Department of Revenue
Washington State

COST OF CAPITAL STUDY

YIELD CAPITALIZATION

2011 ASSESSMENT YEAR

APPENDIX C

NATURAL GAS TRANSPORTATION

EQUITY RATE						**11.00%**	
CAPITAL ASSET PRICING MODEL							PAGE
CAPM Ex Post			8.57%				5
CAPM Ex Ante			8.98%				6
DIVIDEND GROWTH MODELS							
Value Line, based on Dividends Growth			11.50%				8
Value Line, based on Earnings Growth			NMF				9
RANGE			8.57 - 11.50%				
DEBT RATE						**6.50%**	10
MARKET CAPITAL STRUCTURE							
Equity	65%	x	11.00%	=		7.15%	3
Debt	35%	x	6.50%	=	2.28%		3
Marginal Tax Rate	38%	=	(1-.38)	x	2.28%	1.41%	
WEIGHTED AVERAGE COST OF CAPITAL						**8.56%**	

SUPPORT FOR GUIDELINE COMPANIES

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

NATURAL GAS TRANSPORTATION

Capital Structure at Book Value

Company	Ticker	Beta	P/E Ratio	Div'd Yield	Gross Revenues (Millions)	4 yr Average EBITDA	Total Assets (Millions)	Pipe Miles	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity
Boardwalk Pipeline	bwp	0.85	21.5	6.8%	18,989	486	6,878	14,200	3,274,005,911	50.2%	-	0.0%	3,251,800,000	49.8%	6,525,805,911
El Paso Pipeline	epb	0.75	15.8	5.0%	11,728	448	6,177	12,300	2,022,073,171	45.3%	304,000,000	6.8%	2,137,200,000	47.9%	4,463,273,171
Energy Transfer Part	etp	0.80	27.4	7.1%	143,261	1,315	12,150	17,500	4,512,169,379	42.9%	-	0.0%	6,004,600,000	57.1%	10,516,769,379
Enterprise Prod	epd	0.85	22.9	5.8%	374,031	2,241	31,361	48,000	9,122,697,055	41.8%	-	0.0%	12,704,800,000	58.2%	21,827,497,055
EQT Corp	eqt	1.15	24.7	2.2%	19,143	579	7,098		2,252,067,816	53.6%		0.0%	1,949,200,000	46.4%	4,201,267,816
Kinder Morgan Energy	kmp	0.75	48.6	6.5%	192,094	2,205	21,861	29,000	7,317,883,404	41.6%	-	0.0%	10,278,600,000	58.4%	17,596,483,404
National Fuel Gas	nfg	0.95	23.4	2.2%	37,429	610	5,106		1,745,745,247	62.5%		0.0%	1,049,000,000	37.5%	2,794,745,247
ONEOK Inc	oke	0.95	15.6	3.8%	313,367	1,155	12,499		2,438,656,472	39.8%		0.0%	3,692,000,000	60.2%	6,130,656,472
ONEOK Partner	oks	0.85		5.7%		694	7,920		-	0.0%		0.0%	2,585,400,000	NMF	2,585,400,000
Spectra Energy	se	1.00	16.9	4.5%	63,226	2,089	26,686	19,000	8,264,829,442	47.1%	-	0.0%	9,277,000,000	52.9%	17,541,829,442
TransCanada Corp	trp	0.90	15.8	4.4%	207,130	3,739	46,887	37,200	16,704,000,000	49.0%	-	0.0%	17,390,200,000	51.0%	34,094,200,000
Williams Cos	wmb	1.30	18.0	2.2%	148,346	3,345	24,972	15,000	8,830,096,989	52.5%	-	0.0%	8,002,000,000	47.5%	16,832,096,989
Williams Partners LP	wpz	1.05	17.1	6.3%	103,619	1,035	13,396		5,193,915,356	47.4%		0.0%	5,765,000,000	52.6%	10,958,915,356
	Mean	**0.93**	**22.3**	**4.8%**	**136,030**	**1,534**	**17,153**		**5,513,703,095**	**44.1%**		**0.5%**	**6,468,215,385**	**51.6%**	
	Weighted Mean								**71,678,140,241**	**45.9%**	**304,000,000**	**0.2%**	**84,086,800,000**	**53.9%**	**156,068,940,241**
	Median			**5.0%**	**123,440**	**1,155**	**12,499**			**47.1%**		**0.0%**		**51.8%**	

SUPPORT FOR CAPITAL STRUCTURE

MARKET VALUE

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

NATURAL GAS TRANSPORTATION

Capital Structure at Market Value

Company	Ticker	Stock Average	Common Shares	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity
Boardwalk Pipeline	bwp	31.967	192,588,583	6,156,415,037	63.3%	-	0.0%	3,564,948,340	36.7%	9,721,363,377
El Paso Pipeline	epb	33.125	137,555,998	4,556,542,434	62.7%	304,000,000	4.2%	2,403,052,891	33.1%	7,263,595,324
Energy Transfer Part	etp	50.228	191,599,549	9,623,726,014	59.8%	-	0.0%	6,465,152,820	40.2%	16,088,878,834
Enterprise Prod	epd	41.643	637,950,843	26,566,399,605	66.8%	-	0.0%	13,232,862,307	33.2%	39,799,261,913
EQT Corp	eqt	40.128	149,143,564	5,984,882,651	73.2%	-	0.0%	2,191,666,992	26.8%	8,176,549,642
Kinder Morgan Energy	kmp	70.082	312,730,060	21,916,643,822	65.8%	-	0.0%	11,375,367,270	34.2%	33,292,011,091
National Fuel Gas	nfg	59.460	82,075,470	4,880,207,446	82.6%	-	0.0%	1,024,894,192	17.4%	5,905,101,638
ONEOK Inc	oke	50.882	106,491,549	5,418,467,499	59.7%	-	0.0%	3,652,495,600	40.3%	9,070,963,099
ONEOK Partner	oks	78.533	101,908,000	8,003,174,933	73.7%	-	0.0%	2,854,540,140	26.3%	10,857,715,073
Spectra Energy	se	24.033	648,221,917	15,578,933,405	59.9%	-	0.0%	10,430,994,604	40.1%	26,009,928,009
TransCanada Corp	trp	36.952	696,000,000	25,718,360,000	53.4%	-	0.0%	22,485,528,600	46.6%	48,203,888,600
Williams Cos	wmb	22.360	584,774,635	13,075,560,839	58.4%	-	0.0%	9,326,423,695	41.6%	22,401,984,533
Williams Partners LP	wpz	45.482	279,995,437	12,734,659,134	65.5%	-	0.0%	6,701,812,500	34.5%	19,436,471,634
Source:			**Mean**		**65.0%**		**0.3%**		**34.7%**	
Stock Price: Yahoo			**Weighted Mean**	**160,213,972,818**	**62.5%**	**304,000,000**	**0.1%**	**95,709,739,949**	**37.4%**	**256,227,712,767**
Market Value Debt: Bond Analysis			**Median**		**63.3%**		**0.0%**		**34.5%**	
			Max		**82.6%**		**4.2%**		**46.6%**	
			Min		**53.4%**		**0.0%**		**17.4%**	
			Target		**65%**		**0%**		**35%**	**100%**

SUPPORT FOR MARKET MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

NATURAL GAS TRANSPORTATION

Company	Ticker	Stock Avg	Revenues	Multiple	Cash Flow	Multiple	Earnings	Multiple	Divds Decld	Multiple	Book Value	Multiple
Boardwalk Pipeline	bwp	31.967	5.80	5.5	2.55	12.5	1.42	22.5	2.03	15.7	17.00	1.9
El Paso Pipeline	epb	33.125	5.80	5.7	2.50	13.3	2.00	16.6	1.55	21.4	14.70	2.3
Energy Transfer Part	etp	50.228	31.75	1.6	3.60	14.0	1.85	27.2	3.58	14.0	23.55	2.1
Enterprise Prod	epd	41.643	41.00	1.0	3.10	13.4	1.92	21.7	2.32	17.9	14.30	2.9
EQT Corp	eqt	40.128	8.50	4.7	2.95	13.6	1.54	26.1	0.88	45.6	15.10	2.7
Kinder Morgan Energy	kmp	70.082	26.25	2.7	4.25	16.5	1.43	49.0	4.32	16.2	23.40	3.0
National Fuel Gas	nfg	59.460	21.44	2.8	5.00	11.9	2.65	22.4	1.36	43.7	21.27	2.8
ONEOK Inc	oke	50.882	128.50	0.4	6.10	8.3	3.20	15.9	1.82	28.0	22.90	2.2
ONEOK Partner	oks	78.533	-		-		3.33	23.6	-		-	
Spectra Energy	se	24.033	7.65	3.1	2.50	9.6	1.45	16.6	1.00	24.0	12.75	1.9
TransCanada Corp	trp	36.952	12.40	3.0	4.15	8.9	2.00	18.5	1.56	23.7	24.00	1.5
Williams Cos	wmb	22.360	16.80	1.3	4.00	5.6	1.20	18.6	0.49	45.6	15.10	1.5
Williams Partners LP	wpz	45.482	19.95	2.3	5.55	8.2	2.60	17.5	2.72	16.7	18.55	2.5
		Mean		**2.8**		**11.3**		**22.8**		**26.1**		**2.3**
		Median		**2.7**		**12.2**		**21.7**		**22.5**		**2.2**
		Max		**5.7**		**16.5**		**49.0**		**45.6**		**3.0**
		Min		**0.4**		**5.6**		**15.9**		**14.0**		**1.5**
		Std Dev		**1.7**		**3.1**		**8.7**		**12.1**		**0.5**
		Coefficient of Variation		**0.6**		**0.3**		**0.4**		**0.5**		**0.2**
		Say		**2.7**		**12.0**		**22.0**		**23.0**		**2.2**

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

CAPITAL ASSET PRICING MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

NATURAL GAS TRANSPORTATION

Ex Post

Ke = Rf + B (Rm-Rf)

Ke =	**Cost of Equity**			**8.57%**
				to page 1
	Rf =	risk free rate	4.25%	
	Rp =	risk premium	4.80%	
	B =	Beta	0.90	page 7

Rp =	**Risk Premium**	(Rm-Rf)		**4.80%**
				to above

2011 Ibbotson Risk Premia Over Time Report, Page 3

	9.90%	Large Company Geometric Rm
less	5.10%	Average Historical Rf Income Return

Rf =	**Risk Free Rate**		**4.25%**
			to above

2011 Ibbotson Risk Premia Over Time Report, Page 4

Long Term (20 years) US Treasury Bond Yield	4.10%

Value Line Investment Survey, Selected Yields January 7, 2011, page 2469

US Treasury Securities year end data

30 year	4.43%
30 year Zero	4.71%

Federal Reserve Statistical Release (http://www.federalreserve.gov/Releases/H15/Current/)

January 3, 2011 as of 12-31-10

Treasury Constant Maturities

20 year	4.13%	
30 year	4.34%	
20 year TIPS	1.59%	
	2.54%	Inflation Indication
		2.50%

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

CAPITAL ASSET PRICING MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

NATURAL GAS TRANSPORTATION

Ex Ante

Ke = Rf + B (Rp)

Ke =	**Cost of Equity**				**8.98%**
					to page 1
	Rm =	rate of return	9.50%		
	Rf =	risk free rate	4.25%		
	Rp =	risk premium	5.25%		page 7
	B =	Beta	0.90		

Rp =	**Risk Premium**			**5.25%**
				to above
	Shannon Pratt and Roger Grabowski		3.50 - 6.00%	
		Cost of Capital, Applications and Examples, Third Edition, 2008, Page 113		
	Dr. Aswath Damodaran		5.20%	
		http://pages.stern.nyu.edu/~adamodar/ 2010 Implied Premium		
	Ibbotson		6.00%	
		2011 Risk Premia Over Time Report, Page 4 Long-horizon expected ERP (supply side)		
	Campbell Harvey		2.89%	December 2010
		The Equity Risk Premium 10 Year Data: Evidence from the Duke CFO Outlook Survey	3.42%	10 year average
			2.39 - 4.74%	10 year average range

Rf =	**Risk Free Rate**			**4.25%**
				to above
	2011 Ibbotson Risk Premia Over Time Report, Page 4			
		Long Term (20 years) US Treasury Bond Yield	4.10%	
	Value Line Investment Survey, Selected Yields January 7, 2011, page 2469			
		US Treasury Securities year end data		
		30 year	4.43%	
		30 year Zero	4.71%	
	Federal Reserve Statistical Release (http://www.federalreserve.gov/Releases/H15/Current/)			
	January 3, 2011 as of 12-31-10			
		Treasury Constant Maturities		
		20 year	4.13%	
		30 year	4.34%	
		20 year TIPS	1.59%	
			2.54%	Inflation Indication
				2.50%

BETA CALCULATION FOR CAPM

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

NATURAL GAS TRANSPORTATION

Company	Ticker	Value Line
Boardwalk Pipeline	bwp	0.85
El Paso Pipeline	epb	0.75
Energy Transfer Part	etp	0.80
Enterprise Prod	epd	0.85
EQT Corp	eqt	1.15
Kinder Morgan Energy	kmp	0.75
National Fuel Gas	nfg	0.95
ONEOK Inc	oke	0.95
ONEOK Partner	oks	0.85
Spectra Energy	se	1.00
TransCanada Corp	trp	0.90
Williams Cos	wmb	1.30
Williams Partners LP	wpz	1.05
Source: Value Line-five year, weekly	**Mean**	**0.93**
	Median	**0.90**
	Max	**1.30**
	Min	**0.75**
	Say	**0.90**

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

NATURAL GAS TRANSPORTATION

Based on Dividend Growth

Ke = (D1 / Po) + 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 Growth (G)	Ke
Boardwalk Pipeline	bwp	31.967	2.11	6.60%	5.45%	12.05%
El Paso Pipeline	epb	33.125	1.76	5.31%	5.77%	11.08%
Energy Transfer Part	etp	50.228	3.64	7.25%	5.29%	12.54%
Enterprise Prod	epd	41.643	2.44	5.86%	9.21%	15.07%
EQT Corp	eqt	40.128	0.88	2.19%	6.21%	8.41%
Kinder Morgan Energy	kmp	70.082	4.56	6.51%	6.22%	12.73%
National Fuel Gas	nfg	59.460	1.40	2.35%	7.26%	9.61%
ONEOK Inc	oke	50.882	2.00	3.93%	13.31%	17.24%
ONEOK Partner	oks	78.533	N/A	nmf	nmf	nmf
Spectra Energy	se	24.033	1.04	4.33%	7.19%	11.51%
TransCanada Corp	trp	36.952	1.60	4.33%	2.17%	6.50%
Williams Cos	wmb	22.360	0.52	2.33%	6.06%	8.38%
Williams Partners LP	wpz	45.482	2.96	6.51%	14.65%	21.16%
					Mean	**12.19%**
Source: Value Line Projections to 13-15					**Median**	**11.78%**
					Trimmed Mean	**10.31%**
					Max	**21.16%**
					Min	**6.50%**
					Say	**11.50%**

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

NATURAL GAS TRANSPORTATION

Based on Earnings Growth

Ke = (D1 / Po) + 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)	Earnings Growth (G)	Ke
Boardwalk Pipeline	bwp	31.967	2.11	6.60%	14.02%	20.62%
El Paso Pipeline	epb	33.125	1.76	5.31%	12.03%	17.34%
Energy Transfer Part	etp	50.228	3.64	7.25%	10.42%	17.66%
Enterprise Prod	epd	41.643	2.44	5.86%	9.40%	15.26%
EQT Corp	eqt	40.128	0.88	2.19%	18.63%	20.82%
Kinder Morgan Energy	kmp	70.082	4.56	6.51%	16.67%	23.18%
National Fuel Gas	nfg	59.460	1.40	2.35%	9.07%	11.42%
ONEOK Inc	oke	50.882	2.00	3.93%	4.39%	8.32%
ONEOK Partner	oks	78.533	N/A	nmf	N/A	nmf
Spectra Energy	se	24.033	1.04	4.33%	6.99%	11.32%
TransCanada Corp	trp	36.952	1.60	4.33%	14.60%	18.93%
Williams Cos	wmb	22.360	0.52	2.33%	17.02%	19.34%
Williams Partners LP	wpz	45.482	2.96	6.51%	14.70%	21.21%
					Mean	**17.12%**
Source: Value Line Projections to 13-15					**Median**	**18.30%**
					Trimmed Mean	**10.35%**
					Max	**23.18%**
					Min	**8.32%**
					Say	**NMF**

short term growth not sustainable

SUPPORT FOR DEBT RATING AND DEBT YIELD RATE

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

NATURAL GAS TRANSPORTATION

Company	Ticker	Mergent's Ratings	S&P Ratings	WAYTM
Boardwalk Pipeline	bwp		BBB	3.52%
El Paso Pipeline	epb	Ba1	BB	
Energy Transfer Part	etp	Ba2	BBB-	5.13%
Enterprise Prod	epd	Baa3	BBB-	6.72%
EQT Corp	eqt		BBB	
Kinder Morgan Energy	kmp	Baa2	BBB	5.97%
National Fuel Gas	nfg		BBB	6.60%
ONEOK Inc	oke		BBB	6.34%
ONEOK Partner	oks		BBB	4.57%
Spectra Energy	se		BBB+	
TransCanada Corp	trp	A3	A-	5.53%
Williams Cos	wmb		BBB-	5.96%
Williams Partners LP	wpz	Baa3	BBB-	3.91%
Overall Average Debt Rating		**Baa3**	**BBB**	**5.43%**

bond analysis, A-BBB bonds

	All issues	20+ year maturities
Guideline Companies, All Ratings	**5.63%**	**6.26%**

bond analysis page 12

Mergent's Bond Record January 2011, page 210

Corporate	**Aaa**	**Aa**	**A**	**Baa**
October	4.68%	4.83%	5.09%	5.72%
November	4.87%	5.07%	5.33%	5.92%
December	5.02%	5.26%	5.52%	6.10%
4th Qtr Average	**4.86%**	**5.05%**	**5.31%**	**5.91%**
Public Utilities	**Aaa**	**Aa**	**A**	**Baa**
October		4.89%	5.10%	5.62%
November		5.12%	5.37%	5.85%
December		5.32%	5.56%	6.04%
4th Qtr Average		**5.11%**	**5.34%**	**5.84%**
Industrials	**Aaa**	**Aa**	**A**	**Baa**
October	4.68%	4.77%	5.07%	5.81%
November	4.87%	5.02%	5.29%	5.99%
December	5.02%	5.19%	5.47%	6.15%
4th Qtr Average	**4.86%**	**4.99%**	**5.28%**	**5.98%**

Debt Yield Rate	**6.50%**

to page 1

12/31/2010

Natural Gas Transportation Bond Analysis

Company	type	Call	coupon	maturity	Price 12/10		Issued / Book	current yield	yield to maturity (2011.5)	WAYTM	Rating		Mkt Val	Mkt : Book		Debt Service	CO WAYTM
Boardwalk Pipeline	Sr Nt		5.875	2016	109.63	$	250,000,000	5.36%	3.52%	0.05%	BBB-	$	274,075,000	109.63%	$	14,687,500	0.0352346
1		**100**		**sum**	**109.63**	**$**	**250,000,000**	**Percent of book**	**109.63%**	**0.05%**			**274,075,000**	**109.63%**	**$**	**14,687,500**	**3.52%**
Energy Transfer Part	Sr Nt		6.125	2017	109.92	$	400,000,000	5.57%	4.08%	0.10%	NR	$	439,680,000	109.92%	$	24,500,000	0.0203766
Energy Transfer Part	Sr Nt		6.625	2036	105.42	$	400,000,000	6.28%	6.19%	0.15%	NR	$	421,680,000	105.42%	$	26,500,000	0.0309477
2		**200**		**sum**	**215.34**	**$**	**800,000,000**	**Percent of book**	**107.67%**	**0.25%**			**861,360,000**	**107.67%**	**$**	**51,000,000**	**5.13%**
Enterprise Prod	Sr Nt		6.650	2034	108.96	$	200,000,000	6.10%	5.92%	0.07%	BBB-	$	217,920,000	108.96%	$	13,300,000	0.0094708
Enterprise Prod	Gtd Sr Nt		5.750	2035	98.70	$	500,000,000	5.83%	5.85%	0.18%	BBB-	$	493,500,000	98.70%	$	28,750,000	0.0234128
Enterprise Prod	Jr Sub Nt		8.375	2066	107.37	$	550,000,000	7.80%	7.79%	0.26%	BB	$	590,535,000	107.37%	$	46,062,500	0.0342805
3		**300**		**sum**	**315.03**	**$**	**1,250,000,000**	**Percent of book**	**105.01%**	**0.51%**			**1,301,955,000**	**104.16%**	**$**	**88,112,500**	**6.72%**
Kinder Morgan Egy	Sr Nt		6.950	2038	108.66	$	1,175,000,000	6.40%	6.27%	0.45%	BBB	$	1,276,755,000	108.66%	$	81,662,500	0.0166532
Kinder Morgan Egy	Sr Nt		6.500	2037	103.19	$	400,000,000	6.30%	6.25%	0.15%	BBB	$	412,760,000	103.19%	$	26,000,000	0.0056467
Kinder Morgan Egy	Sr Nt		7.300	2033	111.31	$	500,000,000	6.56%	6.32%	0.19%	BBB	$	556,550,000	111.31%	$	36,500,000	0.0071452
Kinder Morgan Egy	Nt		7.750	2032	116.04	$	750,000,000	6.68%	6.33%	0.29%	BBB	$	870,300,000	116.04%	$	58,125,000	0.0107313
Kinder Morgan Egy	Nt		7.400	2031	111.84	$	1,000,000,000	6.62%	6.33%	0.38%	BBB	$	1,118,400,000	111.84%	$	74,000,000	0.0142968
Kinder Morgan Egy	Sr Nt		6.000	2017	110.40	$	600,000,000	5.43%	3.86%	0.14%	BBB	$	662,400,000	110.40%	$	36,000,000	0.0052404
6		**600**		**sum**	**661.44**	**$**	**4,425,000,000**	**Percent of book**	**110.24%**	**1.60%**			**4,897,165,000**	**110.67%**	**$**	**312,287,500**	**5.97%**
National Fuel Gas	MTN		6.214	2027	95.45	$	100,000,000	6.51%	6.69%	0.04%	NR	$	95,450,000	95.45%	$	6,214,000	0.0338114
National Fuel Gas	Nt		6.500	2022	100.00	$	98,000,000	6.50%	6.50%	0.04%	BBB+	$	98,000,000	100.00%	$	6,370,000	0.0321717
2		**200**		**sum**	**195.45**	**$**	**198,000,000**	**Percent of book**	**97.73%**	**0.08%**			**193,450,000**	**97.70%**	**$**	**12,584,000**	**6.60%**
ONEOK Inc	Sr Insd		6.500	2028	98.51	$	100,000,000	6.60%	6.65%	0.04%	BBB	$	98,510,000	98.51%	$	6,500,000	0.0095021
ONEOK Inc	Sr Insd		6.400	2019	99.35	$	100,000,000	6.44%	6.51%	0.04%	BBB	$	99,350,000	99.35%	$	6,400,000	0.0093033
ONEOK Inc	Nt		6.000	2035	96.87	$	400,000,000	6.19%	6.26%	0.15%	BBB	$	387,480,000	96.87%	$	24,000,000	0.0357587
ONEOK Inc	Deb		6.880	2028	107.17	$	100,000,000	6.42%	6.17%	0.04%	BBB	$	107,170,000	107.17%	$	6,880,000	0.0088213
4		**400**		**sum**	**401.90**	**$**	**700,000,000**	**Percent of book**	**100.48%**	**0.27%**			**692,510,000**	**98.93%**	**$**	**43,780,000**	**6.34%**
ONEOK Ptnrs LP	Sr Nt		6.150	2016	112.38	$	1,400,000,000	5.47%	3.16%	0.27%	BBB	$	1,573,320,000	112.38%	$	86,100,000	0.0157790
ONEOK Ptnrs LP	Sr Nt		6.650	2036	108.44	$	1,400,000,000	6.13%	5.98%	0.51%	BBB	$	1,518,160,000	108.44%	$	93,100,000	0.0299237
2		**200**		**sum**	**220.82**	**$**	**2,800,000,000**	**Percent of book**	**110.41%**	**0.78%**			**3,091,480,000**	**110.41%**	**$**	**179,200,000**	**4.57%**
TransCanada Corp	Sr Nt		7.625	2039	129.30	$	1,250,000,000	5.90%	5.53%	0.42%	A-	$	1,616,250,000	129.30%	$	95,312,500	0.0552777
1		**100**		**sum**	**129.30**	**$**	**1,250,000,000**	**Percent of book**	**129.30%**	**0.42%**			**1,616,250,000**	**129.30%**	**$**	**95,312,500**	**5.53%**
Williams Cos	Nt		7.875	2021	118.03	$	1,500,000,000	6.67%	5.40%	0.49%	BB+	$	1,770,450,000	118.03%	$	118,125,000	0.0191462
Williams Cos	Nt		7.625	2019	113.19	$	700,000,000	6.74%	5.44%	0.23%	BB+	$	792,330,000	113.19%	$	53,375,000	0.0089970
Williams Cos	Nt		8.750	2032	122.34	$	850,000,000	7.15%	6.71%	0.35%	BB+	$	1,039,890,000	122.34%	$	74,375,000	0.0134886
Williams Cos	Deb		7.500	2031	112.30	$	700,000,000	6.68%	6.38%	0.27%	BB+	$	786,100,000	112.30%	$	52,500,000	0.0105578
Williams Cos	Sr Nt		7.750	2031	112.78	$	480,000,000	6.87%	6.57%	0.19%	BB+	$	541,344,000	112.78%	$	37,200,000	0.0074541
5		**500**		**sum**	**578.64**	**$**	**4,230,000,000**	**Percent of book**	**115.73%**	**1.53%**			**4,930,114,000**	**116.55%**	**$**	**335,575,000**	**5.96%**
Williams Ptns LP	Sr Nt		7.250	2017	116.25	$	600,000,000	6.24%	3.91%	0.14%	BBB-	$	697,500,000	116.25%	$	43,500,000	0.0390929
1		**100**		**sum**	**116.25**	**$**	**600,000,000**	**Percent of book**	**116.25%**	**0.14%**			**697,500,000**	**116.25%**	**$**	**43,500,000**	**3.91%**
				Total		**$**	**16,503,000,000**			**5.63%**	**Total**	**$**	**18,555,859,000**	**112.44%**	**$**	**1,176,039,000**	**5.43%**

Source: Standard & Poor's Bond Guide, January 2011, 2010 Yr End Prices

This includes short term. For 20+ year maturities see bel

Company	type	Call	coupon	maturity	Price 12/10		Issued / Book	current yield	yield to maturity	WAYTM	Rating		Mkt Val	Mkt : Book		Debt Service
Kinder Morgan Egy	Nt		7.400	2031	111.84	$	1,000,000,000	6.62%	6.33%	0.60%	BBB	$	1,118,400,000	111.84%	$	74,000,000
Williams Cos	Deb		7.500	2031	112.30	$	700,000,000	6.68%	6.38%	0.42%	BB+	$	786,100,000	112.30%	$	52,500,000
Williams Cos	Sr Nt		7.750	2031	112.78	$	480,000,000	6.87%	6.57%	0.30%	BB+	$	541,344,000	112.78%	$	37,200,000
Kinder Morgan Egy	Nt		7.750	2032	116.04	$	750,000,000	6.68%	6.33%	0.45%	BBB	$	870,300,000	116.04%	$	58,125,000
Williams Cos	Nt		8.750	2032	122.34	$	850,000,000	7.15%	6.71%	0.54%	BB+	$	1,039,890,000	122.34%	$	74,375,000
Kinder Morgan Egy	Sr Nt		7.300	2033	111.31	$	500,000,000	6.56%	6.32%	0.30%	BBB	$	556,550,000	111.31%	$	36,500,000
Enterprise Prod	Sr Nt		6.650	2034	108.96	$	200,000,000	6.10%	5.92%	0.11%	BBB-	$	217,920,000	108.96%	$	13,300,000
Enterprise Prod	Gtd Sr Nt		5.750	2035	98.70	$	500,000,000	5.83%	5.85%	0.28%	BBB-	$	493,500,000	98.70%	$	28,750,000
ONEOK Inc	Nt		6.000	2035	96.87	$	400,000,000	6.19%	6.26%	0.24%	BBB	$	387,480,000	96.87%	$	24,000,000
Energy Transfer Part	Sr Nt		6.625	2036	105.42	$	400,000,000	6.28%	6.19%	0.23%	NR	$	421,680,000	105.42%	$	26,500,000
ONEOK Ptnrs LP	Sr Nt		6.650	2036	108.44	$	1,400,000,000	6.13%	5.98%	0.79%	BBB	$	1,518,160,000	108.44%	$	93,100,000
Kinder Morgan Egy	Sr Nt		6.500	2037	103.19	$	400,000,000	6.30%	6.25%	0.24%	BBB	$	412,760,000	103.19%	$	26,000,000
Kinder Morgan Egy	Sr Nt		6.950	2038	108.66	$	1,175,000,000	6.40%	6.27%	0.70%	BBB	$	1,276,755,000	108.66%	$	81,662,500
TransCanada Corp	Sr Nt		7.625	2039	129.30	$	1,250,000,000	5.90%	5.53%	0.65%	A-	$	1,616,250,000	129.30%	$	95,312,500

Enterprise Prod	Jr Sub Nt	8.375	2066	107.37	$	550,000,000	7.80%	7.79%	0.41%	BB	$	590,535,000	107.37%	$	46,062,500
			Total		**$**	**10,555,000,000**			**6.26%**	**Total**	**$**	**11,847,624,000**	**112.25%**	**$**	**767,387,500**
											Embedded debt rate				**7.27%**
											Weighted average yield to maturity				**6.26%**
											Debt service / Market value				**6.48%**
											SAY:				**6.50%**

DATA INPUT

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

NATURAL GAS TRANSPORTATION

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

Guideline Companies		Stock Price	Revenues	Cash Flow	Earnings	Dividends	Bk Value	Partners	Calculated Debt	Wtd Avg YTM
Name	Ticker	(4th Qtr Avg)	Per Unit/Sh	Per Unit/Sh	Per Unit/Sh	Per Unit/Sh	Units/Sh	Units/Sh	mk to bk	
Boardwalk Pipeline	bwp	31.967	5.80	2.55	1.42	2.03	17.00	192,588,583	109.63%	3.52%
El Paso Pipeline	epb	33.125	5.80	2.50	2.00	1.55	14.70	137,555,998	112.44%	
Energy Transfer Part	etp	50.228	31.75	3.60	1.85	3.58	23.55	191,599,549	107.67%	5.13%
Enterprise Prod	epd	41.643	41.00	3.10	1.92	2.32	14.30	637,950,843	104.16%	6.72%
EQT Corp	eqt	40.128	8.50	2.95	1.54	0.88	15.10	149,143,564	112.44%	
Kinder Morgan Energy	kmp	70.082	26.25	4.25	1.43	4.32	23.40	312,730,060	110.67%	5.97%
National Fuel Gas	nfg	59.460	21.44	5.00	2.65	1.36	21.27	82,075,470	97.70%	6.60%
ONEOK Inc	oke	50.882	128.50	6.10	3.20	1.82	22.90	106,491,549	98.93%	6.34%
ONEOK Partner	oks	78.533			3.33			101,908,000	110.41%	4.57%
Spectra Energy	se	24.033	7.65	2.50	1.45	1.00	12.75	648,221,917	112.44%	
TransCanada Corp	trp	36.952	12.40	4.15	2.00	1.56	24.00	696,000,000	129.30%	5.53%
Williams Cos	wmb	22.360	16.80	4.00	1.20	0.49	15.10	584,774,635	116.55%	5.96%
Williams Partners LP	wpz	45.482	19.95	5.55	2.60	2.72	18.55	279,995,437	116.25%	3.91%
Value Line December 10, 2010		Yahoo	Value Line	Value Line	Value Line	Value Line	Value Line	Value Line	Bond analysis	Bond analysis

SUPPORT FOR DIRECT CAPITALIZATION EQUITY COMPONENT

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

NATURAL GAS TRANSPORTATION

			2010		2011		2010		2011	
Company	**Ticker**	**Stock Average**	**Actual Earnings Ratio (EPS/P)**		**Projected Earnings Ratio (PEPS/P)**		**Cash Flow Ratio (CF/P)**		**Projected Cash Flow Ratio**	
Boardwalk Pipeline	bwp	31.967	1.42	4.4%	1.60	5.0%	2.55	8.0%	2.80	8.8%
El Paso Pipeline	epb	33.125	2.00	6.0%	2.20	6.6%	2.50	7.5%	2.90	8.8%
Energy Transfer Part	etp	50.228	1.85	3.7%	2.10	4.2%	3.60	7.2%	3.90	7.8%
Enterprise Prod	epd	41.643	1.92	4.6%	1.95	4.7%	3.10	7.4%	3.45	8.3%
EQT Corp	eqt	40.128	1.54	3.8%	1.85	4.6%	2.95	7.4%	3.55	8.8%
Kinder Morgan Energy	kmp	70.082	1.43	2.0%	1.75	2.5%	4.25	6.1%	4.70	6.7%
National Fuel Gas	nfg	59.460	2.65	4.5%	2.75	4.6%	5.00	8.4%	5.30	8.9%
ONEOK Inc	oke	50.882	3.20	6.3%	3.30	6.5%	6.10	12.0%	6.45	12.7%
ONEOK Partner	oks	78.533	3.33	4.2%	3.87	4.9%				
Spectra Energy	se	24.033	1.45	6.0%	1.55	6.4%	2.50	10.4%	2.65	11.0%
TransCanada Corp	trp	36.952	2.00	5.4%	2.25	6.1%	4.15	11.2%	4.40	11.9%
Williams Cos	wmb	22.360	1.20	5.4%	1.40	6.3%	4.00	17.9%	4.45	19.9%
Williams Partners LP	wpz	45.482	2.60	5.7%	2.95	6.5%	5.55	12.2%	5.80	12.8%
		Mean		**4.8%**		**5.3%**		**9.6%**		**10.5%**
Source: Value Line		**Median**		**4.6%**		**5.0%**		**8.2%**		**8.9%**
		Trimmed Mean						**8.9%**		**9.7%**
		Max		**6.3%**		**6.6%**		**17.9%**		**19.9%**
		Min		**2.0%**		**2.5%**		**6.1%**		**6.7%**
		Say		**4.6%**		**5.0%**		**8.5%**		**9.0%**

AVERAGE FOURTH QUARTER STOCK PRICE

WASHINGTON STATE DEPARTMENT OF REVENUE

2011 ASSESSMENT YEAR

NATURAL GAS TRANSPORTATION

								44.95
Boardwalk Pipeline		bwp						**Q4 Average**
Date	Open	High	Low	Close	Volume	Adj. Close*		
12/01/2010	31.02	31.30	29.80	31.13	276900		31.13	
11/01/2010	32.50	33.37	30.80	31.00	333500		31.00	
10/01/2010	32.68	34.23	32.30	32.56	295600		32.56	**31.967**
El Paso Pipeline epb								
Date	Open	High	Low	Close	Volume	Adj. Close*		
12/01/2010	33.29	33.70	31.34	33.45	521900		33.45	
11/01/2010	33.85	35.74	32.32	33.12	956100		33.12	
10/01/2010	32.04	33.75	31.90	33.70	394300		33.70	**33.125**
Energy Transfer Part etp								
Date	Open	High	Low	Close	Volume	Adj. Close*		
12/01/2010	50.94	52.00	48.54	51.82	612200		51.82	
11/01/2010	51.06	52.00	49.82	50.67	595800		50.67	
10/01/2010	48.50	51.00	48.01	51.00	593000		50.12	**50.228**
Enterprise Products epd								
12/01/2010	41.14	41.90	39.26	41.61	1906400		41.61	
11/01/2010	42.90	44.32	41.70	42.08	1121200		42.08	
10/01/2010	39.69	42.99	39.69	42.85	1180600		42.85	**41.643**
EQT Corp	eqt							
12/01/2010	41.07	45.23	40.73	44.84	999800		44.64	
11/01/2010	37.83	43.45	36.91	40.47	1241000		40.29	
10/01/2010	36.49	38.44	36.01	37.44	1261900		37.06	**40.128**
Kinder Morgan Energy kmp								
Date	Open	High	Low	Close	Volume	Adj. Close*		
12/01/2010	70.94	71.48	69.09	70.26	616400		70.26	
11/01/2010	69.66	71.50	68.19	70.45	550100		70.45	
10/01/2010	68.70	71.72	68.51	69.47	565900		69.47	**70.082**
National Fuel Gas nfg								
Date	Open	High	Low	Close	Volume	Adj. Close*		
12/01/2010	64.01	66.52	63.36	65.62	504400		65.30	
11/01/2010	55.43	64.05	55.33	63.36	586300		62.72	
10/01/2010	52.05	55.84	51.66	55.18	556200		54.62	**59.460**
ONEOK Inc	oke							
Date	Open	High	Low	Close	Volume	Adj. Close*		
12/01/2010	51.74	56.09	51.31	55.47	617000		54.98	
11/01/2010	50.11	52.43	49.59	51.11	555000		50.66	
10/01/2010	45.35	50.81	45.06	49.82	808500		49.38	**50.882**
ONEOK Partners oks								
Date	Open	High	Low	Close	Volume	Adj. Close*		
12/01/2010	79.32	81.33	76.24	79.50	130800		78.39	
11/01/2010	78.12	81.67	78.12	79.21	120300		78.10	
10/01/2010	75.00	79.76	74.08	78.33	137000		77.24	**78.533**
Spectra Energy se								
Date	Open	High	Low	Close	Volume	Adj. Close*		
12/01/2010	24.17	25.45	24.13	24.99	2566400		24.99	
11/01/2010	23.96	24.77	23.48	23.77	2584500		23.77	
10/01/2010	22.76	24.00	22.37	23.77	2835300		23.53	**24.033**
TransCanada Corp trp								
Date	Open	High	Low	Close	Volume	Adj. Close*		
12/01/2010	35.87	38.44	35.86	38.04	408900		38.04	
11/01/2010	37.23	37.72	34.77	35.33	397200		34.96	
10/01/2010	37.25	38.59	36.33	36.95	344600		36.57	**36.952**

Williams Companies wmb

Date	Open	High	Low	Close	Volume	Adj. Close*		
12/01/2010	23.21	24.89	23.21	24.72	5689000		24.72	
11/01/2010	21.64	23.96	20.98	22.81	8378900		22.69	
10/01/2010	19.11	22.24	18.88	21.51	9239000		21.40	**22.360**

Williams Partners wpz

Date	Open	High	Low	Close	Volume	Adj. Close*		
12/01/2010	47.50	48.99	45.81	46.65	664100		45.96	
11/01/2010	44.11	47.34	43.75	47.05	353600		46.36	
10/01/2010	42.30	44.70	42.30	44.10	500700		42.79	**45.482**

Source:
finance.yahoo.com
Historical Stock Quotes
01/03/2011