,288,097				15,288,097		15,288,097		
8	Income taxes - current	(14,969,044)	(35.50)	7,265,516	(14)	(7,603,528)	(706,646)	39,887	(14)	(7,563,641)	(3,979)	15,060	(14)	(7,549,581)	(1,465)		
9	State income taxes - deferred - net	2,384,967	0.00		2,384,967	0			2,384,967				2,384,967		2,384,967		
10	Federal income taxes - deferred - net	34,924,390	0.00		34,924,390	0			34,924,390				34,924,390		34,924,390		
11	Amortization of ITC	0	0.00		0	0			0				0		0		
12	Total Operating Expenses (sum lines 4 through 12)	\$374,487,451		\$7,340,412	\$381,827,863	(\$738,407)		\$40,429	\$381,868,292	(24,109)		\$15,264	\$381,883,556	(81,567)	\$7,396,105		
Net Operating Income for Return																	
13	Interest on long term debt	\$23,339,823	(91.25)	\$308,672	(5)	\$23,648,475	(108)	(77,188)	\$23,571,287		(88,981)	\$12,204	\$23,690,209	(1,051)	363,189		
14	Interest on short term debt	245,624	(8.38)	3,292	(5)	249,886	(108)	(74)	250,228	111	(8)	129	250,357	(3)	3732,630		
15	Income available for common equity	\$6,371,786	0.00	\$12,067,656	(5)	\$6,429,453	(108)	0	\$6,429,453	111	0	74,993	\$6,504,446	(3)	121,665		
16	Total Operating Income for Return (Sum Line 14 through 16)	\$9,958,216		\$12,369,598		\$7,372,814	(\$77,242)	\$68,862	\$7,441,676	(\$6,069)		\$37,876	\$7,479,552	(83,054)	\$12,505,786		
17	Total Cost of Service (L13 + L17)	\$434,445,967		\$19,710,010	\$454,155,977	(\$815,649)		\$138,291	\$454,294,268	(\$12,188)		\$52,580	\$454,346,848	(\$4,606)	\$19,901,691		
OPERATING & MAINTENANCE EXPENSES (ITEM 25 SCHEDULE D)																	
18	Payroll (P&M)	\$30,570,451	(11.77)		\$30,570,451	0		\$30,570,451				\$30,570,451		0	\$30,570,451		
19	Payroll (Services Co.)	7,052,321	(8.89)		7,052,321	0		7,052,321				7,052,321		0	7,052,321		
20	Other O&M (APF Invoices)	30,084,453	(31.53)		30,084,453	0		30,084,453				30,084,453		0	30,084,453		
21	Transportation Accounts (O&M)	4,512,309	6.89		4,512,309	0		4,512,309				4,512,309		0	4,512,309		
22	Unallocated Accounts (Line 1 times uncollectibles factor)	635,144	(197.73)	47,805	682,949	(25,897)	348	683,297	(188)		131	683,429	(771)	48,284	514,335		
23	Insurance	6,670,995	22.38		6,670,995	0		6,670,995				6,670,995		0	6,670,995		
24	Pension	2,124,064	0.00		2,124,064	0		2,124,064				2,124,064		0	2,124,064		
25	Post Retirement	1,726,238	0.00		1,726,238	0		1,726,238				1,726,238		0	1,726,238		
26	401K Plan	2,831,123	(14.74)		2,831,123	0		2,831,123				2,831,123		0	2,831,123		
27	Regulatory Fees (Line 3 times regulatory fee)	632,239	(72.01)	27,030	662,269	(5,864)	184	662,453	(423)		73	662,527	(16)	27,357	672,24		
28	Rents	2,033,434	5.68		2,033,434	0		2,033,434				2,033,434		0	2,033,434		
29	Materials & Supplies	1,706,045	(10.05)		1,706,045	0		1,706,045				1,706,045		0	1,706,045		
30	Postage	1,827,187	14.57		1,827,187	0		1,827,187				1,827,187		0	1,827,187		
31	Incentive Pay	7,801,024	(253.67)		7,801,024	0		7,801,024				7,801,024		0	7,801,024		
32	Total (sum of Line 19 through 32)	\$100,310,017		\$74,896	\$100,384,913	(\$31,761)		\$542	\$100,385,455	(\$203)		\$205	\$100,385,660	(887)	\$75,642		
INSURANCE (ITEM 26 SCHEDULE D-3)																	
33	Life, AD&D & Cobra	\$314,751	(7.88)		\$314,751	0		\$314,751				\$314,751		0	\$314,751		
Self Insured Items																	
34	Health/Dental Insurance*	4,001,570	(5.80)		4,001,570	0		4,001,570				4,001,570		0	4,001,570		
35	Long-Term Disability Insurance	716,244	14.71		716,244	0		716,244				716,244		0	716,244		
36	Short-Term Disability Insurance					0								0			
37	Salary	149,272	(6.46)		149,272	0		149,272				149,272		0	149,272		
38	Hourly	202,785	(13.46)		202,785	0		202,785				202,785		0	202,785		
39	Property & Liability Insurance	1,110,071	172.37		1,110,071	0		1,110,071				1,110,071		0	1,110,071		
40	Small Claims	183,233	(138.61)		183,233	0		183,233				183,233		0	183,233		
41	Worker's Compensation	(6,831)	(340.56)		(6,831)	0		(6,831)				(6,831)		0	(6,831)		
42	Totals	\$6,670,995		\$6,670,995	\$0	\$0		\$6,670,995	\$0	\$0		\$6,670,995	\$0	\$0	\$6,670,995		
OTHER TAXES (ITEM 26 SCHEDULE E)																	
43	City Occupation	\$43,188	189.97		\$43,188	0		\$43,188				\$43,188		0	\$43,188		
44	AD Valorem (City & County taxes)	10,044,313	(145.00)		10,044,313	0		10,044,313				10,044,313		0	10,044,313		
45	State Sales Tax	21,319	(6.70)		21,319	0		21,319				21,319		0	21,319		
46	Employer FICA & Medicare	3,470,871	(3.22)		3,470,871	0		3,470,871				3,470,871		0	3,470,871		
47	Unemployment Tax	89,362	(62.24)		89,362	0		89,362				89,362		0	89,362		
48	Subtotal	\$13,679,053		\$13,679,053	\$0	\$0		\$13,679,053	\$0	\$0		\$13,679,053	\$0	\$0	\$13,679,053		
49	Franchise Tax	1,609,044	0.00		1,609,044	0		1,609,044				1,609,044		0	1,609,044		
50	Total Cost of Service Other Taxes	\$15,288,097		\$15,288,097	\$0	\$0		\$15,288,097	\$0	\$0		\$15,288,097	\$0	\$0	\$15,288,097		
Cumulative change in working capital (Line 3 plus Line 18)																	
51	Rate base under present rates				\$1,312,389			\$1,807,670				\$1,800,033					
52	Rate base after interest rates				\$60,139,834	(6)		\$60,139,834				\$60,139,834					
53	Rate base after adjustments (Line 51 + Line 52)	\$60,139,834	(6)		\$61,452,223			\$61,960,503				\$62,760,536					
54	Overall rate of return	6.24%			7.52%			7.53%				7.53%					
55	Target Rate of Return	7.53%			7.53%			7.53%				7.53%					

(1) Boswell Exhibit I Schedule 2-3 Column e  
(2) Boswell Exhibit I Schedule 2-4 Column f  
(3) Per Public Staff  
(4) Line 151 composite tax rate Line 15  
(5) Column a minus Column a  
(6) Boswell Exhibit I Schedule 2, Column c Line 7  
(7) Column a plus Column c

(8) Column c divided by 365 times Column b  
(9) Column a minus Column d  
(10) Column d Line 52 times appropriate percentage and cost factor  
(11) Column a Line 52 times appropriate percentage and cost factor  
(12) Column d plus Column f  
(13) Line 12 plus Line 16  
(14) Column f divided by 365 times Column b

(15) Column a minus Column d



Public Service Company of North Carolina  
Docket No G-5, Sub 565  
**ADJUSTMENT TO COMPANY FILED COST OF SERVICE**  
For The Test Year Ended December 31, 2015

Line No	Description	Company Before Increase	Interest Synch on CWC Increase	Company Without Rate Increase	Company Without Rate Increase New Tax
	<b>Operating Revenues:</b>				
1	Sale and transportation of gas	\$426,062,649		\$426,062,649	\$426,062,649
2	Special Contract Revenues	792,254		792,254	792,254
3	Other operating revenues	3,413,176		3,413,176	3,413,176
4	Total operating revenues (Sum of L1 thru L3)	430,268,079	0	430,268,079	430,268,079
5	Cost of gas	177,117,745	0 [2]	177,117,745	177,117,745
6	Margin (L4 - L5)	253,150,334	0	253,150,334	253,150,334
7	Operation and maintenance	112,901,063	0 [2]	112,901,063	112,901,063
8	Depreciation	56,496,731		56,496,731	56,496,731
9	General taxes	15,460,053		15,460,053	15,460,053
10	State income taxes	1,794,393	2,958 [2]	1,797,351	1,348,011
11	Federal income taxes	15,072,898	24,846 [2]	15,097,744	15,254,990
12	Amortization of investment tax credits			0	0
13	Amortization of EDIT			0	0
14	Total operating expenses (Sum of L7 thru L13)	201,725,138	27,804	201,752,942	201,460,848
15	Net operating income	51,425,196	(27,804)	51,397,392	51,689,486
16	Interest on customer deposits			0	0
17	Net operating income for return (L6 less L14)	\$51,425,196	(\$27,804)	\$51,397,392	\$51,689,486

[1] Boone Exhibit 6, Page 1 of 5, "After Adjustments" column

[2] Interest synchronization effect of increase in CWC due to rate increase

[3] Column (a) plus Column (b)

Public Service Company of North Carolina  
Docket No G-5, Sub 565  
NET OPERATING INCOME FOR RETURN  
For The Test Year Ended December 31, 2015

Boswell Exhibit I  
Schedule 3  
Page 1 of 4

Line No	Item	Per Company (a)	[1] Plant Updates @ June 30, 2016 (b)	[2] Other Operating Revenue Adjustment (c)	[3] End of period Revenue Adjustment (d)	[3] LAUF (e)	[3] Gas Cost (f)	[3] Special Contacts (g)	[4]
<b>Operating Revenues:</b>									
1	Sales and transportation of gas	\$426,062,649			\$4,063,800				
2	Special Contract Revenues	792,254							
3	Other operating revenues	3,413,176		113,788					
4	Total operating revenues (L1 - L3)	430,268,079	0	113,788	4,063,800	0	0	0	
5	Cost of gas	177,117,745			2,606,522	22,654	641,134		
6	Margin (L4 - L5)	253,150,334	0	113,788	1,457,278	(22,654)	(641,134)	0	
<b>Operating Expenses:</b>									
7	Operating and maintenance	112,901,063			5,689				
8	Depreciation	56,496,731	(305,869)					(129,931)	
9	General taxes	15,460,053	(123,494)					(27,045)	
10	State income tax (3%)	1,797,351	17,175	4,552	58,064	(906)	(25,645)	6,279	
11	Federal income tax (35%)	15,097,744	144,266	38,233	487,734	(7,612)	(215,421)	52,744	
12	Amortization of investment tax credits	0							
13	Amortization of EDIT	0							
14	Total operating expenses (Sum of L4 thru L10)	201,752,942	(267,922)	42,785	551,487	(8,518)	(241,066)	(97,953)	
15	Interest on customer deposits	-							
16	Net operating income for return (L3 - L12+L11+L12)	\$51,397,392	\$267,922	\$71,003	\$905,791	(\$14,136)	(\$400,068)	\$97,953	
Revenue Requirement Effect									
			\$431,041	\$114,232	\$1,457,266	(\$22,742)	(\$643,643)	\$157,590	

- [1] Boswell Exhibit I, Schedule 3(a)  
[2] Boswell Exhibit I, Schedule 2-1  
[3] Boswell Exhibit I, Schedule 3(b)  
[4] Per Company response to accounting DR3-3,  
[5] Boswell Exhibit I, Schedule 3-1  
[6] Boswell Exhibit I, Schedule 3-2  
[7] Boswell Exhibit I, Schedule 3-3  
[8] Boswell Exhibit I, Schedule 3-4

Public Service Company of North Carolina  
Docket No G-5, Sub 565  
NET OPERATING INCOME FOR RETURN  
For The Test Year Ended December 31, 2015

Boswell Exhibit I  
Schedule 3  
Page 2 of 4

Line No	Item	Payroll and Related Costs [5] (h)	Bonus [6] (i)	Other Benefits [7] (j)	Allocation of Senior Staff Bonus Pay [8] (k)	Executive Compensation [9] (l)	Retirement Compensation [10] (m)	Rate Case Expenses [11] (n)	Postage Adjustment [12] (o)	Uncollectibles [13] (p)
<b>Operating Revenues:</b>										
1	Sales and transportation of gas									
2	Special Contract Revenues									
3	Other operating revenues	0								
4	Total operating revenues (L1 - L3)	0	0	0	0	0	0	0	0	0
5	Cost of gas									
6	Margin (L4 - L5)	0	0	0	0	0	0	0	0	0
<b>Operating Expenses:</b>										
7	Operating and maintenance	(266,967)	(1,178,457)	(21,770)	(869,580)	(279,312)	(139,250)	(77,026)	(144,717)	(22,445)
8	Depreciation									
9	General taxes	(20,476)	0		0					
10	State income tax (3%)	11,498	47,138	871	34,783	11,172	5,570	3,081	5,789	898
11	Federal income tax (35%)	96,581	395,962	7,315	292,179	93,849	46,788	25,881	48,625	7,541
12	Amortization of investment tax credits									
13	Amortization of EDIT									
14	Total operating expenses (Sum of L4 thru L10)	(179,365)	(735,357)	(13,584)	(542,618)	(174,291)	(86,892)	(48,064)	(90,303)	(14,006)
15	Interest on customer deposits									
16	Net operating income for return (L3 - L12+L11+L12)	\$179,365	\$735,357	\$13,584	\$542,618	\$174,291	\$86,892	\$48,064	\$90,303	\$14,006
Revenue Requirement Effect										
		\$288,568	\$1,183,067	\$21,854	\$872,982	\$280,405	\$139,795	\$77,327	\$145,282	\$22,533

[9] Boswell Exhibit I, Schedule 3-5  
[10] Boswell Exhibit I, Schedule 3-6  
[11] Boswell Exhibit I, Schedule 3-7  
[12] Boswell Exhibit I, Schedule 3-8  
[13] Boswell Exhibit I, Schedule 3-9  
[14] Boswell Exhibit I, Schedule 3-10  
[15] Boswell Exhibit I, Schedule 3-11

Public Service Company of North Carolina  
Docket No G 5, Sub 565  
NET OPERATING INCOME FOR RETURN  
For The Test Year Ended December 31, 2015

Boswell Exhibit I  
Schedule 3  
Page 3 of 4

Line No	Item	Inflation (q)	[14]	Nonutility Expenses (r)	[15]	PIM Costs (s)	[16]	Manufactured Gas Plant Costs (t)	[17]	DIMP Costs (u)	[18]	Regulatory Fee (v)	[19]	Advertising (w)	[20]	SalesForce Amortization (x)	[21]
<b>Operating Revenues:</b>																	
1	Sales and transportation of gas																
2	Special Contract Revenues																
3	Other operating revenues																
4	Total operating revenues (L1 - L3)	0		0		0		0		0		0		0		0	
5	Cost of gas																
6	Margin (L4 - L5)	0		0		0		0		0		0		0		0	
<b>Operating Expenses:</b>																	
7	Operating and maintenance	449,153		(257,961)		(2,407,104)		(2,049,363)		(1,218,897)		(34,304)		(516,898)		(37,385)	
8	Depreciation			(5,652)													
9	General taxes			(941)													
10	State income tax (3%)	(17,966)		10,582		96,284		81,975		48,756		1,372		20,676		1,495	
11	Federal income tax (35%)	(150,915)		88,890		808,787		688,586		409,549		11,526		173,678		12,561	
12	Amortization of investment tax credits																
13	Amortization of EDIT																
14	Total operating expenses (Sum of L4 thru L10)	280,272		(165,082)		(1,502,033)		(1,278,802)		(760,592)		(21,406)		(322,544)		(23,329)	
15	Interest on customer deposits																
16	Net operating income for return (L3 - L12+L11+L12)	(\$280,272)		\$165,082		\$1,502,033		\$1,278,802		\$760,592		\$21,406		\$322,544		\$23,329	
	Revenue Requirement Effect	(\$450,911)		\$265,589		\$2,416,520		\$2,057,379		\$1,223,666		\$34,439		\$518,919		\$37,532	

[16] Boswell Exhibit I, Schedule 3-12

[17] Boswell Exhibit I, Schedule 3-13

[18] Boswell Exhibit I, Schedule 3-14

[19] Boswell Exhibit I, Schedule 3-15

[20] Boswell Exhibit I, Schedule 3-16

[21] Boswell Exhibit I, Schedule 3-17

[22] Boswell Exhibit I, Schedule 3-18

Public Service Company of North Carolina  
Docket No G-5, Sub 565  
NET OPERATING INCOME FOR RETURN  
For The Test Year Ended December 31, 2015

Boswell Exhibit I  
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Page 4 of 4

Line No	Item	Interest on Customer Deposits (y)	[22]	Service Company Charges (z)	[23]	GTI (aa)	[24]	Fuel Costs (bb)	[25]	Lobbying Expense (cc)	[26]	Interest Synchronization (dd)	[27]	After Public Staff Adjustments (ee)	[28]
<b>Operating Revenues:</b>															
1	Sales and transportation of gas													\$430,126,449	
2	Special Contract Revenues													792,254	
3	Other operating revenues													3,526,964	
4	Total operating revenues (L1 - L3)	0		0		0		0		0		0		434,445,667	
5	Cost of gas													180,388,055	
6	Margin (L4 - L5)	0										0		254,057,612	
<b>Operating Expenses:</b>															
7	Operating and maintenance	(11,337)		(3,216,283)		(6,369)		(117,012)		(167,760)				100,315,708	
8	Depreciation													56,055,279	
9	General taxes													15,288,097	
10	State income tax (3%)	453		128,651		255		4,680		6,710		(21,583)		2,340,010	
11	Federal income tax (35%)	3,809		1,080,671		2,140		39,316		56,368		(181,296)		19,656,079	
12	Amortization of investment tax credits													-	
13	Amortization of EDIT													-	
14	Total operating expenses (Sum of L4 thru L10)	(7,075)		(2,006,961)		(3,974)		(73,016)		(104,682)		(202,879)		193,655,173	
15	Interest on customer deposits													-	
16	Net operating income for return (L3 - L12+L11+L12)	\$7,075		\$2,006,961		\$3,974		\$73,016		\$104,682		\$202,879		\$60,402,439	
Revenue Requirement Effect															
		\$11,382		\$3,228,865		\$6,394		\$117,471		\$168,417		\$326,398			

[23] Boswell Exhibit I, Schedule 3-19  
[24] Boswell Exhibit I, Schedule 3-20  
[25] Boswell Exhibit I, Schedule 3-21  
[26] Boswell Exhibit I, Schedule 3-22  
[27] Boswell Exhibit I, Schedule 3-23  
[28] Sum of columns (a) through (cc)

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**SUMMARY OF REVENUE AND  
COST OF GAS ADJUSTMENTS**  
For The Test Year Ended December 31, 2015

Line No.	Item	Sales and Transportation Revenues (a)	Special Contract Revenues (b)	Other Operating Revenues (c)	Cost of Gas (d)	Regulatory Fee (g)	[6]
1	Company amount per application	\$426,062,649 [1]	\$792,254 [1]	\$3,413,176 [1]	\$177,117,745 [1]		
2	Operating Revenues EOP - Public Staff Volumes	4,063,800 [2]			2,606,522 [3]	5,689	
3	On-going level of cost of gas - fixed gas costs				641,134 [4]		
4	Lost & Unaccounted For change				22,654 [5]		
5	Adjustment to other operating revenues			113,788 [5]			
6	Public Staff Amount (Sum of L1 thru L5)	<u>\$430,126,449</u>	<u>\$792,254</u>	<u>\$3,526,964</u>	<u>\$180,388,055</u>		

[1] Per Item G-1, Item 4, Workpaper 1, page 1 of 5.

[2] Per Public Staff EOP Operating Revenues, Exhibit A.

[3] 11,584,540 therms multiplied by \$.225/therm.

[4] Public Staff fixed gas costs of \$67,928,619 minus Company amount of \$67,287,485.

[5] Per Public Staff.

[6] Column (a) + Column (b) multiplied by regulatory fee rate.

**Public Service Company of North Carolina**  
**Docket No. G-5, Sub 565**  
**CALCULATION OF PUBLIC STAFF PAYROLL ADJUSTMENTS**  
For The Test Year Ended December 31, 2015

Line No.	Item	Company	Public Staff	Public Staff Change [6]
		(a)	(b)	(c)
1	Union Employee Salaries as of 12/31/15	\$14,075,422 [1]	\$14,527,885 [4]	\$452,462
2	2016 Union Progression Increases	82,502 [1]	127,298 [4]	44,796
3	Union Merit Increase	353,948 [1]	366,380 [4]	12,431
4	Non-Union Salaries as of 12/31/15	21,509,399 [1]	22,034,930 [4]	525,531
5	Non-Union Merit Increase effective 2/16	645,282 [1]	- [4]	(645,282)
6	PSNC Overtime Pay	5,367,940 [1]	4,937,227 [5]	(430,713)
7	Overtime Increase	134,199 [1]	- [6]	(134,199)
8	Total Regular PSNC Payroll (sum L1 through L7)	42,168,692	41,993,719	(174,972)
9	Percent of Payroll to O&M	70.88% [2]	70.88% [2]	
10	Total O&M Portion of PSNC Payroll (L8 * L9)	29,889,169	29,765,148	(124,020)
11	SCANA Services Payroll Allocated to PSNC	9,806,157 [3]	9,858,625 [4]	52,468
12	Additional Headcount (O&M only)	294,185 [8]	98,770 [6]	(195,415)
13	Total Payroll Expense, Excluding Bonus & Incentive Pay	39,989,511	39,623,773	(266,967)
14	Payroll Tax Percent			7.67% [8]
15	Public Staff Adjustment to Payroll Taxes			(\$20,476)

[1] MFR Item 4, Workpaper 3-A, p. 2.

[2] MFR Item 4, Workpaper 3-A, p. 5.

[3] MFR, Item 4, Workpaper 3-A, p.9.

[4] Company updates to June 30, 2016.

[5] Boswell Exhibit I, Schedule 3-1(a), Line 10.

[6] Recommended by Public Staff based on review of documentation.

[7] Column b minus Column a.

[8] MFR, Item 4, Workpaper 3-A, p.1.

Public Service Company of North Carolina, Inc.  
Docket No. G-5, Sub 565  
Adjustment for Bonus Accruals  
For the 12 Months Ended December 31, 2015

Line No.		Filed Estimate		[1]	June 2016 actuals		[2]	Adjustment
		PSNC	SC to PSNC		PSNC	SC to PSNC		
	<b>Bonus Accruals</b>							
1	PSNC 3-5-7	\$1,921,673			\$1,660,721			
2	PSNC officer's short-term	435,794			401,542			
3	PSNC officer's long-term	473,300			484,717			
4	Service Company 3-5-7		\$1,248,915			\$1,054,271		
5	Service Company officer's short term		1,414,311			1,216,275		
6	Service Company officer's long term		5,584,682			5,000,052		
7	Total Bonus accrual (Sum L1 thru L6)	<u>\$2,830,767</u>	<u>\$8,247,908</u>		<u>\$2,546,980</u>	<u>\$7,270,598</u>		
8	Test year bonus accrual	3,212,610	5,539,957		3,212,610	5,539,957		
9	O&M Expense %	<u>70.88%</u>	<u>100.00%</u>		<u>70.88%</u>	<u>100.00%</u>		
10	Total	<u>(270,651)</u>	<u>2,707,951</u>		<u>(471,799)</u>	<u>1,730,641</u>		<u>(\$1,178,457)</u>

[1] Per Company MFR, Item 4a, Workpaper 3-S.

[2] Per Company response to email 7/29/16.



Public Service Company of North Carolina  
Docket No. G-5, Sub 565  
**CALCULATION OF OTHER BENEFITS ADJUSTMENTS**  
For The Test Year Ended December 31, 2015

<u>Line No.</u>	<u>Amount</u>	<u>Per Company</u>	<u>Per Public Staff</u>	<u>Adjustment</u>
1	Proforma Payroll Adjustment	\$2,456,256	\$2,189,289	
2	Updated Other Benefits Percent	<u>7.60% [1]</u>	<u>7.53% [2]</u>	
3	Adjustment to Proforma Other Benefits (L1*L2)	<u>\$186,675</u>	<u>\$164,906</u>	<u>(\$21,770)</u>

[1] Per MFR, Item 4a, Workpaper 3F, Page 1.

[2] Per information provided by the Company.

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO REALLOCATE SCANA SENIOR STAFF COMPENSATION**  
For The Test Year Ended December 31, 2015

<u>Line No</u>	<u>Item</u>	<u>Amount</u>
	<u>SCANA Senior Staff Compensation Charged to PSNC O&amp;M</u>	
1	Company Amount	\$2,229,159 [1]
2	Public Staff Amount	<u>1,359,579 [2]</u>
3	Public Staff Adjustment to Decrease O&M Expenses (L1 - L2)	<u>\$869,580</u>

[1] Company responses to Public Staff Accounting DR 48

[2] Allocation of all compensation items for each executive based on the allocation of the executive's regular pay

**Public Service Company of North Carolina, Inc.**  
**Docket No. G-5, Sub 595**  
**For the 12 Months Ended December 31, 2015**  
**Computation of Public Staff Adjustment to Executive Compensation**

	Annual Compensation	ST Incentive	LT Incentive	Other	Total Compensation	PSNC %	Total	
KB Marsh	\$1,202,590	\$1,364,220	\$2,763,823	\$402,625	\$5,733,258	5.4904%	\$314,779	[1]
JE Addison	624,112	590,070	1,004,157	187,080	2,405,419	9.3624%	225,205	[1]
RT Lindsay	456,209	344,261	544,044	143,893	1,488,407	9.6543%	143,696	[1]
SA Byrne	624,112	531,063	1,004,157	154,706	2,314,038	0.0000%	-	[1]
WK Kissam	383,739	265,767	387,644	83,658	1,120,808	0.0000%	-	[1]
Total	<u>\$3,290,762</u>	<u>\$3,095,381</u>	<u>\$5,703,825</u>	<u>\$971,962</u>	<u>\$13,061,930</u>		<u>\$683,680</u>	

Executive Compensation Charged BTL per Public Staff	<u>50.00%</u>	[2]
Public Staff PSNC BTL Executive Compensation	341,840	
PSNC BTL Executive Compensation Before Executive Compensation Adjustment	<u>(62,528)</u>	[3]
Public Staff Adjustment to Decrease O&M Expenses	<u>\$279,312</u>	
Public Staff Adjustment to Decrease Payroll	70,369	
Public Staff Adjustment to Decrease Incentive Plan	208,944	

[1] Company Response to PSNC DR 48-2.

[2] Determined by the Public Staff

[3] Per Boswell Exhibit I, Schedule 3-5(a).

**Public Service Company of North Carolina, Inc.**  
**Docket No. G-5, Sub 495**  
**For the 12 Months Ended December 31, 2007**  
**Computation of Executive Compensation Charged to Below the Line and Non Utility Activities by Company**

Line No.		Annual Compensation	ST Incentive	LT Incentive	Other	Total Compensation	Total PSNC Non Utility %	Total PSNC BTL & Non Utility
1	KB Marsh	\$1,202,590	\$1,364,220	\$2,763,823	\$402,625	\$5,733,258	0.69%	\$39,532
2	JE Addison	624,112	590,070	1,004,157	187,080	2,405,419	0.81%	19,565
3	RT Lindsay	456,209	344,261	544,044	143,893	1,488,407	0.23%	3,431
4	SA Byrne	624,112	531,063	1,004,157	154,706	2,314,038	0.00%	-
5	WK Kissam	383,739	265,767	387,644	83,658	1,120,808	0.00%	-
6	Total	<u>\$3,290,762</u>	<u>\$3,095,381</u>	<u>\$5,703,825</u>	<u>\$971,962</u>	<u>\$13,061,930</u>		<u>\$62,528</u>

**Allocators Used to Assign Executive Compensation:**

	PSNC O&M %	Non Utility % <sup>1/</sup>	PSNC O&M to Non Utility %	PSNC BTL % <sup>2/</sup>	Total PSNC Non Utility %	Total PSNC %
KB Marsh	5.4904%	1.13%	0.06%	0.63%	0.69%	6.1799%
JE Addison	9.3624%	1.13%	0.11%	0.71%	0.81%	10.1758%
RT Lindsay	9.6543%	1.13%	0.11%	0.12%	0.23%	9.8849%
SA Byrne	0.0000%	1.13%	0.00%	0.00%	0.00%	0.0000%
WK Kissam	0.0000%	1.13%	0.00%	0.00%	0.00%	0.0000%

1/ MFR Item 4a, Workpaper 3N.

2/ Company Response to Public Staff DR 48-2.

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO REMOVE RETIRED EXECUTIVE'S COMPENSATION**  
For The Test Year Ended December 31, 2015

<u>Line No.</u>	<u>Item</u>	<u>Amount</u>
1.	Total Compensation for retired executive included in cost of service	\$139,250 [1]
2.	Compensation to be included per Public Staff	0
3.	Public Staff Adjustment to Decrease O&M Expenses	<u>(\$139,250)</u>
4.	Public Staff Adjustment to Decrease Payroll	(10,032)
5.	Public Staff Adjustment to Decrease Incentive Plan	(129,218)

[1] Company responses to Public Staff.

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO RATE CASE EXPENSE**  
For The Test Year Ended December 31, 2015

<u>Line No.</u>	<u>Item</u>	<u>Amount</u>
1	Rate case expenses per Public Staff	\$312,036 [1]
2	Amortization period in years	<u>5 [2]</u>
3	Annual amortization per Public Staff (L1 / L2)	62,407
4	Less: Annual amortization per Company	<u>139,433 [3]</u>
5	Public Staff adjustment to O&M expenses (L3 - L4)	<u>(\$77,026)</u>

[1] Per Company update.

[2] Recommended by Public Staff.

[3] MFR Item 4a, Workpaper 3-J.

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO POSTAGE EXPENSE**  
For The Test Year Ended December 31, 2015

<u>Line No.</u>	<u>Item</u>	<u>Amount</u>
1	Test Year Postage Expenses	\$2,104,270 [1]
	Less Disallowed Advertising Postage	
2	Account 913 postage	95,223 [1]
3	Percentage Acct 913 direct mail disallowed	99.88% [2]
4		<u>\$95,109</u>
5	Test Year Postage per Public Staff (L1 - L4)	<u>\$2,009,161</u>
6	Percent decrease in rate effective 04/16	<u>-4.08%</u>
7	Postage per Public Staff (L5 x L6)	<u>1,927,187</u>
8	Postage per Company	<u>2,071,904 [1]</u>
9	Adjustment to postage expense (L7 - L8)	<u><u>(\$144,717)</u></u>

[1] G-1 Filing, Item 4a, Workpaper 3-Q.

[2] Direct mailings disallowed in advertising.

[3] The \$.02 postage decrease from \$.49 to \$.47, equates to a 4.08% decrease.

Public Service Company of North Carolina  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO UNCOLLECTIBLES**  
For The Test Year Ended December 31, 2015

<u>Line No.</u>	<u>Item</u>	<u>Provision</u>
1	Uncollectibles percentage	0.2500% [1]
2	Revenues from sales and transportation of gas, net of gas costs	253,150,334 [2]
3	Updated revenues from sales and transportation of gas, net of gas costs	<u>\$254,057,612 [3]</u>
4	Uncollectibles per Public Staff (L1 x L3)	635,144
5	Uncollectibles per Company	<u>657,589 [3]</u>
6	Adjustment to uncollectibles (L4 - L5)	<u><u>(\$22,445)</u></u>

- [1] Based on the information provided in the G-1. Item 10.  
[2] Per Boswell Exhibit I, Schedule 3, Column a, Line 6.  
[3] Per Boswell Exhibit I, Schedule 3, Column aa, Line 6.  
[4] Per Item 4a, Workpaper 3-G.



**Public Service Company of North Carolina**  
Docket No G-5, Sub 565  
**ADJUSTMENT TO INFLATION EXPENSE**  
For The Test Year Ended December 31, 2015

<u>Line No</u>	<u>Item</u>	<u>Amount</u>
1	Non-adjusted O&M expenses per the Company	\$92,766,693 [1]
2	Less adjusted expenses per Company filing	<u>86,266,755 [1]</u>
3	Total expenses subject to inflation per Company	6,499,938
	<b>Less: Additional Expenses adjusted elsewhere</b>	
4	Nonutility Expense Adjustment	257,961 [2]
5	Company Nonutility Expense	40,019 [3]
6	Correct Company Salesforce	(116,776) [4]
7	Remove lobbying/political expenses	94,200 [6]
8	Remove Contributions and Donations	127,324 [7]
9	Remove Entertainment and Gifts	24,592 [7]
10	Test Year Advertising Expenses	<u>1,034,104 [5]</u>
11	Adjusted expenses not subject to inflation adjustment	<u>1,461,424</u>
	<b>Addition: Expenses not adjusted elsewhere</b>	
12	SCANA Chargebacks	23,177,489
13	Adjustment for employee benefits	<u>(738,638)</u>
14	Adjusted expenses to be included in inflation adjustment	<u>22,438,851</u>
15	Non-adjusted O&M expenses per the Public Staff (L3 - L10+ L 14)	\$27,477,366
16	Inflation index	<u>2.20% [5]</u>
17	Inflation adjustment per Public Staff (L15 x L16)	604,502
18	Inflation adjustment per Company	<u>155,349 [1]</u>
19	Adjustment to non-adjusted O&M expenses increased for inflation (L17 - L18)	<u><u>\$449,153</u></u>

[1] G-1, Item 4a, Workpaper 3L

[2] Boswell Exhibit I, Schedule 3-11, Column c, Line 27

[3] Per Company response to DR 14-1

[4] Per Company response to DR15-1

[5] Recommended by Public Staff

[6] Boswell Exhibit I, Schedule 3-22

[7] Per query of response to DR49-1

Public Service Company of North Carolina  
Docket No. G-5 Sub 565  
NONUTILITY EXPENSE ADJUSTMENT  
For The Test Year Ended December 31, 2015

Line No.	Account No.	Resource Code	Dept Code	Description	Merchandising Jobbing and CNG (a)	Nonutility Equity Investments (b)	Total (c)	(d)
<u>Expenses subject to allocation</u>								
1	9200000			Admin & General Salaries		\$599,280		
2	9200000			Incentive Bonuses		\$9,075,697	[4]	
3	Various			Other Benefits		\$188,675	[5]	
4	9210000	211		Office Supplies	\$92,992	[7]		
5	9210000	212		Cover Paper & Supplies	4,045			
6	8860000			Building Services	507,643			
7	Various	439		Other Equipment rental	288,266	[7]		
8	9210000	501		Admin & General Office- other outside services	280,158	[7]		
9	9230000	501		Outside services - tax & acctg	480,297	[2]	480,297	
10	9230000	528		Outside services-legal	0	[2]	0	
11	9230000	526		Physical Guard Services	208,131	[2]		
12	9240000			Property Insurance	0		588,441	
13	90370	misc		Postage Expense	1,864,444	[3]		
14	93020			Miscellaneous General Expenses	861,730		861,730	
15	Various	810		Investor Relations	31,008	[2]	31,008	
16	Various	811		Financial Services	0	[2]	0	
17	Various	813		Audit Services	145,331	[2]		
18	Various	814		Shareholder Services		[2]		
19	Various	816		SCANA Treasury - addt expenses prr query	487,948	[2]		
	Various	3030		Safety	0			
20				Salesforce	123,420	[2]		
21				Subtotal (Sum of L1 thru L20)	\$5,355,425	\$11,743,440		
22				Amounts previously allocated BTL				
23				Total expenses subject to allocation	\$5,355,425	\$11,743,440		
24				Allocation factors	3.091%	1.128%		
25				Adjustment per Public Staff (L18 x L19)	165,542	132,438	\$297,980	
26				Adjustment per Company	26,859	13,180	40,039	
27				Adjustment to increase the nonutility expense adjustment (L20 - L21)	\$138,683	\$119,279	\$257,961	
							0.996104	
							\$258,970	\$258,970
<u>Plant-related nonutility adjustment</u>								
28				Plant in Service	\$183,894	[6]		
29				Accumulated Depreciation	15,346	[6]		
30				Net Nonutility PIS	\$168,548		0.106137	17,889
31				Depreciation Expense	\$5,852	[6]	0.996104	5,674
<u>Property Taxes</u>								
32				North Carolina tax rate	\$0.00512			
33				Adjustment for non utility property taxes	\$941		0.996104	\$944
								\$24,508
<u>Allocation Ratios</u>								
				Revenues [7]	Payroll [7]	Property [7]	Average	
				96.61%	93.45%	97.28%	95.781%	
				Merchandise and Jobbing	6.55%	0.12%	3.091%	
				Other Non-Utility	2.12%	2.60%	1.128%	
				Total	100.00%	100.00%	100.00%	
Combined Merchandise and Jobbing and Other Non-Utility								

Filed

4.22%

0.00%

[1] MFR Filing Item 4a, Worksheet 3N, Page 1 of 10, unless otherwise footnoted.

[2] Per Data Request response 49-2, sorted by Resource Code / Dept ID and Company 7/29/16 email.

[3] Boswell Exhibit I, Schedule 3-7, test year amount minus Public Staff adjustment and disallowed advertising postage.

[4] Boswell Exhibit I, Schedule 3-2, O&M portion of Company filed Bonus accruals.

[5] Boswell Exhibit I, Schedule 3-3.

[6] Per Boswell Exhibit I, Schedule 2, 1(c) Line 31.

[7] Item G-1, Item 4a, Worksheet 4B.

[8] Column (a) = Column (b) + Column (c).

**Public Service Company of North Carolina**  
Docket No G-5, Sub 565  
**AMORTIZATION OF PIPELINE INTEGRITY MANAGEMENT COSTS**  
For The Test Year Ended December 31, 2015

Line No	Item	Amount
	<b><u>Income Statement Effect:</u></b>	
1	Balance of Deferred PIM Costs @ June 30, 2008	\$2,287,037 [1]
2	Add Incremental deferred PIM expenses 7/1/2008 - 12/31/2015	15,920,144 [1]
3	Add Updated deferred PIM expenses 1/1/2016 - 6/30/2016	4,389,641 [1]
4	Total Deferred PIM Costs through June 30, 2016 (sum L1- L3)	22,596,822
5	Less Sub 495 Amortization expense 11/1/2008 to 11/1/2016	(6,098,768) [2]
6	Deferred PIM Cost Balance per Public Staff (L4 -L5)	16,498,054
7	Amortization period in years	5 [3]
8	Amortization of PIM Costs per Public Staff (L6 / L7)	3,299,611
9	Amortization of PIM Costs per Company	5,706,715 [1]
10	Public Staff Adjustment to O&M Expenses (L8 - L9)	(\$2,407,104)
	<b><u>Rate Base Effect:</u></b>	
11	Unamortized Pipeline Integrity Costs @ December 31, 2015	\$16,498,054
12	Less Ongoing amortization reflected in O&M expenses	3,299,611
13	Unamortized PIM balance per Public Staff (L11 - L12))	13,198,443
14	Deferred Pipeline Integrity Costs per Company	0
15	Unamortized Pipeline Integrity Costs per Public Staff	<u>\$13,198,443</u>

[1] Per Docket No G-5, Sub 565 G-1 and data request responses

[2] Per Docket No G-5, Sub 495 Annual PIM amortization approved \$762,346 times 8 years

[3] Recommended by Public Staff

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**AMORTIZATION OF MANUFACTURED GAS PLANT COSTS**  
For The Test Year Ended December 31, 2015

Line No.	Item	Amount
1	Balance of Deferred MGP Costs @ June 30, 2008	3,494,563 [1]
2	Add: Incremental deferred PIM expenses 7/1/2008 - 12/31/2015	3,692,766 [1]
3	Add: Incremental environmental expenses 1/1/2016 - 6/30/2016	3,155,963 [1]
4	Total Deferred PIM Costs through June 30, 2016 (sum L1-L3)	10,343,292
5	Less: Sub 495 Amortization expense 11/1/2008 to 11/1/2016	(9,318,832) [2]
6	Deferred Deferred MGP Cost per Public Staff (L4 -L5)	1,024,460
7	Amortization period in years	5 [3]
8	Amortization of Deferred MGP Costs per Public Staff (L6 / L7)	204,892
9	Amortization of Deferred MGP Costs per Company	2,254,255
10	Public Staff Adjustment to O&M Expenses (L8 - L9)	(\$2,049,363)
<b>Rate Base Effect:</b>		
11	Unamortized Pipeline Integrity Costs @ December 31, 2015	\$1,024,460
12	Less: Annual amortization reflected in O&M expenses	204,892
13	Unamortized PIM Balance per Public Staff	819,568
14	Deferred Pipeline Integrity Costs per Company	0
15	Unamortized Pipeline Integrity Balance per Public Staff	\$819,568

[1] MFR Item 4, Workpaper 3-I and response to DR 11.

[2] Per Docket No. G-5, Sub 495. Annual PIM amortization approved \$1,164,854 times 8 years.

[3] Recommended by Public Staff.

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**AMORTIZATION OF DISTRIBUTION INTEGRITY MANAGEMENT**  
For The Test Year Ended December 31, 2015

Line No.	Item	Amount
1	Actual test year DIMP costs	\$480,884 [1]
2	DIMP costs incurred January - June 2016 updates	1,020,209 [1]
3	Total DIMP costs at June 2016	1,501,093
4	Balance of DIMP costs to be deferred	1,501,093
5	Amortization period	5 [2]
6	Annual amortization (L4 / L5)	\$300,219
7	Adjustment per Company	\$1,519,116 [1]
8	Public Staff adjustment (L6 - L7)	(1,218,897)
<b>Rate Base Effect:</b>		
	Unamortized Pipeline Integrity Costs @ December 31, 2015	\$1,501,093
	Less: Ongoing amortization reflected in O&M expenses	300,219
	Unamortized PIM balance per Public Staff	1,200,875
	Deferred Pipeline Integrity Costs per Company	0
	Unamortized Pipeline Integrity Costs per Public Staff	\$1,200,875

[1] MFR Item 4, Workpaper 3-P and Company updates.

[2] Per Public Staff.

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO CHANGES FOR REGULATORY FEE**  
For The Test Year Ended December 31, 2015

<u>Line No.</u>	<u>Item</u>	<u>Amount</u>
1	Adjusted Test Year Sales and Transportation Revenues	\$430,268,985 [1]
	Less:	
2	CIAC Tax Gross-up	416,022 [1]
3	Uncollectibles	635,144 [2]
4	Amount Subject to Fee	429,217,819
5	Fee Percentage	0.140% [3]
6	Adjusted Fee per Public Staff (L4 x L5)	600,905
7	Adjusted Fee per Company	635,209 [1]
8	Public Staff Adjustment to Regulatory Fee (L6 - L7)	(\$34,304)

[1] MFR, Item 4a, Workpaper 3-C.

[2] Boswell Exhibit 1, Schedule 3-9, Line 9.

[3] Per Commission Order on July 11, 2016.

Public Service Company of North Carolina  
Docket No. G-3, Sub 565  
SUMMARY OF PUBLIC STAFF ADVERTISING ADJUSTMENTS  
For the Test Year Ended December 31, 2015

No.	Item	Amount Per Company				Public Staff Adjustments				After Public Staff Adjustments			
		Acct 909 (a)	Acct 913 (b)	Other-Specify (c)	Total (d)	Acct 909 (a)	Acct 913 (b)	Other-Specify (c)	Total (d)	Acct 909 (a)	Acct 913 (b)	Other-Specify (c)	Total (d)
1	Newspaper	\$0	\$682	\$3 462	\$4 145		\$0	\$0	\$0	\$0	\$682	\$3 462	\$4 145
2	Magazines & Other	135 047	135 047	3 018	273 113	(33 762)	(33 762)	(3 018)	(70 542)	\$101 286	\$101 286	\$0	202 571
3	Television	0	130 589	0	130 589		(65 295)		(65 295)	\$0	\$65 295	\$0	65 295
4	Radio	0	25 610	1 891	27 501		(12 805)	(1 891)	(14 696)	\$0	\$12 805	\$0	12 805
5	Outdoor Advertising	0	14 983	225	15 208		(14 983)	(225)	(15 208)	\$0	\$0	\$0	0
6	Bill Inserts	4 499	5 631	19 559	29 689	0	0	0	0	\$4 499	\$5 631	\$19 559	29 689
7	New Customer - Welcome Kits	3 415			3 415	0			0	\$3 415	\$0	\$0	3 415
8	Direct Mail	0	57 702	7 759	65 460		(57 631)	(7 759)	(65 390)	\$0	\$70	\$0	70
9	Sales Promotion	0	0	9 483	9 483		0	(9 483)	(9 483)	\$0	\$0	\$0	0
10	White Pages	25 790	0	0	25 790		0		0	\$25 790	\$0	\$0	25 790
11	Recruiting	0	0	444	444			0	0	\$0	\$0	\$444	444
12	Internet	0	248 518	124 878	373 396		(124 259)	(113 135)	(237 394)	\$0	\$124 259	\$11 743	136 002
13	Miscellaneous	893	40 032	577	41 502	(500)	(19 530)	0	(20 030)	\$393	\$20 501	\$577	21 471
14	Labor and Benefits	5 235	13 626	0	18 861	(5 235)	(13 626)		(18 861)				0
15	Public Safety	15 509			15 509	0			0	\$15 509	\$0	\$0	15 509
16	Total	\$190,388	\$672 421	\$171,295	\$1,034,103	(\$39,496)	(\$341,892)	(\$135,510)	(\$516,898)	\$150,891	\$330 529	\$35 785	\$517,205

[1] Per MFR Item 12 P. 1 of 10

[2] Sum of Columns (a)+(b)+(c)

[3] Company amounts minus public staff adjustments

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**AMORTIZATION OF SALESFORCE LICENSE**  
For The Test Year Ended December 31, 2015

Line No.	Item	Amount
1	2015 Amortization - Q4	\$45,730 [1]
2	2015 - Catch-up Entry	243,759 [1]
3	Total 2015 Amortization (L1 +L2)	289,489
4	Adjustment of Salesforce per Company	(128,685) [1]
5	Cost of 3-year contract	\$370,260 [2]
6	Annual Cost (L5 / 3)	123,420
7	Public Staff ongoing level of O&M Expense	123,420
8	Public Staff Adjustment to O&M Expenses (L7 - L3 - L4)	(\$37,385)

[1] MFR Item 4, Workpaper 3R.

[2] Per Company response to DR 21-3.



**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**Customer Deposits and Interest**  
For The Test Year Ended December 31, 2015

Line			
No.	Item	Customer Deposits [1]	Interest [1]
1	June 2015	(\$7,959,233)	\$57,239
2	July 2015	(7,801,018)	43,902
3	August 2015	(7,720,266)	44,541
4	September 2015	(7,693,842)	49,863
5	October 2015	(8,026,795)	49,554
6	November 2015	(8,225,758)	47,078
7	December 2015	(8,282,424)	41,438
8	January 2016	(8,443,668)	47,493
9	February 2016	(8,465,852)	46,156
10	March 2016	(8,367,242)	55,340
11	April 2016	(8,116,095)	45,778
12	May 2016	(7,806,164)	49,977
13	June 2016	(7,570,958)	48,641
14	Total sum of Lines 1 through 13	(104,479,314)	569,759
15	Number of Months	13	13
16	13 Month Average (Line 14/ Line 15)	(8,036,870)	43,828
17	Average calculated per Company	(8,295,676)	44,700
18	Public Staff Adjustment to O&M Expenses (L16 - L17)	\$258,806	(\$872)
19	Adjustment required in Customer Deposits per PS		569,759 [2]
20	Adjustment required in Customer Deposits per Company		581,096
21	Difference (Line 19 - Line 20)		(\$11,337)

[1] MFR Item 4a, Workpaper 3-B, updated per Company.

[2] Per Line 14.

Boswell Exhibit I  
Schedule 3-19

**Public Service Company of North Carolina**  
Public Service Company of North Carolina  
**ADJUSTMENT TO SERVICE COMPANY CHARGES**  
For The Test Year Ended December 31, 2015

Line No.	Item	Amount
1	Company increase in Service Company charges	\$3,216,283 [1]
2	Public Staff calculated Service Company charges	0 [2]
3	Public Staff adjustment to Service Company charges (L2- L1)	<u>(\$3,216,283)</u>

[1] MFR Item 4, Workpaper 3M.

[2] Per Company response to Public Staff inquest.

**Public Service Company of North Carolina**  
Public Service Company of North Carolina  
**GAS TECHNOLOGY INSTITUTE CHARGES**  
For The Test Year Ended December 31, 2015

Line No.	Item	Amount
1	Meters billed June 2016	537,262 [1]
2	GTI rate per meter	0.50 [2]
3	Public Staff calculated O&M Charge (L1 x L2)	268,631
4	Company requested O&M Charge	275,000 [2]
5	Adjustment to GTI O&m Charge (L3 - L4)	(\$6,369)

[1] Per Company response and monthly revenue report.

[2] MFR Item 4, Workpaper 3-W.

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO FUEL COSTS**  
For The Test Year Ended December 31, 2015

Line No.	Item	Amount	
		Unleaded (a)	Diesel (b)
1	2014 Average Price	3.32 [1]	3.77 [1]
2	2015 Average Price	2.32 [1]	2.67 [1]
3	2 year average price	2.82	3.22
4	Gallons in test year	542,511 [1]	137,035 [1]
5	Average calculated fuel costs (L3 * L4)	1,529,881	441,253
6	Cost in test year	1,256,377 [1]	366,482 [1]
7	Public Staff fuel costs (L5 - L6)	273,504	74,771
8	Increase to O&M fuel costs per Company	396,033 [1]	108,258 [1]
9	Adjustment to fuel costs (L7 - L8)	(122,529)	(33,487)
10	O&M percentage		75.00% [1]
11	Public Staff adjustment to fuel costs (L9 * L10)		<u>(\$117,012)</u>

[1] MFR Item 4, Workpaper 3-T.

[2] Column a plus Column b.

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**ADJUSTMENT TO LOBBYING EXPENSE**  
For The Test Year Ended December 31, 2015

<u>Line No.</u>	<u>Item</u>	<u>Amount</u>
		(a)
1	Labor expenses for Economic Development & Gov't Affairs Department	\$294,242 [2]
2	Lobbying percentage	25% [3]
3	Adjustment to remove lobbying expenses from department (L1 x L2)	<u>73,561</u>
4	Misc expenses related to lobbying/politics	28,264 [4]
5	Lobbying Percentage	100% [3]
6	Adjustment to remove misc expenses related to lobbying	<u>28,264</u>
7	American Gas Association dues	263,745 [1]
8	Lobbying percentage	25% [3]
9	Adjustment to remove lobbying expenses from AGA dues (L7 x L8)	<u>65,936</u>
10	Total adjustment to remove lobbying expenses (L3 + L6 + L9)	<u><u>\$167,760</u></u>

- [1] MFR, Item 13.  
[2] Per Company Response.  
[3] Recommended by Public Staff  
[4] Per review of Company response to DR49.

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**INTEREST SYNCHRONIZATION ADJUSTMENT**  
For The Test Year Ended December 31, 2015

<u>Line No.</u>	<u>Item</u>	<u>Amount</u>
1	Interest expense assigned to rate base per Company	\$23,358,790 [1]
2	Interest expense assigned to rate base per Public Staff	23,898,361 [2]
3	Difference in interest expense tax deduction (L2 - L1)	<u>\$539,571</u>
4	Adjustment to state income taxes (L3 x 4%)	<u>(\$21,583)</u>
5	Adjustment to federal income taxes (L3 + L4 x 35%)	<u>(\$181,296)</u>
6	Total adjustment to income taxes	<u>(\$202,879)</u>

[1] Boone Exhibit 6, Page 2.

[2] Boswell Exhibit I, Schedule 4, Column (e), Line 1 + Line 2.

Public Service Company of North Carolina  
Docket No. G-5, Sub 565  
**RETURN ON EQUITY AND ORIGINAL COST RATE BASE**  
For The Test Year Ended December 31, 2015

Line No	Item	Capitalization Ratios [1]	Original Cost Rate Base [2]	Before Recommended Increase			Rate Base	After Recommended Increase		
				Embedded Cost/Return % [3]	Weighted Cost/Return % [4]	Net Operating Income [5]		Embedded Cost/Return % [6]	Weighted Cost/Return % [7]	Net Operating Income [8]
		(a)	(b)	(c)	(d)	(e)		(f)	(g)	(h)
1	Long term debt	44.62%	\$428,414,394 [2]	5.52% [1]	2.46% [5]	\$23,648,475 [7]	\$429,221,584	5.52%	2.46% [10]	\$23,693,031 [12]
2	Short term debt	3.38%	32,452,726 [2]	0.77% [1]	0.03% [5]	249,886 [7]	32,513,872	0.77%	0.03% [10]	\$250,357 [12]
3	Common equity	52.00%	499,272,714 [2]	7.31% [4]	3.80% [5]	36,504,078 [8]	500,213,411	9.70%	5.04% [10]	\$48,520,701 [12]
4	Totals	100.00%	\$960,139,834 [3]		6.29% [6]	\$60,402,439 [9]	\$961,948,867		7.53% [11]	\$72,464,089 [13]

[1] Per Public Staff Witness

[2] Column (a) x Column (b), Line 4

[3] Boswell Exhibit I, Schedule 2

[4] Column (e) / Column (b)

[5] Column (a) x Column (c)

[6] Column (e), Line 4 / Column (b), Line 4

[7] Column (b) x Column (c)

[8] Column (e), Line 4 - Line 1 - Line 2

[9] Boswell Exhibit I, Schedule 3

[10] Column (a) x Column (f)

[11] Column (h), Line 4 / Column (b), Line 4

[12] Column (b) x Column (f)

[13] Sum of Line 1 thru L3

Boswell Exhibit I  
Schedule 5

**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**CALCULATION OF INCREASE (DECREASE) IN**  
**REVENUE REQUIREMENT**  
For The Test Year Ended December 31, 2015

Line No.	Item	Debt		Equity (c)	Total (d)
		Long Term (a)	Short Term (b)		
1	Required net operating income	\$23,693,031 [1]	\$250,357 [1]	\$48,520,701 [1]	\$72,464,089
2	Net operating income before proposed increase	<u>23,648,475 [2]</u>	<u>249,886 [2]</u>	<u>36,504,078 [2]</u>	<u>60,402,439</u>
3	Additional net operating income requirement (L1 - L2)	44,556	471	12,016,623	12,061,650
4	Retention factor	<u>0.996104 [3]</u>	<u>0.996104 [3]</u>	<u>0.6215686 [3]</u>	
5	Additional gross revenue requirement (L3 / L4)	<u><u>\$44,730</u></u>	<u><u>\$473</u></u>	<u><u>\$19,332,738</u></u>	<u><u>\$19,377,941</u></u>

[1] Boswell Exhibit I, Schedule 4, Column (h).

[2] Boswell Exhibit I, Schedule 4, Column (e).

[3] Boswell Exhibit I, Schedule 5 (a), Column (d), Line 13.



**Public Service Company of North Carolina**  
Docket No. G-5, Sub 565  
**CALCULATION OF GROSS REVENUE EFFECT FACTORS**  
For The Test Year Ended December 31, 2015

<u>Line No.</u>	<u>Item</u>	<u>Capital Structure</u>	<u>Cost Rates</u>	<u>Retention Factors</u>	<u>Gross Revenue Effect</u>
		(a)	(b)	(c)	(d)
<b><u>Rate Base Factor:</u></b>					
1	Long-term debt	44.62%	5.52%	0.9961035	0.02472659
2	Short-term debt	3.38%	0.77%	0.9961035	0.00026128
3	Common equity	52.00%	9.70%	0.6215686	0.08114953
4	Total (Sum of L1 thru L3)	<u>100.00%</u>			<u>0.1061374</u>
<b><u>Net Income Factor:</u></b>					
5	Total revenue				1.0000000
6	Uncollectibles				<u>0.0025000</u>
7	Balance (L5 - L6)				0.9975000
8	Regulatory fee (L7 x current regulatory fee rate)				<u>0.0013965</u>
9	Balance (L7 - L8)				0.9961035
10	Less: State income tax (L9 x 4%)				<u>0.0398441</u>
11	Balance (L9 - L10)				0.9562594
12	Less: Federal income tax (L11 x 35%)				<u>0.3346908</u>
13	Gross up factor (L11 - L12)				<u>0.6215686</u>

## PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.

DOCKET NO. G-5, SUB 565  
SUMMARY OF VOLUME AND BILL ADJUSTMENT  
FOR END OF PERIOD

RATE SCHEDULE NUMBER (1)	PER BOOKS		ANNUALIZATION AND RATE SHIFTING		WEATHER NORMALIZATION VOLUMES (THERMS) (6)	GROWTH ADJUSTED BILLS AND USAGE LEVELS			
	BILLS (2)	VOLUMES (THERMS) (3)	BILLS (4)	VOLUMES (THERMS) (5)		(SEASONAL)		(ANNUAL)	
						BILLS (7)	VOLUMES (THERMS) (8)	BILLS (9)	VOLUMES (THERMS) (10)
101 Winter	2,859,086	246,857,091	2,859,086	246,857,091	252,393,363	2,933,136	258,930,351	5,835,861	298,249,530
101 Summer	2,829,442	37,829,541	2,829,442	37,829,541	38,326,522	2,902,725	39,319,179		
102 Winter	42,679	3,174,556	42,679	3,174,556	3,248,137	48,872	3,719,441	98,484	4,394,381
102 Summer	43,326	582,810	43,326	582,810	589,415	49,613	674,939		
115 Winter	258	32,799	258	32,799	32,799	258	32,799	515	65,697
115 Summer	257	32,898	257	32,898	32,898	257	32,898		
125/225 Winter	258,634	111,059,584	253,278	86,782,275	88,946,859	257,409	90,397,640	500,851	120,753,701
125/225 Summer	255,296	37,658,761	250,008	29,674,570	29,868,881	254,086	30,356,061		
126 Winter	26	30,986	26	30,986	30,986	26	30,986	50	61,972
126 Summer	24	30,986	24	30,986	30,986	24	30,986		
127/227 Winter	551	812,286	551	812,286	830,021	572	861,254	1,145	1,000,973
127/227 Summer	552	133,060	552	133,060	134,652	573	139,719		
135 Winter	28	143,978	28	143,978	143,978	28	143,978	114	250,145
135 Summer	86	106,167	86	106,167	106,167	86	106,167		
140 Winter			5,356	24,277,309	24,917,214	5,356	24,917,214	10,644	32,958,849
140 Summer			5,288	7,984,191	8,041,634	5,288	8,041,634		
145 Winter	1,240	19,273,854	1,240	19,273,854	19,273,854	1,240	19,273,854	2,488	27,482,092
145 Summer	1,248	8,208,238	1,248	8,208,238	8,208,238	1,248	8,208,238		
150 Winter	45	3,666,387	45	3,666,387	3,666,387	45	3,666,387	93	6,704,243
150 Summer	48	3,037,856	48	3,037,856	3,037,856	48	3,037,856		
175 Winter	1,879	97,125,452	1,879	97,125,452	97,125,452	1,879	97,125,452	3,763	174,902,640
175 Summer	1,884	77,777,188	1,884	77,777,188	77,777,188	1,884	77,777,188		
180 Winter	805	72,589,490	805	72,589,490	72,589,490	805	72,589,490	1,598	141,762,340
180 Summer	793	69,172,850	793	69,172,850	69,172,850	793	69,172,850		
200 Winter	6	298,675	6	298,675	298,675	6	298,675	12	12,778,728
200 Summer	6	12,480,053	6	12,480,053	12,480,053	6	12,480,053		
201 Winter	6	3,660,285	6	3,660,285	3,660,285	6	3,660,285	12	10,278,984
201 Summer	6	6,618,699	6	6,618,699	6,618,699	6	6,618,699		
202 Winter	6	18,003,028	6	18,003,028	18,003,028	6	18,003,028	12	105,438,138
202 Summer	6	87,435,110	6	87,435,110	87,435,110	6	87,435,110		
TOTAL	6,298,223	917,832,668	6,298,223	917,832,668	927,021,677	6,466,286	937,082,412	6,455,642	937,082,412

T/A

## PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC

Larsen Exhibit B

Page 1 of 2

## DOCKET NO. G-5, SUB 565

## END OF PERIOD OPERATING REVENUES UNDER PRESENT RATES

Rate Schedule (1)	Description (2)	Season (3)	No. Bills (4)	Monthly Facilities Charge (5)	Therms (6)	End-Of- Period Rates (\$/therm) (7)	Facilities Charge Revenue (8)	Energy Charge Revenues (9)	CUT Adjustment (10)	Total Revenues (11)
101	RESIDENTIAL	Winter *	2 933 136	\$10 00	258 930,351	\$0 73744	\$29,331,363	\$190 945,598	\$5 609,331	\$225 886 292
		Summer **	2 902 725	10 00	<u>39,319,179</u>	0 66981	<u>29,027,245</u>	<u>26,336,379</u>	<u>2,737,624</u>	<u>58,101,249</u>
		Total Rate Schedule No. 101			298,249,530		\$58,358,609	\$217,281,977	\$8,346,955	\$283,987,541
102	RESIDENTIAL HIGH EFFICIENCY	Winter *	48,872	\$10 00	3 719,441	0 68744	\$488,717	\$2,556,893	\$115 963	\$3,161,573
		Summer **	49 613	\$10 00	<u>674,939</u>	0 61981	<u>496,126</u>	<u>418,334</u>	<u>13,273</u>	<u>927,733</u>
		Total Rate Schedule No. 102			4,394,381		\$984,843	\$2,975,227	\$129,236	\$4,089,306
115	GAS LIGHTS	Winter *	258	\$10 00	32 799	0 73744	\$2,580	\$24,187		\$26 767
		Summer **	257	\$10 00	<u>32,898</u>	0 66981	<u>\$2,570</u>	<u>22,035</u>		<u>24,605</u>
					65,697		\$5,150	\$46,223		\$51,373
125	SMALL GEN SERVICE	Annual	511 495	\$17 50			\$8,951 161			\$8,951,161
		First	500 Th		79,564,446	0 62988		\$50,116 053	(\$348,733)	49 767 320
		Next	4,500 Th		69,288,954	0 56852		39 461 445	(303,695)	39,157 750
		Over	5,000 Th		<u>4,859 149</u>	0 52559		<u>2,553 920</u>	<u>(21,298)</u>	<u>2,532,622</u>
		Total Rate Schedule No. 125			153,712,550		\$8,951,161	\$92,131,419	(\$573,726)	\$100,408,854
126	SMALL GEN SERVICE - COOLING	Annual	50	30 00	61,972	0 52559	\$1,500	\$32,572		\$34 072
127	SMALL GEN SERVICE HIGH EFFICIENCY	Annual	1 145	\$17 50			\$20,029			\$20,029
		First	500 Th		350,185	0 57888		\$203 054	(\$47,552)	155,502
		Next	4 500 Th		602,437	0 51952		312,978	(81,810)	231,168
		Over	5,000 Th		<u>48,371</u>	0 47559		<u>23,005</u>	<u>(6,569)</u>	<u>16,436</u>
		Total Rate Schedule No. 127			1,000,973		\$20,029	\$539,037	(\$135,931)	\$423,134
135	NATURAL GAS VEHICLE FUEL	Annual	114		250,145	0 70130	\$0	\$175,427		\$175,427
145	LARGE GEN SERVICE	Annual	2,488	\$300 00			\$746,400			\$746 400
		First	15,000 Th		19 565 501	0 41914		\$8 200 684		8,200 684
		Next	15,000 Th		4,140,327	0 39732		1 645 035		1,645,035
		Next	15,000 Th		1,739,803	0 37782		657,332		657,332
		Next	15,000 Th		883,094	0 35236		311 167		311 167
		Over	60,000 Th		<u>1 153,367</u>	0 33117		<u>381 961</u>		<u>381 961</u>
		Total Rate Schedule No. 145			27,482,092		\$746,400	\$11,196,179		\$11,942,579
SUBTOTAL - PAGE 1			6,450,152		485,217,339		69,067,692	324,378,060	7,666,533	\$393,445,751

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## Larsen Exhibit B

Page 2 of 2

END OF PERIOD OPERATING REVENUES UNDER PRESENT RATES

SUBTOTAL - PAGE 2	5,454	323,369,223	\$2,143,500	\$26,870,665	\$0	\$29,014,165
TOTAL COMPANY - TARIFFED	6,455,606	808,586,562	\$71,211,192	\$351,248,724	\$7,666,533	\$430,126,449
			OTHER OPERATING REVENUES			3,526,964
TOTAL COMPANY - TARIFFED AND OTHER OPERATING REVENUES						\$433,653,413
SPECIAL CONTRACTS	36	128,495,850				\$792,254
TOTAL COMPANY - TARIFFED AND SPECIAL CONTRACTS	<u>6,455,642</u>	<u>937,082,412</u>				<u>\$434,445,667</u>

\* - WINTER PERIOD (NOV - APR)

\*\* - SUMMER PERIOD (MAY - OCT)

SALES	491,921,582
TRANSPORTATION	<u>316,664,980</u>
	808,586,562

71A

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.

DOCKET NO. G-5, SUB 565

PUBLIC STAFF RECOMMENDED RATES

Rate Schedule (1)	Description (2)	Season (3)	Monthly Facilities Charge Rate Blocks (4)	Recommended Energy Charge (\$/therm) (5)
101	RESIDENTIAL	Winter Summer	\$10.00 \$10.00	\$0.80749 \$0.73343
102	RESIDENTIAL HIGH EFFICIENCY	Winter Summer	\$10.00 \$10.00	\$0.74175 \$0.66877
115	GAS LIGHTS	Winter Summer	\$10.00 \$10.00	\$0.80749 \$0.73343
125	SMALL GEN. SERVICE	Annual First Next Over	\$17.50 500 Th 4,500 Th 5,000 Th	\$0.67649 \$0.61166 \$0.56448
126	SMALL GEN. SERVICE - COOLING	Annual	\$30.00	\$0.52559
127	SMALL GEN. SERVICE HIGH EFFICIENCY	Annual First Next Over	\$17.50 500 Th 4,500 Th 5,000 Th	\$0.62649 \$0.56166 \$0.51448
135	NATURAL GAS VEHICLE FUEL	Annual		\$0.70130
140	MEDIUM GENERAL SERVICE	Annual First Over	\$100.00 1,000 Th 1,000 Th	\$0.55166 \$0.49448

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Aug 25 2016

PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.

DOCKET NO. G-5, SUB 565

PUBLIC STAFF RECOMMENDED RATES

Rate Schedule (1)	Description (2)	Season (3)	Monthly Facilities Charge Rate Blocks (4)	Recommended Energy Charge (\$/therm) (5)
145	LARGE GEN. SERVICE	Annual	\$300.00	
		First	15,000 Th	\$0.43276
		Next	15,000 Th	\$0.41023
		Next	15,000 Th	\$0.39010
		Next	15,000 Th	\$0.36381
		Next	1,000,000 Th	\$0.34193
		Over	1,060,000 Th	\$0.32489
150	LARGE INTERRUPTIBLE COMMERCIAL & INDUSTRIAL	Annual	\$600.00	
		First	15,000 Th	\$0.36407
		Next	15,000 Th	\$0.34249
		Next	70,000 Th	\$0.32095
		Next	500,000 Th	\$0.29970
		Over	600,000 Th	\$0.27817
175	LARGE GEN. SERVICE TRANSPORTATION (RS 145 CUSTOMERS)	Annual	\$300.00	
		First	15,000 Th	\$0.14869
		Next	15,000 Th	\$0.12638
		Next	15,000 Th	\$0.10644
		Next	15,000 Th	\$0.08041
		Next	1,000,000 Th	\$0.05874
		Over	1,060,000 Th	\$0.05117
180	LARGE INTERRUPTIBLE COMMERCIAL & INDUSTRIAL TRANSPORTATION (RS 150 CUSTOMERS)	Annual	\$600.00	
		First	15,000 Th	\$0.10395
		Next	15,000 Th	\$0.08258
		Next	70,000 Th	\$0.06125
		Next	500,000 Th	\$0.04020
		Over	600,000 Th	\$0.01888

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