MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

REVENUE REQUIREMENT COST OF SERVICE

APPENDIX 2 Support for Staff Cost of

Capital Recommendations

MISSOURI GAS ENERGY
A division of Laclede Gas Company

CASE NO. GR-2014-0007

Jefferson City, Missouri January 2014

AN ANALYSIS OF THE COST OF CAPITAL

FOR

MISSOURI GAS ENERGY DIVISION

CASE NO. GR-2014-0007

SCHEDULES

\mathbf{BY}

ZEPHANIA MAREVANGEPO

UTILITY SERVICES DEPARTMENT

REGULATORY REVIEW DIVISION

MISSOURI PUBLIC SERVICE COMMISSION

JANUARY 2014

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Federal Reserve Discount Rates Changes and Federal Reserve Funds Rates Changes

Г	Federal Reserve	Federal Reserve
Date	Discount Rate	Funds Rate
01/01/83	8.50%	1 unus reac
12/31/83	8.50%	
04/09/84	9.00%	
11/21/84	8.50%	
12/24/84	8.00%	
05/20/85	7.50%	
03/20/83	7.00%	
03/07/86	6.50%	
07/11/86	6.00%	
08/21/86	5.50%	
09/04/87	6.00%	
08/09/88	6.50%	
02/24/89	7.00%	
07/13/90	7.0070	8.00% *
10/29/90		7.75%
11/13/90		7.50%
12/07/90		7.25%
12/07/90		7.23%
12/19/90	6.50%	7.0070
01/09/91	0.5070	6.75%
02/01/91	6.00%	6.25%
02/01/91	0.0070	6.00%
04/30/91	5.50%	5.75%
08/06/91	3.3070	5.50%
08/06/91	5.00%	5.25%
10/31/91	3.0070	5.00%
10/31/91	4.50%	4.75%
12/06/91	4.5070	4.50%
12/06/91	3.50%	4.00%
04/09/92	3.5070	3.75%
04/09/92	3.00%	3.25%
07/02/92	3.0070	3.00%
01/01/93	+	3.0070
12/31/93	No Changes	No Changes
02/04/94	140 Changes	3.25%
03/22/94		3.50%
03/22/94		3.75%
05/17/94	3.50%	4.25%
08/16/94	4.00%	4.75%
11/15/94	4.75%	5.50%
02/01/95	5.25%	6.00%
02/01/93	3.2370	5.75%
12/19/95		
01/31/96	5.00%	5.50% 5.25%
03/25/97	3.00%	5.50%
12/12/97	5.00%	3.30%
01/09/98	5.00%	
03/06/98	5.00%	
03/06/98	3.00%	5.25%
10/15/98	4.75%	5.00%
11/17/98	4.50%	4.75%

	I	I = 1
	Federal Reserve	Federal Reserve
Date 06/30/99	Discount Rate 4.50%	Funds Rate 5.00%
08/24/99	4.75%	5.25%
11/16/99	5.00%	5.50%
02/02/00	5.25%	5.75%
03/21/00	5.50%	6.00%
05/19/00	6.00%	6.50%
01/03/01	5.75%	6.00%
01/04/01	5.50%	6.00%
01/31/01	5.00%	5.50%
03/20/01	4.50%	5.00%
04/18/01	4.00%	4.50%
05/15/01	3.50%	4.00%
06/27/01	3.25%	3.75%
08/21/01	3.00%	3.50%
09/17/01	2.50%	3.00%
10/02/01	2.00%	2.50%
11/06/01	1.50%	2.00%
12/11/01	1.25%	1.75%
11/06/02	0.75%	1.25%
01/09/03	2.25%**	1.25%
06/25/03	2.00%	1.00%
06/30/04	2.25%	1.25%
08/10/04	2.50%	1.50%
09/21/04	2.75%	1.75%
11/10/04	3.00%	2.00%
12/14/04	3.25%	2.25%
02/02/05	3.50%	2.50%
03/22/05	3.75%	2.75%
05/03/05	4.00%	3.00%
06/30/05	4.25%	3.25%
08/09/05	4.50%	3.50%
09/20/05	4.75%	3.75%
11/01/05	5.00%	4.00%
12/13/05	5.25%	4.25%
01/31/06	5.50%	4.23%
03/28/06	5.75%	4.75%
05/10/06	6.00%	5.00%
06/29/06	6.25%	5.25%
08/17/07	5.75%	5.25%
08/17/07	5.25%	4.75%
10/31/07	5.00%	4.50%
12/11/07	4.75%	4.25%
01/22/08	4.00%	3.50%
01/22/08	3.50%	3.00%
03/16/08	3.25%	5.0070
03/18/08	2.50%	2.25%
04/30/08	2.25%	2.23%
10/08/08	1.75%	1.50%
10/08/08	1.25%	1.00%
11/29/08	1.50%	1.25%
12/30/08	0.50%	0%25%
02/19/10	0.75%	0%25%
32/17/10	0.7570	0702370
L		

Source:

Federal Reserve Discount rate

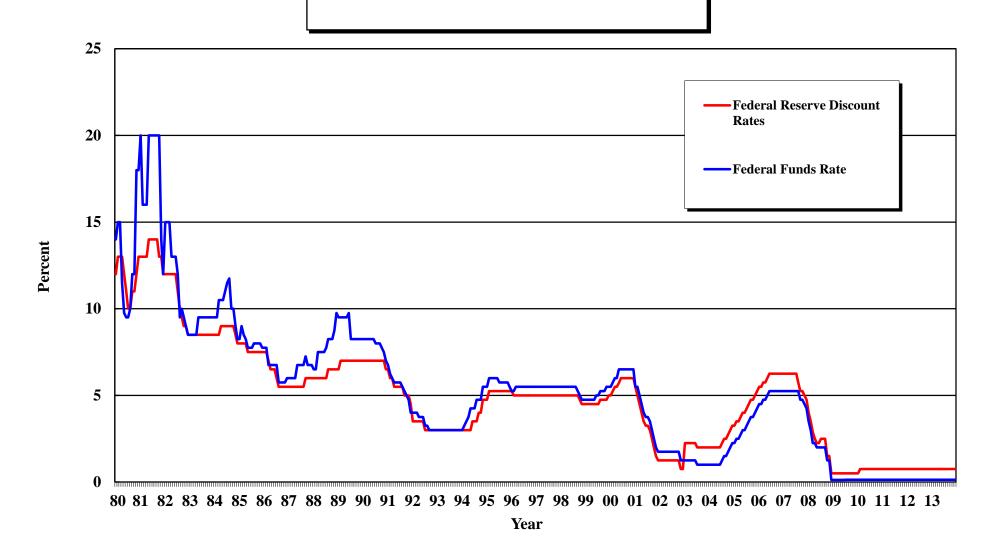
http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html
http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html
http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html

Note: Interest rates as of December 31 for each year are underlined.

^{*} Staff began tracking the Federal Funds Rate.

^{**}Revised discount window program begins. Reflects rate on primary credit. This revised discount window policy results in incomparability of the discount rates after January 9, 2003 to discount rates before January 9, 2003.

Federal Reserve Discount Rates and Federal Funds Rates 1982 - 2013



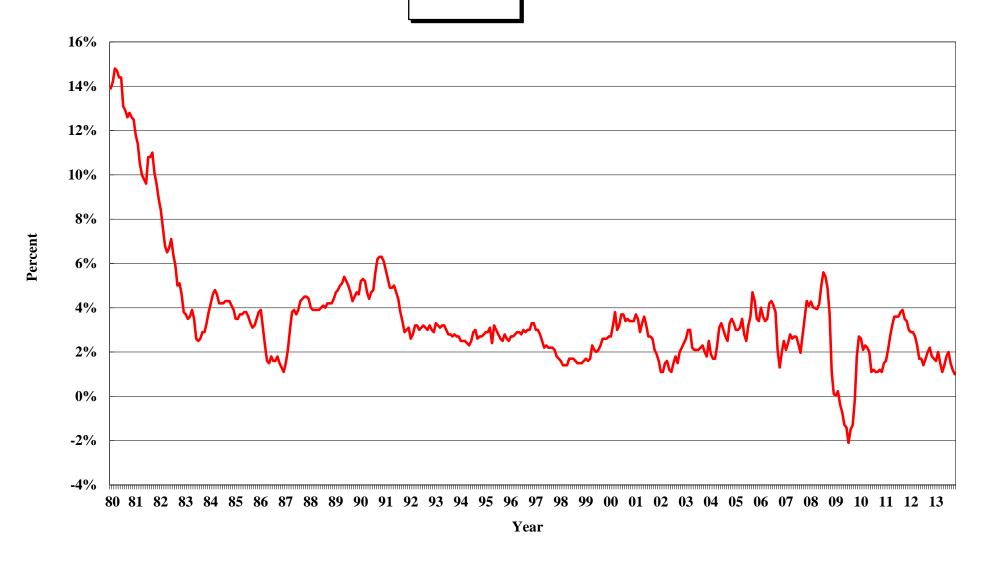
Rate of Inflation

Mo/Year Jan 1980	Rate (%)	Mo/Year Jan 1984	Rate (%) 4.20	Mo/Year Jan 1988	Rate (%) 4.00	Mo/Year Jan 1992	Rate (%)	Mo/Year Jan 1996	Rate (%)	Mo/Year Jan 2000	Rate (%)	Mo/Year Jan 2004	Rate (%)	Mo/Year Jan 2008	Rate (%) 4.30	Mo/Year Jan 2012	Rate (%)
Feb	14.20	Feb	4.60	Feb	3.90	Feb	2.80	Feb	2.70	Feb	3.20	Feb	1.70	Feb	4.00	Feb	2.90
Mar	14.80	Mar	4.80	Mar	3.90	Mar	3.20	Mar	2.80	Mar	3.70	Mar	1.70	Mar	4.00	Mar	2.70
Apr	14.70	Apr	4.60	Apr	3.90	Apr	3.20	Apr	2.90	Apr	3.00	Apr	2.30	Apr	3.90	Apr	2.30
May	14.40	May	4.20	May	3.90	May	3.00	May	2.90	May	3.20	May	3.10	May	4.20	May	1.70
Jun	14.40	Jun	4.20	Jun	4.00	Jun	3.10	Jun	2.80	Jun	3.70	Jun	3.30	Jun	5.00	Jun	1.70
Jul	13.10	Jul	4.20	Jul	4.10	Jul	3.20	Jul	3.00	Jul	3.70	Jul	3.00	Jul	5.60	Jul	1.40
Aug	12.90	Aug	4.30	Aug	4.00	Aug	3.10	Aug	2.90	Aug	3.40	Aug	2.70	Aug	5.40	Aug	1.70
Sep	12.60	Sep	4.30	Sep	4.20	Sep	3.00	Sep	3.00	Sep	3.50	Sep	2.50	Sep	4.90	Sep	2.00
Oct	12.80	Oct	4.30	Oct	4.20	Oct	3.20	Oct	3.00	Oct	3.40	Oct	3.30	Oct	3.70	Oct	2.20
Nov	12.60	Nov	4.10	Nov	4.20	Nov	3.00	Nov	3.30	Nov	3.40	Nov	3.50	Nov	1.10	Nov	1.80
Dec	12.50	Dec	3.90	Dec	4.40	Dec	2.90	Dec	3.30	Dec	3.40	Dec	3.30	Dec	0.10	Dec	1.70
Jan 1981	11.80	Jan 1985	3.50	Jan 1989	4.70	Jan 1993	3.30	Jan 1997	3.00	Jan 2001	3.70	Jan 2005	3.00	Jan 2009	0.00	Jan 2013	1.60
Feb	11.40	Feb	3.50	Feb	4.80	Feb	3.20	Feb	3.00	Feb	3.50	Feb	3.00	Feb	0.20	Feb	2.00
Mar	10.50	Mar	3.70	Mar	5.00	Mar	3.10	Mar	2.80	Mar	2.90	Mar	3.10	Mar	-0.40	Mar	1.50
Apr	10.00	Apr	3.70	Apr	5.10	Apr	3.20	Apr	2.50	Apr	3.30	Apr	3.50	Apr	-0.70	Apr	1.10
May	9.80	May	3.80	May	5.40	May	3.20	May	2.20	May	3.60	May	2.80	May	-1.28	May	1.40
Jun	9.60	Jun	3.80	Jun	5.20	Jun	3.00	Jun	2.30	Jun	3.20	Jun	2.50	Jun	-1.40	Jun	1.80
Jul	10.80	Jul	3.60	Jul	5.00	Jul	2.80	Jul	2.20	Jul	2.70	Jul	3.20	Jul	-2.10	Jul	2.00
Aug	10.80	Aug	3.30	Aug	4.70	Aug	2.80	Aug	2.20	Aug	2.70	Aug	3.60	Aug	-1.50	Aug	1.50
Sep	11.00	Sep	3.10	Sep	4.30	Sep	2.70	Sep	2.20	Sep	2.60	Sep	4.70	Sep	-1.30	Sept	1.20
Oct	10.10	Oct	3.20	Oct	4.50	Oct	2.80	Oct	2.10	Oct	2.10	Oct	4.30	Oct	-0.20	Oct	1.00
Nov	9.60	Nov	3.50	Nov	4.70	Nov	2.70	Nov	1.80	Nov	1.90	Nov	3.50	Nov	1.80		
Dec	8.90	Dec	3.80	Dec	4.60	Dec	2.70	Dec	1.70	Dec	1.60	Dec	3.40	Dec	2.70		
Jan 1982	8.40	Jan 1986	3.90	Jan 1990	5.20	Jan 1994	2.50	Jan 1998	1.60	Jan 2002	1.10	Jan 2006	4.00	Jan 2010	2.60		
Feb	7.60	Feb	3.10	Feb	5.30	Feb	2.50	Feb	1.40	Feb	1.10	Feb	3.60	Feb	2.10		
Mar	6.80	Mar	2.30	Mar	5.20	Mar	2.50	Mar	1.40	Mar	1.50	Mar	3.40	Mar	2.30		
Apr	6.50	Apr	1.60	Apr	4.70	Apr	2.40	Apr	1.40	Apr	1.60	Apr	3.50	April	2.20		
May	6.70	May	1.50	May	4.40	May	2.30	May	1.70	May	1.20	May	4.20	May	2.00		
Jun	7.10	Jun	1.80	Jun	4.70	Jun	2.50	Jun	1.70	Jun	1.10	June	4.30	Jun	1.10		
Jul	6.40	Jul	1.60	Jul	4.80	Jul	2.90	Jul	1.70	Jul	1.50	July	4.10	Jul	1.20		
Aug	5.90	Aug	1.60	Aug	5.60	Aug	3.00	Aug	1.60	Aug	1.80	Aug	3.80	Aug	1.10		
Sep	5.00	Sep	1.80	Sep	6.20	Sep	2.60	Sep	1.50	Sep	1.50	Sep	2.10	Sep	1.10		
Oct	5.10	Oct	1.50	Oct	6.30	Oct	2.70	Oct	1.50	Oct	2.00	Oct	1.30	Oct	1.20		
Nov	4.60	Nov	1.30	Nov	6.30	Nov	2.70	Nov	1.50	Nov	2.20	Nov	2.00	Nov	1.10		
Dec	3.80	Dec	1.10	Dec	6.10	Dec	2.80	Dec	1.60	Dec	2.40	Dec	2.50	Dec	1.50		
Jan 1983	3.70	Jan 1987	1.50	Jan 1991	5.70	Jan 1995	2.90	Jan 1999	1.70	Jan 2003	2.60	Jan 2007	2.10	Jan 2011	1.60		
Feb	3.50	Feb	2.10	Feb	5.30	Feb	2.90	Feb	1.60	Feb	3.00	Feb	2.40	Feb	2.10		
Mar	3.60	Mar	3.00	Mar	4.90	Mar	3.10	Mar	1.70	Mar	3.00	Mar	2.80	Mar	2.70		
Apr	3.90	Apr	3.80	Apr	4.90	Apr	2.40	Apr	2.30	Apr	2.20	Apr	2.60	Apr	3.20		
May	3.50	May	3.90	May	5.00	May	3.20	May	2.10 2.00	May	2.10 2.10	May	2.70 2.70	May	3.60		
Jun	2.60	Jun Iul	3.70	Jun	4.70	Jun	3.00	Jun		Jun Iul		Jun		Jun Iul	3.60 3.60		
Jul	2.50 2.60	Jul	3.90 4.30	Jul	4.40 3.80	Jul	2.80 2.60	Jul	2.10 2.30	Jul	2.10 2.20	Jul	2.40 2.00	Jul	3.80		
Aug	2.60	Aug Sep	4.40	Aug Sep	3.40	Aug Sep	2.50	Aug Sep	2.60	Aug Sep	2.20	Aug Sep	2.80	Aug Sep	3.80		
Sep Oct	2.90	Oct	4.40	Oct	2.90	Oct	2.80	Oct	2.60	Oct	2.00	Oct	3.50	Oct	3.50		
Nov	3.30	Nov	4.50	Nov	3.00	Nov	2.60	Nov	2.60	Nov	1.80	Nov	4.30	Nov	3.40		
Dec	3.80	Dec	4.40	Dec	3.10	Dec	2.50	Dec	2.70	Dec	1.80	Dec	4.30	Dec	3.40		
Dec	3.80	Dec	4.40	Dec	5.10	Dec	2.30	Dec	2.70	Dec	1.90	Dec	4.10	Dec	3.00		

Source: U.S. Dept of Labor, Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers, Change for 12-Month Period, Bureau of Labor Statistics,

http://www.bls.gov/schedule/archives/cpi_nr.htm

Rate of Inflation 1980 - 2013



Average Yields on AA, A and BBB Public Utility Bonds

Mo/Year Jan 1980	Rate (%)	Mo/Year Jan 1984	Rate (%)	Mo/Year Jan 1988	Rate (%)	Mo/Year Jan 1992	Rate (%) 8.67	Mo/Year Jan 1996	Rate (%) 7.20	Mo/Year Jan 2000	Rate (%) 8.22	Mo/Year Jan 2004	Rate (%) 6.23	Mo/Year Jan 2008	Rate (%) 6.08	Mo/Year Jan 2012	Rate (%) 4.97
Feb	13.48	Feb	13.50	Feb	10.11	Feb	8.77	Feb	7.37	Feb	8.10	Feb	6.17	Feb	6.28	Feb	4.99
Mar	14.33	Mar	14.03	Mar	10.11	Mar	8.84	Mar	7.72	Mar	8.14	Mar	6.01	Mar	6.29	Mar	5.13
Apr	13.50	Apr	14.30	Apr	10.53	Apr	8.79	Apr	7.88	Apr	8.14	Apr	6.38	Apr	6.36	Apr	5.05
May	12.17	May	14.95	May	10.75	May	8.72	May	7.99	May	8.55	May	6.68	May	6.38	May	4.84
Jun	11.87	Jun	15.16	Jun	10.71	Jun	8.64	Jun	8.07	Jun	8.22	Jun	6.53	Jun	6.50	Jun	4.67
Jul	12.12	Jul	14.92	Jul	10.96	Jul	8.46	Jul	8.02	Jul	8.17	Jul	6.34	Jul	6.50	Jul	4.56
Aug	12.82	Aug	14.29	Aug	11.09	Aug	8.34	Aug	7.84	Aug	8.05	Aug	6.18	Aug	6.48	Aug	4.71
Sep	13.29	Sep	14.04	Sep	10.56	Sep	8.32	Sep	8.01	Sep	8.16	Sep	6.01	Sep	6.59	Sep	4.75
Oct	13.53	Oct	13.68	Oct	9.92	Oct	8.44	Oct	7.76	Oct	8.08	Oct	5.95	Oct	7.70	Oct	4.69
Nov	14.07	Nov	13.15	Nov	9.89	Nov	8.53	Nov	7.48	Nov	8.03	Nov	5.97	Nov	7.80	Nov	4.53
Dec	14.48	Dec	12.96	Dec	10.02	Dec	8.36	Dec	7.58	Dec	7.79	Dec	5.93	Dec	6.87	Dec	4.28
Jan 1981	14.22	Jan 1985	12.88	Jan 1989	10.02	Jan 1993	8.23	Jan 1997	7.79	Jan 2001	7.76	Jan 2005	5.80	Jan 2009	6.77	Jan 2013	4.45
Feb	14.84	Feb	13.00	Feb	10.02	Feb	8.00	Feb	7.68	Feb	7.69	Feb	5.64	Feb	6.72	Feb	4.49
Mar	14.86	Mar	13.66	Mar	10.16	Mar	7.85	Mar	7.92	Mar	7.59	Mar	5.86	Mar	6.85	Mar	4.45
Apr	15.32	Apr	13.42	Apr	10.14	Apr	7.76	Apr	8.08	Apr	7.81	Apr	5.72	Apr	6.90	Apr	4.19
May	15.84	May	12.89	May	9.92	May	7.78	May	7.94	May	7.88	May	5.60	May	6.83	May	4.36
Jun	15.27	Jun	11.91	Jun	9.49	Jun	7.68	Jun	7.77	Jun	7.75	Jun	5.39	June	6.54	Jun	4.70
Jul	15.87	Jul	11.88	Jul	9.34	Jul	7.53	Jul	7.52	Jul	7.71	Jul	5.50	July	6.15	Jul	4.90
Aug	16.33	Aug	11.93	Aug	9.37	Aug	7.21	Aug	7.57	Aug	7.57	Aug	5.51	Aug	5.80	Aug	5.00
Sep	16.89	Sep	11.95	Sep	9.43	Sep	7.01	Sep	7.50	Sep	7.73	Sep	5.54	Sep	5.60	Sep	5.05
Oct	16.76	Oct	11.84	Oct	9.37	Oct	6.99	Oct	7.37	Oct	7.64	Oct	5.79	Oct	5.64	Oct	4.94
Nov	15.50	Nov	11.33	Nov	9.33	Nov	7.30	Nov	7.24	Nov	7.61	Nov	5.88	Nov	5.71	Nov	5.04
Dec	15.77	Dec	10.82	Dec	9.31	Dec	7.33	Dec	7.16	Dec	7.86	Dec	5.83	Dec	5.86	Dec	5.09
Jan 1982	16.73	Jan 1986	10.66	Jan 1990	9.44	Jan 1994	7.31	Jan 1998	7.03	Jan 2002	7.69	Jan 2006	5.77	Jan 2010	5.83		
Feb	16.72	Feb	10.16	Feb	9.66	Feb	7.44	Feb	7.09	Feb	7.62	Feb	5.83	Feb	5.94		
Mar	16.07	Mar	9.33	Mar	9.75	Mar	7.83	Mar	7.13	Mar	7.83	Mar	5.98	Mar	5.90		
Apr	15.82	Apr	9.02	Apr	9.87	Apr	8.20	Apr	7.12	Apr	7.74	Apr	6.28	Apr	5.87		
May	15.60	May	9.52	May	9.89	May	8.32	May	7.11	May	7.76	May	6.39	May	5.59		
Jun	16.18	Jun	9.51	Jun	9.69	Jun	8.31	Jun	6.99	Jun	7.67	June	6.39	June	5.62		
Jul	16.04	Jul	9.19	Jul	9.66	Jul	8.47	Jul	6.99	Jul	7.54	July	6.37	July	5.41		
Aug	15.22	Aug	9.15	Aug	9.84	Aug	8.41	Aug	6.96	Aug	7.34	Aug	6.20	Aug	5.10		
Sep	14.56	Sep	9.42	Sep	10.01	Sep	8.65	Sep	6.88	Sep	7.23	Sep	6.03	Sep	5.10		
Oct	13.88	Oct	9.39	Oct	9.94	Oct	8.88	Oct	6.88	Oct	7.43	Oct	6.01	Oct	5.20		
Nov	13.58	Nov	9.15	Nov	9.76	Nov	9.00	Nov	6.96	Nov	7.31	Nov	5.82	Nov	5.45		
Dec	13.55	Dec	8.96	Dec	9.57	Dec	8.79	Dec	6.84	Dec	7.20	Dec	5.83	Dec	5.61		
Jan 1983	13.46	Jan 1987	8.77	Jan 1991	9.56	Jan 1995	8.77	Jan 1999	6.87	Jan 2003	7.13	Jan 2007	5.96	Jan 2011	5.69		
Feb	13.60	Feb	8.81	Feb	9.31	Feb	8.56	Feb	7.00	Feb	6.92	Feb	5.91	Feb	5.82		
Mar	13.28	Mar	8.75	Mar	9.39	Mar	8.41	Mar	7.18	Mar	6.80	Mar	5.87	Mar	5.74		
Apr	13.03	Apr	9.30	Apr	9.30	Apr	8.30	Apr	7.16	Apr	6.68	Apr	6.01	Apr	5.76		
May	13.00	May	9.82	May	9.29	May	7.93	May	7.42	May	6.35	May	6.03	May	5.57		
Jun	13.17	Jun	9.87	Jun	9.44	Jun	7.62	Jun	7.70	Jun	6.21	June	6.34	June	5.52		
Jul	13.28	Jul	10.01	Jul	9.40	Jul	7.73	Jul	7.66	Jul	6.54	July	6.28	July	5.61		
Aug	13.50	Aug	10.33	Aug	9.16	Aug	7.86	Aug	7.86	Aug	6.78	Aug	6.28	Aug	5.26		
Sep	13.35	Sep	11.00	Sep	9.03	Sep	7.62	Sep	7.87	Sep	6.58	Sep	6.24	Sep	5.01		
Oct	13.19	Oct	11.32	Oct	8.99	Oct	7.46	Oct	8.02	Oct	6.50	Oct	6.17	Oct	5.11		
Nov	13.33	Nov	10.82	Nov	8.93	Nov	7.40	Nov	7.86	Nov	6.44	Nov	6.04	Nov	5.00		
Dec	13.48	Dec	10.99	Dec	8.76	Dec	7.21	Dec	8.04	Dec	6.36	Dec	6.23	Dec	4.96		

Source:

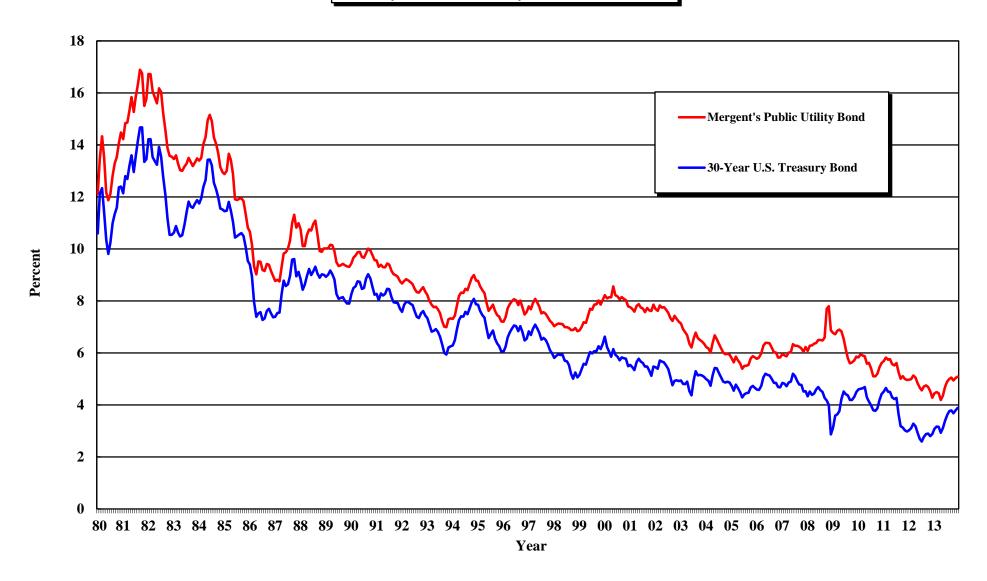
Mergent Bond Record (through November 2010); BondsOnline (December 2010 to present)

Average Yields on Thirty-Year U.S. Treasury Bonds

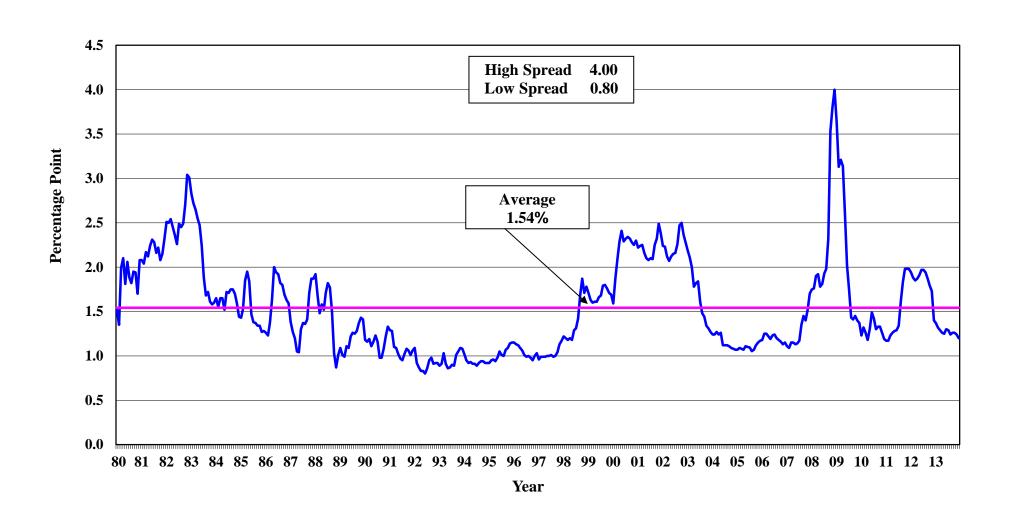
Mo/Year Jan 1980	Rate (%)	Mo/Year Jan 1984	Rate (%) 11.75	Mo/Year Jan 1988	Rate (%) 8.83	Mo/Year Jan 1992	Rate (%) 7.58	Mo/Year Jan 1996	Rate (%) 6.05	Mo/Year Jan 2000	Rate (%) 6.63	Mo/Year Jan 2004	Rate (%) 4.99	Mo/Year Jan 2008	Rate (%) 4.33	Mo/Year Jan 2012	Rate (%)
Feb	12.13	Feb	11.95	Feb	8.43	Feb	7.85	Feb	6.24	Feb	6.23	Feb	4.93	Feb	4.52	Feb	3.11
Mar	12.34	Mar	12.38	Mar	8.63	Mar	7.97	Mar	6.60	Mar	6.05	Mar	4.74	Mar	4.39	Mar	3.28
Apr	11.40	Apr	12.65	Apr	8.95	Apr	7.96	Apr	6.79	Apr	5.85	Apr	5.14	Apr	4.44	Apr	3.18
May	10.36	May	13.43	May	9.23	May	7.89	May	6.93	May	6.15	May	5.42	May	4.60	May	2.93
Jun	9.81	Jun	13.44	Jun	9.00	Jun	7.84	Jun	7.06	Jun	5.93	Jun	5.41	Jun	4.69	Jun	2.70
Jul	10.24	Jul	13.21	Jul	9.14	Jul	7.60	Jul	7.03	Jul	5.85	Jul	5.22	Jul	4.57	Jul	2.59
Aug	11.00	Aug	12.54	Aug	9.32	Aug	7.39	Aug	6.84	Aug	5.72	Aug	5.06	Aug	4.50	Aug	2.77
Sep	11.34	Sep	12.29	Sep	9.06	Sep	7.34	Sep	7.03	Sep	5.83	Sep	4.90	Sep	4.27	Sep	2.88
Oct	11.59	Oct	11.98	Oct	8.89	Oct	7.53	Oct	6.81	Oct	5.80	Oct	4.86	Oct	4.17	Oct	2.90
Nov	12.37	Nov	11.56	Nov	9.02	Nov	7.61	Nov	6.48	Nov	5.78	Nov	4.89	Nov	4.00	Nov	2.80
Dec	12.40	Dec	11.52	Dec	9.01	Dec	7.44	Dec	6.55	Dec	5.49	Dec	4.86	Dec	2.87	Dec	2.88
Jan 1981	12.14	Jan 1985	11.45	Jan 1989	8.93	Jan 1993	7.34	Jan 1997	6.83	Jan 2001	5.54	Jan 2005	4.73	Jan 2009	3.13	Jan 2013	3.08
Feb	12.80	Feb	11.47	Feb	9.01	Feb	7.09	Feb	6.69	Feb	5.45	Feb	4.55	Feb	3.59	Feb	3.17
Mar	12.69	Mar	11.81	Mar	9.17	Mar	6.82	Mar	6.93	Mar	5.34	Mar	4.78	Mar	3.64	Mar	3.16
Apr	13.20	Apr	11.47	Apr	9.03	Apr	6.85	Apr	7.09	Apr	5.65	Apr	4.65	Apr	3.76	Apr	2.93
May	13.60	May	11.05	May	8.83	May	6.92	May	6.94	May	5.78	May	4.49	May	4.23	May	3.11
Jun	12.96	Jun	10.44	Jun	8.27	Jun	6.81	Jun	6.77	Jun	5.67	Jun	4.29	Jun	4.52	Jun	3.40
Jul	13.59	Jul	10.50	Jul	8.08	Jul	6.63	Jul	6.51	Jul	5.61	Jul	4.41	July	4.41	Jul	3.61
Aug	14.17	Aug	10.56	Aug	8.12	Aug	6.32	Aug	6.58	Aug	5.48	Aug	4.46	Aug	4.37	Aug	3.76
Sep	14.67	Sep	10.61	Sep	8.15	Sep	6.00	Sep	6.50	Sep	5.48	Sep	4.47	Sep	4.19	Sep	3.79
Oct	14.68	Oct	10.50	Oct	8.00	Oct	5.94	Oct	6.33	Oct	5.32	Oct	4.67	Oct	4.19	Oct	3.68
Nov	13.35	Nov	10.06	Nov	7.90	Nov	6.21	Nov	6.11	Nov	5.12	Nov	4.73	Nov	4.31	Nov	3.80
Dec	13.45	Dec	9.54	Dec	7.90	Dec	6.25	Dec	5.99	Dec	5.48	Dec	4.66	Dec	4.49	Dec	3.89
Jan 1982	14.22	Jan 1986	9.40	Jan 1990	8.26	Jan 1994	6.29	Jan 1998	5.81	Jan 2002	5.44	Jan 2006	4.59	Jan 2010	4.60		
Feb	14.22 13.53	Feb	8.93	Feb	8.50 8.56	Feb	6.49	Feb	5.89	Feb	5.39	Feb	4.58 4.73	Feb	4.62		
Mar	13.33	Mar	7.96	Mar		Mar	6.91 7.27	Mar	5.95 5.92	Mar	5.71 5.67	Mar		Mar	4.64 4.69		
Apr	13.24	Apr May	7.39 7.52	Apr	8.76 8.73	Apr May	7.41	Apr	5.93	Apr May	5.64	Apr May	5.06 5.20	Apr May	4.09		
May Jun	13.24	Jun	7.57	May Jun	8.46	Jun	7.40	May Jun	5.70	Jun	5.52	Jun	5.16	Jun	4.23		
Jul	13.55	Jul	7.27	Jul	8.50	Jul	7.58	Jul	5.68	Jul	5.38	July	5.13	July	3.99		
Aug	12.77	Aug	7.33	Aug	8.86	Aug	7.49	Aug	5.54	Aug	5.08	Aug	5.00	Aug	3.80		
Sep	12.07	Sep	7.62	Sep	9.03	Sep	7.71	Sep	5.20	Sep	4.76	Sep	4.85	Sep	3.77		
Oct	11.17	Oct	7.70	Oct	8.86	Oct	7.94	Oct	5.01	Oct	4.93	Oct	4.85	Oct	3.87		
Nov	10.54	Nov	7.52	Nov	8.54	Nov	8.08	Nov	5.25	Nov	4.95	Nov	4.69	Nov	4.19		
Dec	10.54	Dec	7.37	Dec	8.24	Dec	7.87	Dec	5.06	Dec	4.92	Dec	4.68	Dec	4.42		
Jan 1983	10.63	Jan 1987	7.39	Jan 1991	8.27	Jan 1995	7.85	Jan 1999	5.16	Jan 2003	4.94	Jan 2007	4.85	Jan 2011	4.52		
Feb	10.88	Feb	7.54	Feb	8.03	Feb	7.61	Feb	5.37	Feb	4.81	Feb	4.82	Feb	4.65		
Mar	10.63	Mar	7.55	Mar	8.29	Mar	7.45	Mar	5.58	Mar	4.80	Mar	4.72	Mar	4.51		
Apr	10.48	Apr	8.25	Apr	8.21	Apr	7.36	Apr	5.55	Apr	4.90	Apr	4.86	Apr	4.50		
May	10.53	May	8.78	May	8.27	May	6.95	May	5.81	May	4.53	May	4.90	May	4.29		
Jun	10.93	Jun	8.57	Jun	8.47	Jun	6.57	Jun	6.04	Jun	4.37	Jun	5.20	Jun	4.23		
Jul	11.40	Jul	8.64	Jul	8.45	Jul	6.72	Jul	5.98	Jul	4.93	July	5.11	Jul	4.27		
Aug	11.82	Aug	8.97	Aug	8.14	Aug	6.86	Aug	6.07	Aug	5.30	Aug	4.93	Aug	3.65		
Sep	11.63	Sep	9.59	Sep	7.95	Sep	6.55	Sep	6.07	Sep	5.14	Sep	4.79	Sep	3.18		
Oct	11.58	Oct	9.61	Oct	7.93	Oct	6.37	Oct	6.26	Oct	5.16	Oct	4.77	Oct	3.13		
Nov	11.75	Nov	8.95	Nov	7.92	Nov	6.26	Nov	6.15	Nov	5.13	Nov	4.52	Nov	3.02		
Dec	11.88	Dec	9.12	Dec	7.70	Dec	6.06	Dec	6.35	Dec	5.08	Dec	4.53	Dec	2.98		

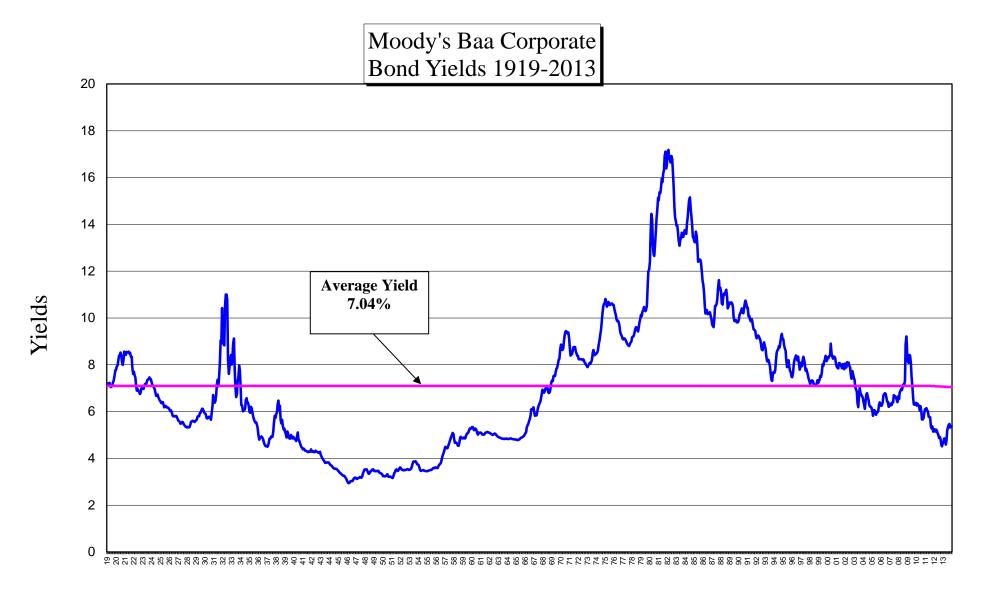
Sources: http://finance.yahoo.com/q/hp?s=^TYX http://research.stlouisfed.org/fred2/data/GS30.txt

Average Yields on Mergent's Public Utility Bonds and Thirty-Year U.S. Treasury Bonds (1980 - 2013)



Monthly Spreads Between Yields on Mergent's Public Utility Bonds and Thirty-Year U.S. Treasury Bonds (1980 - 2013)





Year

Historical Capital Structures for Laclede Group Inc. (Consolidated Basis) and Laclede Gas Company

LACLEDE GROUP INC. TOTAL CAPITILIZATION	
---	--

		LACLEDE GROU	I INC. IOTAL CA	IIIILIZATION		
(in thousands) Capital Components	2009	2010	2011	2012	2013	
Common Equity	\$517,030	\$535,577	\$573,331	\$601,611	\$1,046,282	
Long-Term Debt	\$389,240	\$389,298	s364,357	\$364,416	¹ \$912,712	
Short-Term Debt	\$129,800	\$129,650	² \$46,000	\$40,100	² \$74,000	
Total	\$1,036,070	\$1,054,525	\$983,688	\$1,006,127	\$2,032,994	
Total Debt	\$986,712	\$519,040	\$518,948	\$410,357	\$404,516	
						5-Year
Capital Structure	2009	2010	2011	2012	2013	5-Year Average
Common Equity	49.90%	50.79%	58.28%	59.79%	51.47%	54.05%
Long-Term Debt	37.57%	36.92%	37.04%	36.22%	44.89%	38.53%
Short-Term Debt Total	12.53% 100.00%	12.29% 100.00%	4.68%	3.99% 100.00%	3.64% 100.00%	7.42% 100.00%
Capital Components	2009	2010	2011	2012	2013	
Common Equity	\$402,585	\$411,259	\$433,957	\$491,328	\$973,930	
Long-Term Debt	\$389,240	\$389,298	\$364,357	\$364,416	¹ \$887,712	
Short-Term Debt	\$129,800	\$129,650	² \$46,000	\$40,100	² \$74,000	
Total	\$921,625	\$930,207	\$844,314	\$895,844	\$1,935,642	
Total Debt	\$519,040	\$518,948	\$410,357	\$404,516	\$961,712	
						5-Year
Capital Structure	2009	2010	2011	2012	2013	Average
Common Equity	43.68%	44.21%	51.40%	54.85%	50.32%	48.89%
Long-Term Debt	42.23%	41.85%	43.15%	40.68%	45.86%	42.76%
Short-Term Debt	14.08%	13.94%	5.45%	4.48%	3.82%	8.35%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	SPREAD BETWEE	N LACLEDE GRO	UP AND LACLEDI	E GAS COMPANY	EQUITY RATIOS	
	2009	2010	2011	2012	2013	March 31, 2013 Update Period
Equity Ratio	49.90%	50.79%	58.28%	59.79%	51.47%	57.95%
Equity Ratio	43.68%	44.21%	51.40%	54.85%	50.32%	54.72%
Equity Spreads	6.22%	6.58%	6.89%	4.95%	1.15%	3.23%

Laclede Group Inc.'s, September 30, 2009, 2010, 2011, 2012 and 2013 SEC 10-K filings.

^{1.} Long-term debt includes current or maturing portion of long-term debt 2. Short-term debt excludes current or maturing portion of long-term debt

Capital Structure as of test year period September 30, 2013 Laclede Group Inc.

all dollar amounts are in thousands	Dollar	Percentage	
Capital Component	Amount	of Capital	
Common Stock Equity	\$ 1,046,282	53.08%	
Long-Term Debt	\$ 924,785	46.92%	
Total Capitalization	\$ 1,971,067	100.00%	

Source: Laclede Group, September 30, 2013 SEC 10-K filing.

: Long-term debt - Schedule ZM-8

Note: Embedded cost of debt below is based on the acquisition transaction debt only (Staff's recommendation)

Embedded Cost of Long-Term Debt as of September 30, 2013

	Amount	Annual
	Outstanding	Cost
Bonds and Unsecured Notes Series:		_
2.00% Series Due 08/15/18	\$100,000,000	\$2,000,000
3.40% Series Due 08/15/23	\$250,000,000	\$8,500,000
4.635% Series Due 08/15/43	\$100,000,000	\$4,635,000
Unamortized Premium, Discount and Expense	\$15,397,398	
Annual Amortization		-\$617,704
Total	\$465,397,398	\$14,517,296
Embedded Cost of Long-term Debt	[3.12%
Source: Laclede Gas' updated response to data request 102		

Source: Laclede Gas' updated response to data request 102

Note: Embedded cost of debt based on Laclede Group's consolidated debt:

Embedded Cost of Long-Term Debt as of September 30, 2013

	Amount	Annual
	Outstanding	Cost
Bonds and Unsecured Notes Series:		
5.50% Series Due 05/01/19	\$50,000,000	\$2,750,000
3.31% Series Due 12/15/22	\$25,000,000	\$827,500
3.00% Series Due 03/15/23	\$55,000,000	\$1,650,000
3.40% Series Due 03/15/28	\$45,000,000	\$1,530,000
7.00% Series Due 06/01/29	\$25,000,000	\$1,750,000
7.90% Series Due 09/15/30	\$30,000,000	\$2,370,000
6.00% Series Due 05/01/34	\$100,000,000	\$6,000,000
6.15% Series Due 06/01/36	\$55,000,000	\$3,382,500
6.35% Series Due 10/15/38	\$80,000,000	\$5,080,000
2.00% Series Due 08/15/18	\$100,000,000	\$2,000,000
3.40% Series Due 08/15/23	\$250,000,000	\$8,500,000
4.635% Series Due 08/15/43	\$100,000,000	\$4,635,000
Unamortized Premium, Discount and Expense	\$9,785,000	
Annual Amortization		-\$157,299
Total	\$924,785,000	\$40,317,701

Embedded Cost of Long-term Debt 4.36%

Source: Laclede Gas' updated response to data request 102

MISSOURI GAS ENERGY CASE NO. GR-2014-0007

Criteria for Selecting Comparable Natural Gas Distribution Companies

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			10-Year				
			Value Line	No Reduced	Projected Growth	At Least	Comparable
	Stock	Information	Historical	Dividend	Available from	Investment	Company
	Publicly	Printed In	Growth	since	Value Line and	Grade Credit	Met All
Natural Gas Distribution Companies	Traded	Value Line	Available	2009	Reuters	Rating	Criteria
AGL Resources, Inc.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Atmos Energy Corporation	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Delta Natural Gas Company, Inc.	Yes	Yes	Yes	Yes	No		
Gas Natural Inc.	Yes	Yes	Yes	Yes	No		
Laclede Group Inc.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
New Jersey Resources Corp.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Northwest Natural Gas Company	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Piedmont Natural Gas Company, Inc.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RGC Resources, Inc.	Yes	Yes	Yes	Yes	No		
South Jersey Industries, Inc.	Yes	Yes	Yes	Yes	No		
WGL Holdings, Inc.	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Sources: Column 1 = Edward Jones' Natural Gas Industry Summary, September 30, 2013.

Columns 2, 3, 4, and 5 = The Value Line Investment Survey: Ratings & Reports, December 6, 2013.

Column 6 = Reuters Estimates, January 16, 2014

Column 7 = Standard & Poor's RatingsDirect

Seven Comparable Natural Gas Distribution Companies For Missouri Gas Energy Division

	Ticker	
Number	Symbol	Company Name
1	GAS	AGL Resources, Inc.
2	ATO	Atmos Energy Corporation.
3	NJR	New Jersey Resources Corporation
4	LG	Laclede Group Inc.
5	NWN	Northwest Natural Gas
6	PNY	Piedmont Natural Gas Company, Inc.
7	WGL	WGL Holdings, Inc.

Ten-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Seven Comparable Natural Gas Distribution Companies

		10-Year Annual Compour	nd Growth Rates	
		_		Average of
				10 Year
				Annual
				Compound
Company Name	DPS	EPS	BVPS	Growth Rates
AGL Resources, Inc.	5.00%	8.00%	8.00%	7.00%
Atmos Energy Corporation	1.50%	5.00%	6.50%	4.33%
Laclede Group Inc.	2.00%	7.00%	5.50%	4.83%
New Jersey Resources Corp.	6.50%	7.00%	8.00%	7.17%
Northwest Natural Gas Co.	3.50%	3.50%	4.00%	3.67%
Piedmont Natural Gas Co.	5.00%	5.00%	5.00%	5.00%
WGL Holdings, Inc.	2.00%	4.00%	4.00%	3.33%
Average	3.64%	5.64%	5.86%	<u>5.05%</u>
Standard Deviation	1.77%	1.57%	1.57%	1.40%

Source: The Value Line Investment Survey: Ratings & Reports, December 6, 2013.

Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Seven Comparable Natural Gas Distribution Companies

		5-Year Annual Compound Gr	owth Rates	
				Average of
				5 Year
				Annual
				Compound
Company Name	DPS	EPS	BVPS	Growth Rates
AGL Resources, Inc.	6.50%	1.50%	5.00%	4.33%
Atmos Energy Corp.	1.50%	3.00%	4.00%	2.83%
Laclede Group Inc.	3.00%	4.00%	6.50%	4.50%
New Jersey Resources Corp.	8.50%	8.50%	6.50%	7.83%
Northwest Natural Gas Co.	4.50%	0.50%	4.00%	3.00%
Piedmont Natural Gas Co.	5.50%	3.50%	3.00%	4.00%
WGL Holdings, Inc.	3.00%	3.00%	4.50%	3.50%
Average	4.64%	3.43%	4.79%	4.29%
Standard Deviation	2.22%	2.35%	1.22%	1.56%

Source: The Value Line Investment Survey: Ratings & Reports, December 6, 2013.

Average of Ten and Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Seven Comparable Natural Gas Distribution Companies

	10-Year	5-Year	Average of
	Average	Average	5-Year &
	DPS, EPS &	DPS, EPS &	10-Year
Company Name	BVPS	BVPS	Averages
AGL Resources, Inc.	7.00%	4.33%	5.67%
Atmos Energy Corp.	4.33%	2.83%	3.58%
Laclede Group Inc.	4.83%	4.50%	4.67%
New Jersey Resources Corporation	7.17%	7.83%	7.50%
Northwest Natural Gas	3.67%	3.00%	3.33%
Piedmont Natural Gas Company, Inc.	5.00%	4.00%	4.50%
WGL Holdings, Inc.	3.33%	3.50%	3.42%
Average	5.05%	4.29%	4.67%

Five-Year Projected Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates for the Seven Comparable Natural Gas Distribution Utility Companies

		5-Year Projected Compoun	d Growth Rates	
		•		Average of
				5 Year
				Annual
				Compound
Company Name	DPS	EPS	BVPS	Growth Rates
AGL Resources, Inc.	4.50%	8.00%	5.50%	6.00%
Atmos Energy Corp.	4.00%	7.50%	5.50%	5.67%
Laclede Group inc.	3.50%	6.00%	-3.00%	2.17%
New Jersey Resources Corporation	3.00%	5.50%	5.50%	4.67%
Northwest Natural Gas	2.50%	4.50%	3.00%	3.33%
Piedmont Natural Gas Company, Inc.	3.00%	4.00%	4.50%	3.83%
WGL Holdings, Inc.	2.50%	3.50%	3.00%	3.00%
Average	3.29%	5.57%	3.43%	4.10%
Standard Deviation	0.70%	1.59%	2.82%	1.31%

Source: The Value Line Investment Survey: Ratings & Reports, December 6, 2013.

Historical and Projected Growth Rates for the Seven Comparable Natural Gas Distribution Companies

	(1)	(2)	(3)	(4)
			Projected	
	Historical	Projected	5-Year	Projected
	Growth Rate	Growth Rate	EPS Growth	3-5 Year
	(DPS, EPS and	(DPS, EPS and	Reuters	EPS Growth
Company Name	BVPS)	BVPS)	(Mean)	Value Line
AGL Resources, Inc.	5.67%	6.00%	4.00%	8.00%
Atmos Energy Corp.	3.58%	5.67%	7.75%	7.50%
Laclede Group Inc.	4.67%	2.17%	4.90%	6.00%
New Jersey Resources Corporation	7.50%	4.67%	2.50%	5.50%
Northwest Natural Gas	3.33%	3.33%	4.00%	4.50%
Piedmont Natural Gas Company, Inc.	4.50%	3.83%	4.00%	4.00%
WGL Holdings, Inc.	3.42%	3.00%	4.60%	3.50%
	4.67%	4.10%	4.54%	5.57%

Sources: Column 1 = Average of 10-Year and 5-Year Annual Compound Growth Rates from Schedule 10-3.

Column 2 =Schedule 10-4.

Column 3 = Reuters Website, January 16, 2014

Column 4 = The Value Line Investment Survey: Ratings and Reports, December 6, 2013.

Long-Term Gas Proxy Group DPS, EPS, BVPS & GDP

10-Year Compound Growth Rate Averages (1968-2012)

DPS	<u>_</u>	EPS	<u></u>	BVPS		Average	GDP	
	10 yr compound		10 yr compound		10 yr compound	DPS, EPS and		10 yr compound
Years	growth rate avgs	Years	growth rate avgs	Years	growth rate avgs	BVPS	Years	growth rate avgs
1968-70 to 1978-80	3.82%	1968-70 to 1978-80	5.16%	1968-70 to 1978-80	4.59%	4.52%	1968-70 to 1978-80	9.96%
1969-71 to 1979-81	4.13%	1969-71 to 1979-81	5.07%	1969-71 to 1979-81	4.62%	4.61%	1969-71 to 1979-81	10.31%
1970-72 to 1980-82	4.69%	1970-72 to 1980-82	4.75%	1970-72 to 1980-82	4.51%	4.65%	1970-72 to 1980-82	10.32%
1971-73 to 1981-83	5.10%	1971-73 to 1981-83	4.10%	1971-73 to 1981-83	4.30%	4.50%	1971-73 to 1981-83	10.15%
1972-74 to 1982-84	5.50%	1972-74 to 1982-84	5.20%	1972-74 to 1982-84	4.11%	4.94%	1972-74 to 1982-84	9.98%
1973-75 to 1983-85	5.98%	1973-75 to 1983-85	5.87%	1973-75 to 1983-85	4.08%	5.31%	1973-75 to 1983-85	9.93%
1974-76 to 1984-86	6.51%	1974-76 to 1984-86	5.91%	1974-76 to 1984-86	4.11%	5.51%	1974-76 to 1984-86	9.76%
1975-77 to 1985-87	6.91%	1975-77 to 1985-87	5.28%	1975-77 to 1985-87	4.15%	5.44%	1975-77 to 1985-87	9.34%
1976-78 to 1986-88	6.99%	1976-78 to 1986-88	5.37%	1976-78 to 1986-88	4.24%	5.54%	1976-78 to 1986-88	8.82%
1977-79 to 1987-89	7.06%	1977-79 to 1987-89	5.07%	1977-79 to 1987-89	4.23%	5.45%	1977-79 to 1987-89	8.35%
1978-80 to 1988-90	6.79%	1978-80 to 1988-90	3.85%	1978-80 to 1988-90	4.16%	4.93%	1978-80 to 1988-90	7.96%
1979-81 to 1989-91	6.37%	1979-81 to 1989-91	2.39%	1979-81 to 1989-91	3.81%	4.19%	1979-81 to 1989-91	7.42%
1980-82 to 1990-92	5.72%	1980-82 to 1990-92	2.16%	1980-82 to 1990-92	3.66%	3.85%	1980-82 to 1990-92	7.10%
1981-83 to 1991-93	5.23%	1981-83 to 1991-93	2.86%	1981-83 to 1991-93	3.63%	3.91%	1981-83 to 1991-93	6.75%
1982-84 to 1992-94	5.04%	1982-84 to 1992-94	2.59%	1982-84 to 1992-94	3.98%	3.87%	1982-84 to 1992-94	6.52%
1983-85 to 1993-95	4.40%	1983-85 to 1993-95	2.36%	1983-85 to 1993-95	3.93%	3.56%	1983-85 to 1993-95	6.15%
1984-86 to 1994-96	3.75%	1984-86 to 1994-96	2.94%	1984-86 to 1994-96	3.91%	3.53%	1984-86 to 1994-96	5.92%
1985-87 to 1995-97	3.39%	1985-87 to 1995-97	3.94%	1985-87 to 1995-97	3.92%	3.75%	1985-87 to 1995-97	5.85%
1986-88 to 1996-98	3.02%	1986-88 to 1996-98	3.42%	1986-88 to 1996-98	3.61%	3.35%	1986-88 to 1996-98	5.78%
1987-89 to 1997-99	2.71%	1987-89 to 1997-99	2.29%	1987-89 to 1997-99	3.25%	2.75%	1987-89 to 1997-99	5.66%
1988-90 to 1998-00	2.44%	1988-90 to 1998-00	2.69%	1988-90 to 1998-00	3.16%	2.77%	1988-90 to 1998-00	5.57%
1989-91 to 1999-01	2.19%	1989-91 to 1999-01	4.07%	1989-91 to 1999-01	3.46%	3.24%	1989-91 to 1999-01	5.55%
1990-92 to 2000-02	2.07%	1990-92 to 2000-02	4.74%	1990-92 to 2000-02	3.67%	3.49%	1990-92 to 2000-02	5.49%
1991-93 to 2001-03	2.01%	1991-93 to 2001-03	4.89%	1991-93 to 2001-03	4.03%	3.64%	1991-93 to 2001-03	5.39%
1992-94 to 2002-04	2.05%	1992-94 to 2002-04	4.40%	1992-94 to 2002-04	4.48%	3.64%	1992-94 to 2002-04	5.31%
1993-95 to 2003-05	2.19%	1993-95 to 2003-05	5.00%	1993-95 to 2003-05	4.98%	4.06%	1993-95 to 2003-05	5.37%
1994-96 to 2004-06	2.42%	1994-96 to 2004-06	5.00%	1994-96 to 2004-06	5.41%	4.27%	1994-96 to 2004-06	5.45%
1995-97 to 2005-07	2.66%	1995-97 to 2005-07	4.84%	1995-97 to 2005-07	5.69%	4.40%	1995-97 to 2005-07	5.45%
1996-98 to 2006-08	2.91%	1996-98 to 2006-08	5.35%	1996-98 to 2006-08	5.98%	4.75%	1996-98 to 2006-08	5.26%
1997-99 to 2007-09	3.18%	1997-99 to 2007-09	6.29%	1997-99 to 2007-09	6.18%	5.22%	1997-99 to 2007-09	4.77%
1998-00 to 2008-10	3.47%	1998-00 to 2008-10	6.38%	1998-00 to 2008-10	6.23%	5.36%	1998-00 to 2008-10	4.26%
1999-01 to 2009-11	3.78%	1999-01 to 2009-11	6.28%	1999-01 to 2009-11	6.25%	5.43%	1999-01 to 2009-11	3.92%
2000-02 to 2010-12	4.02%	2000-02 to 2010-12	5.30%	2000-02 to 2010-12	6.29%	5.20%	2000-02 to 2010-12	3.89%
Average	4.20%	Average	4.42%	Average	4.44%		Average	6.90%

Average of 10-year Rolling Averages EPS, DPS and BVPS

4.35%

Source: Value Line Investment Survey

Long-Term Gas Proxy Group Excluding Atmos DPS, EPS, BVPS & GDP 10-Year Compound Growth Rate Averages (1968-2012)

DPS		EPS		BVPS		Average	GDP	
	10 yr compound		10 yr compound		10 yr compound	DPS, EPS and		10 yr compound
Years	growth rate avgs	Years	growth rate avgs	Years	growth rate avgs	BVPS	Years	growth rate avgs
1968-70 to 1978-80	3.82%	1968-70 to 1978-80	5.16%	1968-70 to 1978-80	4.59%	4.52%	1968-70 to 1978-80	9.96%
1969-71 to 1979-81	4.13%	1969-71 to 1979-81	5.07%	1969-71 to 1979-81	4.62%	4.61%	1969-71 to 1979-81	10.31%
1970-72 to 1980-82	4.69%	1970-72 to 1980-82	4.75%	1970-72 to 1980-82	4.51%	4.65%	1970-72 to 1980-82	10.32%
1971-73 to 1981-83	5.10%	1971-73 to 1981-83	4.10%	1971-73 to 1981-83	4.30%	4.50%	1971-73 to 1981-83	10.15%
1972-74 to 1982-84	5.50%	1972-74 to 1982-84	5.20%	1972-74 to 1982-84	4.11%	4.94%	1972-74 to 1982-84	9.98%
1973-75 to 1983-85	5.98%	1973-75 to 1983-85	5.87%	1973-75 to 1983-85	4.08%	5.31%	1973-75 to 1983-85	9.93%
1974-76 to 1984-86	6.51%	1974-76 to 1984-86	5.91%	1974-76 to 1984-86	4.11%	5.51%	1974-76 to 1984-86	9.76%
1975-77 to 1985-87	6.91%	1975-77 to 1985-87	5.28%	1975-77 to 1985-87	4.15%	5.44%	1975-77 to 1985-87	9.34%
1976-78 to 1986-88	6.99%	1976-78 to 1986-88	5.37%	1976-78 to 1986-88	4.24%	5.54%	1976-78 to 1986-88	8.82%
1977-79 to 1987-89	7.06%	1977-79 to 1987-89	5.07%	1977-79 to 1987-89	4.23%	5.45%	1977-79 to 1987-89	8.35%
1978-80 to 1988-90	6.79%	1978-80 to 1988-90	3.85%	1978-80 to 1988-90	4.16%	4.93%	1978-80 to 1988-90	7.96%
1979-81 to 1989-91	6.37%	1979-81 to 1989-91	2.39%	1979-81 to 1989-91	3.81%	4.19%	1979-81 to 1989-91	7.42%
1980-82 to 1990-92	5.72%	1980-82 to 1990-92	2.16%	1980-82 to 1990-92	3.66%	3.85%	1980-82 to 1990-92	7.10%
1981-83 to 1991-93	5.23%	1981-83 to 1991-93	2.86%	1981-83 to 1991-93	3.63%	3.91%	1981-83 to 1991-93	6.75%
1982-84 to 1992-94	5.04%	1982-84 to 1992-94	2.59%	1982-84 to 1992-94	3.98%	3.87%	1982-84 to 1992-94	6.52%
1983-85 to 1993-95	4.40%	1983-85 to 1993-95	2.36%	1983-85 to 1993-95	3.93%	3.56%	1983-85 to 1993-95	6.15%
1984-86 to 1994-96	3.75%	1984-86 to 1994-96	2.94%	1984-86 to 1994-96	3.91%	3.53%	1984-86 to 1994-96	5.92%
1985-87 to 1995-97	3.25%	1985-87 to 1995-97	3.93%	1985-87 to 1995-97	3.80%	3.66%	1985-87 to 1995-97	5.85%
1986-88 to 1996-98	2.85%	1986-88 to 1996-98	3.30%	1986-88 to 1996-98	3.49%	3.21%	1986-88 to 1996-98	5.78%
1987-89 to 1997-99	2.49%	1987-89 to 1997-99	2.34%	1987-89 to 1997-99	3.14%	2.65%	1987-89 to 1997-99	5.66%
1988-90 to 1998-00	2.19%	1988-90 to 1998-00	2.48%	1988-90 to 1998-00	3.09%	2.59%	1988-90 to 1998-00	5.57%
1989-91 to 1999-01	1.95%	1989-91 to 1999-01	4.34%	1989-91 to 1999-01	3.38%	3.22%	1989-91 to 1999-01	5.55%
1990-92 to 2000-02	1.83%	1990-92 to 2000-02	4.88%	1990-92 to 2000-02	3.59%	3.43%	1990-92 to 2000-02	5.49%
1991-93 to 2001-03	1.78%	1991-93 to 2001-03	4.93%	1991-93 to 2001-03	3.91%	3.54%	1991-93 to 2001-03	5.39%
1992-94 to 2002-04	1.86%	1992-94 to 2002-04	4.54%	1992-94 to 2002-04	4.35%	3.58%	1992-94 to 2002-04	5.31%
1993-95 to 2003-05	2.04%	1993-95 to 2003-05	5.14%	1993-95 to 2003-05	4.79%	3.99%	1993-95 to 2003-05	5.37%
1994-96 to 2004-06	2.33%	1994-96 to 2004-06	5.28%	1994-96 to 2004-06	5.24%	4.28%	1994-96 to 2004-06	5.45%
1995-97 to 2005-07	2.66%	1995-97 to 2005-07	5.06%	1995-97 to 2005-07	5.52%	4.41%	1995-97 to 2005-07	5.45%
1996-98 to 2006-08	2.99%	1996-98 to 2006-08	5.78%	1996-98 to 2006-08	5.89%	4.88%	1996-98 to 2006-08	5.26%
1997-99 to 2007-09	3.33%	1997-99 to 2007-09	6.62%	1997-99 to 2007-09	6.10%	5.35%	1997-99 to 2007-09	4.77%
1998-00 to 2008-10	3.70%	1998-00 to 2008-10	7.03%	1998-00 to 2008-10	6.16%	5.63%	1998-00 to 2008-10	4.26%
1999-01 to 2009-11	4.07%	1999-01 to 2009-11	6.21%	1999-01 to 2009-11	6.21%	5.50%	1999-01 to 2009-11	3.92%
2000-02 to 2010-12	4.36%	2000-02 to 2010-12	5.83%	2000-02 to 2010-12	6.27%	5.49%	2000-02 to 2010-12	3.89%
Average	4.17%	Average	4.50%	Average	4.39%		Average	6.90%

Average of 10-year Rolling Averages EPS, DPS and BVPS

4.36%

Source: Value Line Investment Survey

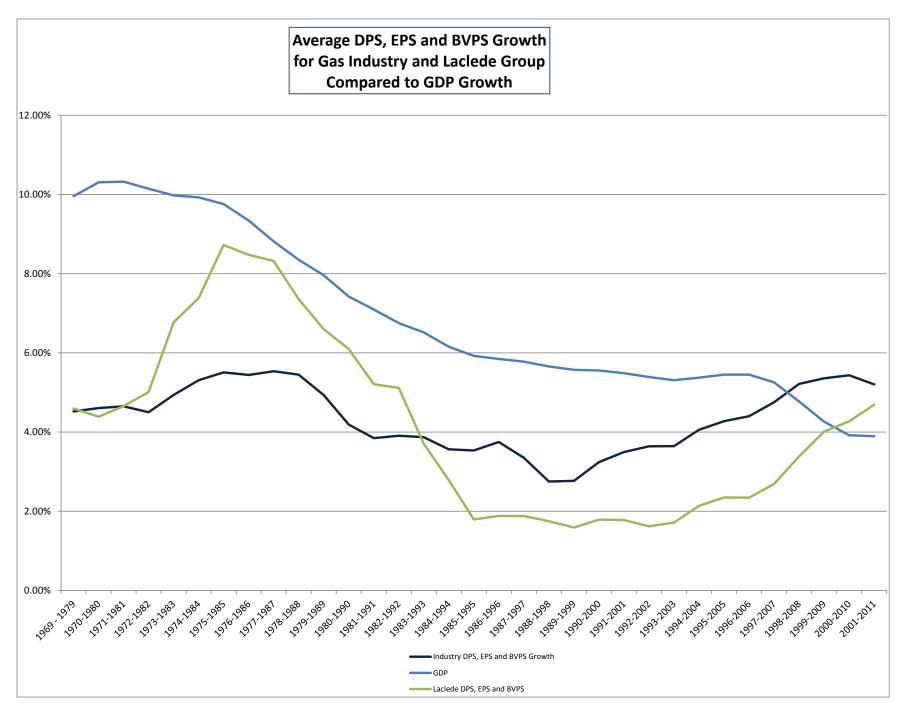
Laclede Group DPS, EPS, BVPS & GDP 10-Year Compound Growth Rate Averages (1968-2012)

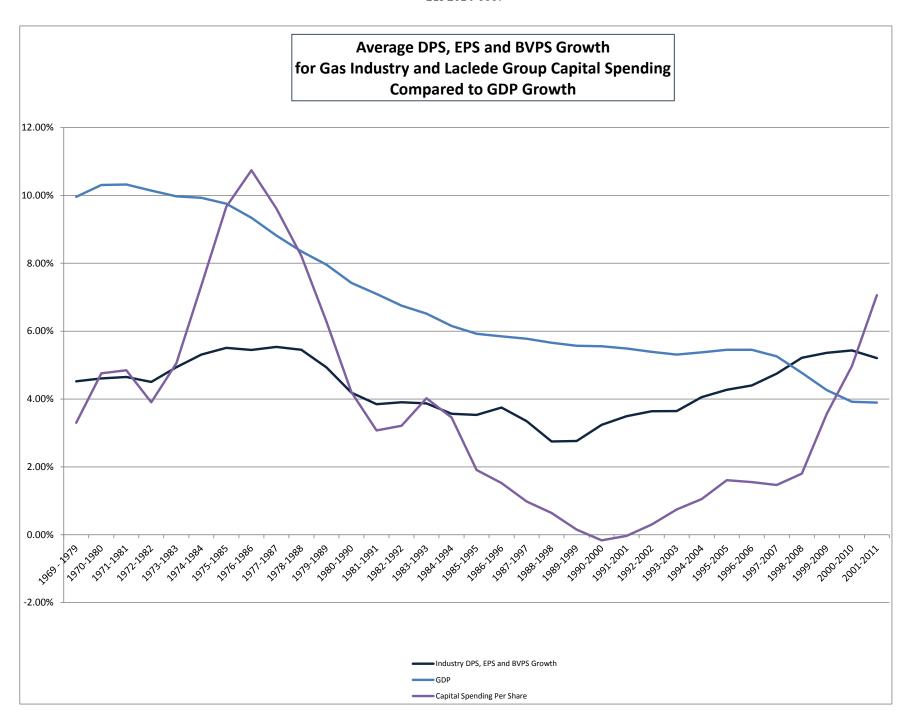
DPS		EPS		BVPS		Average	GDP	
	10 yr compound		10 yr compound		10 yr compound	DPS, EPS and		10 yr compound
Years	growth rate avgs	Years	growth rate avgs	Years	growth rate avgs	BVPS	Years	growth rate avg
1969 - 1979	3.08%	1969 - 1979	5.61%	1969 - 1979	5.09%	4.59%	1969 - 1979	9.96%
1970-1980	3.49%	1970-1980	4.55%	1970-1980	5.13%	4.39%	1970-1980	10.31%
1970-1980	4.01%	1971-1981	4.82%	1971-1981	5.13%	4.65%	1971-1981	10.32%
1972-1982	4.91%	1972-1982	5.01%	1972-1982	5.10%	5.01%	1972-1982	10.15%
1973-1983	5.88%	1973-1983	8.96%	1973-1983	5.48%	6.77%	1973-1983	9.98%
1974-1984	6.85%	1974-1984	9.41%	1974-1984	5.89%	7.38%	1974-1984	9.93%
1975-1985	7.83%	1975-1985	11.92%	1975-1985	6.43%	8.72%	1975-1985	9.76%
1976-1986	8.80%	1976-1986	10.05%	1976-1986	6.58%	8.48%	1976-1986	9.34%
1977-1987	9.46%	1977-1987	8.98%	1977-1987	6.53%	8.32%	1977-1987	8.82%
1978-1988	9.71%	1978-1988	6.17%	1978-1988	6.19%	7.36%	1978-1988	8.35%
1979-1989	9.73%	1979-1989	4.36%	1979-1989	5.70%	6.60%	1979-1989	7.96%
1980-1990	9.19%	1980-1990	3.88%	1980-1990	5.23%	6.10%	1980-1990	7.42%
1981-1991	8.39%	1981-1991	2.55%	1981-1991	4.69%	5.21%	1981-1991	7.10%
1982-1992	7.33%	1982-1992	3.67%	1982-1992	4.34%	5.11%	1982-1992	6.75%
1983-1993	6.17%	1983-1993	1.17%	1983-1993	3.77%	3.70%	1983-1993	6.52%
1984-1994	5.04%	1984-1994	0.00%	1984-1994	3.31%	2.78%	1984-1994	6.15%
1985-1995	3.85%	1985-1995	-1.32%	1985-1995	2.86%	1.79%	1985-1995	5.92%
1986-1996	2.88%	1986-1996	0.06%	1986-1996	2.70%	1.88%	1986-1996	5.85%
1987-1997	2.24%	1987-1997	0.81%	1987-1997	2.59%	1.88%	1987-1997	5.78%
1988-1998	1.81%	1988-1998	0.92%	1988-1998	2.51%	1.75%	1988-1998	5.66%
1989-1999	1.55%	1989-1999	0.75%	1989-1999	2.46%	1.59%	1989-1999	5.57%
1990-2000	1.31%	1990-2000	1.56%	1990-2000	2.50%	1.79%	1990-2000	5.55%
1990-2000	1.17%	1991-2001	1.66%	1991-2001	2.51%	1.78%	1991-2001	5.49%
1992-2002	1.05%	1992-2002	1.28%	1992-2002	2.53%	1.62%	1992-2002	5.39%
1993-2003	1.03%	1993-2003	1.39%	1993-2002	2.73%	1.71%	1993-2002	5.31%
1993-2003	0.99%	1994-2004	2.57%	1993-2003	2.85%	2.14%	1993-2003	5.37%
1994-2004	1.03%	1995-2005	2.94%	1994-2004	3.08%	2.35%	1994-2004	5.45%
1995-2005	1.05%	1996-2006	2.83%	1996-2006	3.15%	2.34%	1995-2005	5.45% 5.45%
1997-2007	1.13%	1997-2007	3.30%	1997-2007	3.63%	2.68%	1997-2007	5.26%
1997-2007	1.13%	1998-2008	3.30% 4.87%	1997-2007	4.07%	3.39%	1998-2008	4.77%
1998-2008	1.39%	1998-2008	6.10%	1998-2008	4.55%	3.39% 4.01%	1998-2008	4.77%
	1.60%		6.32%	2000-2010	4.89%	4.01% 4.27%		3.92%
2000-2010 2001-2011	1.60%	2000-2010 2001-2011	6.32%	2000-2010	4.89% 5.33%	4.27% 4.69%	2000-2010 2001-2011	3.92% 3.89%
2001-2011	1.07 /0	2001-2011	0.30 /6	2001-2011	3.33 /6	4.05 /6	2001-2011	3.07 /0
Average	4.15%	Average	4.06%	Average	4.23%		Average	6.90%

Average of 10-year Rolling Averages EPS, DPS and BVPS

4.15%

Source: Value Line Investment Survey





Average High / Low Stock Price for October 2013 through December 2013 for the Seven Comparable Natural Gas Distribution Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Octobe	er 2013	Novemb	per 2013	Decemb	per 2013	Average High/Low
	High	Low	High	Low	High	Low	Stock
	Stock	Stock	Stock	Stock	Stock	Stock	Price
Company Name	Price	Price	Price	Price	Price	Price	(10/13 - 12/13)
AGL Resources, Inc.	\$49.31	\$44.56	\$48.38	\$46.40	\$47.41	\$44.74	\$46.80
Atmos Energy Corp.	\$44.92	\$40.87	\$47.44	\$44.00	\$45.71	\$43.50	\$44.41
Laclede Group Inc.	\$47.82	\$44.32	\$47.75	\$45.62	\$46.53	\$43.96	\$46.00
New Jersey Resources Corp.	\$46.95	\$42.54	\$46.81	\$44.37	\$46.72	\$43.32	\$45.12
Northwest Natural Gas Co.	\$44.35	\$40.95	\$43.71	\$41.85	\$43.56	\$40.75	\$42.53
Piedmont Natural Gas Co.	\$34.71	\$31.61	\$34.18	\$32.62	\$33.43	\$31.94	\$33.08
WGL Holdings, Inc.	\$45.65	\$41.25	\$45.63	\$38.93	\$40.18	\$37.96	\$41.60

Notes:

 $Column \ 7 = [\ (\ Column \ 1 + Column \ 2 + Column \ 3 + Column \ 4 + Column \ 5 + Column \ 6) \ / \ 6\].$

Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Seven Comparable Natural Gas Distribution Companies,

((1))	(2) (3))
١,		,	(-	(J,	,

		Average	
	Expected	High/Low	Projected
	Annual	Stock	Dividend
Company Name	Dividend	Price	Yield
AGL Resources, Inc.	\$1.92	\$46.80	4.10%
Atmos Energy Corp.	\$1.48	\$44.41	3.33%
Laclede Group Inc.	\$1.76	\$46.00	3.83%
New Jersey Resources Corp.	\$1.64	\$45.12	3.63%
Northwest Natural Gas Co.	\$1.87	\$42.53	4.40%
Piedmont Natural Gas Co.	\$1.27	\$33.08	3.84%
WGL Holdings, Inc.	\$1.71	\$41.60	4.11%
Average			3.89%

Note: Rounded to 10 basis points Proposed Dividend Yield: 3.90%

Proposed Range of Growth: 4.00% - 5.00%

Estimated Proxy Cost of Common Equity: 7.90% - 8.90%

Midpoint 8.40%

Notes: Column 1 = Estimated Dividends Declared per share based on Value Line 2014 projections

Column 3 = (Column 1 / Column 2).

Sources: Column 1 = The Value Line Investment Survey: Ratings and Reports, December 6, 2013.

Column 2 =Schedule 11.

Capital Asset Pricing Model (CAPM) Costs of Common Equity Estimates Based on Historical Return Differences Between Common Stocks and Long-Term U.S. Treasuries for the Seven Comparable Natural Gas Distribution Companies

	(1)	(2)	(3)	(4)	(5)	(6)
			Arithmetic Average Market	Geometric Average Market	Arithmetic CAPM Cost of	Geometric CAPM Cost of
	Risk	Company's	Risk	Risk	Cost of	Cost of
	Free	Value Line	Premium	Premium	Equity	Equity
Company Name	Rate	Beta	(1926-2012)	(1926-2012)	(1926-2012)	(1926-2012)
AGL Resources, Inc.	3.79%	0.75	5.70%	4.10%	8.07%	6.87%
Atmos Energy Corp.	3.79%	0.80	5.70%	4.10%	8.35%	7.07%
Laclede Group Inc.	3.79%	0.65	5.70%	4.10%	7.50%	6.46%
New Jersey Resources Corp.	3.79%	0.70	5.70%	4.10%	7.78%	6.66%
Northwest Natural Gas Co.	3.79%	0.65	5.70%	4.10%	7.50%	6.46%
Piedmont Natural Gas Co.	3.79%	0.75	5.70%	4.10%	8.07%	6.87%
WGL Holdings, Inc.	3.79%	0.65	5.70%	4.10%	7.50%	6.46%
Average		0.71			7.82%	6.69%

Sources:

- Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for October, November and December 2013, which was obtained St. Louis Federal Reserve website at http://research.stlouisfed.org/fred2/series/GS30/22
- Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by the Value Line Investment St Ratings & Reports, December 6, 2013.
- Column 3 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 2012 was determined to be 5.70% based on an arithmetic average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2013 Yearbook.
- Column 4 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 2012 was determined to be 4.10% based on a geometric average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2013 Yearbook.

Column 5 = (Column 1 + (Column 2 * Column 3)).

Column 6 = (Column 1 + (Column 2 * Column 4)).

Weighted Cost of Capital for Missouri Gas Energy Division

Weighted Cost of Capital Using Common Equity Return of:

			Common Equity Return or.		
Capital Component	Percentage of Capital	Embedded Cost	7.90%	8.40%	8.90%
Common Stock Equity	53.08%		4.19%	4.46%	4.72%
Long-Term Debt	46.92%	3.12%	1.46%	1.46%	1.46%
	100.00%		5.65%	5.92%	6.18%