

**CAPM Analysis**

Company Name	Percent of Revenues from Operations	Symbol	C.A. Turners Utility Reports			S & P			90 Day Treasury		30 Year Treasury		10 Year Treasury		AAA Corporate			Long Term			Intermediate			Short Term			Composite CAPM
			% Debt	% Preferred	% Common	Bond Rating	Short Term Risk Free Rate 2	Short Term Risk Premium 1	Long Term Risk Free Rate 2	Long Term Risk Premium 1	Intermediate Risk Free Rate 1	Intermediate Risk Premium 2	Risk Free Rate 3	Equity Risk Premium 2	Value Line Beta	Long Term CAPM	Intermediate CAPM	Short Term CAPM	Long Term CAPM	Intermediate CAPM	Short Term CAPM	Long Term CAPM	Intermediate CAPM	Short Term CAPM			
1 AGL Resources, Inc.	1.00	ATG	58.30%	0.00%	41.70%	A-	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	8.93%	8.20%	7.24%	8.93%	8.20%	7.24%	8.93%	8.20%	7.24%	10.07%	9.14%		
2 Amoco Energy Corporation	0.86	ATO	63.90%	0.00%	46.10%	A-	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	8.97%	8.20%	5.90%	8.97%	8.20%	5.90%	8.97%	8.20%	5.90%	9.30%	8.79%		
3 Kaysan Corporation	0.50	KSE	63.30%	1.00%	35.70%	A+	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	9.61%	8.20%	6.82%	9.61%	8.20%	6.82%	9.61%	8.20%	6.82%	9.90%	9.79%		
4 Lackdale Group	1.00	LC	47.50%	2.25%	50.30%	AA-	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	8.97%	8.20%	5.90%	8.97%	8.20%	5.90%	8.97%	8.20%	5.90%	9.30%	8.14%		
5 New Jersey Resources Corp.	0.64	NJR	50.60%	0.00%	48.40%	A+	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	9.29%	8.53%	6.40%	9.29%	8.53%	6.40%	9.29%	8.53%	6.40%	9.60%	9.45%		
6 Nicor, Incorporated	0.83	GAS	35.10%	0.40%	64.50%	AA	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	10.89%	10.18%	11.10%	10.89%	10.18%	11.10%	10.89%	10.18%	11.10%	11.00%	9.14%		
7 Northwest Natural Gas Company	1.00	NWN	47.60%	0.00%	51.50%	A	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	8.97%	8.20%	5.98%	8.97%	8.20%	5.98%	8.97%	8.20%	5.98%	9.30%	9.14%		
8 NUJI Corporation	0.44	NUJ	52.60%	0.00%	47.40%	BBB	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	9.28%	8.53%	6.40%	9.28%	8.53%	6.40%	9.28%	8.53%	6.40%	9.60%	9.45%		
9 Peoples Energy	0.79	PGL	40.70%	0.00%	59.30%	AA-	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	9.83%	9.19%	7.24%	9.83%	9.19%	7.24%	9.83%	9.19%	7.24%	10.07%	9.45%		
10 Piedmont Natural Gas	1.00	PNY	43.90%	0.00%	56.10%	A	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	9.28%	8.53%	6.40%	9.28%	8.53%	6.40%	9.28%	8.53%	6.40%	9.60%	9.45%		
11 Semco Energy, Inc.	0.72	SEN	82.10%	0.00%	17.90%	BBB	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	8.87%	8.20%	5.88%	8.87%	8.20%	5.88%	8.87%	8.20%	5.88%	8.30%	8.14%		
12 South Jersey Industries, Inc.	0.84	SJI	53.60%	0.30%	46.10%	A	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	9.33%	7.54%	5.14%	9.33%	7.54%	5.14%	9.33%	7.54%	5.14%	8.70%	8.52%		
13 Southwest Gas Corp.	0.84	SWX	82.50%	3.40%	34.10%	BBB+	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	8.66%	8.66%	6.82%	8.66%	8.66%	6.82%	8.66%	8.66%	6.82%	9.00%	9.75%		
14 WGL Holdings	1.00	WGL	45.70%	1.90%	52.40%	AA-	0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	8.29%	8.53%	6.40%	8.29%	8.53%	6.40%	8.29%	8.53%	6.40%	9.60%	9.45%		
19																											
20	Average		52.87%	0.72%	46.61%		0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	9.38%	8.62%	6.82%	9.38%	8.62%	6.82%	9.38%	8.62%	6.82%	9.69%	9.53%		
21	Standard Deviation		11.88%	1.07%	11.89%		0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.61%	0.67%	0.80%	0.61%	0.67%	0.80%	0.61%	0.67%	0.80%	0.67%	0.69%		
22	Minimum		35.10%	0.00%	17.90%		0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	8.33%	7.54%	5.14%	8.33%	7.54%	5.14%	8.33%	7.54%	5.14%	8.70%	8.52%		
23	Maximum		82.10%	3.40%	64.50%		0.94%	8.40%	5.13%	6.40%	4.24%	5.70%	6.00%	6.00%	10.89%	10.18%	11.10%	10.89%	10.18%	11.10%	10.89%	10.18%	11.10%	11.00%	9.14%		

1. Ibbotsons Associates, Inc., 2001 Yearbook  
 2. Bond Express/CNN  
 3. Moody's Corporate Bond Yield  
 Direct Testimony of Marci L. Norby

Constant Growth DCF (Value Line Analyst Forecasted Growth Rates)

Company Name	Value Line				Calculated				Discounted Cash Flow
	Projected 2003 Dividend Per Share	Common Stock Price	Calculated Dividend Yield	EPS Growth Rate	DPS Growth Rate	BV Growth Rate	Weighted Average Growth Rate		
1 AGL Resources, Inc.	\$1.11	\$24.45	4.54%	8.20%	0.00%	6.00%	6.10%	10.64%	
2 Atmos Energy Corporation	\$1.20	\$23.15	5.18%	10.00%	2.00%	3.00%	6.33%	11.52%	
3 Keyspan Corporation	\$1.78	\$34.55	5.15%	7.50%	1.00%	5.00%	5.58%	10.74%	
4 Laclede Group	\$1.34	\$24.80	5.40%	5.00%	0.50%	3.00%	3.58%	8.99%	
5 New Jersey Resources Corp.	\$1.24	\$33.25	3.73%	8.50%	3.00%	11.50%	8.58%	12.31%	
6 Nicor, Incorporated	\$1.86	\$31.05	5.99%	3.00%	3.50%	3.00%	3.08%	9.07%	
7 Northwest Natural Gas Company	\$1.27	\$26.45	4.80%	5.00%	1.00%	4.00%	4.00%	8.80%	
8 NUI Corporation	\$0.98	\$15.25	6.43%	7.00%	0.50%	---	5.38%	11.80%	
9 Peoples Energy	\$2.12	\$40.05	5.29%	4.00%	1.50%	5.50%	4.08%	9.38%	
10 Piedmont Natural Gas	\$1.66	\$36.85	4.50%	7.50%	4.00%	5.50%	6.25%	10.75%	
11 Semco Energy, Inc.	\$0.50	\$6.00	8.33%	16.50%	-2.50%	3.50%	9.00%	17.33%	
12 South Jersey Industries, Inc.	\$1.54	\$34.75	4.43%	5.50%	1.50%	7.00%	5.33%	9.76%	
13 Southwest Gas Corp.	\$0.82	\$21.45	3.82%	10.00%	0.00%	5.50%	6.83%	10.66%	
14 WGL Holdings	\$1.28	\$26.00	4.92%	7.00%	1.00%	3.00%	4.67%	9.59%	
21									
22 Average	\$1.34	\$27.00	5.18%	7.48%	1.21%	5.04%	5.63%	10.81%	
23 Median	\$1.28	\$26.23	5.04%	7.25%	1.00%	5.00%	5.48%	10.65%	
24 Standard Deviation	\$0.43	\$9.10	1.17%	3.33%	1.64%	2.37%	1.74%	2.17%	
25 Minimum	\$0.50	\$6.00	3.73%	3.00%	-2.50%	3.00%	3.08%	8.80%	
26 Maximum	\$2.12	\$40.05	8.33%	16.50%	4.00%	11.50%	9.00%	17.33%	

1. CNBC.com market quote



Constant Growth DCF (Value Line Numbers 2003 through 2007)

	A		B		C		D		E		F		G		H	
	Value Line Projected 2002 Dividend Per Share	August-02 Common Stock Price	Calculated Dividend Yield	EPS Growth Rate	DPS Growth Rate	BV Growth Rate	Calculated Weighted Average Growth Rate	Discounted Cash Flow								
1	AGL Resources, Inc.	\$24.45	4.54%	3.15%	0.23%	7.67%	4.17%	8.71%								
2	Amos Energy Corporation	\$23.15	5.18%	8.48%	2.41%	1.65%	5.19%	10.38%								
3	Keyspan Corporation	\$34.55	5.15%	7.46%	1.65%	5.45%	5.82%	10.97%								
4	Laclede Group	\$24.80	5.40%	3.13%	0.56%	2.94%	2.64%	8.04%								
5	New Jersey Resources Corp.	\$33.25	3.73%	7.65%	3.08%	11.36%	8.12%	11.85%								
6	Nicor, Incorporated	\$31.05	5.99%	8.81%	4.05%	3.03%	6.09%	12.08%								
7	Northwest Natural Gas Company	\$26.45	4.80%	8.44%	1.16%	4.58%	5.94%	10.74%								
8	NUI Corporation	\$15.25	6.43%	19.01%	0.51%	3.84%	10.87%	17.30%								
9	Peoples Energy	\$40.05	5.29%	6.39%	1.39%	7.04%	5.77%	11.06%								
10	Piedmont Natural Gas	\$36.85	4.50%	7.92%	3.43%	4.17%	5.92%	10.43%								
11	Semco Energy, Inc.	\$6.00	8.33%	17.75%	6.86%	7.41%	12.48%	20.82%								
12	South Jersey Industries, Inc.	\$34.75	4.43%	5.64%	0.96%	8.24%	5.73%	10.16%								
13	Southwest Gas Corp.	\$21.45	3.82%	16.69%	0.00%	4.68%	9.90%	13.73%								
14	WGL Holdings	\$26.00	4.92%	4.16%	0.96%	4.05%	3.59%	8.51%								
21																
22	Average	\$27.00	5.18%	8.91%	1.95%	5.44%	6.59%	11.77%								
23	Median	\$26.23	5.04%	7.79%	1.27%	4.63%	5.87%	10.86%								
24	Standard Deviation	\$9.10	1.17%	5.20%	1.88%	2.60%	2.80%	3.49%								
25	Minimum	\$6.00	3.73%	3.13%	0.00%	1.65%	2.64%	8.04%								
26	Maximum	\$40.05	8.33%	19.01%	6.86%	11.36%	12.48%	20.82%								

1. CNBC.com market quote

Non-Constant Growth Model (Value Line Number 2003 through 2008)

	A	B	C	D	E	F	G	H	I	J
	Dividends Per Share						Constant Growth Rate	Current Stock Price	Non-Constant Growth DCF	
	2003	2004	2005	2006	2007	2008			Model	DCF
1 AGL Resources, Inc.	\$1.11	\$1.12	\$1.12	\$1.12	\$1.12	\$1.12	3.32%	\$24.45	\$24.45	7.28%
2 Atmos Energy Corporation	\$1.20	\$1.22	\$1.25	\$1.27	\$1.30	\$1.32	4.11%	\$23.15	\$23.15	8.84%
3 Keyspan Corporation	\$1.78	\$1.78	\$1.81	\$1.84	\$1.87	\$1.90	4.63%	\$34.55	\$34.55	9.09%
4 Laclede Group	\$1.34	\$1.34	\$1.35	\$1.36	\$1.36	\$1.37	2.11%	\$24.80	\$24.80	7.14%
5 New Jersey Resources Corp.	\$1.24	\$1.28	\$1.31	\$1.34	\$1.37	\$1.40	6.43%	\$33.25	\$33.25	9.57%
6 Nicor, Incorporated	\$1.86	\$1.94	\$2.00	\$2.06	\$2.12	\$2.18	4.83%	\$31.05	\$31.05	10.45%
7 Northwest Natural Gas Company	\$1.27	\$1.28	\$1.29	\$1.31	\$1.32	\$1.33	4.72%	\$26.45	\$26.45	8.79%
8 NUI Corporation	\$0.98	\$0.98	\$0.99	\$0.99	\$1.00	\$1.00	8.54%	\$15.25	\$15.25	13.11%
9 Peoples Energy	\$2.12	\$2.16	\$2.18	\$2.20	\$2.22	\$2.24	4.57%	\$40.05	\$40.05	9.15%
10 Piedmont Natural Gas	\$1.66	\$1.72	\$1.77	\$1.81	\$1.86	\$1.90	4.70%	\$36.85	\$36.85	8.85%
11 Semco Energy, Inc.	\$0.50	\$0.50	\$0.54	\$0.58	\$0.61	\$0.65	9.88%	\$6.00	\$6.00	16.85%
12 South Jersey Industries, Inc.	\$1.54	\$1.58	\$1.59	\$1.59	\$1.60	\$1.60	4.55%	\$34.75	\$34.75	8.31%
13 Southwest Gas Corp.	\$0.82	\$0.82	\$0.82	\$0.82	\$0.82	\$0.82	7.88%	\$21.45	\$21.45	10.57%
14 WGL Holdings	\$1.28	\$1.29	\$1.30	\$1.31	\$1.32	\$1.33	2.85%	\$26.00	\$26.00	7.35%
15									Ave	9.67%
16									Median	8.97%
17									Min	7.14%
18									Max	16.85%

Non-Constant Growth Model (Value Line Numbers 2003 through 2007)

	A	B	C	D	E	F	G	H	I	J
	Dividends Per Share					Constant Growth Rate	Current Stock Price	Non-Constant Growth DCF		
	2003	2004	2005	2006	2007			Model	DCF	
19 AGL Resources, Inc.	\$1.11	\$1.12	\$1.12	\$1.12	\$1.12	4.17%	\$24.45	\$24.45	8.11%	
20 Atmos Energy Corporation	\$1.20	\$1.22	\$1.25	\$1.29	\$1.32	5.19%	\$23.15	\$23.15	9.90%	
21 Keyspan Corporation	\$1.78	\$1.78	\$1.82	\$1.86	\$1.90	5.82%	\$34.55	\$34.55	10.27%	
22 Laclede Group	\$1.34	\$1.34	\$1.35	\$1.36	\$1.37	2.64%	\$24.80	\$24.80	7.66%	
23 New Jersey Resources Corp.	\$1.24	\$1.28	\$1.32	\$1.36	\$1.40	8.12%	\$33.25	\$33.25	11.25%	
24 Nicor, Incorporated	\$1.86	\$1.94	\$2.02	\$2.10	\$2.18	6.09%	\$31.05	\$31.05	11.69%	
25 Northwest Natural Gas Company	\$1.27	\$1.28	\$1.30	\$1.31	\$1.33	5.94%	\$26.45	\$26.45	10.00%	
26 NUI Corporation	\$0.98	\$0.98	\$0.99	\$0.99	\$1.00	10.87%	\$15.25	\$15.25	15.39%	
27 Peoples Energy	\$2.12	\$2.16	\$2.19	\$2.21	\$2.24	5.77%	\$40.05	\$40.05	10.32%	
28 Piedmont Natural Gas	\$1.66	\$1.72	\$1.78	\$1.84	\$1.90	5.92%	\$36.85	\$36.85	10.06%	
29 Semco Energy, Inc.	\$0.50	\$0.50	\$0.55	\$0.60	\$0.65	12.48%	\$6.00	\$6.00	19.41%	
30 South Jersey Industries, Inc.	\$1.54	\$1.58	\$1.59	\$1.59	\$1.60	5.73%	\$34.75	\$34.75	9.47%	
31 Southwest Gas Corp.	\$0.82	\$0.82	\$0.82	\$0.82	\$0.82	9.90%	\$21.45	\$21.45	12.59%	
32 WGL Holdings	\$1.28	\$1.29	\$1.30	\$1.32	\$1.33	3.59%	\$26.00	\$26.00	8.08%	
33									Ave	11.02%
34									Median	10.17%
35									Min	7.66%
36									Max	19.41%

Non-Constant Growth DCF Model (Value Line Analyst Forecasted Growth Rates)

	A	B	C	D	E	F	G	H	I	J
	Dividends Per Share						Constant Growth Rate	Current Stock Price	Non-Constant Growth DCF	
	2003	2004	2005	2006	2007	2008			Model	DCF
37 AGL Resources, Inc.	\$1.11	\$1.12	\$1.12	\$1.12	\$1.12	\$1.12	6.10%	\$24.45	\$24.45	9.61%
38 Atmos Energy Corporation	\$1.20	\$1.22	\$1.25	\$1.27	\$1.30	\$1.32	6.33%	\$23.15	\$23.15	10.63%
39 Keyspan Corporation	\$1.78	\$1.78	\$1.81	\$1.84	\$1.87	\$1.90	5.58%	\$34.55	\$34.55	9.87%
40 Laclede Group	\$1.34	\$1.34	\$1.35	\$1.36	\$1.36	\$1.37	3.58%	\$24.80	\$24.80	8.31%
41 New Jersey Resources Corp.	\$1.24	\$1.28	\$1.31	\$1.34	\$1.37	\$1.40	8.58%	\$33.25	\$33.25	11.44%
42 Nicor, Incorporated	\$1.86	\$1.94	\$2.00	\$2.06	\$2.12	\$2.18	3.08%	\$31.05	\$31.05	9.12%
43 Northwest Natural Gas Company	\$1.27	\$1.28	\$1.29	\$1.31	\$1.32	\$1.33	4.00%	\$26.45	\$26.45	8.21%
44 NUI Corporation	\$0.98	\$0.98	\$0.99	\$0.99	\$1.00	\$1.00	5.38%	\$15.25	\$15.25	10.60%
45 Peoples Energy	\$2.12	\$2.16	\$2.18	\$2.20	\$2.22	\$2.24	4.08%	\$40.05	\$40.05	8.75%
46 Piedmont Natural Gas	\$1.66	\$1.72	\$1.77	\$1.81	\$1.86	\$1.90	6.25%	\$36.85	\$36.85	10.13%
47 Semco Energy, Inc.	\$0.50	\$0.50	\$0.54	\$0.58	\$0.61	\$0.65	9.00%	\$6.00	\$6.00	16.21%
48 South Jersey Industries, Inc.	\$1.54	\$1.58	\$1.59	\$1.59	\$1.60	\$1.60	5.33%	\$34.75	\$34.75	8.97%
49 Southwest Gas Corp.	\$0.82	\$0.82	\$0.82	\$0.82	\$0.82	\$0.82	6.83%	\$21.45	\$21.45	9.66%
50 WGL Holdings	\$1.28	\$1.29	\$1.30	\$1.31	\$1.32	\$1.33	4.67%	\$26.00	\$26.00	8.83%
51									Ave	10.02%
52									Median	9.63%
53									Min	8.21%
54									Max	16.21%

	A	B	C	D	E	F	G
	<b>Comparison of growth rates for the different constant growth DCF methods used</b>						
	<b>2003 Through 2007 Growth</b>	<b>2003 Through 2008 Growth</b>	<b>Value Line Analyst Growth</b>		<b>2003 Through 2007 DCF</b>	<b>2003 Through 2008 DCF</b>	<b>Value Line Analyst DCF</b>
1	4.17%	3.32%	6.10%		8.71%	7.86%	10.64%
2	5.19%	4.11%	6.33%		10.38%	9.30%	11.52%
3	5.82%	4.63%	5.58%		10.97%	9.78%	10.74%
4	2.64%	2.11%	3.58%		8.04%	7.51%	8.99%
5	8.12%	6.43%	8.58%		11.85%	10.16%	12.31%
6	6.09%	4.83%	3.08%		12.08%	10.82%	9.07%
7	5.94%	4.72%	4.00%		10.74%	9.52%	8.80%
8	10.87%	8.54%	5.38%		17.30%	14.96%	11.80%
9	5.77%	4.57%	4.08%		11.06%	9.87%	9.38%
10	5.92%	4.70%	6.25%		10.43%	9.21%	10.75%
11	12.48%	9.88%	9.00%		20.82%	18.21%	17.33%
12	5.73%	4.55%	5.33%		10.16%	8.98%	9.76%
13	9.90%	7.88%	6.83%		13.73%	11.70%	10.66%
14	3.59%	2.85%	4.67%		8.51%	7.77%	9.59%
10	<b>Average</b>	<b>6.6%</b>	<b>5.2%</b>	<b>5.6%</b>	<b>11.8%</b>	<b>10.4%</b>	<b>10.8%</b>
11		<b>Standard Deviation</b>		<b>0.70%</b>	<b>Standard Deviation</b>		<b>0.70%</b>

<b>Comparison of all models used by CAS</b>	
12	<b>Constant Growth DCF (Calculated Growth 2003 - 2007)</b> 11.77%
13	<b>Constant Growth DCF (Calculated Growth 2003 - 2008)</b> 10.40%
14	<b>Constant Growth DCF (Value Line Analyst Growth Rates)</b> 10.81%
15	<b>Non-Constant DCF (Calculated Growth 2003 - 2007)</b> 11.02%
16	<b>Non-Constant DCF (Calculated Growth 2003 - 2008)</b> 9.67%
17	<b>Non-Constant DCF (Value Line Analyst Growth Rates)</b> 10.02%
18	<b>Capital Asset Pricing Model</b> 9.53%
19	<b>Average</b> 10.46%
20	<b>Median</b> 10.40%
21	<b>Standard Deviation</b> 0.80%
22	<b>Minimum</b> 9.53%
23	<b>Maximum</b> 11.77%
24	<b>Risk Premium</b> 9.94%
25	<b>CAS Recommended ROE</b> 10.46%
26	<b>Range of Reasonableness</b> 9.5% - 10.9%

<b>Weighted Average Cost of Capital and Return on Equity Results from OCA Calculated Average</b>			
	<b>Weight</b>	<b>Cost</b>	<b>WACC</b>
27	<b>Debt</b>	53%	7.00%
28	<b>Equity</b>	47%	10.46%
29		100%	8.6%

	A	B	C	
	Value Line Common Stock Price <sup>1</sup>	2003 Average Stock Price <sup>1</sup>	Difference (A - B)	
1	AGL Resources, Inc.	\$26.16	\$24.45	\$1.71
2	Atmos Energy Corporation	\$25.45	\$23.15	\$2.30
3	Keyspan Corporation	\$31.65	\$34.55	(\$2.90)
4	Laclede Group	\$26.77	\$24.80	\$1.97
5	New Jersey Resources Corp.	\$36.09	\$33.25	\$2.84
6	Nicor, Incorporated	\$37.80	\$31.05	\$6.75
7	Northwest Natural Gas Company	\$28.30	\$26.45	\$1.85
8	NUI Corporation	\$15.92	\$15.25	\$0.67
9	Peoples Energy	\$45.12	\$40.05	\$5.07
10	Piedmont Natural Gas	\$39.97	\$36.85	\$3.12
11	Semco Energy, Inc.	\$8.07	\$6.00	\$2.07
12	South Jersey Industries, Inc.	\$37.95	\$34.75	\$3.20
13	Southwest Gas Corp.	\$22.03	\$21.45	\$0.58
14	WGL Holdings	\$28.06	\$26.00	\$2.06
15			<b>Average</b>	<b>\$2.24</b>

1. CNBC.com

2. [Siliconinvestor.com/research/historical](http://Siliconinvestor.com/research/historical)

## RISK PREMIUM ANALYSIS

Year	ROE Gas Gas Distribution Industry <sup>1</sup>	Treasury Bonds 20 Year Constant Maturity <sup>2</sup>	Calculated Risk Premium
1993	11.45%	6.28%	5.17%
1994	10.95%	7.49%	3.46%
1995	10.46%	6.96%	3.50%
1996	12.09%	6.82%	5.27%
1997	11.78%	6.68%	5.10%
1998	10.85%	5.72%	5.13%
1999	10.36%	6.19%	4.17%
2000	11.49%	6.23%	5.26%
2001	11.40%	5.63%	5.77%
2002	10.73%	5.43%	5.30%
<b>Average</b>	<b>11.16%</b>	<b>6.34%</b>	<b>4.81%</b>

16 Risk Free Rate - (30 Year Treasury yield) <sup>3</sup>	5.13%
1 Risk Premium	4.81%
1 ROE	9.94%

1. Average ROE for sample.
2. Federal Reserve Bank of Dallas
3. BondsOnLine.Com, April 4, 2003

	A	B	C	D
<b>Weighted Average Cost of Capital and Return on Equity</b>				
		<b>Weight</b>	<b>Cost</b>	<b>WACC</b>
1	<b>Debt</b>	53%	7.00%	3.71%
2	<b>Equity</b>	47%	<b>10.9%</b>	5.12%
3		100%		<b>8.8%</b>

<b>Pinedale Natural Gas, Inc. Revenue Requirement</b>		<b>Change From Test Year with Current Rates</b>
1	Rate Base	\$ 735,320
2		
3	Return on Rate Base	8.8%
4		
5	Stipulated Earnings Requirement	\$ 64,880
6		
7	Test Year Net Earnings (@ Current Rates)	\$ 107,505
8		
9	Earnings (Exces)/Defficiency	\$ (42,625)
10		
11	Revenue Multiplier	1.39
12		
13	Revenue Requirement	\$ (59,202)

	A	B	C	D	E	F	G	H	I
	1998	1999	2000	2001	2002	Projected 2003	Rate Case Adjusted Test Year Current Rates	Rate Case Adjusted Test Year Proposed Rates	Stipulated Test Year Proposed Rates
<b>Income Statement</b>									
1	<b>Revenues</b>								
2	Residential or Domestic Gas Sales	\$ 435,547	\$ 426,753	\$ 476,805	\$ 482,189	\$ 543,123	\$ 535,500	\$ 458,280	\$ 447,048
3	Monthly Fee	\$ 33,011	\$ 37,089	\$ 39,544	\$ 42,425	\$ 45,625	\$ 48,750	\$ 78,000	\$ 78,000
4	Other Income	\$ 397	\$ 2,516	\$ 500	\$ 1,155	\$ 25			
5	<b>TOTAL REVENUES</b>	<b>\$ 468,955</b>	<b>\$ 466,358</b>	<b>\$ 516,849</b>	<b>\$ 525,769</b>	<b>\$ 584,773</b>	<b>\$ 584,250</b>	<b>\$ 536,280</b>	<b>\$ 525,048</b>
6									
7	<b>Expenses</b>								
8									
9	Officer Compensation								
10	Officer Wages	\$ 60,000	\$ 72,000	\$ 75,000	\$ 78,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000
11	Life Insurance	\$ 2,559	\$ 2,362	\$ 2,165	\$ 2,362	\$ 2,971	\$ 3,000	\$ 3,000	\$ 3,000
12	Health/Disability	\$ 7,365	\$ 8,413	\$ 10,705	\$ 11,954	\$ 16,090	\$ 18,000	\$ 18,000	\$ 18,000
13	Company SEPP Officer Contributions	\$ -	\$ 10,800	\$ 11,250	\$ 11,700	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
14	<b>Total Officer Compensation</b>	<b>\$ 69,924</b>	<b>\$ 93,575</b>	<b>\$ 99,120</b>	<b>\$ 104,016</b>	<b>\$ 119,061</b>	<b>\$ 121,000</b>	<b>\$ 121,000</b>	<b>\$ 121,000</b>
15									
16	Employee Compensation								
17	Employee Wages	\$ 47,993	\$ 50,900	\$ 51,204	\$ 63,463	\$ 73,350	\$ 82,000	\$ 82,000	\$ 82,000
18	Health/Disability	\$ 3,063	\$ 2,365	\$ 2,028	\$ 2,028	\$ 2,028	\$ 3,000	\$ 3,000	\$ 3,000
19	Company Retirement Savings	\$ 15,210	\$ 7,635	\$ 7,620	\$ 5,085	\$ 16,575	\$ 20,500	\$ 20,500	\$ 20,500
20	<b>Total Employee Compensation</b>	<b>\$ 66,266</b>	<b>\$ 60,900</b>	<b>\$ 60,852</b>	<b>\$ 70,576</b>	<b>\$ 91,953</b>	<b>\$ 105,500</b>	<b>\$ 105,500</b>	<b>\$ 105,500</b>
21									
22	Bad Debt	\$ 90	\$ 2,075	\$ 1,553	\$ 11,385	\$ 1,360	\$ 2,000	\$ 2,000	\$ 2,000
23	Office Rent	\$ 4,800	\$ 4,800	\$ 4,800	\$ 4,800	\$ 5,400	\$ 6,000	\$ 6,000	\$ 6,000
24	Advertising	\$ 575	\$ 100	\$ 313	\$ 730	\$ 331	\$ 1,500	\$ 1,500	\$ 1,500
25	<b>Total</b>	<b>\$ 5,465</b>	<b>\$ 6,975</b>	<b>\$ 6,666</b>	<b>\$ 16,915</b>	<b>\$ 7,091</b>	<b>\$ 9,500</b>	<b>\$ 9,500</b>	<b>\$ 9,500</b>
26									
27	<b>Total Repairs &amp; Maintenance</b>	<b>\$ 18,607</b>	<b>\$ 11,734</b>	<b>\$ 11,954</b>	<b>\$ 18,601</b>	<b>\$ 10,803</b>	<b>\$ 24,000</b>	<b>\$ 24,000</b>	<b>\$ 24,000</b>
28									
29	Taxes and Licensing								
30	Workman's Compensation	\$ 769	\$ 906	\$ 789	\$ 903	\$ 659	\$ 1,000	\$ 1,000	\$ 1,000
31	FICA	\$ 8,262	\$ 9,433	\$ 9,655	\$ 10,826	\$ 11,731	\$ 12,500	\$ 12,500	\$ 12,500
32	Property Taxes	\$ 10,267	\$ 11,703	\$ 9,463	\$ 11,209	\$ 9,867	\$ 15,000	\$ 15,000	\$ 15,000
33	Other Taxes & Licensing	\$ 2,181	\$ 2,323	\$ 1,776	\$ 2,235	\$ 1,958	\$ 2,500	\$ 2,500	\$ 2,500
34	<b>Total Taxes &amp; Licensing</b>	<b>\$ 21,479</b>	<b>\$ 24,365</b>	<b>\$ 21,683</b>	<b>\$ 25,173</b>	<b>\$ 24,215</b>	<b>\$ 31,000</b>	<b>\$ 31,000</b>	<b>\$ 31,000</b>

	1998	1999	2000	2001	2002	Projected 2003	Rate Case Adjusted Test Year	Rate Case Adjusted Test Year	Stipulated Test Year
1 Other Deductions									
2 Bank Charges	\$ 126	\$ 36	\$ 45	\$ 56	\$ 85	\$ 100	\$ 100	\$ 100	\$ 100
3 Freight	\$ 548	\$ 2,257	\$ 151	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4 Accounting	\$ 19,371	\$ 17,216	\$ 16,259	\$ 28,565	\$ 9,962	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
5 General Liability Insurance	\$ 9,541	\$ 13,098	\$ 14,372	\$ 18,203	\$ 22,249	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000
6 Office Supplies, postage	\$ 4,095	\$ 3,344	\$ 2,429	\$ 2,892	\$ 7,464	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
7 Other Professional Services	\$ 643	\$ 40	\$ 40	\$ -	\$ -	\$ -	\$ 2,000	\$ 2,000	\$ 2,000
8 Telephone/Alarm/Answering Service.	\$ 4,693	\$ 3,623	\$ 3,859	\$ 3,749	\$ 4,892	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
9 Travel	\$ 6,471	\$ 2,561	\$ 3,446	\$ 3,771	\$ 8,316	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000
10 Office Utilities	\$ 1,137	\$ 1,109	\$ 1,135	\$ 1,157	\$ 1,181	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200
11 Training	\$ 148	\$ -	\$ 15	\$ -	\$ 3,238	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
12 Pickup Allowance	\$ 11,800	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000
13 Meals	\$ 576	\$ 460	\$ 444	\$ 708	\$ 912	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
14 Legal/Collection	\$ -	\$ 50	\$ 1,439	\$ (280)	\$ 30	\$ 2,500	\$ 2,000	\$ 2,000	\$ 2,000
15 Dues & Fees	\$ -	\$ -	\$ 10	\$ 15	\$ 10	\$ -	\$ -	\$ -	\$ -
16 Other Operating Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17 Total Other Deductions	\$ 59,149	\$ 55,794	\$ 55,644	\$ 70,836	\$ 70,339	\$ 69,800	\$ 71,300	\$ 71,300	\$ 71,300
18									
19 TOTAL EXPENSES	\$ 240,890	\$ 253,343	\$ 255,919	\$ 306,117	\$ 323,462	\$ 353,300	\$ 362,300	\$ 362,300	\$ 362,300
20									
21									
22 Depreciation/Amortization									
23 Depreciation	\$ 68,456	\$ 72,148	\$ 69,930	\$ 78,329	\$ 78,692	\$ 79,000	\$ 79,000	\$ 79,000	\$ 79,000
24 Total Deprec/Amort IRS	\$ 68,456	\$ 72,148	\$ 69,930	\$ 78,329	\$ 78,692	\$ 79,000	\$ 79,000	\$ 79,000	\$ 79,000
25									
26 Interest Expense	\$ 72,216	\$ 73,198	\$ 73,642	\$ 76,492	\$ 36,087	\$ 20,000	\$ 17,000	\$ 17,000	\$ 17,000
27									
28 TOTAL DEDUCTIONS	\$ 381,562	\$ 398,689	\$ 399,491	\$ 460,938	\$ 438,241	\$ 452,300	\$ 458,300	\$ 458,300	\$ 458,300
29									
30 TAXABLE INCOME	\$ 87,393	\$ 67,669	\$ 117,358	\$ 64,831	\$ 150,532	\$ 131,950	\$ 125,950	\$ 77,980	\$ 66,748
31									
32 PSC Rate Calculations									
33 Gross Margin less Expenses	\$ 228,065	\$ 213,015	\$ 260,930	\$ 219,652	\$ 265,311	\$ 230,950	\$ 221,950	\$ 173,980	\$ 162,748
34 Depreciation (Rate Making)	\$ (93,329)	\$ (94,680)	\$ (99,196)	\$ (102,477)	\$ (105,573)	\$ (94,107)	\$ (79,179)	\$ (79,179)	\$ (79,179)
35 Income Tax	\$ (24,470)	\$ (18,947)	\$ (32,860)	\$ (18,153)	\$ (42,149)	\$ (36,946)	\$ (35,266)	\$ (21,834)	\$ (18,689)
36 RETURN	\$ 110,266	\$ 99,388	\$ 128,874	\$ 99,022	\$ 117,589	\$ 99,897	\$ 107,505	\$ 72,967	\$ 64,880
37									
38 RATE BASE	\$ 953,585	\$ 879,182	\$ 847,720	\$ 794,492	\$ 735,320	\$ 735,320	\$ 735,320	\$ 735,320	\$ 735,320
39									
40 Percent Return on Rate Base	11.6%	11.3%	15.2%	12.5%	16.0%	13.6%	14.6%	9.9%	8.8%

<b>Recommended Tariff Rates</b>		
Fixed Monthly Charge	\$	10.00
Residential Non-Commodity Rate (Per Decatherm)	\$	5.24
Fixed Monthly Charge	\$	10.00
Large Commercial Non-Commodity Rate (Per Decatherm)	\$	4.00

**Average Bill Calculation**

	A	B	C	D	E	F	G	H
<b>Residential - January</b>				<b>Average Monthly Usage (Dth)</b>	<b>Current Average Monthly Bill</b>	<b>Proposed Average Monthly Bill</b>	<b>Percent Change</b>	<b>Dollar Change</b>
	<b>Current</b>	<b>Proposed Rates</b>						
1	Base Gas Cost	\$ 5.00	\$ 5.00					
2	CBA Surcharge	\$ 0.35	\$ 0.35					
3	Incentive	\$ -						
4	Non Gas Rate	\$ 5.95	\$ 5.24					
5	Total Commodity per Dth	\$ 11.30	\$ 10.59 per Dth	12.07	\$ 136.39	\$ 127.82		
6								
7	Fixed Monthly Chagre	\$ 6.25	\$ 10.00		\$ 6.25	\$ 10.00		
8	<b>Total Monthly Bill</b>				\$ 142.64	\$ 137.82	-3.38%	\$ (4.82)

9	<b>Residential - July</b>			<b>Average Monthly Usage (Dth)</b>	<b>Current Average Monthly Bill</b>	<b>Proposed Average Monthly Bill</b>	<b>Percent Change</b>	<b>Dollar Change</b>
10		<b>Current</b>	<b>Proposed Rates</b>					
11								
12								
13	Base Gas Cost	\$ 5.00	\$ 5.00					
14	CBA Surcharge	\$ 0.35	\$ 0.35					
15	Incentive	\$ -						
16	Non Gas Rate	\$ 5.95	\$ 5.24					
17	Total Commodity per Dth	\$ 11.30	\$ 10.59 per Dth	1.42	\$ 16.05	\$ 15.04		
18								
19	Fixed Monthly Chagre	\$ 6.25	\$ 10.00		\$ 6.25	\$ 10.00		
20	<b>Total Monthly Bill</b>				\$ 22.30	\$ 25.04	12.30%	\$ 2.74

21	<b>New Class - Schools - January</b>			<b>Average Monthly Usage (Dth)</b>	<b>Current Average Monthly Bill</b>	<b>Proposed Average Monthly Bill</b>	<b>Percent Change</b>	<b>Dollar Change</b>
22		<b>Current</b>	<b>Proposed Rates</b>					
23								
24								
25	Base Gas Cost	\$ 5.00	\$ 5.00					
26	CBA Surcharge	\$ 0.35	\$ 0.35					
27	Incentive	\$ -	\$ -					
28	Non Gas Rate	\$ 5.95	\$ 4.00					
29	Total Commodity per Dth	\$ 11.30	\$ 9.35 per Dth	1360	\$15,368.00	\$12,716.00		
30								
31	Fixed Monthly Chagre	\$ 6.25	\$ 10.00		\$ 31.25	\$ 50.00		
32	<b>Total Monthly Bill</b>				\$15,399.25	\$12,766.00	-17.10%	\$ (2,633.25)

33	<b>New Class - Schools - July</b>			<b>Average Monthly Usage (Dth)</b>	<b>Current Average Monthly Bill</b>	<b>Proposed Average Monthly Bill</b>	<b>Percent Change</b>	<b>Dollar Change</b>
34		<b>Current</b>	<b>Rate Case Proposed</b>					
35								
36								
37	Base Gas Cost	\$ 5.00	\$ 5.00					
38	CBA Surcharge	\$ 0.35	\$ 0.35					
39	Incentive	\$ -	\$ -					
40	Non Gas Rate	\$ 5.95	\$ 4.00					
41	Total Commodity per Dth	\$ 11.30	\$ 9.35 per Dth	160	\$ 1,808.00	\$ 1,496.00		
42								
43	Fixed Monthly Chagre	\$ 6.25	\$ 10.00		\$ 31.25	\$ 50.00		
44	<b>Total Monthly Bill</b>				\$ 1,839.25	\$ 1,546.00	-15.94%	\$ (293.25)