

COST OF CAPITAL STUDY

YIELD CAPITALIZATION

2017 Assessment Year

APPENDIX C

NATURAL GAS DISTRIBUTION

| | | | | |
|---|-------|--------------|-------------|--------------|
| EQUITY RATE | | 8.00% | | |
| CAPITAL ASSET PRICING MODEL | | | | PAGE |
| CAPM Ex Ante | 6.94% | | | 4 |
| DIVIDEND GROWTH MODELS | | | | |
| Value Line, based on Dividends Growth | 7.00% | | | 6 |
| Value Line, based on Earnings Growth | 8.40% | | | 7 |
| Value Line, based on Return on Equity | 6.50% | | | 8 |
| | | RANGE | 6.50 -8.40% | |
| DEBT RATE | | 4.40% | | 9 |
| MARKET CAPITAL STRUCTURE | | | | |
| Equity | 70% | x | 8.00% = | 5.60% |
| Debt | 30% | x | 4.40% = | 1.32% |
| Marginal Tax Rate | 38% | = | (1-.38) x | <u>0.82%</u> |
| WEIGHTED AVERAGE COST OF CAPITAL | | 6.42% | | |

SUPPORT FOR GUIDELINE COMPANIES

Washington State Department of Revenue

2017 Assessment Year

Natural Gas Distribution

Capital Structure at Book Value

| Company | Ticker | Beta | Fin'l Strength | P/E Ratio | Div'd Yield | Common Stock | % | Preferred Stock | % | Long Term Debt | % | Total Debt & Equity |
|-------------------------|----------------------|-------------|----------------|--------------|--------------|-----------------------|--------------|-------------------|-------------|-----------------------|--------------|-----------------------|
| Atmos Energy Corp | ato | 0.70 | A | 21.50 | 2.3% | 3,504,446,994 | 61.4% | | 0.0% | 2,205,600,000 | 38.6% | 5,710,046,994 |
| Chesapeake Util | cpk | 0.70 | B++ | 24.40 | 1.8% | 448,281,928 | 75.8% | | 0.0% | 143,500,000 | 24.2% | 591,781,928 |
| New Jersey Resources | njr | 0.80 | A+ | 25.80 | 2.8% | 1,172,133,419 | 54.8% | | 0.0% | 967,800,000 | 45.2% | 2,139,933,419 |
| Nisource Inc | ni | nmf | B+ | 25.00 | 2.9% | 4,075,417,345 | 40.2% | | 0.0% | 6,058,200,000 | 59.8% | 10,133,617,345 |
| NW Natural Gas | nwn | 0.65 | A | 27.30 | 3.1% | 799,174,924 | 60.1% | | 0.0% | 530,200,000 | 39.9% | 1,329,374,924 |
| South Jersey Industries | sjj | 0.80 | A | 25.00 | 3.1% | 1,291,514,608 | 61.5% | | 0.0% | 808,700,000 | 38.5% | 2,100,214,608 |
| Southwest Gas | swx | 0.75 | B++ | 26.20 | 2.3% | 1,657,124,173 | 51.0% | | 0.0% | 1,592,900,000 | 49.0% | 3,250,024,173 |
| Spire Inc | sr | 0.70 | B++ | 20.00 | 3.0% | 1,771,467,481 | 49.3% | | 0.0% | 1,821,300,000 | 50.7% | 3,592,767,481 |
| UGI Corp | ugi | 0.90 | B++ | 20.40 | 2.0% | 2,846,445,972 | 43.0% | | 0.0% | 3,774,700,000 | 57.0% | 6,621,145,972 |
| WGL Holdings | wgl | 0.80 | A | 24.70 | 2.5% | 1,398,790,890 | 48.9% | 28,200,000 | 1.0% | 1,435,300,000 | 50.1% | 2,862,290,890 |
| | Mean | 0.76 | | 24.03 | 2.6% | 1,896,479,773 | 54.6% | | 0.1% | 1,933,820,000 | 45.3% | 3,833,119,773 |
| | Harmonic Mean | 0.75 | | 23.78 | 2.50% | | 52.9% | | | | 42.6% | |
| | Median | 0.75 | | 24.85 | 2.65% | | 52.9% | | 0.0% | | 47.1% | |
| | Weighted Mean | | | | | 18,964,797,732 | 49.5% | 28,200,000 | 0.1% | 19,338,200,000 | 50.5% | 38,331,197,732 |

Say 0.75

**SUPPORT FOR CAPITAL STRUCTURE
MARKET VALUE**

Washington State Department of Revenue

2017 Assessment Year

Natural Gas Distribution

Capital Structure at Market Value

| Company | Ticker | Stock Price | Common Shares | Common Stock | % | Preferred Stock | % | Long Term Debt | % | Total Debt & Equity |
|---------------------------------|--------|-------------|-----------------------|---------------|--------------|-------------------|-------------|-----------------------|--------------|-----------------------|
| Atmos Energy Corp | ato | 74.150 | 105,175,480 | 7,798,761,842 | 73.3% | | | 2,844,990,000 | 26.7% | 10,643,751,842 |
| Chesapeake Util | cpk | 66.950 | 16,301,161 | 1,091,362,729 | 86.9% | | | 164,971,000 | 13.1% | 1,256,333,729 |
| New Jersey Resources | njr | 35.500 | 86,313,212 | 3,064,119,026 | 73.0% | | | 1,131,077,000 | 27.0% | 4,195,196,026 |
| Nisource Inc | ni | 22.140 | 323,445,821 | 7,161,090,477 | 50.3% | | | 7,064,100,000 | 49.7% | 14,225,190,477 |
| NW Natural Gas | nwn | 59.800 | 27,557,756 | 1,647,953,809 | 67.5% | | | 793,339,000 | 32.5% | 2,441,292,809 |
| South Jersey Industries | sjj | 33.690 | 79,477,822 | 2,677,607,823 | 71.2% | | | 1,080,800,000 | 28.8% | 3,758,407,823 |
| Southwest Gas | swx | 76.620 | 47,482,068 | 3,638,076,050 | 67.8% | | | 1,729,906,000 | 32.2% | 5,367,982,050 |
| Spire Inc | sr | 64.550 | 45,738,897 | 2,952,445,801 | 56.7% | | | 2,257,100,000 | 43.3% | 5,209,545,801 |
| UGI Corp | ugi | 46.080 | 172,931,104 | 7,968,665,272 | 66.3% | | | 4,052,300,000 | 33.7% | 12,020,965,272 |
| WGL Holdings | wgl | 76.280 | 51,219,000 | 3,906,985,320 | 70.1% | 28,200,000 | 0.5% | 1,641,900,000 | 29.4% | 5,577,085,320 |
| Mean | | | | | 68.3% | | 0.5% | | 31.6% | |
| Harmonic Mean | | | | | 67.0% | | 0.5% | | 28.2% | |
| Median | | | | | 68.9% | | 0.5% | | 30.8% | |
| Weighted Mean | | | 41,907,068,150 | | 64.8% | 28,200,000 | 0.0% | 22,760,483,000 | 35.2% | 64,695,751,150 |
| Std Dev | | | | | 9.8% | | | | 9.8% | |
| Coefficient of Variation | | | | | 14.4% | | | | 31.0% | |
| Say | | | | | 70% | | | | 30% | 100% |

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

CAPITAL ASSET PRICING MODEL

Washington State Department of Revenue

2016 Assessment Year - Natural Gas Distribution

$$\text{Ex Ante} \\ \text{Ke} = \text{Rf} + \text{B} (\text{Rp})$$

| | | | | |
|--|------|---|--------------|------------------------------|
| Ke = Cost of Equity | | | | 6.94% |
| | | | | to page 1 |
| | Rm = | rate of return | 8.25% | |
| | Rf = | risk free rate | 3.00% | |
| | Rp = | risk premium | 5.25% | |
| | B = | Beta | 0.75 | page 7 |
| Rp = Risk Premium | | | | 5.25% |
| | | | | to above |
| Shannon Pratt and Roger Grabowski | | | 3.50%-6.00% | |
| | | Cost of Capital, Applications and Examples, 3rd Ed, 2008 | | |
| Dr. Aswath Damodaran | | | 5.69% | chart page 14 |
| | | http://pages.stern.nyu.edu/~adamodar/ | 5.14% | adjusted for Rf |
| | | 2016 Implied Premium | | |
| John Graham and Campbell Harvey | | | 5.70% | 10 year expected real return |
| Duke CFO magazine Global Business Outlook survey - U.S. | | | 2.23% | Rf rate used in survey |
| | | 4th Qtr 2016 | 4.93% | adjusted for Rf |
| Rf = Risk Free Rate | | | | 3.00% |
| | | | | to above |
| 2016 Valuation Handbook | | | | |
| as of 12-30-16 | | Long Term (20 years) US Treasury Bond Yield | 2.79% | |
| Value Line Investment Survey, Selected Yields January 6, 2017, page 3197 | | | | |
| as of 12-28-16 | | US Treasury Securities year end data | | |
| | | 5 year | 2.00% | |
| | | 10 year | 2.51% | |
| | | 30 year | 3.09% | |
| | | 30 year Zero | 3.17% | |
| Federal Reserve Statistical Release (http://www.federalreserve.gov/Releases/H15/Current/) | | | | |
| as of 12-30-16 | | Treasury Constant Maturities | | |
| | | 5 year | 1.93% | |
| | | 10 year | 2.45% | |
| | | 20 year | 2.79% | |
| | | 30 year | 3.06% | |
| | | 20 year TIPS | <u>0.82%</u> | 1.97% |
| | | 30 year TIPS | <u>0.99%</u> | 2.07% |
| | | | | TIPS inflation indication |
| Inflation | | | | 2.00% |
| Value Line Investment Survey, Economic Series January 6, 2017, page 1500 | | | | |
| | | Consumer Price Index Annual Rate of Change 2019-2021 | | 2.50% |
| Federal Reserve Bank of Philadelphia | | | | |
| | | The Livingston Survey December 9, 2016 | | Table 3 |
| | | Inflation median (measured by the CPI) over next 10 years | | 2.30% |
| | | https://www.philadelphiafed.org/research-and-data/real-time-center/livingston-survey | | |
| Nominal Gross Domestic Product (GDP) | | | | 3.80% |
| Federal Reserve Projected Long Run Real GDP Growth | | | | |
| | | Median Projection Value From December 14, 2016 Report | | 1.80% |
| | | http://www.federalreserve.gov/monetarypolicy/fomccalendars.htm | | |
| Congressional Budget Office Real GDP Economic Projections | | | | |
| | | The Budget and Economic Outlook 2017-2027 | | Table C-1 pg 126 |
| | | Average Percentage Change From Year to Year | 2017-2021 | 1.86% |
| | | http://www.cbo.gov/publication/52370 | 2022-2027 | 1.90% |
| Federal Reserve Bank of Philadelphia | | | | |
| | | The Livingston Survey, December 9, 2016 | | pg 4 |
| | | Average Annual Real GDP Growth Rate for Next Ten Years | | 2.20% |
| | | https://www.philadelphiafed.org/research-and-data/real-time-center/livingston-survey | | |

**SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL**

Washington State Department of Revenue

2017 Assessment Year

Natural Gas Distribution

Based on Dividend Growth

$$K_e = (D1 / P_0) + G$$

Ke = Cost of Equity
D1 = Expected Dividends
Po = Current Price
G = Sustainable Growth

| Company | Ticker | Stock Price (Po) | Expected Dividend (D1) | Dividend Yield (D1/Po) | Dividend Short Term Growth (G) | Ke Short Term Growth | Ke with Multi Stage Growth Adj |
|---------------------------------|--------|------------------|------------------------|------------------------|--------------------------------|----------------------|--------------------------------|
| Atmos Energy Corp | ato | 74.15 | 1.80 | 2.43% | 6.50% | 8.93% | 8.51% |
| Chesapeake Util | cpk | 66.95 | 1.26 | 1.88% | 5.50% | 7.38% | 6.97% |
| New Jersey Resources | njr | 35.50 | 1.02 | 2.87% | 3.50% | 6.37% | 6.45% |
| Nisource Inc | ni | 22.14 | 0.70 | 3.16% | 1.00% | 4.16% | NMF |
| NW Natural Gas | nwn | 59.80 | 1.88 | 3.14% | 1.50% | 4.64% | NMF |
| South Jersey Industries | sjj | 33.69 | 1.10 | 3.27% | 4.50% | 7.77% | 7.70% |
| Southwest Gas | swx | 76.62 | 1.90 | 2.48% | 8.00% | 10.48% | 9.62% |
| Spire Inc | sr | 64.55 | 2.10 | 3.25% | 5.00% | 8.25% | 7.98% |
| UGI Corp | ugi | 46.08 | 0.95 | 2.06% | 3.00% | 5.06% | 5.26% |
| WGL Holdings | wgl | 76.28 | 2.02 | 2.65% | 3.00% | 5.65% | 6.01% |
| Mean | | | | | | 6.87% | 7.31% |
| Harmonic Mean | | | | | | 6.33% | 7.07% |
| Median | | | | | | 6.88% | 7.34% |
| Max | | | | | | 10.48% | 9.62% |
| Min | | | | | | 4.16% | 5.26% |
| Std Dev | | | | | | 2.04% | 1.42% |
| Coefficient of Variation | | | | | | 29.73% | 19.44% |
| Say | | | | | | | 7.00% |

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT DIVIDEND GROWTH MODEL

Washington State Department of Revenue

2017 Assessment Year

Natural Gas Distribution

Based on Earnings Growth

$$K_e = (D1 / P_o) + G$$

K_e = Cost of Equity
 $D1$ = Expected Earnings
 P_o = Current Price
 G = Sustainable Growth

| Company | Ticker | Stock Price (Po) | Expected Earnings (D1) | Yield (D1/Po) | Earnings Short Term Growth (G) | K_e Short Term Growth | K_e with Multi Stage FCFE Adj |
|---------------------------------|--------|------------------|------------------------|---------------|--------------------------------|-------------------------|---------------------------------|
| Atmos Energy Corp | ato | 74.15 | 1.80 | 2.43% | 6.0% | 8.43% | 8.67% |
| Chesapeake Util | cpk | 66.95 | 1.26 | 1.88% | 8.0% | 9.88% | 8.59% |
| New Jersey Resources | njr | 35.50 | 1.02 | 2.87% | 2.5% | 5.37% | 8.29% |
| Nisource Inc | ni | 22.14 | 0.70 | 3.16% | 2.0% | 5.16% | 9.84% |
| NW Natural Gas | nwn | 59.80 | 1.88 | 3.14% | 6.0% | 9.14% | 6.84% |
| South Jersey Industries | sjj | 33.69 | 1.10 | 3.27% | 3.0% | 6.27% | 7.50% |
| Southwest Gas | swx | 76.62 | 1.90 | 2.48% | 6.5% | 8.98% | 8.64% |
| Spire Inc | sr | 64.55 | 2.10 | 3.25% | 8.0% | 11.25% | 10.47% |
| UGI Corp | ugi | 46.08 | 0.95 | 2.06% | 6.5% | 8.56% | 9.32% |
| WGL Holdings | wgl | 76.28 | 2.02 | 2.65% | 3.5% | 6.15% | 6.78% |
| Mean | | | | | | 7.92% | 8.49% |
| Harmonic Mean | | | | | | 7.42% | 8.34% |
| Median | | | | | | 8.49% | 8.62% |
| Max | | | | | | 11.25% | 10.47% |
| Min | | | | | | 5.16% | 6.78% |
| Std Dev | | | | | | 2.06% | 1.21% |
| Coefficient of Variation | | | | | | 26.02% | 14.24% |
| Say | | | | | | | 8.40% |

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT DIVIDEND GROWTH MODEL

Washington State Department of Revenue

2017 Assessment Year

Natural Gas Distribution

Based on Return on Equity

$$K_e = (D1 / P_o) + G$$

K_e = Cost of Equity
D1 = Expected Dividends
E1 = Expected Earnings
P_o = Current Price
G = Sustainable Growth
b = Retained Earnings % = (1 - Payout Ratio)
ROE = Return on Equity = (E1 / P_o)

| Company | Ticker | Stock Price (P _o) | Expected Dividend (D1) | Expected Earnings (E1) | Dividend Yield (D1/P _o) | Retained Earnings (b) | ROE (E1/P _o) | Growth (b*ROE) | K _e Dividends | K _e Earnings |
|---------------------------------|--------|-------------------------------|------------------------|------------------------|-------------------------------------|-----------------------|--------------------------|----------------|--------------------------|-------------------------|
| Atmos Energy Corp | ato | 74.150 | 1.80 | 3.55 | 2.4% | 50.0% | 4.79% | 2.39% | 4.82% | 7.18% |
| Chesapeake Util | cpk | 66.950 | 1.26 | 2.95 | 1.9% | 54.0% | 4.41% | 2.38% | 4.26% | 6.79% |
| New Jersey Resources | njr | 35.500 | 1.02 | 1.55 | 2.9% | 40.0% | 4.37% | 1.75% | 4.62% | 6.11% |
| Nisource Inc | ni | 22.140 | 0.70 | 1.15 | 3.2% | 37.0% | 5.19% | 1.92% | 5.08% | 7.12% |
| NW Natural Gas | nwn | 59.800 | 1.88 | 2.35 | 3.1% | 13.0% | 3.93% | 0.51% | 3.65% | 4.44% |
| South Jersey Industries | sjj | 33.690 | 1.10 | 1.50 | 3.3% | 18.0% | 4.45% | 0.80% | 4.07% | 5.25% |
| Southwest Gas | swx | 76.620 | 1.90 | 3.50 | 2.5% | 18.0% | 4.57% | 0.82% | 3.30% | 5.39% |
| Spire Inc | sr | 64.550 | 2.10 | 3.50 | 3.3% | 45.0% | 5.42% | 2.44% | 5.69% | 7.86% |
| UGI Corp | ugi | 46.080 | 0.95 | 2.40 | 2.1% | 55.0% | 5.21% | 2.86% | 4.93% | 8.07% |
| WGL Holdings | wgl | 76.280 | 2.02 | 3.45 | 2.6% | 45.0% | 4.52% | 2.04% | 4.68% | 6.56% |
| Mean | | | | | | | | | 4.51% | 6.48% |
| Harmonic Mean | | | | | | | | | 4.41% | 6.27% |
| Median | | | | | | | | | 4.65% | 6.67% |
| Max | | | | | | | | | 5.69% | 8.07% |
| Min | | | | | | | | | 3.30% | 4.44% |
| Std Dev | | | | | | | | | 0.71% | 1.18% |
| Coefficient of Variation | | | | | | | | | 15.66% | 18.14% |
| say | | | | | | | | | | 6.50% |

SUPPORT FOR DEBT RATING AND DEBT YIELD RATE

Washington State Department of Revenue

2017 Assessment Year

Natural Gas Distribution

| Company | Ticker | Mergent's Ratings | S&P Ratings |
|------------------------------------|--------|-------------------|-------------|
| Atmos Energy Corp | ato | | A |
| Chesapeake Util | cpk | | B- |
| New Jersey Resources | njr | | A |
| Nisource Inc | ni | | BBB+ |
| NW Natural Gas | nwn | | A+ |
| South Jersey Industries | sjj | | BBB+ |
| Southwest Gas | swx | A3 | BBB+ |
| Spire Inc | sr | | A- |
| UGI Corp | ugi | | |
| WGL Holdings | wgl | | A+ |
| Overall Average Debt Rating | | A3 | A- |

| Mergent's Bond Record January 2017, page 201 | | | | |
|---|--------------|--------------|--------------|--------------|
| Corporate | Aaa | Aa | A | Baa |
| October | 3.51% | 3.61% | 3.78% | 4.38% |
| November | 3.86% | 3.94% | 4.11% | 4.71% |
| December | 4.06% | 4.12% | 4.28% | 4.83% |
| 4th Qtr Average | 3.81% | 3.89% | 4.06% | 4.64% |
| Public Utilities | Aaa | Aa | A | Baa |
| October | | 3.59% | 3.77% | 4.34% |
| November | | 3.91% | 4.08% | 4.64% |
| December | | 4.11% | 4.27% | 4.79% |
| 4th Qtr Average | | 3.87% | 4.04% | 4.59% |
| Industrials | Aaa | Aa | A | Baa |
| October | 3.51% | 3.63% | 3.79% | 4.40% |
| November | 3.86% | 3.97% | 4.14% | 4.77% |
| December | 4.06% | 4.13% | 4.29% | 4.85% |
| 4th Qtr Average | 3.81% | 3.91% | 4.07% | 4.67% |

| | |
|------------------------|--------------|
| Debt Yield Rate | 4.40% |
|------------------------|--------------|

to page 1

SUPPORT FOR DIRECT CAPITALIZATION EQUITY COMPONENT

Washington State Department of Revenue

2017 Assessment Year

Natural Gas Distribution

| Company | Ticker | Stock Price | 2016 | | 2017 | | 2016 | | 2017 | |
|---------------------------------|--------|-------------|-------------------------------|------|-----------------------------------|-------|------------------------|-------|---------------------------|-------|
| | | | Actual Earnings Ratio (EPS/P) | | Projected Earnings Ratio (PEPS/P) | | Cash Flow Ratio (CF/P) | | Projected Cash Flow Ratio | |
| Atmos Energy Corp | ato | 74.15 | 3.38 | 4.6% | 3.55 | 4.8% | 6.19 | 8.3% | 6.45 | 8.7% |
| Chesapeake Util | cpk | 66.95 | 2.75 | 4.1% | 2.95 | 4.4% | 4.95 | 7.4% | 5.40 | 8.1% |
| New Jersey Resources | njr | 35.50 | 1.61 | 4.5% | 1.55 | 4.4% | 2.46 | 6.9% | 2.30 | 6.5% |
| Nisource Inc | ni | 22.14 | 1.01 | 4.6% | 1.15 | 5.2% | 2.71 | 12.2% | 2.95 | 13.3% |
| NW Natural Gas | nwn | 59.80 | 2.15 | 3.6% | 2.35 | 3.9% | 4.50 | 7.5% | 4.85 | 8.1% |
| South Jersey Industries | sjj | 33.69 | 1.34 | 4.0% | 1.50 | 4.5% | 2.35 | 7.0% | 2.55 | 7.6% |
| South Jersey Industries | sjj | 33.69 | 1.34 | 4.0% | 3.50 | 10.4% | 2.35 | 7.0% | 10.10 | 30.0% |
| Southwest Gas | swx | 76.62 | 3.20 | 4.2% | 3.50 | 4.6% | 9.25 | 12.1% | 6.55 | 8.5% |
| Spire Inc | sr | 64.55 | 3.24 | 5.0% | 2.40 | 3.7% | 6.16 | 9.5% | 4.80 | 7.4% |
| UGI Corp | ugi | 46.08 | 2.05 | 4.4% | 2.40 | 5.2% | 4.39 | 9.5% | 4.80 | 10.4% |
| WGL Holdings | wgl | 76.28 | 3.27 | 4.3% | 3.45 | 4.5% | 5.89 | 7.7% | 5.85 | 7.7% |
| Mean | | | 4.3% | | 5.0% | | 8.7% | | 10.6% | |
| Harmonic Mean | | | 4.3% | | 4.7% | | 8.3% | | 8.9% | |
| Median | | | 4.3% | | 4.5% | | 7.7% | | 8.1% | |
| Max | | | 5.0% | | 10.4% | | 12.2% | | 30.0% | |
| Min | | | 3.6% | | 3.7% | | 6.9% | | 6.5% | |
| Std Dev | | | 0.4% | | 1.8% | | 2.0% | | 6.7% | |
| Coefficient of Variation | | | 9.0% | | 36.2% | | 22.7% | | 63.3% | |
| Source: | | | Say | | 4.3% | | 4.7% | | 8.3% | |

Actual earnings: Value Line / Q4 average stock price

Estimated Earnings: Value Line / Q4 average stock price

Actual Cash Flow: Value Line / Q4 average stock price

Estimated Cash Flow: Value Line / Q4 average stock price

| SUPPORT FOR DIRECT CAPITALIZATION EQUITY COMPONENT | | | | | | | |
|---|---------------|---------------------------------|-------------------------|--------------------------|-------------------------|------------------------|-----------------------------|
| Washington State Department of Revenue | | | | | | | |
| 2017 Assessment Year | | | | | | | |
| Natural Gas Distribution | | | | | | | |
| | | | | | | | |
| Company | Ticker | Stock Price | Enterprise Value | EBITDA Historical | Annual Change VL | EBITDA Forecast | EV / EBITDA Forecast |
| Atmos Energy Corp | ato | 74.15 | 10,643,751,842 | 961,114,000 | 4.20% | 1,001,483,893 | 10.63 |
| Chesapeake Util | cpk | 66.95 | 1,256,333,729 | 123,589,000 | 9.09% | 134,824,364 | 9.32 |
| New Jersey Resources | njr | 35.50 | 4,159,540,026 | 240,283,000 | -6.50% | 224,654,837 | 18.52 |
| Nisource Inc | ni | 22.14 | 14,225,190,477 | 1,405,300,000 | 8.86% | 1,529,754,613 | 9.30 |
| NW Natural Gas | nwn | 59.80 | 2,427,756,809 | 221,569,000 | 7.78% | 238,802,144 | 10.17 |
| South Jersey Industries | sjj | 33.69 | 3,758,407,823 | 299,094,000 | 8.51% | 324,548,809 | 11.58 |
| Southwest Gas | swx | 76.62 | 5,209,545,801 | 419,800,000 | 9.19% | 458,376,216 | 11.37 |
| Spire Inc | sr | 64.55 | 12,020,965,272 | 1,388,900,000 | 6.33% | 1,476,833,604 | 8.14 |
| UGI Corp | ugi | 46.08 | 12,020,965,272 | 1,388,900,000 | 9.34% | 1,518,615,034 | 7.92 |
| WGL Holdings | wgl | 76.28 | 5,577,085,320 | 432,862,000 | -0.68% | 429,922,360 | 12.97 |
| | | Mean | | | | | 10.99 |
| | | Harmonic Mean | | | | | 10.40 |
| | | Median | | | | | 10.40 |
| | | Std Dev | | | | | 3.07 |
| | | Coefficient of Variation | | | | | 0.28 |
| | | Say | | | | | 8.70 |

DATA INPUT

Washington State Department of Revenue

2017 Assessment Year

Natural Gas Distribution

Instructions: Data entered on this page will flow to the applicable worksheets.

| Guideline Companies | | Stock Price | Beta Levered | Financial Strength | Revenues | Cash Flow | Earnings | Dividends | Bk Value | Common | LTD (BV) |
|-------------------------|--------|-------------|--------------|--------------------|-----------|-----------|-----------|-----------|----------|-------------|---------------|
| Name | Ticker | Yahoo | V L | V L | Per Share | Per Share | Per Share | Per Share | Stock | Shares | V L |
| Atmos Energy Corp | ato | 74.150 | 0.70 | A | 32.23 | 6.19 | 3.38 | 1.68 | 33.32 | 105,175,480 | 2,314,200,000 |
| Chesapeake Util | cpk | 66.950 | 0.70 | B++ | 28.80 | 4.95 | 2.75 | 1.19 | 27.50 | 16,301,161 | 143,500,000 |
| New Jersey Resources | njr | 35.500 | 0.80 | A+ | 21.90 | 2.46 | 1.61 | 0.98 | 13.58 | 86,313,212 | 1,026,700,000 |
| Nisource Inc | ni | 22.140 | nmf | B+ | 13.91 | 2.71 | 1.01 | 0.64 | 12.60 | 323,445,821 | 6,058,200,000 |
| NW Natural Gas | nwn | 59.800 | 0.65 | A | 23.45 | 4.50 | 2.15 | 1.87 | 29.00 | 27,557,756 | 530,200,000 |
| South Jersey Industries | sjj | 33.690 | 0.80 | A | 12.95 | 2.35 | 1.34 | 1.06 | 16.25 | 79,477,822 | 808,700,000 |
| Southwest Gas | swx | 76.620 | 0.75 | B++ | 52.60 | 9.25 | 3.20 | 1.76 | 34.90 | 47,482,068 | 1,592,900,000 |
| Spire Inc | sr | 64.550 | 0.70 | B++ | 33.68 | 6.16 | 3.24 | 1.96 | 38.73 | 45,738,897 | 1,821,300,000 |
| UGI Corp | ugi | 46.080 | 0.90 | B++ | 32.84 | 4.39 | 2.05 | 0.94 | 16.46 | 172,931,104 | 3,994,200,000 |
| WGL Holdings | wgl | 76.280 | 0.80 | A | 46.65 | 5.89 | 3.27 | 1.93 | 27.31 | 51,219,000 | 1,435,300,000 |

Value Line Mar 3, 2017