

**Northwest Natural Gas Co.
Discounted Cash Flow Analysis
Summary Of DCF Model Results**

Company	Constant Growth DCF Model	Nonconstant Growth Market Price DCF Model	Low Near-Term Growth Two-Stage Growth DCF Model
1 AGL Resources	10.4%	8.6%	9.5%
2 Atmos Energy Corp.	11.8%	11.0%	10.6%
3 Cascade Nat'l Gas	10.3%	14.0%	10.3%
4 Laclede Gas	9.5%	5.5%	10.3%
5 NUI Corp.	12.5%	21.4%	11.4%
6 NICOR, Inc.	10.5%	14.3%	11.2%
7 N.W. Nat'l Gas	9.5%	7.4%	10.0%
8 Peoples Energy	9.8%	10.7%	10.6%
9 Piedmont Nat'l	10.3%	11.2%	10.1%
10 South Jersey Inds.	9.8%	8.5%	9.5%
11 Southwest Gas	10.4%	12.1%	9.1%
GROUP AVERAGE	10.4%	11.3%	10.2%
GROUP MEDIAN	10.3%	11.0%	10.3%

**Northwest Natural Gas Co.
Discounted Cash Flow Analysis
Constant Growth DCF Model**

Company	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Recent Price(P0)	Next Year's Div(D1)	Dividend Yield	Projected Growth Rate Analysis										ROE K=Div Yld+G (Cols 3+12)
				Year 2007 "BR" Growth Rate Calculation				B*R Growth			20 year GDP Growth		Average Growth	
	DPS	EPS	Retention Rate (B)	NBV	ROE (R)	Zacks	Value Line	Zacks	Value Line	Zacks	Value Line	20 year GDP Growth	Average Growth (Cols 9-11)	
1 AGL Resources	27.34	1.12	4.10%	1.12	2.25	50.22%	19.50	11.54%	5.79%	5.60%	8.00%	6.00%	6.35%	10.4%
2 Atmos Energy Corp.	24.37	1.22	5.01%	1.32	2.20	40.00%	15.60	14.10%	5.64%	6.50%	9.00%	6.00%	6.79%	11.8%
3 Cascade Nat'l Gas	19.25	0.96	4.99%	0.98	1.75	44.00%	14.50	12.07%	5.31%	n/a	4.50%	6.00%	5.27%	10.3%
4 Laclede Gas	27.14	1.34	4.94%	1.37	1.90	27.89%	18.15	10.47%	2.92%	4.00%	5.50%	6.00%	4.61%	9.5%
5 NUJ Corp.	15.73	0.98	6.23%	1.00	2.05	51.22%	18.50	11.08%	5.68%	n/a	7.00%	6.00%	6.23%	12.5%
6 NICOR, Inc.	35.50	1.94	5.46%	2.18	3.50	37.71%	20.60	16.99%	6.41%	4.90%	3.00%	6.00%	5.08%	10.5%
7 N.W. Nat'l Gas	28.37	1.28	4.51%	1.33	2.35	43.40%	23.20	10.13%	4.40%	4.70%	5.00%	6.00%	5.02%	9.5%
8 Peoples Energy	41.45	2.16	5.21%	2.24	3.70	39.46%	32.50	11.38%	4.49%	4.00%	4.00%	6.00%	4.62%	9.8%
9 Piedmont Nat'l	38.72	1.72	4.44%	1.90	3.05	37.70%	23.45	13.01%	4.90%	5.20%	7.50%	6.00%	5.90%	10.3%
10 South Jersey Inds.	38.00	1.58	4.16%	1.60	3.30	51.52%	28.75	11.48%	5.91%	5.00%	5.50%	6.00%	5.60%	9.8%
11 Southwest Gas	21.87	0.82	3.75%	0.82	2.05	60.00%	22.55	9.09%	5.45%	5.50%	9.50%	6.00%	6.61%	10.4%
GROUP AVERAGE			4.80%						5.17%	5.04%	6.23%	6.00%	5.64%	10.4%
GROUP MEDIAN			4.94%											10.3%

Sources: Value Line Investment Survey, Natural Gas (Distribution) Group, Sep 19, 2003
Zacks Investment Research website, Oct 21, 2003

NOTE: SEE PAGE 5 OF THIS SCHEDULE FOR FURTHER EXPLANATION OF EACH COLUMN

**Northwest Natural Gas Co.
Discounted Cash Flow Analysis
Nonconstant Growth
Market Price DCF Model**

Company	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
	Next Year's Div	2007 Div	Annual Change to 2007	Average P/E Ratio	2007 EPS	2007 Price	Recent Price	CASH FLOWS			Year 4 Div+Price	ROE=Internal Rate of Return (Cols 21-25)
								Year 1 Div	Year 2 Div	Year 3 Div		
1 AGL Resources	1.12	1.12	0.00	14.7	2.25	32.96	-27.34	1.12	1.12	1.12	34.08	8.6%
2 Atmos Energy Corp.	1.22	1.32	0.03	14.1	2.20	31.02	-24.37	1.22	1.25	1.29	32.34	11.0%
3 Cascade Nat'l Gas	0.96	0.98	0.01	15.9	1.75	27.74	-19.25	0.96	0.97	0.97	28.72	14.0%
4 Laclede Gas	1.34	1.37	0.01	14.6	1.90	27.74	-27.14	1.34	1.35	1.36	29.11	5.5%
5 NUJ Corp.	0.98	1.00	0.01	14.0	2.05	28.70	-15.73	0.98	0.99	0.99	29.70	21.4%
6 NICOR, Inc.	1.94	2.18	0.08	14.4	3.50	50.40	-35.50	1.94	2.02	2.10	52.58	14.3%
7 N.W. Nat'l Gas	1.28	1.33	0.02	13.6	2.35	31.96	-28.37	1.28	1.30	1.31	33.29	7.4%
8 Peoples Energy	2.16	2.24	0.03	14.1	3.70	51.99	-41.45	2.16	2.19	2.21	54.23	10.7%
9 Piedmont Nat'l	1.72	1.90	0.06	16.6	3.05	50.63	-38.72	1.72	1.78	1.84	52.53	11.2%
10 South Jersey Inds.	1.58	1.60	0.01	13.8	3.30	45.38	-38.00	1.58	1.59	1.59	46.98	8.5%
11 Southwest Gas	0.82	0.82	0.00	15.0	2.05	30.65	-21.87	0.82	0.82	0.82	31.47	12.1%
GROUP AVERAGE												11.3%
GROUP MEDIAN												11.0%

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Zacks Investment Research website, Oct 21, 2003

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**Northwest Natural Gas Co.
Discounted Cash Flow Analysis
Low Near-Term Growth
Two-Stage Growth DCF Model**

Company	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)						
	Next Year's Div	2007 Div	Annual Change to 2007	Recent		Year 1		Year 2		Year 3		Year 4		Year 5		Year 5-150 Div Growth	ROE=Internal Rate of Return (Yrs 0-150)
				Price	Div	Div	Div	Div	Div	Div	Div	Div	Div	Div	Div		
1 AGL Resources	1.12	1.12	0.00	-27.34	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.19	1.19	6.00%	9.5%
2 Atmos Energy Corp.	1.22	1.32	0.03	-24.37	1.22	1.25	1.29	1.32	1.32	1.32	1.32	1.32	1.40	1.40	1.40	6.00%	10.6%
3 Cascade Nat'l Gas	0.96	0.98	0.01	-19.25	0.96	0.97	0.97	0.98	0.98	0.98	0.98	0.98	1.04	1.04	1.04	6.00%	10.3%
4 Laclede Gas	1.34	1.37	0.01	-27.14	1.34	1.35	1.36	1.37	1.37	1.37	1.37	1.37	1.45	1.45	1.45	6.00%	10.3%
5 NUI Corp.	0.98	1.00	0.01	-15.73	0.98	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.06	1.06	1.06	6.00%	11.4%
6 NICOR, Inc.	1.94	2.18	0.08	-35.50	1.94	2.02	2.10	2.18	2.18	2.18	2.18	2.31	2.31	2.31	2.31	6.00%	11.2%
7 N.W. Nat'l Gas	1.28	1.33	0.02	-28.37	1.28	1.30	1.31	1.33	1.33	1.33	1.33	1.41	1.41	1.41	1.41	6.00%	10.0%
8 Peoples Energy	2.16	2.24	0.03	-41.45	2.16	2.19	2.21	2.24	2.24	2.24	2.24	2.37	2.37	2.37	2.37	6.00%	10.6%
9 Piedmont Nat'l	1.72	1.90	0.06	-38.72	1.72	1.78	1.84	1.90	1.90	1.90	1.90	2.01	2.01	2.01	2.01	6.00%	10.1%
10 South Jersey Inds.	1.58	1.60	0.01	-38.00	1.58	1.59	1.59	1.60	1.60	1.60	1.60	1.70	1.70	1.70	1.70	6.00%	9.5%
11 Southwest Gas	0.82	0.82	0.00	-21.87	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.87	0.87	0.87	0.87	6.00%	9.1%
GROUP AVERAGE																	10.2%
GROUP MEDIAN																	10.3%

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**Northwest Natural Gas Co.
Discounted Cash Flow Analysis
DCF Analysis Column Descriptions**

Column 1: 3-Month Average Price per Share	Column 20: Column 18 Multiplied by Column 19
Column 2: 2004 Dividends per Share from Value Line	Column 21: See Column 1
Column 3: Column 2 Divided by Column 1	Column 22: See Column 2
Column 4: Estimated 2007 Dividends per Share from Value Line	Column 23: Column 22 Plus Column 17
Column 5: Estimated 2007 Earnings per Share from Value Line	Column 24: Column 23 Plus Column 17
Column 6: One Minus (Column 4 Divided by Column 5)	Column 25: Column 24 Plus Column 17 Plus Column 20
Column 7: Estimated 2007 Net Book Value per Share from Value Line	Column 26: Internal Rate of Return of the Cash Flows Shown in Columns 21-25
Column 8: Column 5 Divided by Column 7	Column 27: See Column 2
Column 9: Column 6 Multiplied by Column 8	Column 28: See Column 16
Column 10: "Next 5 Years" Company Growth Estimate as Reported by Zacks.com	Column 29: (Column 28 Minus Column 27) Divided by Three
Column 11: "Est'D 00-02 To 06-08" Earnings Growth as Reported by Value Line	Column 30: See Column 1
Column 12: Last 20 Years Average Growth in GDP	Column 31: See Column 27
Column 13: Average of Columns 9-12	Column 32: Column 31 Plus Column 29
Column 14: Column 3 Plus Column 13	Column 33: Column 32 Plus Column 29
Column 15: See Column 2	Column 34: Column 33 Plus Column 29
Column 16: See Column 4	Column 35: Column 34 Increased by the Growth Rate Shown in Column 36
Column 17: (Column 16 Minus Column 15) Divided by Three	Column 36: See Average Growth Rate shown at the Bottom of Column 12
Column 18: Average of Current and Estimated 2007 P/E ratios from Value Line	Column 37: The Internal Rate of Return of the Cash Flows in Columns 30-35 along with the Dividends for the Years 6-150 Implied by the Growth Rates shown in Column 36
Column 19: See Column 5	