Montana Department of
REVENUE

Capitalization Rate Study

Centrally Assessed Properties
Kory Hofland, Unit Manager

Business Tax & Valuation Bureau
Lee Baerlocher, Bureau Chief

Business & Income Tax Division
Eugene Walborn, Division Administrator

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METHODOLOGY

The Business Tax and Valuation Bureau develops a capitalization rate for each centrally assessed utility industry group using the band-of-investment technique. The typical industry rate for each source of capital (common equity and debt) is weighted according to its proportion in the typical market capital structure for each industry to derive a weighted average direct capitalization rate for the specific industry. The rate for each of the sources of capital is taken from directly observed information in the market.

For a company in a given industry, the capitalization rate for its industry is applied directly to an estimate of the company's typical net utility operating income to derive an income indicator of value for the company.

COMPARABLE COMPANIES

The companies used as comparables are taken from the appropriate industry group in the Value Line Investment Survey.

THE RATE FOR COMMON EQUITY

Under direct capitalization, the measure of the rate for common equity is the Earnings/Price (E/P) ratio. The E/P ratio is the annual earnings (net operating income) per share of common stock divided by the average market price per share of common stock.

For each of the companies included in the equity portion of the industry capitalization rate data set, the Bureau calculates several different measures of the E/P ratio, and then calculates an industry (simple) average for each of these measures:

E/P (Yahoo)	The previous calendar year's earnings per share reported on Yahoo Finance's website is divided by the average of the previous calendar year's monthly high and low price (January through December) reported by Yahoo Finance.
E/P (VL)	The previous calendar year's earnings per share reported in the Value Line Investment Survey is divided by the average of the previous calendar year's monthly high and low price (January through December) reported by Yahoo Finance.
Inverse of P/E (Yahoo)	This is calculated by dividing 1 by the Price/Earnings (P/E) ratio reported by Yahoo Finance for end of the previous calendar year.
Inverse of P/E (VL)	This is calculated by dividing 1 by the P/E ratio reported in the Value Line Investment Survey for end of the previous calendar year.
Inverse of MEDIAN P/E (VL)	This is calculated by dividing 1 by the MEDIAN Price/Earnings ratio reported in the Value Line Investment Survey for end of the previous calendar year. Value Line derives the MEDIAN P/E ratio by calculating the average of a company's last 10 years P/E ratios after deleting the 2 highest and 2 lowest values.

THE RATE FOR PREFERRED STOCK

The measure of the rate for preferred stock is percent dividend yield.

The Business Tax and Valuation Bureau does not calculate an annual (simple) average of the monthly percent yields for all preferred stock issues as a separate rate used in the band of investment. Instead, the preferred stock is included in the debt portion of the capital structure.

THE RATE FOR DEBT

The measure of the rate for debt used in the direct capitalization rate is the current yield. Current yield is equal to the annual coupon rate divided by price (expressed as a percent). While the measure of the rate of debt for the yield rate is yield to maturity. The yield to maturity is the interest rate that equates the present value of a bond's cash flow to its current price (expressed as a percent). Yield to maturity assumes that the bond will be held to maturity. If the bond is not held until maturity, or if the interim cash flows are reinvested at a rate that differs from the yield to maturity, an investor's actual yield will differ from the yield to maturity. The yield to maturity calculation equates a bond's cash flows to its current price; this yield calculation considers both coupon and income and any capital gain or loss the investor will realize by holding the bond to maturity.

Valuation theory typically requires the use of current yields (the annual coupon rate divided by price) for direct capitalization and the use of yield to maturity for yield capitalization, the two rates will generally not vary significantly for seasoned issues (except under certain circumstances) and they will be the same for new issues.

Yield to Maturity	For each of the companies included in the embedded debt portion Embedded debt of the industry capitalization rate data set, the bureau calculates an annual (simple) average of the monthly yield to maturities for all debt issues listed in the Standard & Poor's Bond Guide. These average yields are then used to calculate an industry (simple) average.

DIRECT CAPITALIZATION of "GROSS" CASH FLOW

The Business Tax and Valuation Bureau develops another direct capitalization rate for each centrally assessed utility industry group. This direct capitalization rate is calculated like the rate for capitalizing net operating income. The only difference is that the rate for common equity is "gross" cash flow per share divided by price per share.

"Gross" cash flow is defined as net utility operating income plus depreciation and amortization expense minus preferred stock dividends.

For a company in a given industry, the capitalization rate for its industry is applied directly to an estimate of the company's typical "gross" cash flow to derive an income indicator of value for the company.

The use of the "gross" cash flow capitalization model is less common than the traditional net operating income capitalization model. The "gross" cash flow model can be valuable in developing an income indicator of value for industries or companies that have been experiencing net operating losses, or in cases where book depreciation does not reflect economic depreciation.

YIELD CAPITALIZATION of PROJECTED FUTURE (NET) CASH FLOWS

The Business Tax and Valuation Bureau also develops a yield capitalization rate for each centrally assessed utility industry group. Yield capitalization is fundamentally different from direct capitalization, both in the rates developed for each source of capital (common equity and debt), and the level and nature of income that the capitalization rate is applied to.

The rate for each source of capital is the “cost of capital” for each industry group. The cost of debt is the yield to maturity for debt derived from the set of comparable companies for each industry group. The cost of equity capital is calculated using several methods, including the DCF (discounted cash flow) model, the ERP (equity risk premium model), the CAPM (capital asset pricing model) or a combination there of depending on the quantity and quality of available data.

The correct application of a yield capitalization rate is to use the rate for the industry to discount a stream of estimated future (net) cash flows for a company to present value.

It is important to note that the cash flow used in yield capitalization is “true”, “net” or “free” cash flow and not the ”gross” cash flow used in the Department’s direct ”gross” cash flow indicator.

The development of a valid future cash flow stream requires considerable time and effort. Most companies choose not to spend the time and effort to develop this future cash flow stream. Therefore, in the event a company does not provide a future cash flow stream as requested in the Annual Reporting Forms, the Department normalizes “net” historical cash flows to determine a cash flow stream. The yield capitalization rate for specific industries is applied directly to this derived cash flow stream.

Properly developed and applied, yield capitalization and direct capitalization usually result in similar indicators of value.

Mike Kadas
Director

Montana Department of Revenue

2013 Capitalization Rate Study
Business Tax & Valuation Bureau
Centrally Assessed Properties

Steve Bullock
Governor

The Centrally Assessed Property Appraisers, of the Business Tax & Valuation Bureau of the Montana Department of Revenue, produced this study. The team members include:

Grace Gilmore	Kory Hofland
Angie Haller	Steve Creigh
John Cameron	Lee Baerlocher
Doug Roehm	Herschel Mays

Montana Department of
REVENUE

2013 Capitalization Rate Study

Scheduled Airlines

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Scheduled Passenger Airlines
2013 Assessment Year

Equity Measures Calculated:

E/P estimates:

All	Median	
11.10%	9.01%	Yahoo
12.48%	10.58%	Value Line
11.79%	9.80%	Average

Inverse of P/E Ratios:

10.54%	8.76%	Yahoo
10.38%	9.59%	Value Line
10.46%	9.17%	Average of Inverse of the P/E
5.22%	3.33%	Inverse of median P/E, Value Line
11.12%	9.48%	Average of all above except median P/E
Mean = 9.94%	8.25%	
Median = 10.54%	9.01%	

Equity Measure NUOI = 9.95%

Debt Measure Calculated, Current Yield:

	Annual	4th Qtr	
	13.55%	10.12%	ALL
	5.50%	5.19%	BBB- & Above
	6.09%	5.96%	BB- & Above
Mean =	8.38%	7.09%	
Median =	6.09%	5.96%	

Debt Measure = 8.30%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	40.40%	x	9.95%	=	4.02%
Debt	59.60%	x	8.30%	=	4.95%
	100.00%				8.97%
Direct Cap Rate NUOI =					**9.00%**

Gross Cash Flow / Price:

All	Median	
28.31%	27.67%	Value Line

Equity Measure Gross = 28.00%

Industry Market Capital Structure Gross Cash Flow (GCF) Rate					
Equity	40.40%	x	28.00%	=	11.31%
Debt	59.60%	x	8.30%	=	4.95%
	100.00%				16.26%
Direct Cap Rate GCF =					**16.50%**

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Scheduled Freight Airlines
2013 Assessment Year

Equity Measures Calculated:

E/P estimates:

All	Median	
8.61%	6.91%	Yahoo
8.22%	6.85%	Value Line
8.41%	6.88%	Average

Inverse of P/E Ratios:

8.80%	6.79%	Yahoo
7.79%	6.70%	Value Line
8.30%	6.75%	Average of Inverse of the P/E
6.55%	5.56%	Inverse of median P/E, V. L.
8.36%	6.81%	Average of all above except median P/E
Mean = 7.99%	6.56%	
Median = 8.22%	6.79%	

Equity Measure NUOI = 7.90%

Debt Measure Calculated: Current Yield

Annual	4th Qtr	
5.55%	4.68%	ALL
5.55%	4.68%	BBB- & Above
5.55%	4.68%	BB- & Above
Mean = 5.55%	4.68%	
Median = 5.55%	4.68%	

Debt Measure = 5.50%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	88.25%	x	7.90%	=	6.97%
Debt	11.75%	x	5.50%	=	0.65%
	100.00%				7.62%
Direct Cap Rate NUOI =					**7.75%**

Gross Cash Flow / Price:

All	Median	
12.69%	14.51%	Value Line

Equity Measure Gross = 12.75%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	88.25%	x	12.75%	=	11.25%
Debt	11.75%	x	5.50%	=	0.65%
	100.00%				11.90%
Direct Cap Rate GCF =					**12.00%**

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Study
Industry: Scheduled Airlines
2013 Assessment Year

Equity Measures Calculated:		**Passenger**	**Freight**
Dividend Growth Model		9.50%	9.40%
Capital Asset Pricing Model		11.04%	10.88%
	Mean =	10.27%	10.14%
	Equity Measure FCF =	**10.75%**	**10.00%**

Debt Measures Calculated, Yield to Maturity:

	All Bonds				**20 Year Plus Bonds**			
	Passenger		**Freight**		**Passenger**		**Freight**	
	Annual	**4th Qtr**	**Annual**	**4th Qtr**	**Annual**	**4th Qtr**	**Annual**	**4th Qtr**
BBB's	2.90%	2.88%	3.00%	3.21%	5.77%	2.69%	4.56%	4.32%
BB's	6.71%	6.83%	---	---	---	---	---	---
CCC - NR	22.47%	15.12%	---	---	3.86%	3.71%	---	---
All =	15.40%	10.47%	3.00%	3.21%	4.82%	4.54%	4.56%	4.32%
Mean =	10.69%	8.28%	3.00%	3.21%	4.82%	3.20%	4.56%	4.32%
Median =	6.71%	6.83%	3.00%	3.21%	4.82%	3.20%	4.56%	4.32%

Debt Measure Passenger= 12.00%
Debt Measure Freight= 4.80%

Yield Cap Rate Free Cash Flow - Passenger						
Equity	40.40%	x	10.75%	=	4.34%	
Debt	59.60%	x	12.00%	=	7.15%	
	100.00%				11.49%	
Weighted Average Cost of Capital (WACC) =						**11.50%**

Yield Cap Rate Free Cash Flow - Freight						
Equity	88.25%	x	10.00%	=	8.82%	
Debt	11.75%	x	4.80%	=	0.56%	
	100.00%				9.39%	
Weighted Average Cost of Capital (WACC) =						**9.50%**

Where Assumed Growth Rate = Inflation **Growth = 2.00%**

see appendix for calculation		2.47%
Inflationdata.com	1/16/2013	1.74%

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure from Value Line and YaHoo Finance
Industry: Airlines
2013 Assessment Year

A	B	C	D	E	F	G	H	I	J	K	L
Company	Ticker Symbol	(VL) Fin Str	(VL) Shares (000)	(YAHOO) Avg Price Common 4th Qtr	(VL) Book Value Per Share	Mkt Value Common DxE	(VL) Book Value Common DxF	(VL) Book Value Preferred (000)	(VL) Book Value Debt (000)	Mkt/Book Debt Ratio	Mkt Value Pref. & Debt
AMR Corp.	AAMRQ		335,300	0.52	(21.21)	**174,356**	(7,111,713)	0	9,863,000	1.00	9,863,000
Allegiant Travel	**ALGT**	**B+**	**19,100**	**71.86**	**18.42**	**1,372,494**	**351,822**	**0**	**138,200**	**1.00**	**138,200**
Alaska Air Group	**ALK**	**B**	**70,900**	**40.18**	**16.54**	**2,848,762**	**1,172,686**	**0**	**1,099,000**	**1.00**	**1,099,000**
Delta Air Lines	**DAL**	**C++**	**845,200**	**10.14**	**(1.65)**	**8,573,145**	**(1,394,580)**	**0**	**11,847,000**	**1.00**	**11,847,000**
JetBlue Airways	JBLU	C++	281,800	5.24	6.24	1,476,632	1,758,432	0	2,850,000	1.00	2,850,000
US Airways Group	LCC	C+	162,100	12.23	0.93	1,982,483	150,753	0	4,130,000	1.00	4,130,000
Southwest Airlines	LUV	B+	772,600	9.36	8.90	7,231,536	6,876,140	0	3,107,000	1.00	3,107,000
Republic Airways Holdings Inc	**RJET**	**C+**	**48,400**	**5.23**	**9.51**	**252,890**	**460,284**	**0**	**2,074,500**	**1.00**	**2,074,500**
Spirit Airlines	SAVE	B+	72,500	17.13	6.43	1,241,925	466,175	0	0	1.00	0
SkyWest	**SKYW**	**B**	**50,600**	**11.42**	**26.36**	**577,599**	**1,333,816**	**0**	**1,607,000**	**1.00**	**1,607,000**
United Cont'l Hldgs.	UAL	C++	330,900	20.86	5.46	6,900,920	1,806,714	0	11,424,000	1.00	11,424,000
Atlas Air Worldwide	AAWW	B+	26,300	46.86	43.24	1,232,330	1,137,212	0	680,000	1.00	680,000
Air T Inc	**AIRT**	**B+**	**2,400**	**8.43**	**11.06**	**20,240**	**26,544**	**0**	**0**	**1.00**	0
Air Transport Services Grp.	ATSG	C++	64,000	3.91	4.22	250,347	270,080	0	333,700	1.00	333,700
FedEx Corp.	**FDX**	**A**	**317,000**	**90.17**	**46.46**	**28,584,418**	**14,727,820**	**0**	**1,250,000**	**1.00**	**1,250,000**
United Parcel Serv.	**UPS**	**A**	**963,000**	**72.90**	**7.30**	**70,199,490**	**7,029,900**	**0**	**11,095,000**	**1.00**	**11,095,000**
SUMS & AVERAGES											
ALL						132,919,567	37,568,378		61,498,400		61,498,400
PASSENGER AIRLINES						32,632,742	14,376,822		48,139,700		48,139,700
MEDIAN OF PASSENGER AIRLINES						1,476,632	1,172,686		2,978,500		2,978,500
FREIGHT CARRIERS						100,286,825	23,191,556		13,358,700		13,358,700
MEDIAN OF FREIGHT CARRIERS						1,232,330	1,137,212		965,000		965,000

FOREIGN CARRIERS -British Air, World Air Holdings & WestJet Airlines Ltd.
Data not used because of outliers and bankruptcy

* Bold denotes operations in Montana
' All **Negative** values left out of calculations

INDUSTRY MARKET STRUCTURE:						
	ALL		Passenger Airlines		Freight	
EQUITY	68.37%	132,919,567	40.40%	32,632,742	88.25%	100,286,825
DEBT	31.63%	61,498,400	59.60%	48,139,700	11.75%	13,358,700
TOTAL	100.00%	194,417,967	100.00%	80,772,442	100.00%	113,645,525

Notes/Rational for Changes to Guideline Companies

2013 Notes

AMR Corp in Bankruptcy
Mesa Air Group emerged from bankruptcy as a private company
Great Lakes Airlines data was no longer in ValueLine trading below $1
Pinnacle Airlines Corp no longer current in ValueLine trading below $1

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure from Value Line and YaHoo Finance
Industry: Airlines
2013 Assessment Year

A	B	M	N	O	P	Q	R	S	T	U	V	W	X	Y
Company	Ticker Symbol	(YAHOO) EPS	(YAHOO) E/P M/E	(VL) EPS	(VL) E/P O/E	(VL) CF/S 2012	(VL) CF/P Q/E	(YAHOO) P/E	(YAHOO) Inverse of P/E 1/S	(VL) P/E	(VL) Inverse of P/E 1/U	(VL) Median P/E	(VL) Inverse of Median P/E 1/W	(VL) Beta
AMR Corp.	AAMRQ	**(9.64)**	**(1,853.85%)**	(2.91)	**(559.62%)**			**(0.08)**	**(1,311.56%)**					1.60
Allegiant Travel	**ALGT**	**3.85**	**5.36%**	**4.20**	**5.84%**	**6.75**	**9.39%**	**19.36**	**5.17%**	**15.97**	**6.26%**			**0.75**
Alaska Air Group	**ALK**	**4.64**	**11.55%**	**4.75**	**11.82%**	**8.50**	**21.15%**	**9.40**	**10.64%**	**9.31**	**10.74%**	**31.00**	**3.23%**	**1.10**
Delta Air Lines	**DAL**	**1.68**	**16.56%**	**1.80**	**17.75%**	**3.65**	**35.98%**	**6.41**	**15.59%**	**6.63**	**15.08%**			**1.40**
JetBlue Airways	JBLU	0.47	8.97%	0.45	8.59%	1.45	27.67%	11.73	8.52%	11.94	8.38%			1.25
US Airways Group	LCC	3.31	27.06%	2.69	22.00%	5.30	43.34%	3.89	25.74%	5.15	19.42%			1.60
Southwest Airlines	LUV	0.65	6.94%	0.55	5.88%	1.70	18.16%	15.41	6.49%	17.89	5.59%	30.00	**3.33%**	1.00
Republic Airways Holdings Inc	**RJET**	**(1.75)**	**(33.49%)**	**0.93**	**17.80%**			**(3.20)**	**(31.22%)**					**0.90**
Spirit Airlines	SAVE	1.55	9.05%	1.60	9.34%	2.25	13.13%	11.12	8.99%	**10.13**	**9.87%**			
SkyWest	**SKYW**	**0.38**	**3.33%**	**0.95**	**8.32%**	**6.25**	**54.75%**	**31.79**	**3.15%**	**11.83**	**8.45%**	**11.00**	**9.09%**	**1.15**
United Cont'l Hldgs.	UAL	(0.80)	(3.84%)	3.64	17.45%	6.50	31.17%	(27.36)	(3.66%)	10.43	9.59%			1.60
Atlas Air Worldwide	AAWW	4.19	8.94%	4.70	10.03%	6.80	14.51%	10.40	9.61%	9.62	10.40%			1.65
Air T Inc	**AIRT**	**0.50**	**5.93%**	**0.26**	**3.08%**			**16.66**	**6.00%**			**11.00**	**9.09%**	**0.70**
Air Transport Services Grp.	ATSG	0.65	16.62%	0.58	14.83%			5.87	17.04%					1.85
FedEx Corp.	**FDX**	**6.23**	**6.91%**	**6.18**	**6.85%**	**13.08**	**14.51%**	**14.72**	**6.79%**	**14.92**	6.70%	**18.00**	**5.56%**	**1.00**
United Parcel Serv.	**UPS**	**3.38**	**4.64%**	**4.60**	**6.31%**	**6.60**	**9.05%**	**21.92**	**4.56%**	**15.91**	**6.29%**	**20.00**	**5.00%**	**0.85**

SUMS & AVERAGES							
ALL	10.14%	11.06%	24.40%	9.87%	9.73%	5.88%	1.23
PASSENGER AIRLINES	11.10%	12.48%	28.31%	10.54%	10.38%	5.22%	1.24
MEDIAN OF PASSENGER AIRLINES	9.01%	10.58%	27.67%	8.76%	9.59%	3.33%	1.20
FREIGHT CARRIERS	8.61%	8.22%	12.69%	8.80%	7.79%	6.55%	1.21
MEDIAN OF FREIGHT CARRIERS	6.91%	6.85%	14.51%	6.79%	6.70%	5.56%	1.00

FOREIGN CARRIERS -British Air, World Air Holdings & WestJet Airlines Ltd.
Data not used because of outliers and bankruptcy

Overall Industry Beta = 1.23
Passenger Beta = 1.24
Freight Beta = 1.21

* Bold denotes operations in Montana
' All **Negative** values left out of calculations

Notes/Rational for Changes to Guideline Companies
2013 Notes
AMR Corp in Bankruptcy
Mesa Air Group emerged from bankruptcy as a private co
Great Lakes Airlines data was no longer in ValueLine tradi
Pinnacle Airlines Corp no longer current in ValueLine tradi

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Airlines
2013 Assessment Year

$$K_E = D1 / P_O + G_A$$

KE= Cost of Equity
D1= Expected Dividends
Po= Current Price Per Share
G= Sustainable Growth

Scheduled Passenger Airlines

Company Name	Ticker	Stock Price (Po)	Expected Dividend 1 Year	Dividend Yield (D1/P0)	Dividend Growth (G_1)	Ke 1 Year
Allegiant Travel	**ALGT**	**71.86**	**Nil**		**Nil**	
Alaska Air Group	**ALK**	**40.18**	**Nil**		**NMF**	
AMR Corp.	AAMRQ	0.52	**---**		**---**	
Delta Air Lines	**DAL**	**10.14**	**Nil**		**Nil**	
JetBlue Airways	JBLU	5.24	Nil		Nil	
Southwest Airlines	LUV	9.36	0.04	0.43%	13.00%	13.43%
US Airways Group	LCC	12.23	Nil		Nil	
Republic Airways Holdings Inc	**RJET**	**5.23**	**---**		**---**	
Spirit Airlines	SAVE	17.13	Nil		NMF	
SkyWest	**SKYW**	**11.42**	**0.16**	**1.40%**	**4.00%**	**5.40%**
United Cont'l Hldgs.	**UAL**	**20.86**	**Nil**		**NMF**	
Totals		18.560	0.100	0.5%	8.5%	9.04%
					Median=	9.41%
					Mean=	9.41%

Cost of Equity - Domestic, (K_E) = 9.50%

Scheduled Freight Airlines

Company Name	Ticker	Stock Price (Po)	Expected Dividend 1 Year	Dividend Yield (D1/P0)	Dividend Growth (G_1)	Ke 1 Year
Atlas Air Worldwide	AAWW	46.86	Nil		**Nil**	
Air T Inc	**AIRT**	**8.43**	**---**		**---**	
Air Transport Services Grp.	ATSG	3.91	**---**		**---**	
FedEx Corp	**FDX**	**90.17**	**0.56**	**0.62%**	**7.00%**	**7.62%**
United Parcel'B'	**UPS**	**72.90**	**2.60**	**3.57%**	**7.50%**	**11.07%**
Totals		44.454		0.0%	7.3%	7.25%
					Median=	9.34%
					Mean=	9.34%

Cost of Equity - Freight, (K_E) = 9.40%

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model
Industry: Airlines
2013 Assessment Year

$$K_E = R_F + \beta\ (R_M - R_F)$$

	Passenger	Freight
K_E = Cost of Equity	**11.04%**	**10.88%**
R_F = Risk Free Rate	2.95%	2.95%
β= Beta	1.24	1.21
R_M = Market Rate of Return	9.50%	9.50%
R_P = Equity Risk Premium (RM - RF)	6.55%	6.55%

R_m = Investor's Market Rate of Return

Ibbotson, SBBI, Large Company, Average Annual Return, ***Arithmetic** Average, Ex-Post	R_M=	11.80%
Ibbotson, SBBI, Large Company, Average Annual Return, ***Geometric** Average, Ex-Post	R_M=	9.80%
3 Stage Dividend Growth Model, S & P 500, See Exhibit, Ex Ante	R_M=	9.00%
	Mean =	10.20%
	Median =	9.80%
	R_M=	**9.50%**

R_f = Risk Free Rate

Internal Revenue Service, Rev Rule 2012-31 Table 2 December 3, 2012

Rev Rule 2012-31 Table 2

Annual Rates	Short Term - AFR	R_f = 0.27%
	Mid Term - AFR	R_f = 0.95%
	Long Term - AFR	R_f = 2.83%

The ValueLine Investment Survey

U.S. Treasury Securities January 4, 2013

3 Month	R_f = 0.08%
6 Month	R_f = 0.13%
1 Year	R_f = 0.15%

Federal Reserve Statistical Release

Treasury constant Maturities, December 31, 2012

Market yield on U.S. Treasury securities, Annual Averages

3-month constant maturity, quoted on investment basis	R_f = 0.05%
6-month constant maturity, quoted on investment basis	R_f = 0.11%
1-year constant maturity, quoted on investment basis	R_f = 0.16%
	Mean = 0.53%
	Median = 0.15%
	Weighted Mean = 0.68%

U.S. Treasury Securities Long-Term December 31, 2012

20 year constant maturity	R_f = **2.54%**
30 year constant maturity	R_f = **2.95%**

R_f = 2.95%

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Airlines
2013 Assessment Year

Ticker	Company		Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	4th Qtr Avg.	Annual Avg.	Yahoo P-E	Yahoo EPS lst 12 mo
AAMRQ	AMR Corp.	high	$0.74	$0.83	$0.53	$0.60	$0.58	$0.58	$0.56	$0.53	$0.50	$0.40	$0.53	$0.99	$0.52	$0.51	(0.08)	(9.64)
		low	$0.24	$0.50	$0.40	$0.46	$0.45	$0.44	$0.48	$0.44	$0.36	$0.36	$0.36	$0.48				
AAWW	Atlas Air Worldwide	high	$47.93	$52.44	$50.59	$50.65	$53.12	$47.37	$47.65	$54.72	$57.00	$55.04	$49.90	$45.99	$46.86	$46.96	10.40	4.19
		low	$38.22	$40.94	$40.94	$43.75	$44.19	$39.98	$41.18	$44.52	$50.66	$49.73	$39.30	$41.18				
AIRT	Air T Inc	high	$9.23	$9.41	$9.60	$9.77	$9.67	$9.47	$8.88	$8.80	$8.68	$8.78	$8.80	$8.54	$8.43	$8.75	16.66	0.50
		low	$8.22	$8.44	$9.05	$9.34	$9.00	$8.03	$8.07	$8.07	$7.76	$8.28	$8.08	$8.12				
ALGT	Allegiant Travel	high	$55.85	$57.76	$55.68	$63.59	$65.14	$71.42	$75.93	$70.99	$67.70	$72.98	$76.21	$77.97	$71.86	$63.78	19.36	3.85
		low	$51.56	$48.00	$47.32	$54.20	$59.03	$61.76	$67.77	$64.32	$61.63	$63.40	$69.50	$71.09				
ALK	Alaska Air Group	high	$38.58	$39.77	$36.31	$36.62	$34.55	$36.50	$38.46	$35.58	$35.94	$38.59	$43.07	$45.15	$40.18	$36.40	9.40	4.64
Split 2 for 1 March 19		low	$35.45	$33.69	$34.41	$33.40	$31.29	$32.16	$34.00	$33.09	$32.69	$34.57	$37.65	$42.05				
ATSG	Air Transport Services Grp.	high	$6.13	$6.88	$5.86	$5.88	$5.80	$5.32	$5.75	$4.89	$4.80	$4.56	$4.12	$4.04	$3.91	$4.89	5.87	0.65
		low	$4.71	$5.43	$5.08	$4.94	$4.92	$4.67	$4.65	$3.88	$4.35	$3.78	$3.38	$3.59				
DAL	Delta Air Lines	high	$10.88	$11.58	$10.28	$11.12	$12.25	$12.04	$11.25	$9.93	$9.70	$10.49	$10.50	$12.05	$10.14	$10.08	6.41	1.68
		low	$7.83	$9.40	$9.07	$9.78	$10.03	$9.89	$9.08	$8.46	$8.42	$9.11	$9.21	$9.50				
FDX	FedEx Corp.	high	$93.52	$97.19	$96.89	$92.85	$91.43	$92.31	$93.17	$91.12	$90.92	$94.26	$93.98	$95.44	$90.17	$89.69	14.7215	6.23
		low	$82.79	$89.42	$88.03	$86.20	$84.86	$83.80	$86.22	$86.87	$83.92	$84.21	$85.15	$87.99				
GLUX	Great Lakes Aviation	high	$0.75	$1.09	$1.60	$1.40	$1.39	$1.63	$1.60	$1.69	$1.68	$1.65	$3.01	$2.46	$1.80	$1.37	1.45	1.31
		low	$0.65	$0.75	$0.76	$1.01	$1.10	$1.25	$1.09	$1.09	$1.50	$1.15	$1.15	$1.35				
HA	Hawaiian Hldgs.	high	$6.98	$6.81	$5.47	$5.89	$5.90	$6.66	$7.00	$6.60	$6.00	$6.02	$6.29	$6.86	$6.01	$5.89	4.36	1.49
		low	$5.19	$5.16	$4.92	$4.92	$5.18	$5.45	$5.83	$5.76	$5.56	$5.16	$5.60	$6.14				
JBLU	JetBlue Airways	high	$5.97	$6.32	$5.39	$4.95	$5.24	$5.44	$5.94	$5.43	$5.18	$5.36	$5.48	$5.99	$5.24	$5.17	11.73	0.47
		low	$5.04	$4.76	$4.73	$4.60	$4.06	$4.86	$5.12	$4.85	$4.76	$4.77	$4.80	$5.04				
JLWT	Janel World Trade Ltd	high	$0.15	$0.12	$0.19	$0.15	$0.10	$0.10	$0.06	$0.08	$0.08	$0.07	$0.07	$0.15	$0.08	$0.09	(1.75)	(0.06)
		low	$0.09	$0.09	$0.10	$0.10	$0.10	$0.06	$0.06	$0.04	$0.03	$0.04	$0.06	$0.06				
LCC	US Airways Group	high	$8.79	$9.91	$7.97	$10.44	$13.36	$13.80	$14.51	$11.75	$12.48	$12.63	$13.19	$13.75	$12.23	$10.57	3.89	3.31
		low	$4.97	$6.90	$6.78	$7.41	$9.65	$11.12	$10.59	$9.74	$10.15	$10.32	$11.52	$11.97				
LUV	Southwest Airlines	high	$9.78	$10.05	$9.11	$8.50	$9.14	$9.42	$9.82	$9.53	$9.32	$9.17	$9.58	$10.61	$9.36	$9.00	15.41	0.65
		low	$8.22	$8.67	$8.03	$7.76	$8.00	$8.58	$8.45	$8.81	$8.75	$8.68	$8.70	$9.42				
PNCLQ	Pinnacle Airlines Corp	high	$1.85	$1.53	$1.61	$0.74	$0.45	$0.11	$0.08	$0.06	$0.06	$0.03	$0.03	$0.06	$0.03	$0.42	(0.02)	(1.70)
		low	$0.72	$1.06	$1.12	$0.28	$0.06	$0.07	$0.05	$0.02	$0.02	$0.02	$0.01	$0.01				
RJET	Republic Airways Holdings Inc	high	$5.71	$6.33	$5.50	$5.26	$5.44	$5.89	$5.97	$5.39	$5.07	$5.28	$5.89	$5.95	$5.23	$5.09	(3.20)	(1.75)
		low	$3.39	$5.00	$4.49	$4.71	$4.68	$5.25	$4.32	$4.09	$4.30	$4.56	$4.41	$5.26				
SAVE	Spirit Airlines	high	$17.19	$19.96	$20.70	$24.23	$24.75	$21.00	$23.13	$20.95	$19.93	$17.99	$18.00	$18.00	$17.13	$18.88	11.12	1.55
		low	$13.90	$16.33	$18.45	$19.22	$19.77	$17.41	$18.60	$19.01	$15.85	$16.68	$15.64	$16.47				
SKYW	SkyWest	high	$14.02	$14.32	$11.71	$11.28	$10.44	$7.10	$8.16	$8.99	$11.73	$11.71	$11.91	$12.98	$11.42	$10.17	31.79	0.38
		low	$12.53	$11.36	$10.77	$8.52	$6.91	$6.25	$6.50	$6.25	$8.77	$9.90	$10.81	$11.18				

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Airlines
2013 Assessment Year

Ticker	Company		Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	4th Qtr Avg.	Annual Avg.	Yahoo P-E	Yahoo EPS lst 12 mo
UAL	United Cont'l Hldgs.	high	$23.48	$25.84	$22.54	$23.77	$25.50	$25.22	$24.95	$19.99	$20.85	$21.74	$21.65	$24.23	$20.86	$21.29	(27.36)	(0.80)
		low	$17.25	$19.96	$19.13	$20.55	$20.84	$21.85	$18.58	$17.45	$17.98	$18.85	$19.12	$19.54				
UPS	United Parcel Serv.	high	$76.93	$77.55	$81.79	$80.97	$78.91	$78.76	$80.53	$76.88	$75.25	$74.14	$74.50	$76.20	$72.90	$75.35	21.92	3.38
		low	$72.15	$75.46	$75.38	$76.56	$73.56	$72.15	$73.51	$73.57	$71.18	$71.02	$69.56	$71.96				
UTIW	Uti Worldwide Inc	high	$16.07	$16.51	$17.92	$17.91	$17.61	$15.80	$15.26	$14.62	$14.99	$14.47	$14.32	$14.19	$13.61	$14.80	25.00	0.53
		low	$13.22	$14.53	$15.15	$16.05	$15.25	$13.79	$13.03	$12.66	$13.15	$13.35	$13.00	$12.31				
WJA.TO	WestJet Airlines Ltd.	high	$12.55	$14.11	$14.13	$14.79	$15.90	$16.17	$17.18	$17.13	$17.80	$18.26	$19.34	$20.21	$18.53	$15.73	12.24	1.59
		low	$11.22	$12.46	$13.13	$13.05	$14.29	$14.56	$15.67	$15.87	$16.31	$17.09	$17.55	$18.71				

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Airlines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
United Parcel Service of Amer	8.38	911308AA2	Deb	4/1/2020	A+	5.94	5.98	6.12	5.94	5.99	6.01	5.96	5.99	6.05	6.05	6.06	6.10	6.02%	6.07%
FedEx Corp	8		Nts	1/15/2019	BBB	6.08	6.09	6.19	6.09	6.02	6.07	6.02	6.00	5.99	6.02	6.02	6.07	6.06%	6.04%
FedEx Corp	2.625		Gtd NTs	8/01/20222	BBB										2.61	2.59	2.64	2.61%	2.61%
Federal Express	9.65	313309AJ5	Nt	6/15/2012	BBB-	9.34	9.42	9.47	9.54	9.63								9.48%	
FedEx Corp	3.7875		Gtd NTs	8/1/2042	BBB										3.76	3.85	3.96	3.86%	3.86%
Federal Express	7.6	313309AP1	Nts	7/1/2097	BBB-	5.52	5.69	5.97	5.80	5.58	5.22	5.05	5.04	5.25	4.76	4.76	4.92	5.30%	4.81%
Southwest Airlines Co.	6.5	844741AV0	Nts	03/01/2012	BBB-	6.47	6.50											6.49%	
Southwest Airlines Co.	5.25	844741AW8	Nts	10/01/2014	BBB-	4.89	4.91	4.88	4.88	4.89	4.84	4.85			4.90	4.91	4.93	4.89%	4.91%
Southwest Airlines Co.	5.75	844741AY4	Nts	12/15/2016	BBB-	5.15	5.18	5.24	5.16	5.18	5.19	4.96	4.96	4.98	5.06	5.06	5.08	5.10%	5.07%
Southwest Airlines Co.	5.12	844741AX6	Nts	03/01/2017	BBB-	4.72	4.76	4.81	4.67	4.66	4.67	4.65	4.63	4.58	4.60	4.60	4.63	4.67%	4.61%
Southwest Airlines Co.	7.375	844741AN8	Deb	03/01/2027	BBB-	6.44	6.49	6.65	6.79	6.35	6.43	6.30	6.25	6.34	6.07	6.08	6.33	6.38%	6.16%
Delta Air Lines, Inc.	9.5		Sr Second Nt 144a	09/15/2014	BB-	8.92	8.86	8.92	8.94	9.03	8.99	9.02	9.05	9.05	9.05	9.07	9.07	9.00%	9.06%
Delta Air Lines, Inc.	12.25		Sr 2nd Lien Nt 144a	09/15/2015	B+	11.50	11.37	11.37	11.26	11.34	11.26	11.29	11.26	11.29	11.23			11.32%	11.23%
JetBlue Airways Corp.	5.5		Deb Conv Ser A	9/15/2038	CCC		4.31	4.43	4.54	4.30	4.26	4.13	4.50	4.55	4.28	4.37	4.09	4.34%	4.25%
AMR Corp.	9	001765AU0	Deb	08/01/2012	D	31.03	31.58	21.30	18.55	19.78	16.21	14.52						21.85%	
AMR Corp.	9	001765AC0	Deb	09/15/2016	D	31.03	31.58	21.17	18.55	19.56	15.85	14.45	15.25	13.95	14.34	13.63	11.25	18.38%	13.07%
AMR Corp.	10.2	001765AE6	Deb	03/15/2020	D	37.09	36.43	23.72	21.47	22.17	18.54	16.51	17.58	16.06	16.72	15.69	12.91	21.24%	15.11%
AMR Corp.	10	001765AK2	Deb	04/15/2021	D	36.36	35.71	22.67	21.05	21.97	18.18	16.19	17.24	15.74	16.39	15.38	12.65	20.79%	14.81%
AMR Corp.	9.88	001765AG1	Deb	06/15/2020	NR	35.93	35.29	24.70	20.80	21.71	17.96	16.00	17.03	15.55	16.19	15.20	12.50	20.74%	14.63%
AMR Corp.	9.75	001765AP1	Deb	08/15/2021	NR	35.45	34.82	24.37	20.52	21.42	17.72	15.78	16.81	15.35	15.98	15.00	12.34	20.46%	14.44%
AMR Corp.	9.8	001765AQ9	Deb	10/01/2021	NR	35.64	35.00	23.90	20.63	21.53	17.81	15.87	16.89	15.43	16.06	15.07	12.40	20.52%	14.51%
United Air Lines	9.875		Sr Secd Nt 144a	8/1/2012	NR	9.45	9.38		9.45	9.59	9.58	9.54	9.63	9.65	9.68	9.77	9.82	9.59%	9.76%
United Air Lines	10.36	909279AQ4	Eq Tr '91E	11/27/2012	NR	13.54	13.54	13.54	13.54									13.54%	
United Air Lines	10.85	909279AH4	Eq Tr '91B	02/19/2015	NR	24.66	24.66	24.66	24.66									24.66%	
			Counts of data			21	22	20	21	19	18	18	16	16	19	18	18	24	19

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called
means 20 year plus bond
longest term passenger bonds

	ALL		Freight Only		Passenger Only	
	Annual	4th Qtr	Annual	4th Qtr	Annual	4th Qtr
BBB's	5.53%	4.90%	5.55%	4.68%	5.50%	5.19%
BB's	9.00%	9.06%			9.00%	9.06%
CCC - NR	17.83%	12.57%			17.83%	12.57%
ALL	11.55%	8.68%	5.55%	4.68%	13.55%	10.12%
BBB- & Above	5.53%	4.90%	5.55%	4.68%	5.50%	5.19%
BB- & Above	5.82%	5.32%	5.55%	4.68%	6.09%	5.96%

**Investment Grade (BBB- & Above)*

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Airlines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
United Parcel Service of Amer	8.38	911308AA2	Deb	4/1/2020	A+	2.74	2.82	3.13	2.62	2.71	2.72	2.55	2.56	2.70	2.64	2.63	2.69	2.71%	2.65%
Federal Express	9.65	313309AJ5	Nt	6/15/2012	BBB	0.86		0.73	1.53									1.04%	
FedEx Corp	8		Nts	1/15/2019	BBB	2.88	2.98	3.26	2.95	2.77	2.90	2.10	2.05	2.02	2.12	2.10	2.29	2.54%	2.17%
FedEx Corp	2.625		Gtd NTs	8/1/2022	BBB										2.56	2.49	2.68	2.58%	2.58%
FedEx Corp	3.7875		Gtd NTs	8/1/2042	BBB										3.71	3.83	4.00	3.85%	3.85%
Federal Express	7.6	313309AP1	Nts	7/1/2097	BBB-	5.51	5.69	5.96	5.79	5.56	5.19	5.03	5.01	5.23	4.73	4.72	4.90	5.28%	4.78%
Southwest Airlines Co.	6.5	844741AV0	Nts	03/01/2012	BBB-	1.43												1.43%	
Southwest Airlines Co.	5.25	844741AW8	Nts	10/01/2014	BBB-	2.41	2.50	2.15	2.07	2.09	1.48	1.38	1.38	1.60	1.55	1.51	1.51	1.80%	1.52%
Southwest Airlines Co.	5.75	844741AY4	Nts	12/15/2016	BBB-	3.15	3.29	3.50	3.11	3.14	3.15	1.95	1.89	1.91	2.27	2.23	2.27	2.66%	2.26%
Southwest Airlines Co.	5.12	844741AX6	Nts	03/01/2017	BBB-	3.31	3.45	3.66	2.95	2.89	2.90	2.75	2.59	2.32	2.37	2.33	2.41	2.83%	2.37%
Southwest Airlines Co.	7.375	844741AN8	Deb	03/01/2027	BBB-	5.90	5.98	6.24	6.46	5.74	5.87	5.65	5.56	5.70	5.23	5.24	5.66	5.77%	5.38%
Delta Air Lines, Inc.	9.5		sr Secnd Nt 144a	09/15/2014	BB-	7.03	6.75	7.03	6.09	6.61	6.42	6.54	6.75	6.75	6.76	6.88	6.86	6.71%	6.83%
Delta Air Lines, Inc.	12.25		Sr 2nd Lien Nt 144a	09/15/2015	B+	9.65	9.18	9.18	8.81	9.08	8.81	8.89	8.81	8.89	7.19			8.85%	7.19%
JetBlue Airways Corp.	5.5		Deb Conv Ser A	9/15/2038	CCC		3.83	4.03	4.17	3.78	3.73	3.54	4.10	4.17	3.77	3.90	3.46	3.86%	3.71%
AMR Corp.	9	001765AU0	Deb	08/01/2012	D	49.99							26.97					38.48%	
AMR Corp.	9	001765AC0	Deb	09/15/2016	D	49.71	49.99	33.60	34.23	34.65	27.30	23.85		23.14	24.38	22.84	16.39	30.92%	21.20%
AMR Corp.	10.2	001765AE6	Deb	03/15/2020	D	43.78	43.12	29.40	26.43	26.70	22.85	20.24	21.78	19.74	20.73	19.33	15.06	25.76%	18.37%
AMR Corp.	10	001765AK2	Deb	04/15/2021	D	41.41	40.77	27.81	24.86	25.29	21.62	19.19	20.59	18.71	19.62	18.32	14.41	24.38%	17.45%
AMR Corp.	9.88	001765AG1	Deb	06/15/2020	NR	42.85	42.19	28.79	25.87	26.14	22.14	19.59	21.06	19.09	20.07	18.72	14.59	25.09%	17.79%
AMR Corp.	9.75	001765AP1	Deb	08/15/2021	NR	36.36	38.75	27.32	24.13	24.85	21.01	18.65	20.01	18.17	19.04	17.78	14.01	23.34%	16.94%
AMR Corp.	9.8	001765AQ9	Deb	10/01/2021	NR	39.50	38.89	26.49	24.13	24.93	21.00	18.64	19.99	18.18	19.04	17.78	14.03	23.55%	16.95%
United Air Lines	9.875		Sr Secd Nt 144a	8/1/2013	NR	7.37	4.40	4.65	5.14	6.67	6.55	6.16	7.19	7.45	7.72	8.65	9.26	6.77%	8.54%
United Air Lines	10.36	909279AQ4	Eq Tr '91E	11/27/2012	NR	16.22	16.22	16.22	16.22									16.22%	
United Air Lines	10.85	909279AH4	Eq Tr '91B	02/19/2015	NR	28.84	28.84	28.84	28.84									28.84%	
			Counts of data			21	19	20	20	17	17	17	17	17	19	18	18	24	19

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called
means 20 year plus bond
longest term passenger bonds

	ALL		Freight Only		Passenger Only		20 YEAR PLUS BONDS: Freight Only		20 YEAR PLUS BONDS: Passenger Only	
	Annual	4th Qtr	Annual	4th Qtr	Annual	4th Qtr	Annual	4th Qtr	Annual	4th Qtr
BBB's	2.95%	3.06%	3.00%	3.21%	2.90%	2.88%	4.56%	4.32%	5.77%	2.69%
BB's	6.71%	6.83%			6.71%	6.83%				
CCC - NR	22.47%	15.12%			22.47%	15.12%			3.86%	3.71%
ALL	12.30%	8.56%	3.00%	3.21%	15.40%	10.47%	4.56%	4.32%	4.82%	4.54%
BBB- & Above	2.95%	3.06%	3.00%	3.21%	2.90%	2.88%	4.56%	4.32%	5.77%	5.38%
BB- & Above	3.26%	3.44%	3.00%	3.21%	3.53%	3.67%				

**Investment Grade (BBB- & Above)*

2013 Capitalization Rate Study

Electric Utilities

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Electric Utilities - Regulated
2013 Assessment Year

Equity Measures Calculated:

E/P estimates:

All	Western	
6.45%	6.82%	Yahoo
6.47%	6.55%	Value Line
6.46%	6.69%	Average of E/Ps

Inverse of P/E Ratios:

6.50%	6.86%	Yahoo
6.55%	6.53%	Value Line
6.53%	6.70%	Average of Inverse of the P/E
6.55%	6.31%	Inverse of median P/E, Value Line
6.49%	6.69%	Average of all above except median P/E
Mean = 6.50%	6.61%	
Median = 6.50%	6.55%	

Equity Measure NUOI = 6.60%

Debt Measures Calculated, Current Yield:

	Annual	4th Qtr	
	5.29%	5.15%	ALL
	5.13%	4.99%	BBB- & Above
	5.18%	5.04%	BB- & Above
Mean =	5.20%	5.06%	
Median =	5.18%	5.04%	

Debt Measure = 5.30%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	57.00%	x	6.60%	=	3.76%
Debt	43.00%	x	5.30%	=	2.28%
	100.00%				6.04%
Direct Cap Rate NUOI =					**6.25%**

Gross Cash Flow / Price:

All	Western	
15.18%	15.67%	Value Line

Equity Measure Gross = 15.20%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	57.00%	x	15.20%	=	8.66%
Debt	43.00%	x	5.30%	=	2.28%
	100.00%				10.94%
Direct Cap Rate GCF =					**11.00%**

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Electric Utility - Exempt Wholesale Generators
2013 Assessment Year

Equity Measures Calculated:

E/P estimates:

All	B++	
5.72%	6.20%	Yahoo
6.92%	8.02%	Value Line
6.32%	7.11%	Average of E/Ps

Inverse of P/E Ratios:

5.68%	6.23%	Yahoo
6.98%	7.92%	Value Line
6.33%	7.07%	Average of Inverse of the P/E
7.27%	7.18%	Inverse of median P/E, Value Line
6.32%	7.09%	Average of all above except median P/E
6.51%	7.11%	Mean =
6.92%	7.18%	Median =

Equity Measure NUOI = 8.00%

Debt Measures Calculated, Current Yield:

Annual	4th Qtr	
5.29%	5.15%	ALL
5.13%	4.99%	BBB- & Above
5.18%	5.04%	BB- & Above
5.20%	5.06%	Mean =
5.18%	5.04%	Median =

Debt Measure = 5.30%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	54.00%	x	8.00%	=	4.32%
Debt	46.00%	x	5.30%	=	2.44%
	100.00%				6.76%
Direct Cap Rate NUOI =					**7.00%**

Gross Cash Flow / Price:

All	B++	
17.20%	17.14%	Value Line

Equity Measure Gross = 18.00%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	54.00%	x	18.00%	=	9.72%
Debt	46.00%	x	5.30%	=	2.44%
	100.00%				12.16%
Direct Cap Rate GCF =					**12.25%**

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Study
Industry: Electric Utilities
2013 Assessment Year

Equity Measures Calculated:		**All**	**Western**	**Wholesale Generators**
Dividend Growth Model		10.00%	10.70%	9.30%
Capital Asset Pricing Model		7.93%	7.80%	8.85%
	Mean =	8.96%	9.25%	9.07%
	Equity Measure FCF =	**9.00%**	**9.10%**	**9.50%**

Debt Measures Calculated, Yield to Maturity:

	ALL DEBT		**20 YEAR PLUS DEBT**	
	Annual	**4th Qtr**	**Annual**	**4th Qtr**
ALL	3.28%	3.30%	4.63%	4.49%
BBB- & Above	2.95%	2.92%	4.47%	4.31%
BB- & Above	3.00%	2.98%	4.52%	4.36%
Mean =	3.08%	3.07%	4.54%	4.38%
Median =	3.00%	2.98%	4.52%	4.36%

Debt Measure = 4.30%

Yield Cap Rate Free Cash Flow - Electric Utilities						
Equity	57.00%	x	9.10%	=	5.19%	
Debt	43.00%	x	4.30%	=	1.85%	
	100.00%				7.04%	
Weighted Average Cost of Capital (WACC) =						**7.25%**

Yield Cap Rate Free Cash Flow - Wholesale Generators						
Equity	54.00%	x	9.50%	=	5.13%	
Debt	46.00%	x	4.30%	=	1.98%	
	100.00%				7.11%	
Weighted Average Cost of Capital (WACC) =						**7.25%**

Where Assumed Growth Rate = Inflation **Growth = 2.00%**

see appendix for calculation		2.47%
Inflationdata.com	1/16/2013	1.74%

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Electric Utilities - Regulated
2013 Assessment Year

A	B	C	D	E	F	G	H	I	J	K	L	M
Company	Ticker Symbol	(VL) Financial Strength	(VL) Shares	(YAHOO) Avg. Price Common 4th Quarter	(VL) Book Value Per Share	Mkt. Value Common DxE	(VL) Book Value Common	(VL) Book Value Preferred	Mkt. Value Preferred IxL	(VL) Book Value Debt	Mkt/Book Debt Ratio	Mkt. Value Debt KxL
MDU Resources Group	MDU	A+	188,800	21.23	14.62	4,007,909	2,760,600	15,000	15,000	1,285,400	1.00	1,285,400
Alliant Energy	LNT	A	111,000	44.06	27.14	4,891,030	3,013,000	205,100	205,100	2,703,100	1.00	2,703,100
OGE Energy	OGE	A	98,100	56.70	26.13	5,562,597	2,563,300	0	0	2,737,100	1.00	2,737,100
Avista Corp.	**AVA**	**A**	**58,400**	**24.67**	**20.30**	**1,440,436**	**1,185,700**	**0**	**0**	**1,254,200**	**1.00**	**1,254,200**
Pinnacle West Capital	**PNW**	**B++**	**109,200**	**51.87**	**35.00**	**5,664,204**	**3,821,900**	**0**	**0**	**3,019,100**	**1.00**	**3,019,100**
Xcel Energy Inc.	**XEL**	**B++**	**486,500**	**27.28**	**17.44**	**13,270,098**	**8,482,200**	**0**	**0**	**8,848,500**	**1.00**	**8,848,500**
Portland General	**POR**	**B++**	**75,400**	**27.00**	**22.06**	**2,035,800**	**1,663,000**	**0**	**0**	**1,635,000**	**1.00**	**1,635,000**
NorthWestern Corp.	NWE	B+	36,300	35.07	23.67	1,272,860	859,100	0	0	938,000	1.00	938,000
Black Hills	**BKH**	**B+**	**43,900**	**35.63**	**27.55**	**1,564,011**	**1,209,300**	**0**	**0**	**1,280,400**	**1.00**	**1,280,400**
G't Plains Energy	GXP	B+	136,100	21.32	21.75	2,901,425	2,959,900	39,000	39,000	2,742,300	1.00	2,742,300
IDACORP Inc.	**IDA**	**B+**	**50,000**	**43.39**	**33.15**	**2,169,333**	**1,657,700**	**0**	**0**	**1,387,600**	**1.00**	**1,387,600**
UNS Energy	**UNS**	**B+**	**36,900**	**41.77**	**24.08**	**1,541,436**	**888,500**	**0**	**0**	**1,870,100**	**1.00**	**1,870,100**
NV Energy Inc.	**NVE**	**B**	**236,000**	**18.35**	**14.43**	**4,331,387**	**3,406,100**	**0**	**0**	**5,008,900**	**1.00**	**5,008,900**
PNM Resources	**PNM**	**B**	**79,700**	**21.15**	**19.60**	**1,685,522**	**1,562,500**	**11,500**	**11,500**	**1,671,600**	**1.00**	**1,671,600**
SUMS & AVGS - ALL COMPANIES						52,338,048	36,032,800	270,600	270,600	36,381,300		36,381,300
SUMS & AVGS - B++ & ABOVE COMPANIES						36,872,075	23,489,700	220,100	220,100	21,482,400		21,482,400
SUMS & AVGS - B+ & ABOVE COMPANIES						46,321,139	31,064,200	259,100	259,100	29,700,800		29,700,800
SUMS & AVGS - WESTERN COMPANIES						34,975,087	24,736,000	11,500	11,500	26,913,400		26,913,400

'AVA, BKH, IDA, PNM, PNW, POR, UNS, & NVE

Preferred stock is grouped with debt.
* All **Negative** values left out of calculations

Notes/Rational for Changes to Guideline Companies
2013 - No changes to Guideline Companies

INDUSTRY MARKET STRUCTURE								
	ALL COMPANIES		B++ COMPANIES		B+ & ABOVE COMPANIES		WESTERN COMPANIES***	
EQUITY	59.00%	52,338,048	63.00%	36,872,075	61.00%	46,321,139	57.00%	34,975,087
DEBT	41.00%	36,651,900	37.00%	21,702,500	39.00%	29,959,900	43.00%	26,924,900
TOTAL	100.00%	$88,989,948	100.00%	58,574,575	100.00%	76,281,039	100.00%	$61,899,987

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Electric Utilities - Regulated
2013 Assessment Year

A	B	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
Company	Ticker Symbol	(YAHOO) EPS ltst 12mo	(YAHOO) E/P N/E	(VL) EPS	(VL) E/P P/E	(VL) CF/S	(VL) CF/P R/E	(YAHOO) P/E	(YAHOO) Inverse of P/E 1/T	(VL) P/E	(VL) Inverse of P/E 1/V	(VL) Median P/E	(VL) Inverse of Median P/E 1/X	(VL) Industry Group	(VL) Beta
MDU Resources Group	MDU	0.64	3.01%	1.20	5.65%	3.00	14.13%	32.99	3.03%	14.88	6.72%	14.00	7.14%	GASDIVRS	1.00
Alliant Energy	LNT	2.79	6.33%	3.09	7.01%	6.00	13.62%	15.84	6.31%	14.69	6.81%	14.00	7.14%	UTILCENT	0.70
OGE Energy	OGE	3.56	6.28%	3.55	6.26%	6.90	12.17%	15.81	6.32%	16.00	6.25%	14.00	7.14%	UTILCENT	0.75
Avista Corp.	**AVA**	**1.47**	**5.96%**	**1.50**	**6.08%**	**3.60**	**14.60%**	**16.39**	**6.10%**	**15.31**	**6.53%**	**16.00**	**6.25%**	**UTILWEST**	**0.70**
Pinnacle West Capital	**PNW**	**3.36**	**6.48%**	**3.35**	**6.46%**	**7.80**	**15.04%**	**15.26**	**6.55%**	**15.04**	**6.65%**	**14.00**	**7.14%**	**UTILWEST**	**0.70**
Xcel Energy Inc.	**XEL**	**1.86**	**6.82%**	**1.85**	**6.78%**	**4.00**	**14.66%**	**14.45**	**6.92%**	**14.19**	**7.05%**	**14.00**	**7.14%**	**UTILWEST**	**0.60**
Portland General	**POR**	**1.87**	**6.93%**	**1.90**	**7.04%**	**5.05**	**18.70%**	**14.55**	**6.88%**	**14.17**	**7.06%**			**UTILWEST**	**0.75**
NorthWestern Corp.	NWE	2.01	5.73%	2.25	6.42%	5.15	**14.69%**	17.34	5.77%	**15.96**	**6.27%**			UTILWEST	0.70
Black Hills	**BKH**	**1.76**	**4.94%**	**1.89**	**5.31%**	**5.60**	**15.72%**	**20.54**	**4.87%**	**18.42**	**5.43%**	**17.00**	**5.88%**	**UTILWEST**	**0.80**
G't Plains Energy	GXP	1.37	6.43%	1.30	6.10%	3.40	15.95%	14.84	6.74%	15.10	6.62%	15.00	6.67%	UTILCENT	0.75
IDACORP Inc.	**IDA**	**3.23**	**7.44%**	**3.60**	**8.30%**	**5.90**	**13.60%**	**13.45**	**7.44%**	**13.18**	**7.59%**	**15.00**	**6.67%**	**UTILWEST**	**0.70**
UNS Energy	**UNS**	**2.25**	**5.39%**	**2.21**	**5.29%**	**6.25**	**14.96%**	**18.77**	**5.33%**	**17.84**	**5.61%**	**17.00**	**5.88%**	**UTILWEST**	**0.70**
NV Energy Inc.	**NVE**	**1.17**	**6.37%**	**1.33**	**7.25%**	**3.60**	**19.61%**	**15.64**	**6.39%**	**15.10**	**6.62%**	**19.00**	**5.26%**	**UTILWEST**	**0.85**
PNM Resources	**PNM**	**2.57**	**12.15%**	**1.39**	**6.57%**	**3.20**	**15.13%**	**8.09**	**12.36%**	**15.26**	**6.55%**	**16.00**	**6.25%**	**UTILWEST**	**0.90**
SUMS & AVGS - ALL COMPANIES			6.45%		6.47%		15.18%		6.50%		6.55%		6.55%		0.76
SUMS & AVGS - B++ & ABOVE COMPANIES			5.97%		6.47%		14.70%		6.02%		6.72%		6.99%		0.74
SUMS & AVGS - B+ & ABOVE COMPANIES			5.98%		6.39%		14.82%		6.02%		6.55%		6.71%		0.74
SUMS & AVGS - WESTERN COMPANIES			6.82%		6.55%		15.67%		6.86%		6.53%		6.31%		0.74
'AVA, BKH, IDA, PNM, PNW, POR, UNS, & NVE															

Beta of Industry = 0.76
Beta of Western Sector = 0.74

Preferred stock is grouped with debt.
* All **Negative** values left out of calculations

Notes/Rational for Changes to Guideline Companies
2013 - No changes to Guideline Companies

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Exempt Wholesale Generators
2013 Assessment Year

A	B	C	D	E	F	G	H	I	J	K	L	M
Company	Ticker Symbol	(VL) Financial Strength	(VL) Shares (000)	(YAHOO) Avg. Price Common	(VL) Book Value Per Share	Mkt. Value Common ExD	Book Value Common	(VL) Book Value Preferred	Mkt. Value Preferred	(VL) Book Value Debt	Mkt/Book Debt Ratio	Mkt Value Debt
Sempra	SRE	A	239,900	64.71	41.01	15,523,429	9,838,000	99,000	99,000	10,078,000	1.00	10,078,000
Duke Energy Corporation	DUK	A	445,300	63.00	51.14	28,055,199	22,772,000	0	0	18,679,000	1.00	18,679,000
Southern Company	SO	A	865,100	45.47	20.32	39,335,016	17,578,000	1,082,000	1,082,000	18,647,000	1.00	18,647,000
Ameren Corporation	AEE	B++	242,600	32.30	32.64	7,834,868	7,919,000	142,000	142,000	6,677,000	1.00	6,677,000
PPL Corp	PPL	B++	578,400	28.45	18.72	16,454,757	10,828,000	250,000	250,000	17,993,000	1.00	17,993,000
NRG Energy	NRG	B+	227,500	18.76	32.62	4,267,142	7,420,000	249,000	249,000	9,745,000	1.00	9,745,000
AES Corp	AES	B	765,900	11.94	7.76	9,141,017	5,946,000	0	0	20,116,000	1.00	20,116,000
SUMS & AVGS - ALL COMPANIES						120,611,427	82,301,000	1,822,000	1,822,000	101,935,000		101,935,000
SUMS & AVGS - A COMPANIES						82,913,644	50,188,000	1,181,000	1,181,000	47,404,000		47,404,000
SUMS & AVGS - B++ COMPANIES						24,289,625	18,747,000	392,000	392,000	24,670,000		24,670,000

These companies have significant amounts of non-utility generation

Preferred stock is grouped with debt.
* All **Negative** values left out of calculations

	INDUSTRY MARKET STRUCTURE					
	ALL COMPANIES		B++ COMPANIES		A COMPANIES	
EQUITY	54.00%	120,611,427	49.00%	24,289,625	63.00%	82,913,644
DEBT	46.00%	103,757,000	51.00%	25,062,000	37.00%	48,585,000
TOTAL	100.00%	224,368,427	100.00%	49,351,625	100.00%	131,498,644

Notes/Rational for Changes to Guideline Companies
2013 Cap Rate Study
Dynegy filed for bankruptcy on November 7, 2011 data no longer available in Value Line
Constellation Energy merges with Exelon on March 12, 2012 data no longer available in Value Line
Added back Duke, Southern, and Ameren Corporation at taxpayer request and to achieve enough data to make calculation meaningful.

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Exempt Wholesale Generators
2013 Assessment Year

A	B	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
Company	Ticker Symbol	(YAHOO) EPS last 12mo	(YAHOO) E/P N/E	(VL) EPS	(VL) E/P P/E	(VL) CF/S	(VL) CF/P R/E	(YAHOO) P/E	(YAHOO) Inverse of P/E 1/T	(VL) P/E	(VL) Inverse of P/E 1/V	(VL) Median P/E	(VL) Inverse of Medain P/E 1/X	(VL) Industry Group	(VL) Beta
Sempra	SRE	3.60	5.56%	4.19	6.48%	8.60	13.29%	19.57	5.11%	16.91	5.91%	11.00	9.09%	UTILWEST	0.80
Duke Energy Corporation	DUK	3.18	5.05%	3.70	5.87%	6.80	10.79%	20.17	4.96%	17.74	5.64%	0.00	N/A	UTILEAST	0.60
Southern Company	SO	2.53	5.56%	2.65	5.83%	5.15	11.33%	17.03	5.87%	15.66	6.39%	15.00	6.67%	UTILEAST	0.55
Ameren Corporation	AEE	0.85	2.63%	2.40	7.43%	5.85	18.11%	35.69	2.80%	12.37	8.08%	15.00	6.67%	UTILCENT	0.80
PPL Corp	PPL	2.78	9.77%	2.45	8.61%	4.60	16.17%	10.36	9.66%	12.91	7.75%	13.00	7.69%	UTILEAST	0.65
NRG Energy	NRG	(0.33)	(1.76%)	0.70	3.73%	4.80	25.59%	N/A	N/A	35.44	2.82%	N/A	N/A	POWER	1.10
AES Corp	AES	(1.71)	(14.33%)	1.25	10.47%	3.00	25.14%	N/A	N/A	8.16	12.25%	16.00	6.25%	POWER	1.20
SUMS & AVGS - ALL COMPANIES			5.72%		6.92%		17.20%		5.68%		6.98%		7.27%		0.81
SUMS & AVGS - A COMPANIES			5.39%		6.06%		11.80%		5.31%		5.98%		7.88%		0.65
SUMS & AVGS - B++ COMPANIES			6.20%		8.02%		17.14%		6.23%		7.92%		7.18%		0.73

These companies have significant amounts of non-utility generation

Beta of Industry = 0.90

Preferred stock is grouped with debt.
* All **Negative** values left out of calculations

Notes/Rational for Changes to Guideline Companie
2013 Cap Rate Study
Dynegy filed for bankruptcy on November 7, 2011
Constellation Energy merges with Exelon on Marc
Added back Duke, Southern, and Ameren Corpora

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model (CAPM)
Industry: Electric Utilities
2013 Assessment Year

$$K_E = R_F + \beta\ (R_M - R_F)$$

	Electric Utilities	Western Utilities	Wholesale Generators
K_E = Cost of Equity	**7.93%**	**7.80%**	**8.85%**
R_F = Risk Free Rate	2.95%	2.95%	2.95%
β= Beta	0.76	0.74	0.90
R_M = Market Rate of Return	9.50%	9.50%	9.50%
R_P = Equity Risk Premium (RM - RF)	6.55%	6.55%	6.55%

Risk Premium other sources:

Dr. Aswath Damodaran	http://pages.stern.nyu.edu/~adamodar/	Jan-13	5.78%
Duff & Phelps	BV Wire January 25, 2012 Issue #112-4	Jan-12	5.50%

R_m = Investor's Market Rate of Return

Ibbotson, SBBI, Large Company, Average Annual Return, ***Arithmetic** Average, Ex-Post	R_M=	11.80%
Ibbotson, SBBI, Large Company, Average Annual Return, ***Geometric** Average, Ex-Post	R_M=	9.80%
3 Stage Dividend Growth Model, S & P 500, See Exhibit, Ex Ante	R_M=	9.00%
	Mean =	10.20%
	Median =	9.80%
	R_M=	**9.50%**

R_f = Risk Free Rate

Internal Revenue Service, Rev Rule 2012-31 Table 2 December 3, 2012

Rev Rule 2012-31 Table 2

Annual Rates	Short Term - AFR	R_f =	0.27%
	Mid Term - AFR	R_f =	0.95%
	Long Term - AFR	R_f =	2.83%

The ValueLine Investment Survey

U.S. Treasury Securities January 4, 2013

3 Month	R_f =	0.08%
6 Month	R_f =	0.13%
1 Year	R_f =	0.15%

Federal Reserve Statistical Release

Treasury constant Maturities, December 31, 2012

Market yield on U.S. Treasury securities, Annual Averages

3-month constant maturity, quoted on investment basis	R_f =	0.05%
6-month constant maturity, quoted on investment basis	R_f =	0.11%
1-year constant maturity, quoted on investment basis	R_f =	0.16%
	Mean =	0.53%
	Median =	0.15%
	Weighted Mean =	0.68%

U.S. Treasury Securities Long-Term December 31, 2012

20 year constant maturity	R_f =	**2.54%**
30 year constant maturity	R_f =	**2.95%**
	R_f =	**2.95%**

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Electric Utilities - Regulated
2013 Assessment Year

$$K_E = D1 / P_O + G_A$$

KE= Cost of Equity
D1= Expected Dividends
Po= Current Price Per Share
G= Sustainable Growth

Company Name	Ticker*	Stock Price (Po)	Expected Dividend 1 Year **	Dividend Yield (D1/P0)	Dividend Growth **	Ke 1 Year
Alliant Energy	LNT	44.06	1.88	4.27%	5.50%	9.77%
Avista Corp	**AVA**	**24.67**	**1.70**	**6.89%**	**5.00%**	**11.89%**
Black Hills Corp	**BKH**	**35.63**	**1.50**	**4.21%**	**2.00%**	**6.21%**
Great Plains Energy	GXP	21.32	0.88	4.13%	3.40%	7.53%
Idacorp Inc	**IDA**	**43.39**	**1.52**	**3.50%**	**8.00%**	**11.50%**
MDU Resources Group	MDU	21.23	0.69	3.25%	3.00%	6.25%
NorthWestern Corp	NWE	35.07	1.52	4.33%	4.50%	8.83%
OGE Energy	OGE	56.70	1.70	3.00%	5.50%	8.50%
PNM Resources	**PNM**	**21.15**	**0.70**	**3.31%**	**12.00%**	**15.31%**
Pinnacle West Capital	**PNW**	**51.87**	**2.20**	**4.24%**	**2.50%**	**6.74%**
Portland General Electric	**POR**	**27.00**	**1.11**	**4.11%**	**3.50%**	**7.61%**
NV Energy	**NVE**	**18.35**	**0.74**	**4.03%**	**14.00%**	**18.03%**
Xcel Energy	**XEL**	**27.28**	**1.11**	**4.07%**	**5.00%**	**9.07%**
Unisource Energy	**UNS**	**41.77**	**1.76**	**4.21%**	**7.50%**	**11.71%**

***Bold** denotes primarly western operations*

**MDU Not Adjusted for Electric & Natural Gas Contributions
2013 10-K unavailable as of 2/19/2013

All Companies In Survey

Weighted Mean=	10.17%
Mean=	9.93%
Median=	8.95%

Cost of Equity - All, (K_E) = 10.00%

Western Companies Only
AVA, BKH, IDA,PNM
PNW, POR, NVE, XEL,UNS

Weighted Mean=	10.65%
Mean=	10.69%
Median=	10.29%

Cost of Equity - Western, (K_E) = 10.70%

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Electric Utilities - Exempt Wholesale Generators
2013 Assessment Year

$$K_E = D1 / P_O + G_A$$

KE= Cost of Equity
D1= Expected Dividends
Po= Current Price Per Share
G= Sustainable Growth

Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth (G_1)	Ke 1 Year
NRG Energy	NRG	21.78	0.36	1.65%	NMF	
Ameren Corporation	AEE	31.26	1.60	5.12%	1.50%	6.62%
Dynegy	DYN	18.69				
Southern Co	SO	44.51	2.02	4.54%	4.00%	8.54%
Duke Energy	DUK	63.92	3.09	4.83%	2.00%	6.83%
PPL Corp	PPL	29.01	1.48	5.10%	3.50%	8.60%
Sempra	SRE	68.37	2.50	3.66%	9.00%	12.66%
AES Corp	AES	10.57	0.16	1.51%	NMF	

Mean = 8.65%
Median = 8.54%

Cost of Equity, (K_E) = 9.30%

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Electric Utilities
2013 Assessment Year

Ticker	Company		Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS Ist 12 mo
AEE	Ameren Corporation	high	$ 33.68	$ 32.38	$ 32.58	$ 32.91	$ 33.11	$ 34.04	$ 34.74	$ 35.30	$ 33.26	$ 33.21	$ 33.00	$ 31.38	$ 31.26	$ 32.30	35.69	0.85
		low	$ 30.90	$ 30.89	$ 31.16	$ 31.15	$ 31.69	$ 31.93	$ 32.95	$ 32.62	$ 32.27	$ 32.21	$ 28.43	$ 29.30				
AES	AES Corp.	high	$ 13.15	$ 14.01	$ 13.72	$ 13.25	$ 12.80	$ 12.88	$ 12.94	$ 12.34	$ 11.60	$ 11.25	$ 10.80	$ 11.08	$10.57	$11.94	NA	(1.71)
		low	$ 11.85	$ 12.68	$ 12.75	$ 11.97	$ 11.66	$ 11.64	$ 11.65	$ 11.32	$ 10.83	$ 10.34	$ 9.52	$ 10.41				
AVA	Avista Corp.	high	$ 26.18	$ 26.09	$ 25.82	$ 26.53	$ 26.70	$ 27.07	$ 27.96	$ 28.05	$ 26.30	$ 26.77	$ 25.59	$ 24.67	$24.67	$25.59	16.39	1.47
		low	$ 24.59	$ 24.48	$ 24.49	$ 24.95	$ 24.95	$ 25.14	$ 26.60	$ 25.24	$ 25.07	$ 24.66	$ 22.78	$ 23.52				
BKH	Black Hills	high	$ 34.67	$ 35.82	$ 34.39	$ 34.31	$ 33.68	$ 33.43	$ 33.05	$ 34.85	$ 36.28	$ 36.37	$ 36.62	$ 37.00	$35.63	$33.82	20.54	1.76
		low	$ 32.88	$ 32.73	$ 32.18	$ 32.10	$ 31.32	$ 31.61	$ 30.29	$ 30.41	$ 33.85	$ 34.95	$ 33.51	$ 35.31				
CMS	CMS Energy Corp.	high	$ 22.40	$ 22.20	$ 22.35	$ 23.00	$ 23.39	$ 23.98	$ 24.98	$ 24.74	$ 23.74	$ 24.37	$ 24.45	$ 24.85	$23.92	$23.06	18.48	1.32
		low	$ 21.25	$ 21.21	$ 21.12	$ 21.35	$ 22.31	$ 22.89	$ 23.40	$ 22.61	$ 22.88	$ 23.37	$ 22.56	$ 23.93				
CNL	Cleco Corp.	high	$ 39.98	$ 40.10	$ 39.96	$ 40.93	$ 41.29	$ 42.45	$ 44.62	$ 45.30	$ 42.80	$ 43.19	$ 43.75	$ 41.52	$41.21	$40.74	14.26	2.83
		low	$ 36.15	$ 38.38	$ 37.97	$ 38.16	$ 39.46	$ 40.26	$ 41.80	$ 40.75	$ 40.09	$ 41.15	$ 38.46	$ 39.19				
CNP	CenterPoint Energy	high	$ 20.35	$ 19.68	$ 19.74	$ 20.24	$ 20.46	$ 21.00	$ 21.27	$ 21.44	$ 21.56	$ 21.75	$ 21.81	$ 20.15	$20.39	$20.10	20.71	0.94
		low	$ 18.07	$ 18.47	$ 18.88	$ 18.91	$ 19.52	$ 19.65	$ 20.29	$ 20.14	$ 20.30	$ 20.87	$ 18.95	$ 18.79				
CPN	Calpine Corp	high	$ 16.45	$ 16.45	$ 17.60	$ 18.96	$ 19.03	$ 17.11	$ 18.09	$ 18.49	$ 18.66	$ 18.87	$ 18.17	$ 18.25	$17.69	$17.09	98.36	0.18
		low	$ 14.49	$ 14.45	$ 15.24	$ 16.56	$ 16.70	$ 15.90	$ 16.42	$ 16.55	$ 16.91	$ 17.19	$ 16.47	$ 17.16				
CPST	Capstone Turbine	high	$ 1.30	$ 1.53	$ 1.15	$ 1.20	$ 1.10	$ 1.09	$ 1.13	$ 1.10	$ 1.05	$ 1.06	$ 1.06	$ 0.98	$0.97	$1.06	NA	(0.11)
		low	$ 1.08	$ 1.10	$ 0.98	$ 0.93	$ 0.98	$ 0.93	$ 1.00	$ 0.98	$ 0.99	$ 0.94	$ 0.87	$ 0.88				
D	Dominion Resources	high	$ 53.68	$ 51.65	$ 51.47	$ 52.24	$ 52.74	$ 54.69	$ 55.17	$ 55.62	$ 53.85	$ 53.89	$ 52.91	$ 52.40	$51.59	$52.04	25.31	2.03
		low	$ 48.87	$ 49.56	$ 50.13	$ 49.87	$ 51.57	$ 51.28	$ 52.60	$ 52.29	$ 52.15	$ 51.02	$ 48.94	$ 50.36				
DTE	DTE Energy	high	$ 55.04	$ 55.06	$ 56.52	$ 56.78	$ 57.38	$ 60.25	$ 62.22	$ 62.56	$ 60.90	$ 62.49	$ 62.32	$ 62.00	$60.56	$57.86	15.26	3.96
		low	$ 52.46	$ 52.76	$ 53.59	$ 53.70	$ 54.95	$ 56.18	$ 58.60	$ 58.22	$ 58.06	$ 59.47	$ 58.20	$ 58.86				
DUK	Duke Energy	high	$ 66.33	$ 64.83	$ 64.44	$ 64.50	$ 66.27	$ 70.20	$ 69.87	$ 69.17	$ 65.21	$ 65.90	$ 65.86	$ 65.66	$63.92	$63.00	20.17	3.18
	1:3 Stock Split on Jul 3	low	$ 62.61	$ 62.40	$ 62.01	$ 60.57	$ 63.84	$ 65.55	$ 23.13	$ 64.58	$ 63.03	$ 63.88	$ 59.63	$ 62.60				
DYN	Dynegy Inc.	high	NO DATA BANKRUPTCY									$ 20.75	$ 19.23	$ 19.36	$18.69	$16.02	NA	(20.33)
		low										$ 17.00	$ 17.73	$ 18.09				
EDE	Empire Dist. Elec.	high	$ 21.32	$ 21.34	$ 20.65	$ 20.60	$ 20.82	$ 21.24	$ 21.94	$ 21.79	$ 21.93	$ 22.04	$ 21.75	$ 20.92	$20.88	$20.78	15.72	1.29
		low	$ 20.00	$ 19.95	$ 19.55	$ 19.51	$ 19.80	$ 19.85	$ 21.07	$ 21.03	$ 21.02	$ 21.30	$ 19.59	$ 19.65				
EE	El Paso Electric	high	$ 35.34	$ 34.86	$ 33.16	$ 32.89	$ 30.95	$ 33.65	$ 34.40	$ 34.49	$ 34.93	$ 35.01	$ 34.09	$ 32.39	$32.53	$32.70	13.79	2.27
		low	$ 33.83	$ 32.55	$ 31.58	$ 29.64	$ 29.17	$ 30.15	$ 32.90	$ 32.45	$ 32.75	$ 33.34	$ 30.15	$ 30.21				

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Electric Utilities
2013 Assessment Year

Ticker	Company		Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS Ist 12 mo
EIX	Edison Int'l	high	$ 41.90	$ 42.44	$ 44.50	$ 44.05	$ 45.32	$ 46.55	$ 46.94	$ 46.80	$ 46.20	$ 47.96	$ 47.32	$ 46.22	$45.48	$44.16	NA	(1.48)
		low	$ 39.60	$ 40.31	$ 41.83	$ 41.42	$ 43.14	$ 44.24	$ 45.00	$ 43.10	$ 43.74	$ 45.66	$ 43.13	$ 42.57				
ETR	Entergy Corp.	high	$ 73.66	$ 69.98	$ 68.84	$ 68.13	$ 66.54	$ 68.20	$ 74.50	$ 73.98	$ 69.94	$ 72.98	$ 72.85	$ 65.60	$67.37	$68.04	16.10	3.97
		low	$ 68.22	$ 66.38	$ 66.23	$ 64.91	$ 62.97	$ 63.96	$ 67.53	$ 67.74	$ 67.07	$ 69.02	$ 61.55	$ 62.22				
GEN	GenOn Energy, Inc.	high	Acquired by NRG Energy															
		low																
GXP	G't Plains Energy	high	$ 21.98	$ 21.11	$ 20.37	$ 20.50	$ 20.50	$ 21.64	$ 22.55	$ 22.50	$ 22.68	$ 22.85	$ 22.77	$ 20.86	$21.32	$20.99	14.84	1.37
		low	$ 20.40	$ 19.55	$ 19.45	$ 19.47	$ 19.56	$ 19.63	$ 21.40	$ 21.15	$ 21.31	$ 21.99	$ 19.64	$ 19.80				
HE	Hawaiian Elec.	high	$ 26.79	$ 26.45	$ 25.86	$ 26.65	$ 27.69	$ 28.87	$ 29.24	$ 28.95	$ 27.70	$ 26.75	$ 26.39	$ 25.72	$25.42	$26.43	15.30	1.64
		low	$ 25.28	$ 24.92	$ 24.86	$ 24.65	$ 25.93	$ 27.21	$ 27.88	$ 26.53	$ 26.26	$ 25.55	$ 23.65	$ 24.48				
IDA	IDACORP Inc.	high	$ 42.89	$ 42.85	$ 41.57	$ 41.55	$ 41.03	$ 42.22	$ 43.64	$ 43.09	$ 44.03	$ 44.96	$ 45.67	$ 44.69	$43.39	$41.84	13.45	3.23
		low	$ 40.88	$ 40.46	$ 39.66	$ 39.00	$ 38.17	$ 38.84	$ 41.69	$ 41.00	$ 41.25	$ 42.65	$ 40.18	$ 42.17				
LNT	Alliant Energy	high	$ 44.57	$ 44.00	$ 43.76	$ 45.38	$ 45.67	$ 46.00	$ 47.65	$ 47.50	$ 45.38	$ 45.66	$ 45.08	$ 45.23	$44.06	$44.19	15.84	2.79
		low	$ 41.86	$ 42.01	$ 42.10	$ 42.00	$ 43.00	$ 43.15	$ 45.18	$ 44.08	$ 42.95	$ 43.06	$ 42.21	$ 43.14				
MDU	MDU Resources Group	high	$ 21.94	$ 22.25	$ 22.50	$ 22.98	$ 23.21	$ 22.59	$ 23.11	$ 22.77	$ 22.70	$ 22.23	$ 22.02	$ 21.85	$21.23	$21.82	32.99	0.64
		low	$ 21.14	$ 21.20	$ 21.36	$ 21.43	$ 21.88	$ 20.76	$ 21.66	$ 21.42	$ 21.42	$ 21.30	$ 19.59	$ 20.38				
NI	NiSource Inc	high	$ 24.06	$ 24.53	$ 24.55	$ 24.76	$ 25.79	$ 25.47	$ 26.15	$ 26.09	$ 25.84	$ 25.97	$ 25.69	$ 25.08	$24.79	$24.53	NA	(1.15)
		low	$ 22.32	$ 22.65	$ 23.30	$ 23.59	$ 24.36	$ 24.03	$ 24.25	$ 23.93	$ 24.31	$ 24.84	$ 23.14	$ 24.02				
NRG	NRG Energy	high	$ 18.46	$ 17.99	$ 17.50	$ 17.03	$ 17.06	$ 17.49	$ 20.12	$ 22.92	$ 22.41	$ 23.78	$ 21.83	$ 23.74	$21.78	$18.76	NA	(0.33)
		low	$ 16.06	$ 16.59	$ 15.53	$ 14.29	$ 14.81	$ 14.65	$ 16.66	$ 18.83	$ 21.07	$ 21.36	$ 19.15	$ 20.83				
NVE	NV Energy Inc.	high	$ 16.59	$ 16.59	$ 16.18	$ 16.73	$ 17.40	$ 18.39	$ 18.65	$ 18.63	$ 18.30	$ 19.08	$ 19.20	$ 18.81	$18.35	$17.30	15.64	1.17
		low	$ 15.60	$ 15.58	$ 15.48	$ 15.40	$ 16.21	$ 16.90	$ 17.53	$ 17.41	$ 17.56	$ 17.77	$ 17.47	$ 17.79				
NWE	NorthWestern Corp.	high	$ 36.39	$ 35.93	$ 35.82	$ 36.05	$ 35.85	$ 37.05	$ 37.96	$ 37.35	$ 37.65	$ 36.70	$ 36.09	$ 35.73	$35.07	$35.58	17.34	2.01
		low	$ 34.36	$ 34.63	$ 34.22	$ 33.72	$ 34.47	$ 34.80	$ 36.08	$ 35.66	$ 35.44	$ 34.91	$ 32.98	$ 33.98				
OGE	OGE Energy	high	$ 57.54	$ 54.47	$ 53.71	$ 54.03	$ 55.31	$ 54.46	$ 54.48	$ 55.81	$ 56.49	$ 58.07	$ 60.21	$ 57.49	$56.70	$54.26	15.81	3.56
		low	$ 52.40	$ 51.57	$ 51.24	$ 50.87	$ 52.40	$ 50.23	$ 50.60	$ 52.75	$ 53.67	$ 55.00	$ 54.36	$ 55.09				
OTTR	Otter Tail Corp.	high	$ 22.57	$ 22.56	$ 22.39	$ 22.24	$ 22.20	$ 23.00	$ 23.96	$ 23.83	$ 24.35	$ 24.32	$ 24.99	$ 25.25	$24.18	$22.76	NA	(1.48)
		low	$ 21.55	$ 21.22	$ 20.70	$ 21.09	$ 20.87	$ 20.86	$ 22.78	$ 22.50	$ 22.57	$ 23.60	$ 22.86	$ 24.07				
PCG	PG&E Corp.	high	$ 42.27	$ 42.68	$ 43.96	$ 44.21	$ 44.94	$ 45.56	$ 46.54	$ 47.03	$ 43.67	$ 44.11	$ 42.67	$ 41.92	$41.59	$42.92	18.65	2.18
		low	$ 39.85	$ 40.77	$ 41.24	$ 41.88	$ 43.25	$ 43.29	$ 44.17	$ 43.22	$ 42.12	$ 41.83	$ 39.60	$ 39.40				

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Electric Utilities
2013 Assessment Year

Ticker	Company		Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS Ist 12 mo
PNM	PNM Resources	high	$ 18.53	$ 18.48	$ 19.01	$ 19.05	$ 19.05	$ 19.70	$ 21.28	$ 21.19	$ 21.59	$ 22.21	$ 22.54	$ 21.55	$21.15	$19.62	8.09	2.57
		low	$ 17.29	$ 17.46	$ 17.86	$ 17.78	$ 17.77	$ 18.07	$ 19.57	$ 20.09	$ 20.17	$ 20.78	$ 19.76	$ 20.05				
PNW	Pinnacle West Capital	high	$ 48.86	$ 48.38	$ 48.22	$ 48.56	$ 49.59	$ 52.30	$ 54.66	$ 54.56	$ 53.99	$ 54.20	$ 53.36	$ 52.46	$51.87	$50.25	15.26	3.36
		low	$ 47.00	$ 46.81	$ 46.15	$ 45.95	$ 47.41	$ 48.37	$ 51.50	$ 51.19	$ 51.39	$ 52.35	$ 48.73	$ 50.12				
POR	Portland General	high	$ 25.62	$ 25.44	$ 25.47	$ 25.86	$ 26.03	$ 26.94	$ 27.61	$ 27.92	$ 27.62	$ 28.08	$ 27.69	$ 27.78	$27.00	$26.12	14.55	1.87
		low	$ 24.29	$ 24.54	$ 24.29	$ 24.25	$ 24.26	$ 24.75	$ 26.57	$ 26.78	$ 26.75	$ 26.97	$ 24.86	$ 26.62				
PPL	PPL Corp.	high	$ 29.85	$ 29.00	$ 28.70	$ 28.44	$ 27.78	$ 28.21	$ 29.29	$ 29.98	$ 29.80	$ 30.18	$ 29.75	$ 29.54	$29.01	$28.45	10.36	2.78
		low	$ 27.41	$ 27.29	$ 27.48	$ 26.68	$ 27.00	$ 27.16	$ 27.72	$ 28.40	$ 28.55	$ 28.78	$ 27.74	$ 28.04				
SCG	SCANA Corp.	high	$ 45.58	$ 45.85	$ 46.12	$ 46.25	$ 47.22	$ 48.24	$ 49.76	$ 50.34	$ 49.19	$ 49.64	$ 49.29	$ 46.91	$47.17	$46.66	14.73	3.11
		low	$ 43.56	$ 44.15	$ 43.77	$ 43.32	$ 45.32	$ 46.22	$ 47.48	$ 47.18	$ 47.37	$ 47.52	$ 44.93	$ 44.72				
SO	Southern Co.	high	$ 46.06	$ 45.68	$ 45.50	$ 46.00	$ 46.30	$ 48.45	$ 48.59	$ 48.57	$ 46.40	$ 47.09	$ 46.70	$ 44.14	$44.51	$45.47	17.03	2.53
		low	$ 44.33	$ 43.85	$ 43.71	$ 44.22	$ 44.95	$ 45.62	$ 46.25	$ 45.10	$ 44.64	$ 45.31	$ 41.75	$ 42.04				
SRE	Sempra Energy	high	$ 58.42	$ 59.74	$ 60.36	$ 64.92	$ 65.50	$ 69.46	$ 71.33	$ 72.32	$ 67.22	$ 70.00	$ 69.86	$ 72.87	$68.37	$64.71	19.57	3.60
		low	$ 54.70	$ 57.10	$ 57.76	$ 60.04	$ 63.02	$ 63.30	$ 67.71	$ 66.02	$ 63.87	$ 64.47	$ 64.96	$ 68.04				
TE	TECO Energy	high	$ 19.41	$ 18.34	$ 18.11	$ 18.06	$ 18.17	$ 18.33	$ 18.45	$ 18.64	$ 17.82	$ 18.14	$ 18.00	$ 17.08	$17.20	$17.69	16.43	1.02
		low	$ 17.86	$ 17.50	$ 17.35	$ 16.90	$ 17.18	$ 17.10	$ 17.60	$ 17.32	$ 17.26	$ 17.40	$ 16.12	$ 16.43				
UNS	UNS Energy	high	$ 37.59	$ 38.66	$ 37.62	$ 37.09	$ 37.79	$ 38.86	$ 42.10	$ 41.43	$ 42.71	$ 43.04	$ 43.12	$ 43.56	$41.77	$39.12	18.77	2.25
		low	$ 35.83	$ 36.75	$ 35.96	$ 35.20	$ 35.77	$ 37.01	$ 38.43	$ 39.64	$ 39.88	$ 41.01	$ 39.02	$ 40.89				
VVC	Vectren Corp.	high	$ 30.69	$ 29.88	$ 29.75	$ 29.60	$ 29.77	$ 30.17	$ 30.75	$ 30.49	$ 29.16	$ 29.74	$ 29.95	$ 30.25	$29.07	$29.16	14.84	1.99
		low	$ 28.21	$ 28.29	$ 28.60	$ 28.03	$ 28.38	$ 28.67	$ 29.16	$ 28.15	$ 27.78	$ 28.19	$ 27.46	$ 28.80				
XEL	Xcel Energy Inc.	high	$ 27.93	$ 26.81	$ 27.25	$ 27.13	$ 28.12	$ 29.12	$ 29.70	$ 29.92	$ 28.39	$ 28.33	$ 28.34	$ 27.66	$27.28	$27.49	14.45	1.86
		low	$ 26.16	$ 26.13	$ 25.92	$ 25.89	$ 26.75	$ 27.62	$ 28.34	$ 27.63	$ 27.25	$ 27.40	$ 25.84	$ 26.09				

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Tennessee Valley Authority	6.75	880591CJ9	Global Pwr Bonds'95E	11/1/2025	AAA	4.72	4.75	4.87	4.78	4.59	4.62	4.54	4.55	4.57	4.58	4.55	4.62	4.65%	4.58%
Tennessee Valley Authority	6.25	880591CU4	Pwr Bonds '97E	12/15/2017	AAA	4.89	4.92	4.95	4.93	4.90	4.92	4.89	4.89	4.90	4.93	4.92	4.96	4.92%	4.94%
Tennessee Valley Authority	6	880591CW0	Global Pwr Bonds '98C	3/15/2013	AAA	5.64	5.08	5.69	5.71	5.74	5.77	5.79	5.82	5.85	5.88	5.90	5.93	5.73%	5.90%
Tennessee Valley Authority	7.14	880591DL3	PwrBonds '00F	5/23/2012	AAA	6.99	7.03	7.07	7.11									7.05%	
Tennessee Valley Authority	7.125	880591DM1	Global Pwr Bonds '00G	5/1/2030	AAA	4.68	4.73	4.88	4.77	4.60	4.61	4.49	4.51	4.58	4.60	4.56	4.65	4.64%	4.60%
Tennessee Valley Authority	4.88	880591DS8	Global Pwr Bonds'01D	12/15/2016	AAA	4.12	4.15	4.17	4.15	4.14	4.16	4.14	4.14	4.15	4.17	4.17	4.19	4.15%	4.18%
Tennessee Valley Authority	4.7	880591DV1	Pwr Bonds\03 B"	7/15/2033	AAA	4.00	4.05	4.19	4.07	3.84	3.80	3.81	3.82	3.81	3.83	3.79	3.86	3.91%	3.83%
Tennessee Valley Authority	4.75	880591DW9	Pwr Bonds'03C	8/1/2013	AAA	4.46	4.47	4.49	4.50	4.52	4.53	4.54	4.56	4.58	4.60	4.61	4.63	4.54%	4.61%
Tennessee Valley Authority	4.38	880591DY5	Global Pwr Bonds'05B	6/15/2015	AAA	3.89	3.91	3.93	3.92	3.93	3.94	3.93	3.94	3.95	3.97	3.98	3.99	3.94%	3.98%
Northern IllinoisGas	6.58	665228BQ4	1st	2/15/2028	AA	5.39	5.39	5.33	5.24	5.10	5.08	5.02	5.05	5.15	5.10	5.10	5.19	5.18%	5.13%
Northern IllinoisGas	7.2	665228BV3	1st	5/15/2016	AA	5.89	5.93	5.99	5.95	5.96	5.99	5.99	6.00	6.03	6.06	6.07	6.09	6.00%	6.07%
Madison Gas & Electric	7.7	557497AL8	1st	2/15/2028	AA-	7.53	7.53	7.54	7.53	7.53	7.53	7.53	7.54	7.54	7.53	7.54	7.56	7.54%	7.54%
Madison Gas & Elec Co MTN BE	7.12	5574A0AB3	Tranche # Tr 00002	4/1/2032	AA-	5.28	5.29	5.43	5.33	5.16	5.14	5.07	5.10	5.21	5.15	5.12	5.13	5.20%	5.13%
Madison Gas & Elec Co MTN BE	5.26	5574A0AC1	MTN	9/29/2017	AA-	4.45	4.48	4.53	4.48	4.48	4.50	4.49	4.49	4.50	4.53	4.53	4.51	4.50%	4.52%
Alabama Power Co.	5.5	010392DZ8	Sr Nts 'Q'	10/15/2017	A	4.57	4.62	4.69	4.63	4.63	4.64	4.63	4.63	4.61	4.59	4.57	4.59	4.62%	4.58%
Alabama Power Co.	5.88	010392EB0	Sr Nts 'S'	12/1/2022	A	4.76	4.78	4.93	4.82	4.70	4.72	4.68	4.60	4.73	4.66	4.67	4.64	4.72%	4.66%
Alabama Power Co.	5.7	010392EC8	Sr Nts 'T'	2/15/2033	A	4.61	4.65	4.79	4.69	4.62	4.66	4.54	4.47	4.63	4.48	4.48	4.54	4.60%	4.50%
Alabama Power Co.	5.6	010392EE4	Sr Nts'V'	3/15/2033	A	4.77	4.87	5.01	4.95	4.87	4.88	4.81	4.71	4.78	4.69	4.69	4.75	4.82%	4.71%
Alabama Power Co.	5.12	010392EK0	Sr Nts 'Z'	2/15/2019	A	4.37	4.39	4.47	4.41	4.36	4.35	4.33	4.34	4.40	4.33	4.34	4.36	4.37%	4.34%
Alabama Power Co.	5.2	010392ER5	Sr Nts'FF'	1/15/2016	A	4.55	4.58	4.59	4.55	4.58	4.59	4.59	4.58	4.60	4.63	4.63	4.65	4.59%	4.64%
Alabama Power Co.	5.55	010392EW4	Sr Nts'07A	2/1/2017	A	4.75	4.77	4.83	4.78	4.78	4.79	4.78	4.78	4.78	4.78	4.78	4.80	4.78%	4.79%
Alabama Power Co.	4.85	010392EY0	Sr Nts '07D	12/15/2012	A	4.67	4.69	4.70	4.72	4.74	4.75	4.77	4.79	4.80	4.82	4.84		4.75%	4.83%
Alabama Power Co.	6.12	010392EZ7	Sr Nts'08A	5/15/2038	A	4.63	4.65	4.84	4.73	4.69	4.63	4.46	4.45	4.63	4.50	4.55	4.63	4.62%	4.56%
Progress Energy, Inc.	8.62	144141BP2	1st	9/15/2021	A	5.98	6.11	6.19	6.09	6.01	5.99	5.96	5.98	6.07	6.02	6.04	6.07	6.04%	6.04%
Progress Energy, Inc.	8.62	144141BP2	1st Mtg	9/15/2021	A	5.98	6.11	6.19	6.09	6.01	5.99	5.96	5.98	6.07	6.02	6.04	6.07	6.04%	6.04%
Progress Energy, Inc.	6.5	144141CS5	Nts	7/15/2012	A	6.33	6.35	6.38	6.42	6.45								6.39%	
Progress Energy, Inc.	5.12	144141CT3	1st	9/15/2013	A	4.78	4.79	4.81	4.82	4.85	4.86	4.87	4.89	4.90	4.92	4.94	4.96	4.87%	4.94%
Progress Energy, Inc.	5.12	144141CT3	1st Mtg Bd	9/15/2013	A	4.78	4.79	4.81	4.82	4.85	4.86	4.87	4.89	4.90	4.92	4.94	4.96	4.87%	4.94%
Progress Energy, Inc.	5.7	144141CV8	1st	4/1/2035	A	4.72	4.76	4.81	4.70	4.54	4.55	4.48	4.50	4.67	4.61	4.60	4.67	4.63%	4.63%
Progress Energy, Inc.	5.7	144141CV8	1st Mtg Bd	4/1/2035	A	4.72	4.76	4.81	4.70	4.54	4.55	4.48	4.50	4.67	4.61	4.60	4.67	4.63%	4.63%
Progress Energy, Inc.	5.15	144141CW6	1st	4/1/2015	A	4.58	4.61	4.60	4.60	4.61	4.63	4.63	4.63	4.65	4.67	4.68	4.70	4.63%	4.68%
Progress Energy, Inc.	5.15	144141CW6	1st Mtg Bd	4/1/2015	A	4.58	4.61	4.60	4.60	4.61	4.63	4.63	4.63	4.65	4.67	4.68	4.70	4.63%	4.68%
Progress Energy, Inc.	5.25	144141CX4	1st	12/15/2015	A	4.56	4.59	4.59	4.58	4.59	4.61	4.61	4.59	4.61	4.60	4.61	4.62	4.60%	4.61%
Progress Energy, Inc.	5.25	144141CX4	1st Mtg Bd	12/15/2015	A	4.56	4.59	4.59	4.58	4.59	4.61	4.61	4.59	4.61	4.60	4.61	4.62	4.60%	4.61%
Progress Energy, Inc.	6.3	144141CY2	1st	4/1/2038	A	4.68	4.65	4.80	4.69	4.66	4.57	4.46	4.49	4.67	4.47	4.56	4.63	4.61%	4.55%
Progress Energy, Inc.	6.3	144141CY2	1st Mtg Bd	4/1/2038	A	4.68	4.65	4.80	4.69	4.66	4.57	4.46	4.49	4.67	4.47	4.56	4.63	4.61%	4.55%
Detroit Edison Co.	5.2	250847DT4	Sr Nts	10/15/2012	A	5.04	5.05	5.07	5.09	5.11	5.12	5.14	5.15	5.15				5.10%	
Detroit Edison Co.	6.35	250847DU1	Sr Nts	10/15/2032	A	5.05	5.02	5.16	5.06	4.89	4.94	4.81	4.75	4.91	4.73	4.73	4.79	4.90%	4.75%
Detroit Edison Co.	5.4	250847DV9	Sr Nts'D'	8/1/2014	A	4.89	4.92	4.94	4.94	4.96	4.96	4.97	4.99	5.00	5.02	5.03	5.05	4.97%	5.03%
Detroit Edison Co.	4.8	250847DX5	Sr(Sec)Nts'AR'	2/15/2015	A	4.33	4.36	4.38	4.37	4.39	4.40	4.40	4.41	4.43	4.44	4.45	4.46	4.40%	4.45%
Detroit Edison Co	5.45	250847DZ0	Sr(Sec)Nts'BR'	2/15/2035	A	4.82	4.86	5.00	4.89	4.72	4.66	4.57	4.50	4.67	4.51	4.51	4.57	4.69%	4.53%
Detroit Edison Co	5.7	250847EA4	Sr(Sec)Nts'E'	10/1/2037	A	4.67	4.58	4.73	4.63	4.45	4.45	4.35	4.28	4.42	4.26	4.32	4.50	4.47%	4.36%
Duke Energy Corp.	5.3	264399EM4	1st & Ref	10/1/2015	A	4.61	4.62	4.63	4.63	4.66	4.66	4.66	4.66	4.68	4.68	4.69	4.71	4.66%	4.69%
Florida Power & Light	4.85	341081EN3	1st	2/1/2013	A	4.65	4.66	4.68	4.69	4.71	4.72	4.74	4.76	4.77	4.79	4.81	4.83	4.73%	4.81%
Florida Power & Light	5.85	341081EP8	1st	2/1/2033	A	4.72	4.75	4.89	4.71	4.64	4.56	4.46	4.46	4.62	4.41	4.44	4.50	4.60%	4.45%
Florida Power & Light	5.625	341081EQ6	1st	4/1/2034	A	4.63	4.54	4.71	4.59	4.57	4.49	4.33	4.30	4.43	4.37	4.43	4.49	4.49%	4.43%
Florida Power & Light	5.62	341081EQ6	First Mtg Bds	4/1/2034	A	4.63	4.54	4.71	4.59	4.57	4.49	4.33	4.30	4.43	4.37	4.43	4.49	4.49%	4.43%
Florida Power & Light	5.95	341081ER4	1st	10/1/2033	A	4.73	4.64	4.81	4.66	4.64	4.50	4.41	4.40	4.44	4.42	4.50	4.56	4.56%	4.49%
Florida Power & Light	4.95	341081ET0	1st	6/1/2035	A	4.38	4.32	4.49	4.34	4.32	4.27	4.05	4.07	4.21	4.11	4.14	4.23	4.24%	4.16%
Florida Power & Light	5.4	341081EU7	1st Mtg Bd	9/1/2035	A	4.57	4.45	4.62	4.46	4.48	4.39	4.23	4.19	4.36	4.24	4.36	4.42	4.40%	4.34%
Florida Power & Light	5.65	341081EV5	1st	2/1/2037	A	4.57	4.51	4.66	4.53	4.52	4.43	4.26	4.25	4.42	4.28	4.36	4.45	4.44%	4.36%
Florida Power & Light	6.2	341081EX1	1st	6/1/2036	A	4.74	4.65	4.80	4.70	4.66	4.57	4.40	4.43	4.60	4.44	4.50	4.57	4.59%	4.50%
Florida Power & Light	5.85	341081EY9	1st	5/1/2037	A	4.61	4.55	4.70	4.57	4.56	4.47	4.30	4.29	4.47	4.34	4.40	4.49	4.48%	4.41%
Florida Power Corp.	5.9	341099CB3	1st	3/1/2033	A	4.88	4.92	5.06	4.90	4.80	4.84	4.74	4.64	4.81	4.72	4.72	4.78	4.82%	4.74%
Florida Power Corp.	4.8	341099CC1	1st	3/1/2013	A	4.60	4.60	4.62	4.63	4.65	4.66	4.68	4.69	4.71	4.73	4.74	4.76	4.67%	4.74%
Florida Power Corp.	5.8	341099CG2	1st Mtg Bd	9/15/2017	A	4.78	4.80	4.84	4.79	4.81	4.82	4.82	4.82	4.84	4.73	4.74	4.84	4.80%	4.77%
Florida Power Corp.	6.35	341099CH0	1st	9/15/2037	A	4.81	4.71	4.87	4.79	4.82	4.69	4.59	4.58	4.76	4.63	4.66	4.72	4.72%	4.67%
Georgia Power Co.	5.125	373334FN6	Sr Nts 'K'	11/15/2012	A	4.95	4.96	4.98	5.00	5.02	5.03	5.05	5.07	5.09	5.12			5.03%	5.12%
Georgia Power Co.	5.75	373334FS5	Sr Nts 'N'	4/15/2023	A	4.68	4.71	4.82	4.72	4.65	4.63	4.59	4.60	4.67	4.44	4.57	4.51	4.63%	4.51%
Georgia Power Co.	4.9	373334FT3	Sr Nts 'Q'	9/15/2013	A	4.60	4.61	4.62	4.63	4.65	4.66	4.68	4.70	4.70	4.71	4.73	4.75	4.67%	4.73%
Georgia Power Co.	5.8	373334FZ9	Sr Nts'Y'	4/15/2035	A	5.25	5.29	5.44	5.33	5.14	5.08	5.32	5.32	5.34	5.35	5.36	5.37	5.30%	5.36%
Georgia Power Co.	5.25	373334GA3	Sr Nt Ser Z	12/15/2015	A	4.61	4.60	4.60	4.59	4.61	4.62	4.63	4.58	4.60	4.62	4.63	4.64	4.61%	4.63%
Georgia Power Co.	5.65	373334GC9	Sr Nt Ser 2007a	3/1/2037	A	4.67	4.64	4.79	4.68	4.53	4.65	4.42	4.47	4.62	4.42	4.42	4.55	4.57%	4.46%
Georgia Power Co.	5.65	373334GC9	Sr Nts'07A	3/1/2037	A	4.67	4.64	4.79	4.68	4.53	4.65	4.42	4.47	4.62	4.42	4.42	4.55	4.57%	4.46%
Georgia Power Co.	5.7	373334GE5	Sr Nts'07B	6/1/2017	A	4.76	4.75	4.81	4.74	4.75	4.77	4.74	4.75	4.76	4.74	4.72	4.75	4.75%	4.74%
Gulf Power Co.	4.35	402479BT5	Sr Nts 'G'	7/15/2013	A	4.19	4.20	4.21	4.22	4.23	4.19	4.20	4.22	4.22	4.24	4.25	4.26	4.22%	4.25%
Gulf Power Co.	5.65	402479BW8	Sr Nts'L'	9/1/2035	A	5.35	5.32	5.47	5.35	5.16	5.10	5.03	5.05	5.24	5.15	5.16	5.17	5.21%	5.16%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Gulf Power Co.	5.3	402479BX6	Sr Nts'M'	12/1/2016	A	4.72	4.60	4.65	4.61	4.61	4.62	4.61	4.62	4.64	4.66	4.66	4.68	4.64%	4.67%
Mississippi Power Co.	5.4	605417BT0	Sr Nts'G'	7/1/2035	A	4.90	4.94	5.09	4.98	4.79	5.06	5.06	5.06	5.07	5.01	5.02	5.03	5.00%	5.02%
Northern Sts Pwr (Minn)	7.125	665772BN8	1st	7/1/2025	A	5.14	5.13	5.27	5.14	5.06	5.05	4.97	4.96	5.06	5.03	5.07	5.10	5.08%	5.07%
Northern Sts Pwr (Minn)	6.5	665772BQ1	1st	3/1/2028	A	4.90	4.94	5.06	4.98	4.84	5.12	5.01	4.95	5.07	4.71	4.84	4.82	4.94%	4.79%
Northern Sts Pwr (Minn)	8	665772BW8	1st	8/28/2012	A	7.68	7.71	7.75	7.81	7.85	7.90	7.95						7.81%	
Northern Sts Pwr (Minn)	5.25	665772CA5	1st	7/15/2035	A	4.43	4.41	4.52	4.41	4.38	4.35	4.22	4.16	4.32	4.19	4.22	4.28	4.32%	4.23%
Northern Sts Pwr (Minn)	6.25	665772CB3	1st Mtg Bd Ser	6/1/2036	A	4.65	4.64	4.78	4.64	4.60	4.58	4.44	4.37	4.55	4.42	4.45	4.52	4.55%	4.46%
Northern Sts Pwr (Minn)	6.2	665772CC1	1st	7/1/2037	A	4.65	4.62	4.74	4.63	4.56	4.54	4.40	4.33	4.50	4.34	4.44	4.50	4.52%	4.43%
PacifiCorp	7.7	695114BT4	1st	11/15/2031	A	5.33	5.27	5.38	5.27	5.16	5.12	5.03	5.06	5.22	5.04	5.09	5.19	5.18%	5.11%
PacifiCorp	5.9	695114BX5	1st	8/15/2034	A	4.86	4.89	4.97	4.86	4.67	4.59	4.50	4.52	4.69	4.55	4.55	4.64	4.69%	4.58%
PacifiCorp	4.95	695114BY3	1st	8/15/2014	A	4.50	4.50	4.52	4.53	4.54	4.56	4.57	4.58	4.60	4.62	4.63	4.65	4.57%	4.63%
PacifiCorp	5.25	695114BZ0	1st	6/15/2035	A	4.56	4.57	4.71	4.58	4.47	4.41	4.29	4.25	4.42	4.28	4.35	4.44	4.44%	4.36%
PacifiCorp	6.1	695114CB2	1st	8/1/2036	A	4.79	4.76	4.91	4.78	4.70	4.64	4.57	4.46	4.67	4.45	4.54	4.62	4.66%	4.54%
PacifiCorp	5.75	695114CD8	1st	4/1/2037	A	4.69	4.63	4.82	4.68	4.57	4.54	4.44	4.36	4.54	4.32	4.41	4.54	4.55%	4.42%
Potomac Electric Power	4.95	737679CW8	Sr Nts	11/15/2013	A	4.63	4.65	4.66	4.66	4.68	4.69	4.70	4.72	4.72	4.74	4.75	4.76	4.70%	4.75%
Potomac Electric Power	4.65	737679CX6	Sr Nts	4/15/2014	A	4.32	4.34	4.34	4.34	4.36	4.37	4.38	4.39	4.39	4.40	4.41	4.43	4.37%	4.41%
Potomac Electric Power	5.75	737679CY4	Sr Nts	4/15/2034	A	4.88	4.92	5.07	4.96	4.78	4.74	4.67	4.69	4.87	4.80	4.80	4.86	4.84%	4.82%
Potomac Electric Power	5.4	737679CZ1	Sr Nts	6/1/2035	A	4.64	4.68	4.82	4.71	4.54	4.62	4.39	4.41	4.59	4.52	4.52	4.58	4.59%	4.54%
Public Serv, Colorado	5.5	744448BX8	1st Coll Tr Ser 15	4/1/2014	A	4.99	5.00	5.03	5.04	5.06	5.07	5.09	5.11	5.12	5.15	5.16	5.18	5.08%	5.16%
South Carolina Electric & Gas Co.	7.12	837004BC3	1st	6/15/2013	A	6.62	6.65	6.68	6.67	6.71	6.73	6.76	6.79	6.82	6.86	6.87	6.92	6.76%	6.88%
South Carolina Electric & Gas Co.	6.62	837004BV1	1st	2/1/2032	A	5.22	5.24	5.22	5.10	5.03	4.98	4.83	4.84	5.01	4.95	4.94	5.01	5.03%	4.97%
South Carolina Electric & Gas Co.	5.8	837004BW9	1st	1/15/2033	A	4.95	4.99	5.10	4.98	4.81	4.81	4.75	4.56	4.72	4.66	4.66	4.72	4.81%	4.68%
South Carolina Electric & Gas Co.	5.3	837004BX7	1st	5/15/2033	A	4.67	4.71	4.82	4.69	4.65	4.57	4.41	4.37	4.53	4.47	4.50	4.56	4.58%	4.51%
South Carolina Electric & Gas Co.	5.25	837004BY5	1st	11/1/2018	A	4.45	4.47	4.53	4.47	4.46	4.45	4.43	4.40	4.43	4.39	4.39	4.39	4.44%	4.39%
South Carolina Electric & Gas Co.	5.25	837004BZ2	1st	3/1/2035	A	4.79	4.80	4.91	4.78	4.61	4.52	4.57	4.60	4.77	4.70	4.70	4.76	4.71%	4.72%
South Carolina El & Gas	6.25	837004CA6	1st Mtg Bd	7/1/2036	A	5.02	5.03	5.15	5.01	4.86	4.74	4.73	4.76	4.94	4.87	4.87	4.94	4.91%	4.89%
Southern California Edison Co.	5	842400ER0	1st & Ref '04A	1/15/2014	A	4.61	4.61	4.63	4.64	4.66	4.67	4.69	4.70	4.72	4.74	4.75	4.78	4.68%	4.76%
Southern California Edison Co.	6	842400ES8	1st & Ref '04B	1/15/2034	A	4.67	4.64	4.78	4.68	4.65	4.59	4.44	4.43	4.60	4.42	4.49	4.59	4.58%	4.50%
Southern California Edison Co.	5	842400EY5	1st & Ref'05A	1/15/2016	A	4.38	4.37	4.42	4.39	4.40	4.43	4.42	4.38	4.40	4.41	4.42	4.45	4.41%	4.43%
Southern California Edison Co.	5.55	842400EZ2	1st & Ref'05B	1/15/2036	A	4.57	4.48	4.62	4.53	4.51	4.42	4.29	4.24	4.41	4.30	4.33	4.45	4.43%	4.36%
Southern California Edison Co.	5.35	842400FA6	1st & Ref'05E	7/15/2035	A	4.53	4.44	4.58	4.48	4.47	4.38	4.25	4.21	4.38	4.25	4.27	4.38	4.39%	4.30%
Southern California Edison Co.	5.62	842400FC2	1st & Ref'06A	2/1/2036	A	4.59	4.50	4.64	4.53	4.53	4.44	4.31	4.27	4.44	4.32	4.38	4.44	4.45%	4.38%
Southern California Edison Co.	5.55	842400FF5	1st & Ref'06E	1/15/2037	A	4.55	4.49	4.60	4.51	4.49	4.40	4.27	4.23	4.40	4.27	4.30	4.46	4.41%	4.34%
Southern Indiana Gas & El	8.88	843163AP1	1st	6/1/2016	A	7.03	7.08	7.16	7.12	7.13	7.17	7.17	7.19	7.22	7.27	7.29	7.20	7.17%	7.25%
Southern Indiana Gas & El	6.72	843163AX4	Sr Nts	8/1/2029	A	5.35	5.39	5.52	5.42	5.27	5.22	5.16	5.18	5.34	5.28	5.28	5.34	5.31%	5.30%
Wisconsin Public Service	7.125	976843AX0	1st	7/1/2023	A	7.06	7.06	7.06	7.06	7.07	7.08	7.08	7.08	7.08	7.08	7.08	7.08	7.07%	7.08%
Wisconsin Public Service	4.875	976843BC5	Sr(Sec)Nts	12/1/2012	A	4.71	4.73	4.73	4.75	4.77	4.78	4.80	4.82	4.83	4.85	4.88		4.79%	4.87%
Wisconsin Public Service	4.8	976843BD3	Sr(Sec)Nts	12/1/2013	A	4.49	4.51	4.53	4.53	4.55	4.56	4.57	4.59	4.60	4.62	4.62	4.63	4.57%	4.62%
Wisconsin Public Service	5.55	976843BE1	Sr(Sec)Nts	12/1/2036	A	4.72	4.76	4.91	4.80	4.61	4.55	4.48	4.50	4.68	4.62	4.61	4.59	4.65%	4.61%
Avista Corp.	5.45	05379BAH0	1st	12/1/2019	A-	4.64	4.67	4.71	4.63	4.56	4.55	4.52	4.53	4.59	4.56	4.56	4.59	4.59%	4.57%
Avista Corp.	6.25	05379BAK3	1st Mtg Bd	12/1/2035	A-	5.18	5.22	5.37	5.25	5.07	5.01	4.93	4.87	5.05	4.89	4.88	4.88	5.05%	4.88%
Avista Corp.	5.7	05379BAM9	1st	7/1/2037	A-	4.92	4.96	5.12	5.00	4.81	4.75	4.67	4.61	4.80	4.72	4.72	4.65	4.81%	4.70%
Avista Corp.	5.7	05379BAM9	1st Mtg Bd	7/1/2037	A-	4.92	4.96	5.12	5.00	4.81	4.75	4.67	4.61	4.80	4.72	4.72	4.65	4.81%	4.70%
CenterPoint Energy Houston	5.7	15189XAC2	Gen Mtge'J2'	3/15/2013	A-	5.43	5.45	5.47	5.46	5.48	5.49	5.52	5.54	5.56	5.59	5.61	5.63	5.52%	5.61%
CenterPoint Energy Houston	6.95	15189XAD0	Gen Mtge'K2'	3/15/2033	A-	5.17	5.21	5.26	5.16	4.99	5.01	4.76	4.75	4.92	4.86	4.83	4.89	4.98%	4.86%
CenterPoint Energy Houston	5.6	15189XAH1	Gen Mtge'L2'	7/1/2023	A-	4.95	4.98	4.70	4.60	4.53	4.50	4.53	4.44	4.52	4.50	4.51	4.57	4.61%	4.53%
Commonwealth Edison	7.625	202795FJ4	1st Ser 92	4/15/2013	A-	7.09	7.10	7.13	7.17	7.21	7.22	7.26	7.31	7.34	7.39	7.42	7.47	7.26%	7.43%
Commonwealth Edison	7.5	202795FM7	1st Ser 94	7/1/2013	A-	6.91	6.90	6.93	6.96	7.00	7.02	7.06	7.10	7.13	7.17	7.20	7.25	7.05%	7.21%
Commonwealth Edison	6.15	202795HE3	1st Ser 98	3/15/2012	A-	6.10	6.14											6.12%	
Commonwealth Edison	5.875	202795HG8	1st Ser 100	2/1/2033	A-	4.88	4.85	4.89	4.78	4.67	4.59	4.47	4.46	4.62	4.51	4.56	4.62	4.66%	4.56%
Commonwealth Edison	4.7	202795HH6	1st Ser 101	4/15/2015	A-	4.29	4.25	4.27	4.25	4.28	4.29	4.29	4.30	4.31	4.30	4.31	4.32	4.29%	4.31%
Commonwealth Edison	5.9	202795HK9	1st Ser 103	3/15/2036	A-	4.82	4.77	4.84	4.71	4.63	4.57	4.37	4.40	4.57	4.41	4.44	4.57	4.59%	4.47%
Commonwealth Edison	5.95	202795HN3	1st Ser 104	8/15/2016	A-	5.04	5.03	5.05	5.02	5.02	5.07	5.06	5.05	5.08	5.04	5.08	5.10	5.05%	5.07%
Connecticut Lt & Pwr	7.875	207597CZ6	1st & Ref D	10/1/2024	A-	5.62	5.66	5.80	5.67	5.59	5.56	5.52	5.53	5.63	5.61	5.62	5.64	5.62%	5.62%
Connecticut Lt & Pwr	5	207597DT9	1st & Ref '05A	4/1/2015	A-	4.49	4.51	4.54	4.53	4.55	4.56	4.56	4.57	4.58	4.60	4.61	4.57	4.56%	4.59%
Connecticut Lt & Pwr	5.62	207597DU6	1st & Ref '05B	4/1/2035	A-	4.90	4.94	5.02	4.91	4.73	4.67	4.60	4.39	4.56	4.49	4.55	4.62	4.70%	4.55%
Connecticut Lt & Pwr	6.35	207597DV4	1st & Ref'06A	6/1/2036	A-	5.01	5.02	5.00	4.89	4.69	4.90	4.82	4.52	4.70	4.63	4.69	4.76	4.80%	4.69%
Connecticut Lt & Pwr	5.38	207597DW2	1st & Ref'07A	3/1/2017	A-	4.69	4.73	4.71	4.66	4.66	4.69	4.63	4.63	4.66	4.65	4.67	4.60	4.67%	4.64%
Connecticut Lt & Pwr	5.75	207597DX0	1st & Ref'07B	3/1/2037	A-	4.90	4.91	5.02	4.91	4.72	4.74	4.67	4.46	4.64	4.58	4.57	4.64	4.73%	4.60%
Consolidated Edison, Inc.	5.62	209111DZ3	Deb '02A	7/1/2012	A-	5.51	5.53	5.55	5.57	5.60	5.63							5.57%	
Consolidated Edison, Inc.	4.88	209111EA7	Deb '02B	2/1/2013	A-	4.68	4.69	4.70	4.72	4.74	4.75	4.76	4.78	4.79	4.82	4.83	4.85	4.76%	4.83%
Consolidated Edison, Inc.	5.88	209111EB5	Deb '03A	4/1/2033	A-	4.94	4.94	5.05	4.95	4.92	4.83	4.73	4.57	4.74	4.65	4.71	4.77	4.82%	4.71%
Consolidated Edison, Inc.	3.85	209111EC3	Deb'03B	6/15/2013	A-	3.71	3.70	3.71	3.71	3.72	3.73	3.74	3.75	3.75	3.77	3.78	3.79	3.74%	3.78%
Consolidated Edison, Inc.	4.7	209111EE9	Deb'04A	2/1/2014	A-	4.36	4.37	4.39	4.39	4.41	4.43	4.44	4.45	4.45	4.47	4.48	4.50	4.43%	4.48%
Consolidated Edison, Inc.	5.7	209111EF6	Deb'04B	2/1/2034	A-	4.87	4.88	4.99	4.88	4.85	4.76	4.66	4.52	4.69	4.58	4.63	4.70	4.75%	4.64%
Consolidated Edison, Inc.	5.3	209111EH2	Deb '05A	3/1/2035	A-	4.58	4.55	4.66	4.56	4.53	4.43	4.31	4.21	4.36	4.27	4.37	4.37	4.43%	4.34%
Consolidated Edison, Inc.	5.25	209111EJ8	Deb '05B	7/1/2035	A-	4.86	4.86	4.98	4.87	4.51	4.48	4.41	4.43	4.61	4.42	4.47	4.54	4.62%	4.48%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Consolidated Edison, Inc.	5.38	209111EK5	Deb'05C	12/15/2015	A-	4.67	4.66	4.69	4.68	4.70	4.73	4.73	4.70	4.71	4.73	4.74	4.77	4.71%	4.75%
Consolidated Edison, Inc.	5.85	209111EL3	Deb'06A	3/15/2036	A-	4.70	4.68	4.79	4.66	4.65	4.56	4.42	4.32	4.49	4.40	4.49	4.59	4.56%	4.49%
Consolidated Edison, Inc.	6.2	209111EM1	Deb'06B	6/15/2036	A-	4.78	4.75	4.87	4.76	4.72	4.63	4.50	4.39	4.57	4.47	4.56	4.66	4.64%	4.56%
Consolidated Edison, Inc.	5.5	209111EN9	Deb'06C	9/15/2016	A-	4.67	4.69	4.74	4.70	4.70	4.72	4.70	4.71	4.72	4.72	4.73	4.73	4.71%	4.73%
Consolidated Edison, Inc.	5.3	209111EP4	Deb'06D	12/1/2016	A-	4.52	4.52	4.57	4.53	4.52	4.55	4.54	4.54	4.56	4.57	4.58	4.60	4.55%	4.58%
Consolidated Edison, Inc.	5.7	209111EQ2	Deb'06E	12/1/2036	A-	4.65	4.63	4.74	4.63	4.60	4.51	4.34	4.29	4.44	4.34	4.44	4.49	4.51%	4.42%
Consolidated Edison, Inc.	6.3	209111ES8	Deb'07A	8/15/2037	A-	4.77	4.74	4.86	4.75	4.74	4.62	4.48	4.37	4.53	4.46	4.55	4.65	4.63%	4.55%
Dominion Resources	7.82	257469AC0	Remkt Nts 'E'	9/15/2014	A-	6.22	6.24	6.27	6.29	6.32	6.35	6.37	6.40	6.42	6.46	6.48	6.52	6.36%	6.49%
Dominion Resources	5.7	257469AF3	Sr Nts 'C'	9/17/2012	A-	5.53	5.54	5.56	5.59	5.61	5.63	5.66	5.69					5.60%	
Dominion Resources	6.75	257469AG1	Sr Nts 'E'	12/15/2032	A-	5.30	5.34	5.39	5.25	5.15	5.10	5.03	5.05	5.23	5.07	5.07	5.13	5.18%	5.09%
Dominion Resources, Inc. (Va.)	6.25	25746UAJ8	Sr Nts '02B	6/30/2012	A-	6.11	6.13	6.16	6.19	6.22								6.16%	
Dominion Resources, Inc. (Va.)	5.95	25746UAV1	Sr Nts '05B	6/15/2035	A-	4.98	4.95	4.96	4.85	4.82	4.80	4.60	4.62	4.80	4.59	4.60	4.70	4.77%	4.63%
Dominion Resources, Inc. (Va.)	5.15	25746UAW9	Sr Nts '05C	7/15/2015	A-	4.62	4.57	4.57	4.58	4.61	4.62	4.62	4.62	4.63	4.62	4.65	4.66	4.61%	4.64%
Dominion Resources, Inc. (Va.)	5.6	25746UBB4	SrNts'06A	11/15/2016	A-	4.78	4.79	4.81	4.78	4.80	4.82	4.80	4.80	4.79	4.81	4.82	4.83	4.80%	4.82%
Dominion Resources, Inc. (Va.)	6	25746UBC2	Sr Nts '07A	11/30/2017	A-	5.01	4.97	5.01	4.95	4.99	5.04	5.01	4.94	4.94	4.93	4.90	4.97	4.97%	4.93%
Entergy Arkansas	6.38	29364DAK6	1st	11/1/2034	A-	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37%	6.37%
Entergy Arkansas	5.66	29364DAL4	1st	2/1/2025	A-	5.30	5.31	5.33	5.32	5.33	5.35	5.35	5.35	5.36	5.38	5.38	5.39	5.35%	5.38%
Entergy Mississippi	5.15	29364NAH1	1st	2/1/2013	A-	4.94	4.96	4.97	4.99	5.01	5.02	5.04	5.06	5.07	5.09	5.11	5.13	5.03%	5.11%
Entergy Mississippi	4.95	29364NAK4	1st	6/1/2018	A-	4.94	4.94	4.94	4.94	4.94	4.94	4.94	4.94	4.94	4.94	4.94	4.94	4.94%	4.94%
Entergy Mississippi	6.25	29364NAL2	1st	4/1/2034	A-	6.11	6.12	6.13	6.12	6.13	6.14	6.14	6.14	6.15	6.15	6.16	6.16	6.14%	6.16%
Idaho Pwr	4.75	45138LAK9	Sec M-T Nts'D'	11/15/2012	A-	4.62	4.63	4.63	4.63	4.64	4.65	4.65	4.65	4.65	4.65			4.64%	4.65%
Idaho Pwr	6	45138LAL7	Sec M-T Nts'D'	11/15/2032	A-	5.17	5.18	5.26	5.01	4.84	4.81	4.66	4.68	4.79	4.73	4.72	4.84	4.89%	4.76%
Idaho Pwr	4.25	45138LAM5	Sec M-T Nts 'E'	10/1/2013	A-	4.02	4.04	4.05	4.05	4.07	4.08	4.09	4.10	4.11	4.12	4.13	4.14	4.08%	4.13%
Idaho Pwr	5.5	45138LAN3	Sec M-T Nts 'E'	4/1/2033	A-	4.93	4.93	5.07	4.82	4.65	4.63	4.47	4.50	4.60	4.54	4.54	4.69	4.70%	4.59%
Idaho Pwr	5.5	45138LAP8	Sec M-T Nts'E'	3/15/2034	A-	5.01	5.02	5.09	4.84	4.66	4.64	4.48	4.50	4.61	4.55	4.54	4.67	4.72%	4.59%
Idaho Pwr	5.875	45138LAQ6	Sec M-T Nts'E'	8/15/2034	A-	5.11	5.11	5.19	4.93	4.76	4.73	4.57	4.59	4.70	4.64	4.64	4.76	4.81%	4.68%
Idaho Pwr	5.3	45138LAR4	Sec M-T Nts'F'	8/15/2035	A-	4.94	4.94	5.03	4.76	4.58	4.56	4.39	4.41	4.52	4.46	4.45	4.58	4.64%	4.50%
Idaho Pwr Co 1st Mtg Secd MTN	6.3	45138LAS2	Secd MTN Ser F	6/15/2037	A-	5.08	5.09	5.25	4.97	4.78	4.76	4.58	4.61	4.72	4.66	4.65	4.79	4.83%	4.70%
KeySpan Corp.	8	49337WAC4	Nts	11/15/2030	A-	6.05	6.09	6.01	5.91	5.74	5.68	5.72	5.72	5.89	5.77	5.77	5.83	5.85%	5.79%
KeySpan Corp.	4.65	49337WAG5	Nts	4/1/2013	A-	4.50	4.51	4.48	4.49	4.51	4.52	4.53	4.55	4.55	4.57	4.58	4.60	4.53%	4.58%
KeySpan Corp.	5.88	49337WAH3	Nts	4/1/2033	A-	5.03	5.24	5.38	5.21	5.03	4.97	5.07	5.10	5.27	5.14	5.14	5.11	5.14%	5.13%
KeySpan Corp	5.8	49337WAJ9	Nt	4/1/2035	A-	4.98	5.22	5.37	5.09	4.91	4.99	5.07	4.88	5.06	4.89	4.89	4.95	5.03%	4.91%
MidAmerican Energy Co.	5.95	595620AG0	Sr Nts	7/15/2017	A-	4.97	4.99	5.02	4.97	4.97	4.98	4.97	4.94	4.90	4.89	4.93	4.95	4.96%	4.92%
MidAmerican Energy Co	5.8	59562EAH8	MTN-tranche # Tr 00008	10/15/2036	A-	4.88	4.79	4.94	4.75	4.72	4.73	4.54	4.39	4.56	4.40	4.50	4.57	4.65%	4.49%
Oncor Electric Delivery	6.38	68233DAL1	Sr Sec Nts	1/15/2015	A-	5.57	5.61	5.63	5.67	5.69	5.75	5.73	5.75	5.73	5.76	5.75	5.77	5.70%	5.76%
Oncor Electric Delivery	7.25	68233DAP2	Sr Sec Nts	1/15/2033	A-	5.41	5.41	5.70	6.01	5.89	5.86	5.65	5.75	5.87	5.51	5.50	5.53	5.67%	5.51%
Oncor Electric Delivery	7	68233DAR8	Deb	9/1/2022	A-	5.48	5.52	5.68	5.73	5.72	5.76	5.59	5.62	5.67	5.50	5.53	5.50	5.61%	5.51%
Oncor Electric Delivery	6.38	68233DAS6	Sr Sec Nts	5/1/2012	A-	6.28	6.31	6.34	6.38									6.33%	
Oncor Electric Delivery	7	68233DAT4	Sr Sec Nts	5/1/2032	A-	5.38	5.35	5.66	5.97	5.85	5.83	5.62	5.71	5.83	5.45	5.47	5.50	5.64%	5.47%
Exelon Corp.	4.75	693304AD9	1st&Ref Mtg	10/1/2012	A-	4.62	4.63	4.65	4.66	4.68	4.69	4.71						4.66%	
Exelon Corp.	5.9	693304AG2	1st Ref Mtg	5/1/2034	A-	4.76	4.80	4.88	4.77	4.68	4.62	4.80	4.83	4.72	4.65	4.65	4.71	4.74%	4.67%
Exelon Corp.	5.95	693304AH0	1st Ref Mtg	10/1/2036	A-	4.65	4.69	4.80	4.64	4.46	4.50	4.43	4.32	4.50	4.44	4.44	4.50	4.53%	4.46%
Exelon Corp.	5.7	693304AJ6	1st Ref Mtg	3/15/2037	A-	4.65	4.69	4.80	4.67	4.51	4.45	4.38	4.35	4.53	4.47	4.46	4.53	4.54%	4.49%
Penna P&L	7.375	709051CD6	1st	3/1/2014	A-	6.57	6.61	6.65	6.67	6.70	6.72	6.75	6.73	6.75	6.77	6.79	6.83	6.71%	6.80%
Portland Gen'l Elec	9.31	73651HAV3	M-T Nts	8/11/2021	A-	6.45	6.48	6.61	6.50	6.43	6.44	6.40	6.43	6.50	6.49	6.51	6.51	6.48%	6.50%
Public Serv, New Hamp.	5.25	744482BG4	1st 'L'	7/15/2014	A-	4.83	4.85	4.87	4.87	4.89	4.90	4.91	4.93	4.94	4.92	4.93	4.95	4.90%	4.93%
Public Svc Co New Hampshire Fo	5.6	744538AA7	1st Mtg Bd	10/5/2035	A-	4.85	4.89	5.04	4.93	4.75	4.69	4.62	4.64	4.82	4.70	4.69	4.73	4.78%	4.71%
Public Service Electric and Gas Co.	8	744567BA5	1st & Ref	6/1/2037	A-	5.70	5.67	5.83	5.71	5.51	5.45	5.37	5.38	5.57	5.50	5.50	5.54	5.56%	5.51%
Public Serv Elec & Gas	5	744567BB3	1st & Ref Mtg	7/1/2037	A-	4.91	4.88	5.04	4.92	4.73	4.67	4.59	4.61	4.80	4.73	4.72	4.77	4.78%	4.74%
Public Service Electric and Gas Co.	5	744567BB3	1st & Ref	7/1/2037	A-	4.91	4.88	5.04	4.92	4.73	4.67	4.59	4.61	4.80	4.73	4.72	4.77	4.78%	4.74%
Public Service Electric and Gas Co.	9.25	744567CN6	1st & Ref CC	6/1/2021	A-	6.25	6.29	6.42	6.31	6.24	6.23	6.20	6.22	6.31	6.26	6.28	6.30	6.28%	6.28%
Public Service Electric and Gas Co.	6.75	744567EP9	1st & Ref VV	1/1/2016	A-	5.67	5.69	5.74	5.69	5.70	5.72	5.73	5.74	5.77	5.79	5.81	5.83	5.74%	5.81%
Public Svc Elec Gas Co Secd MT	7.04	74456QAG1	MTN Tranche # Tr 0000	11/6/2020	A-	5.54	5.58	5.69	5.59	5.53	5.54	5.51	5.53	5.60	5.41	5.43	5.46	5.53%	5.43%
Public Service Electric and Gas Co.	5.12	74456QAJ5	Sec M-T Nts 'B'	9/1/2012	A-	4.99	5.01	5.03	5.05	5.06	5.08	5.10	5.13					5.06%	
Public Service Electric and Gas Co.	5	74456QAK2	Sec M-T Nts 'B'	1/1/2013	A-	4.82	4.82	4.83	4.85	4.87	4.88	4.90	4.92	4.94	4.96	4.97	5.00	4.90%	4.98%
Public Service Electric and Gas Co.	5.38	74456QAL0	Sec M-T Nts 'C'	9/1/2013	A-	5.02	5.03	5.05	5.07	5.09	5.10	5.10	5.13	5.14	5.16	5.18	5.20	5.11%	5.18%
Public Service Electric and Gas Co.	5	74456QAN6	Sec M-T Nts'D'	8/15/2014	A-	4.55	4.55	4.57	4.57	4.58	4.60	4.59	4.60	4.61	4.63	4.64	4.66	4.60%	4.64%
Public Svc Elec Gas Co Secd MT	5.25	74456QAP1	Med Term Notes	7/1/2035	A-	4.53	4.41	4.55	4.42	4.32	4.36	4.23	4.16	4.32	4.23	4.23	4.35	4.34%	4.27%
Public Svc Elec Gas Co Secd MT	5.7	74456QAQ9	Secd Mtns, Ser D	12/1/2036	A-	4.76	4.53	4.64	4.51	4.40	4.44	4.31	4.24	4.41	4.31	4.31	4.44	4.44%	4.35%
Public Svc Elec Gas Co Secd MT	5.8	74456QAR7	Secured Mtn Series E N	5/1/2037	A-	4.70	4.57	4.66	4.53	4.41	4.45	4.32	4.25	4.42	4.33	4.32	4.47	4.45%	4.37%
Puget Sound Pwr & Lt	7.02	74531EAA0	Sr M-T Nts'A'	12/1/2027	A-	5.40	5.51	5.67	5.47	5.37	5.23	5.14	5.10	5.19	5.15	5.28	5.24	5.31%	5.22%
Puget Sound Energy	6.74	74531EAB8	Sr M-T Nts 'A'	6/15/2018	A-	5.53	5.57	5.65	5.58	5.59	5.61	5.60	5.45	5.47	5.50	5.50	5.48	5.54%	5.49%
Puget Sound Energy	7	74531EAC6	Sr M-T Nts 'B'	3/9/2029	A-	5.45	5.45	5.59	5.49	5.34	5.27	5.21	5.23	5.34	5.28	5.28	5.40	5.36%	5.32%
Puget Sound Energy	5.48	745332BU9	Sr Nts	6/1/2035	A-	4.69	4.67	4.81	4.65	4.57	4.48	4.29	4.25	4.42	4.36	4.42	4.51	4.51%	4.43%
Puget Sound Energy	5.2	745332BV7	Sr(Sec)Nts	10/1/2015	A-	4.64	4.66	4.69	4.59	4.60	4.61	4.62	4.61	4.62	4.65	4.66	4.67	4.64%	4.66%
Puget Sound Energy	6.72	745332BW5	Sr Nts	6/15/2036	A-	4.98	4.96	5.07	4.94	4.86	4.77	4.54	4.50	4.68	4.61	4.71	4.81	4.79%	4.71%
Puget Sound Energy	6.27	745332BX3	Sr(Sec)Nts	3/15/2037	A-	4.88	4.85	4.97	4.83	4.75	4.66	4.42	4.38	4.56	4.50	4.59	4.69	4.67%	4.59%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Southwestern Public Serv	5.6	845743BK8	Sr Nts'E'	10/1/2016	A-	4.95	4.94	4.94	4.90	4.95	4.96	4.95	4.95	4.97	5.00	4.97	4.99	4.96%	4.99%
Southwestern Public Serv	6	845743BL6	Sr Nts'F'	10/1/2036	A-	5.35	5.32	5.30	5.23	5.04	5.08	5.01	4.86	4.84	4.70	4.74	4.81	5.02%	4.75%
Virginia Electric & Power Co.	4.75	927804EU4	Sr Nts 'A'	3/1/2013	A-	4.56	4.56	4.57	4.59	4.60	4.61	4.63	4.65	4.66	4.68	4.69	4.71	4.63%	4.69%
Virginia Electric & Power Co.	5.25	927804EW0	Sr Nts 'C'	12/15/2015	A-	4.57	4.60	4.62	4.61	4.66	4.67	4.67	4.62	4.64	4.64	4.65	4.66	4.63%	4.65%
Virginia Electric & Power Co.	5.4	927804EZ3	Sr Nts'A'	1/15/2016	A-	4.67	4.67	4.72	4.68	4.70	4.72	4.69	4.70	4.71	4.72	4.73	4.75	4.71%	4.73%
Virginia Electric & Power Co.	6	927804FA7	Sr Nts'B'	1/15/2036	A-	4.68	4.68	4.80	4.70	4.69	4.63	4.43	4.37	4.57	4.38	4.50	4.53	4.58%	4.47%
Virginia Electric & Power Co.	6	927804FB5	Sr Nt 2007 Ser A	5/15/2037	A-	4.68	4.65	4.77	4.67	4.69	4.60	4.39	4.33	4.53	4.37	4.49	4.56	4.56%	4.47%
Virginia Electric & Power Co.	5.95	927804FC3	Sr Nt 2007 Ser B	9/15/2017	A-	4.90	4.92	4.91	4.86	4.88	4.91	4.82	4.80	4.84	4.84	4.85	4.87	4.87%	4.85%
Virginia Electric & Power Co.	5.1	927804FD1	Sr Nt 2007 Ser C	11/30/2012	A-	4.91	4.93	4.94	4.96	4.98	5.00	5.02	5.04	5.05	5.08			4.54%	5.08%
Virginia Electric & Power Co.	6.35	927804FE9	Sr Nt 2007 Ser D	11/30/2037	A-	4.77	4.71	4.86	4.74	4.75	4.65	4.45	4.41	4.62	4.42	4.55	4.59	4.63%	4.52%
Virginia Electric & Power Co.	5.4	927804FF6	Sr Nt 2008 Ser A	4/30/2018	A-	4.50	4.53	4.55	4.49	4.50	4.51	4.50	4.46	4.47	4.43	4.43	4.46	4.49%	4.44%
Washington Water Power	7.53	94068VAA1	Secd MTN	5/5/2023	A-	5.69	5.71	5.84	5.72	5.64	5.62	5.57	5.58	5.67	5.63	5.64	5.67	5.67%	5.65%
Washington Water Power	7.39	94068VAF0	Sec M-T Nts'A'	5/11/2018	A-	5.98	6.04	6.12	6.04	6.04	6.06	6.04	5.97	6.00	5.99	6.00	6.02	6.03%	6.00%
Wisconsin Electric Power Company	6.875	976656BL1	Deb	12/1/2095	A-	4.93	5.20	5.46	5.18	4.94	5.22	5.10	4.94	5.10	4.95	4.95	5.19	5.10%	5.03%
Wisconsin Electric Power	6.5	976656BP2	Deb	6/1/2028	A-	5.08	5.11	5.32	5.22	5.07	5.08	5.02	4.99	5.14	5.09	5.09	5.14	5.11%	5.11%
Wisconsin Electric Power	5.7	976656BZ0	Deb	12/1/2036	A-	4.52	4.56	4.64	4.53	4.36	4.47	4.40	4.30	4.47	4.41	4.44	4.47	4.46%	4.44%
Wisconsin Power & Light Co.	6.25	976826BD8	Deb	7/31/2034	A-	4.90	4.91	5.06	4.90	4.72	4.73	4.66	4.69	4.80	4.67	4.67	4.73	4.79%	4.69%
AmerenUE	5.1	02360FAA4	Sr Sec Nts	10/1/2019	BBB+	4.43	4.43	4.51	4.44	4.37	4.35	4.33	4.31	4.33	4.27	4.28	4.30	4.36%	4.28%
AmerenUE	5.3	02360FAB2	Sr Sec Nts	8/1/2037	BBB+	4.48	4.48	4.63	4.50	4.45	4.39	4.22	4.22	4.39	4.33	4.32	4.39	4.40%	4.35%
AmerenUE	5.4	02360FAC0	Sr Sec Nts	2/1/2016	BBB+	4.78	4.80	4.84	4.76	4.76	4.77	4.77	4.75	4.75	4.78	4.78	4.80	4.78%	4.79%
Arizona Public Service	6.5	040555CD4	Nts	3/1/2012	BBB+	6.46	6.50											6.48%	
Arizona Public Service	4.65	040555CE2	Nts	5/15/2015	BBB+	4.23	4.25	4.25	4.24	4.25	4.26	4.27	4.25	4.26	4.27	4.27	4.29	4.26%	4.28%
Arizona Public Service	5.625	040555CF9	Nts	5/15/2033	BBB+	5.06	5.10	5.17	5.07	4.97	5.04	4.87	4.86	5.04	4.78	4.78	4.81	4.96%	4.79%
Arizona Public Service	5.8	040555CG7	Nts	6/30/2014	BBB+	5.24	5.26	5.28	5.28	5.30	5.31	5.32	5.34	5.33	5.36	5.37	5.39	5.32%	5.37%
Arizona Public Service	5.5	040555CH5	Nts	9/1/2035	BBB+	4.96	4.83	4.91	4.80	4.64	4.71	4.54	4.56	4.64	4.45	4.64	4.64	4.69%	4.58%
Arizona Public Service	6.25	040555CJ1	Nt	8/1/2016	BBB+	5.29	5.29	5.33	5.30	5.28	5.33	5.31	5.30	5.31	5.33	5.29	5.32	5.31%	5.31%
Arizona Public Service	6.88	040555CK8	Nts	8/1/2036	BBB+	5.36	5.36	5.49	5.37	5.18	5.13	5.09	5.08	5.27	5.17	5.16	5.13	5.23%	5.15%
Baltimore Gas & Elec Co MTN BE	6.75	05916MAA1	MTN Series E	6/5/2012	BBB+	6.63	6.65	6.68	6.71	6.75								6.68%	
Baltimore Gas & Elec Co MTN BE	6.75	05916MAB9	MTN Series E	6/5/2012	BBB+	6.63	6.65	6.68	6.71	6.75								6.68%	
Baltimore Gas & Elec Co MTN BE	6.75	05916MAC7	MTN Tranche # Tr 00003	6/12/2012	BBB+	6.62	6.65	6.68	6.71	6.74								6.68%	
Baltimore Gas & Elec Co MTN BE	6.73	05916MAD5	MTN Tranche # Tr 00004	6/12/2012	BBB+	6.60	6.63	6.66	6.69	6.72								6.66%	
CenterPoint Energy Res	5.95	15189WAB6	Sr Nts	1/15/2014	BBB+	5.50	5.53	5.55	5.55	5.57	5.56	5.57	5.59	5.61	5.62	5.64	5.66	5.58%	5.64%
CenterPoint Energy Res	7.875	15189YAB2	Sr Nts	4/1/2013	BBB+	7.32	7.37	7.40	7.41	7.45	7.48	7.52	7.57	7.60	7.65	7.69	7.74	7.52%	7.69%
CenterPoint Energy Res	6.25	15189YAD8	Sr Nts	2/1/2037	BBB+	5.26	5.26	5.42	5.30	5.11	5.42	5.05	4.81	4.92	4.79	4.79	5.02	5.10%	4.87%
CenterPoint Energy Res	6.25	15189YAD8	Sr Nt	2/1/2037	BBB+	5.26	5.26	5.42	5.30	5.11	5.42	5.05	4.81	4.92	4.79	4.79	5.02	5.10%	4.87%
Central Illinois Light	6.2	153645AX4	Sr Secd Nt 144a	6/15/2016	BBB+	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50%	5.50%
Central Illinois Light	6.7	153645BA3	Sr Secd Nt 144a	6/15/2036	BBB+	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22	6.22%	6.22%
Central Maine Pwr	5.7	15405CCQ3	MTN Ser-e	8/29/2012	BBB+	5.59	5.60	5.61	5.63	5.65	5.66	5.68						5.63%	
Cincinnati Gas & Electric Co.	6.9	172070BT0	Deb	6/1/2025	BBB+	5.39	5.38	5.52	5.39	5.32	5.29	5.25	5.19	5.29	5.22	5.20	5.45	5.32%	5.29%
Cincinnati Gas & Electric Co.	5.7	172070CN2	Deb	9/15/2012	BBB+	5.52	5.54	5.56	5.59	5.61	5.63	5.66	5.69					5.60%	
Consumers Energy Co.	6.875	210518AT3	Sr Nts 'B'	3/1/2018	BBB+	5.64	5.69	5.76	5.56	5.57	5.58	5.57	5.52	5.55	5.46	5.46	5.49	5.57%	5.47%
Consumers Energy Co.	5	210518CD6	1st 'O'	2/15/2012	BBB+	4.99													
Consumers Energy Co.	5.5	210518CE4	1st 'P'	8/15/2016	BBB+	4.75	4.78	4.80	4.76	4.77	4.75	4.75	4.75	4.78	4.75	4.73	4.76	4.76%	4.75%
Consumers Energy Co.	5	210518CF1	1st Mtg Bd	3/15/2015	BBB+	4.53	4.52	4.53	4.52	4.51	4.53	4.53	4.54	4.55	4.53	4.54	4.58	4.53%	4.55%
Consumers Energy Co.	5.15	210518CG9	1st	2/15/2017	BBB+	4.48	4.51	4.56	4.46	4.47	4.48	4.47	4.47	4.50	4.44	4.44	4.44	4.48%	4.44%
Consumers Energy Co.	5.65	210518CL8	1st	4/15/2020	BBB+	4.77	4.70	4.73	4.65	4.63	4.63	4.54	4.54	4.57	4.52	4.53	4.57	4.62%	4.54%
Consumers Energy Co.	5.8	210518CP9	1st	9/15/2035	BBB+	4.87	4.87	4.92	4.81	4.67	4.61	4.40	4.42	4.59	4.53	4.52	4.59	4.65%	4.55%
Consumers Energy Co.	5.65	210518CQ7	1st	9/15/2018	BBB+	4.76	4.80	4.83	4.73	4.72	4.67	4.65	4.64	4.67	4.60	4.60	4.62	4.69%	4.61%
Consumers Energy Co.	6.12	210518CR5	1st	3/15/2019	BBB+	5.00	5.02	5.07	5.02	4.99	4.97	4.89	4.91	4.94	4.94	4.89	4.89	4.96%	4.91%
Delmarva Pwr & Light	5	247109BH3	Nt	11/15/2014	BBB+	4.60	4.62	4.64	4.64	4.66	4.64	4.65	4.66	4.67	4.69	4.67	4.68	4.65%	4.68%
Delmarva Pwr & Light	5	247109BJ9	Fixed Rt Nt	6/1/2015	BBB+	4.60	4.60	4.62	4.60	4.62	4.59	4.60	4.60	4.62	4.63	4.61	4.62	4.61%	4.62%
Duke Energy Corp.	6	264399DK9	Sr Nts 'A'	12/1/2028	BBB+	4.90	4.93	5.05	4.96	4.88	4.76	4.75	4.72	4.87	4.79	4.84	4.89	4.86%	4.84%
Duke Energy Corp.	6.45	264399ED4	Sr Nts	10/15/2032	BBB+	5.13	5.08	5.15	5.00	4.93	4.87	4.83	4.83	5.00	4.85	4.91	5.00	4.97%	4.92%
Duke Energy Corp.	5.625	264399EF9	Sr Nts	11/30/2012	BBB+	5.40	5.42	5.44	5.46	5.48	5.50	5.53	5.55	5.57	5.60			5.50%	5.60%
Empire District Electric Co. (The)	7.2	291641AS7	1st	12/1/2016	BBB+	5.94	5.99	6.06	6.01	6.01	6.03	6.03	6.03	6.06	6.10	6.10	6.13	6.04%	6.11%
Enersis S.A.	7.4	29274FAB0	Nt	12/1/2016	BBB+	6.25	6.25	6.30	6.21	6.27	6.35	6.29	6.27	6.28	6.22	6.27	6.28	6.27%	6.26%
Entergy Gulf States	6.18	29364LAT9	1st	3/1/2035	BBB+	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.17	6.18%	6.18%
Entergy Gulf States	5.7	29364LAU6	1st	6/1/2015	BBB+	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70%	5.70%
Entergy New Orleans	5.65	29364PAJ2	1st	9/10/2029	BBB+	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64%	5.64%
Entergy New Orleans	5.6	29364PAK9	1st	9/1/2024	BBB+	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59%	5.59%
Exelon Corp.	5.62	30161NAC5	Sr Nts	6/15/2035	BBB+	5.17	4.97	5.19	5.12	5.14	5.25	4.90	4.89	5.01	4.76	4.89	5.03	5.03%	4.89%
Florida Pwr	6.75	34110QAL2	Nts	2/1/2028	BBB+	5.68	5.72	5.76	5.67	5.58	5.53	5.47	5.50	5.65	5.54	5.46	5.52	5.59%	5.51%
Interstate Pwr & Lt	6.45	461070AC8	Sr Deb	10/15/2033	BBB+	5.04	5.05	5.19	5.10	4.92	4.90	4.83	4.86	5.03	4.97	4.96	5.03	4.99%	4.99%
Interstate Pwr & Lt	6.3	461070AD6	Sr Deb	5/1/2034	BBB+	4.99	4.99	5.14	4.98	4.81	4.85	4.78	4.80	4.98	4.91	4.91	4.97	4.93%	4.93%
Interstate Pwr & Lt	5.5	461070AE4	Sr Deb	7/15/2025	BBB+	4.92	4.94	4.94	4.78	4.70	4.67	4.62	4.63	4.72	4.69	4.70	4.72	4.75%	4.70%
MidAmerican Funding	6.93	59562HAJ7	Sr Sec Bonds	3/1/2029	BBB+	5.58	5.49	5.63	5.31	5.31	5.28	5.12	5.14	5.26	5.16	5.15	5.21	5.30%	5.17%
MidAmerican Energy Hldg	5.88	59562VAF4	Sr Nts	10/1/2012	BBB+	5.68	5.71	5.72	5.74	5.77	5.79	5.82	5.85	5.85				5.77%	

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
MidAmerican Energy Hldg	5	59562VAK3	Sr Nts	2/15/2014	BBB+	4.64	4.64	4.65	4.65	4.67	4.69	4.69	4.71	4.72	4.74	4.75	4.77	4.69%	4.75%
MidAmerican Energy Hldg	6.12	59562VAM9	SrBonds	4/1/2036	BBB+	5.04	4.97	5.11	5.03	4.94	4.83	4.68	4.71	4.86	4.65	4.75	4.85	4.87%	4.75%
National Grid plc	6.3	636274AC6	Notes	8/1/2016	BBB+	5.45	5.42	5.47	5.42	5.44	5.46	5.44	5.45	5.42	5.45	5.42	5.42	5.44%	5.43%
National Grid plc	6.3	636274AC6	Nt	8/1/2016	BBB+	5.45	5.42	5.47	5.42	5.44	5.46	5.44	5.45	5.42	5.45	5.42	5.42	5.44%	5.43%
Oklahoma Gas & Elec Co	6.65	678858AZ4	Sr Nts	7/15/2027	BBB+	5.17	5.22	5.37	5.22	5.13	5.09	5.03	5.04	5.15	5.03	5.04	5.07	5.13%	5.05%
Oklahoma Gas & Elec Co	6.5	678858BB6	Sr Nt	7/15/2017	BBB+	5.41	5.45	5.52	5.46	5.46	5.48	5.47	5.47	5.44	5.35	5.35	5.38	5.44%	5.36%
Oklahoma Gas & Elec Co	6.5	678858BC4	Sr Nt	4/15/2028	BBB+	5.45	5.49	5.44	5.35	5.30	5.25	5.24	5.27	5.42	5.23	5.23	5.28	5.33%	5.25%
Oklahoma Gas & Elec Co	5.75	678858BF7	Sr Nts	1/15/2036	BBB+	4.75	4.79	4.94	4.83	4.65	4.59	4.52	4.54	4.72	4.65	4.65	4.71	4.70%	4.67%
Oklahoma Gas & Elec Co	5.15	678858BG5	Sr Nts	1/15/2016	BBB+	4.68	4.71	4.75	4.71	4.71	4.72	4.72	4.72	4.70	4.59	4.60	4.62	4.69%	4.60%
PSI Energy, Inc.	5	693627AX9	Deb	9/15/2013	BBB+	4.73	4.73	4.73	4.74	4.76	4.76	4.77	4.79	4.79	4.81	4.82	4.84	4.77%	4.82%
PSI Energy, Inc.	6.12	693627AY7	Deb	10/15/2035	BBB+	5.22	5.26	5.34	5.24	5.27	5.20	4.95	4.98	5.16	4.73	4.73	5.16	5.10%	4.87%
PSI Energy	6.05	693627AZ4	Deb	6/15/2016	BBB+	5.24	5.19	5.22	5.18	5.19	5.17	5.17	5.18	5.21	5.22	5.21	5.26	5.20%	5.23%
Potomac Edison Co.	5.35	737662BP0	1st	11/15/2014	BBB+	4.83	4.85	4.87	4.87	4.89	4.91	4.92	4.93	4.94	4.96	4.94	4.95	4.91%	4.95%
Potomac Edison Co.	5.12	737662BR6	1st	8/15/2015	BBB+	4.65	4.68	4.67	4.66	4.67	4.68	4.68	4.64	4.64	4.66	4.65	4.66	4.66%	4.66%
Public Svc No Car	6.99	744516AA3	Sr Deb	1/15/2026	BBB+	5.40	5.42	5.54	5.39	5.30	5.27	5.21	5.23	5.28	5.15	5.16	5.19	5.30%	5.17%
Public Svc No Car	7.45	744516AB1	Sr Deb	12/15/2026	BBB+	5.54	5.56	5.68	5.52	5.43	5.39	5.34	5.35	5.41	5.27	5.28	5.32	5.42%	5.29%
Sempra Energy	6	816851AF6	Nts	2/1/2013	BBB+	5.74	5.72	5.74	5.77	5.79	5.81	5.84	5.87	5.88	5.92	5.94	5.97	5.83%	5.94%
Southern California Edison Co.	6.65	842400EB5	Nts	4/1/2029	BBB+	5.11	5.06	5.13	5.02	5.07	5.06	4.94	4.91	5.06	4.96	4.98	5.04	5.03%	4.99%
Southern Power Co	6.25	843646AC4	Sr Nt	7/15/2012	BBB+	6.05	6.05	6.05	6.05	6.05	6.05							6.05%	
Southern Power Co	4.88	843646AF7	Sr Nt	7/15/2015	BBB+	4.41	4.42	4.42	4.41	4.45	4.46	4.44	4.42	4.43	4.42	4.43	4.45	4.43%	4.43%
Southern Power Co	6.38	843646AG5	Sr Nt Ser E	11/15/2036	BBB+	6.03	5.96	5.94	5.87	5.87	5.99	5.97	5.97	5.99	6.01	6.01	5.82	5.95%	5.95%
Tampa Electric Co.	6.875	875127AS1	Nts	6/15/2012	BBB+	6.73	6.75	6.78	6.82	6.86								6.79%	
Tampa Electric Co.	6.375	875127AU6	Nts	8/15/2012	BBB+	6.19	6.21	6.24	6.27	6.30	6.32	6.36						6.27%	
Tampa Electric Co.	6.55	875127AV4	Nts	5/15/2036	BBB+	5.06	5.10	5.25	4.93	4.78	4.77	4.60	4.60	4.77	4.55	4.55	4.61	4.80%	4.57%
Tampa Electric Co.	6.15	875127AW2	Sr Nts	5/15/2037	BBB+	4.95	4.99	5.04	4.82	4.69	4.66	4.49	4.48	4.69	4.46	4.46	4.53	4.69%	4.48%
Tampa Electric Co.	6.1	875127AX0	Fixed Rt	5/15/2018	BBB+	5.08	5.06	5.10	5.01	5.01	5.05	5.00	4.86	4.89	4.85	4.85	4.90	4.97%	4.87%
Union Electric	5.25	906548BX9	Sr Sec Nts	9/1/2012	BBB+	5.13	5.15	5.15	5.17	5.19	5.20	5.22	5.25					5.18%	
Union Electric	5.5	906548BY7	Sr Sec Nts	3/15/2034	BBB+	4.85	4.95	5.09	4.99	4.81	4.75	4.66	4.69	4.86	4.64	4.63	4.70	4.80%	4.66%
Union Electric	4.75	906548BZ4	Sr Sec Nts	4/1/2015	BBB+	4.42	4.44	4.46	4.45	4.46	4.47	4.47	4.47	4.39	4.40	4.40	4.41	4.44%	4.40%
Union Electric	4.65	906548CB6	Sr Sec Nts	10/1/2013	BBB+	4.41	4.42	4.44	4.44	4.46	4.47	4.48	4.49	4.50	4.51	4.52	4.54	4.47%	4.52%
Union Electric	5.5	906548CC4	Sr Sec Nts	5/15/2014	BBB+	5.11	5.13	5.15	5.15	5.17	5.10	5.11	5.13	5.14	5.17	5.18	5.20	5.15%	5.18%
Union Electric	5	906548CD2	Sr Sec Nts	2/1/2020	BBB+	4.43	4.46	4.54	4.47	4.42	4.40	4.37	4.38	4.44	4.34	4.34	4.37	4.41%	4.35%
Union Electric	6.4	906548CE0	Sr Sec Nts	6/15/2017	BBB+	5.28	5.31	5.36	5.28	5.30	5.33	5.33	5.33	5.21	5.19	5.21	5.23	5.28%	5.21%
Union Electric	6	906548CF7	Sr Sec Nts	4/1/2018	BBB+	5.06	5.11	5.17	5.05	5.04	5.05	5.04	4.99	4.88	4.91	4.92	4.94	5.01%	4.92%
Union Electric	6.7	906548CG5	Sr Sec Nts	2/1/2019	BBB+	5.48	5.48	5.50	5.38	5.36	5.32	5.30	5.21	5.27	5.26	5.28	5.31	5.35%	5.28%
WPS Resources Corp.	5.375	92931BAB2	Sr Nts	12/1/2012	BBB+	5.21	5.22	5.24	5.26	5.27	5.29	5.30	5.32	5.33	5.35	5.38		5.29%	5.37%
Westar Energy, Inc.	6	95709TAA8	1st Mtg Bd	7/1/2014	BBB+	5.48	5.50	5.46	5.47	5.46	5.47	5.48	5.49	5.50	5.53	5.56	5.60	5.50%	5.56%
Westar Energy, Inc.	5.15	95709TAB6	1st Mtg Bd	1/1/2017	BBB+	4.67	4.54	4.59	4.54	4.54	4.55	4.53	4.47	4.55	4.54	4.54	4.56	4.55%	4.55%
Westar Energy, Inc.	5.95	95709TAC4	1st Mtg Bd	1/1/2035	BBB+	5.54	5.57	5.59	5.58	5.60	5.61	5.61	5.55	5.57	5.59	5.60	5.64	5.59%	5.61%
Westar Energy, Inc.	5.1	95709TAD2	1st	7/15/2020	BBB+	4.48	4.45	4.48	4.39	4.32	4.32	4.25	4.22	4.28	4.25	4.26	4.24	4.33%	4.25%
Westar Energy, Inc.	5.88	95709TAE0	1st Mtg Bd	7/15/2036	BBB+	5.42	5.45	5.48	5.46	5.47	5.48	5.48	5.41	5.43	5.45	5.46	5.50	5.46%	5.47%
Xcel Energy Inc.	6.5	98389BAH3	Sr Nts	7/1/2036	BBB+	5.01	4.95	5.10	4.93	4.88	4.82	4.62	4.61	4.76	4.73	4.76	4.84	4.83%	4.78%
AEP Texas North	5.5	0010EQAB2	Sr Nts	3/1/2013	BBB	5.28	5.25	5.27	5.29	5.32	5.33	5.35	5.37	5.38	5.41	5.43	5.45	5.34%	5.43%
American Electric Power Co., Inc.	5.25	025537AE1	Sr Nts	6/1/2015	BBB	4.81	4.79	4.81	4.80	4.81	4.82	4.83	4.75	4.82	4.78	4.71	4.73	4.79%	4.74%
Appalachian Power Co.	5.95	037735BZ9	Sr Nts'H'	5/15/2033	BBB	5.48	5.52	5.54	5.42	5.29	5.33	5.26	5.05	5.23	5.10	5.10	5.13	5.29%	5.11%
Appalachian Power	4.95	037735CB1	Sr Nts'I'	2/1/2015	BBB	4.53	4.56	4.58	4.57	4.56	4.59	4.57	4.58	4.58	4.59	4.60	4.62	4.58%	4.60%
Appalachian Power	5	037735CD7	Sr Nts'K'	6/1/2017	BBB	4.42	4.42	4.46	4.42	4.41	4.42	4.41	4.41	4.40	4.34	4.36	4.37	4.40%	4.36%
Appalachian Power	5.8	037735CE5	Sr Nts'L'	10/1/2035	BBB	5.00	5.04	5.16	5.13	5.04	5.05	4.81	4.77	4.85	4.78	4.78	4.91	4.94%	4.82%
Appalachian Power	6.38	037735CG0	Sr Nts'N'	4/1/2036	BBB	5.23	5.18	5.36	5.25	5.17	5.11	5.03	4.99	5.11	5.02	5.05	5.07	5.13%	5.05%
CenterPoint Energy, Inc.	6.85	15189TAG2	Sr Nts'B'	6/1/2015	BBB	6.01	6.04	6.05	6.03	6.02	6.07	6.06	6.06	6.09	6.05	6.05	6.06	6.05%	6.05%
CenterPoint Energy, Inc.	5.95	15189TAN7	Sr Nts	2/1/2017	BBB	5.24	5.24	5.25	5.20	5.20	5.22	5.18	5.10	5.08	5.09	5.09	5.12	5.17%	5.10%
Cleco Power LLC	5.375	185508AC2	Nts	5/1/2013	BBB	5.16	5.18	5.19	5.20	5.22	5.23	5.24	5.26	5.26	5.27	5.29	5.30	5.23%	5.29%
Cleco Power LLC	4.95	185508AD0	Nts	7/15/2015	BBB	4.57	4.60	4.62	4.60	4.62	4.62	4.62	4.63	4.62	4.58	4.58	4.59	4.60%	4.58%
Cleco Power LLC	6.5	185508AE8	Nts	12/1/2035	BBB	5.33	5.37	5.53	5.50	5.31	5.25	5.20	5.23	5.28	4.94	5.00	5.21	5.26%	5.05%
Cleveland Electric Illuminating Co.	7.88	186108BU9	Sec Nts 'D'	11/1/2017	BBB	6.23	6.28	6.34	6.28	6.28	6.34	6.29	6.24	6.28	6.26	6.27	6.27	6.28%	6.27%
Commonwealth Edison	6.95	202795GX2	Nts	7/15/2018	BBB	5.79	5.77	5.77	5.73	5.72	5.74	5.72	5.69	5.69	5.63	5.63	5.66	5.71%	5.64%
DTE Energy Co.	6.35	233331AM9	Sr Nts'06B	6/1/2016	BBB	5.44	5.46	5.52	5.47	5.42	5.46	5.43	5.35	5.37	5.39	5.40	5.46	5.43%	5.42%
Dominion Resources, Inc. (Va.)	7.5	25746UAY5	Enhanced Jr Sub Nt 200	6/30/2066	BBB		7.09	7.09	7.04	7.07	7.02	7.06	6.93	6.91	6.81	6.81	6.75	6.96%	6.79%
Dominion Resources, Inc. (Va.)	2.61	25746UAZ2	Jr Sub Nt 2006 Ser B En	9/30/2066	BBB		3.38	3.29	3.09	3.11	3.08	3.07	3.03	3.03	2.87	2.83	2.79	3.05%	2.83%
El Paso Electric Co.	6	283677AW2	Sr Nts	5/15/2035	BBB	5.20	5.24	5.39	5.32	5.13	5.07	4.98	5.00	5.19	4.74	4.74	4.81	5.07%	4.76%
Energy East Corp.	6.75	29266MAD1	Nts	6/15/2012	BBB	6.62	6.65	6.68	6.71	6.74								6.68%	
Energy East Corp.	6.75	29266MAE9	Nts	9/15/2033	BBB	6.29	6.33	6.20	6.16	6.70	7.13	7.00	6.91	6.48	6.26	6.22	6.29	6.50%	6.26%
Energy East	6.75	29266MAF6	Nt	7/15/2036	BBB	6.11	6.15	6.13	6.21	6.86	7.19	7.08	6.92	6.46	6.23	6.18	6.26	6.48%	6.22%
Indiana Mich Pwr	6.375	454889AH9	Sr Nts 'E'	11/1/2012	BBB	6.14	6.18	6.16	6.20	6.23	6.25	6.28	6.32	6.34	6.38			6.25%	6.38%
Indiana Mich Pwr	5.05	454889AK2	Sr Nts'F'	11/15/2014	BBB	4.63	4.65	4.67	4.65	4.67	4.70	4.64	4.65	4.66	4.68	4.69	4.71	4.67%	4.69%
Indiana Mich Pwr	5.65	454889AL0	Sr Nts'G'	12/1/2015	BBB	5.03	5.02	5.05	5.04	5.05	5.06	4.99	5.00	5.02	5.02	5.03	5.04	5.03%	5.03%
Indiana Mich Pwr	6.05	454889AM8	Sr Nts'H'	3/15/2037	BBB	5.14	5.06	5.16	5.20	5.05	5.02	4.89	4.82	4.94	4.84	4.91	4.98	5.00%	4.91%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Kansas City Power & Light	6.05	485134BH2	Sr Nt Ser A	11/15/2035	BBB	5.13	5.17	5.25	5.14	4.96	5.01	4.90	4.93	4.97	4.78	4.77	4.84	4.99%	4.80%
Kansas City Power & Light	5.85	485134BJ8	Sr Nt	6/15/2017	BBB	5.10	5.14	5.14	5.06	5.08	5.09	5.05	5.03	5.00	4.99	5.00	5.02	5.06%	5.00%
Kentucky Power	5.62	491386AL2	Sr Nts'D'	12/1/2032	BBB	5.39	5.43	5.58	5.46	5.28	5.23	5.13	5.16	5.33	5.26	5.23	5.29	5.31%	5.26%
Nevada Power	6.5	641423BH0	Gen & Ref'I'	4/15/2012	BBB	6.42	6.45	6.49										6.45%	
Nevada Power	5.88	641423BK3	Gen & Ref'L'	1/15/2015	BBB	5.23	5.25	5.22	5.22	5.25	5.27	5.27	5.27	5.28	5.30	5.32	5.33	5.27%	5.32%
Nevada Power	6.75	641423BU1	Gen & Refunding Mtg Nt	7/1/2037	BBB	4.99	5.00	5.19	5.09	4.97	4.94	4.77	4.71	4.88	4.71	4.79	4.86	4.91%	4.79%
Northeast Utilities	7.25	664397AE6	Sr Nts 'A'	4/1/2012	BBB	7.17	7.21											7.19%	
Ohio Power Co.	5.5	677415CD1	Sr Nts 'F'	2/15/2013	BBB	5.26	5.26	5.28	5.30	5.33	5.34	5.36	5.38	5.40	5.42	5.44	5.46	5.35%	5.44%
Ohio Power Co.	6.6	677415CF6	Sr Nts 'G'	2/15/2033	BBB	5.19	5.23	5.38	5.32	5.14	5.18	5.10	5.07	5.21	4.96	5.02	5.15	5.16%	5.04%
Ohio Power Co.	4.85	677415CG4	Sr Nts 'H'	1/15/2014	BBB	4.57	4.58	4.60	4.57	4.59	4.60	4.59	4.59	4.60	4.62	4.64	4.65	4.60%	4.64%
Ohio Power Co.	6.38	677415CJ8	Sr Nts 'I'	7/15/2033	BBB	6.12	6.14	6.16	6.13	6.15	6.16	6.18	6.19	6.21	6.23	6.24	6.26	6.18%	6.24%
Ohio Power Co.	6	677415CL3	Sr Nts'K'	6/1/2016	BBB	5.20	5.20	5.25	5.16	5.16	5.18	5.16	5.14	5.16	5.18	5.19	5.20	5.18%	5.19%
PPL Energy Supply	5.7	69352JAG2	Reset PutSecs	10/15/2035	BBB	5.21	5.19	5.21	5.19	5.23	5.25	5.25	5.21	5.22	5.14	5.14	5.16	5.20%	5.15%
PPL Energy Supply	6.2	69352JAH0	Sr Nts	5/15/2016	BBB	5.54	5.50	5.49	5.44	5.47	5.53	5.53	5.46	5.49	5.39	5.39	5.41	5.47%	5.40%
PPL Energy Supply	6	69352JAK3	Sr Nts	12/15/2036	BBB	5.76	5.80	5.97	5.70	5.57	5.62	5.46	5.31	5.50	5.25	5.39	5.42	5.56%	5.35%
PPL Energy Supply	6.5	69352JAL1	Sr Nts	5/1/2018	BBB	5.63	5.58	5.64	5.65	5.63	5.63	5.61	5.48	5.49	5.47	5.40	5.42	5.55%	5.43%
PPL Energy Supply	6.3	69352JAM9	Sr Nts	7/15/2013	BBB	5.90	5.93	5.92	5.94	5.95	5.96	5.98	6.01	6.03	6.06	6.08	6.11	5.99%	6.08%
PSEG Power LLC	8.62	69362BAJ1	Sr Nts	4/15/2031	BBB	5.96	5.81	6.05	5.95	5.92	5.95	5.73	5.82	5.97	5.78	5.81	5.91	5.89%	5.83%
PSEG Power LLC	6.95	69362BAM4	Sr Nts	6/1/2012	BBB	6.77	6.77	6.77		6.77								6.77%	
PSEG Power LLC	5.5	69362BAN2	Sr Nts	12/1/2015	BBB	4.90	4.87	4.90	4.87	4.89	4.90	4.91	4.91	4.90	4.87	4.94	4.92	4.90%	4.91%
PSEG Power LLC	5	69362BAP7	Sr Nts	4/1/2014	BBB	4.66	4.67	4.68	4.69	4.69	4.70	4.71	4.72	4.71	4.73	4.75	4.73	4.70%	4.74%
Pacific Gas & Electric Co.	4.8	694308GD3	1st	3/1/2014	BBB	4.44	4.44	4.46	4.47	4.49	4.50	4.50	4.52	4.53	4.55	4.56	4.58	4.50%	4.56%
Pacific Gas & Electric Co.	6.05	694308GE1	1st	3/1/2034	BBB	4.93	4.83	4.95	4.91	4.83	4.79	4.54	4.57	4.69	4.52	4.63	4.69	4.74%	4.61%
Pacific Gas & Electric Co.	5.8	694308GJ0	Fixed Rt Sr Nt	3/1/2037	BBB	4.81	4.71	4.83	4.80	4.72	4.66	4.42	4.46	4.63	4.44	4.52	4.68	4.64%	4.55%
Pepco Holdings, Inc.	6.12	713291AP7	Nts	6/1/2017	BBB	5.48	5.52	5.58	5.35	5.35	5.36	5.35	5.35	5.37	5.29	5.29	5.31	5.38%	5.30%
Progress Energy, Inc.	7.75	743263AE5	Sr Nts	3/1/2031	BBB	5.53	5.57	5.68	5.58	5.52	5.50	5.42	5.46	5.57	5.45	5.54	5.67	5.54%	5.55%
Progress Energy, Inc.	7	743263AG0	Sr Nts	10/30/2031	BBB	5.33	5.37	5.48	5.36	5.32	5.30	5.23	5.22	5.36	5.24	5.30	5.43	5.33%	5.32%
Progress Energy, Inc.	6.86	743263AJ4	Sr Nts	4/15/2012	BBB	6.76	6.79	6.84										6.80%	
Progress Energy, Inc.	5.62	743263AL9	Sr Nts	1/15/2016	BBB	4.88	4.90	4.93	4.90	4.92	4.94	4.92	4.92	4.94	4.92	4.95	4.97	4.92%	4.95%
Public Service Co. of Oklahoma	6.15	744533BH2	Sr Nts'F'	8/1/2016	BBB	5.47	5.47	5.39	5.32	5.32	5.34	5.33	5.34	5.23	5.24	5.25	5.28	5.33%	5.26%
Public Service Co. of Oklahoma	6.62	744533BJ8	Sr Nts 'G'	11/15/2037	BBB	5.17	5.16	5.32	5.27	5.08	5.19	5.11	5.14	5.19	5.12	5.11	5.12	5.17%	5.12%
Sierra Pacific Power	6.25	826418BB0	Gen & Ref'H'	4/15/2012	BBB	5.85	5.85	5.85										5.85%	
Sierra Pacific Power	6.75	826418BE4	Gen & Refunding Mtg Nt	7/1/2037	BBB	4.99	5.10	5.19	5.09	4.94	4.98	4.83	4.76	4.94	4.78	4.81	4.87	4.94%	4.82%
Southwest'n Elec Power	5.38	845437BE1	Sr Nts	4/15/2015	BBB	4.90	4.92	4.95	4.94	4.95	4.95	4.95	4.96	4.97	4.99	5.00	5.01	4.96%	5.00%
Southwest'n Elec Power	4.9	845437BG6	Sr Nt Ser D	7/1/2015	BBB	4.53	4.53	4.55	4.54	4.55	4.56	4.56	4.57	4.58	4.59	4.60	4.61	4.56%	4.60%
Southwest'n Elec Power	5.55	845437BH4	Sr Nt Ser E	1/15/2017	BBB	4.94	4.89	4.95	4.90	4.90	4.91	4.90	4.90	4.92	4.89	4.90	4.92	4.91%	4.90%
TECO Energy, Inc.	7	872375AG5	Nts	5/1/2012	BBB	6.43	6.43	6.43	6.43									6.43%	
TECO Energy, Inc.	6.75	872375AP5	Nts	5/1/2015	BBB	6.11	6.14	6.17	6.16	5.98	6.01	6.02	6.02	6.04	6.02	5.91	5.92	6.04%	5.95%
WPS Resources	6.11	92931BAC0	Jr Sub Nt	12/1/2066	BBB			6.10	6.08	6.11	6.11	6.07	5.86	5.81	5.81	5.81	5.82	5.96%	5.81%
Wisconsin Energy Corp.	6.25	976657AH9	2007 Ser A Jr Sub Nt	5/15/2067	BBB	6.11	6.10	6.06	6.05	6.06	6.00	5.99	5.90	5.85	5.82	5.84	5.80	5.97%	5.82%
Black Hills Corp.	6.5	092113AE9	Nts	5/15/2013	BBB-	6.16	6.19	6.19	6.20	6.23	6.23	6.25	6.28	6.29	6.30	6.31	6.31	6.25%	6.31%
Cleveland Electric Illuminating Co.	5.65	186108CD6	Sr Nts	12/15/2013	BBB-	5.30	5.27	5.29	5.30	5.31	5.33	5.34	5.35	5.37	5.39	5.39	5.40	5.34%	5.39%
Cleveland Elec. Illum	5.95	186108CE4	Sr Nts	12/15/2036	BBB-	5.45	5.42	5.50	5.29	5.24	5.28	5.20	5.05	5.21	5.00	5.13	5.23	5.25%	5.12%
Cleveland Elec. Illum	5.7	186108CF1	Sr Nts	4/1/2017	BBB-	5.09	5.11	5.14	5.08	5.08	5.09	5.06	5.06	5.05	5.02	5.02	5.04	5.07%	5.03%
Constellation Energy Group, Inc.	7.6	210371AF7	Nts	4/1/2032	BBB-	5.68	5.65	5.82	5.77	5.79	5.70	5.60	5.59	5.77	5.55	5.54	5.63	5.67%	5.57%
Constellation Energy Group, Inc.	7	210371AH3	Nts	4/1/2012	BBB-	6.52	6.52	6.52										6.52%	
Constellation Energy Group, Inc.	4.55	210371AK6	Nts	6/15/2015	BBB-	4.20	4.22	4.21	4.22	4.23	4.24	4.22	4.19	4.17	4.17	4.22	4.21	4.21%	4.20%
Duquesne Light Co.	6.7	266228CR4	1st 'O'	4/15/2012	BBB-	6.62	6.65	6.69										6.65%	
Duquesne Light Holdings, Inc.	5.5	266233AA3	Sr Nts	8/15/2015	BBB-	5.30	5.32	5.30	5.20	5.21	5.19	5.19	5.19	5.19	5.05	5.06	5.07	5.19%	5.06%
Duquesne Light Holdings, Inc.	6.25	266233AB1	Sr Nts	8/15/2035	BBB-	6.86	6.91	6.88	6.72	6.51	6.44	6.23	6.26	6.47	5.37	5.36	5.43	6.29%	5.39%
Empire District Electric Co. (The)	4.5	291641AY4	Sr Nts	6/15/2013	BBB-	4.34	4.35	4.36	4.37	4.38	4.38	4.39	4.40	4.40	4.42	4.43	4.44	4.39%	4.43%
Empire District Electric Co. (The)	5.8	291641AZ1	Sr Nts	7/1/2035	BBB-	5.60	5.64	5.80	5.68	5.49	5.42	5.34	5.37	5.56	5.48	5.48	5.55	5.53%	5.50%
Empire District Elec	6.7	29164RAA9	Sr Nts	11/15/2033	BBB-	5.84	5.88	6.04	5.92	5.73	5.67	5.59	5.62	5.81	5.74	5.73	5.80	5.78%	5.76%
Exelon Corp.	4.9	30161NAD3	Sr Nts	6/15/2015	BBB-	4.48	4.49	4.49	4.48	4.49	4.50	4.48	4.47	4.45	4.45	4.47	4.50	4.48%	4.47%
Hawaiian Elec Inds Inc MTN BE	7.13	41987QAK9	MTN Tranche # Tr 00010	10/1/2012	BBB-	6.87	6.90	6.93	6.96	6.99	7.02	7.06						6.96%	
Hawaiian Elec Indus	6.51	41987QAX1	M-T Nts'C'	5/5/2014	BBB-	5.91	5.94	5.96	5.91	5.93	5.96	5.98	6.00	6.02	6.05	6.07	6.09	5.99%	6.07%
Hawaiian Elec Indus	5.25	41987QBB8	M-T Nts 'D'	3/7/2013	BBB-	5.03	5.05	5.06	5.08	5.10	5.11	5.13	5.14	5.15	5.18	5.19	5.21	5.12%	5.19%
NiSource Finance	6.15	65473QAK9	Sr Nt	3/1/2013	BBB-	5.83	5.83	5.86	5.89	5.93	5.94	5.95	5.98	6.00	6.04	6.06	6.09	5.95%	6.06%
NiSource Finance	5.25	65473QAQ6	Gtd Nt	9/15/2017	BBB-	4.70	4.71	4.74	4.68	4.70	4.71	4.64	4.55	4.54	4.55	4.56	4.58	4.64%	4.56%
NiSource Finance	5.45	65473QAR4	Gtd Nt	9/15/2020	BBB-	4.88	4.82	4.91	4.83	4.84	4.87	4.76	4.77	4.68	4.58	4.59	4.63	4.76%	4.60%
Ohio Edison Co.	6.4	677347CD6	Sr Nt	7/15/2016	BBB-	5.52	5.56	5.59	5.55	5.55	5.56	5.56	5.56	5.53	5.41	5.42	5.45	5.52%	5.43%
Ohio Edison Co.	6.88	677347CE4	Sr Nts	7/15/2036	BBB-	5.72	5.49	5.56	5.40	5.30	5.34	5.26	5.15	5.34	5.07	5.06	5.30	5.33%	5.14%
Pennsylvania Electric	6.625	708696BM0	Sr Nts 'C'	4/1/2019	BBB-	5.75	5.78	5.87	5.79	5.74	5.72	5.68	5.62	5.69	5.68	5.68	5.71	5.73%	5.69%
West Penn Power Co.	6.625	955278BF2	Nts	4/15/2012	BBB-	6.56	6.58											6.57%	
CMS Energy Corp.	6.88	125896AZ3	Sr Nts	12/15/2015	BB+	6.21	6.17	6.18	6.16	6.19	6.21	6.18	6.07	6.05	6.03	6.04	6.06	6.13%	6.04%
CMS Energy Corp.	6.55	125896BA7	Sr Nts	7/17/2017	BB+	5.91	5.86	5.80	5.79	5.78	5.78	5.73	5.59	5.61	5.52	5.54	5.55	5.71%	5.54%
FirstEnergy Corp.	7.38	337932AC1	Nts 'C'	11/15/2031	BB+	5.81	5.78	5.96	5.87	5.89	5.86	5.62	5.59	5.67	5.45	5.59	5.71	5.73%	5.58%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
AES Corp. (The)	7.750	00130HBC8	Sr Nts	3/1/2014	BB-	7.14	7.14	7.19	7.14	7.22	7.17	7.15	7.12	7.15	7.22	7.25	7.27	7.18%	7.25%
AmerenEnergy Generating	7.95	02360XAJ6	Sr Nts 'F'	6/1/2032	BB-	8.01	8.11	9.35	9.99	10.06	10.06	10.06	8.93	8.76	8.23	8.32	11.19	9.26%	9.25%
El Paso Energy Corp MTN BE	8.05	28368EAA4	MTN	10/15/2030	BB-	6.78	6.82	6.87	7.02	7.08	7.09	6.97	6.82	6.77	6.70	6.87	6.91	6.89%	6.83%
El Paso Energy Corp MTN BE	7.38	28368EAB2	MTN	12/15/2012	BB-	7.11	7.13	7.16	7.18	7.17	7.20	7.23	7.28	7.28	7.32	7.36		7.22%	7.34%
El Paso Energy Corp MTN BE	7.75	28368EAE6	MTN-tranche # Tr 00005	1/15/2032	BB-	6.61	6.49	6.74	6.78	6.91	6.88	6.76	6.58	6.52	6.49	6.63	6.59	6.67%	6.57%
NRG Energy, Inc.	7.25	629377AT9	SrNts	2/1/2014	BB-	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10%	7.10%
NRG Energy, Inc.	7.38	629377AX0	SrNts	1/15/2017	BB-	7.12	7.10	7.10	7.10	7.12	7.11	7.10	7.09	7.09	7.11	7.11	7.11	7.11%	7.11%
DynegyHldgs	8.75	26816LAG7	Sr Nts	2/15/2012	D	14.34												14.34%	
DynegyHldgs	8.38	26816LAT9	Sr Nts	5/1/2016	D	13.95	12.73	12.31	12.40	13.29	13.03	13.03	13.84	14.82		14.69	14.69	13.53%	14.69%
TXU Corp.	5.55	873168AL2	Sr Nts'P'	11/15/2014	D	8.08	7.78	7.57	7.70	7.81	7.70	7.78	6.72	6.76	9.56	8.80	6.41	7.72%	8.26%
TXU Corp.	6.5	873168AN8	Sr Nts'Q'	11/15/2024	D	14.60	13.40	12.32	12.47	13.97	13.54	13.40	11.40	10.74	16.56	13.82	10.92	13.10%	13.77%
TXU Corp.	6.55	873168AQ1	Sr Nts'R'	11/15/2034	D	14.88	13.78	12.90	13.06	14.71	14.23	14.01	12.07	11.74	17.23	14.39	11.10	13.68%	14.24%
Alabama Power Co.	5.75	010392EQ7	Sr InsurQtrlyNts'EE'	1/15/2036	NR	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75%	5.75%
Alabama Power Co.	6	010392EX2	Sr InsurMthly Nts'07C	10/15/2037	NR	5.94	5.95	5.96	5.91	5.94	5.94	5.96	5.98	5.99	6.00	6.00	6.00	5.96%	6.00%
Allegheny Generating	6.88	017364AG5	Deb	9/1/2023	NR	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81%	6.81%
CMS Energy Corp.	1.25	125896BB5	Sr Nt Fltg	1/15/2013	NR	1.53	1.53	1.53	1.42	1.42	1.41	1.42	1.43	1.43	1.42	1.42	1.42	1.45%	1.42%
CenterPoint Energy Houston	5.75	15189XAG3	Gen Mtge'M2'	1/15/2014	NR	5.28	5.30	5.32	5.33	5.35	5.36	5.38	5.36	5.36				5.34%	
Consumers Energy Co.	5.65	210518CM6	InsurQtrlyNts	4/15/2035	NR	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65%	5.65%
Empire District Electric Co. (The)	7.05	291641AX6	Sr Nts	12/15/2022	NR	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05%	7.05%
Entergy Gulf States	5.6	29364LAS1	1st	12/1/2014	NR	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60%	5.60%
Entergy Mississippi	5.92	29364NAN8	1st	2/1/2016	NR	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92%	5.92%
Georgia Power Co.	5.65	373334GB1	Sr InsurQtrlyNts'06A	12/15/2040	NR	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65%	5.65%
MDU Resources Group, Inc.	5.98	552690AF6	Sr(Sec)Nts	12/15/2033	NR	6.19	6.20	6.36	6.23	6.03	6.00	5.92	5.95	6.08	6.00	5.99	6.01	6.08%	6.00%
NorthWestern Corp.	5.88	668074AM9	Sr Sec Nts	11/1/2014	NR	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72%	5.72%
Orange & Rockland Utils	7	684065AU9	Deb 'G'	3/1/2029	NR	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69%	6.69%
PPL Energy Supply	2.62	69352JAE7	Sr Nt Conv	5/15/2023	NR	2.33	2.26	2.35	2.38	2.37	2.37	2.24	2.22	2.27	2.21	2.31	2.25	2.30%	2.26%
Public Serv, New Mexico	7.5	744499AN4	Sr Unsec Nts 'B'	8/1/2018	NR	6.38	6.39	6.30	6.23	6.22	6.36	6.31	6.27	6.31	6.28	6.29	6.26	6.30%	6.28%
Savannah Electric&Power	5.5	804787DJ5	Sr Nts'F'	12/15/2028	NR	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50%	5.50%
Sierra Pacific Resources	8.625	826428AH7	Sr Nts	3/15/2014	NR	8.37	8.37	8.37	8.37	8.37	8.37	8.37	8.37	8.37	8.37	8.37	8.37	8.37%	8.37%
Sierra Pacific Resources	7.8	826428AJ3	Sr Nts	6/15/2012	NR	7.65	7.65	7.65	7.65	7.65								7.65%	
Sierra Pacific Resources	6.75	826428AN4	Sr Nts	8/15/2017	NR	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60%	6.60%
Tennessee Valley Authority	8.25	880591BL5	Pwr Bonds '92D	4/15/2042	NR	7.69	7.73	7.77	7.83	7.78	7.78	7.78	7.78	7.78	7.78	7.78	7.74	7.77%	7.77%
Tennessee Valley Authority	6.235	880591CF7	Pwr Bonds '95B	7/15/2045	NR	5.19	5.12	5.22	5.06	4.97	5.03	4.98	4.98	4.97	4.99	4.95	4.94	5.03%	4.96%
Tennessee Valley Authority	5.98	880591CK6	Pwr Bonds '96A	4/1/2036	NR	4.40	4.43	4.60	4.47	4.21	4.28	4.16	4.20	4.25	4.26	4.15	4.26	4.31%	4.22%
Tennessee Valley Authority	6.15	880591CP5	Pwr Bonds '98B	1/15/2038	NR	4.37	4.43	4.60	4.46	4.21	4.25	4.18	4.15	4.19	4.15	4.13	4.21	4.28%	4.16%
Tennessee Valley Authority	5.88	880591CS9	Pwr Bonds '97C	4/1/2036	NR	4.34	4.39	4.55	4.43	4.18	4.22	4.11	4.13	4.18	4.18	4.12	4.23	4.26%	4.18%
Union Electric	7.69	906548BT8	Sub Cap Inc Sec'A'	12/15/2036	NR	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49%	7.49%
UniSource Energy Corp.	4.5	909205AB2	Sr Nt Conv	3/1/2035	NR	4.17	4.13	4.20	4.28	4.19	4.13							4.18%	
			Counts of data			437	437	434	428	426	416	413	408	404	400	397	392	439	401

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
AAA's	4.84%	4.58%
AA's	5.68%	5.68%
A's	4.94%	4.86%
BBB's	5.35%	5.15%
BB's	6.90%	6.86%
B's	----	----
CC's	----	----
D	12.47%	12.74%
NR's	5.68%	5.65%
ALL	5.29%	5.15%
BBB- & Above	5.13%	4.99%
BB- & Above	5.18%	5.04%

**Investment Grade (BBB- & Above)*

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Tennessee Valley Authority	6.75	880591CJ9	Global Pwr Bonds'95E	11/1/2025	AAA	2.95	3.00	3.27	3.04	2.49	2.54	2.37	2.39	2.44	2.44	2.39	2.54	2.66%	2.46%
Tennessee Valley Authority	6.25	880591CU4	Pwr Bonds '97E	12/15/2017	AAA	1.39	1.49	1.63	1.54	1.44	1.50	0.58	0.58	0.66	0.75	0.71	0.90	1.10%	0.79%
Tennessee Valley Authority	7.125	880591DM1	Global Pwr Bonds '00G	5/1/2030	AAA	3.24	3.34	3.61	3.42	3.10	3.12	2.90	2.93	3.07	3.10	2.88	3.05	3.15%	3.01%
Tennessee Valley Authority	4.88	880591DS8	Global Pwr Bonds'01D	12/15/2016	AAA	1.08	1.22	1.35	1.22	1.21	1.29	0.39	0.39	0.46	0.56	0.57	0.74	0.87%	0.62%
Tennessee Valley Authority	4.7	880591DV1	Pwr Bonds\03 B"	7/15/2033	AAA	3.51	3.59	3.84	3.63	3.22	3.29	3.17	3.17	3.17	3.20	3.12	3.27	3.35%	3.20%
Tennessee Valley Authority	4.75	880591DW9	Pwr Bonds'03C	8/1/2013	AAA	1.39	0.02	0.02	0.02	0.02	0.02	0.21	0.62	0.94	1.40	1.71	2.06	0.70%	1.72%
Tennessee Valley Authority	4.38	880591DY5	Global Pwr Bonds'05B	6/15/2015	AAA	0.18	0.35	0.56	0.50	0.58	0.66	0.57	0.63	0.73	0.90	0.95	0.02	0.55%	0.62%
Northern IllinoisGas	6.58	665228BQ4	1st	2/15/2028	AA	4.62	4.62	4.51	4.34	4.07	4.02	3.91	3.94	4.12	4.02	4.01	4.17	4.20%	4.07%
Northern IllinoisGas	7.2	665228BV3	1st	5/15/2016	AA	1.83	1.92	2.08	1.81	1.74	1.79	1.70	1.65	1.67	1.73	1.69	1.62	1.77%	1.68%
Madison Gas & Electric	7.7	557497AL8	1st	2/15/2028	AA-	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.47	7.49	7.46%	7.47%
Madison Gas & Elec Co MTN B	7.12	5574A0AB3	Tranche # Tr 00002	4/1/2032	AA-	4.49	4.49	4.71	4.55	4.27	4.23	4.11	4.15	4.33	4.23	4.17	4.17	4.33%	4.19%
Madison Gas & Elec Co MTN B	5.26	5574A0AC1	MTN	9/29/2017	AA-	1.86	1.96	2.16	1.89	1.83	1.89	1.79	1.73	1.77	1.82	1.78	1.61	1.84%	1.74%
Alabama Power Co.	5.5	010392DZ8	Sr Nts 'Q'	10/15/2017	A	1.78	1.92	2.18	1.91	1.84	1.85	1.75	1.69	1.52	1.37	1.23	1.27	1.69%	1.29%
Alabama Power Co.	5.88	010392EB0	Sr Nts 'S'	12/1/2022	A	3.29	3.32	3.68	3.41	3.09	3.12	3.00	2.76	3.09	2.88	2.89	2.79	3.11%	2.85%
Alabama Power Co.	5.7	010392EC8	Sr Nts 'T'	2/15/2033	A	4.03	4.09	4.31	4.14	4.04	4.09	3.88	3.76	4.03	3.78	3.77	3.87	3.98%	3.81%
Alabama Power Co.	5.6	010392EE4	Sr Nts'V'	3/15/2033	A	4.33	4.49	4.71	4.61	4.49	4.49	4.38	4.21	4.33	4.18	4.17	4.27	4.39%	4.21%
Alabama Power Co.	5.12	010392EK0	Sr Nts 'Z'	2/15/2019	A	2.44	2.52	2.78	2.51	2.32	2.25	2.13	2.14	2.33	2.04	2.04	2.09	2.30%	2.06%
Alabama Power Co.	5.2	010392ER5	Sr Nts'FF'	1/15/2016	A	1.48	1.62	1.58	1.31	1.39	1.40	1.30	1.15	1.21	1.27	1.23	1.27	1.35%	1.26%
Alabama Power Co.	5.55	010392EW4	Sr Nts'07A	2/1/2017	A	2.03	2.07	2.28	2.01	1.94	1.95	1.85	1.79	1.68	1.62	1.58	1.62	1.87%	1.61%
Alabama Power Co.	4.85	010392EY0	Sr Nts '07D	12/15/2012	A	0.52	0.62	0.51	0.59	0.58	0.46	0.44	0.61	0.32	0.71			0.54%	0.71%
Alabama Power Co.	6.12	010392EZ7	Sr Nts'08A	5/15/2038	A	4.11	4.14	4.41	4.24	4.19	4.09	3.83	3.81	4.08	3.88	3.96	4.07	4.07%	3.97%
Progress Energy, Inc.	8.62	144141BP2	1st	9/15/2021	A	3.24	3.52	3.68	3.41	3.19	3.12	3.00	3.01	3.20	3.04	3.04	3.09	3.21%	3.06%
Progress Energy, Inc.	8.62	144141BP2	1st Mtg	9/15/2021	A	3.24	3.52	3.68	3.41	3.19	3.12	3.00	3.01	3.20	3.04	3.04	3.09	3.21%	3.06%
Progress Energy, Inc.	6.5	144141CS5	Nts	7/15/2012	A	0.74	0.55	0.44	0.78	0.65								0.63%	
Progress Energy, Inc.	5.12	144141CT3	1st	9/15/2013	A	0.67	0.66	0.64	0.65	0.75	0.69	0.56	0.52	0.43	0.37	0.40	0.40	0.56%	0.39%
Progress Energy, Inc.	5.12	144141CT3	1st Mtg Bd	9/15/2013	A	0.67	0.66	0.64	0.65	0.75	0.69	0.56	0.52	0.43	0.37	0.40	0.40	0.56%	0.39%
Progress Energy, Inc.	5.7	144141CV8	1st	4/1/2035	A	4.28	4.34	4.41	4.24	3.99	3.99	3.88	3.91	4.18	4.08	4.07	4.17	4.13%	4.11%
Progress Energy, Inc.	5.7	144141CV8	1st Mtg Bd	4/1/2035	A	4.28	4.34	4.41	4.24	3.99	3.99	3.88	3.91	4.18	4.08	4.07	4.17	4.13%	4.11%
Progress Energy, Inc.	5.15	144141CW6	1st	4/1/2015	A	1.15	1.28	1.13	1.00	1.01	1.01	0.94	0.81	0.84	0.89	0.86	0.86	0.98%	0.87%
Progress Energy, Inc.	5.15	144141CW6	1st Mtg Bd	4/1/2015	A	1.15	1.28	1.13	1.00	1.01	1.01	0.94	0.81	0.84	0.89	0.86	0.86	0.98%	0.87%
Progress Energy, Inc.	5.25	144141CX4	1st	12/15/2015	A	1.25	1.38	1.28	1.14	1.16	1.16	1.09	0.85	0.89	0.69	0.66	0.65	1.02%	0.67%
Progress Energy, Inc.	5.25	144141CX4	1st Mtg Bd	12/15/2015	A	1.25	1.38	1.28	1.14	1.16	1.16	1.09	0.85	0.89	0.69	0.66	0.65	1.02%	0.67%
Progress Energy, Inc.	6.3	144141CY2	1st	4/1/2038	A	4.13	4.08	4.30	4.13	4.09	3.94	3.78	3.81	4.08	3.78	3.92	4.02	4.01%	3.91%
Progress Energy, Inc.	6.3	144141CY2	1st Mtg Bd	4/1/2038	A	4.13	4.08	4.30	4.13	4.09	3.94	3.78	3.81	4.08	3.78	3.92	4.02	4.01%	3.91%
Detroit Edison Co.	5.2	250847DT4	Sr Nts	10/15/2012	A	0.77	0.67	0.60	0.73	0.67	0.55	0.31						0.61%	
Detroit Edison Co.	6.35	250847DU1	Sr Nts	10/15/2032	A	4.41	4.36	4.58	4.41	4.14	4.22	4.00	3.88	4.15	3.88	3.87	3.97	4.16%	3.91%
Detroit Edison Co.	5.4	250847DV9	Sr Nts'D'	8/1/2014	A	1.21	1.31	1.35	1.28	1.29	1.10	1.05	1.05	1.05	1.11	1.06	1.06	1.16%	1.08%
Detroit Edison Co.	4.8	250847DX5	Sr(Sec)Nts'AR'	2/15/2015	A	1.20	1.33	1.43	1.29	1.31	1.31	1.24	1.21	1.24	1.29	1.26	1.25	1.28%	1.27%
Detroit Edison Co	5.45	250847DZ0	Sr(Sec)Nts'BR'	2/15/2035	A	4.53	4.59	4.81	4.64	4.37	4.27	4.13	4.01	4.28	4.03	4.02	4.12	4.32%	4.06%
Detroit Edison Co	5.7	250847EA4	Sr(Sec)Nts'E'	10/1/2037	A	4.28	4.14	4.36	4.21	3.94	3.94	3.78	3.66	3.88	3.63	3.72	4.00	3.96%	3.78%
Duke Energy Corp.	5.3	264399EM4	1st & Ref	10/1/2015	A	1.15	1.13	1.13	0.99	1.16	1.01	0.89	0.81	0.84	0.73	0.70	0.69	0.94%	0.71%
Florida Power & Light	4.85	341081EN3	1st	2/1/2013	A	0.72	0.64	0.58	0.60	0.58	0.41	0.42	0.53	0.33	0.54	0.29		0.51%	0.42%
Florida Power & Light	5.85	341081EP8	1st	2/1/2033	A	4.13	4.19	4.41	4.11	3.99	3.84	3.68	3.66	3.93	3.58	3.62	3.72	3.91%	3.64%
Florida Power & Light	5.625	341081EQ6	1st	4/1/2034	A	4.13	3.99	4.26	4.06	4.04	3.89	3.63	3.56	3.78	3.68	3.77	3.87	3.89%	3.77%
Florida Power & Light	5.62	341081EQ6	First Mtg Bds	4/1/2034	A	4.13	3.99	4.26	4.06	4.04	3.89	3.63	3.56	3.78	3.68	3.77	3.87	3.89%	3.77%
Florida Power & Light	5.95	341081ER4	1st	10/1/2033	A	4.13	3.99	4.26	4.01	3.99	3.74	3.58	3.56	3.63	3.58	3.72	3.82	3.83%	3.71%
Florida Power & Light	4.95	341081ET0	1st	6/1/2035	A	4.08	3.99	4.26	4.01	3.99	3.89	3.53	3.56	3.78	3.63	3.67	3.82	3.85%	3.71%
Florida Power & Light	5.4	341081EU7	1st Mtg Bd	9/1/2035	A	4.18	3.99	4.26	4.01	4.04	3.89	3.63	3.56	3.83	3.63	3.82	3.92	3.90%	3.79%
Florida Power & Light	5.65	341081EV5	1st	2/1/2037	A	4.13	4.04	4.26	4.06	4.04	3.89	3.63	3.61	3.88	3.65	3.77	3.92	3.91%	3.78%
Florida Power & Light	6.2	341081EX1	1st	6/1/2036	A	4.18	4.04	4.26	4.11	4.04	3.89	3.63	3.66	3.93	3.68	3.77	3.87	3.92%	3.77%
Florida Power & Light	5.85	341081EY9	1st	5/1/2037	A	4.13	4.04	4.26	4.06	4.04	3.89	3.63	3.61	3.88	3.68	3.77	3.92	3.91%	3.79%
Florida Power Corp.	5.9	341099CB3	1st	3/1/2033	A	4.38	4.44	4.66	4.39	4.24	4.29	4.13	3.96	4.23	4.08	4.07	4.17	4.25%	4.11%
Florida Power Corp.	4.8	341099CC1	1st	3/1/2013	A	0.82	0.63	0.58	0.60	0.58	0.47	0.42	0.51	0.34	0.47	0.30	0.47	0.52%	0.41%
Florida Power Corp.	5.8	341099CG2	1st Mtg Bd	9/15/2017	A	1.83	1.87	1.98	1.71	1.74	1.75	1.65	1.59	1.66	1.07	1.03	1.47	1.61%	1.19%
Florida Power Corp.	6.35	341099CH0	1st	9/15/2037	A	4.28	4.14	4.36	4.24	4.29	4.09	3.93	3.91	4.18	3.98	4.02	4.12	4.13%	4.04%
Georgia Power Co.	5.125	373334FN6	Sr Nts 'K'	11/15/2012	A	0.87	0.72	0.61	0.67	0.66	0.41	0.34	0.63	0.21				0.57%	
Georgia Power Co.	5.75	373334FS5	Sr Nts 'N'	4/15/2023	A	3.29	3.37	3.63	3.36	3.17	3.10	2.98	2.99	3.15	2.53	2.88	2.67	3.09%	2.69%
Georgia Power Co.	4.9	373334FT3	Sr Nts 'Q'	9/15/2013	A	0.86	0.81	0.84	0.79	0.80	0.79	0.76	0.77	0.69	0.42	0.37	0.50	0.70%	0.43%
Georgia Power Co.	5.8	373334FZ9	Sr Nts'Y'	4/15/2035	A	5.03	5.09	5.31	5.14	4.87	4.77	5.12	5.13	5.15	5.16	5.18	5.20	5.10%	5.18%
Georgia Power Co.	5.25	373334GA3	Sr Nt Ser Z	12/15/2015	A	1.55	1.43	1.38	1.24	1.26	1.26	1.19	0.76	0.79	0.84	0.81	0.80	1.11%	0.82%
Georgia Power Co.	5.65	373334GC9	Sr Nt Ser 2007a	3/1/2037	A	4.28	4.24	4.46	4.29	4.07	4.24	3.88	3.96	4.18	3.88	3.87	4.07	4.12%	3.94%
Georgia Power Co.	5.65	373334GC9	Sr Nts'07A	3/1/2037	A	4.28	4.24	4.46	4.29	4.07	4.24	3.88	3.96	4.18	3.88	3.87	4.07	4.12%	3.94%
Georgia Power Co.	5.7	373334GE5	Sr Nts'07B	6/1/2017	A	1.83	1.72	1.93	1.56	1.54	1.60	1.40	1.34	1.36	1.17	1.02	1.06	1.46%	1.08%
Gulf Power Co.	4.35	402479BT5	Sr Nts 'G'	7/15/2013	A	1.71	1.81	1.85	1.78	1.79	0.86	0.80	0.82	0.73	0.77	0.72	0.75	1.20%	0.75%
Gulf Power Co.	5.65	402479BW8	Sr Nts'L'	9/1/2035	A	5.23	5.19	5.41	5.24	4.97	4.87	4.76	4.79	5.06	4.94	4.95	4.97	5.03%	4.95%
Gulf Power Co.	5.3	402479BX6	Sr Nts'M'	12/1/2016	A	2.58	1.97	2.18	1.91	1.84	1.85	1.75	1.69	1.76	1.82	1.78	1.82	1.91%	1.81%
Mississippi Power Co.	5.4	605417BT0	Sr Nts'G'	7/1/2035	A	4.68	4.74	4.96	4.79	4.52	4.91	4.91	4.91	4.93	4.83	4.84	4.86	4.82%	4.84%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Northern Sts Pwr (Minn)	7.125	665772BN8	1st	7/1/2025	A	3.49	3.47	3.73	3.46	3.27	3.25	3.05	3.01	3.20	3.13	3.19	3.24	3.29%	3.19%
Northern Sts Pwr (Minn)	6.5	665772BQ1	1st	3/1/2028	A	3.78	3.84	4.06	3.91	3.64	4.14	3.93	3.81	4.03	3.33	3.56	3.52	3.80%	3.47%
Northern Sts Pwr (Minn)	8	665772BW8	1st	8/28/2012	A	0.79	0.56	0.47	0.83	0.67	0.47							0.63%	
Northern Sts Pwr (Minn)	5.25	665772CA5	1st	7/15/2035	A	4.03	3.99	4.16	3.99	3.94	3.89	3.68	3.56	3.83	3.62	3.66	3.76	3.84%	3.68%
Northern Sts Pwr (Minn)	6.25	665772CB3	1st Mtg Bd Ser	6/1/2036	A	4.02	4.00	4.21	3.99	3.94	3.89	3.68	3.56	3.83	3.63	3.67	3.77	3.85%	3.69%
Northern Sts Pwr (Minn)	6.2	665772CC1	1st	7/1/2037	A	4.08	4.04	4.21	4.04	3.94	3.89	3.68	3.56	3.83	3.58	3.72	3.82	3.87%	3.71%
PacifiCorp	7.7	695114BT4	1st	11/15/2031	A	4.33	4.24	4.41	4.21	4.04	3.96	3.80	3.83	4.10	3.78	3.87	4.02	4.05%	3.89%
PacifiCorp	5.9	695114BX5	1st	8/15/2034	A	4.40	4.44	4.56	4.39	4.09	3.96	3.80	3.83	4.10	3.88	3.87	4.02	4.11%	3.92%
PacifiCorp	4.95	695114BY3	1st	8/15/2014	A	0.98	0.91	0.95	0.88	0.89	0.90	0.85	0.85	0.95	1.00	0.96	0.96	0.92%	0.97%
PacifiCorp	5.25	695114BZ0	1st	6/15/2035	A	4.23	4.24	4.46	4.26	4.09	3.97	3.78	3.71	3.98	3.76	3.87	4.02	4.03%	3.88%
PacifiCorp	6.1	695114CB2	1st	8/1/2036	A	4.28	4.24	4.46	4.26	4.14	4.04	3.93	3.76	4.08	3.73	3.87	3.99	4.07%	3.86%
PacifiCorp	5.75	695114CD8	1st	4/1/2037	A	4.28	4.19	4.46	4.26	4.09	4.04	3.88	3.76	4.03	3.68	3.82	4.02	4.04%	3.84%
Potomac Electric Power	4.95	737679CW8	Sr Nts	11/15/2013	A	1.06	1.16	1.15	0.99	0.99	0.99	0.96	0.97	0.75	0.76	0.57	0.59	0.91%	0.64%
Potomac Electric Power	4.65	737679CX6	Sr Nts	4/15/2014	A	1.22	1.31	1.15	1.08	1.09	1.10	1.05	1.05	0.80	0.86	0.81	0.81	1.03%	0.83%
Potomac Electric Power	5.75	737679CY4	Sr Nts	4/15/2034	A	4.48	4.54	4.76	4.59	4.32	4.24	4.13	4.16	4.43	4.33	4.32	4.42	4.39%	4.36%
Potomac Electric Power	5.4	737679CZ1	Sr Nts	6/1/2035	A	4.28	4.34	4.56	4.39	4.12	4.24	3.88	3.91	4.18	4.08	4.07	4.17	4.19%	4.11%
Public Serv, Colorado	5.5	744448BX8	1st Coll Tr Ser 15	4/1/2014	A	0.77	0.76	0.79	0.74	0.74	0.69	0.75	0.76	0.60	0.67	0.61	0.62	0.71%	0.63%
South Carolina Electric & Gas C	7.12	837004BC3	1st	6/15/2013	A	1.52	1.61	1.64	1.17	1.15	0.99	0.94	0.99	0.85	0.94	0.54	0.63	1.08%	0.70%
South Carolina Electric & Gas C	6.62	837004BV1	1st	2/1/2032	A	4.56	4.59	4.56	4.36	4.24	4.14	3.89	3.90	4.17	4.07	4.06	4.16	4.23%	4.10%
South Carolina Electric & Gas C	5.8	837004BW9	1st	1/15/2033	A	4.53	4.59	4.76	4.56	4.29	4.29	4.18	3.86	4.13	4.03	4.02	4.12	4.28%	4.06%
South Carolina Electric & Gas C	5.3	837004BX7	1st	5/15/2033	A	4.33	4.39	4.56	4.36	4.29	4.14	3.88	3.80	4.07	3.97	4.02	4.12	4.16%	4.04%
South Carolina Electric & Gas C	5.25	837004BY5	1st	11/1/2018	A	2.37	2.42	2.63	2.35	2.29	2.20	2.10	1.94	2.02	1.82	1.78	1.71	2.14%	1.77%
South Carolina Electric & Gas C	5.25	837004BZ2	1st	3/1/2035	A	4.58	4.59	4.76	4.56	4.29	4.14	4.23	4.26	4.53	4.43	4.42	4.52	4.44%	4.46%
South Carolina El & Gas	6.25	837004CA6	1st Mtg Bd	7/1/2036	A	4.58	4.59	4.76	4.56	4.34	4.14	4.13	4.16	4.43	4.33	4.32	4.42	4.40%	4.36%
Southern California Edison Co.	5	842400ER0	1st & Ref '04A	1/15/2014	A	0.66	0.56	0.59	0.54	0.55	0.54	0.51	0.47	0.45	0.52	0.46	0.69	0.55%	0.56%
Southern California Edison Co.	6	842400ES8	1st & Ref '04B	1/15/2034	A	4.03	3.99	4.21	4.04	3.99	3.89	3.63	3.61	3.88	3.58	3.69	3.86	3.87%	3.71%
Southern California Edison Co.	5	842400EY5	1st & Ref'05A	1/15/2016	A	1.33	1.22	1.48	1.21	1.19	1.30	1.15	0.75	0.81	0.82	0.78	0.94	1.08%	0.85%
Southern California Edison Co.	5.55	842400EZ2	1st & Ref'05B	1/15/2036	A	4.13	3.99	4.21	4.07	4.04	3.89	3.68	3.58	3.85	3.68	3.72	3.92	3.90%	3.77%
Southern California Edison Co.	5.35	842400FA6	1st & Ref'05E	7/15/2035	A	4.13	3.99	4.21	4.06	4.04	3.89	3.68	3.61	3.88	3.66	3.70	3.87	3.89%	3.74%
Southern California Edison Co.	5.62	842400FC2	1st & Ref'06A	2/1/2036	A	4.13	3.99	4.21	4.04	4.04	3.89	3.68	3.61	3.88	3.68	3.77	3.87	3.90%	3.77%
Southern California Edison Co.	5.55	842400FF5	1st & Ref'06E	1/15/2037	A	4.13	4.04	4.21	4.07	4.04	3.89	3.68	3.61	3.88	3.68	3.72	3.97	3.91%	3.79%
Southern Indiana Gas & El	8.88	843163AP1	1st	6/1/2016	A	2.46	2.56	2.76	2.50	2.43	2.48	2.39	2.34	2.36	2.42	2.38	1.82	2.41%	2.21%
Southern Indiana Gas & El	6.72	843163AX4	Sr Nts	8/1/2029	A	4.58	4.64	4.86	4.69	4.42	4.32	4.21	4.24	4.51	4.41	4.40	4.50	4.48%	4.44%
Wisconsin Public Service	7.125	976843AX0	1st	7/1/2023	A	7.01	7.01	7.01	7.01	7.03	7.04	7.04	7.04	7.04	7.04	7.04	7.04	7.03%	7.04%
Wisconsin Public Service	4.875	976843BC5	Sr(Sec)Nts	12/1/2012	A	0.82	0.92	0.58	0.66	0.66	0.42	0.40	0.60	0.27				0.59%	
Wisconsin Public Service	4.8	976843BD3	Sr(Sec)Nts	12/1/2013	A	1.06	1.16	1.20	1.13	1.14	1.15	1.10	1.11	1.10	1.17	1.11	0.97	1.12%	1.08%
Wisconsin Public Service	5.55	976843BE1	Sr(Sec)Nts	12/1/2036	A	4.38	4.44	4.66	4.49	4.22	4.12	4.01	4.04	4.31	4.21	4.20	4.17	4.27%	4.19%
Avista Corp.	5.45	05379BAH0	1st	12/1/2019	A-	2.94	3.02	3.13	2.86	2.59	2.52	2.40	2.41	2.60	2.43	2.44	2.49	2.65%	2.45%
Avista Corp.	6.25	05379BAK3	1st Mtg Bd	12/1/2035	A-	4.78	4.84	5.06	4.89	4.62	4.52	4.41	4.31	4.58	4.33	4.32	4.32	4.58%	4.32%
Avista Corp.	5.7	05379BAM9	1st	7/1/2037	A-	4.63	4.69	4.91	4.74	4.47	4.37	4.26	4.17	4.44	4.33	4.32	4.22	4.46%	4.29%
Avista Corp.	5.7	05379BAM9	1st Mtg Bd	7/1/2037	A-	4.63	4.69	4.91	4.74	4.47	4.37	4.26	4.17	4.44	4.33	4.32	4.22	4.46%	4.29%
CenterPoint Energy Houston	5.7	15189XAC2	Gen Mtge'J2'	3/15/2013	A-	1.32	1.42	1.37	0.71	0.68	0.54	0.55	0.64	0.41	0.50	0.31	0.49	0.75%	0.43%
CenterPoint Energy Houston	6.95	15189XAD0	Gen Mtge'K2'	3/15/2033	A-	4.43	4.49	4.56	4.39	4.12	4.14	3.73	3.71	3.98	3.88	3.82	3.92	4.10%	3.87%
CenterPoint Energy Houston	5.6	15189XAH1	Gen Mtge'L2'	7/1/2023	A-	4.14	4.22	3.53	3.26	3.07	3.00	3.05	2.81	3.00	2.93	2.94	3.09	3.25%	2.99%
Commonwealth Edison	7.625	202795FJ4	1st Ser 92	4/15/2013	A-	1.37	1.07	0.98	1.09	1.10	0.70	0.66	0.77	0.56	0.73	0.54	0.69	0.86%	0.65%
Commonwealth Edison	7.5	202795FM7	1st Ser 94	7/1/2013	A-	1.47	1.06	0.99	0.98	0.95	0.79	0.74	0.80	0.65	0.75	0.63	0.72	0.88%	0.70%
Commonwealth Edison	6.15	202795HE3	1st Ser 98	3/15/2012	A-	0.59												0.59%	
Commonwealth Edison	5.875	202795HG8	1st Ser 100	2/1/2033	A-	4.38	4.34	4.39	4.22	4.04	3.89	3.68	3.66	3.93	3.73	3.82	3.92	4.00%	3.82%
Commonwealth Edison	4.7	202795HH6	1st Ser 101	4/15/2015	A-	1.67	1.28	1.38	1.14	1.26	1.26	1.14	1.11	1.14	0.89	0.86	0.85	1.17%	0.87%
Commonwealth Edison	5.9	202795HK9	1st Ser 103	3/15/2036	A-	4.38	4.31	4.41	4.21	4.09	3.99	3.68	3.71	3.98	3.73	3.77	3.97	4.02%	3.82%
Commonwealth Edison	5.95	202795HN3	1st Ser 104	8/15/2016	A-	1.83	1.72	1.73	1.51	1.44	1.60	1.50	1.35	1.41	1.12	1.22	1.26	1.47%	1.20%
Connecticut Lt & Pwr	7.875	207597CZ6	1st & Ref D	10/1/2024	A-	3.84	3.92	4.18	3.91	3.72	3.65	3.53	3.54	3.73	3.66	3.67	3.69	3.75%	3.67%
Connecticut Lt & Pwr	5	207597DT9	1st & Ref '05A	4/1/2015	A-	1.32	1.45	1.55	1.41	1.43	1.43	1.36	1.33	1.36	1.41	1.38	0.86	1.36%	1.22%
Connecticut Lt & Pwr	5.62	207597DU6	1st & Ref '05B	4/1/2035	A-	4.58	4.64	4.76	4.59	4.32	4.22	4.11	3.76	4.03	3.93	4.02	4.12	4.26%	4.02%
Connecticut Lt & Pwr	6.35	207597DV4	1st & Ref'06A	6/1/2036	A-	4.53	4.54	4.51	4.34	4.04	4.34	4.23	3.76	4.03	3.93	4.02	4.12	4.20%	4.02%
Connecticut Lt & Pwr	5.38	207597DW2	1st & Ref'07A	3/1/2017	A-	2.33	2.47	2.33	2.06	1.99	2.10	1.75	1.69	1.77	1.67	1.73	1.27	1.93%	1.56%
Connecticut Lt & Pwr	5.75	207597DX0	1st & Ref'07B	3/1/2037	A-	4.58	4.59	4.76	4.59	4.32	4.34	4.23	3.91	4.18	4.08	4.07	4.17	4.32%	4.11%
Consolidated Edison, Inc.	5.62	209111DZ3	Deb '02A	7/1/2012	A-	0.74	0.83	0.73	0.92	0.73								0.79%	
Consolidated Edison, Inc.	4.88	209111EA7	Deb '02B	2/1/2013	A-	0.72	0.64	0.58	0.61	0.63	0.49	0.40	0.52	0.31	0.54	0.31		0.52%	0.43%
Consolidated Edison, Inc.	5.88	209111EB5	Deb '03A	4/1/2033	A-	4.48	4.49	4.66	4.49	4.44	4.29	4.13	3.86	4.13	3.98	4.07	4.17	4.27%	4.07%
Consolidated Edison, Inc.	3.85	209111EC3	Deb'03B	6/15/2013	A-	1.21	0.81	0.74	0.69	0.70	0.55	0.48	0.50	0.41	0.44	0.66	0.69	0.66%	0.60%
Consolidated Edison, Inc.	4.7	209111EE9	Deb'04A	2/1/2014	A-	0.86	0.81	0.85	0.78	0.79	0.90	0.85	0.86	0.65	0.66	0.61	0.62	0.77%	0.63%
Consolidated Edison, Inc.	5.7	209111EF6	Deb'04B	2/1/2034	A-	4.48	4.49	4.66	4.49	4.44	4.29	4.13	3.90	4.17	3.98	4.07	4.17	4.27%	4.07%
Consolidated Edison, Inc.	5.3	209111EH2	Deb '05A	3/1/2035	A-	4.23	4.19	4.36	4.19	4.14	3.98	3.78	3.61	3.85	3.71	3.87	3.87	3.98%	3.82%
Consolidated Edison, Inc.	5.25	209111EJ8	Deb '05B	7/1/2035	A-	4.68	4.69	4.86	4.69	4.14	4.09	3.98	4.01	4.28	3.98	4.07	4.17	4.30%	4.07%
Consolidated Edison, Inc.	5.38	209111EK5	Deb'05C	12/15/2015	A-	1.40	1.28	1.38	1.24	1.26	1.36	1.29	0.96	0.94	0.94	0.91	1.00	1.16%	0.95%
Consolidated Edison, Inc.	5.85	209111EL3	Deb'06A	3/15/2036	A-	4.23	4.19	4.36	4.16	4.14	3.99	3.78	3.61	3.88	3.73	3.87	4.02	4.00%	3.87%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Consolidated Edison, Inc.	6.2	209111EM1	Deb'06B	6/15/2036	A-	4.23	4.19	4.36	4.19	4.14	3.99	3.78	3.61	3.88	3.73	3.87	4.02	4.00%	3.87%
Consolidated Edison, Inc.	5.5	209111EN9	Deb'06C	9/15/2016	A-	1.53	1.57	1.78	1.51	1.44	1.45	1.30	1.24	1.26	1.17	1.13	1.07	1.37%	1.12%
Consolidated Edison, Inc.	5.3	209111EP4	Deb'06D	12/1/2016	A-	1.58	1.57	1.73	1.49	1.38	1.45	1.35	1.29	1.31	1.32	1.28	1.32	1.42%	1.31%
Consolidated Edison, Inc.	5.7	209111EQ2	Deb'06E	12/1/2036	A-	4.23	4.19	4.36	4.19	4.14	3.99	3.73	3.64	3.88	3.73	3.87	3.95	3.99%	3.85%
Consolidated Edison, Inc.	6.3	209111ES8	Deb'07A	8/15/2037	A-	4.23	4.19	4.36	4.19	4.19	3.99	3.78	3.61	3.85	3.73	3.87	4.02	4.00%	3.87%
Dominion Resources	7.82	257469AC0	Remkt Nts 'E'	9/15/2014	A-	1.11	1.11	1.14	1.09	1.09	1.10	1.05	1.06	1.05	1.11	1.06	1.06	1.09%	1.08%
Dominion Resources	5.7	257469AF3	Sr Nts 'C'	9/17/2012	A-	0.88	0.72	0.65	0.81	0.62	0.52	0.56						0.68%	
Dominion Resources	6.75	257469AG1	Sr Nts 'E'	12/15/2032	A-	4.68	4.74	4.81	4.59	4.44	4.34	4.23	4.26	4.53	4.28	4.27	4.37	4.46%	4.31%
Dominion Resources, Inc. (Va.)	6.25	25746UAJ8	Sr Nts '02B	6/30/2012	A-	0.84	0.68	0.57	0.96									0.76%	
Dominion Resources, Inc. (Va.)	5.95	25746UAV1	Sr Nts '05B	6/15/2035	A-	4.58	4.54	4.56	4.39	4.34	4.29	3.98	4.01	4.28	3.96	3.97	4.12	4.25%	4.02%
Dominion Resources, Inc. (Va.)	5.15	25746UAW9	Sr Nts '05C	7/15/2015	A-	1.72	1.33	1.27	1.24	1.33	1.33	1.19	1.16	1.08	0.87	1.01	0.98	1.21%	0.95%
Dominion Resources, Inc. (Va.)	5.6	25746UBB4	SrNts'06A	11/15/2016	A-	1.88	1.87	1.88	1.71	1.74	1.75	1.60	1.49	1.41	1.42	1.38	1.37	1.63%	1.39%
Dominion Resources, Inc. (Va.)	6	25746UBC2	Sr Nts '07A	11/30/2017	A-	2.38	2.16	2.28	2.01	2.09	2.25	2.08	1.74	1.67	1.57	1.38	1.62	1.94%	1.52%
Entergy Arkansas	6.38	29364DAK6	1st	11/1/2034	A-	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37%	6.37%
Entergy Arkansas	5.66	29364DAL4	1st	2/1/2025	A-	4.95	4.96	5.01	4.98	5.00	5.03	5.03	5.04	5.05	5.08	5.09	5.11	5.03%	5.09%
Entergy Mississippi	5.15	29364NAH1	1st	2/1/2013	A-	0.99	1.04	0.98	1.05	1.08	0.97	0.93	1.03	0.83	1.01	0.78		0.97%	0.90%
Entergy Mississippi	4.95	29364NAK4	1st	6/1/2018	A-	4.93	4.94	4.94	4.94	4.94	4.93	4.93	4.93	4.93	4.93	4.93	4.93	4.93%	4.93%
Entergy Mississippi	6.25	29364NAL2	1st	4/1/2034	A-	6.06	6.07	6.08	6.07	6.09	6.10	6.10	6.10	6.11	6.12	6.12	6.13	6.10%	6.12%
Idaho Pwr	4.75	45138LAK9	Sec M-T Nts'D'	11/15/2012	A-	1.19	1.17	0.76	0.42	0.17	0.17	0.17	0.17	0.17	0.17			0.46%	0.17%
Idaho Pwr	6	45138LAL7	Sec M-T Nts'D'	11/15/2032	A-	4.78	4.79	4.91	4.51	4.24	4.19	3.93	3.96	4.13	4.03	4.02	4.22	4.31%	4.09%
Idaho Pwr	4.25	45138LAM5	Sec M-T Nts 'E'	10/1/2013	A-	0.91	0.96	1.00	0.93	0.94	0.92	0.88	0.89	0.92	0.94	0.91	0.83	0.92%	0.89%
Idaho Pwr	5.5	45138LAN3	Sec M-T Nts 'E'	4/1/2033	A-	4.63	4.64	4.86	4.46	4.19	4.14	3.88	3.91	4.08	3.98	3.97	4.22	4.25%	4.06%
Idaho Pwr	5.5	45138LAP8	Sec M-T Nts'E'	3/15/2034	A-	4.78	4.79	4.91	4.51	4.24	4.19	3.93	3.96	4.13	4.03	4.02	4.22	4.31%	4.09%
Idaho Pwr	5.875	45138LAQ6	Sec M-T Nts'E'	8/15/2034	A-	4.78	4.79	4.91	4.51	4.24	4.19	3.93	3.96	4.13	4.03	4.02	4.22	4.31%	4.09%
Idaho Pwr	5.3	45138LAR4	Sec M-T Nts'F'	8/15/2035	A-	4.78	4.79	4.91	4.51	4.24	4.19	3.93	3.96	4.13	4.03	4.02	4.22	4.31%	4.09%
Idaho Pwr Co 1st Mtg Secd MT	6.3	45138LAS2	Secd MTN Ser F	6/15/2037	A-	4.68	4.69	4.91	4.51	4.24	4.19	3.93	3.96	4.13	4.03	4.02	4.22	4.29%	4.09%
KeySpan Corp.	8	49337WAC4	Nts	11/15/2030	A-	5.28	5.34	5.21	5.04	4.77	4.67	4.73	4.71	4.98	4.78	4.77	4.87	4.93%	4.81%
KeySpan Corp.	4.65	49337WAG5	Nts	4/1/2013	A-	1.81	1.91	0.99	0.96	1.00	0.89	0.83	0.89	0.75	0.85	0.53	0.63	1.00%	0.67%
KeySpan Corp.	5.88	49337WAH3	Nts	4/1/2033	A-	4.63	4.94	5.16	4.89	4.62	4.52	4.68	4.71	4.98	4.78	4.77	4.72	4.78%	4.76%
KeySpan Corp	5.8	49337WAJ9	Nt	4/1/2035	A-	4.63	4.99	5.21	4.79	4.52	4.64	4.76	4.46	4.73	4.48	4.47	4.57	4.69%	4.51%
MidAmerican Energy Co.	5.65	595620AF2	Sr Nts	7/15/2012	A-	5.49												5.49%	
MidAmerican Energy Co.	5.95	595620AG0	Sr Nts	7/15/2017	A-	2.13	2.17	2.23	1.96	1.89	1.90	1.80	1.59	1.36	1.22	1.33	1.37	1.75%	1.31%
MidAmerican Energy Co	5.8	59562EAH8	MTN-tranche # Tr 00008	10/15/2036	A-	4.53	4.39	4.61	4.33	4.29	4.29	4.00	3.76	4.03	3.77	3.92	4.04	4.16%	3.91%
Oncor Electric Delivery	6.38	68233DAL1	Sr Sec Nts	1/15/2015	A-	1.41	1.53	1.53	1.70	1.71	2.01	1.69	1.71	1.44	1.50	1.21	1.21	1.55%	1.31%
Oncor Electric Delivery	7.25	68233DAP2	Sr Sec Nts	1/15/2033	A-	4.68	4.69	5.11	5.56	5.39	5.34	5.03	5.16	5.33	4.80	4.77	4.82	5.06%	4.80%
Oncor Electric Delivery	7	68233DAR8	Deb	9/1/2022	A-	3.79	3.87	4.23	4.33	4.29	4.37	3.95	4.01	4.10	3.68	3.74	3.64	4.00%	3.69%
Oncor Electric Delivery	6.38	68233DAS6	Sr Sec Nts	5/1/2012	A-	0.93	1.14	1.25										1.11%	
Oncor Electric Delivery	7	68233DAT4	Sr Sec Nts	5/1/2032	A-	4.68	4.64	5.11	5.56	5.39	5.34	5.03	5.16	5.33	4.75	4.77	4.82	5.05%	4.78%
Exelon Corp.	4.75	693304AD9	1st&Ref Mtg	10/1/2012	A-	0.67	0.62	0.55	0.68	0.62	0.50	0.44						0.58%	
Exelon Corp.	5.9	693304AG2	1st Ref Mtg	5/1/2034	A-	4.23	4.29	4.41	4.24	4.09	3.99	4.28	4.31	4.13	4.03	4.02	4.12	4.18%	4.06%
Exelon Corp.	5.95	693304AH0	1st Ref Mtg	10/1/2036	A-	4.13	4.19	4.36	4.11	3.84	3.89	3.78	3.60	3.88	3.78	3.77	3.87	3.93%	3.81%
Exelon Corp.	5.7	693304AJ6	1st Ref Mtg	3/15/2037	A-	4.23	4.29	4.46	4.26	4.02	3.92	3.81	3.76	4.03	3.93	3.92	4.02	4.05%	3.96%
Penna P&L	7.375	709051CD6	1st	3/1/2014	A-	1.47	1.56	1.59	1.54	1.55	1.54	1.51	0.93	0.85	0.63	0.55	0.58	1.19%	0.59%
Portland Gen'l Elec	9.31	73651HAV3	M-T Nts	8/11/2021	A-	3.74	3.77	4.03	3.76	3.57	3.55	3.43	3.44	3.59	3.52	3.53	3.49	3.62%	3.51%
Public Serv, New Hamp.	5.25	744482BG4	1st 'L'	7/15/2014	A-	1.67	1.76	1.80	1.73	1.75	1.75	1.71	1.71	1.71	1.30	1.26	1.26	1.62%	1.27%
Public Svc Co New Hampshire	5.6	744538AA7	1st Mtg Bd	10/5/2035	A-	4.53	4.59	4.81	4.64	4.37	4.27	4.16	4.19	4.46	4.28	4.27	4.32	4.41%	4.29%
Public Service Electric and Gas	8	744567BA5	1st & Ref	6/1/2037	A-	5.13	5.09	5.31	5.14	4.87	4.77	4.66	4.66	4.93	4.83	4.82	4.87	4.92%	4.84%
Public Serv Elec & Gas	5	744567BB3	1st & Ref Mtg	7/1/2037	A-	4.88	4.84	5.06	4.89	4.62	4.52	4.41	4.44	4.71	4.61	4.60	4.67	4.69%	4.63%
Public Service Electric and Gas	5	744567BB3	1st & Ref	7/1/2037	A-	4.88	4.84	5.06	4.89	4.62	4.52	4.41	4.44	4.71	4.61	4.60	4.67	4.69%	4.63%
Public Service Electric and Gas	9.25	744567CN6	1st & Ref CC	6/1/2021	A-	3.24	3.32	3.58	3.28	3.09	3.02	2.90	2.91	3.10	2.94	2.94	2.94	3.11%	2.94%
Public Service Electric and Gas	6.75	744567EP9	1st & Ref VV	1/1/2016	A-	1.73	1.72	1.88	1.57	1.49	1.49	1.40	1.35	1.41	1.43	1.38	1.42	1.52%	1.41%
Public Svc Elec Gas Co Secd M	7.04	74456QAG1	MTN Tranche # Tr 00007	11/6/2020	A-	3.44	3.52	3.78	3.51	3.32	3.31	3.20	3.21	3.40	2.84	2.84	2.89	3.27%	2.86%
Public Service Electric and Gas	5.12	74456QAJ5	Sec M-T Nts 'B'	9/1/2012	A-	0.63	0.72	0.65	0.81	0.69	0.52	0.59						0.66%	
Public Service Electric and Gas	5	74456QAK2	Sec M-T Nts 'B'	1/1/2013	A-	0.97	0.64	0.58	0.65	0.65	0.43	0.51	0.65	0.40	0.67	0.25		0.58%	0.46%
Public Service Electric and Gas	5.38	74456QAL0	Sec M-T Nts 'C'	9/1/2013	A-	0.97	0.91	0.94	0.90	0.90	0.89	0.56	0.59	0.49	0.54	0.48	0.60	0.73%	0.54%
Public Service Electric and Gas	5	74456QAN6	Sec M-T Nts'D'	8/15/2014	A-	1.06	0.96	1.00	0.88	0.89	0.90	0.60	0.55	0.50	0.51	0.56	0.56	0.75%	0.54%
Public Svc Elec Gas Co Secd M	5.25	74456QAP1	Med Term Notes	7/1/2035	A-	4.18	3.99	4.21	4.01	3.84	3.89	3.68	3.56	3.83	3.68	3.67	3.87	3.87%	3.74%
Public Svc Elec Gas Co Secd M	5.7	74456QAQ9	Secd Mtns, Ser D	12/1/2036	A-	4.38	4.04	4.21	4.01	3.84	3.89	3.68	3.56	3.83	3.68	3.67	3.87	3.89%	3.74%
Public Svc Elec Gas Co Secd M	5.8	74456QAR7	Secured Mtn Series E Notes	5/1/2037	A-	4.28	4.09	4.21	4.01	3.84	3.89	3.68	3.56	3.83	3.68	3.67	3.90	3.89%	3.75%
Puget Sound Pwr & Lt	7.02	74531EAA0	Sr M-T Nts'A'	12/1/2027	A-	4.38	4.57	4.83	4.48	4.29	4.02	3.85	3.76	3.91	3.84	4.08	3.99	4.17%	3.97%
Puget Sound Energy	6.74	74531EAB8	Sr M-T Nts 'A'	6/15/2018	A-	2.98	3.07	3.28	3.00	2.99	3.05	2.95	2.34	2.37	2.43	2.39	2.26	2.76%	2.36%
Puget Sound Energy	7	74531EAC6	Sr M-T Nts 'B'	3/9/2029	A-	4.58	4.59	4.81	4.64	4.36	4.23	4.12	4.15	4.33	4.23	4.22	4.42	4.39%	4.29%
Puget Sound Energy	5.48	745332BU9	Sr Nts	6/1/2035	A-	4.33	4.29	4.51	4.26	4.14	3.99	3.68	3.61	3.88	3.78	3.87	4.02	4.03%	3.89%
Puget Sound Energy	5.2	745332BV7	Sr(Sec)Nts	10/1/2015	A-	1.82	1.90	2.01	1.24	1.26	1.26	1.19	1.01	1.04	1.09	1.06	1.05	1.33%	1.07%
Puget Sound Energy	6.72	745332BW5	Sr Nts	6/15/2036	A-	4.38	4.34	4.51	4.31	4.19	4.04	3.68	3.61	3.88	3.78	3.92	4.07	4.06%	3.92%
Puget Sound Energy	6.27	745332BX3	Sr(Sec)Nts	3/15/2037	A-	4.38	4.34	4.51	4.31	4.19	4.04	3.68	3.61	3.88	3.78	3.92	4.07	4.06%	3.92%
Southwestern Public Serv	5.6	845743BK8	Sr Nts'E'	10/1/2016	A-	2.63	2.52	2.48	2.21	2.39	2.40	2.30	2.24	2.32	2.37	2.18	2.22	2.36%	2.26%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Southwestern Public Serv	6	845743BL6	Sr Nts'F'	10/1/2036	A-	5.13	5.09	5.06	4.96	4.69	4.74	4.63	4.41	4.38	4.17	4.22	4.32	4.65%	4.24%
Virginia Electric & Power Co.	4.75	927804EU4	Sr Nts 'A'	3/1/2013	A-	1.02	0.74	0.68	0.65	0.63	0.49	0.50	0.53	0.36	0.49	0.40	0.49	0.58%	0.46%
Virginia Electric & Power Co.	5.25	927804EW0	Sr Nts 'C'	12/15/2015	A-	1.32	1.45	1.48	1.34	1.56	1.56	1.49	1.05	1.09	0.99	0.96	0.95	1.27%	0.97%
Virginia Electric & Power Co.	5.4	927804EZ3	Sr Nts'A'	1/15/2016	A-	1.33	1.27	1.48	1.16	1.24	1.24	1.00	0.95	0.91	0.87	0.83	0.87	1.10%	0.86%
Virginia Electric & Power Co.	6	927804FA7	Sr Nts'B'	1/15/2036	A-	4.14	4.14	4.31	4.16	4.14	4.04	3.73	3.62	3.93	3.63	3.82	3.87	3.96%	3.77%
Virginia Electric & Power Co.	6	927804FB5	Sr Nt 2007 Ser A	5/15/2037	A-	4.18	4.14	4.31	4.16	4.19	4.04	3.73	3.62	3.93	3.68	3.87	3.97	3.99%	3.84%
Virginia Electric & Power Co.	5.95	927804FC3	Sr Nt 2007 Ser B	9/15/2017	A-	1.93	1.97	1.86	1.59	1.64	1.70	1.25	1.09	1.21	1.11	1.08	1.10	1.46%	1.10%
Virginia Electric & Power Co.	5.1	927804FD1	Sr Nt 2007 Ser C	11/30/2012	A-	0.67	0.57	0.51	0.62	0.53	0.46	0.47	0.65	0.30				0.53%	
Virginia Electric & Power Co.	6.35	927804FE9	Sr Nt 2007 Ser D	11/30/2037	A-	4.23	4.14	4.36	4.18	4.18	4.04	3.73	3.66	3.98	3.68	3.87	3.93	4.00%	3.83%
Virginia Electric & Power Co.	5.4	927804FF6	Sr Nt 2008 Ser A	4/30/2018	A-	1.98	2.07	2.13	1.86	1.84	1.84	1.74	1.54	1.52	1.27	1.23	1.33	1.70%	1.28%
Washington Water Power	7.53	94068VAA1	Secd MTN	5/5/2023	A-	3.94	3.97	4.23	3.96	3.77	3.70	3.58	3.56	3.75	3.63	3.64	3.69	3.79%	3.65%
Washington Water Power	7.39	94068VAF0	Sec M-T Nts'A'	5/11/2018	A-	3.23	3.37	3.58	3.31	3.24	3.25	3.15	2.84	2.91	2.82	2.78	2.81	3.11%	2.80%
Wisconsin Electric Power Comp	6.875	976656BL1	Deb	12/1/2095	A-	4.90	5.17	5.44	5.15	4.92	5.20	5.08	4.91	5.08	4.93	4.92	5.17	5.07%	5.01%
Wisconsin Electric Power	6.5	976656BP2	Deb	6/1/2028	A-	4.13	4.19	4.56	4.36	4.09	4.09	3.98	3.91	4.18	4.08	4.07	4.17	4.15%	4.11%
Wisconsin Electric Power	5.7	976656BZ0	Deb	12/1/2036	A-	4.03	4.09	4.21	4.04	3.77	3.94	3.83	3.66	3.93	3.83	3.87	3.92	3.93%	3.87%
Wisconsin Power & Light Co.	6.25	976826BD8	Deb	7/31/2034	A-	4.33	4.34	4.56	4.31	4.04	4.04	3.93	3.96	4.13	3.93	3.92	4.02	4.13%	3.96%
AmerenUE	5.1	02360FAA4	Sr Sec Nts	10/1/2019	BBB+	2.89	2.87	3.13	2.86	2.59	2.52	2.40	2.31	2.35	2.08	2.08	2.13	2.52%	2.10%
AmerenUE	5.3	02360FAB2	Sr Sec Nts	8/1/2037	BBB+	4.13	4.14	4.36	4.16	4.09	3.99	3.73	3.71	3.98	3.88	3.87	3.97	4.00%	3.91%
AmerenUE	5.4	02360FAC0	Sr Sec Nts	2/1/2016	BBB+	2.03	2.07	2.28	1.71	1.64	1.65	1.55	1.30	1.26	1.32	1.28	1.32	1.62%	1.31%
Arizona Public Service	6.5	040555CD4	Nts	3/1/2012	BBB+	0.85												0.85%	
Arizona Public Service	4.65	040555CE2	Nts	5/15/2015	BBB+	1.55	1.63	1.58	1.44	1.46	1.46	1.39	1.13	1.17	1.09	1.06	1.05	1.33%	1.07%
Arizona Public Service	5.625	040555CF9	Nts	5/15/2033	BBB+	4.78	4.84	4.96	4.79	4.64	4.74	4.48	4.46	4.73	4.33	4.32	4.37	4.62%	4.34%
Arizona Public Service	5.8	040555CG7	Nts	6/30/2014	BBB+	1.31	1.41	1.35	1.28	1.29	1.20	1.05	1.06	0.75	0.86	0.81	0.80	1.10%	0.82%
Arizona Public Service	5.5	040555CH5	Nts	9/1/2035	BBB+	4.73	4.54	4.66	4.49	4.24	4.34	4.08	4.11	4.23	3.93	4.22	4.22	4.32%	4.12%
Arizona Public Service	6.25	040555CJ1	Nt	8/1/2016	BBB+	2.03	1.97	2.08	1.86	1.69	1.85	1.70	1.53	1.53	1.52	1.23	1.27	1.69%	1.34%
Arizona Public Service	6.88	040555CK8	Nts	8/1/2036	BBB+	4.88	4.89	5.06	4.89	4.62	4.54	4.48	4.46	4.73	4.58	4.57	4.52	4.69%	4.56%
Baltimore Gas & Elec Co MTN	6.75	05916MAA1	MTN Series E	6/5/2012	BBB+	1.54	1.50	1.39	2.07									1.63%	
Baltimore Gas & Elec Co MTN	6.75	05916MAB9	MTN Series E	6/5/2012	BBB+	1.57	1.53	1.42	2.09									1.65%	
Baltimore Gas & Elec Co MTN	6.75	05916MAC7	MTN Tranche # Tr 00003	6/12/2012	BBB+	1.68	1.65	1.55	2.10									1.75%	
Baltimore Gas & Elec Co MTN	6.73	05916MAD5	MTN Tranche # Tr 00004	6/12/2012	BBB+	1.71	1.71	1.56	2.14									1.78%	
CenterPoint Energy Res	5.95	15189WAB6	Sr Nts	1/15/2014	BBB+	1.76	1.86	1.90	1.74	1.74	1.39	1.31	1.32	1.30	1.07	1.11	1.12	1.47%	1.10%
CenterPoint Energy Res	7.875	15189YAB2	Sr Nts	4/1/2013	BBB+	1.42	1.52	1.53	1.08	1.03	0.90	0.86	1.02	0.80	1.08	0.87	1.05	1.10%	1.00%
CenterPoint Energy Res	6.25	15189YAD8	Sr Nts	2/1/2037	BBB+	4.93	4.94	5.16	4.99	4.72	5.14	4.63	4.26	4.43	4.23	4.22	4.57	4.69%	4.34%
CenterPoint Energy Res	6.25	15189YAD8	Sr Nt	2/1/2037	BBB+	4.93	4.94	5.16	4.99	4.72	5.14	4.63	4.26	4.43	4.23	4.22	4.57	4.69%	4.34%
Central Illinois Light	6.2	153645AX4	Sr Secd Nt 144a	6/15/2016	BBB+	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77%	3.77%
Central Illinois Light	6.7	153645BA3	Sr Secd Nt 144a	6/15/2036	BBB+	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09%	6.09%
Central Maine Pwr	5.7	15405CCQ3	MTN Ser-e	8/29/2012	BBB+	2.28	2.25	2.20	2.33	2.27	2.24							2.26%	
Cincinnati Gas & Electric Co.	6.9	172070BT0	Deb	6/1/2025	BBB+	4.14	4.12	4.38	4.11	3.97	3.90	3.78	3.66	3.85	3.68	3.64	4.14	3.95%	3.82%
Cincinnati Gas & Electric Co.	5.7	172070CN2	Deb	9/15/2012	BBB+	0.68	0.57	0.46	0.69	0.57	0.47	0.56						0.57%	
Consumers Energy Co.	6.875	210518AT3	Sr Nts 'B'	3/1/2018	BBB+	2.88	3.03	3.24	2.46	2.44	2.44	2.34	2.08	2.15	1.70	1.66	1.70	2.34%	1.69%
Consumers Energy Co.	5.5	210518CE4	1st 'P'	8/15/2016	BBB+	1.88	1.97	2.03	1.76	1.74	1.59	1.49	1.43	1.50	1.27	1.03	1.12	1.57%	1.14%
Consumers Energy Co.	5	210518CF1	1st Mtg Bd	3/15/2015	BBB+	1.60	1.43	1.48	1.24	1.11	1.11	1.04	0.96	0.99	0.67	0.64	0.81	1.09%	0.71%
Consumers Energy Co.	5.15	210518CG9	1st	2/15/2017	BBB+	2.03	2.12	2.33	1.81	1.79	1.80	1.70	1.64	1.72	1.32	1.28	1.17	1.73%	1.26%
Consumers Energy Co.	5.65	210518CL8	1st	4/15/2020	BBB+	3.09	2.87	2.93	2.66	2.54	2.52	2.20	2.16	2.25	2.04	2.04	2.14	2.45%	2.07%
Consumers Energy Co.	5.8	210518CP9	1st	9/15/2035	BBB+	4.48	4.49	4.56	4.39	4.17	4.07	3.73	3.76	4.03	3.93	3.92	4.02	4.13%	3.96%
Consumers Energy Co.	5.65	210518CQ7	1st	9/15/2018	BBB+	2.57	2.71	2.78	2.36	2.27	2.05	1.91	1.85	1.93	1.57	1.53	1.56	2.09%	1.55%
Consumers Energy Co.	6.12	210518CR5	1st	3/15/2019	BBB+	2.64	2.67	2.83	2.61	2.47	2.37	2.05	2.06	2.15	2.09	1.89	1.82	2.30%	1.93%
Delmarva Pwr & Light	5	247109BH3	Nt	11/15/2014	BBB+	1.86	1.95	2.00	1.92	1.94	1.70	1.65	1.64	1.65	1.70	1.36	1.36	1.73%	1.47%
Delmarva Pwr & Light	5	247109BJ9	Fixed Rt Nt	6/1/2015	BBB+	2.30	2.23	2.33	2.14	2.16	1.91	1.84	1.80	1.84	1.89	1.61	1.60	1.97%	1.70%
Duke Energy Corp.	6	264399DK9	Sr Nts 'A'	12/1/2028	BBB+	4.13	4.19	4.41	4.24	4.09	3.84	3.83	3.76	4.03	3.88	3.96	4.06	4.04%	3.97%
Duke Energy Corp.	6.45	264399ED4	Sr Nts	10/15/2032	BBB+	4.53	4.44	4.56	4.31	4.19	4.09	4.02	4.01	4.28	4.03	4.12	4.27	4.24%	4.14%
Empire District Electric Co. (The	7.2	291641AS7	1st	12/1/2016	BBB+	2.53	2.67	2.88	2.61	2.54	2.55	2.45	2.39	2.46	2.52	2.48	2.52	2.55%	2.51%
Enersis S.A.	7.4	29274FAB0	Nt	12/1/2016	BBB+	3.28	3.23	3.34	2.91	3.12	3.36	3.06	2.89	2.88	2.51	2.65	2.62	2.99%	2.59%
Entergy Gulf States	6.18	29364LAT9	1st	3/1/2035	BBB+	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.17	6.18%	6.18%
Entergy Gulf States	5.7	29364LAU6	1st	6/1/2015	BBB+	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70%	5.70%
Entergy New Orleans	5.65	29364PAJ2	1st	9/10/2029	BBB+	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64	5.64%	5.64%
Entergy New Orleans	5.6	29364PAK9	1st	9/1/2024	BBB+	5.58	5.58	5.59	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58%	5.58%
Exelon Corp.	5.62	30161NAC5	Sr Nts	6/15/2035	BBB+	4.98	4.69	5.01	4.91	4.94	5.09	4.58	4.56	4.73	4.36	4.56	4.77	4.77%	4.56%
Florida Pwr	6.75	34110QAL2	Nts	2/1/2028	BBB+	5.03	5.09	5.16	4.99	4.84	4.74	4.63	4.66	4.93	4.73	4.57	4.67	4.84%	4.66%
Interstate Pwr & Lt	6.45	461070AC8	Sr Deb	10/15/2033	BBB+	4.43	4.44	4.66	4.51	4.24	4.19	4.08	4.11	4.38	4.28	4.27	4.37	4.33%	4.31%
Interstate Pwr & Lt	6.3	461070AD6	Sr Deb	5/1/2034	BBB+	4.43	4.44	4.66	4.41	4.14	4.19	4.08	4.11	4.38	4.28	4.27	4.37	4.31%	4.31%
Interstate Pwr & Lt	5.5	461070AE4	Sr Deb	7/15/2025	BBB+	4.34	4.37	4.38	4.03	3.84	3.77	3.65	3.66	3.85	3.78	3.79	3.84	3.94%	3.80%
MidAmerican Funding	6.93	59562HAJ7	Sr Sec Bonds	3/1/2029	BBB+	4.83	4.69	4.91	4.36	4.36	4.29	4.00	4.03	4.23	4.04	4.02	4.12	4.32%	4.06%
MidAmerican Energy Hldg	5.88	59562VAF4	Sr Nts	10/1/2012	BBB+	0.87	0.97	0.60	0.75	0.64	0.54	0.59						0.71%	
MidAmerican Energy Hldg	5	59562VAK3	Sr Nts	2/15/2014	BBB+	1.21	1.01	0.95	0.88	0.89	0.95	0.80	0.81	0.80	0.82	0.76	0.77	0.89%	0.78%
MidAmerican Energy Hldg	6.12	59562VAM9	SrBonds	4/1/2036	BBB+	4.63	4.54	4.74	4.61	4.49	4.31	4.08	4.12	4.35	4.03	4.17	4.32	4.37%	4.17%
National Grid plc	6.3	636274AC6	Notes	8/1/2016	BBB+	2.63	2.43	2.59	2.31	2.35	2.36	2.21	2.14	1.93	2.01	1.75	1.67	2.20%	1.81%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
National Grid plc	6.3	636274AC6	Nt	8/1/2016	BBB+	2.63	2.43	2.59	2.31	2.35	2.36	2.21	2.14	1.93	2.01	1.75	1.67	2.20%	1.81%
Oklahoma Gas & Elec Co	6.65	678858AZ4	Sr Nts	7/15/2027	BBB+	4.13	4.21	4.47	4.20	4.01	3.94	3.82	3.83	4.02	3.78	3.79	3.84	4.00%	3.80%
Oklahoma Gas & Elec Co	6.5	678858BB6	Sr Nt	7/15/2017	BBB+	2.53	2.67	2.88	2.61	2.54	2.55	2.45	2.39	2.21	1.72	1.68	1.72	2.33%	1.71%
Oklahoma Gas & Elec Co	6.5	678858BC4	Sr Nt	4/15/2028	BBB+	4.78	4.84	4.76	4.59	4.49	4.39	4.38	4.41	4.68	4.33	4.32	4.42	4.53%	4.36%
Oklahoma Gas & Elec Co	5.75	678858BF7	Sr Nts	1/15/2036	BBB+	4.33	4.39	4.61	4.44	4.17	4.07	3.96	3.99	4.26	4.16	4.15	4.25	4.23%	4.19%
Oklahoma Gas & Elec Co	5.15	678858BG5	Sr Nts	1/15/2016	BBB+	2.48	2.62	2.83	2.56	2.49	2.50	2.40	2.34	2.16	1.30	1.26	1.30	2.19%	1.29%
PSI Energy, Inc.	5	693627AX9	Deb	9/15/2013	BBB+	1.46	1.31	1.09	1.14	1.20	0.88	0.85	0.77	0.58	0.57	0.47	0.50	0.90%	0.51%
PSI Energy, Inc.	6.12	693627AY7	Deb	10/15/2035	BBB+	4.88	4.94	5.06	4.91	4.96	4.84	4.48	4.51	4.78	4.13	4.12	4.78	4.70%	4.34%
PSI Energy	6.05	693627AZ4	Deb	6/15/2016	BBB+	2.33	2.02	2.13	1.81	1.79	1.65	1.55	1.50	1.56	1.52	1.38	1.57	1.73%	1.49%
Potomac Edison Co.	5.35	737662BP0	1st	11/15/2014	BBB+	1.42	1.51	1.55	1.48	1.50	1.51	1.46	1.46	1.46	1.51	1.06	1.06	1.42%	1.21%
Potomac Edison Co.	5.12	737662BR6	1st	8/15/2015	BBB+	2.18	2.30	2.13	1.99	2.01	2.01	1.94	1.50	1.44	1.49	1.31	1.30	1.80%	1.37%
Public Svc No Car	6.99	744516AA3	Sr Deb	1/15/2026	BBB+	4.19	4.22	4.43	4.13	3.94	3.87	3.75	3.76	3.85	3.58	3.59	3.64	3.91%	3.60%
Public Svc No Car	7.45	744516AB1	Sr Deb	12/15/2026	BBB+	4.29	4.32	4.53	4.23	4.04	3.97	3.85	3.86	3.95	3.68	3.69	3.74	4.01%	3.70%
Sempra Energy	6	816851AF6	Nts	2/1/2013	BBB+	1.52	0.79	0.68	0.82	0.78	0.68	0.65	0.79	0.54	0.78	0.36		0.76%	0.57%
Southern California Edison Co.	6.65	842400EB5	Nts	4/1/2029	BBB+	4.18	4.09	4.21	3.99	4.09	4.04	3.83	3.76	4.03	3.83	3.87	3.97	3.99%	3.89%
Southern Power Co	4.88	843646AF7	Sr Nt	7/15/2015	BBB+	1.75	1.78	1.68	1.54	1.76	1.76	1.49	1.22	1.21	1.09	0.99	1.05	1.44%	1.04%
Southern Power Co	6.38	843646AG5	Sr Nt Ser E	11/15/2036	BBB+	5.93	5.84	5.81	5.72	5.72	5.88	5.85	5.84	5.87	5.90	5.90	5.64	5.83%	5.81%
Tampa Electric Co.	6.875	875127AS1	Nts	6/15/2012	BBB+	1.30	0.88	0.74	1.31									1.06%	
Tampa Electric Co.	6.375	875127AU6	Nts	8/15/2012	BBB+	0.88	0.97	0.89	1.11	0.98	0.81							0.94%	
Tampa Electric Co.	6.55	875127AV4	Nts	5/15/2036	BBB+	4.53	4.59	4.81	4.34	4.12	4.09	3.83	3.81	4.08	3.73	3.72	3.82	4.12%	3.76%
Tampa Electric Co.	6.15	875127AW2	Sr Nts	5/15/2037	BBB+	4.53	4.59	4.66	4.34	4.14	4.09	3.83	3.81	4.13	3.78	3.77	3.87	4.13%	3.81%
Tampa Electric Co.	6.1	875127AX0	Fixed Rt	5/15/2018	BBB+	2.63	2.52	2.63	2.26	2.19	2.30	2.05	1.44	1.52	1.27	1.23	1.37	1.95%	1.29%
Union Electric	5.25	906548BX9	Sr Sec Nts	9/1/2012	BBB+	1.38	1.47	0.70	0.87	0.69	0.57	0.70						0.91%	
Union Electric	5.5	906548BY7	Sr Sec Nts	3/15/2034	BBB+	4.53	4.69	4.91	4.74	4.47	4.37	4.23	4.26	4.53	4.18	4.17	4.27	4.45%	4.21%
Union Electric	4.75	906548BZ4	Sr Sec Nts	4/1/2015	BBB+	2.30	2.43	2.54	2.39	2.41	2.41	2.34	2.30	1.44	1.39	1.36	1.35	2.06%	1.37%
Union Electric	4.65	906548CB6	Sr Sec Nts	10/1/2013	BBB+	1.36	1.46	1.50	1.43	1.44	1.45	1.40	1.41	1.40	1.41	1.38	1.40	1.42%	1.40%
Union Electric	5.5	906548CC4	Sr Sec Nts	5/15/2014	BBB+	2.12	2.21	2.25	2.18	2.20	1.30	1.25	1.26	1.25	1.31	1.26	1.26	1.65%	1.28%
Union Electric	5	906548CD2	Sr Sec Nts	2/1/2020	BBB+	3.19	3.27	3.53	3.26	3.07	3.00	2.88	2.89	3.08	2.68	2.69	2.74	3.02%	2.70%
Union Electric	6.4	906548CE0	Sr Sec Nts	6/15/2017	BBB+	2.23	2.27	2.43	2.06	2.04	2.15	2.05	1.99	1.41	1.21	1.23	1.27	1.86%	1.24%
Union Electric	6	906548CF7	Sr Sec Nts	4/1/2018	BBB+	2.72	2.86	3.07	2.56	2.49	2.50	2.40	2.14	1.67	1.72	1.68	1.71	2.29%	1.70%
Union Electric	6.7	906548CG5	Sr Sec Nts	2/1/2019	BBB+	3.14	3.12	3.13	2.71	2.59	2.42	2.30	1.97	2.10	2.04	2.04	2.09	2.47%	2.06%
WPS Resources Corp.	5.375	92931BAB2	Sr Nts	12/1/2012	BBB+	1.57	1.67	1.61	1.68	1.69	1.60	1.58	1.75	1.46				1.62%	
Westar Energy, Inc.	6	95709TAA8	1st Mtg Bd	7/1/2014	BBB+	1.97	2.06	1.60	1.48	1.19	1.16	1.00	0.91	0.85	0.91	1.01	1.21	1.28%	1.04%
Westar Energy, Inc.	5.15	95709TAB6	1st Mtg Bd	1/1/2017	BBB+	2.93	2.22	2.43	2.16	2.09	2.10	1.95	1.54	1.92	1.82	1.78	1.82	2.06%	1.81%
Westar Energy, Inc.	5.95	95709TAC4	1st Mtg Bd	1/1/2035	BBB+	5.39	5.43	5.46	5.44	5.46	5.47	5.48	5.40	5.42	5.45	5.46	5.51	5.45%	5.47%
Westar Energy, Inc.	5.1	95709TAD2	1st	7/15/2020	BBB+	3.24	3.12	3.21	2.90	2.64	2.62	2.35	2.21	2.40	2.28	2.29	2.19	2.62%	2.25%
Westar Energy, Inc.	5.88	95709TAE0	1st Mtg Bd	7/15/2036	BBB+	5.26	5.30	5.34	5.31	5.33	5.34	5.34	5.25	5.27	5.29	5.30	5.36	5.31%	5.32%
Xcel Energy Inc.	6.5	98389BAH3	Sr Nts	7/1/2036	BBB+	4.48	4.39	4.61	4.36	4.29	4.19	3.88	3.86	4.08	4.03	4.07	4.19	4.20%	4.10%
AEP Texas North	5.5	0010EQAB2	Sr Nts	3/1/2013	BBB	1.62	0.93	0.78	0.95	0.98	0.79	0.70	0.69	0.51	0.65	0.46	0.65	0.81%	0.59%
American Electric Power Co., Ir	5.25	025537AE1	Sr Nts	6/1/2015	BBB	2.40	2.18	2.28	2.14	2.16	2.16	2.09	1.41	1.84	1.39	0.71	0.72	1.79%	0.94%
Appalachian Power Co.	5.95	037735BZ9	Sr Nts'H'	5/15/2033	BBB	5.28	5.34	5.36	5.19	4.99	5.04	4.93	4.61	4.88	4.68	4.67	4.72	4.97%	4.69%
Appalachian Power	4.95	037735CB1	Sr Nts'I'	2/1/2015	BBB	1.82	1.95	2.06	1.91	1.71	1.91	1.59	1.56	1.49	1.49	1.46	1.45	1.70%	1.47%
Appalachian Power	5	037735CD7	Sr Nts'K'	6/1/2017	BBB	2.38	2.37	2.53	2.26	2.19	2.20	2.10	2.04	1.97	1.60	1.62	1.61	2.07%	1.61%
Appalachian Power	5.8	037735CE5	Sr Nts'L'	10/1/2035	BBB	4.68	4.74	4.91	4.86	4.74	4.74	4.38	4.31	4.43	4.33	4.32	4.52	4.58%	4.39%
Appalachian Power	6.38	037735CG0	Sr Nts'N'	4/1/2036	BBB	4.83	4.76	5.01	4.86	4.74	4.64	4.53	4.46	4.63	4.50	4.54	4.57	4.67%	4.54%
CenterPoint Energy, Inc.	6.85	15189TAG2	Sr Nts'B'	6/1/2015	BBB	2.45	2.58	2.48	2.30	2.11	2.31	2.09	2.01		1.65	1.51	1.41	2.08%	1.52%
CenterPoint Energy, Inc.	5.95	15189TAN7	Sr Nts	2/1/2017	BBB	3.03	2.97	2.98	2.71	2.64	2.70			1.86	1.82	1.73	1.82	2.43%	1.79%
Cleco Power LLC	5.375	185508AC2	Nts	5/1/2013	BBB	2.07	2.16	2.19	2.15	2.20	2.09	2.03	2.07	1.81	1.64	1.55	1.62	1.97%	1.60%
Cleco Power LLC	4.95	185508AD0	Nts	7/15/2015	BBB	2.45	2.58	2.69	2.54	2.56	2.56	2.49	2.45	2.34	1.89	1.86	1.85	2.36%	1.87%
Cleco Power LLC	6.5	185508AE8	Nts	12/1/2035	BBB	4.93	4.99	5.21	5.16	4.89	4.79	4.73	4.76	4.83	4.33	4.42	4.72	4.81%	4.49%
Cleveland Electric Illuminating C	7.88	186108BU9	Sec Nts 'D'	11/1/2017	BBB	2.88	2.97	3.13	2.86	2.79	2.95	2.70	2.44	2.51	2.37	2.33	2.27	2.68%	2.32%
Commonwealth Edison	6.95	202795GX2	Nts	7/15/2018	BBB	3.47	3.37	3.33	3.16	3.09	3.10	3.00	2.84	2.82	2.52	2.48	2.51	2.97%	2.50%
DTE Energy Co.	6.35	233331AM9	Sr Nts'06B	6/1/2016	BBB	2.28	2.32	2.53	2.26	1.89	2.05	1.80	1.25	1.29	1.27	1.23	1.47	1.80%	1.32%
Dominion Resources, Inc. (Va.)	7.5	25746UAY5	hanced Jr Sub Nt 2006 Se	6/30/2066	BBB		7.08	7.08	7.03	7.06	7.01	7.05	6.92	6.89	6.79	6.79	6.73	6.95%	6.77%
Dominion Resources, Inc. (Va.)	2.61	25746UAZ2	Sub Nt 2006 Ser B Enhanc	9/30/2066	BBB	3.49	3.39	3.17	3.19	3.16	3.15	3.10	3.10	2.94	2.88	2.84	3.13%	2.89%
El Paso Electric Co.	6	283677AW2	Sr Nts	5/15/2035	BBB	4.88	4.94	5.16	5.06	4.79	4.69	4.55	4.58	4.85	4.18	4.17	4.27	4.68%	4.21%
Energy East Corp.	6.75	29266MAD1	Nts	6/15/2012	BBB	1.50	2.11	2.01	2.43									2.01%	
Energy East Corp.	6.75	29266MAE9	Nts	9/15/2033	BBB	6.13	6.19	6.01	5.96	6.69	7.24	7.08	6.96	6.38	6.08	6.02	6.12	6.41%	6.07%
Energy East	6.75	29266MAF6	Nt	7/15/2036	BBB	5.93	5.99	5.96	6.06	6.88	7.29	7.16	6.96	6.38	6.08	6.02	6.12	6.40%	6.07%
Indiana Mich Pwr	6.375	454889AH9	Sr Nts 'E'	11/1/2012	BBB	1.33	1.82	0.70	0.86	0.82	0.69	0.72	1.14	0.51				0.95%	
Indiana Mich Pwr	5.05	454889AK2	Sr Nts'F'	11/15/2014	BBB	1.77	1.86	1.91	1.67	1.69	1.85	1.20	1.15	1.15	1.20	1.16	1.16	1.48%	1.17%
Indiana Mich Pwr	5.65	454889AL0	Sr Nts'G'	12/1/2015	BBB	2.27	2.18	2.28	2.14	2.16	2.16	1.59	1.55	1.59	1.49	1.46	1.45	1.86%	1.47%
Indiana Mich Pwr	6.05	454889AM8	Sr Nts'H'	3/15/2037	BBB	4.83	4.71	4.86	4.91	4.69	4.64	4.45	4.35	4.52	4.37	4.47	4.57	4.61%	4.47%
Kansas City Power & Light	6.05	485134BH2	Sr Nt Ser A	11/15/2035	BBB	4.78	4.84	4.96	4.79	4.53	4.59	4.43	4.46	4.53	4.23	4.22	4.32	4.56%	4.26%
Kansas City Power & Light	5.85	485134BJ8	Sr Nt	6/15/2017	BBB	2.88	3.02	2.98	2.61	2.64	2.65	2.40	2.24	2.07	1.97	1.93	1.97	2.45%	1.96%
Kentucky Power	5.62	491386AL2	Sr Nts'D'	12/1/2032	BBB	5.28	5.34	5.56	5.39	5.11	5.02	4.88	4.91	5.18	5.08	5.02	5.12	5.16%	5.07%
Nevada Power	6.5	641423BH0	Gen & Ref'I'	4/15/2012	BBB	1.13	1.23											1.18%	

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Nevada Power	5.88	641423BK3	Gen & Ref'L'	1/15/2015	BBB	1.60	1.68	1.33	1.20	1.26	1.31	1.14	1.01	0.96	0.91	0.91	0.86	1.18%	0.89%
Nevada Power	6.75	641423BU1	n & Refunding Mtg Nt Ser P	7/1/2037	BBB	4.43	4.44	4.71	4.56	4.39	4.34	4.08	3.99	4.23	3.98	4.10	4.20	4.29%	4.09%
Northeast Utilities	7.25	664397AE6	Sr Nts 'A'	4/1/2012	BBB	1.40	1.35											1.38%	
Ohio Power Co.	5.5	677415CD1	Sr Nts 'F'	2/15/2013	BBB	1.22	0.89	0.78	0.96	0.98	0.79	0.75	0.86	0.66	0.68	0.50	0.71	0.82%	0.63%
Ohio Power Co.	6.6	677415CF6	Sr Nts 'G'	2/15/2033	BBB	4.58	4.64	4.86	4.76	4.49	4.53	4.42	4.36	4.58	4.18	4.27	4.47	4.51%	4.31%
Ohio Power Co.	4.85	677415CG4	Sr Nts 'H'	1/15/2014	BBB	1.70	1.73	1.77	1.30	1.31	1.32	1.05	0.81	0.80	0.87	0.81	0.81	1.19%	0.83%
Ohio Power Co.	6.38	677415CJ8	Sr Nts 'I'	7/15/2033	BBB	6.03	6.05	6.08	6.04	6.06	6.08	6.10	6.13	6.14	6.17	6.19	6.22	6.11%	6.19%
Ohio Power Co.	6	677415CL3	Sr Nts'K'	6/1/2016	BBB	2.28	2.22	2.43	1.89	1.79	1.83	1.65	1.41	1.47	1.47	1.43	1.42	1.77%	1.44%
PPL Energy Supply	5.7	69352JAG2	Reset PutSecs	10/15/2035	BBB	5.00	4.99	5.03	5.00	5.03	5.07	5.05	5.00	5.03	4.90	4.90	4.93	4.99%	4.91%
PPL Energy Supply	6.2	69352JAH0	Sr Nts	5/15/2016	BBB	3.23	2.97	2.88	2.56	2.64	2.90	2.85	2.39	2.46	1.82	1.73	1.77	2.52%	1.77%
PPL Energy Supply	6	69352JAK3	Sr Nts	12/15/2036	BBB	5.68	5.74	5.96	5.61	5.44	5.49	5.28	5.06	5.33	4.98	5.17	5.22	5.41%	5.12%
PPL Energy Supply	6.5	69352JAL1	Sr Nts	5/1/2018	BBB	3.73	3.52	3.68	3.70	3.59	3.55	3.45	2.94	2.92	2.82	2.48	2.51	3.24%	2.60%
PPL Energy Supply	6.3	69352JAM9	Sr Nts	7/15/2013	BBB	1.67	1.76	1.39	1.31	1.11	0.96	0.80	0.75	0.69	0.75	0.66	0.75	1.05%	0.72%
PSEG Power LLC	8.62	69362BAJ1	Sr Nts	4/15/2031	BBB	4.98	4.74	5.11	4.94	4.89	4.92	4.58	4.71	4.93	4.63	4.67	4.82	4.83%	4.71%
PSEG Power LLC	6.95	69362BAM4	Sr Nts	6/1/2012	BBB	2.27												2.27%	
PSEG Power LLC	5.5	69362BAN2	Sr Nts	12/1/2015	BBB	2.15	1.93	2.03	1.79	1.81	1.85	1.78	1.74	1.59	1.24	1.66	1.40	1.75%	1.43%
PSEG Power LLC	5	69362BAP7	Sr Nts	4/1/2014	BBB	1.56	1.56	1.60	1.53	1.34	1.35	1.30	1.30	0.95	1.01	1.16	0.51	1.26%	0.89%
Pacific Gas & Electric Co.	4.8	694308GD3	1st	3/1/2014	BBB	0.96	0.81	0.85	0.83	0.94	0.90	0.70	0.71	0.67	0.76	0.71	0.67	0.79%	0.71%
Pacific Gas & Electric Co.	6.05	694308GE1	1st	3/1/2034	BBB	4.42	4.27	4.46	4.39	4.26	4.19	3.78	3.83	4.01	3.73	3.92	4.01	4.11%	3.89%
Pacific Gas & Electric Co.	5.8	694308GJ0	Fixed Rt Sr Nt	3/1/2037	BBB	4.43	4.29	4.46	4.41	4.29	4.19	3.83	3.88	4.15	3.85	3.97	4.22	4.16%	4.01%
Pepco Holdings, Inc.	6.12	713291AP7	Nts	6/1/2017	BBB	3.68	3.82	4.03	3.06	2.99	3.00	2.90	2.84	2.92	2.47	2.43	2.47	3.05%	2.46%
Progress Energy, Inc.	7.75	743263AE5	Sr Nts	3/1/2031	BBB	4.58	4.64	4.81	4.64	4.54	4.49	4.36	4.41	4.58	4.38	4.52	4.72	4.56%	4.54%
Progress Energy, Inc.	7	743263AG0	Sr Nts	10/30/2031	BBB	4.58	4.64	4.81	4.61	4.54	4.49	4.38	4.36	4.58	4.38	4.47	4.67	4.54%	4.51%
Progress Energy, Inc.	6.86	743263AJ4	Sr Nts	4/15/2012	BBB	0.83	0.80											0.82%	
Progress Energy, Inc.	5.62	743263AL9	Sr Nts	1/15/2016	BBB	1.68	1.69	1.78	1.51	1.58	1.63	1.40	1.30	1.31	1.12	1.17	1.21	1.45%	1.17%
Public Service Co. of Oklahoma	6.15	744533BH2	Sr Nts'F'	8/1/2016	BBB	3.17	3.12	2.73	2.31	2.24	2.25	2.15	2.09	1.47	1.42	1.38	1.47	2.15%	1.42%
Public Service Co. of Oklahoma	6.62	744533BJ8	Sr Nts 'G'	11/15/2037	BBB	4.73	4.71	4.93	4.86	4.59	4.74	4.63	4.66	4.73	4.63	4.62	4.62	4.70%	4.62%
Sierra Pacific Power	6.25	826418BB0	Gen & Ref'H'	4/15/2012	BBB	0.02	0.02	0.02										0.02%	
Sierra Pacific Power	6.75	826418BE4	en & Refunding Mtg Nt Ser	7/1/2037	BBB	4.43	4.59	4.71	4.56	4.34	4.39	4.18	4.06	4.33	4.08	4.12	4.22	4.33%	4.14%
Southern Power Co	6.25	843646AC4	Sr Nt	7/15/2012	BBB	2.84	2.84	2.84	2.84	2.84	2.84							2.84%	
Southwest'n Elec Power	5.38	845437BE1	Sr Nts	4/15/2015	BBB	2.22	2.35	2.46	2.31	2.33	2.21	2.14	2.10	2.14	2.19	2.16	2.15	2.23%	2.17%
Southwest'n Elec Power	4.9	845437BG6	Sr Nt Ser D	7/1/2015	BBB	2.40	2.38	2.48	2.34	2.36	2.36	2.29	2.25	2.29	2.33	2.31	2.30	2.34%	2.31%
Southwest'n Elec Power	5.55	845437BH4	Sr Nt Ser E	1/15/2017	BBB	2.88	2.62	2.83	2.56	2.49	2.50	2.40	2.34	2.42	2.22	2.18	2.22	2.47%	2.21%
TECO Energy, Inc.	7	872375AG5	Nts	5/1/2012	BBB	0.02	0.02	0.02	0.02									0.02%	
TECO Energy, Inc.	6.75	872375AP5	Nts	5/1/2015	BBB	3.32	3.45	3.55	3.41	2.19	2.31	2.24	2.06	2.09	1.80	0.86	0.02	2.28%	0.89%
WPS Resources	6.11	92931BAC0	Jr Sub Nt	12/1/2066	BBB			6.10	6.08	6.10	6.10	6.06	5.85	5.79	5.80	5.80	5.81	5.95%	5.80%
Wisconsin Energy Corp.	6.25	976657AH9	2007 Ser A Jr Sub Nt	5/15/2067	BBB			6.06	6.04	6.06	5.99	5.98	5.88	5.83	5.80	5.82	5.78	5.92%	5.80%
Wisconsin Energy Corp.	6.25	976657AH9	2007 Ser A Jr Sub Nt	5/15/2067	BBB	6.10	6.10	6.06	6.04	6.06	5.99	5.98	5.88	5.83	5.80	5.82	5.78	5.95%	5.80%
Black Hills Corp.	6.5	092113AE9	Nts	5/15/2013	BBB-	2.22	2.31	1.99	1.97	2.00	1.61	1.55	1.61	1.37	0.79	3.33	3.33	2.01%	2.48%
Cleveland Electric Illuminating C	5.65	186108CD6	Sr Nts	12/15/2013	BBB-	2.07	1.66	1.64	1.54	1.55	1.49	1.46	1.37	1.35	1.42	1.06	0.94	1.46%	1.14%
Cleveland Elec. Illum	5.95	186108CE4	Sr Nts	12/15/2036	BBB-	5.28	5.24	5.36	5.06	4.99	5.04	4.93	4.71	4.93	4.63	4.82	4.96	5.00%	4.80%
Cleveland Elec. Illum	5.7	186108CF1	Sr Nts	4/1/2017	BBB-	3.18	3.22	3.33	3.06	2.99	3.00	2.80	2.74	2.67	2.47	2.43	2.46	2.86%	2.45%
Constellation Energy Group, Inc	7.6	210371AF7	Nts	4/1/2032	BBB-	4.93	4.89	5.14	5.06	5.09	4.94	4.78	4.76	5.03	4.68	4.67	4.80	4.90%	4.72%
Constellation Energy Group, Inc	7	210371AH3	Nts	4/1/2012	BBB-	0.02	0.02	0.02										0.02%	
Constellation Energy Group, Inc	4.55	210371AK6	Nts	6/15/2015	BBB-	2.05	2.13	1.98	1.98	2.00	2.06	1.79	1.45	1.19	1.04	1.41	1.25	1.69%	1.23%
Duquesne Light Co.	6.7	266228CR4	1st 'O'	4/15/2012	BBB-	1.33	1.43											1.38%	
Duquesne Light Holdings, Inc.	5.5	266233AA3	Sr Nts	8/15/2015	BBB-	4.35	4.48	4.29	3.64	3.66	3.51	3.44	3.40	3.34	2.24	2.21	2.20	3.40%	2.22%
Duquesne Light Holdings, Inc.	6.25	266233AB1	Sr Nts	8/15/2035	BBB-	7.03	7.09	7.06	6.86	6.59	6.49	6.23	6.26	6.53	5.03	5.02	5.12	6.28%	5.06%
Empire District Electric Co. (The	4.5	291641AY4	Sr Nts	6/15/2013	BBB-	1.81	1.91	1.95	1.88	1.89	1.75	1.68	1.69	1.61	1.63	1.59	1.62	1.75%	1.61%
Empire District Electric Co. (The	5.8	291641AZ1	Sr Nts	7/1/2035	BBB-	5.53	5.59	5.81	5.64	5.36	5.27	5.16	5.19	5.46	5.36	5.35	5.45	5.43%	5.39%
Empire District Elec	6.7	29164RAA9	Sr Nts	11/15/2033	BBB-	5.53	5.59	5.81	5.64	5.37	5.27	5.16	5.19	5.46	5.36	5.35	5.45	5.43%	5.39%
Exelon Corp.	4.9	30161NAD3	Sr Nts	6/15/2015	BBB-	2.05	2.08	1.98	1.84	1.86	1.86	1.59	1.40	1.19	1.04	1.11	1.22	1.60%	1.12%
Hawaiian Elec Inds Inc MTN BE	7.13	41987QAK9	MTN Tranche # Tr 00010	10/1/2012	BBB-	1.50	1.48	1.42	1.47	1.39	1.35	1.41						1.43%	
Hawaiian Elec Indus	6.51	41987QAX1	M-T Nts'C'	5/5/2014	BBB-	1.96	2.01	2.04	1.44	1.44	1.49	1.45	1.46	1.41	1.47	1.42	1.37	1.58%	1.42%
Hawaiian Elec Indus	5.25	41987QBB8	M-T Nts 'D'	3/7/2013	BBB-	1.37	1.41	1.36	1.45	1.47	1.42	1.37	1.44	1.25	1.36	1.22	1.16	1.36%	1.25%
NiSource Finance	6.15	65473QAK9	Sr Nt	3/1/2013	BBB-	1.13	0.83	0.77	1.02	1.25	0.93	0.64	0.76	0.62	1.09	0.92	1.13	0.92%	1.05%
NiSource Finance	5.25	65473QAQ6	Gtd Nt	9/15/2017	BBB-	3.00	3.01	3.13	2.80	2.86	2.90	2.51	2.04	1.97	1.95	1.94	2.02	2.51%	1.97%
NiSource Finance	5.45	65473QAR4	Gtd Nt	9/15/2020	BBB-	3.84	3.67	3.93	3.68	3.69	3.77	3.40	3.41	3.10	2.77	2.79	2.89	3.41%	2.82%
Ohio Edison Co.	6.4	677347CD6	Sr Nt	7/15/2016	BBB-	2.63	2.72	2.83	2.56	2.49	2.50	2.40	2.34	2.11	1.32	1.28	1.37	2.21%	1.32%
Ohio Edison Co.	6.88	677347CE4	Sr Nts	7/15/2036	BBB-	5.38	5.06	5.16	4.93	4.79	4.84	4.73	4.56	4.83	4.43	4.42	4.77	4.83%	4.54%
Pennsylvania Electric	6.625	708696BM0	Sr Nts 'C'	4/1/2019	BBB-	4.14	4.22	4.48	4.21	4.02	3.95	3.80	3.56	3.75	3.69	3.69	3.74	3.94%	3.71%
West Penn Power Co.	6.625	955278BF2	Nts	4/15/2012	BBB-	1.87	1.97											1.92%	
CMS Energy Corp.	6.88	125896AZ3	Sr Nts	12/15/2015	BB+	3.87	3.66	3.63	3.49	3.56	3.56	3.34	2.65	2.49	2.24	2.21	2.20	3.08%	2.22%
CMS Energy Corp.	6.55	125896BA7	Sr Nts	7/17/2017	BB+	4.33	4.12	3.83	3.76	3.69	3.65	3.40	2.79	2.82	2.37	2.38	2.37	3.29%	2.37%
Duke Energy Corp.	5.625	264399EF9	Sr Nts	11/30/2012	BB+	0.62	0.72	0.56	0.68	0.63	0.55	0.46	0.72	0.35				0.59%	
FirstEnergy Corp.	7.38	337932AC1	Nts 'C'	11/15/2031	BB+	5.18	5.14	5.41	5.26	5.29	5.24	4.86	4.81	4.93	4.58	4.79	4.97	5.04%	4.78%
AES Corp. (The)	7.750	00130HBC8	Sr Nts	3/1/2014	BB-	3.48	3.33	3.54	2.97	3.44	2.82	2.41	1.81	1.86	2.19	2.26	2.07	2.68%	2.17%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
AmerenEnergy Generating	7.95	02360XAJ6	Sr Nts 'F'	6/1/2032	BB-	8.02	8.15	9.64	10.39	10.47	10.47	10.48	9.16	8.95	8.31	8.42	11.77	9.52%	9.50%
El Paso Energy Corp MTN BE	8.05	28368EAA4	MTN	10/15/2030	BB-	6.33	6.39	6.46	6.66	6.74	6.74	6.58	6.36	6.28	6.18	6.42	6.47	6.47%	6.36%
El Paso Energy Corp MTN BE	7.38	28368EAB2	MTN	12/15/2012	BB-	3.08	3.14	3.12	3.21	2.19	2.13	2.16	2.83	1.78	2.26			2.59%	2.26%
El Paso Energy Corp MTN BE	7.75	28368EAE6	MTN-tranche # Tr 00005	1/15/2032	BB-	6.23	6.06	6.41	6.46	6.64	6.59	6.43	6.16	6.08	6.03	6.22	6.17	6.29%	6.14%
NRG Energy, Inc.	7.25	629377AT9	SrNts	2/1/2014	BB-	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47	6.47%	6.47%
NRG Energy, Inc.	7.38	629377AX0	SrNts	1/15/2017	BB-	6.53	6.46	6.44	6.43	6.48	6.44	6.39	6.31	6.29	6.35	6.30	6.30	6.39%	6.32%
DynegyHldgs	8.38	26816LAT9	Sr Nts	5/1/2016	D	23.82	21.09	20.23	20.68	23.25	22.81	23.10	25.14	27.35		27.35	27.35	23.83%	27.35%
TXU Corp.	5.55	873168AL2	Sr Nts'P'	11/15/2014	D	20.93	19.71	18.92	20.11	21.30	21.09	22.20	15.16	15.80	39.57	31.77	13.98	21.71%	28.44%
TXU Corp.	6.5	873168AN8	Sr Nts'Q'	11/15/2024	D	17.48	16.15	14.90	15.12	16.93	16.46	16.33	13.91	13.07	20.01	16.99	13.40	15.90%	16.80%
TXU Corp.	6.55	873168AQ1	Sr Nts'R'	11/15/2034	D	15.54	14.47	13.60	13.77	15.42	14.95	14.73	12.80	12.47	17.91	15.15	11.82	14.39%	14.96%
Alabama Power Co.	5.75	010392EQ7	Sr InsurQtrlyNts'EE'	1/15/2036	NR	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76%	5.76%
Alabama Power Co.	6	010392EX2	Sr InsurMthly Nts'07C	10/15/2037	NR	5.93	5.94	5.95	5.89	5.91	5.93	5.95	5.97	5.98	5.99	6.00	6.00	5.95%	6.00%
Allegheny Generating	6.88	017364AG5	Deb	9/1/2023	NR	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.76%	6.76%
CMS Energy Corp.	1.25	125896BB5	Sr Nt Fltg	1/15/2013	NR	2.18	2.24	2.31	2.12	2.22	1.41	1.43	1.43	1.43	1.43	1.43	1.43	1.76%	1.43%
CenterPoint Energy Houston	5.75	15189XAG3	Gen Mtge'M2'	1/15/2014	NR	1.16	1.26	1.19	1.14	1.15	1.09	1.06	0.45	0.02				0.95%	
Consumers Energy Co.	5.65	210518CM6	InsurQtrlyNts	4/15/2035	NR	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65%	5.65%
Empire District Electric Co. (Th	7.05	291641AX6	Sr Nts	12/15/2022	NR	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05	7.05%	7.05%
Entergy Gulf States	5.6	29364LAS1	1st	12/1/2014	NR	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60%	5.60%
Entergy Mississippi	5.92	29364NAN8	1st	2/1/2016	NR	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93%	5.93%
Georgia Power Co.	5.65	373334GB1	Sr InsurQtrlyNts'06A	12/15/2040	NR	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66%	5.66%
MDU Resources Group, Inc.	5.98	552690AF6	Sr(Sec)Nts	12/15/2033	NR	6.27	6.28	6.50	6.33	6.06	6.01	5.90	5.93	6.11	6.01	6.00	6.02	6.12%	6.01%
NorthWestern Corp.	5.88	668074AM9	Sr Sec Nts	11/1/2014	NR	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10	5.10%	5.10%
Orange & Rockland Utils	7	684065AU9	Deb 'G'	3/1/2029	NR	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57%	6.57%
PPL Energy Supply	2.62	69352JAE7	Sr Nt Conv	5/15/2023	NR	1.43	1.12	1.52	1.64	1.57	1.54	0.96	0.86	1.08	0.77	1.27	0.88	1.22%	0.97%
Public Serv, New Mexico	7.5	744499AN4	Sr Unsec Nts 'B'	8/1/2018	NR	4.38	4.37	4.08	3.81	3.74	4.15	3.95	3.79	3.87	3.72	3.73	3.56	3.93%	3.67%
Savannah Electric&Power	5.5	804787DJ5	Sr Nts'F'	12/15/2028	NR	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49	5.49%	5.49%
Sierra Pacific Resources	8.625	826428AH7	Sr Nts	3/15/2014	NR	7.47	7.47	7.47	7.47	7.47	7.47	7.47	7.47	7.47	7.47	7.47	7.47	7.47%	7.47%
Sierra Pacific Resources	7.8	826428AJ3	Sr Nts	6/15/2012	NR	6.73	6.73	6.73	6.73	6.73								6.73%	
Sierra Pacific Resources	6.75	826428AN4	Sr Nts	8/15/2017	NR	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30%	6.30%
Tennessee Valley Authority	8.25	880591BL5	Pwr Bonds '92D	4/15/2042	NR	7.61	7.66	7.71	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.72%	7.74%
Tennessee Valley Authority	6.235	880591CF7	Pwr Bonds '95B	7/15/2045	NR	4.98	4.88	5.03	4.81	4.71	4.78	4.71	4.71	4.68	4.73	4.66	4.66	4.78%	4.68%
Tennessee Valley Authority	5.98	880591CK6	Pwr Bonds '96A	4/1/2036	NR	3.68	3.76	4.03	3.81	3.39	3.44	3.27	3.39	3.46	3.42	3.24	3.42	3.53%	3.36%
Tennessee Valley Authority	6.15	880591CP5	Pwr Bonds '98B	1/15/2038	NR	3.68	3.78	4.03	3.83	3.44	3.49	3.34	3.29	3.37	3.29	3.24	3.39	3.51%	3.31%
Tennessee Valley Authority	5.88	880591CS9	Pwr Bonds '97C	4/1/2036	NR	3.63	3.71	3.96	3.78	3.37	3.44	3.27	3.29	3.37	3.32	3.22	3.42	3.48%	3.32%
Union Electric	7.69	906548BT8	Sub Cap Inc Sec'A'	12/15/2036	NR	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45%	7.45%
UniSource Energy Corp.	4.5	909205AB2	Sr Nt Conv	3/1/2035	NR	3.98	3.91	4.02	4.15	4.01	3.90							4.00%	
			Counts of data			434	432	429	426	418	415	409	401	401	394	392	387	438	395

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
AAA's	1.77%	1.77%
AA's	3.92%	3.83%
A's	2.96%	2.93%
BBB's	2.97%	2.95%
BB's	4.76%	4.86%
B's	----	----
CC's	----	----
D	18.96%	21.89%
NR's	5.17%	5.27%
ALL	3.28%	3.30%
BBB- & Above	2.95%	2.92%
BB- & Above	3.00%	2.98%

**Investment Grade (BBB- & Above)*

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
20 YEAR BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Tennessee Valley Authority	4.7	880591DV1	Pwr Bonds\03 B"	7/15/2033	AAA	3.51	3.59	3.84	3.63	3.22	3.29	3.17	3.17	3.17	3.20	3.12	3.27	3.35%	3.20%
Madison Gas & Elec Co MTN B	7.12	5574A0AB3	Tranche # Tr 00002	4/1/2032	AA-	4.49	4.49	4.71	4.55	4.27	4.23	4.11	4.15	4.33	4.23	4.17	4.17	4.33%	4.19%
Alabama Power Co.	5.7	010392EC8	Sr Nts 'T'	2/15/2033	A	4.03	4.09	4.31	4.14	4.04	4.09	3.88	3.76	4.03	3.78	3.77	3.87	3.98%	3.81%
Alabama Power Co.	5.6	010392EE4	Sr Nts'V'	3/15/2033	A	4.33	4.49	4.71	4.61	4.49	4.49	4.38	4.21	4.33	4.18	4.17	4.27	4.39%	4.21%
Alabama Power Co.	6.12	010392EZ7	Sr Nts'08A	5/15/2038	A	4.11	4.14	4.41	4.24	4.19	4.09	3.83	3.81	4.08	3.88	3.96	4.07	4.07%	3.97%
Progress Energy, Inc.	5.7	144141CV8	1st	4/1/2035	A	4.28	4.34	4.41	4.24	3.99	3.99	3.88	3.91	4.18	4.08	4.07	4.17	4.13%	4.11%
Progress Energy, Inc.	5.7	144141CV8	1st Mtg Bd	4/1/2035	A	4.28	4.34	4.41	4.24	3.99	3.99	3.88	3.91	4.18	4.08	4.07	4.17	4.13%	4.11%
Progress Energy, Inc.	6.3	144141CY2	1st	4/1/2038	A	4.13	4.08	4.30	4.13	4.09	3.94	3.78	3.81	4.08	3.78	3.92	4.02	4.01%	3.91%
Progress Energy, Inc.	6.3	144141CY2	1st Mtg Bd	4/1/2038	A	4.13	4.08	4.30	4.13	4.09	3.94	3.78	3.81	4.08	3.78	3.92	4.02	4.01%	3.91%
Detroit Edison Co.	6.35	250847DU1	Sr Nts	10/15/2032	A	4.41	4.36	4.58	4.41	4.14	4.22	4.00	3.88	4.15	3.88	3.87	3.97	4.16%	3.91%
Detroit Edison Co	5.45	250847DZ0	Sr(Sec)Nts'BR'	2/15/2035	A	4.53	4.59	4.81	4.64	4.37	4.27	4.13	4.01	4.28	4.03	4.02	4.12	4.32%	4.06%
Detroit Edison Co	5.7	250847EA4	Sr(Sec)Nts'E'	10/1/2037	A	4.28	4.14	4.36	4.21	3.94	3.94	3.78	3.66	3.88	3.63	3.72	4.00	3.96%	3.78%
Florida Power & Light	5.85	341081EP8	1st	2/1/2033	A	4.13	4.19	4.41	4.11	3.99	3.84	3.68	3.66	3.93	3.58	3.62	3.72	3.91%	3.64%
Florida Power & Light	5.625	341081EQ6	1st	4/1/2034	A	4.13	3.99	4.26	4.06	4.04	3.89	3.63	3.56	3.78	3.68	3.77	3.87	3.89%	3.77%
Florida Power & Light	5.62	341081EQ6	First Mtg Bds	4/1/2034	A	4.13	3.99	4.26	4.06	4.04	3.89	3.63	3.56	3.78	3.68	3.77	3.87	3.89%	3.77%
Florida Power & Light	5.95	341081ER4	1st	10/1/2033	A	4.13	3.99	4.26	4.01	3.99	3.74	3.58	3.56	3.63	3.58	3.72	3.82	3.83%	3.71%
Florida Power & Light	4.95	341081ET0	1st	6/1/2035	A	4.08	3.99	4.26	4.01	3.99	3.89	3.53	3.56	3.78	3.63	3.67	3.82	3.85%	3.71%
Florida Power & Light	5.4	341081EU7	1st Mtg Bd	9/1/2035	A	4.18	3.99	4.26	4.01	4.04	3.89	3.63	3.56	3.83	3.63	3.82	3.92	3.90%	3.79%
Florida Power & Light	5.65	341081EV5	1st	2/1/2037	A	4.13	4.04	4.26	4.06	4.04	3.89	3.63	3.61	3.88	3.65	3.77	3.92	3.91%	3.78%
Florida Power & Light	6.2	341081EX1	1st	6/1/2036	A	4.18	4.04	4.26	4.11	4.04	3.89	3.63	3.66	3.93	3.68	3.77	3.87	3.92%	3.77%
Florida Power & Light	5.85	341081EY9	1st	5/1/2037	A	4.13	4.04	4.26	4.06	4.04	3.89	3.63	3.61	3.88	3.68	3.77	3.92	3.91%	3.79%
Florida Power Corp.	5.9	341099CB3	1st	3/1/2033	A	4.38	4.44	4.66	4.39	4.24	4.29	4.13	3.96	4.23	4.08	4.07	4.17	4.25%	4.11%
Florida Power Corp.	6.35	341099CH0	1st	9/15/2037	A	4.28	4.14	4.36	4.24	4.29	4.09	3.93	3.91	4.18	3.98	4.02	4.12	4.13%	4.04%
Georgia Power Co.	5.8	373334FZ9	Sr Nts'Y'	4/15/2035	A	5.03	5.09	5.31	5.14	4.87	4.77	5.12	5.13	5.15	5.16	5.18	5.20	5.10%	5.18%
Georgia Power Co.	5.65	373334GC9	Sr Nt Ser 2007a	3/1/2037	A	4.28	4.24	4.46	4.29	4.07	4.24	3.88	3.96	4.18	3.88	3.87	4.07	4.12%	3.94%
Georgia Power Co.	5.65	373334GC9	Sr Nts'07A	3/1/2037	A	4.28	4.24	4.46	4.29	4.07	4.24	3.88	3.96	4.18	3.88	3.87	4.07	4.12%	3.94%
Gulf Power Co.	5.65	402479BW8	Sr Nts'L'	9/1/2035	A	5.23	5.19	5.41	5.24	4.97	4.87	4.76	4.79	5.06	4.94	4.95	4.97	5.03%	4.95%
Mississippi Power Co.	5.4	605417BT0	Sr Nts'G'	7/1/2035	A	4.68	4.74	4.96	4.79	4.52	4.91	4.91	4.91	4.93	4.83	4.84	4.86	4.82%	4.84%
Northern Sts Pwr (Minn)	5.25	665772CA5	1st	7/15/2035	A	4.03	3.99	4.16	3.99	3.94	3.89	3.68	3.56	3.83	3.62	3.66	3.76	3.84%	3.68%
Northern Sts Pwr (Minn)	6.25	665772CB3	1st Mtg Bd Ser	6/1/2036	A	4.02	4.00	4.21	3.99	3.94	3.89	3.68	3.56	3.83	3.63	3.67	3.77	3.85%	3.69%
Northern Sts Pwr (Minn)	6.2	665772CC1	1st	7/1/2037	A	4.08	4.04	4.21	4.04	3.94	3.89	3.68	3.56	3.83	3.58	3.72	3.82	3.87%	3.71%
PacifiCorp	5.9	695114BX5	1st	8/15/2034	A	4.40	4.44	4.56	4.39	4.09	3.96	3.80	3.83	4.10	3.88	3.87	4.02	4.11%	3.92%
PacifiCorp	5.25	695114BZ0	1st	6/15/2035	A	4.23	4.24	4.46	4.26	4.09	3.97	3.78	3.71	3.98	3.76	3.87	4.02	4.03%	3.88%
PacifiCorp	6.1	695114CB2	1st	8/1/2036	A	4.28	4.24	4.46	4.26	4.14	4.04	3.93	3.76	4.08	3.73	3.87	3.99	4.07%	3.86%
PacifiCorp	5.75	695114CD8	1st	4/1/2037	A	4.28	4.19	4.46	4.26	4.09	4.04	3.88	3.76	4.03	3.68	3.82	4.02	4.04%	3.84%
Potomac Electric Power	5.75	737679CY4	Sr Nts	4/15/2034	A	4.48	4.54	4.76	4.59	4.32	4.24	4.13	4.16	4.43	4.33	4.32	4.42	4.39%	4.36%
Potomac Electric Power	5.4	737679CZ1	Sr Nts	6/1/2035	A	4.28	4.34	4.56	4.39	4.12	4.24	3.88	3.91	4.18	4.08	4.07	4.17	4.19%	4.11%
South Carolina Electric & Gas C	6.62	837004BV1	1st	2/1/2032	A	4.56	4.59	4.56	4.36	4.24	4.14	3.89	3.90	4.17	4.07	4.06	4.16	4.23%	4.10%
South Carolina Electric & Gas C	5.8	837004BW9	1st	1/15/2033	A	4.53	4.59	4.76	4.56	4.29	4.29	4.18	3.86	4.13	4.03	4.02	4.12	4.28%	4.06%
South Carolina Electric & Gas C	5.3	837004BX7	1st	5/15/2033	A	4.33	4.39	4.56	4.36	4.29	4.14	3.88	3.80	4.07	3.97	4.02	4.12	4.16%	4.04%
South Carolina Electric & Gas C	5.25	837004BZ2	1st	3/1/2035	A	4.58	4.59	4.76	4.56	4.29	4.14	4.23	4.26	4.53	4.43	4.42	4.52	4.44%	4.46%
South Carolina El & Gas	6.25	837004CA6	1st Mtg Bd	7/1/2036	A	4.58	4.59	4.76	4.56	4.34	4.14	4.13	4.16	4.43	4.33	4.32	4.42	4.40%	4.36%
Southern California Edison Co.	6	842400ES8	1st & Ref '04B	1/15/2034	A	4.03	3.99	4.21	4.04	3.99	3.89	3.63	3.61	3.88	3.58	3.69	3.86	3.87%	3.71%
Southern California Edison Co.	5.55	842400EZ2	1st & Ref'05B	1/15/2036	A	4.13	3.99	4.21	4.07	4.04	3.89	3.68	3.58	3.85	3.68	3.72	3.92	3.90%	3.77%
Southern California Edison Co.	5.35	842400FA6	1st & Ref'05E	7/15/2035	A	4.13	3.99	4.21	4.06	4.04	3.89	3.68	3.61	3.88	3.66	3.70	3.87	3.89%	3.74%
Southern California Edison Co.	5.62	842400FC2	1st & Ref'06A	2/1/2036	A	4.13	3.99	4.21	4.04	4.04	3.89	3.68	3.61	3.88	3.68	3.77	3.87	3.90%	3.77%
Southern California Edison Co.	5.55	842400FF5	1st & Ref'06E	1/15/2037	A	4.13	4.04	4.21	4.07	4.04	3.89	3.68	3.61	3.88	3.68	3.72	3.97	3.91%	3.79%
Wisconsin Public Service	5.55	976843BE1	Sr(Sec)Nts	12/1/2036	A	4.38	4.44	4.66	4.49	4.22	4.12	4.01	4.04	4.31	4.21	4.20	4.17	4.27%	4.19%
Avista Corp.	6.25	05379BAK3	1st Mtg Bd	12/1/2035	A-	4.78	4.84	5.06	4.89	4.62	4.52	4.41	4.31	4.58	4.33	4.32	4.32	4.58%	4.32%
Avista Corp.	5.7	05379BAM9	1st	7/1/2037	A-	4.63	4.69	4.91	4.74	4.47	4.37	4.26	4.17	4.44	4.33	4.32	4.22	4.46%	4.29%
Avista Corp.	5.7	05379BAM9	1st Mtg Bd	7/1/2037	A-	4.63	4.69	4.91	4.74	4.47	4.37	4.26	4.17	4.44	4.33	4.32	4.22	4.46%	4.29%
CenterPoint Energy Houston	6.95	15189XAD0	Gen Mtge'K2'	3/15/2033	A-	4.43	4.49	4.56	4.39	4.12	4.14	3.73	3.71	3.98	3.88	3.82	3.92	4.10%	3.87%
Commonwealth Edison	5.875	202795HG8	1st Ser 100	2/1/2033	A-	4.38	4.34	4.39	4.22	4.04	3.89	3.68	3.66	3.93	3.73	3.82	3.92	4.00%	3.82%
Commonwealth Edison	5.9	202795HK9	1st Ser 103	3/15/2036	A-	4.38	4.31	4.41	4.21	4.09	3.99	3.68	3.71	3.98	3.73	3.77	3.97	4.02%	3.82%
Connecticut Lt & Pwr	5.62	207597DU6	1st & Ref '05B	4/1/2035	A-	4.58	4.64	4.76	4.59	4.32	4.22	4.11	3.76	4.03	3.93	4.02	4.12	4.26%	4.02%
Connecticut Lt & Pwr	6.35	207597DV4	1st & Ref'06A	6/1/2036	A-	4.53	4.54	4.51	4.34	4.04	4.34	4.23	3.76	4.03	3.93	4.02	4.12	4.20%	4.02%
Connecticut Lt & Pwr	5.75	207597DX0	1st & Ref'07B	3/1/2037	A-	4.58	4.59	4.76	4.59	4.32	4.34	4.23	3.91	4.18	4.08	4.07	4.17	4.32%	4.11%
Consolidated Edison, Inc.	5.88	209111EB5	Deb '03A	4/1/2033	A-	4.48	4.49	4.66	4.49	4.44	4.29	4.13	3.86	4.13	3.98	4.07	4.17	4.27%	4.07%
Consolidated Edison, Inc.	5.7	209111EF6	Deb'04B	2/1/2034	A-	4.48	4.49	4.66	4.49	4.44	4.29	4.13	3.90	4.17	3.98	4.07	4.17	4.27%	4.07%
Consolidated Edison, Inc.	5.3	209111EH2	Deb '05A	3/1/2035	A-	4.23	4.19	4.36	4.19	4.14	3.98	3.78	3.61	3.85	3.71	3.87	3.87	3.98%	3.82%
Consolidated Edison, Inc.	5.25	209111EJ8	Deb '05B	7/1/2035	A-	4.68	4.69	4.86	4.69	4.14	4.09	3.98	4.01	4.28	3.98	4.07	4.17	4.30%	4.07%
Consolidated Edison, Inc.	5.85	209111EL3	Deb'06A	3/15/2036	A-	4.23	4.19	4.36	4.16	4.14	3.99	3.78	3.61	3.88	3.73	3.87	4.02	4.00%	3.87%
Consolidated Edison, Inc.	6.2	209111EM1	Deb'06B	6/15/2036	A-	4.23	4.19	4.36	4.19	4.14	3.99	3.78	3.61	3.88	3.73	3.87	4.02	4.00%	3.87%
Consolidated Edison, Inc.	5.7	209111EQ2	Deb'06E	12/1/2036	A-	4.23	4.19	4.36	4.19	4.14	3.99	3.73	3.64	3.88	3.73	3.87	3.95	3.99%	3.85%
Consolidated Edison, Inc.	6.3	209111ES8	Deb'07A	8/15/2037	A-	4.23	4.19	4.36	4.19	4.19	3.99	3.78	3.61	3.85	3.73	3.87	4.02	4.00%	3.87%
Dominion Resources	6.75	257469AG1	Sr Nts 'E'	12/15/2032	A-	4.68	4.74	4.81	4.59	4.44	4.34	4.23	4.26	4.53	4.28	4.27	4.37	4.46%	4.31%
Dominion Resources, Inc. (Va.)	5.95	25746UAV1	Sr Nts '05B	6/15/2035	A-	4.58	4.54	4.56	4.39	4.34	4.29	3.98	4.01	4.28	3.96	3.97	4.12	4.25%	4.02%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
20 YEAR BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Entergy Arkansas	6.38	29364DAK6	1st	11/1/2034	A-	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37	6.37%	6.37%
Entergy Mississippi	6.25	29364NAL2	1st	4/1/2034	A-	6.06	6.07	6.08	6.07	6.09	6.10	6.10	6.10	6.11	6.12	6.12	6.13	6.10%	6.12%
Idaho Pwr	6	45138LAL7	Sec M-T Nts'D'	11/15/2032	A-	4.78	4.79	4.91	4.51	4.24	4.19	3.93	3.96	4.13	4.03	4.02	4.22	4.31%	4.09%
Idaho Pwr	5.5	45138LAN3	Sec M-T Nts 'E'	4/1/2033	A-	4.63	4.64	4.86	4.46	4.19	4.14	3.88	3.91	4.08	3.98	3.97	4.22	4.25%	4.06%
Idaho Pwr	5.5	45138LAP8	Sec M-T Nts'E'	3/15/2034	A-	4.78	4.79	4.91	4.51	4.24	4.19	3.93	3.96	4.13	4.03	4.02	4.22	4.31%	4.09%
Idaho Pwr	5.875	45138LAQ6	Sec M-T Nts'E'	8/15/2034	A-	4.78	4.79	4.91	4.51	4.24	4.19	3.93	3.96	4.13	4.03	4.02	4.22	4.31%	4.09%
Idaho Pwr	5.3	45138LAR4	Sec M-T Nts'F'	8/15/2035	A-	4.78	4.79	4.91	4.51	4.24	4.19	3.93	3.96	4.13	4.03	4.02	4.22	4.31%	4.09%
Idaho Pwr Co 1st Mtg Secd MT	6.3	45138LAS2	Secd MTN Ser F	6/15/2037	A-	4.68	4.69	4.91	4.51	4.24	4.19	3.93	3.96	4.13	4.03	4.02	4.22	4.29%	4.09%
KeySpan Corp.	5.88	49337WAH3	Nts	4/1/2033	A-	4.63	4.94	5.16	4.89	4.62	4.52	4.68	4.71	4.98	4.78	4.77	4.72	4.78%	4.76%
KeySpan Corp	5.8	49337WAJ9	Nt	4/1/2035	A-	4.63	4.99	5.21	4.79	4.52	4.64	4.76	4.46	4.73	4.48	4.47	4.57	4.69%	4.51%
MidAmerican Energy Co	5.8	59562EAH8	MTN-tranche # Tr 00008	10/15/2036	A-	4.53	4.39	4.61	4.33	4.29	4.29	4.00	3.76	4.03	3.77	3.92	4.04	4.16%	3.91%
Oncor Electric Delivery	7.25	68233DAP2	Sr Sec Nts	1/15/2033	A-	4.68	4.69	5.11	5.56	5.39	5.34	5.03	5.16	5.33	4.80	4.77	4.82	5.06%	4.80%
Oncor Electric Delivery	7	68233DAT4	Sr Sec Nts	5/1/2032	A-	4.68	4.64	5.11	5.56	5.39	5.34	5.03	5.16	5.33	4.75	4.77	4.82	5.05%	4.78%
Exelon Corp.	5.9	693304AG2	1st Ref Mtg	5/1/2034	A-	4.23	4.29	4.41	4.24	4.09	3.99	4.28	4.31	4.13	4.03	4.02	4.12	4.18%	4.06%
Exelon Corp.	5.95	693304AH0	1st Ref Mtg	10/1/2036	A-	4.13	4.19	4.36	4.11	3.84	3.89	3.78	3.60	3.88	3.78	3.77	3.87	3.93%	3.81%
Exelon Corp.	5.7	693304AJ6	1st Ref Mtg	3/15/2037	A-	4.23	4.29	4.46	4.26	4.02	3.92	3.81	3.76	4.03	3.93	3.92	4.02	4.05%	3.96%
Public Svc Co New Hampshire	5.6	744538AA7	1st Mtg Bd	10/5/2035	A-	4.53	4.59	4.81	4.64	4.37	4.27	4.16	4.19	4.46	4.28	4.27	4.32	4.41%	4.29%
Public Service Electric and Gas	8	744567BA5	1st & Ref	6/1/2037	A-	5.13	5.09	5.31	5.14	4.87	4.77	4.66	4.66	4.93	4.83	4.82	4.87	4.92%	4.84%
Public Serv Elec & Gas	5	744567BB3	1st & Ref Mtg	7/1/2037	A-	4.88	4.84	5.06	4.89	4.62	4.52	4.41	4.44	4.71	4.61	4.60	4.67	4.69%	4.63%
Public Service Electric and Gas	5	744567BB3	1st & Ref	7/1/2037	A-	4.88	4.84	5.06	4.89	4.62	4.52	4.41	4.44	4.71	4.61	4.60	4.67	4.69%	4.63%
Public Svc Elec Gas Co Secd M	5.25	74456QAP1	Med Term Notes	7/1/2035	A-	4.18	3.99	4.21	4.01	3.84	3.89	3.68	3.56	3.83	3.68	3.67	3.87	3.87%	3.74%
Public Svc Elec Gas Co Secd M	5.7	74456QAQ9	Secd Mtns, Ser D	12/1/2036	A-	4.38	4.04	4.21	4.01	3.84	3.89	3.68	3.56	3.83	3.68	3.67	3.87	3.89%	3.74%
Public Svc Elec Gas Co Secd M	5.8	74456QAR7	Secured Mtn Series E Notes	5/1/2037	A-	4.28	4.09	4.21	4.01	3.84	3.89	3.68	3.56	3.83	3.68	3.67	3.90	3.89%	3.75%
Puget Sound Energy	5.48	745332BU9	Sr Nts	6/1/2035	A-	4.33	4.29	4.51	4.26	4.14	3.99	3.68	3.61	3.88	3.78	3.87	4.02	4.03%	3.89%
Puget Sound Energy	6.72	745332BW5	Sr Nts	6/15/2036	A-	4.38	4.34	4.51	4.31	4.19	4.04	3.68	3.61	3.88	3.78	3.92	4.07	4.06%	3.92%
Puget Sound Energy	6.27	745332BX3	Sr(Sec)Nts	3/15/2037	A-	4.38	4.34	4.51	4.31	4.19	4.04	3.68	3.61	3.88	3.78	3.92	4.07	4.06%	3.92%
Southwestern Public Serv	6	845743BL6	Sr Nts'F'	10/1/2036	A-	5.13	5.09	5.06	4.96	4.69	4.74	4.63	4.41	4.38	4.17	4.22	4.32	4.65%	4.24%
Virginia Electric & Power Co.	6	927804FA7	Sr Nts'B'	1/15/2036	A-	4.14	4.14	4.31	4.16	4.14	4.04	3.73	3.62	3.93	3.63	3.82	3.87	3.96%	3.77%
Virginia Electric & Power Co.	6	927804FB5	Sr Nt 2007 Ser A	5/15/2037	A-	4.18	4.14	4.31	4.16	4.19	4.04	3.73	3.62	3.93	3.68	3.87	3.97	3.99%	3.84%
Virginia Electric & Power Co.	6.35	927804FE9	Sr Nt 2007 Ser D	11/30/2037	A-	4.23	4.14	4.36	4.18	4.18	4.04	3.73	3.66	3.98	3.68	3.87	3.93	4.00%	3.83%
Wisconsin Electric Power Comp	6.875	976656BL1	Deb	12/1/2095	A-	4.90	5.17	5.44	5.15	4.92	5.20	5.08	4.91	5.08	4.93	4.92	5.17	5.07%	5.01%
Wisconsin Electric Power	5.7	976656BZ0	Deb	12/1/2036	A-	4.03	4.09	4.21	4.04	3.77	3.94	3.83	3.66	3.93	3.83	3.87	3.92	3.93%	3.87%
Wisconsin Power & Light Co.	6.25	976826BD8	Deb	7/31/2034	A-	4.33	4.34	4.56	4.31	4.04	4.04	3.93	3.96	4.13	3.93	3.92	4.02	4.13%	3.96%
AmerenUE	5.3	02360FAB2	Sr Sec Nts	8/1/2037	BBB+	4.13	4.14	4.36	4.16	4.09	3.99	3.73	3.71	3.98	3.88	3.87	3.97	4.00%	3.91%
Arizona Public Service	5.625	040555CF9	Nts	5/15/2033	BBB+	4.78	4.84	4.96	4.79	4.64	4.74	4.48	4.46	4.73	4.33	4.32	4.37	4.62%	4.34%
Arizona Public Service	5.5	040555CH5	Nts	9/1/2035	BBB+	4.73	4.54	4.66	4.49	4.24	4.34	4.08	4.11	4.23	3.93	4.22	4.22	4.32%	4.12%
Arizona Public Service	6.88	040555CK8	Nts	8/1/2036	BBB+	4.88	4.89	5.06	4.89	4.62	4.54	4.48	4.46	4.73	4.58	4.57	4.52	4.69%	4.56%
CenterPoint Energy Res	6.25	15189YAD8	Sr Nts	2/1/2037	BBB+	4.93	4.94	5.16	4.99	4.72	5.14	4.63	4.26	4.43	4.23	4.22	4.57	4.69%	4.34%
CenterPoint Energy Res	6.25	15189YAD8	Sr Nt	2/1/2037	BBB+	4.93	4.94	5.16	4.99	4.72	5.14	4.63	4.26	4.43	4.23	4.22	4.57	4.69%	4.34%
Central Illinois Light	6.7	153645BA3	Sr Secd Nt 144a	6/15/2036	BBB+	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09%	6.09%
Consumers Energy Co.	5.8	210518CP9	1st	9/15/2035	BBB+	4.48	4.49	4.56	4.39	4.17	4.07	3.73	3.76	4.03	3.93	3.92	4.02	4.13%	3.96%
Duke Energy Corp.	6.45	264399ED4	Sr Nts	10/15/2032	BBB+	4.53	4.44	4.56	4.31	4.19	4.09	4.02	4.01	4.28	4.03	4.12	4.27	4.24%	4.14%
Entergy Gulf States	6.18	29364LAT9	1st	3/1/2035	BBB+	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.17	6.18%	6.18%
Exelon Corp.	5.62	30161NAC5	Sr Nts	6/15/2035	BBB+	4.98	4.69	5.01	4.91	4.94	5.09	4.58	4.56	4.73	4.36	4.56	4.77	4.77%	4.56%
Interstate Pwr & Lt	6.45	461070AC8	Sr Deb	10/15/2033	BBB+	4.43	4.44	4.66	4.51	4.24	4.19	4.08	4.11	4.38	4.28	4.27	4.37	4.33%	4.31%
Interstate Pwr & Lt	6.3	461070AD6	Sr Deb	5/1/2034	BBB+	4.43	4.44	4.66	4.41	4.14	4.19	4.08	4.11	4.38	4.28	4.27	4.37	4.31%	4.31%
MidAmerican Energy Hldg	6.12	59562VAM9	SrBonds	4/1/2036	BBB+	4.63	4.54	4.74	4.61	4.49	4.31	4.08	4.12	4.35	4.03	4.17	4.32	4.37%	4.17%
Oklahoma Gas & Elec Co	5.75	678858BF7	Sr Nts	1/15/2036	BBB+	4.33	4.39	4.61	4.44	4.17	4.07	3.96	3.99	4.26	4.16	4.15	4.25	4.23%	4.19%
PSI Energy, Inc.	6.12	693627AY7	Deb	10/15/2035	BBB+	4.88	4.94	5.06	4.91	4.96	4.84	4.48	4.51	4.78	4.13	4.12	4.78	4.70%	4.34%
Southern Power Co	6.38	843646AG5	Sr Nt Ser E	11/15/2036	BBB+	5.93	5.84	5.81	5.72	5.72	5.88	5.85	5.84	5.87	5.90	5.90	5.64	5.83%	5.81%
Tampa Electric Co.	6.55	875127AV4	Nts	5/15/2036	BBB+	4.53	4.59	4.81	4.34	4.12	4.09	3.83	3.81	4.08	3.73	3.72	3.82	4.12%	3.76%
Tampa Electric Co.	6.15	875127AW2	Sr Nts	5/15/2037	BBB+	4.53	4.59	4.66	4.34	4.14	4.09	3.83	3.81	4.13	3.78	3.77	3.87	4.13%	3.81%
Union Electric	5.5	906548BY7	Sr Sec Nts	3/15/2034	BBB+	4.53	4.69	4.91	4.74	4.47	4.37	4.23	4.26	4.53	4.18	4.17	4.27	4.45%	4.21%
Westar Energy, Inc.	5.95	95709TAC4	1st Mtg Bd	1/1/2035	BBB+	5.39	5.43	5.46	5.44	5.46	5.47	5.48	5.40	5.42	5.45	5.46	5.51	5.45%	5.47%
Westar Energy, Inc.	5.88	95709TAE0	1st Mtg Bd	7/15/2036	BBB+	5.26	5.30	5.34	5.31	5.33	5.34	5.34	5.25	5.27	5.29	5.30	5.36	5.31%	5.32%
Xcel Energy Inc.	6.5	98389BAH3	Sr Nts	7/1/2036	BBB+	4.48	4.39	4.61	4.36	4.29	4.19	3.88	3.86	4.08	4.03	4.07	4.19	4.20%	4.10%
Appalachian Power Co.	5.95	037735BZ9	Sr Nts'H'	5/15/2033	BBB	5.28	5.34	5.36	5.19	4.99	5.04	4.93	4.61	4.88	4.68	4.67	4.72	4.97%	4.69%
Appalachian Power	5.8	037735CE5	Sr Nts'L'	10/1/2035	BBB	4.68	4.74	4.91	4.86	4.74	4.74	4.38	4.31	4.43	4.33	4.32	4.52	4.58%	4.39%
Appalachian Power	6.38	037735CG0	Sr Nts'N'	4/1/2036	BBB	4.83	4.76	5.01	4.86	4.74	4.64	4.53	4.46	4.63	4.50	4.54	4.57	4.67%	4.54%
Cleco Power LLC	6.5	185508AE8	Nts	12/1/2035	BBB	4.93	4.99	5.21	5.16	4.89	4.79	4.73	4.76	4.83	4.33	4.42	4.72	4.81%	4.49%
Dominion Resources, Inc. (Va.)	7.5	25746UAY5	hanced Jr Sub Nt 2006 Ser	6/30/2066	BBB		7.08	7.08	7.03	7.06	7.01	7.05	6.92	6.89	6.79	6.79	6.73	6.95%	6.77%
Dominion Resources, Inc. (Va.)	2.61	25746UAZ2	Sub Nt 2006 Ser B Enhanc	9/30/2066	BBB	3.49	3.39	3.17	3.19	3.16	3.15	3.10	3.10	2.94	2.88	2.84	3.13%	2.89%
El Paso Electric Co.	6	283677AW2	Sr Nts	5/15/2035	BBB	4.88	4.94	5.16	5.06	4.79	4.69	4.55	4.58	4.85	4.18	4.17	4.27	4.68%	4.21%
Energy East Corp.	6.75	29266MAE9	Nts	9/15/2033	BBB	6.13	6.19	6.01	5.96	6.69	7.24	7.08	6.96	6.38	6.08	6.02	6.12	6.41%	6.07%
Energy East	6.75	29266MAF6	Nt	7/15/2036	BBB	5.93	5.99	5.96	6.06	6.88	7.29	7.16	6.96	6.38	6.08	6.02	6.12	6.40%	6.07%
Indiana Mich Pwr	6.05	454889AM8	Sr Nts'H'	3/15/2037	BBB	4.83	4.71	4.86	4.91	4.69	4.64	4.45	4.35	4.52	4.37	4.47	4.57	4.61%	4.47%
Kansas City Power & Light	6.05	485134BH2	Sr Nt Ser A	11/15/2035	BBB	4.78	4.84	4.96	4.79	4.53	4.59	4.43	4.46	4.53	4.23	4.22	4.32	4.56%	4.26%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
20 YEAR BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Kentucky Power	5.62	491386AL2	Sr Nts'D'	12/1/2032	BBB	5.28	5.34	5.56	5.39	5.11	5.02	4.88	4.91	5.18	5.08	5.02	5.12	5.16%	5.07%
Nevada Power	6.75	641423BU1	n & Refunding Mtg Nt Ser P	7/1/2037	BBB	4.43	4.44	4.71	4.56	4.39	4.34	4.08	3.99	4.23	3.98	4.10	4.20	4.29%	4.09%
Ohio Power Co.	6.6	677415CF6	Sr Nts 'G'	2/15/2033	BBB	4.58	4.64	4.86	4.76	4.49	4.53	4.42	4.36	4.58	4.18	4.27	4.47	4.51%	4.31%
Ohio Power Co.	6.38	677415CJ8	Sr Nts 'I'	7/15/2033	BBB	6.03	6.05	6.08	6.04	6.06	6.08	6.10	6.13	6.14	6.17	6.19	6.22	6.11%	6.19%
PPL Energy Supply	5.7	69352JAG2	Reset PutSecs	10/15/2035	BBB	5.00	4.99	5.03	5.00	5.03	5.07	5.05	5.00	5.03	4.90	4.90	4.93	4.99%	4.91%
PPL Energy Supply	6	69352JAK3	Sr Nts	12/15/2036	BBB	5.68	5.74	5.96	5.61	5.44	5.49	5.28	5.06	5.33	4.98	5.17	5.22	5.41%	5.12%
Pacific Gas & Electric Co.	6.05	694308GE1	1st	3/1/2034	BBB	4.42	4.27	4.46	4.39	4.26	4.19	3.78	3.83	4.01	3.73	3.92	4.01	4.11%	3.89%
Pacific Gas & Electric Co.	5.8	694308GJ0	Fixed Rt Sr Nt	3/1/2037	BBB	4.43	4.29	4.46	4.41	4.29	4.19	3.83	3.88	4.15	3.85	3.97	4.22	4.16%	4.01%
Public Service Co. of Oklahoma	6.62	744533BJ8	Sr Nts 'G'	11/15/2037	BBB	4.73	4.71	4.93	4.86	4.59	4.74	4.63	4.66	4.73	4.63	4.62	4.62	4.70%	4.62%
Sierra Pacific Power	6.75	826418BE4	en & Refunding Mtg Nt Ser	7/1/2037	BBB	4.43	4.59	4.71	4.56	4.34	4.39	4.18	4.06	4.33	4.08	4.12	4.22	4.33%	4.14%
WPS Resources	6.11	92931BAC0	Jr Sub Nt	12/1/2066	BBB			6.10	6.08	6.10	6.10	6.06	5.85	5.79	5.80	5.80	5.81	5.95%	5.80%
Wisconsin Energy Corp.	6.25	976657AH9	2007 Ser A Jr Sub Nt	5/15/2067	BBB			6.06	6.04	6.06	5.99	5.98	5.88	5.83	5.80	5.82	5.78	5.92%	5.80%
Wisconsin Energy Corp.	6.25	976657AH9	2007 Ser A Jr Sub Nt	5/15/2067	BBB	6.10	6.10	6.06	6.04	6.06	5.99	5.98	5.88	5.83	5.80	5.82	5.78	5.95%	5.80%
Cleveland Elec. Illum	5.95	186108CE4	Sr Nts	12/15/2036	BBB-	5.28	5.24	5.36	5.06	4.99	5.04	4.93	4.71	4.93	4.63	4.82	4.96	5.00%	4.80%
Constellation Energy Group, Inc	7.6	210371AF7	Nts	4/1/2032	BBB-	4.93	4.89	5.14	5.06	5.09	4.94	4.78	4.76	5.03	4.68	4.67	4.80	4.90%	4.72%
Duquesne Light Holdings, Inc.	6.25	266233AB1	Sr Nts	8/15/2035	BBB-	7.03	7.09	7.06	6.86	6.59	6.49	6.23	6.26	6.53	5.03	5.02	5.12	6.28%	5.06%
Empire District Electric Co. (The	5.8	291641AZ1	Sr Nts	7/1/2035	BBB-	5.53	5.59	5.81	5.64	5.36	5.27	5.16	5.19	5.46	5.36	5.35	5.45	5.43%	5.39%
Empire District Elec	6.7	29164RAA9	Sr Nts	11/15/2033	BBB-	5.53	5.59	5.81	5.64	5.37	5.27	5.16	5.19	5.46	5.36	5.35	5.45	5.43%	5.39%
Ohio Edison Co.	6.88	677347CE4	Sr Nts	7/15/2036	BBB-	5.38	5.06	5.16	4.93	4.79	4.84	4.73	4.56	4.83	4.43	4.42	4.77	4.83%	4.54%
AmerenEnergy Generating	7.95	02360XAJ6	Sr Nts 'F'	6/1/2032	BB-	8.02	8.15	9.64	10.39	10.47	10.47	10.48	9.16	8.95	8.31	8.42	11.77	9.52%	9.50%
El Paso Energy Corp MTN BE	7.75	28368EAE6	MTN-tranche # Tr 00005	1/15/2032	BB-	6.23	6.06	6.41	6.46	6.64	6.59	6.43	6.16	6.08	6.03	6.22	6.17	6.29%	6.14%
TXU Corp.	6.55	873168AQ1	Sr Nts'R'	11/15/2034	D	15.54	14.47	13.60	13.77	15.42	14.95	14.73	12.80	12.47	17.91	15.15	11.82	14.39%	14.96%
Alabama Power Co.	5.75	010392EQ7	Sr InsurQtrlyNts'EE'	1/15/2036	NR	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76%	5.76%
Alabama Power Co.	6	010392EX2	Sr InsurMthly Nts'07C	10/15/2037	NR	5.93	5.94	5.95	5.89	5.91	5.93	5.95	5.97	5.98	5.99	6.00	6.00	5.95%	6.00%
Consumers Energy Co.	5.65	210518CM6	InsurQtrlyNts	4/15/2035	NR	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65	5.65%	5.65%
Georgia Power Co.	5.65	373334GB1	Sr InsurQtrlyNts'06A	12/15/2040	NR	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66	5.66%	5.66%
MDU Resources Group, Inc.	5.98	552690AF6	Sr(Sec)Nts	12/15/2033	NR	6.27	6.28	6.50	6.33	6.06	6.01	5.90	5.93	6.11	6.01	6.00	6.02	6.12%	6.01%
Tennessee Valley Authority	8.25	880591BL5	Pwr Bonds '92D	4/15/2042	NR	7.61	7.66	7.71	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.72%	7.74%
Tennessee Valley Authority	6.235	880591CF7	Pwr Bonds '95B	7/15/2045	NR	4.98	4.88	5.03	4.81	4.71	4.78	4.71	4.71	4.68	4.73	4.66	4.66	4.78%	4.68%
Tennessee Valley Authority	5.98	880591CK6	Pwr Bonds '96A	4/1/2036	NR	3.68	3.76	4.03	3.81	3.39	3.44	3.27	3.39	3.46	3.42	3.24	3.42	3.53%	3.36%
Tennessee Valley Authority	6.15	880591CP5	Pwr Bonds '98B	1/15/2038	NR	3.68	3.78	4.03	3.83	3.44	3.49	3.34	3.29	3.37	3.29	3.24	3.39	3.51%	3.31%
Tennessee Valley Authority	5.88	880591CS9	Pwr Bonds '97C	4/1/2036	NR	3.63	3.71	3.96	3.78	3.37	3.44	3.27	3.29	3.37	3.32	3.22	3.42	3.48%	3.32%
Union Electric	7.69	906548BT8	Sub Cap Inc Sec'A'	12/15/2036	NR	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45%	7.45%
UniSource Energy Corp.	4.5	909205AB2	Sr Nt Conv	3/1/2035	NR	3.98	3.91	4.02	4.15	4.01	3.90							4.00%	
			Counts of data			162	164	166	166	166	166	165	165	165	165	165	165	166	165

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
AAA's	3.35%	3.20%
AA's	4.33%	4.19%
A's	4.24%	4.10%
BBB's	4.93%	4.73%
BB's	7.90%	7.82%
B's	----	----
CC's	----	----
D	14.39%	14.96%
NR's	5.30%	5.36%
ALL	4.63%	4.49%
BBB- & Above	4.47%	4.31%
BB- & Above	4.52%	4.36%

**Investment Grade (BBB- & Above)*

Montana Department of
REVENUE

2013 Capitalization Rate Study

Gas Pipelines

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Gas Pipelines
2013 Assessment Year

Equity Measures Calculated:

E/P estimates:

All	Median	
5.13%	4.75%	Yahoo
4.44%	4.33%	Value Line
4.79%	4.54%	Average of E/Ps

Inverse of P/E Ratios:

5.21%	4.98%	Yahoo
4.43%	4.71%	Value Line
4.82%	4.84%	Average of Inverse of the P/E
5.18%	5.02%	Inverse of median P/E, Value Line
4.81%	4.69%	Average of all above except median P/E
4.88%	4.76%	Mean =
5.13%	4.75%	Median =

Equity Measure NUOI = 5.05%

Debt Measure Calculated, Current Yield:

Annual	4th Qtr	
5.91%	5.76%	ALL
5.76%	5.57%	BBB- & Above
5.82%	5.62%	BB- & Above
5.83%	5.65%	Mean =
5.82%	5.62%	Median =

Debt Measure = 5.80%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	69.00%	x	5.05%	=	3.48%
Debt	31.00%	x	5.80%	=	1.80%
	100.00%				5.28%
Direct Cap Rate NUOI =					**5.50%**

Gross Cash Flow / Price:

Mean	Median	
8.05%	7.81%	Value Line

Equity Measure Gross = 8.00%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	69.00%	x	8.00%	=	5.52%
Debt	31.00%	x	5.80%	=	1.80%
	100.00%				7.32%
Direct Cap Rate GCF =					**7.50%**

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Study
Industry: Gas Pipelines
2013 Assessment Year

Equity Measures Calculated:	**All**
Dividend Growth Model	12.90%
Capital Asset Pricing Model	9.50%
Mean =	11.20%
Median =	11.20%

Equity Measure FCF = 10.50%

Debt Measures Calculated, Yield to Maturity:

	ALL DEBT		20 YEAR PLUS DEBT	
	Annual	**4th Qtr**	**Annual**	**4th Qtr**
ALL	4.13%	4.09%	4.98%	4.63%
BBB- & Above	3.50%	3.47%	4.98%	4.71%
BB- & Above	3.76%	3.67%	4.94%	4.59%
Mean =	3.80%	3.74%	4.97%	4.64%
Median =	3.76%	3.67%	4.98%	4.63%

Debt Measure = 4.75%

Yield Cap Rate Free Cash Flow - Gas Pipelines						
Equity	69.00%	x	10.50%	=	7.25%	
Debt	31.00%	x	4.75%	=	1.47%	
	100.00%				8.72%	
Weighted Average Cost of Capital (WACC) =						**8.75%**

Where Assumed Growth Rate = Inflation **Growth = 2.00%**

see appendix for calculation 2.47%

Inflationdata.com 1/16/2013 1.74%

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Gas Pipelines
2013 Assessment Year

A	B	C	D	E	F	G	H	I	J	K	L	M
Company	Ticker Symbol	(VL) Financial Strength	(VL) Shares (000)	(YAHOO) Avg. Price Common 4th Quarter	(VL) Book Value Per Share H/D	Mkt. Value Common (000) DxE	(VL) Book Value Common (000)	(VL) Book Value Preferred (000)	Mkt. Value Preferred (000) IxL	(VL) Book Value Debt (000)	Mkt/Book Debt Ratio	Mkt. Value Debt (000) KxL
Spectra Energy Partners LP	SEP	A	96,300	30.11	17.218	2,899,272	1,658,100	0	0	499,400	1.00	499,400
ONEOK Partners LP	OKS	A	203,800	57.58	16.886	11,735,483	3,441,400	0	0	3,515,600	1.00	3,515,600
Energy Transfer	ETP	B++	225,500	42.75	24.568	9,640,125	5,540,100	181,600	181,600	7,388,200	1.00	7,388,200
TransCanada P.L.	TRP	B++	704,000	45.55	22.389	32,064,853	15,761,900	1,198,300	1,198,300	18,034,200	1.00	18,034,200
EQT Midstream Partners LP	EQM			29.81				0	0	0	1.00	0
Boardwalk Pipeline	BWP	B+	198,600	25.91	16.139	5,145,395	3,205,200	0	0	3,198,700	1.00	3,198,700
Enterprise Products	EPD	B+	881,600	51.75	13.740	45,624,269	12,113,400	0	0	14,029,400	1.00	14,029,400
Kinder Morgan Energy	KMP	B+	336,500	81.26	21.542	27,343,429	7,248,900	258,700	258,700	11,159,500	1.00	11,159,500
Williams Ptrs.	WPZ	B+	290,500	50.34	17.997	14,623,286	5,228,000	0	0	6,913,000	1.00	6,913,000
El Paso Pipeline	EPB	B	197,400	36.47	9.818	7,199,507	1,938,000	0	0	3,865,000	1.00	3,865,000
Western Gas Partners LP	WES	A	90,100	49.16	16.596	4,429,316	1,495,300	0	0	669,200	1.00	669,200
Access Midstream Partners LP	ACMP	B++	78,900	33.96	30.807	2,679,181	2,430,700	0	0	1,062,900	1.00	1,062,900
Markwest Energy Partners LP	MWE	B+	94,900	51.80	15.087	4,916,136	1,431,800	0	0	1,846,100	1.00	1,846,100
Targa Resources Partners LP	NGLS	B+	84,800	39.30	14.099	3,332,216	1,195,600	0	0	1,477,700	1.00	1,477,700
Atlas Energy LP	ATLS	B	51,300	34.01	11.392	1,744,628	584,400	0	0	522,100	1.00	522,100
Eagle Rock Energy Partners Ltd	EROC	B	127,600	9.36	7.894	1,193,698	1,007,300	0	0	779,500	1.00	779,500
Crosstex Energy LP	XTEX	C++	50,700	14.83	14.389	751,797	729,500	147,800	147,800	822,300	1.00	822,300
SUMS & AVGS - ALL COMPANIES			175,322,591			65,009,600	1,786,400	1,786,400	75,782,800			75,782,800
SUMS & AVGS - B++ & ABOVE COMPANIES			56,339,734			26,401,500	1,379,900	1,379,900	29,437,400			29,437,400
SUMS & AVGS - PRIMARILY GATHERING			19,046,971			8,874,600	147,800	147,800	7,179,800			7,179,800
MEDIAN VALUE - ALL COMPANIES			5,030,766			2,184,350	220,150	220,150	2,522,400			2,522,400

* All **Negative** values left out of calculations

INDUSTRY MARKET STRUCTURE						
	ALL COMPANIES		PRIMARILY GATHERING		B++ & ABOVE COMPANIES	
EQUITY	69.00%	175,322,591	72.00%	19,046,971	65.00%	56,339,734
DEBT	31.00%	77,569,200	28.00%	7,327,600	35.00%	30,817,300
TOTAL	100.00%	252,891,791	100.00%	26,374,571	100.00%	87,157,034

Notes/Rational for Changes to Guideline Companies

The Guideline Companies were reviewed and some additional companies were added to better represent the gas companies in Montana, while Devon Energy was removed since it is an integrated company. Plains Pipeline was also removed from the Gas Pipeline Capitalization rate since it is primarly Crude Oil.

2013 Guideline Company Changes

Ticker EQT- EQT Corp was replaced with EQM - EQT Midstream Partners LP. It is EQM that in included in the PipeMLP category in Value Line not the parent company.
Ticker CHMK - Chespeake Midstream partners changed their name and ticker to ACMP Access Midstream Partners LP.
Ticker TRGP - Targa Resources Corp was replaced with NGLS Targa Resources Partners LP . It is NGLS included in the Pipe LP category in Value Line.
Removed ONEOK parent to get only the pipeline entity
Removed National Fuel Gas not in the pipeline industry per ValueLine

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Gas Pipelines
2013 Assessment Year

A	B	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Company	Ticker Symbol	(YAHOO) EPS ltst 12mo	(YAHOO) E/P N/E	(VL) EPS	(VL) E/P P/E	(VL) CF/S	(VL) CF/P R/E	(YAHOO) P/E	(YAHOO) Inverse of P/E 1/T	(VL) P/E	(VL) Inverse of P/E 1/V	(VL) Median P/E	(VL) Inverse of Median P/E 1/X	(VL) Beta
Spectra Energy Partners LP	SEP	1.67	5.55%	1.67	5.55%			18.32	5.46%					0.70
ONEOK Partners LP	OKS	3.62	6.29%	2.59	4.50%			15.33	6.52%			15.00	6.67%	0.80
Energy Transfer	ETP	4.35	10.18%	1.45	3.39%	3.05	7.13%	9.92	10.08%	27.81	3.60%			0.80
TransCanada P.L.	TRP	1.98	4.35%	2.15	4.72%	4.3	9.44%	23.60	4.24%	21.25	4.71%	17.00	5.88%	0.85
EQT Midstream Partners LP	EQM	1.32	4.43%	2.08	6.98%			22.69	4.41%					0.00
Boardwalk Pipeline	BWP	1.23	4.75%	1.35	5.21%	2.50	9.65%	20.53	4.87%	19.73	5.07%			0.80
Enterprise Products	EPD	2.85	5.51%	2.65	5.12%	3.90	7.54%	17.69	5.65%	20.14	4.97%	24.00	4.17%	0.85
Kinder Morgan Energy	KMP	(0.42)	(0.52%)	2.15	2.65%	5.20	6.40%	(190.10)	(0.53%)	38.21	2.62%	25.00	4.00%	0.75
Williams Ptrs.	WPZ	3.66	7.27%	2.10	4.17%	4.20	8.34%	13.13	7.61%	22.76	4.39%			1.05
El Paso Pipeline	EPB	2.05	5.62%	2.10	5.76%	2.85	7.81%	18.21	5.49%	17.56	5.69%			0.70
Western Gas Partners LP	WES	1.00	2.03%	1.58	3.21%			47.24	2.12%					0.80
Access Midstream Partners LP	ACMP	1.46	4.30%	1.32	3.89%			22.80	4.39%					0.75
Markwest Energy Partners LP	MWE	0.98	1.89%	1.85	3.57%			51.27	1.95%					1.15
Targa Resources Partners LP	NGLS	1.80	4.58%	1.36	3.46%			20.09	4.98%					1.25
Atlas Energy LP	ATLS	(0.91)	(2.68%)	(0.57)	(1.68%)			(36.73)	(2.72%)					1.85
Eagle Rock Energy Partners Ltd	EROC	(0.94)	(10.05%)	(0.70)	(7.48%)			(9.19)	(10.88%)					1.05
Crosstex Energy LP	XTEX	(0.65)	(4.38%)	(0.73)	(4.92%)			(21.92)	(4.56%)					1.65
SUMS & AVGS - ALL COMPANIES		5.13%	4.44%	8.05%	5.21%	4.43%	5.18%	0.99						
SUMS & AVGS - B++ & ABOVE COMPANIES		6.16%	5.03%	8.29%	6.14%	4.15%	6.27%	0.79						
SUMS & AVGS - PRIMARILY GATHERING		3.20%	3.53%		3.36%			1.21						
MEDIAN VALUE - ALL COMPANIES		4.75%	4.33%	7.81%	4.98%	4.71%	5.02%	0.83						

* All **Negative** values left out of calculations

Industry Beta = **1.00**

Notes/Rational for Changes to Guideline Companies

The Guideline Companies were reviewed and some
Plains Pipeline was also removed from the Gas Pipe

2013 Guideline Company Changes
Ticker EQT- EQT Corp was replaced with EQM - EQ
Ticker CHMK - Chespeake Midstream partners char
Ticker TRGP - Targa Resources Corp was replaced
Removed ONEOK parent to get only the pipeline ent
Removed National Fuel Gas not in the pipeline indus

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model
Industry: Gas Pipelines
2013 Assessment Year

$$K_E = R_F + \beta\ (R_M - R_F)$$

	Gas Pipelines
K_E = Cost of Equity	**9.50%**
R_F = Risk Free Rate	2.95%
β= Beta	1.00
R_M = Market Rate of Return	9.50%
R_P = Equity Risk Premium (RM - RF)	6.55%

R_m = Investor's Market Rate of Return

Ibbotson, SBBI, Large Company, Average Annual Return, ***Arithmetic** Average, Ex-Post	R_M=	11.80%
Ibbotson, SBBI, Large Company, Average Annual Return, ***Geometric** Average, Ex-Post	R_M=	9.80%
3 Stage Dividend Growth Model, S & P 500, See Exhibit, Ex Ante	R_M=	9.00%
	Mean =	10.20%
	Median =	9.80%
	R_M=	**9.50%**

R_f = Risk Free Rate

Internal Revenue Service, Rev Rule 2012-31 Table 2 December 3, 2012

Rev Rule 2012-31 Table 2

Annual Rates	Short Term - AFR	R_f = 0.27%
	Mid Term - AFR	R_f = 0.95%
	Long Term - AFR	R_f = 2.83%

The ValueLine Investment Survey

U.S. Treasury Securities January 4, 2013

	3 Month	R_f = 0.08%
	6 Month	R_f = 0.13%
	1 Year	R_f = 0.15%

Federal Reserve Statistical Release

Treasury constant Maturities, December 31, 2012

Market yield on U.S. Treasury securities, Annual Averages

	3-month constant maturity, quoted on investment basis	R_f = 0.05%
	6-month constant maturity, quoted on investment basis	R_f = 0.11%
	1-year constant maturity, quoted on investment basis	R_f = 0.16%
		Mean = 0.53%
		Median = 0.15%

U.S. Treasury Securities Long-Term December 31, 2012

20 year constant maturity	R_f = **2.54%**	Weighted Mean = 0.68%
30 year constant maturity	R_f = **2.95%**	
		R_f = **2.95%**

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Gas Pipelines
2013 Assessment Year

$$K_E = D1 / P_O + G_A$$

KE= Cost of Equity
D1= Expected Dividends
Po= Current Price Per Share
G= Sustainable Growth

Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth (G_1)	Ke 1 Year
Spectra Energy Partners LP	SEP	30.11	---		6.00%	
ONEOK Partners LP	OKS	57.58	---		4.50%	
Energy Transfer Equity L.P.	ETP	42.75	3.65	8.54%	2.00%	10.54%
TransCanada P.L.	TRP	45.55	1.80	3.95%	4.00%	7.95%
EQT Midstream Partners LP	EQM	29.81				
Boardwalk Pipeline	BWP	25.91	2.13	8.22%	5.00%	13.22%
Enterprise Products	EPD	51.75	2.74	5.29%	8.00%	13.29%
Kinder Morgan Energy	KMP	81.26	5.22	6.42%	7.00%	13.42%
Williams Ptrs.	WPZ	50.34	3.43	6.81%	8.50%	15.31%
El Paso Pipeline	EPB	36.47	2.35	6.44%	10.50%	16.94%
Western Gas Partners LP	WES	49.16	---		15.00%	
Access Midstream Partners LP	ACMP	33.96	---		581.00%	
Markwest Energy Partners LP	MWE	51.80			11.50%	
Targa Resources Partners LP	TRGP	49.65			NMF	
Atlas Pipeline Partners L.P.	ATLS	34.01	---		433.50%	
Eagle Rock Energy Partners Ltd	EROC	9.36			650.00%	
Crosstex Energy LP	XTEX	14.83			392.00%	

Weighted Mean = 12.91%
Mean = 12.96%
Median = 13.29%

Cost of Equity, (K_E) = 12.90%

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Gas Pipelines
2013 Assessment Year

Ticker	Company		Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS lst 12 mo
ACMP	Access Midstream Partners	high	$31.19	$29.83	$30.49	$29.90	$29.12	$27.90	$29.48	$30.30	$33.65	$37.57	$36.33	$35.09	$33.96	$29.83	22.80	1.46
		low	$28.42	$27.59	$28.28	$26.61	$22.50	$23.50	$26.46	$27.62	$29.34	$33.15	$30.10	$31.50				
ATLS	Atlas Energy LP	high	$27.86	$27.82	$35.40	$39.10	$39.35	$33.87	$32.82	$35.37	$36.75	$36.57	$35.51	$34.88	$34.01	$32.17	(36.73)	(0.91)
		low	$23.51	$24.01	$25.71	$32.34	$32.44	$27.83	$29.95	$30.10	$33.68	$33.97	$31.15	$31.97				
APL	Atlas Pipeline Partners L.P.	high	$40.89	$38.49	$37.65	$35.74	$36.04	$33.13	$34.40	$36.09	$36.01	$36.08	$36.10	$32.62	$33.08	$34.03	29.85	1.05
		low	$36.23	$34.89	$34.78	$31.62	$29.26	$27.32	$30.55	$32.52	$32.60	$34.06	$29.53	$30.07				
BWP	Boardwalk Pipeline	high	$29.43	$27.62	$27.94	$27.68	$28.10	$27.77	$29.16	$28.95	$27.90	$28.04	$26.85	$25.99	$25.91	$26.96	20.53	1.23
		low	$27.10	$26.51	$26.09	$26.01	$25.56	$25.15	$27.50	$26.40	$26.81	$26.51	$23.55	$24.51				
CHK	Chesapeake Energy	high	$24.31	$25.86	$26.09	$23.69	$20.63	$19.50	$20.19	$20.44	$20.64	$21.66	$20.51	$17.58	$18.53	$19.74	(14.09)	(1.20)
		low	$20.41	$20.63	$22.52	$16.78	$13.32	$15.48	$16.62	$17.15	$18.41	$18.88	$16.29	$16.23				
CHKM	Chesapeake Midstream Ptn	high	BECAME ACCESS MIDSTREAM PARTNERS TICKER ACMP															
		low																
DVN	Devon Energy	high	$66.91	$76.26	$76.34	$73.14	$71.08	$61.42	$59.62	$61.71	$63.95	$63.00	$59.71	$54.38	$56.23	$61.88	32.49	1.62
		low	$62.13	$62.81	$69.35	$63.97	$58.63	$54.01	$54.56	$55.05	$56.82	$57.92	$51.49	$50.89				
EEP	Enbridge Energy Partners L	high	$33.85	$33.00	$32.80	$31.43	$31.04	$31.00	$31.12	$30.04	$29.90	$30.64	$30.55	$29.20	$29.02	$30.15	22.98	1.22
		low	$31.53	$31.22	$30.42	$30.26	$28.96	$27.75	$28.52	$28.40	$28.26	$29.43	$27.41	$26.88				
EEQ	Enbridge Energy Mgmt LLC	high	$35.54	$34.19	$34.06	$32.70	$32.78	$32.20	$35.56	$32.25	$31.74	$32.65	$31.70	$29.84	$30.19	$31.76	23.75	1.22
		low	$33.51	$32.11	$31.64	$31.07	$30.59	$29.53	$30.75	$30.75	$30.20	$31.01	$27.82	$28.12				
EPB	El Paso Pipeline	high	$36.38	$38.10	$36.63	$35.42	$34.36	$33.95	$35.90	$36.40	$37.43	$38.09	$37.39	$38.65	$36.47	$35.09	18.21	2.05
		low	$34.54	$35.11	$33.34	$32.81	$30.64	$31.52	$33.26	$33.32	$34.15	$35.05	$33.64	$36.01				
EPD	Enterprise Products	high	$49.86	$52.95	$52.50	$52.40	$52.94	$51.32	$54.98	$53.98	$54.88	$55.38	$53.58	$52.20	$51.75	$51.14	17.69	2.85
		low	$45.78	$48.75	$49.26	$48.52	$48.00	$45.67	$50.78	$52.05	$52.25	$52.17	$48.52	$48.66				
EQM	EQT Midstream Partners LP	high	No Data	No Data	No Data	No Data	No Data	$24.62	$27.08	$27.47	$30.72	$31.27	$31.39	$31.38	$29.81	$16.19	22.69	1.32
		low	No Data	No Data	No Data	No Data	No Data	$22.58	$23.70	$26.11	$27.53	$28.59	$27.70	$28.51				
EQT	EQT Corporation	high	$56.56	$55.89	$54.12	$50.08	$51.69	$55.20	$58.36	$57.69	$59.46	$62.63	$62.74	$61.07	$59.74	$53.74	48.16	1.22
		low	$46.04	$48.50	$47.01	$45.19	$44.21	$43.69	$52.20	$52.69	$52.69	$57.45	$58.09	$56.45				
EROC	Eagle Rock Energy Partners	high	$11.81	$11.55	$11.05	$9.99	$10.00	$9.04	$9.76	$9.65	$9.81	$10.58	$10.33	$9.05	$9.36	$9.69	(9.19)	(0.94)
		low	$11.00	$10.69	$9.74	$9.00	$8.38	$8.25	$8.81	$8.55	$9.40	$9.44	$8.50	$8.23				
ETP	Energy Transfer	high	$49.77	$50.12	$47.60	$50.05	$51.00	$46.20	$46.00	$45.98	$43.93	$45.00	$44.00	$44.28	$42.75	$45.08	9.92	4.35
		low	$45.96	$45.75	$46.05	$45.51	$43.00	$41.15	$43.96	$42.01	$41.35	$41.03	$40.19	$42.00				
ETE	Energy Transfer Equity L.P.	high	$43.73	$44.47	$44.35	$42.13	$43.12	$41.13	$43.26	$44.00	$46.07	$46.39	$45.85	$48.20	$44.92	$42.26	34.44	1.34
		low	$39.66	$41.50	$38.86	$38.26	$36.19	$34.00	$39.91	$40.34	$43.83	$43.27	$41.72	$44.11				
FGP	Ferrellgas Partners L P	high	$19.37	$19.19	$18.91	$16.07	$17.71	$19.00	$20.38	$21.85	$20.80	$19.75	$19.10	$18.68	$17.77	$17.74	349.30	0.05
		low	$16.80	$15.61	$14.15	$13.35	$15.04	$15.50	$18.65	$17.83	$18.90	$17.65	$15.21	$16.25				
HEP	Holly Energy Partners L.P.	high	$55.47	$63.76	$62.94	$62.87	$60.25	$57.14	$66.69	$68.29	$73.96	$68.81	$68.16	$68.28	$65.61	$61.73	23.70	2.76
		low	$53.27	$54.82	$58.27	$57.61	$54.12	$52.24	$57.11	$64.52	$64.61	$65.49	$60.38	$62.55				
KMP	Kinder Morgan Energy	high	$90.00	$90.60	$90.00	$85.50	$83.07	$78.68	$86.47	$83.40	$83.31	$86.32	$84.20	$82.08	$81.26	$82.32	(190.10)	(0.42)
		low	$81.80	$85.36	$80.40	$80.18	$76.65	$74.15	$78.60	$79.50	$80.50	$82.59	$74.76	$77.60				

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Gas Pipelines
2013 Assessment Year

Ticker	Company		Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS lst 12 mo
MMP	Magellan Midstream	high	$34.80	$36.66	$36.87	$36.46	$35.79	$35.54	$39.68	$41.67	$44.25	$45.32	$44.60	$44.60	$43.03	$38.23	24.99	1.73
Stock Split 2:1 Oct 15, 2013		low	$32.17	$33.45	$35.08	$34.83	$33.60	$33.31	$35.08	$38.65	$41.48	$42.75	$39.06	$41.87				
MWE	Markwest Energy Partners L	high	$58.33	$60.73	$61.60	$60.31	$60.32	$52.48	$55.04	$54.00	$54.90	$55.95	$54.99	$52.24	$51.80	$53.99	51.27	0.98
		low	$53.51	$57.50	$55.27	$56.85	$47.04	$45.36	$49.01	$50.09	$52.66	$53.36	$46.03	$48.25				
NFG	Natl Fuel Gas	high	$56.97	$51.54	$51.52	$48.68	$48.28	$48.43	$50.28	$52.79	$54.99	$54.29	$55.66	$53.84	$52.17	$49.53	19.64	2.63
		low	$48.02	$46.85	$46.94	$44.18	$41.98	$41.57	$45.56	$47.16	$49.82	$50.77	$49.00	$49.48				
NFX	Newfield Exploration Co	high	$41.75	$42.47	$36.67	$36.24	$36.66	$30.04	$32.75	$33.10	$35.65	$34.79	$27.46	$27.44	$27.35	$32.03	12.22	2.11
		low	$37.45	$35.48	$33.74	$31.62	$28.12	$25.01	$27.91	$28.98	$31.01	$26.73	$23.56	$24.13				
NGLS	Targa Resources Partners L	high	$39.85	$42.72	$43.48	$43.31	$45.42	$39.22	$39.99	$41.16	$43.50	$44.75	$42.99	$37.93	$39.30	$39.79	20.09	1.80
		low	$37.47	$39.09	$40.54	$39.52	$38.61	$32.68	$35.56	$37.40	$39.68	$40.95	$34.76	$34.39				
NGT	Eastern AmerNatlGasTr'SPI	high	$23.43	$23.12	$22.85	$22.49	$22.47	$21.48	$21.69	$21.55	$22.06	$21.34	$20.85	$20.58	$20.60	$21.59	35.61	0.57
		low	$22.75	$22.54	$22.00	$22.05	$20.00	$20.87	$21.11	$21.05	$21.10	$20.44	$20.40	$20.01				
OKE	ONEOK Inc.	high	$89.63	$84.42	$85.28	$86.46	$87.73	$82.29	$45.94	$46.07	$49.36	$49.79	$47.50	$45.34	$45.69	$62.62	25.08	1.73
		low	$82.81	$80.11	$80.68	$79.13	$81.10	$39.32	$42.03	$41.92	$44.39	$46.23	$43.83	$41.42				
OKS	ONEOK Partners LP	high	$59.22	$61.58	$58.50	$56.13	$57.30	$54.98	$58.14	$58.69	$59.83	$60.99	$60.64	$58.50	$57.58	$56.35	15.33	3.62
		low	$53.24	$55.92	$52.59	$52.61	$54.30	$50.45	$53.17	$54.75	$55.47	$59.01	$53.84	$52.52				
PNG	PAA Natural Gas Storage L.	high	$19.05	$19.45	$19.48	$19.48	$19.09	$18.00	$18.74	$18.86	$20.32	$20.79	$20.26	$19.53	$19.34	$18.74	19.02	0.99
		low	$18.00	$17.64	$18.61	$18.57	$17.71	$16.51	$17.70	$17.89	$18.50	$19.39	$17.95	$18.13				
SE	Spectra Energy Corp.	high	$31.98	$31.91	$32.27	$31.79	$31.57	$29.40	$31.00	$30.98	$29.54	$30.22	$28.87	$28.08	$28.17	$29.63	17.62	1.55
		low	$30.17	$30.25	$30.83	$29.77	$28.23	$27.36	$28.80	$28.02	$28.14	$28.71	$26.56	$26.55				
SEP	Spectra Energy Partners LP	high	$33.27	$33.26	$33.13	$32.50	$32.84	$32.07	$32.86	$32.85	$32.66	$32.20	$30.58	$31.88	$30.11	$31.36	18.32	1.67
		low	$31.20	$31.10	$31.00	$31.00	$29.57	$29.36	$30.23	$31.75	$31.37	$29.51	$27.15	$29.32				
WES	Western Gas Partners LP	high	$42.53	$46.27	$47.97	$47.31	$47.50	$46.00	$45.62	$47.75	$51.28	$53.17	$51.79	$49.11	$49.16	$45.97	47.24	1.00
		low	$38.94	$40.70	$43.71	$42.96	$43.08	$41.15	$43.29	$44.90	$47.26	$50.42	$45.10	$45.37				
WMB	Williams Cos	high	$29.68	$30.00	$32.09	$34.12	$34.63	$30.28	$31.95	$32.79	$35.39	$37.56	$35.40	$33.14	$33.55	$31.42	72.42	0.44
		low	$26.21	$28.51	$29.33	$30.51	$29.56	$27.25	$28.47	$29.89	$32.02	$34.08	$30.55	$30.59				
TRGP	Targa Resources Corp	high	$42.54	$48.28	$46.63	$48.13	$49.91	$45.21	$46.20	$47.43	$51.43	$51.99	$51.45	$53.38	$49.65	$45.93	59.98	0.84
		low	$38.70	$41.41	$43.69	$43.50	$42.63	$39.89	$41.46	$42.52	$44.94	$47.96	$45.74	$47.39				
TRP	TransCanada P.L.	high	$44.28	$44.21	$45.07	$44.50	$44.20	$42.56	$45.90	$46.76	$47.02	$46.58	$46.13	$47.78	$45.55	$43.92	23.60	1.98
		low	$39.74	$41.13	$42.38	$41.93	$40.35	$39.87	$41.68	$44.84	$44.27	$43.54	$43.56	$45.69				
WPZ	Williams Ptrs.	high	$65.39	$62.35	$62.42	$57.75	$58.26	$54.04	$55.90	$54.13	$54.84	$55.48	$53.33	$51.12	$50.34	$54.58	13.13	3.66
		low	$60.51	$60.57	$55.02	$53.35	$52.01	$48.28	$51.79	$50.50	$50.80	$52.02	$45.07	$45.01				
XTEX	Crosstex Energy LP	high	$17.46	$17.34	$17.36	$18.24	$17.92	$16.74	$17.20	$17.04	$15.95	$16.54	$15.68	$15.10	$14.83	$15.84	(21.92)	(0.65)
		low	$16.17	$16.21	$16.55	$15.90	$14.32	$14.57	$15.00	$13.52	$13.60	$15.19	$13.06	$13.40				

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Gas Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
XTO Energy Inc.	7.5	98385XAA4	Sr Nts	04/15/2012	AAA	7.39	7.44	7.49										7.44%	
XTO Energy Inc.	6.25	98385XAC0	Sr Nts	04/15/2013	AAA	5.86	5.89	5.91	5.93	5.96	5.98	6.01	6.04	6.06	6.10	6.12	6.15	6.00%	6.12%
XTO Energy Inc.	4.9	98385XAD8	Sr Nts	02/01/2014	AAA	4.52	4.54	4.56	4.57	4.56	4.58	4.59	4.61	4.62	4.64	4.65	4.67	4.59%	4.65%
XTO Energy Inc.	5.3	98385XAG1	Sr Nts	06/30/2015	AAA	4.62	4.65	4.68	4.68	4.69	4.71	4.71	4.66	4.68	4.70	4.73	4.75	4.69%	4.73%
XTO Energy Inc.	5.65	98385XAH9	Sr Nts	04/01/2016	AAA	4.74	4.78	4.81	4.75	4.76	4.77	4.79	4.80	4.82	4.85	4.85	4.88	4.80%	4.86%
XTO Energy Inc.	6.1	98385XAJ5	Sr Nts	04/01/2036	AAA	4.47	4.51	4.65	4.54	4.37	4.35	4.25	4.19	4.33	4.27	4.27	4.33	4.38%	4.29%
XTO Energy Inc.	5.9	98385XAK2	Sr Nts	08/01/2012	AAA	5.75	5.77	5.79	5.82	5.84	5.87	5.90						5.82%	
XTO Energy Inc.	6.25	98385XAL0	Sr Nts	08/01/2017	AAA	4.99	5.01	5.07	5.02	5.02	5.05	5.03	5.03	5.05	5.01	5.02	5.04	5.03%	5.02%
XTO Energy Inc.	6.75	98385XAM8	Sr Nts	08/01/2037	AAA	4.48	4.43	4.57	4.47	4.29	4.33	4.23	4.30	4.45	4.29	4.29	4.36	4.37%	4.31%
XTO Energy Inc.	4.62	98385XAN6	Sr Nts	06/15/2013	AAA	4.38	4.40	4.42	4.43	4.44	4.45	4.47	4.48	4.49	4.51	4.52	4.54	4.46%	4.52%
XTO Energy Inc.	5.5	98385XAP1	Sr Nts	06/15/2018	AAA	4.47	4.49	4.55	4.48	4.47	4.48	4.43	4.43	4.43	4.45	4.46	4.48	4.47%	4.46%
XTO Energy Inc.	6.38	98385XAQ9	Sr Nts	06/15/2038	AAA	4.46	4.50	4.61	4.50	4.30	4.28	4.18	4.20	4.35	4.28	4.28	4.34	4.36%	4.30%
Northern IllinoisGas	6.58	665228BQ4	1st	02/15/2028	AA	5.39	5.39	5.33	5.24	5.10	5.08	5.02	5.05	5.15	5.10	5.10	5.19	5.18%	5.13%
Northern IllinoisGas	7.2	665228BV3	1st	05/15/2016	AA	5.89	5.93	5.99	5.95	5.96	5.99	5.99	6.00	6.03	6.06	6.07	6.09	6.00%	6.07%
Texaco Capital	9.75	881685AN1	GtdDeb	03/15/2020	AA	6.75	6.80	6.70	6.62	6.62	6.63	6.56	6.58	6.64	6.64	6.68	6.81	6.67%	6.71%
Texaco Capital	8.875	881685AV3	GtdDeb	09/01/2021	AA	6.16	6.21	6.12	6.02	6.02	6.02	5.94	5.96	6.01	6.01	6.04	6.08	6.05%	6.04%
Texaco Capital	8.625	881685AX9	GtdDeb	11/15/2031	AA	5.35	5.39	5.47	5.43	5.36	5.34	5.20	5.22	5.33	5.28	5.31	5.38	5.34%	5.32%
Texaco Capital	8.625	881685AY7	GtdDeb	04/01/2032	AA	5.32	5.36	5.51	5.42	5.35	5.32	5.18	5.21	5.32	5.27	5.30	5.36	5.33%	5.31%
Texaco Capital	8	881685BB6	GtdDeb	08/01/2032	AA	5.51	5.55	5.37	5.29	5.21	5.16	5.02	5.04	5.15	5.10	5.13	5.19	5.23%	5.14%
Texaco Capital	7.5	881685BD2	GtdDeb	03/01/2043	AA	6.99	7.02	6.98	7.01	7.05	7.07	7.09	7.12	7.14	7.18	7.20	7.24	7.09%	7.21%
Northwest Natural Gas	9.05	66765RAA4	Sec M-T Nts A	08/13/2021	A+	6.10	6.12	6.25	6.15	6.09	6.09	6.06	6.08	6.16	6.15	6.16	6.23	6.14%	6.18%
Northwest Natural Gas	8.26	66765RAT3	Sec M-T Nts B	09/21/2014	A+	6.99	7.03	7.07	7.09	7.13	7.17	7.20	7.24	7.26	7.31	7.34	7.36	7.18%	7.34%
Northwest Natural Gas	7	66765RAY2	Sec M-T Nts B	08/01/2017	A+	5.56	5.60	5.67	5.62	5.62	5.65	5.64	5.65	5.67	5.70	5.71	5.74	5.65%	5.72%
Northwest Natural Gas	7.63	66765RBF2	Sec M-T Nts B	12/09/2019	A+	5.75	5.77	5.88	5.79	5.74	5.75	5.72	5.74	5.81	5.80	5.81	5.80	5.78%	5.80%
Atlantic Richfield	9	048825AW3	Deb	04/01/2021	A	6.83	6.87	6.82	6.71	6.67	6.68	6.63	6.64	6.65	6.51	6.53	6.56	6.68%	6.53%
Atlantic Richfield	9	048825AY9	Deb	05/01/2031	A	6.63	6.64	6.42	6.31	6.17	6.18	6.07	6.10	6.22	5.94	5.94	6.00	6.22%	5.96%
Atlantic Richfield	9.125	048825AZ6	Deb	08/01/2031	A	6.61	6.62	6.43	6.32	6.17	6.18	6.08	6.11	6.23	5.88	5.91	5.97	6.21%	5.92%
Atlantic Richfield	8.25	048825BA0	Deb	02/01/2022	A	6.09	6.12	6.18	6.07	6.02	6.03	5.97	5.99	6.08	6.00	6.06	6.08	6.06%	6.05%
Atlantic Richfield	8.75	048825BB8	Deb	03/01/2032	A	6.24	6.24	6.33	6.22	6.07	6.08	5.98	6.00	6.13	5.78	5.81	5.87	6.06%	5.82%
Atlantic Richfield	8.5	048825BC6	Deb	04/01/2012	A	8.40	8.44	8.50										8.45%	
Burlington Resources Inc.	9.125	122014AE3	Deb	10/01/2021	A	6.29	6.34	6.47	6.37	6.41	6.50	6.44	6.46	6.53	6.53	6.57	6.61	6.46%	6.57%
Burlington Resources Inc.	8.2	122014AH6	Deb	03/15/2025	A	6.22	6.22	6.36	6.24	5.91	5.75	5.68	5.69	5.78	5.79	5.83	5.86	5.94%	5.83%
Burlington Resources Inc.	6.875	122014AJ2	Deb	02/15/2026	A	5.57	5.61	5.76	5.63	5.65	5.27	5.19	5.20	5.28	5.30	5.33	5.36	5.43%	5.33%
Burlington Resources Inc.	7.375	122014AL7	Deb	03/01/2029	A	5.67	5.70	5.78	5.70	5.66	5.51	5.38	5.41	5.54	5.43	5.46	5.51	5.56%	5.47%
Burlington Resources Fin	7.2	12201PAB2	Gtd Nt	8/15/2031	A	5.31	5.32	5.40	5.27	5.18	5.23	5.07	5.07	5.20	5.10	5.09	5.09	5.19%	5.09%
Conoco Inc	6.95	208251AE8	Nts	04/15/2029	A	5.12	5.09	5.13	5.11	5.09	5.06	4.86	4.90	5.03	4.82	4.92	4.98	5.01%	4.91%
ConocoPhillips	4.75	20825CAE4	Nts	10/15/2012	A	4.60	4.62	4.64	4.65	4.67	4.69	4.70	4.72	4.74				4.67%	
ConocoPhillips	5.9	20825CAF1	Nts	10/15/2032	A	4.77	4.81	4.84	4.71	4.75	4.66	4.56	4.54	4.61	4.43	4.46	4.60	4.65%	4.50%
Conoco Funding	7.25	20825UAC8	Sr Nt	10/15/2031	A	5.32	5.21	5.29	5.15	5.13	5.01	4.81	4.86	5.00	4.90	4.82	4.89	5.03%	4.87%
Louisiana Land/Exp	7.625	546268AF0	Deb	04/15/2013	A	7.06	7.10	7.12	7.16	7.21	7.24	7.28	7.33	7.35	7.40	7.43	7.48	7.26%	7.44%
Louisiana Land/Exp	7.65	546268AG8	Deb	12/01/2023	A	5.88	5.90	5.92	5.81	5.84	5.89	5.82	5.83	5.91	5.88	5.94	5.96	5.88%	5.93%
Michigan Consol Gas	8.25	594457BD4	1st	05/01/2014	A	7.25	7.30	7.34	7.36	7.39	7.33	7.36	7.39	7.42	7.47	7.50	7.54	7.39%	7.50%
Michigan Consol Gas	7.06	594457BH5	Sec M-T Nts 'B'	05/01/2012	A	6.96	6.99	7.02	7.06									7.01%	
Michigan Consol Gas	5.7	594457BT9	Sr Nts	03/15/2033	A	4.89	5.05	5.20	5.09	4.92	4.86	4.99	4.56	4.72	4.66	4.72	4.87	4.88%	4.75%
Michigan Consol Gas	5	594457BU6	Sr Nts'E'	10/01/2019	A	4.40	4.42	4.50	4.43	4.38	4.37	4.34	4.28	4.33	4.32	4.30	4.33	4.37%	4.32%
Occidental Petroleum Corp.	9.25	674599BE4	Sr Deb	08/01/2019	A	6.73	6.78	6.90	6.81	6.76	6.76	6.72	6.72	6.79	6.40	6.42	6.46	6.69%	6.43%
Occidental Petroleum Corp.	7.2	674599BM6	Sr Deb	04/01/2022	A	5.46	5.56	5.69	5.60	5.45	5.64	5.55	5.57	5.47	5.42	5.42	5.65	5.54%	5.50%
Occidental Petroleum Corp.	8.45	674599BT1	Sr Nts	02/15/2029	A	5.92	5.95	6.09	6.00	5.93	5.91	5.81	5.84	5.89	5.83	5.83	5.99	5.92%	5.88%
Occidental Pete Corp Med Term	8.75	67461FED5	'N Tranche # Tr 001	1/15/2023	A	6.51	6.55	6.69	6.56	6.48	6.47	6.31	6.32	6.33	6.26	6.28	6.18	6.41%	6.24%
Occidental Petro	8.75	67461FED5	Sr Nts	01/15/2023	A	6.51	6.55	6.69	6.56	6.48	6.47	6.31	6.32	6.33	6.26	6.28	6.18	6.41%	6.24%
Phillips Petroleum	6.65	718507BH8	Deb	07/15/2018	A	5.32	5.32	5.39	5.34	5.41	5.31	5.29	5.29	5.31	5.19	5.21	5.24	5.30%	5.21%
Phillips Petroleum	7	718507BK1	Deb	03/30/2029	A	5.42	5.45	5.59	5.50	5.37	5.31	5.23	5.25	5.38	5.21	5.23	5.22	5.35%	5.22%
Piedmont Natural Gas Co., Inc.	5	720186AD7	Nts'E'	12/19/2013	A	4.69	4.71	4.72	4.73	4.74	4.76	4.77	4.78	4.79	4.81	4.82	4.83	4.76%	4.82%
Piedmont Natural Gas Co., Inc.	6	720186AE5	Nts'E'	12/19/2033	A	5.09	5.09	5.24	5.13	4.95	4.93	4.93	4.96	5.07	5.00	5.00	5.10	5.04%	5.03%
Piedmont Natural Gas	7.95	72018QAG6	M-T Nts'C'	09/14/2029	A	5.72	5.73	5.87	5.77	5.61	5.59	5.57	5.60	5.70	5.65	5.64	5.71	5.68%	5.67%
Western Atlas Inc	8.55	957674AD6	Deb	06/15/2024	A	5.87	5.89	6.06	5.93	5.94	5.95	5.88	5.89	5.87	5.75	5.85	5.88	5.90%	5.83%
ANR Pipeline	7.38	001814AQ5	Deb	02/15/2024	A-	5.73	5.73	5.88	5.72	5.67	5.67	5.58	5.59	5.56	5.48	5.51	5.52	5.64%	5.50%
ANR Pipeline	9.62	001814AR3	Deb	11/01/2021	A-	6.57	6.43	6.61	6.48	6.40	6.40	6.35	6.35	6.49	6.24	6.45	6.36	6.43%	6.35%
ANR Pipeline	7	001814AS1	Deb	06/01/2025	A-	5.55	5.57	5.72	5.57	5.51	5.51	5.41	5.42	5.42	5.42	5.42	5.42	5.50%	5.42%
Apache Corp.	7.7	037411AJ4	Nts	03/15/2026	A-	5.61	5.47	5.62	5.52	5.55	5.50	5.39	5.41	5.46	5.40	5.46	5.59	5.50%	5.48%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Gas Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Apache Corp.	7.95	037411AK1	Nts	04/15/2026	A-	5.68	5.48	5.57	5.44	5.47	5.43	5.31	5.33	5.42	5.37	5.43	5.60	5.46%	5.47%
Apache Corp.	7.625	037411AL9	Deb	11/01/2096	A-	5.04	5.21	5.47	5.48	5.40	5.29	5.04	5.09	5.16	4.98	5.02	5.28	5.21%	5.09%
Apache Corp.	7.38	037411AM7	Deb	08/15/2047	A-	4.91	4.94	5.09	5.28	5.24	5.15	4.86	4.90	5.01	4.77	4.85	5.15	5.01%	4.92%
Apache Corp.	7	037411AN5	Sr Nts	02/01/2018	A-	5.56	5.60	5.65	5.61	5.66	5.67	5.63	5.61	5.60	5.62	5.64	5.71	5.63%	5.66%
Apache Corp.	7.62	037411AP0	Sr Nts	07/01/2019	A-	5.88	5.90	6.01	5.96	5.98	5.96	5.91	5.87	5.73	5.72	5.75	5.81	5.87%	5.76%
Apache Corp.	6.25	037411AQ8	Nts	04/15/2012	A-	6.17	6.20	6.21										6.19%	
Apache Corp.	6	037411AR6	Nts	01/15/2037	A-	4.71	4.65	4.90	4.89	4.84	4.74	4.53	4.48	4.57	4.41	4.54	4.75	4.67%	4.57%
Apache Corp.	5.62	037411AS4	Nts	01/15/2017	A-	4.71	4.74	4.79	4.74	4.77	4.78	4.73	4.73	4.72	4.72	4.74	4.80	4.75%	4.75%
Apache Corp.	5.25	037411AT2	Nts	04/15/2013	A-	4.96	4.98	5.00	5.02	5.05	5.07	5.07	5.10	5.11	5.14	5.15	5.18	5.07%	5.16%
Consolidated Nat Gas	6.62	209615BN2	Deb	12/01/2013	A-	6.10	6.13	6.15	6.17	6.19	6.21	6.23	6.26	6.28	6.26	6.28	6.31	6.21%	6.28%
Consolidated Nat Gas	6.88	209615BQ5	Deb	10/15/2026	A-	5.86	5.91	6.06	5.87	5.77	5.73	5.67	5.68	5.79	5.75	5.76	5.79	5.80%	5.77%
Consolidated Nat Gas	6.8	209615BS1	Deb	12/15/2027	A-	5.80	5.85	6.01	5.80	5.69	5.65	5.59	5.60	5.71	5.68	5.68	5.72	5.73%	5.69%
EOG Resources, Inc.	5.88	26875PAA9	Sr Nts	09/15/2017	A-	4.88	4.89	4.92	4.87	4.87	4.91	4.83	4.82	4.83	4.86	4.83	4.85	4.86%	4.85%
Enron Oil & Gas	6.65	293562AD6	Nts	04/01/2028	A-	5.27	5.25	5.46	5.37	5.26	5.22	5.16	5.18	5.33	5.15	5.14	5.20	5.25%	5.16%
KeySpan Corp.	8	49337WAC4	Nts	11/15/2030	A-	6.05	6.09	6.01	5.91	5.74	5.68	5.72	5.72	5.89	5.77	5.77	5.83	5.85%	5.79%
KeySpan Corp.	4.65	49337WAG5	Nts	04/01/2013	A-	4.50	4.51	4.48	4.49	4.51	4.52	4.53	4.55	4.55	4.57	4.58	4.60	4.53%	4.58%
KeySpan Corp.	5.88	49337WAH3	Nts	04/01/2033	A-	5.03	5.24	5.38	5.21	5.03	4.97	5.07	5.10	5.27	5.14	5.14	5.11	5.14%	5.13%
Atmos Energy Corp.	6.75	049560AA3	Deb	07/15/2028	BBB+	5.32	5.33	5.45	5.36	5.21	5.17	5.11	5.13	5.24	5.19	5.19	5.25	5.25%	5.21%
Atmos Energy Corp.	4.95	049560AF2	Sr Nts	10/15/2014	BBB+	4.51	4.53	4.54	4.55	4.56	4.57	4.58	4.57	4.58	4.59	4.60	4.61	4.57%	4.60%
Atmos Energy Corp.	5.95	049560AG0	Sr Nts	10/15/2034	BBB+	4.99	4.96	5.11	5.00	4.82	4.77	4.70	4.67	4.81	4.75	4.74	4.81	4.84%	4.77%
Atmos Energy Corp.	6.35	049560AH8	Sr Nts	06/15/2017	BBB+	5.34	5.37	5.44	5.38	5.38	5.35	5.34	5.23	5.26	5.21	5.22	5.24	5.31%	5.22%
Canadian Natural Resources Limited	5.45	136385AD3	Nt	10/1/2012	BBB+	5.29	5.30	5.32	5.34	5.36	5.38	5.40						5.34%	
Canadian Natural Resources Limited	6.45	136385AE1	Nt	6/30/2033	BBB+	5.11	5.15	5.26	5.19	5.12	5.18	5.16	5.00	5.11	4.92	5.04	5.04	5.11%	5.00%
Cascade Natural Gas Corp.	5.25	147339AJ4	Nts	02/01/2035	BBB+	5.45	5.45	5.29	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.28%	5.24%
Devon Fin Corp	7.95	251799AA0	Sr Deb	04/15/2032	BBB+	5.58	5.49	5.64	5.55	5.68	5.53	5.33	5.33	5.44	5.21	5.35	5.37	5.46%	5.31%
ENSCO International Inc.	7.2	26874QAB6	Deb	11/15/2027	BBB+	6.57	6.60	6.74	6.04	5.91	5.76	5.67	5.69	5.82	5.57	5.53	5.55	5.95%	5.55%
OceanEnergy	8.25	674812AK8	Sr Nts 'B'	07/01/2018	BBB+	6.35	6.40	6.50	6.44	6.52	6.54	6.50	6.50	6.52	6.57	6.47	6.49	6.48%	6.51%
Southwest Gas Corp.	8	844895AL6	Deb	08/01/2026	BBB+	5.81	5.83	5.95	5.81	5.71	5.71	5.65	5.66	5.75	5.72	5.71	5.64	5.75%	5.69%
Amerada Hess Corp.	7.875	023551AF1	Nts	10/01/2029	BBB	5.79	5.73	5.89	5.86	6.03	6.01	5.92	5.88	5.80	5.47	5.62	5.66	5.81%	5.58%
Amerada Hess Corp.	7.3	023551AJ3	Nts	08/15/2031	BBB	5.58	5.54	5.71	5.67	5.81	5.79	5.69	5.62	5.63	5.29	5.36	5.42	5.59%	5.36%
Buckeye Partners, L.P.	5.12	118230AE1	Fixed Rt Nts	07/01/2017	BBB	4.76	4.80	4.85	4.73	4.74	4.75	4.72	4.72	4.74	4.75	4.75	4.76	4.76%	4.75%
Enbridge Energy Partners, L.P.	4.75	29250RAC0	Sr Nts 'B'	06/01/2013	BBB	4.56	4.57	4.55	4.57	4.59	4.59	4.60	4.61	4.62	4.66	4.67	4.68	4.61%	4.67%
Enbridge Energy Partners, L.P.	5.95	29250RAD8	Sr Nts 'B'	06/01/2033	BBB	5.48	5.36	5.47	5.36	5.23	5.20	5.09	5.38	5.53	5.13	5.16	5.35	5.31%	5.21%
Enbridge Energy Partners, L.P.	5.88	29250RAH9	Nt	12/15/2016	BBB	5.08	5.11	5.10	5.09	5.10	5.11	5.12	5.06	5.03	5.00	5.05	5.08	5.08%	5.04%
Energen Corp MTN BE	7.32	29265AAP1	N Tranche # Tr 000	7/28/2022	BBB	5.89	5.91	6.04	5.92	5.84	5.84	5.80	5.81	5.88	5.86	5.87	5.90	5.88%	5.88%
Energen Corp.	5	29265NAQ1	Nts	10/01/2013	BBB	4.85	4.86	4.87	4.87	4.88	4.86	4.87	4.88	4.89	4.90	4.91	4.90	4.88%	4.90%
Enterprise Products Oper	6.375	293791AD1	Sr Nts 'B'	02/01/2013	BBB	6.06	6.08	6.10	6.13	6.16	6.18	6.21	6.24	6.26	6.29	6.31	6.34	6.20%	6.31%
Enterprise Products Oper	5.6	293791AN9	Sr Nts'B'	10/15/2014	BBB	5.08	5.08	5.07	5.06	5.09	5.10	5.09	5.11	5.11	5.13	5.14	5.17	5.10%	5.15%
Enterprise Products Oper	6.65	293791AP4	Sr Nts'B'	10/15/2034	BBB	5.64	5.48	5.54	5.42	5.44	5.44	5.31	5.24	5.35	5.18	5.30	5.37	5.39%	5.28%
Enterprise Products Oper	5	293791AR0	Sr Nts'B'	03/01/2015	BBB	4.58	4.58	4.55	4.53	4.57	4.57	4.57	4.58	4.56	4.58	4.61	4.62	4.58%	4.60%
Enterprise Products Oper	5.75	293791AT6	Sr Nts'B'	03/01/2035	BBB	5.38	5.24	5.35	5.29	5.28	5.21	5.05	5.05	5.05	4.93	5.06	5.04	5.16%	5.01%
Equitable Resources, Inc.	7.75	294549AE0	Deb	07/15/2026	BBB	6.42	6.47	6.60	6.40	6.29	6.25	6.14	6.09	6.21	6.12	6.07	6.02	6.26%	6.07%
Kinder Morgan Energy Partners, L.P.	7.4	494550AJ5	Nts	03/15/2031	BBB	6.28	6.21	6.31	6.29	6.08	6.05	5.93	5.84	5.88	5.50	5.71	5.68	5.98%	5.63%
Kinder Morgan Energy Partners, L.P.	7.125	494550AK2	Nts	03/15/2012	BBB	7.07	7.11											7.09%	
Kinder Morgan Energy Partners, L.P.	7.75	494550AL0	Nts	03/15/2032	BBB	6.34	6.26	6.36	6.34	6.36	6.19	6.07	5.95	6.00	5.56	5.70	5.76	6.07%	5.67%
Kinder Morgan Energy Partners, L.P.	7.3	494550AQ9	Sr Nts	08/15/2033	BBB	6.26	6.13	6.16	6.20	6.22	6.05	5.93	5.77	5.82	5.40	5.54	5.59	5.92%	5.51%
Kinder Morgan Energy Partners, L.P.	5	494550AR7	Sr Nts	12/15/2013	BBB	4.72	4.73	4.70	4.72	4.75	4.76	4.74	4.75	4.76	4.78	4.80	4.81	4.75%	4.80%
Kinder Morgan Energy Partners, L.P.	6	494550AU0	Sr Nt	2/1/2017	BBB	5.24	5.15	5.21	5.15	5.20	5.19	5.19	5.15	5.10	5.06	5.11	5.13	5.16%	5.10%
Kinder Morgan Energy Partners, L.P.	6.5	494550AV8	Sr Nt	2/1/2037	BBB	6.00	5.79	5.87	5.76	5.79	5.79	5.55	5.45	5.41	5.07	5.29	5.32	5.59%	5.23%
Kinder Morgan Energy Partners, L.P.	6.95	494550AW6	Sr Nt	1/15/2038	BBB	6.09	5.90	6.03	5.91	5.94	5.80	5.58	5.55	5.48	5.17	5.46	5.28	5.68%	5.30%
Kinder Morgan Inc	6.5	494553AB6	Sr Nts	09/01/2012	BBB	6.38	6.37	6.37	6.41	6.42	6.46	6.48	6.50					6.42%	
Lakehead Pipe Line Co	7	511546AA1	Sr Nts	10/01/2018	BBB	5.94	5.96	6.02	5.89	5.90	5.91	5.85	5.83	5.85	5.88	5.86	5.82	5.89%	5.85%
Lakehead Pipe Line Co	7.12	511546AB9	Sr Nts	10/01/2028	BBB	5.62	5.67	5.79	5.65	5.52	5.50	5.47	5.45	5.66	5.58	5.58	5.58	5.59%	5.58%
Lakehead Pipe Line Co	7.9	511546AE3	Sr Nts	11/21/2012	BBB	7.53	7.57	7.60	7.64	7.68	7.71	7.75	7.79	7.82	7.88			7.70%	7.88%
Marathon Oil Corp.	6.125	565849AA4	Nts	03/15/2012	BBB	5.80	5.80											5.80%	
Marathon Oil Corp.	6.8	565849AB2	Nts	03/15/2032	BBB	5.63	5.50	5.58	5.50	5.30	5.28	5.18	5.21	5.35	5.12	5.12	5.18	5.33%	5.14%
Murphy Oil Corp.	7.05	626717AA0	Nts	05/01/2029	BBB	5.88	5.92	6.09	5.99	6.02	5.91	5.82	5.74	5.87	5.81	5.78	5.73	5.88%	5.77%
Murphy Oil Corp.	6.38	626717AB8	Nts	05/01/2012	BBB	6.29	6.32	6.34	6.38									6.33%	
National Fuel Gas Co.	5.25	636180BE0	Nts	03/01/2013	BBB	5.05	5.06	5.07	5.08	5.10	5.11	5.11	5.13	5.15	5.17	5.18	5.21	5.12%	5.19%
Northwest Pipeline	7.12	667748AF4	Deb	12/01/2025	BBB	5.64	5.55	5.62	5.44	5.38	5.39	5.34	5.35	5.46	5.35	5.39	5.42	5.44%	5.39%
Northwest Pipeline	7	667748AM9	Sr Nts	06/15/2016	BBB	5.89	5.91	5.97	5.93	5.95	5.94	5.91	5.88	5.91	5.88	5.88	5.91	5.91%	5.89%
ONEOK, Inc.	6.5	682680AA1	Sr InsurNts	09/30/2028	BBB	6.65	6.65	6.50	6.49	6.49	6.49	6.49	6.49	6.49	6.49	6.49	6.49	6.52%	6.49%
ONEOK, Inc.	6.88	682680AB9	Deb	09/30/2028	BBB	5.94	5.98	6.05	5.92	5.92	5.87	5.77	5.80	5.96	5.61	5.61	5.67	5.84%	5.63%
ONEOK, Inc.	5.2	682680AM5	Nts	06/15/2015	BBB	4.74	4.74	4.77	4.73	4.78	4.78	4.76	4.76	4.78	4.76	4.78	4.79	4.76%	4.78%
ONEOK, Inc.	6	682680AN3	Nts	06/15/2035	BBB	5.65	5.62	5.75	5.48	5.62	5.49	5.37	5.38	5.57	5.10	5.10	5.17	5.44%	5.12%
ONEOK Partners, L.P.	5.9	68268NAA1	Gtd Sr Nt	4/1/2012	BBB	5.85	5.87	5.90										5.87%	

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Gas Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
ONEOK Partners, L.P.	6.15	68268NAB9	Gtd Sr Nt	10/1/2016	BBB	5.30	5.35	5.34	5.32	5.30	5.30	5.26	5.27	5.28	5.21	5.25	5.28	5.29%	5.25%
ONEOK Partners, L.P.	6.65	68268NAC7	Gtd Sr Nt	10/1/2036	BBB	5.45	5.50	5.73	5.62	5.64	5.65	5.61	5.56	5.66	5.08	5.29	5.36	5.51%	5.24%
Plains All American Pipeline, L.P.	7.75	726503AD7	Sr Nts	10/15/2012	BBB	7.00												7.00%	
Plains All Amer/PAA Fin	5.25	72650RAJ1	Sr Nts	06/15/2015	BBB	4.80	4.74	4.75	4.75	4.79	4.80	4.79	4.79	4.80	4.82	4.83	4.84	4.79%	4.83%
Plains All Amern Pipeline L P	6.7	72650RAM4	Sr Nt	5/15/2036	BBB	5.76	5.70	5.73	5.58	5.96	5.72	5.34	5.26	5.33	5.10	5.17	5.24	5.49%	5.17%
Talisman Energy Inc.	7.25	87425EAE3	Deb	10/15/2027	BBB	5.88	5.90	6.01	5.86	5.81	5.78	5.66	5.63	5.84	5.53	5.53	5.70	5.76%	5.59%
Transcont'l Gas PipeLine	7.08	893570BL4	Deb	07/15/2026	BBB	6.06	5.91	5.98	5.81	5.74	5.68	5.62	5.63	5.48	5.29	5.33	5.36	5.66%	5.33%
Transcont'l Gas PipeLine	7.25	893570BM2	Deb	12/01/2026	BBB	5.67	5.53	5.57	5.44	5.37	5.34	5.28	5.40	5.14	4.97	5.00	5.04	5.31%	5.00%
Transcont'l Gas PipeLine	8.88	893570BT7	Sr Nts'B'	07/15/2012	BBB	8.56	8.61	8.67	8.72	8.78								8.67%	
Transcont'l Gas PipeLine	6.4	893570BW0	Sr Nt	4/15/2016	BBB	5.47	5.49	5.48	5.45	5.48	5.54	5.54	5.49	5.51	5.48	5.50	5.52	5.50%	5.50%
USX Corp.	9.375	902905AK4	Deb	02/15/2012	BBB	9.35												9.35%	
USX Corp.	9.375	902905AL2	Deb	05/15/2022	BBB	6.86	6.90	7.04	6.93	6.89	6.88	6.82	6.83	6.91	6.89	6.91	6.95	6.90%	6.92%
USX Corp.	9.125	902905AM0	Deb	01/15/2013	BBB	8.56	8.61	8.65	8.70	8.75	8.79	8.82	8.88	8.92	8.99	9.03	9.10	8.82%	9.04%
USX Corp.	8.5	902905AN8	Deb	03/01/2023	BBB	6.22	6.26	6.40	6.29	6.25	6.24	6.27	6.29	6.37	6.35	6.36	6.39	6.31%	6.37%
USX Corp.	8.125	902905AQ1	Deb	07/15/2023	BBB	6.05	6.10	6.23	6.12	6.08	6.06	6.03	6.04	6.12	6.10	6.11	6.14	6.10%	6.12%
Valero Energy	6.7	919138AD9	Sr Nts	01/15/2013	BBB	6.36	6.39	6.41	6.44	6.47	6.50	6.53	6.56	6.58	6.62	6.65	6.69	6.52%	6.65%
Valero Energy Corp. (New)	8.75	91913YAB6	Nts	06/15/2030	BBB	6.88	6.95	7.11	7.05	7.03	7.01	6.90	6.96	6.96	6.33	6.33	6.40	6.83%	6.35%
Valero Energy Corp. (New)	6.875	91913YAD2	Nts	04/15/2012	BBB	6.79	6.82	6.86										6.82%	
Valero Energy Corp. (New)	7.5	91913YAE0	Nts	04/15/2032	BBB	6.57	6.44	6.39	6.43	6.40	6.43	6.04	5.96	6.11	5.68	5.81	5.84	6.18%	5.78%
Valero Energy Corp. (New)	4.75	91913YAG5	Nts	06/15/2013	BBB	4.54	4.56	4.57	4.58	4.60	4.61	4.60	4.61	4.62	4.63	4.64	4.66	4.60%	4.64%
Valero Energy Corp. (New)	4.75	91913YAK6	Sr Nts	04/01/2014	BBB	4.46	4.48	4.48	4.48	4.50	4.51	4.50	4.51	4.52	4.54	4.55	4.56	4.51%	4.55%
Valero Energy Corp. (New)	6.62	91913YAL4	Nts	06/15/2037	BBB	6.15	5.87	6.01	6.12	6.08	5.94	5.54	5.48	5.48	5.30	5.47	5.37	5.73%	5.38%
Valero Energy Corp. (New)	6.12	91913YAM2	Nts	06/15/2017	BBB	5.32	5.26	5.33	5.23	5.28	5.26	5.17	5.14	5.07	5.05	5.10	5.14	5.20%	5.10%
Williams Ptns L P	7.25	96950HAD2	Sr Nt	2/1/2017	BBB	6.04	5.98	6.03	5.97	6.03	6.10	6.03	5.98	5.99	5.89	5.96	5.96	6.00%	5.94%
Anadarko Petroleum Corp.	7.25	032511AH0	Deb	03/15/2025	BBB-	5.77	5.75	5.85	5.89	6.04	6.05	5.86	5.88	5.88	5.75	5.84	5.92	5.87%	5.84%
Anadarko Petroleum Corp.	7.73	032511AJ6	Deb	09/15/2096	BBB-		6.03	6.49	6.46	6.39	6.57	6.29	6.33	6.41	6.15	6.30	6.43	6.35%	6.29%
Anadarko Petroleum Corp.	7.25	032511AK3	Deb	11/15/2096	BBB-	6.16	5.74	6.39	6.34	6.25	6.42	6.12	6.16	6.24	6.03	6.18	6.50	6.21%	6.24%
Anadarko Petroleum Corp.	7	032511AL1	Deb	11/15/2027	BBB-	5.97	5.85	6.45	6.43	6.55	6.55	6.32	6.35	6.40	6.22	6.32	6.40	6.32%	6.31%
Anadarko Petroleum Corp.	6.62	032511AM9	Deb	01/15/2028	BBB-	6.04	5.92	6.01	6.00	6.11	6.11	5.89	5.91	5.96	5.79	5.88	5.98	5.97%	5.88%
Anadarko Petroleum Corp.	7.2	032511AN7	Deb	03/15/2029	BBB-	6.03	5.91	6.00	6.19	6.31	6.30	6.07	6.04	6.10	5.79	5.88	5.99	6.05%	5.89%
Anadarko Petroleum Corp.	6.12	032511AT4	Nts	03/15/2012	BBB-	6.09	6.12											6.11%	
Anadarko Petroleum Corp.	5	032511AU1	Nts	10/01/2012	BBB-	4.88	4.89	4.90	4.92	4.94	4.95	4.97	4.93					4.92%	
Anadarko Petroleum Corp.	5.95	032511AX5	Sr Nts	09/15/2016	BBB-	5.19	5.14	5.17	5.14	5.25	5.25	5.18	5.14	5.13	5.12	5.15	5.16	5.17%	5.14%
Anadarko Petroleum Corp.	6.45	032511AY3	Sr Nts	09/15/2036	BBB-	5.47	5.31	5.53	5.47	5.57	5.56	5.14	5.22	5.25	5.01	5.12	5.14	5.32%	5.09%
Boardwalk Pipelines Llc	5.5	096629AA8	Nt	2/1/2017	BBB-	4.98	4.99	5.02	4.98	4.99	5.00	4.99	4.99	4.99	4.95	4.96	4.97	4.98%	4.96%
Boardwalk Pipelines Lp	5.88	096630AA6	Sr Nt	11/15/2016	BBB-	5.20	5.24	5.27	5.22	5.22	5.27	5.25	5.21	5.21	5.22	5.24	5.25	5.23%	5.24%
Energy Transfer Partners, L.P.	5.95	29273RAB5	Sr Nt	2/1/2015	BBB-	5.47	5.43	5.43	5.41	5.47	5.44	5.44	5.42	5.42	5.38	5.44	5.42	5.43%	5.41%
Energy Transfer Partners, L.P.	5.65	29273RAD1	Sr Nt	8/1/2012	BBB-	5.49	5.55	5.57	5.59	5.61	5.63	5.65						5.58%	
Energy Transfer Partners, L.P.	6.12	29273RAE9	Sr Nt	2/15/2017	BBB-	5.54	5.52	5.48	5.46	5.45	5.44	5.41	5.32	5.33	5.23	5.29	5.29	5.40%	5.27%
Energy Transfer Partners, L.P.	6.62	29273RAF6	Sr Nt	10/15/2036	BBB-	6.25	6.18	6.36	6.22	6.42	6.26	5.93	5.96	6.01	5.35	5.52	5.64	6.01%	5.50%
Kerr-McGee Corp.	7.125	492386AK3	Deb	10/15/2027	BBB-	5.93	6.09	6.18	6.17	6.28	6.28	6.06	6.09	5.91	5.72	5.82	5.87	6.03%	5.80%
Kerr-McGee Corp.	7.875	492386AT4	Nts	09/15/2031	BBB-	6.10	5.96	6.05	6.09	6.19	6.10	5.83	5.89	5.92	5.72	5.73	5.92	5.96%	5.79%
Kerr-McGee Corp.	6.95	492386AU1	Nts	07/01/2024	BBB-	5.70	5.66	5.77	5.55	5.64	5.65	5.41	5.42	5.42	5.28	5.36	5.48	5.53%	5.37%
Panhandle East'n P.L.	6.05	698465BJ9	Sr Nts 'B'	08/15/2013	BBB-	5.66	5.69	5.71	5.70	5.73	5.75	5.77	5.78	5.80	5.82	5.84	5.87	5.76%	5.84%
Southern Natural Gas	8	843452AZ6	Nts	03/01/2032	BBB-	6.62	6.38	6.43	6.23	6.01	5.95	5.82	5.74	5.73	5.38	5.51	5.61	5.95%	5.50%
Southern Union Co.	7.6	844030AA4	Sr Nts	02/01/2024	BBB-	6.45	6.39	6.48	6.26	6.23	6.25	6.13	6.14	6.19	5.91	5.93	5.96	6.19%	5.93%
Southern Union Co.	8.25	844030AC0	Sr Nts	11/15/2029	BBB-	7.17	6.86	6.95	6.77	6.70	6.68	6.54	6.56	6.75	6.62	6.20	6.49	6.69%	6.44%
Union Pacific Resources Group	7.5	907834AB1	Deb	10/15/2026	BBB-	5.88	5.83	5.95	6.31	6.47	6.48	6.27	6.28	6.26	6.11	6.21	6.29	6.20%	6.20%
Union Pacific Resources Group	7.5	907834AC9	Deb	11/01/2096	BBB-	6.15	5.98	6.39	6.36	6.29	6.47	6.17	6.21	6.29	6.03	6.18	6.50	6.25%	6.24%
Union Pacific Resources Group	7.05	907834AF2	Deb	05/15/2018	BBB-	6.06	6.06	6.12	6.15	6.24	6.05	5.98	5.98	5.98	5.97	6.02	6.07	6.06%	6.02%
Union Pacific Resources Group	7.15	907834AG0	Deb	05/15/2028	BBB-	6.23	6.11	6.21	6.25	6.36	6.36	6.14	5.93	5.98	5.80	5.91	5.92	6.10%	5.88%
Williams Companies, Inc. (The)	7.625	969457AW0	Nts	07/15/2019	BBB-	6.26	6.28	6.38	6.30	6.27	6.25	6.26	6.24	6.28	6.19	6.20	6.28	6.27%	6.22%
Williams Companies, Inc. (The)	7.5	969457BB5	Deb	01/15/2031	BBB-	6.44	6.31	6.26	6.16	6.05	6.12	6.05	5.98	6.06	5.87	6.06	5.99	6.11%	5.97%
Williams Companies, Inc. (The)	7.75	969457BD1	Nts	06/15/2031	BBB-	6.49	6.35	6.40	6.34	6.23	6.17	6.16	6.08	6.13	5.94	6.13	6.07	6.21%	6.05%
Williams Companies, Inc. (The)	7.875	969457BG4	Nts	09/01/2021	BBB-	6.27	6.25	6.25	6.20	6.12	6.21	6.19	6.06	6.05	5.93	6.07	6.11	6.14%	6.04%
Williams Companies, Inc. (The)	8.125	969457BK5	Nts	03/15/2012	BBB-	8.04	8.11											8.08%	
Williams Companies, Inc. (The)	8.75	969457BM1	Nts	03/15/2032	BBB-	6.71	6.56	6.62	6.51	6.39	6.37	6.36	6.35	6.44	6.10	6.37	6.31	6.42%	6.26%
Pioneer Natural Resources Co.	6.88	723787AF4	Sr Nts	05/01/2018	BB+	5.98	5.88	5.81	5.84	5.90	5.84	5.71	5.67	5.67	5.59	5.62	5.65	5.76%	5.62%
Pioneer Natural Resources Co.	6.65	723787AG2	Sr Nts	03/15/2017	BB+	5.85	5.77	5.82	5.85	5.89	5.79	5.70	5.61	5.61	5.58	5.59	5.64	5.73%	5.60%
Sunoco, Inc.	5.75	86764PAD1	Nts	01/15/2017	BB+	5.66	5.56	5.44	5.46	5.34	5.41	5.34	5.18	5.18	5.16	5.11	5.10	5.33%	5.12%
Tesoro Corp.	6.25	881609AQ4	Sr Nt	11/1/2012	BB+	6.09	6.09	6.12	6.12	6.18	6.20	6.18	6.21	6.25				6.16%	
Tesoro Corp.	6.62	881609AS0	Sr Nt	11/1/2015	BB+	6.47	6.47	6.49	6.47	6.49	6.52	6.48	6.51	6.51	6.55	6.56	6.56	6.51%	6.56%
Whiting Petroleum Corp.	7	966387AE2	Sr Sub Nts	02/01/2014	BB+	6.54	6.54	6.55	6.57	6.58	6.60	6.61	6.55	6.54	6.66	6.60	6.68	6.59%	6.65%
Colorado Interstate Gas	6.85	196522AE6	Sr Deb	06/15/2037	BB	6.39	6.32	6.37	6.06	5.82	5.90	6.04	5.99	5.94	5.53	5.60	5.63	5.97%	5.59%
El Paso Natural Gas	8.62	283695AZ7	Deb	01/15/2022	BB	6.84	6.96	6.95	6.82	6.86	6.76	6.72	6.53	6.45	6.30	6.31	6.26	6.65%	6.29%
El Paso Natural Gas	7.5	283695BE3	Deb	11/15/2026	BB	6.27	6.38	6.54	6.24	6.23	6.19	6.07	5.74	5.77	5.58	5.59	5.65	6.02%	5.61%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Gas Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
El Paso Natural Gas	8.38	283695BK9	Sr Sub Nts	06/15/2032	BB	6.83	6.77	6.86	6.50	6.35	6.50	6.14	5.97	5.89	5.72	5.82	5.89	6.27%	5.81%
KN Energy	6.5	482620AN1	Deb	09/01/2013	BB	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50%	6.50%
KN Energy	6.67	482620AS0	Deb	11/01/2027	BB	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02%	7.02%
KN Energy	7.25	482620AW1	Sr Deb	03/01/2028	BB	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07%	7.07%
KN Energy	7.45	482620AX9	Sr Deb	03/01/2098	BB	7.84	7.84	7.84										7.84%	
Kinder Morgan Inc	5.15	494553AC4	Sr Nts	03/01/2015	BB	5.01	4.92	4.90	4.92	4.91	4.91	4.88	4.89	4.84	4.81	4.82	4.84	4.89%	4.82%
Range Resources Corp.	7.5	75281AAG4	Sr Sub Nts	05/15/2016	BB	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23%	7.23%
Range Resources Corp.	7.5	75281AAH2	Sr Sub Nts	10/01/2017	BB	7.10	7.07	7.10	7.14	7.14	7.17	7.17	7.21	7.22	7.22	7.22	7.22	7.17%	7.22%
Range Resources Corp.	7.25	75281AAJ8	Sr Sub Nts	05/01/2018	BB	6.80	6.77	6.82	6.83	6.83	6.82	6.82	6.83	6.85	6.87	6.90	6.90	6.84%	6.89%
Tennessee GasPipeline	7	880451AS8	Deb	03/15/2027	BB	6.04	6.15	6.30	5.75	5.65	5.51	5.39	5.30	5.33	5.13	5.15	5.16	5.57%	5.15%
Tennessee GasPipeline	7.5	880451AT6	Deb	04/01/2017	BB	6.28	6.36	6.35	6.29	6.26	6.29	6.26	6.11	6.12	6.02	6.02	6.09	6.20%	6.04%
Tennessee GasPipeline	7.62	880451AU3	Deb	04/01/2037	BB	6.52	6.41	6.47	6.16	5.99	6.11	5.73	5.61	5.59	5.28	5.34	5.38	5.88%	5.33%
Tennessee GasPipeline	7	880451AV1	Deb	10/15/2028	BB	6.17	6.14	6.25	5.73	5.66	5.58	5.43	5.29	5.30	5.10	5.06	5.12	5.57%	5.09%
Tennessee GasPipeline	8.38	880451AW9	Nts	06/15/2032	BB	6.83	6.77	7.00	6.40	6.28	6.43	6.11	5.97	5.95	5.72	5.76	5.82	6.25%	5.77%
Whiting Petroleum Corp.	7.25	966387AB8	Sr Sub Nts	05/01/2012	BB	7.25	7.25	7.25	7.25									7.25%	
Whiting Petroleum Corp.	7.25	966387AC6	Sr Sub Nts	05/01/2013	BB	7.12	7.12	7.12	7.12	7.10	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12%	7.12%
Chesapeake Energy Corp.	6.5	165167BS5	Sr Nts	08/15/2017	BB-	6.26	6.22	6.13	6.51	6.98	6.58	6.53	6.32	6.10	6.12	6.22	5.99	6.33%	6.11%
Chesapeake Energy Corp.	6.88	165167BU0	Sr Nts	11/15/2020	BB-	6.65	6.54	6.64	6.99	7.39	7.01	7.03	6.62	6.47	6.48	6.64	6.34	6.73%	6.49%
Chesapeake Energy Corp.	2.75	165167BW6	ontingent Sr Nt Cor	11/15/2035	BB-	2.84	2.75	2.74	2.98	3.16	2.97	2.99	2.94	2.83	2.85	2.89	2.87	2.90%	2.87%
Chesapeake Energy Corp.	7.62	165167BY2	Sr Nts	07/15/2013	BB-	7.22	7.19	7.22	7.33	7.58	7.40	7.36	7.36	7.33	7.36	7.36	7.40	7.34%	7.37%
Chesapeake Energy Corp.	2.5	165167BZ9	ontingent Sr Nt Cor	5/15/2037	BB-	2.82	2.68	2.67	2.92	3.10	2.87	2.86	2.80	2.75	2.70	2.79	2.78	2.81%	2.76%
Chesapeake Energy Corp.	2.5	165167CA3	r Contingent Conv N	5/15/2037	BB-	2.83	2.70	2.71	3.04	3.18	2.99	2.96	2.92	2.81	2.81	2.83	2.82	2.88%	2.82%
Chesapeake Energy Corp.	2.25	165167CB1	ontingent Sr Nt Cor	12/15/2038	BB-	2.81	2.82	2.77	2.90	3.03	2.78	2.81	2.76	2.72	2.69	2.77	2.78	2.80%	2.75%
Chesapeake Energy Corp.	7.25	165167CC9	Sr Nt	12/15/2018	BB-	6.79	6.65	6.80	7.21	7.63	7.12	7.07	6.92	6.68	6.80	6.83	6.65	6.93%	6.76%
El Paso Corp.	7.88	28336LAE9	Nts	06/15/2012	BB-	7.72	7.75	7.79	7.82	7.86								7.79%	
Plains Exploration & Production Comp.	7	726505AC4	SrNts	03/15/2017	BB-	6.76	6.76	6.79	6.77	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.76%	6.76%
Plains Exploration & Production Comp.	7.75	726505AD2	SrNts	06/15/2015	BB-	7.52	7.45	7.52	7.56	7.59	7.60	7.60	7.60	7.60	7.60	7.60	7.60	7.57%	7.60%
Swift Energy Co.	7.12	870738AF8	SrNts	06/01/2017	BB-	7.12	6.91	6.86	6.90	7.01	7.07	6.96	6.93	6.90	6.93	6.95	6.91	6.95%	6.93%
Ferrellgas,L.P./Finance	6.75	315292AD4	SrNts	05/01/2014	B+	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72%	6.72%
KCS Energy, Inc.	7.125	482434AF4	Sr Nts	04/01/2012	B+	7.13	7.13	7.13										7.13%	
Berry Petroleum Co.	8.25	085789AC9	Sr SubNts	11/01/2016	B	7.91	7.91	7.91	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92%	7.92%
Quicksilver Resources Inc.	7.12	74837RAC8	Sr Sub Nts	04/01/2016	B-	7.46	7.40	7.74	7.78	8.09	8.87	8.96	8.79	8.28	8.18	8.58	8.90	8.25%	8.55%
Quicksilver Resources Inc.	7.12	74837RAC8	Sr Sub Nts	04/01/2016	B-	7.46	7.40	7.74	7.78	8.09	8.87	8.96	8.79	8.28	8.18	8.58	8.90	8.25%	8.55%
Stone Energy Corp.	6.75	861642AG1	Sr Sub Nts	12/15/2014	CCC+	6.80	6.75	6.69	6.71	6.78	6.80	6.75	6.75	6.72	6.71	6.75	6.75	6.75%	6.74%
Atmos Energy Corp.	5.12	049560AC9	Sr Nts	01/15/2013	NR	4.93	4.93	4.95	4.97	4.99	5.00	5.02	5.03	5.03	5.03	5.03	5.02	4.99%	5.03%
Cimarex Energy Co.	7.12	171798AA9	SrNts	05/01/2017	NR	6.83	6.81	6.81	6.90	6.87	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.87%	6.88%
Colorado Interstate Gas	5.95	196522AH9	Sr Nts	03/15/2015	NR	5.56	5.54	5.57	5.56	5.57	5.58	5.61	5.60	5.47	5.42	5.43	5.45	5.53%	5.43%
Delta Natural Gas Co., Inc.	5.75	247748AG1	InsurQtrly Nts	04/01/2021	NR	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75%	5.75%
Delta Petroleum Corp.	7	247907AC2	Sr Nts	04/01/2015	NR	8.75	9.09	9.85	10.60	10.85	11.66	11.66	11.67	11.67	11.67	11.67	11.67	10.90%	11.67%
Delta Petroleum Corp.	3.75	247907AD0	Sr Nt Conv	5/1/2037	NR	4.67	4.67	5.00	5.13									4.87%	
Denbury Resources	7.5	24823UAE8	Sr Sub Nt	4/1/2013	NR	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49%	7.49%
Denbury Resources	7.5	24823UAF5	Gtd Sr Sub Nt	12/15/2015	NR	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23%	7.23%
Encore Acquisition	6	29255WAG5	Sr Sub Nt	7/15/2015	NR	5.94	5.92	6.03	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.95%	5.94%
Ferrellgas Partners L.P.	8.75	31529MAA6	Sr Nts	06/15/2012	NR	8.75	8.75	8.75	8.75	8.75								8.75%	
Forest Oil Corp.	7.75	346091AU5	Sr Nts	05/01/2014	NR	7.65	7.65	7.65	7.65	7.65	7.65	7.65	7.65	7.65	7.65	7.65	7.65	7.65%	7.65%
Houston Exploration Co. (The)	7	442120AE1	Sr Sub Nts	06/15/2013	NR	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00%	7.00%
Mariner Energy, Inc.	7.5	56845TAE7	Sr Nts	04/15/2013	NR	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22%	7.22%
Mariner Energy, Inc.	8	56845TAF4	Sr Nts	05/15/2017	NR	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02%	7.02%
Newfield Exploration Co.	6.62	651290AH1	Sr Sub Nts	09/01/2014	NR	6.52	6.54	6.53	6.55	6.55	6.55	6.55	6.55	6.55	6.55	6.55	6.55	6.55%	6.55%
Newfield Exploration Co.	6.62	651290AJ7	Sr Sub Nts	04/15/2016	NR	6.44	6.44	6.47	6.47	6.47	6.47	6.48	6.48					6.47%	
Offshore Logistics, Inc.	6.12	676255AL6	SrNts	06/15/2013	NR	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06%	6.06%
ONEOK, Inc.	6.4	682680AD5	Sr InsurNts	02/01/2019	NR	6.40	6.40	6.40	6.40	6.40	6.39	6.39	6.40	6.40	6.40	6.40	6.40	6.40%	6.40%
Piedmont Natural Gas Co., Inc.	6.25	720186AF2	InsurQtrly Nts	06/01/2036	NR	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25%	6.25%
Pioneer Natural Resources Co.	7.2	723787AB3	Sr Nts	01/15/2028	NR	6.12	5.80	5.85	5.97	5.87	5.85	5.72	5.66	5.73	5.59	5.59	5.64	5.78%	5.61%
Quicksilver Resources Inc.	1.88	74837RAB0	Sr Deb Conv	11/1/2024	NR	1.87	1.87	1.87										1.87%	
Range Resources Corp.	7.38	75281AAB5	Sr Sub Nts	07/15/2013	NR	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30%	7.30%
Rentech, Inc.	4	760112AA0	Sr Nt Conv	4/15/2013	NR	4.15	4.04	4.07	4.06	4.06	4.01	4.02	4.00	4.06	4.00	4.00	4.06	4.04%	4.02%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Gas Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Southern Natural Gas	7.35	843452AY9	Nts	02/15/2031	NR	6.40	6.44	6.49	6.19	6.07	5.95	5.88	5.71	5.76	5.33	5.39	5.51	5.93%	5.41%
Sun Co	6.75	866762AG2	Conv Sub Deb	6/15/2012	NR	3.59	3.49	3.52	3.36									3.49%	
Sun Co	9	866762AK3	Deb	11/01/2024	NR	6.77	6.82	6.97	6.83	6.88	7.16	7.07	7.08	7.08	7.15	7.17		7.00%	7.16%
TEPPCO Partners, L.P.	6.125	872384AB8	Sr Nts	02/01/2013	NR	5.85	5.87	5.89	5.91	5.93	5.95	5.98	6.00	6.02	6.05	6.06	6.09	5.97%	6.07%
			Counts of data			252	251	247	239	234	231	231	228	225	223	222	221	253	223

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
AAA's	5.03%	4.73%
AA's	5.86%	5.87%
A's	5.73%	5.61%
BBB's	5.85%	5.61%
BB's	6.14%	5.86%
B's	7.65%	7.94%
CCC's	6.75%	6.74%
NR's	6.31%	6.60%
ALL	5.91%	5.76%
BBB- & Above	5.76%	5.57%
BB- & Above	5.82%	5.62%

**Investment Grade (BBB- & Above)*

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Gas Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
XTO Energy Inc.	7.5	98385XAA4	Sr Nts	04/15/2012	AAA	0.40	1.49											0.95%	
XTO Energy Inc.	6.25	98385XAC0	Sr Nts	04/15/2013	AAA	0.72	0.81	0.82	0.81	0.78	0.76	0.70	0.77	0.66	0.85	0.67	0.79	0.76%	0.77%
XTO Energy Inc.	4.9	98385XAD8	Sr Nts	02/01/2014	AAA	0.68	0.80	0.90	0.78	0.53	0.52	0.43	0.44	0.43	0.46	0.40	0.41	0.57%	0.42%
XTO Energy Inc.	5.3	98385XAG1	Sr Nts	06/30/2015	AAA	0.96	1.09	1.19	1.05	1.06	1.07	0.95	0.48	0.46	0.51	0.66	0.65	0.84%	0.61%
XTO Energy Inc.	5.65	98385XAH9	Sr Nts	04/01/2016	AAA	0.98	1.11	1.18	0.79	0.72	0.72	0.73	0.67	0.69	0.75	0.70	0.74	0.82%	0.73%
XTO Energy Inc.	6.1	98385XAJ5	Sr Nts	04/01/2036	AAA	3.78	3.84	4.06	3.89	3.62	3.57	3.41	3.31	3.53	3.43	3.42	3.52	3.62%	3.46%
XTO Energy Inc.	5.9	98385XAK2	Sr Nts	08/01/2012	AAA	0.71	0.71	0.61	0.86	0.76	0.53							0.70%	
XTO Energy Inc.	6.25	98385XAL0	Sr Nts	08/01/2017	AAA	1.48	1.51	1.68	1.41	1.34	1.40	1.25	1.19	1.21	0.92	0.88	0.92	1.27%	0.91%
XTO Energy Inc.	6.75	98385XAM8	Sr Nts	08/01/2037	AAA	3.68	3.59	3.81	3.64	3.37	3.42	3.26	3.36	3.58	3.34	3.33	3.43	3.48%	3.37%
XTO Energy Inc.	4.62	98385XAN6	Sr Nts	06/15/2013	AAA	0.66	0.75	0.78	0.74	0.73	0.72	0.64	0.67	0.62	0.74	0.64	0.68	0.70%	0.69%
XTO Energy Inc.	5.5	98385XAP1	Sr Nts	06/15/2018	AAA	1.69	1.72	1.93	1.59	1.52	1.53	1.24	1.18	1.13	1.18	1.14	1.17	1.42%	1.16%
XTO Energy Inc.	6.38	98385XAQ9	Sr Nts	06/15/2038	AAA	3.78	3.84	4.01	3.84	3.54	3.49	3.33	3.36	3.58	3.48	3.47	3.57	3.61%	3.51%
Northern IllinoisGas	6.58	665228BQ4	1st	02/15/2028	AA	4.62	4.62	4.51	4.34	4.07	4.02	3.91	3.94	4.12	4.02	4.01	4.17	4.20%	4.07%
Northern IllinoisGas	7.2	665228BV3	1st	05/15/2016	AA	1.83	1.92	2.08	1.81	1.74	1.79	1.70	1.65	1.67	1.73	1.69	1.62	1.77%	1.68%
Texaco Capital	9.75	881685AN1	GtdDeb	03/15/2020	AA	3.44	3.52	3.23	2.98	2.93	2.91	2.66	2.68	2.76	2.71	2.76	3.03	2.97%	2.83%
Texaco Capital	8.875	881685AV3	GtdDeb	09/01/2021	AA	3.44	3.52	3.28	3.02	2.98	2.96	2.71	2.72	2.81	2.76	2.81	2.86	2.99%	2.81%
Texaco Capital	8.625	881685AX9	GtdDeb	11/15/2031	AA	4.08	4.14	4.26	4.19	4.07	4.02	3.78	3.81	3.98	3.89	3.93	4.03	4.02%	3.95%
Texaco Capital	8.625	881685AY7	GtdDeb	04/01/2032	AA	4.08	4.14	4.36	4.21	4.09	4.04	3.80	3.83	4.00	3.91	3.95	4.05	4.04%	3.97%
Texaco Capital	8	881685BB6	GtdDeb	08/01/2032	AA	4.58	4.64	4.36	4.21	4.09	3.99	3.75	3.78	3.95	3.86	3.90	4.00	4.09%	3.92%
Texaco Capital	7.5	881685BD2	GtdDeb	03/01/2043	AA	6.93	6.96	6.92	6.95	6.99	7.01	7.04	7.08	7.10	7.14	7.17	7.20	7.04%	7.17%
Northwest Natural Gas	9.05	66765RAA4	Sec M-T Nts A	08/13/2021	A+	3.14	3.17	3.43	3.16	2.97	2.94	2.83	2.84	2.99	2.93	2.93	3.04	3.03%	2.97%
Northwest Natural Gas	8.26	66765RAT3	Sec M-T Nts B	09/21/2014	A+	1.26	1.31	1.34	1.29	1.29	1.34	1.30	1.32	1.26	1.33	1.27	1.12	1.29%	1.24%
Northwest Natural Gas	7	66765RAY2	Sec M-T Nts B	08/01/2017	A+	2.03	2.12	2.33	2.06	1.99	2.04	1.95	1.89	1.92	1.98	1.94	1.97	2.02%	1.96%
Northwest Natural Gas	7.63	66765RBF2	Sec M-T Nts B	12/09/2019	A+	2.94	2.97	3.23	2.96	2.77	2.75	2.63	2.64	2.79	2.73	2.72	2.64	2.81%	2.70%
Atlantic Richfield	9	048825AW3	Deb	04/01/2021	A	4.69	4.77	4.63	4.36	4.22	4.23	4.06	4.07	4.05	3.69	3.69	3.72	4.18%	3.70%
Atlantic Richfield	9	048825AY9	Deb	05/01/2031	A	5.88	5.89	5.56	5.39	5.17	5.17	5.01	5.04	5.22	4.78	4.77	4.85	5.23%	4.80%
Atlantic Richfield	9.125	048825AZ6	Deb	08/01/2031	A	5.83	5.84	5.56	5.39	5.17	5.17	5.01	5.04	5.22	4.68	4.72	4.80	5.20%	4.73%
Atlantic Richfield	8.25	048825BA0	Deb	02/01/2022	A	3.94	3.97	4.08	3.81	3.67	3.68	3.51	3.52	3.70	3.48	3.59	3.62	3.71%	3.56%
Atlantic Richfield	8.75	048825BB8	Deb	03/01/2032	A	5.43	5.44	5.56	5.39	5.17	5.17	5.01	5.04	5.22	4.68	4.72	4.80	5.14%	4.73%
Atlantic Richfield	8.5	048825BC6	Deb	04/01/2012	A	1.83	1.93											1.88%	
Burlington Resources Inc.	9.125	122014AE3	Deb	10/01/2021	A	3.58	3.66	3.92	3.67	3.71	3.89	3.72	3.73	3.87	3.84	3.89	3.94	3.79%	3.89%
Burlington Resources Inc.	8.2	122014AH6	Deb	03/15/2025	A	4.89	4.87	5.13	4.88	4.24	3.92	3.75	3.76	3.93	3.93	3.99	4.02	4.28%	3.98%
Burlington Resources Inc.	6.875	122014AJ2	Deb	02/15/2026	A	4.59	4.67	4.93	4.68	4.72	3.97	3.80	3.81	3.95	3.98	4.04	4.07	4.27%	4.03%
Burlington Resources Inc.	7.375	122014AL7	Deb	03/01/2029	A	4.78	4.82	4.96	4.81	4.75	4.47	4.25	4.28	4.50	4.30	4.34	4.42	4.56%	4.35%
Burlington Resources Fin	7.2	12201PAB2	Gtd Nt	8/15/2031	A	4.46	4.47	4.59	4.37	4.22	4.30	4.03	4.01	4.24	4.05	4.02	4.02	4.23%	4.03%
Conoco Inc	6.95	208251AE8	Nts	04/15/2029	A	4.05	3.99	4.06	4.00	3.96	3.89	3.53	3.59	3.81	3.42	3.60	3.70	3.80%	3.57%
ConocoPhillips	4.75	20825CAE4	Nts	10/15/2012	A	0.37	0.47	0.48	0.55	0.67	0.67	0.65	1.03					0.61%	
ConocoPhillips	5.9	20825CAF1	Nts	10/15/2032	A	4.18	4.24	4.29	4.07	4.14	3.97	3.80	3.76	3.88	3.57	3.61	3.85	3.95%	3.68%
Conoco Funding	7.25	20825UAC8	Sr Nt	10/15/2031	A	4.46	4.29	4.41	4.17	4.13	3.93	3.59	3.66	3.89	3.70	3.57	3.67	3.96%	3.65%
Louisiana Land/Exp	7.625	546268AF0	Deb	04/15/2013	A	1.02	1.12	0.88	0.92	1.06	1.08	1.02	1.12	0.92	1.14	0.97	1.12	1.03%	1.08%
Louisiana Land/Exp	7.65	546268AG8	Deb	12/01/2023	A	4.37	4.39	4.43	4.18	4.22	4.32	4.15	4.16	4.30	4.23	4.34	4.37	4.29%	4.31%
Michigan Consol Gas	8.25	594457BD4	1st	05/01/2014	A	2.02	2.11	2.14	2.09	2.10	1.39	1.31	1.18	1.15	1.23	1.16	1.17	1.59%	1.19%
Michigan Consol Gas	7.06	594457BH5	Sec M-T Nts 'B'	05/01/2012	A	1.64	1.73	0.75										1.37%	
Michigan Consol Gas	5.7	594457BT9	Sr Nts	03/15/2033	A	4.48	4.74	4.96	4.79	4.52	4.42	4.63	3.91	4.18	4.08	4.17	4.42	4.44%	4.22%
Michigan Consol Gas	5	594457BU6	Sr Nts'E'	10/01/2019	A	2.99	3.07	3.33	3.06	2.87	2.80	2.68	2.41	2.60	2.53	2.44	2.49	2.77%	2.49%
Occidental Petroleum Corp.	9.25	674599BE4	Sr Deb	08/01/2019	A	3.54	3.61	3.87	3.61	3.41	3.39	3.22	3.17	3.30	2.14	2.14	2.20	3.13%	2.16%
Occidental Petroleum Corp.	7.2	674599BM6	Sr Deb	04/01/2022	A	4.43	4.59	4.81	4.64	4.37	4.69	4.53	4.56	4.38	4.28	4.27	4.67	4.52%	4.41%
Occidental Petroleum Corp.	8.45	674599BT1	Sr Nts	02/15/2029	A	4.76	4.81	5.03	4.86	4.74	4.69	4.53	4.56	4.63	4.53	4.52	4.77	4.70%	4.61%
Occidental Pete Corp Med Term	8.75	67461FED5	'N Tranche # Tr 001	1/15/2023	A	4.69	4.76	5.02	4.75	4.56	4.52	4.15	4.16	4.15	3.98	3.99	3.74	4.37%	3.90%
Occidental Petro	8.75	67461FED5	Sr Nts	01/15/2023	A	4.69	4.76	5.02	4.75	4.56	4.52	4.15	4.16	4.15	3.98	3.99	3.74	4.37%	3.90%
Phillips Petroleum	6.65	718507BH8	Deb	07/15/2018	A	2.44	2.42	2.63	2.38	2.58	2.20	2.05	1.99	2.02	1.52	1.53	1.57	2.11%	1.54%
Phillips Petroleum	7	718507BK1	Deb	03/30/2029	A	4.53	4.59	4.81	4.66	4.44	4.32	4.16	4.19	4.41	4.10	4.14	4.10	4.37%	4.11%
Piedmont Natural Gas Co., Inc.	5	720186AD7	Nts'E'	12/19/2013	A	1.51	1.56	1.60	1.53	1.54	1.60	1.50	1.51	1.45	1.51	1.42	1.33	1.51%	1.42%
Piedmont Natural Gas Co., Inc.	6	720186AE5	Nts'E'	12/19/2033	A	4.68	4.69	4.91	4.74	4.47	4.42	4.43	4.46	4.63	4.53	4.52	4.67	4.60%	4.57%
Piedmont Natural Gas	7.95	72018QAG6	M-T Nts'C'	09/14/2029	A	4.68	4.69	4.91	4.74	4.46	4.42	4.38	4.41	4.58	4.48	4.47	4.57	4.57%	4.51%
Western Atlas Inc	8.55	957674AD6	Deb	06/15/2024	A	3.87	3.90	4.21	3.94	3.93	3.94	3.77	3.78	3.70	3.43	3.64	3.67	3.82%	3.58%
ANR Pipeline	7.38	001814AQ5	Deb	02/15/2024	A-	4.30	4.29	4.58	4.23	4.11	4.10	3.90	3.90	3.82	3.62	3.68	3.68	4.02%	3.66%
ANR Pipeline	9.62	001814AR3	Deb	11/01/2021	A-	3.86	3.52	3.88	3.56	3.34	3.33	3.15	3.11	3.40	2.79	3.24	2.97	3.35%	3.00%
ANR Pipeline	7	001814AS1	Deb	06/01/2025	A-	4.39	4.42	4.71	4.40	4.27	4.26	4.05	4.05	4.05	4.05	4.05	4.05	4.23%	4.05%
Apache Corp.	7.7	037411AJ4	Nts	03/15/2026	A-	4.18	3.90	4.18	3.98	4.01	3.92	3.67	3.70	3.78	3.65	3.76	3.99	3.89%	3.80%
Apache Corp.	7.95	037411AK1	Nts	04/15/2026	A-	4.18	3.80	3.96	3.70	3.73	3.64	3.39	3.42	3.58	3.45	3.56	3.89	3.69%	3.63%
Apache Corp.	7.625	037411AL9	Deb	11/01/2096	A-	5.00	5.20	5.46	5.46	5.39	5.27	5.01	5.06	5.13	4.95	4.99	5.26	5.18%	5.07%
Apache Corp.	7.38	037411AM7	Deb	08/15/2047	A-	4.52	4.56	4.75	4.98	4.93	4.81	4.45	4.50	4.63	4.33	4.42	4.80	4.64%	4.52%
Apache Corp.	7	037411AN5	Sr Nts	02/01/2018	A-	2.36	2.45	2.58	2.38	2.51	2.50	2.27	2.14	2.04	2.07	2.08	2.30	2.31%	2.15%
Apache Corp.	7.62	037411AP0	Sr Nts	07/01/2019	A-	3.12	3.15	3.43	3.23	3.26	3.17	2.96	2.78	2.33	2.24	2.29	2.42	2.87%	2.32%
Apache Corp.	6.25	037411AQ8	Nts	04/15/2012	A-	0.74	0.74											0.74%	
Apache Corp.	6	037411AR6	Nts	01/15/2037	A-	4.21	4.12	4.49	4.47	4.41	4.24	3.93	3.84	3.97	3.73	3.92	4.24	4.13%	3.96%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Gas Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Apache Corp.	5.62	037411AS4	Nts	01/15/2017	A-	1.55	1.64	1.83	1.53	1.59	1.58	1.27	1.21	1.09	0.98	1.04	1.26	1.38%	1.09%
Apache Corp.	5.25	037411AT2	Nts	04/15/2013	A-	0.47	0.51	0.56	0.61	0.81	0.78	0.48	0.55	0.43	0.53	0.42	0.70	0.57%	0.55%
Consolidated Nat Gas	6.62	209615BN2	Deb	12/01/2013	A-	1.86	1.96	1.99	1.94	1.95	1.94	1.91	1.92	1.90	1.33	1.25	1.27	1.77%	1.28%
Consolidated Nat Gas	6.88	209615BQ5	Deb	10/15/2026	A-	5.19	5.27	5.53	5.18	4.99	4.92	4.80	4.81	5.00	4.93	4.94	4.99	5.05%	4.95%
Consolidated Nat Gas	6.8	209615BS1	Deb	12/15/2027	A-	5.19	5.27	5.53	5.18	4.99	4.92	4.80	4.81	5.00	4.93	4.94	4.99	5.05%	4.95%
EOG Resources, Inc.	5.88	26875PAA9	Sr Nts	09/15/2017	A-	2.03	2.02	2.13	1.86	1.79	1.90	1.50	1.39	1.36	1.42	1.23	1.27	1.66%	1.31%
Enron Oil & Gas	6.65	293562AD6	Nts	04/01/2028	A-	4.38	4.34	4.71	4.54	4.34	4.24	4.13	4.16	4.43	4.08	4.07	4.17	4.30%	4.11%
KeySpan Corp.	8	49337WAC4	Nts	11/15/2030	A-	5.28	5.34	5.21	5.04	4.77	4.67	4.73	4.71	4.98	4.78	4.77	4.87	4.93%	4.81%
KeySpan Corp.	4.65	49337WAG5	Nts	04/01/2013	A-	1.81	1.91	0.99	0.96	1.00	0.89	0.83	0.89	0.75	0.85	0.53	0.63	1.00%	0.67%
KeySpan Corp.	5.88	49337WAH3	Nts	04/01/2033	A-	4.63	4.94	5.16	4.89	4.62	4.52	4.68	4.71	4.98	4.78	4.77	4.72	4.78%	4.76%
Atmos Energy Corp.	6.75	049560AA3	Deb	07/15/2028	BBB+	4.43	4.44	4.66	4.49	4.22	4.12	4.01	4.04	4.23	4.13	4.12	4.22	4.26%	4.16%
Atmos Energy Corp.	4.95	049560AF2	Sr Nts	10/15/2014	BBB+	1.31	1.36	1.40	1.32	1.34	1.35	1.30	1.00	1.00	0.90	0.86	0.90	1.17%	0.89%
Atmos Energy Corp.	5.95	049560AG0	Sr Nts	10/15/2034	BBB+	4.58	4.54	4.76	4.59	4.32	4.22	4.11	4.06	4.28	4.18	4.17	4.27	4.34%	4.21%
Atmos Energy Corp.	6.35	049560AH8	Sr Nts	06/15/2017	BBB+	2.57	2.66	2.87	2.60	2.53	2.35	2.25	1.69	1.76	1.47	1.43	1.47	2.14%	1.46%
Canadian Natural Resources Limited	5.45	136385AD3	Nt	10/1/2012	BBB+	1.00	0.85	0.82	0.82	0.87	0.81	0.73						0.84%	
Canadian Natural Resources Limited	6.45	136385AE1	Nt	6/30/2033	BBB+	4.53	4.59	4.76	4.64	4.54	4.61	4.58	4.33	4.50	4.18	4.37	4.37	4.50%	4.31%
Cascade Natural Gas Corp.	5.25	147339AJ4	Nts	02/01/2035	BBB+	5.53	5.54	5.31	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.30%	5.24%
Devon Fin Corp	7.95	251799AA0	Sr Deb	04/15/2032	BBB+	4.68	4.54	4.76	4.61	4.81	4.56	4.25	4.24	4.41	4.03	4.24	4.27	4.45%	4.18%
ENSCO International Inc.	7.2	26874QAB6	Deb	11/15/2027	BBB+	6.23	6.29	6.51	5.36	5.14	4.87	4.71	4.74	4.96	4.50	4.42	4.46	5.18%	4.46%
OceanEnergy	8.25	674812AK8	Sr Nts 'B'	07/01/2018	BBB+	3.09	3.18	3.43	3.22	3.41	3.42	3.23	3.17	3.20	3.27	2.90	2.91	3.20%	3.03%
Southwest Gas Corp.	8	844895AL6	Deb	08/01/2026	BBB+	4.44	4.47	4.68	4.41	4.22	4.20	4.08	4.09	4.24	4.17	4.13	3.99	4.26%	4.10%
Amerada Hess Corp.	7.875	023551AF1	Nts	10/01/2029	BBB	4.83	4.72	4.98	4.92	5.19	5.14	4.99	4.92	4.78	4.22	4.47	4.52	4.81%	4.40%
Amerada Hess Corp.	7.3	023551AJ3	Nts	08/15/2031	BBB	4.85	4.78	5.04	4.97	5.19	5.14	4.98	4.87	4.87	4.33	4.44	4.52	4.83%	4.43%
Buckeye Partners, L.P.	5.12	118230AE1	Fixed Rt Nts	07/01/2017	BBB	3.58	3.72	3.93	3.38	3.37	3.41	3.26	3.20	3.27	3.31	3.28	3.31	3.42%	3.30%
Enbridge Energy Partners, L.P.	4.75	29250RAC0	Sr Nts 'B'	06/01/2013	BBB	1.66	1.63	1.11	1.22	1.29	1.16	0.85	0.88	0.75	1.44	1.37	1.41	1.23%	1.41%
Enbridge Energy Partners, L.P.	5.95	29250RAD8	Sr Nts 'B'	06/01/2033	BBB	5.28	5.10	5.26	5.09	4.90	4.85	4.68	5.11	5.33	4.73	4.77	5.07	5.01%	4.86%
Enbridge Energy Partners, L.P.	5.88	29250RAH9	Nt	12/15/2016	BBB	2.49	2.54	2.48	2.36	2.34	2.35	2.35	1.95	1.75	1.48	1.71	1.77	2.13%	1.65%
Energen Corp MTN BE	7.32	29265AAP1	N Tranche # Tr 000	7/28/2022	BBB	4.42	4.44	4.70	4.43	4.24	4.22	4.10	4.11	4.26	4.19	4.20	4.24	4.30%	4.21%
Energen Corp.	5	29265NAQ1	Nts	10/01/2013	BBB	3.11	3.16	3.20	3.12	3.14	2.80	2.75	2.75	2.79	2.80	2.79	2.42	2.90%	2.67%
Enterprise Products Oper	6.375	293791AD1	Sr Nts 'B'	02/01/2013	BBB	1.18	1.09	1.13	1.19	1.36	1.27	1.22	1.31	1.04	1.24	1.10		1.19%	1.17%
Enterprise Products Oper	5.6	293791AN9	Sr Nts'B'	10/15/2014	BBB	1.75	1.61	1.41	1.28	1.34	1.29	1.07	1.04	0.95	0.94	0.87	0.93	1.21%	0.91%
Enterprise Products Oper	6.65	293791AP4	Sr Nts'B'	10/15/2034	BBB	5.29	5.06	5.14	4.96	4.99	4.99	4.80	4.69	4.85	4.59	4.76	4.87	4.92%	4.74%
Enterprise Products Oper	5	293791AR0	Sr Nts'B'	03/01/2015	BBB	1.93	1.91	1.59	1.34	1.51	1.45	1.36	1.30	0.98	1.09	1.24	1.16	1.41%	1.16%
Enterprise Products Oper	5.75	293791AT6	Sr Nts'B'	03/01/2035	BBB	5.24	5.04	5.19	5.11	5.09	4.98	4.74	4.74	4.74	4.56	4.75	4.72	4.91%	4.68%
Equitable Resources, Inc.	7.75	294549AE0	Deb	07/15/2026	BBB	5.64	5.72	5.93	5.58	5.39	5.32	5.10	5.01	5.20	5.03	4.94	4.84	5.31%	4.94%
Kinder Morgan Energy Partners, L.P.	7.4	494550AJ5	Nts	03/15/2031	BBB	5.84	5.74	5.88	5.85	5.54	5.47	5.29	5.14	5.20	4.59	4.92	4.87	5.36%	4.79%
Kinder Morgan Energy Partners, L.P.	7.125	494550AK2	Nts	03/15/2012	BBB	1.25	7.13											4.19%	
Kinder Morgan Energy Partners, L.P.	7.75	494550AL0	Nts	03/15/2032	BBB	5.86	5.74	5.88	5.85	5.87	5.62	5.44	5.26	5.32	4.64	4.86	4.94	5.44%	4.81%
Kinder Morgan Energy Partners, L.P.	7.3	494550AQ9	Sr Nts	08/15/2033	BBB	5.92	5.74	5.78	5.83	5.87	5.62	5.44	5.21	5.27	4.64	4.85	4.93	5.43%	4.81%
Kinder Morgan Energy Partners, L.P.	5	494550AR7	Sr Nts	12/15/2013	BBB	1.77	1.79	1.32	1.34	1.55	1.54	1.01	1.02	0.93	0.87	1.00	1.01	1.26%	0.96%
Kinder Morgan Energy Partners, L.P.	6	494550AU0	Sr Nt	2/1/2017	BBB	2.88	2.42	2.67	2.36	2.49	2.40	2.33	2.09	1.77	1.52	1.68	1.72	2.19%	1.64%
Kinder Morgan Energy Partners, L.P.	6.5	494550AV8	Sr Nt	2/1/2037	BBB	5.86	5.59	5.69	5.54	5.58	5.57	5.25	5.11	5.05	4.56	4.88	4.92	5.30%	4.79%
Kinder Morgan Energy Partners, L.P.	6.95	494550AW6	Sr Nt	1/15/2038	BBB	5.88	5.64	5.81	5.64	5.69	5.49	5.20	5.15	5.06	4.63	5.02	4.77	5.33%	4.81%
Lakehead Pipe Line Co	7	511546AA1	Sr Nts	10/01/2018	BBB	3.93	3.99	4.13	3.70	3.69	3.67	3.45	3.34	3.38	3.44	3.31	3.13	3.60%	3.29%
Lakehead Pipe Line Co	7.12	511546AB9	Sr Nts	10/01/2028	BBB	4.78	4.86	5.06	4.81	4.59	4.54	4.48	4.44	4.80	4.64	4.64	4.64	4.69%	4.64%
Lakehead Pipe Line Co	7.9	511546AE3	Sr Nts	11/21/2012	BBB	1.85	1.87	1.74	1.90	1.92	1.74	1.68	1.94	1.43				1.79%	
Marathon Oil Corp.	6.125	565849AA4	Nts	03/15/2012	BBB	0.55	0.55											0.55%	
Marathon Oil Corp.	6.8	565849AB2	Nts	03/15/2032	BBB	5.13	4.94	5.06	4.92	4.62	4.57	4.41	4.44	4.66	4.29	4.28	4.38	4.64%	4.32%
Murphy Oil Corp.	7.05	626717AA0	Nts	05/01/2029	BBB	5.28	5.34	5.61	5.44	5.49	5.31	5.15	5.01	5.23	5.13	5.07	4.97	5.25%	5.06%
Murphy Oil Corp.	6.38	626717AB8	Nts	05/01/2012	BBB	1.48	1.50	1.30										1.43%	
National Fuel Gas Co.	5.25	636180BE0	Nts	03/01/2013	BBB	1.62	1.62	1.57	1.29	1.31	1.26	0.79	0.88	0.86	0.74	0.56	0.79	1.11%	0.70%
Northwest Pipeline	7.12	667748AF4	Deb	12/01/2025	BBB	4.54	4.37	4.48	4.13	3.99	4.02	3.90	3.91	4.10	3.88	3.94	3.99	4.10%	3.94%
Northwest Pipeline	7	667748AM9	Sr Nts	06/15/2016	BBB	2.43	2.47	2.68	2.41	2.39	2.30	2.05	1.80	1.86	1.57	1.49	1.53	2.08%	1.53%
ONEOK, Inc.	6.5	682680AA1	Sr InsurNts	09/30/2028	BBB	6.73	6.74	6.51	6.49	6.49	6.49	6.49	6.49	6.49	6.49	6.49	6.49	6.53%	6.49%
ONEOK, Inc.	6.88	682680AB9	Deb	09/30/2028	BBB	5.43	5.49	5.61	5.39	5.39	5.29	5.13	5.16	5.43	4.83	4.82	4.92	5.24%	4.86%
ONEOK, Inc.	5.2	682680AM5	Nts	06/15/2015	BBB	2.20	2.18	2.28	1.94	2.26	2.18	1.89	1.85	1.89	1.59	1.66	1.65	1.96%	1.63%
ONEOK, Inc.	6	682680AN3	Nts	06/15/2035	BBB	5.53	5.49	5.66	5.29	5.49	5.29	5.13	5.13	5.40	4.73	4.72	4.82	5.22%	4.76%
ONEOK Partners, L.P.	5.9	68268NAA1	Gtd Sr Nt	4/1/2012	BBB	1.33	1.08											1.21%	
ONEOK Partners, L.P.	6.15	68268NAB9	Gtd Sr Nt	10/1/2016	BBB	2.53	2.67	2.58	2.41	2.24	2.20	1.95	1.89	1.86	1.42	1.58	1.62	2.08%	1.54%
ONEOK Partners, L.P.	6.65	68268NAC7	Gtd Sr Nt	10/1/2036	BBB	5.08	5.14	5.46	5.31	5.34	5.34	5.28	5.21	5.35	4.53	4.82	4.92	5.15%	4.76%
Plains All American Pipeline, L.P.	7.75	726503AD7	Sr Nts	10/15/2012	BBB	2.19												2.19%	
Plains All Amer/PAA Fin	5.25	72650RAJ1	Sr Nts	06/15/2015	BBB	2.37	1.93	1.88	1.84	2.01	1.98	1.81	1.77	1.76	1.81	1.78	1.77	1.89%	1.79%
Plains All Amern Pipeline L P	6.7	72650RAM4	Sr Nt	5/15/2036	BBB	5.48	5.39	5.44	5.22	5.74	5.41	4.88	4.76	4.85	4.52	4.62	4.72	5.09%	4.62%
Talisman Energy Inc.	7.25	87425EAE3	Deb	10/15/2027	BBB	5.08	5.12	5.28	5.03	4.94	4.87	4.65	4.59	4.96	4.39	4.38	4.68	4.83%	4.48%
Transcont'l Gas PipeLine	7.08	893570BL4	Deb	07/15/2026	BBB	5.39	5.12	5.23	4.93	4.79	4.67	4.55	4.56	4.25	3.88	3.94	3.99	4.61%	3.94%
Transcont'l Gas PipeLine	7.25	893570BM2	Deb	12/01/2026	BBB	4.64	4.37	4.43	4.18	4.04	3.97	3.85	4.06	3.55	3.18	3.24	3.29	3.90%	3.24%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Gas Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Transcont'l Gas PipeLine	8.88	893570BT7	Sr Nts'B'	07/15/2012	BBB	0.90	0.99	0.86	1.00	0.75								0.90%	
Transcont'l Gas PipeLine	6.4	893570BW0	Sr Nt	4/15/2016	BBB	2.18	2.22	2.08	1.86	1.89	2.17	2.05	1.70	1.71	1.42	1.43	1.47	1.85%	1.44%
USX Corp.	9.375	902905AL2	Deb	05/15/2022	BBB	4.81	4.88	5.14	4.90	4.79	4.75	4.58	4.59	4.73	4.66	4.67	4.72	4.77%	4.68%
USX Corp.	9.125	902905AM0	Deb	01/15/2013	BBB	2.24	2.29	2.17	2.22	2.19	2.14	1.66	1.86	1.56	2.02	1.46		1.98%	1.74%
USX Corp.	8.5	902905AN8	Deb	03/01/2023	BBB	4.31	4.38	4.64	4.40	4.29	4.25	4.30	4.31	4.45	4.38	4.39	4.44	4.38%	4.40%
USX Corp.	8.125	902905AQ1	Deb	07/15/2023	BBB	4.32	4.38	4.64	4.40	4.29	4.25	4.15	4.16	4.30	4.23	4.24	4.29	4.30%	4.25%
Valero Energy	6.7	919138AD9	Sr Nts	01/15/2013	BBB	1.11	1.14	1.04	1.07	1.16	1.13	1.08	1.28	1.06	1.42	1.00		1.14%	1.21%
Valero Energy Corp. (New)	8.75	91913YAB6	Nts	06/15/2030	BBB	6.24	6.34	6.56	6.48	6.45	6.40	6.24	6.32	6.32	5.37	5.36	5.46	6.13%	5.40%
Valero Energy Corp. (New)	6.875	91913YAD2	Nts	04/15/2012	BBB	1.08	1.20											1.14%	
Valero Energy Corp. (New)	7.5	91913YAE0	Nts	04/15/2032	BBB	6.25	6.07	6.01	6.06	6.02	6.05	5.48	5.36	5.58	4.92	5.12	5.16	5.67%	5.07%
Valero Energy Corp. (New)	4.75	91913YAG5	Nts	06/15/2013	BBB	1.43	1.52	1.55	1.50	1.64	1.63	1.01	1.09	1.04	0.65	0.55	0.60	1.18%	0.60%
Valero Energy Corp. (New)	4.75	91913YAK6	Sr Nts	04/01/2014	BBB	1.78	1.86	1.70	1.62	1.78	1.79	1.40	1.45	1.45	1.50	1.46	1.41	1.60%	1.46%
Valero Energy Corp. (New)	6.62	91913YAL4	Nts	06/15/2037	BBB	6.03	5.67	5.85	5.99	5.94	5.75	5.22	5.13	5.12	4.88	5.11	4.97	5.47%	4.99%
Valero Energy Corp. (New)	6.12	91913YAM2	Nts	06/15/2017	BBB	3.08	2.77	3.03	2.56	2.73	2.60	2.15	1.94	1.53	1.37	1.53	1.65	2.25%	1.52%
Williams Ptns L P	7.25	96950HAD2	Sr Nt	2/1/2017	BBB	2.93	2.62	2.78	2.48	2.64	2.85	2.50	2.19	2.16	1.62	1.83	1.77	2.36%	1.74%
Anadarko Petroleum Corp.	7.25	032511AH0	Deb	03/15/2025	BBB-	4.63	4.57	4.76	4.83	5.10	5.11	4.74	4.76	4.76	4.49	4.66	4.79	4.77%	4.65%
Anadarko Petroleum Corp.	7.73	032511AJ6	Deb	09/15/2096	BBB-		6.03	6.49	6.46	6.39	6.56	6.28	6.32	6.40	6.14	6.29	6.42	6.34%	6.28%
Anadarko Petroleum Corp.	7.25	032511AK3	Deb	11/15/2096	BBB-	6.15	5.98	6.39	6.34	6.25	6.41	6.11	6.15	6.23	6.02	6.17	6.50	6.23%	6.23%
Anadarko Petroleum Corp.	7	032511AL1	Deb	11/15/2027	BBB-	5.36	5.16	6.15	6.12	6.31	6.29	5.93	5.97	6.05	5.75	5.91	6.04	5.92%	5.90%
Anadarko Petroleum Corp.	6.62	032511AM9	Deb	01/15/2028	BBB-	5.70	5.50	5.65	5.62	5.81	5.79	5.43	5.46	5.54	5.24	5.39	5.57	5.56%	5.40%
Anadarko Petroleum Corp.	7.2	032511AN7	Deb	03/15/2029	BBB-	5.45	5.25	5.40	5.68	5.87	5.85	5.49	5.43	5.51	5.00	5.15	5.32	5.45%	5.16%
Anadarko Petroleum Corp.	6.12	032511AT4	Nts	03/15/2012	BBB-	1.51												1.51%	
Anadarko Petroleum Corp.	5	032511AU1	Nts	10/01/2012	BBB-	1.45	1.47	1.31	1.53	1.68	1.82	1.81						1.58%	
Anadarko Petroleum Corp.	5.95	032511AX5	Sr Nts	09/15/2016	BBB-	2.58	2.32	2.38	2.18	2.68	2.60	2.16	1.90	1.79	1.62	1.71	1.72	2.14%	1.68%
Anadarko Petroleum Corp.	6.45	032511AY3	Sr Nts	09/15/2036	BBB-	5.15	4.94	5.24	5.15	5.29	5.27	4.68	4.79	4.83	4.48	4.64	4.67	4.93%	4.60%
Boardwalk Pipelines Llc	5.5	096629AA8	Nt	2/1/2017	BBB-	3.23	3.27	3.38	3.16	3.14	3.18	3.07	3.01	3.02	2.72	2.73	2.76	3.06%	2.74%
Boardwalk Pipelines Lp	5.88	096630AA6	Sr Nt	11/15/2016	BBB-	2.98	3.12	3.21	2.91	2.89	3.08	2.92	2.69	2.61	2.62	2.63	2.67	2.86%	2.64%
Energy Transfer Partners, L.P.	5.95	29273RAB5	Sr Nt	2/1/2015	BBB-	2.93	2.53	2.44	2.22	2.56	2.23	2.14	1.83	1.71	1.24	1.55	1.27	2.05%	1.35%
Energy Transfer Partners, L.P.	5.65	29273RAD1	Sr Nt	8/1/2012	BBB-	2.73	1.63	1.68	1.89	2.22	1.89							2.01%	
Energy Transfer Partners, L.P.	6.12	29273RAE9	Sr Nt	2/15/2017	BBB-	3.83	3.72	3.49	3.39	3.26	3.20	2.99	2.54	2.51	1.95	2.19	2.12	2.93%	2.09%
Energy Transfer Partners, L.P.	6.62	29273RAF6	Sr Nt	10/15/2036	BBB-	6.15	6.06	6.29	6.11	6.37	6.16	5.73	5.76	5.83	4.92	5.16	5.32	5.82%	5.13%
Kerr-McGee Corp.	7.125	492386AK3	Deb	10/15/2027	BBB-	5.23	5.49	5.64	5.61	5.80	5.78	5.42	5.46	5.14	4.81	4.98	5.06	5.37%	4.95%
Kerr-McGee Corp.	7.875	492386AT4	Nts	09/15/2031	BBB-	5.45	5.24	5.37	5.41	5.57	5.41	5.00	5.09	5.13	4.82	4.83	5.12	5.20%	4.92%
Kerr-McGee Corp.	6.95	492386AU1	Nts	07/01/2024	BBB-	4.61	4.52	4.74	4.27	4.45	4.46	3.95	3.94	3.93	3.60	3.77	4.02	4.19%	3.80%
Panhandle East'n P.L.	6.05	698465BJ9	Sr Nts 'B'	08/15/2013	BBB-	1.57	1.66	1.69	1.40	1.40	1.44	1.41	1.23	1.13	1.18	1.17	1.20	1.37%	1.18%
Southern Natural Gas	8	843452AZ6	Nts	03/01/2032	BBB-	6.18	5.84	5.91	5.61	5.29	5.19	4.98	4.86	4.83	4.28	4.47	4.62	5.17%	4.46%
Southern Union Co.	7.6	844030AA4	Sr Nts	02/01/2024	BBB-	5.54	5.42	5.58	5.16	5.09	5.12	4.85	4.86	4.95	4.35	4.39	4.44	4.98%	4.39%
Southern Union Co.	8.25	844030AC0	Sr Nts	11/15/2029	BBB-	6.78	6.34	6.46	6.19	6.09	6.04	5.83	5.86	6.13	5.93	5.27	5.72	6.05%	5.64%
Union Pacific Resources Group	7.5	907834AB1	Deb	10/15/2026	BBB-	4.86	4.77	4.96	5.58	5.85	5.86	5.49	5.51	5.46	5.19	5.36	5.49	5.37%	5.35%
Union Pacific Resources Group	7.5	907834AC9	Deb	11/01/2096	BBB-	6.15	5.98	6.39	6.36	6.28	6.46	6.16	6.20	6.28	6.02	6.17	6.50	6.25%	6.23%
Union Pacific Resources Group	7.05	907834AF2	Deb	05/15/2018	BBB-	4.09	4.07	4.21	4.27	4.56	3.91	3.60	3.58	3.52	3.47	3.59	3.70	3.88%	3.59%
Union Pacific Resources Group	7.15	907834AG0	Deb	05/15/2028	BBB-	5.75	5.55	5.70	5.76	5.95	5.93	5.57	5.21	5.29	4.99	5.17	5.17	5.50%	5.11%
Williams Companies, Inc. (The)	7.625	969457AW0	Nts	07/15/2019	BBB-	4.19	4.22	4.48	4.21	4.10	4.03	4.00	3.91	4.00	3.69	3.69	3.89	4.03%	3.76%
Williams Companies, Inc. (The)	7.5	969457BB5	Deb	01/15/2031	BBB-	6.03	5.84	5.76	5.61	5.45	5.54	5.43	5.31	5.43	5.13	5.42	5.32	5.52%	5.29%
Williams Companies, Inc. (The)	7.75	969457BD1	Nts	06/15/2031	BBB-	6.03	5.84	5.91	5.81	5.65	5.55	5.53	5.41	5.48	5.18	5.47	5.37	5.60%	5.34%
Williams Companies, Inc. (The)	7.875	969457BG4	Nts	09/01/2021	BBB-	4.55	4.49	4.46	4.33	4.12	4.32	4.25	3.91	3.85	3.53	3.84	3.91	4.13%	3.76%
Williams Companies, Inc. (The)	8.125	969457BK5	Nts	03/15/2012	BBB-	0.62												0.62%	
Williams Companies, Inc. (The)	8.75	969457BM1	Nts	03/15/2032	BBB-	6.10	5.89	5.98	5.81	5.64	5.59	5.58	5.56	5.68	5.18	5.56	5.47	5.67%	5.40%
Pioneer Natural Resources Co.	6.88	723787AF4	Sr Nts	05/01/2018	BB+	4.14	3.77	3.53	3.58	3.74	3.52	3.00	2.82	2.77	2.39	2.47	2.50	3.19%	2.45%
Pioneer Natural Resources Co.	6.65	723787AG2	Sr Nts	03/15/2017	BB+	3.73	3.37	3.53	3.61	3.69	3.23	2.82	2.35	2.26	2.07	2.03	2.19	2.91%	2.10%
Sunoco, Inc.	5.75	86764PAD1	Nts	01/15/2017	BB+	5.38	4.97	4.43	4.50	3.93	4.25	3.90	3.04	3.00	2.88	2.53	2.42	3.77%	2.61%
Tesoro Corp.	6.25	881609AQ4	Sr Nt	11/1/2012	BB+	2.86	2.48	2.79	2.29	3.80	3.98	2.23	3.16	6.09				3.30%	
Tesoro Corp.	6.62	881609AS0	Sr Nt	11/1/2015	BB+	5.94	5.89	5.99	5.90	5.96	6.11	5.89	6.00	6.04	6.25	6.25	6.25	6.04%	6.25%
Whiting Petroleum Corp.	7	966387AE2	Sr Sub Nts	02/01/2014	BB+	3.35	3.21	3.18	3.17	3.12	3.10	3.05	2.13	1.70	2.89	1.80	2.52	2.77%	2.40%
Colorado Interstate Gas	6.85	196522AE6	Sr Deb	06/15/2037	BB	6.28	6.19	6.26	5.86	5.54	5.64	5.83	5.76	5.68	5.13	5.22	5.27	5.72%	5.21%
El Paso Natural Gas	8.62	283695AZ7	Deb	01/15/2022	BB	5.24	5.47	5.43	5.13	5.19	4.97	4.85	4.41	4.20	3.83	3.84	3.69	4.69%	3.79%
El Paso Natural Gas	7.5	283695BE3	Deb	11/15/2026	BB	5.54	5.72	5.98	5.48	5.44	5.37	5.15	4.56	4.60	4.23	4.24	4.34	5.05%	4.27%
El Paso Natural Gas	8.38	283695BK9	Sr Sub Nts	06/15/2032	BB	6.38	6.29	6.41	5.91	5.69	5.89	5.38	5.11	4.98	4.73	4.87	4.97	5.55%	4.86%
KN Energy	6.5	482620AN1	Deb	09/01/2013	BB	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50%	6.50%
KN Energy	6.67	482620AS0	Deb	11/01/2027	BB	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20%	7.20%
KN Energy	7.25	482620AW1	Sr Deb	03/01/2028	BB	6.95	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98%	6.98%
KN Energy	7.45	482620AX9	Sr Deb	03/01/2098	BB	7.83	7.83	7.83										7.83%	
Kinder Morgan Inc	6.5	494553AB6	Sr Nts	09/01/2012	BB	3.45	2.51	1.72	2.44	1.99	3.53	3.34						2.71%	
Kinder Morgan Inc	5.15	494553AC4	Sr Nts	03/01/2015	BB	4.18	3.51	3.33	3.47	3.32	3.23	2.99	2.95	2.49	2.09	2.06	2.15	2.98%	2.10%
Range Resources Corp.	7.5	75281AAG4	Sr Sub Nts	05/15/2016	BB	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59%	6.59%
Range Resources Corp.	7.5	75281AAH2	Sr Sub Nts	10/01/2017	BB	6.32	6.21	6.30	6.39	6.37	6.47	6.45	6.55	6.57	6.59	6.57	6.56	6.45%	6.57%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Gas Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Range Resources Corp.	7.25	75281AAJ8	Sr Sub Nts	05/01/2018	BB	5.98	5.87	6.00	6.04	6.02	5.96	5.94	5.98	6.02	6.05	6.15	6.13	6.01%	6.11%
Tennessee GasPipeline	7	880451AS8	Deb	03/15/2027	BB	5.44	5.62	5.88	4.93	4.74	4.47	4.25	4.06	4.10	3.71	3.74	3.74	4.56%	3.73%
Tennessee GasPipeline	7.5	880451AT6	Deb	04/01/2017	BB	3.38	3.62	3.53	3.26	3.09	3.15	2.95	2.24	2.21	1.72	1.63	1.82	2.72%	1.72%
Tennessee GasPipeline	7.62	880451AU3	Deb	04/01/2037	BB	6.28	6.14	6.21	5.81	5.59	5.74	5.23	5.06	5.03	4.58	4.67	4.72	5.42%	4.66%
Tennessee GasPipeline	7	880451AV1	Deb	10/15/2028	BB	5.73	5.69	5.86	5.01	4.89	4.74	4.48	4.21	4.23	3.86	3.77	3.87	4.70%	3.83%
Tennessee GasPipeline	8.38	880451AW9	Nts	06/15/2032	BB	6.38	6.29	6.61	5.76	5.59	5.79	5.33	5.11	5.08	4.73	4.77	4.87	5.53%	4.79%
Whiting Petroleum Corp.	7.25	966387AB8	Sr Sub Nts	05/01/2012	BB	7.25	7.25	7.25	7.25									7.25%	
Whiting Petroleum Corp.	7.25	966387AC6	Sr Sub Nts	05/01/2013	BB	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57%	6.57%
Chesapeake Energy Corp.	6.5	165167BS5	Sr Nts	08/15/2017	BB-	5.70	5.53	5.20	6.55	8.17	6.79	6.61	5.85	4.98	5.04	5.40	4.44	5.86%	4.96%
Chesapeake Energy Corp.	6.88	165167BU0	Sr Nts	11/15/2020	BB-	6.38	6.12	6.34	7.15	8.03	7.19	7.23	6.28	5.89	5.92	6.30	5.54	6.53%	5.92%
Chesapeake Energy Corp.	2.75	165167BW6	ontingent Sr Nt Cor	11/15/2035	BB-	2.94	2.76	2.73	3.23	3.58	3.20	3.25	3.14	2.93	2.96	3.05	3.00	3.06%	3.00%
Chesapeake Energy Corp.	7.62	165167BY2	Sr Nts	07/15/2013	BB-	3.71	3.14	3.24	4.20	7.14	4.65	3.86	3.50	2.53	2.57	1.98	1.99	3.54%	2.18%
Chesapeake Energy Corp.	2.5	165167BZ9	ontingent Sr Nt Cor	5/15/2037	BB-	3.17	2.88	2.85	3.36	3.69	3.27	3.25	3.13	3.03	2.93	3.12	3.10	3.15%	3.05%
Chesapeake Energy Corp.	2.5	165167CA3	r Contingent Conv N	5/15/2037	BB-	3.17	2.92	2.93	3.58	3.84	3.50	3.44	3.36	3.16	3.16	3.20	3.18	3.29%	3.18%
Chesapeake Energy Corp.	2.25	165167CB1	ontingent Sr Nt Cor	12/15/2038	BB-	3.38	3.40	3.32	3.57	3.80	3.35	3.41	3.32	3.24	3.18	3.34	3.36	3.39%	3.29%
Chesapeake Energy Corp.	7.25	165167CC9	Sr Nt	12/15/2018	BB-	6.03	5.63	6.05	7.15	8.25	6.90	6.75	6.32	5.60	5.96	6.04	5.45	6.34%	5.82%
El Paso Corp.	7.88	28336LAE9	Nts	06/15/2012	BB-	2.71	2.75	2.65	3.30									2.85%	
Plains Exploration & Production Company	7	726505AC4	SrNts	03/15/2017	BB-	6.19	6.18	6.28	6.21	6.14	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.18%	6.17%
Plains Exploration & Production Company	7.75	726505AD2	SrNts	06/15/2015	BB-	6.73	6.38	6.69	6.84	7.00	7.01	7.00	7.00	7.00	7.00	7.00	7.00	6.89%	7.00%
Swift Energy Co.	7.12	870738AF8	SrNts	06/01/2017	BB-	7.12	6.44	6.26	6.36	6.76	6.94	6.57	6.44	6.30	6.42	6.47	6.33	6.53%	6.41%
Ferrellgas,L.P./Finance	6.75	315292AD4	SrNts	05/01/2014	B+	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56%	6.56%
KCS Energy, Inc.	7.125	482434AF4	Sr Nts	04/01/2012	B+	7.13	7.13	7.13										7.13%	
Berry Petroleum Co.	8.25	085789AC9	Sr SubNts	11/01/2016	B	7.17	7.16	7.14	7.16	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.22%	7.25%
Quicksilver Resources Inc.	7.12	74837RAC8	Sr Sub Nts	04/01/2016	B-	8.42	8.21	9.57	9.77	11.03	14.05	14.51	14.04	12.13	11.85	13.62	15.12	11.86%	13.53%
Quicksilver Resources Inc.	7.12	74837RAC8	Sr Sub Nts	04/01/2016	B-	8.42	8.21	9.57	9.77	11.03	14.05	14.51	14.04	12.13	11.85	13.62	15.12	11.86%	13.53%
Stone Energy Corp.	6.75	861642AG1	Sr Sub Nts	12/15/2014	CCC+	7.03	6.74	6.43	6.53	6.96	7.08	6.74	6.74	6.55	6.51	6.74	6.74	6.73%	6.66%
Atmos Energy Corp.	5.12	049560AC9	Sr Nts	01/15/2013	NR	1.02	0.79	0.73	0.89	1.00	0.89	0.75	0.22					0.79%	
Cimarex Energy Co.	7.12	171798AA9	SrNts	05/01/2017	NR	6.16	6.09	6.08	6.35	6.27	6.27	6.27	6.27	6.27	6.27	6.27	6.27	6.24%	6.27%
Colorado Interstate Gas	5.95	196522AH9	Sr Nts	03/15/2015	NR	3.58	3.43	3.53	3.39	3.41	3.41	3.54	3.40	2.34	1.74	1.71	1.71	2.93%	1.72%
Delta Natural Gas Co., Inc.	5.75	247748AG1	InsurQtrly Nts	04/01/2021	NR	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76%	5.76%
Delta Petroleum Corp.	7	247907AC2	Sr Nts	04/01/2015	NR	15.16	16.83	20.37	23.75	25.25	28.59	28.59	28.59	28.59	28.59	28.59	28.59	25.12%	28.59%
Delta Petroleum Corp.	3.75	247907AD0	Sr Nt Conv	5/1/2037	NR	5.15	5.15	5.61	5.81									5.43%	
Denbury Resources	7.5	24823UAE8	Sr Sub Nt	4/1/2013	NR	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43%	7.43%
Denbury Resources	7.5	24823UAF5	Gtd Sr Sub Nt	12/15/2015	NR	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59%	6.59%
Encore Acquisition	6	29255WAG5	Sr Sub Nt	7/15/2015	NR	5.77	5.77	5.77	5.77	5.77	5.77	5.78	5.77	5.77	5.77	5.77	5.77	5.77%	5.77%
Ferrellgas Partners L.P.	8.75	31529MAA6	Sr Nts	06/15/2012	NR	8.75	8.75	8.75	8.75	8.75								8.75%	
Forest Oil Corp.	7.75	346091AU5	Sr Nts	05/01/2014	NR	7.38	7.38	7.38	7.38	7.38	7.38	7.38	7.38	7.38	7.38	7.38	7.38	7.38%	7.38%
Houston Exploration Co. (The)	7	442120AE1	Sr Sub Nts	06/15/2013	NR	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00%	7.00%
Mariner Energy, Inc.	7.5	56845TAE7	Sr Nts	04/15/2013	NR	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40%	5.40%
Mariner Energy, Inc.	8	56845TAF4	Sr Nts	05/15/2017	NR	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21%	5.21%
Newfield Exploration Co.	6.62	651290AH1	Sr Sub Nts	09/01/2014	NR	5.98	6.07	6.00	6.10	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03%	6.03%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Gas Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Newfield Exploration Co.	6.62	651290AJ7	Sr Sub Nts	04/15/2016	NR	5.87	5.86	5.98	5.94	5.96	5.91	5.94	5.99					5.93%	
Offshore Logistics, Inc.	6.12	676255AL6	SrNts	06/15/2013	NR	5.74	5.74	5.74	5.74	5.74	5.74	5.74	5.74	5.74	5.74	5.74	5.74	5.74%	5.74%
ONEOK, Inc.	6.4	682680AD5	Sr InsurNts	02/01/2019	NR	6.39	6.39	6.39	6.39	6.39	6.39	6.39	6.39	6.39	6.39	6.39	6.39	6.39%	6.39%
Piedmont Natural Gas Co., Inc.	6.25	720186AF2	InsurQtrly Nts	06/01/2036	NR	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25%	6.25%
Pioneer Natural Resources Co.	7.2	723787AB3	Sr Nts	01/15/2028	NR	5.56	5.02	5.09	5.29	5.12	5.08	4.84	4.74	4.85	4.59	4.58	4.68	4.95%	4.62%
Quicksilver Resources Inc.	1.88	74837RAB0	Sr Deb Conv	11/1/2024	NR	1.87	1.87	1.87										1.87%	
Range Resources Corp.	7.38	75281AAB5	Sr Sub Nts	07/15/2013	NR	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00%	7.00%
Rentech, Inc.	4	760112AA0	Sr Nt Conv	4/15/2013	NR	7.15	4.90	5.72	5.75	5.89	4.30	4.70	3.99	6.96	4.26	4.30	9.54	5.62%	6.03%
Southern Natural Gas	7.35	843452AY9	Nts	02/15/2031	NR	6.03	6.09	6.16	5.71	5.54	5.34	5.23	4.96	5.03	4.33	4.42	4.62	5.29%	4.46%
Sun Co	9	866762AK3	Deb	11/01/2024	NR	5.39	5.46	5.73	5.45	5.53	6.01	5.84	5.85	5.84	5.95	5.97		5.73%	5.96%
TEPPCO Partners, L.P.	6.125	872384AB8	Sr Nts	02/01/2013	NR	1.49	1.40	1.44	1.49	1.29	1.20	1.30	1.38	1.13	1.48	0.41		1.27%	0.95%
			Counts of data			250	248	241	236	233	231	229	226	223	221	221	216	251	221

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
AAA's	1.56%	1.56%
AA's	3.89%	3.80%
A's	3.42%	3.36%
BBB's	3.73%	3.72%
BB's	5.02%	4.61%
B's	8.93%	10.22%
CCC's	6.73%	6.66%
NR's	6.23%	6.69%
ALL	4.13%	4.09%
BBB- & Above	3.50%	3.47%
BB- & Above	3.76%	3.67%

**Investment Grade (BBB- & Above)*

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Gas Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
20 YR PLUS - BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
XTO Energy Inc.	6.1	98385XAJ5	Sr Nts	04/01/2036	AAA	3.78	3.84	4.06	3.89	3.62	3.57	3.41	3.31	3.53	3.43	3.42	3.52	3.62%	3.46%
XTO Energy Inc.	6.75	98385XAM8	Sr Nts	08/01/2037	AAA	3.68	3.59	3.81	3.64	3.37	3.42	3.26	3.36	3.58	3.34	3.33	3.43	3.48%	3.37%
XTO Energy Inc.	6.38	98385XAQ9	Sr Nts	06/15/2038	AAA	3.78	3.84	4.01	3.84	3.54	3.49	3.33	3.36	3.58	3.48	3.47	3.57	3.61%	3.51%
Texaco Capital	8.625	881685AY7	GtdDeb	04/01/2032	AA	4.08	4.14	4.36	4.21	4.09	4.04	3.80	3.83	4.00	3.91	3.95	4.05	4.04%	3.97%
Texaco Capital	8	881685BB6	GtdDeb	08/01/2032	AA	4.58	4.64	4.36	4.21	4.09	3.99	3.75	3.78	3.95	3.86	3.90	4.00	4.09%	3.92%
Texaco Capital	7.5	881685BD2	GtdDeb	03/01/2043	AA	6.93	6.96	6.92	6.95	6.99	7.01	7.04	7.08	7.10	7.14	7.17	7.20	7.04%	7.17%
Atlantic Richfield	8.75	048825BB8	Deb	03/01/2032	A	5.43	5.44	5.56	5.39	5.17	5.17	5.01	5.04	5.22	4.68	4.72	4.80	5.14%	4.73%
ConocoPhillips	5.9	20825CAF1	Nts	10/15/2032	A	4.18	4.24	4.29	4.07	4.14	3.97	3.80	3.76	3.88	3.57	3.61	3.85	3.95%	3.68%
Michigan Consol Gas	5.7	594457BT9	Sr Nts	03/15/2033	A	4.48	4.74	4.96	4.79	4.52	4.42	4.63	3.91	4.18	4.08	4.17	4.42	4.44%	4.22%
Piedmont Natural Gas Co., Inc.	6	720186AE5	Nts'E'	12/19/2033	A	4.68	4.69	4.91	4.74	4.47	4.42	4.43	4.46	4.63	4.53	4.52	4.67	4.60%	4.57%
Apache Corp.	7.625	037411AL9	Deb	11/01/2096	A-	5.00	5.20	5.46	5.46	5.39	5.27	5.01	5.06	5.13	4.95	4.99	5.26	5.18%	5.07%
Apache Corp.	7.38	037411AM7	Deb	08/15/2047	A-	4.52	4.56	4.75	4.98	4.93	4.81	4.45	4.50	4.63	4.33	4.42	4.80	4.64%	4.52%
Apache Corp.	6	037411AR6	Nts	01/15/2037	A-	4.21	4.12	4.49	4.47	4.41	4.24	3.93	3.84	3.97	3.73	3.92	4.24	4.13%	3.96%
KeySpan Corp.	5.88	49337WAH3	Nts	04/01/2033	A-	4.63	4.94	5.16	4.89	4.62	4.52	4.68	4.71	4.98	4.78	4.77	4.72	4.78%	4.76%
Atmos Energy Corp.	5.95	049560AG0	Sr Nts	10/15/2034	BBB+	4.58	4.54	4.76	4.59	4.32	4.22	4.11	4.06	4.28	4.18	4.17	4.27	4.34%	4.21%
Canadian Natural Resources Limited	6.45	136385AE1	Nt	6/30/2033	BBB+	4.53	4.59	4.76	4.64	4.54	4.61	4.58	4.33	4.50	4.18	4.37	4.37	4.50%	4.31%
Cascade Natural Gas Corp.	5.25	147339AJ4	Nts	02/01/2035	BBB+	5.53	5.54	5.31	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.30%	5.24%
Devon Fin Corp	7.95	251799AA0	Sr Deb	04/15/2032	BBB+	4.68	4.54	4.76	4.61	4.81	4.56	4.25	4.24	4.41	4.03	4.24	4.27	4.45%	4.18%
Enbridge Energy Partners, L.P.	5.95	29250RAD8	Sr Nts 'B'	06/01/2033	BBB	5.28	5.10	5.26	5.09	4.90	4.85	4.68	5.11	5.33	4.73	4.77	5.07	5.01%	4.86%
Enterprise Products Oper	6.65	293791AP4	Sr Nts'B'	10/15/2034	BBB	5.29	5.06	5.14	4.96	4.99	4.99	4.80	4.69	4.85	4.59	4.76	4.87	4.92%	4.74%
Enterprise Products Oper	5.75	293791AT6	Sr Nts'B'	03/01/2035	BBB	5.24	5.04	5.19	5.11	5.09	4.98	4.74	4.74	4.74	4.56	4.75	4.72	4.91%	4.68%
Kinder Morgan Energy Partners, L.P.	7.75	494550AL0	Nts	03/15/2032	BBB	5.86	5.74	5.88	5.85	5.87	5.62	5.44	5.26	5.32	4.64	4.86	4.94	5.44%	4.81%
Kinder Morgan Energy Partners, L.P.	7.3	494550AQ9	Sr Nts	08/15/2033	BBB	5.92	5.74	5.78	5.83	5.87	5.62	5.44	5.21	5.27	4.64	4.85	4.93	5.43%	4.81%
Kinder Morgan Energy Partners, L.P.	6.5	494550AV8	Sr Nt	2/1/2037	BBB	5.86	5.59	5.69	5.54	5.58	5.57	5.25	5.11	5.05	4.56	4.88	4.92	5.30%	4.79%
Kinder Morgan Energy Partners, L.P.	6.95	494550AW6	Sr Nt	1/15/2038	BBB	5.88	5.64	5.81	5.64	5.69	5.49	5.20	5.15	5.06	4.63	5.02	4.77	5.33%	4.81%
Marathon Oil Corp.	6.8	565849AB2	Nts	03/15/2032	BBB	5.13	4.94	5.06	4.92	4.62	4.57	4.41	4.44	4.66	4.29	4.28	4.38	4.64%	4.32%
ONEOK, Inc.	6	682680AN3	Nts	06/15/2035	BBB	5.53	5.49	5.66	5.29	5.49	5.29	5.13	5.13	5.40	4.73	4.72	4.82	5.22%	4.76%
ONEOK Partners, L.P.	6.65	68268NAC7	Gtd Sr Nt	10/1/2036	BBB	5.08	5.14	5.46	5.31	5.34	5.34	5.28	5.21	5.35	4.53	4.82	4.92	5.15%	4.76%
Plains All Amern Pipeline L P	6.7	72650RAM4	Sr Nt	5/15/2036	BBB	5.48	5.39	5.44	5.22	5.74	5.41	4.88	4.76	4.85	4.52	4.62	4.72	5.09%	4.62%
Valero Energy Corp. (New)	7.5	91913YAE0	Nts	04/15/2032	BBB	6.25	6.07	6.01	6.06	6.02	6.05	5.48	5.36	5.58	4.92	5.12	5.16	5.67%	5.07%
Valero Energy Corp. (New)	6.62	91913YAL4	Nts	06/15/2037	BBB	6.03	5.67	5.85	5.99	5.94	5.75	5.22	5.13	5.12	4.88	5.11	4.97	5.47%	4.99%
Anadarko Petroleum Corp.	7.73	032511AJ6	Deb	09/15/2096	BBB-		6.03	6.49	6.46	6.39	6.56	6.28	6.32	6.40	6.14	6.29	6.42	6.34%	6.28%
Anadarko Petroleum Corp.	7.25	032511AK3	Deb	11/15/2096	BBB-	6.15	5.98	6.39	6.34	6.25	6.41	6.11	6.15	6.23	6.02	6.17	6.50	6.23%	6.23%
Anadarko Petroleum Corp.	6.45	032511AY3	Sr Nts	09/15/2036	BBB-	5.15	4.94	5.24	5.15	5.29	5.27	4.68	4.79	4.83	4.48	4.64	4.67	4.93%	4.60%
Energy Transfer Partners, L.P.	6.62	29273RAF6	Sr Nt	10/15/2036	BBB-	6.15	6.06	6.29	6.11	6.37	6.16	5.73	5.76	5.83	4.92	5.16	5.32	5.82%	5.13%
Southern Natural Gas	8	843452AZ6	Nts	03/01/2032	BBB-	6.18	5.84	5.91	5.61	5.29	5.19	4.98	4.86	4.83	4.28	4.47	4.62	5.17%	4.46%
Union Pacific Resources Group	7.5	907834AC9	Deb	11/01/2096	BBB-	6.15	5.98	6.39	6.36	6.28	6.46	6.16	6.20	6.28	6.02	6.17	6.50	6.25%	6.23%
Williams Companies, Inc. (The)	8.75	969457BM1	Nts	03/15/2032	BBB-	6.10	5.89	5.98	5.81	5.64	5.59	5.58	5.56	5.68	5.18	5.56	5.47	5.67%	5.40%
Colorado Interstate Gas	6.85	196522AE6	Sr Deb	06/15/2037	BB	6.28	6.19	6.26	5.86	5.54	5.64	5.83	5.76	5.68	5.13	5.22	5.27	5.72%	5.21%
El Paso Natural Gas	8.38	283695BK9	Sr Sub Nts	06/15/2032	BB	6.38	6.29	6.41	5.91	5.69	5.89	5.38	5.11	4.98	4.73	4.87	4.97	5.55%	4.86%
KN Energy	7.45	482620AX9	Sr Deb	03/01/2098	BB	7.83	7.83	7.83										7.83%	
Tennessee GasPipeline	7.62	880451AU3	Deb	04/01/2037	BB	6.28	6.14	6.21	5.81	5.59	5.74	5.23	5.06	5.03	4.58	4.67	4.72	5.42%	4.66%
Tennessee GasPipeline	8.38	880451AW9	Nts	06/15/2032	BB	6.38	6.29	6.61	5.76	5.59	5.79	5.33	5.11	5.08	4.73	4.77	4.87	5.53%	4.79%
Chesapeake Energy Corp.	2.75	165167BW6	ntingent Sr Nt Co	11/15/2035	BB-	2.94	2.76	2.73	3.23	3.58	3.20	3.25	3.14	2.93	2.96	3.05	3.00	3.06%	3.00%
Chesapeake Energy Corp.	2.5	165167BZ9	ntingent Sr Nt Co	5/15/2037	BB-	3.17	2.88	2.85	3.36	3.69	3.27	3.25	3.13	3.03	2.93	3.12	3.10	3.15%	3.05%
Chesapeake Energy Corp.	2.5	165167CA3	Contingent Conv	5/15/2037	BB-	3.17	2.92	2.93	3.58	3.84	3.50	3.44	3.36	3.16	3.16	3.20	3.18	3.29%	3.18%
Chesapeake Energy Corp.	2.25	165167CB1	ntingent Sr Nt Co	12/15/2038	BB-	3.38	3.40	3.32	3.57	3.80	3.35	3.41	3.32	3.24	3.18	3.34	3.36	3.39%	3.29%
Delta Petroleum Corp.	3.75	247907AD0	Sr Nt Conv	5/1/2037	NR	5.15	5.15	5.61	5.81									5.43%	
Piedmont Natural Gas Co., Inc.	6.25	720186AF2	InsurQtrly Nts	06/01/2036	NR	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25%	6.25%
			Counts of data			42	43	43	42	41	41	41	41	41	41	41	41	43	41

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
AAA's	3.57%	3.44%
AA's	5.06%	5.02%
A's	4.61%	4.44%
BBB's	5.27%	4.93%
BB's	4.77%	4.00%
B's	-----	-----
CCC's	-----	-----
NR's	5.84%	6.25%
ALL	4.98%	4.63%
BBB- & Above	4.98%	4.71%
BB- & Above	4.94%	4.59%

**Investment Grade (BBB- & Above)*

2013 Capitalization Rate Study

Liquid Pipelines

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Liquid Pipelines
2013 Assessment Year

Equity Measures Calculated:

E/P estimates:

All	B++	B+	Median	
5.53%	5.02%	5.16%	5.49%	Yahoo
4.64%	3.37%	4.69%	5.04%	Value Line
5.08%	4.19%	4.92%	5.26%	Average of E/Ps

Inverse of P/E Ratios:

5.78%	5.42%	5.44%	5.56%	Yahoo
4.82%	4.03%	5.02%	4.97%	Value Line
5.30%	4.73%	5.23%	5.26%	Average of Inverse of the P/E
5.39%	5.70%	5.17%	5.88%	Inverse of median P/E, Value Line
5.19%	4.46%	5.08%	5.26%	Average of all above except median P/E
5.23%	4.71%	5.09%	5.39%	Mean =
5.39%	5.02%	5.16%	5.49%	Median =

Equity Measure NUOI = 5.60%

Debt Measure Calculated, Current Yield:

	Annual	4th Qtr	
	5.92%	5.78%	ALL
	5.75%	5.57%	BBB- & Above
	5.82%	5.63%	BB- & Above
Mean =	5.83%	5.66%	
Median =	5.82%	5.63%	

Debt Measure = 5.70%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate						
Equity	74.00%	x	5.60%	=	4.14%	
Debt	26.00%	x	5.70%	=	1.48%	
	100.00%				5.63%	
Direct Cap Rate NUOI =						**5.75%**

Gross Cash Flow / Price:

All	B++	B+	Median	
7.08%	4.94%	7.62%	7.54%	Value Line

Equity Measure GCF = 7.60%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)						
Equity	74.00%	x	7.60%	=	5.62%	
Debt	26.00%	x	5.70%	=	1.48%	
	100.00%				7.11%	
Direct Cap Rate GCF =						**7.25%**

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Study
Industry: Liquid Pipelines
2013 Assessment Year

Equity Measures Calculated:	**All**
Dividend Growth Model	11.50%
Capital Asset Pricing Model	8.52%
Mean =	10.01%
Median =	10.01%

Equity Measure FCF = 9.00%

Debt Measures Calculated, Yield to Maturity:

	ALL DEBT		**20 YEAR PLUS DEBT**	
	Annual	**4th Qtr**	**Annual**	**4th Qtr**
ALL	4.15%	4.12%	4.91%	4.56%
BBB- & Above	3.52%	3.50%	5.01%	4.74%
BB- & Above	3.78%	3.71%	4.89%	4.56%
Mean =	3.81%	3.78%	4.94%	4.62%
Median =	3.78%	3.71%	4.91%	4.56%

Debt Measure = 4.70%

Yield Cap Rate Free Cash Flow - Gas Pipelines						
Equity	74.00%	x	9.00%	=	6.66%	
Debt	26.00%	x	4.70%	=	1.22%	
	100.00%				7.88%	
Weighted Average Cost of Capital (WACC) =						**8.00%**

Where Assumed Growth Rate = Inflation **Growth = 2.00%**

see appendix for calculation 2.47%

Inflationdata.com 1/16/2013 1.74%

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Liquid Pipelines
2013 Assessment Year

Company	Ticker Symbol	(VL) Financial Strength	(VL) Shares	(YAHOO) Avg. Price Common	(VL) Book Value Per Share	Mkt. Value Common ExD	(VL) Book Value Common	(VL) Book Value Preferred	(VL) Book Value Debt	Mkt/Book Debt Ratio	Mkt. Value Pref. & Debt	(YAHOO) EPS last 12mo
Sunoco Logistics Partners L.P.	SXL	A	99,400	48.93	10.68	4,863,476	1,062,000	0	1,448,000	1.00	1,448,000	3.74
Enbridge Energy Partners LP	EEP	B++	284,400	29.02	13.65	8,252,814	3,881,000	0	5,146,100	1.00	5,146,100	1.92
Magellan Midstream Partners LP	MMP	B++	225,500	50.59	6.49	11,407,293	1,463,400	0	2,151,800	1.00	2,151,800	1.73
Nustar Energy LP	NS	B++	70,800	45.59	39.40	3,227,890	2,789,700	0	1,928,100	1.00	1,928,100	(3.76)
Buckeye Partners, L.P.	BPL	B+	86,000	47.77	27.02	4,108,077	2,324,000	0	2,393,600	1.00	2,393,600	2.61
Enterprise Products	EPD	B+	881,600	51.75	13.74	45,624,269	12,113,400	0	14,029,400	1.00	14,029,400	2.85
Kinder Morgan Egy Ptnrs L.P.	KMP	B+	336,500	81.26	21.54	27,343,429	7,248,900	258,700	11,159,500	1.00	11,418,200	(0.22)
Plains All American PL LP	PAA	B+	310,800	52.62	19.22	16,353,260	5,974,000	0	4,520,000	1.00	4,520,000	2.37
SUMS & AVGS - ALL COMPANIES						121,180,509	36,856,400	258,700	42,776,500		43,035,200	
SUMS & AVGS - B++ COMPANIES						22,887,997	8,134,100	0	9,226,000		9,226,000	
SUMS & AVGS - B+ COMPANIES						93,429,035	27,660,300	258,700	32,102,500		32,361,200	
MEDIAN - ALL COMPANIES												

** All **Negative** values left out of calculations*

	INDUSTRY MARKET STRUCTURE					
	ALL COMPANIES		B COMPANIES		B++ COMPANIES	
EQUITY	74.00%	121,180,509	74.00%	93,429,035	71.00%	22,887,997
DEBT	26.00%	43,293,900	26.00%	32,619,900	29.00%	9,226,000
TOTAL	100.00%	164,474,409	100.00%	126,048,935	100.00%	32,113,997

Notes/Rational for Changes to Guideline Companies
2013
No Changes were made to the Guide line companies

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Liquid Pipelines
2013 Assessment Year

Company	Ticker Symbol	(YAHOO) E/P M/E	(VL) EPS	(VL) E/P O/E	(VL) CF/S	(VL) CF/P Q/E	(YAHOO) P/E	(YAHOO) Inverse of P/E 1/S	(VL) P/E	(VL) Inverse of P/E 1/U	(VL) Median P/E	(VL) Inverse of Med P/E 1/U	(VL) Beta
Sunoco Logistics Partners L.P.	SXL	7.64%	4.03	8.24%			13.32	7.51%					0.85
Enbridge Energy Partners LP	EEP	6.62%	1.44	4.96%			14.60	6.85%			22.00	4.55%	0.90
Magellan Midstream Partners LP	MMP	3.42%	1.80	3.56%	2.50	4.94%	24.99	4.00%	24.84	4.03%	15.00	6.67%	0.85
Nustar Energy LP	NS	(8.25%)	0.72	1.58%			(11.68)	(8.56%)			17.00	5.88%	0.80
Buckeye Partners, L.P.	BPL	5.46%	2.80	5.86%	3.90	8.16%	18.26	5.48%	14.83	6.74%	16.00	6.25%	0.80
Enterprise Products	EPD	5.51%	2.65	5.12%	3.90	7.54%	17.69	5.65%	20.14	4.97%	24.00	4.17%	0.85
Kinder Morgan Egy Ptnrs L.P.	KMP	(0.27%)	2.15	2.65%	5.20	6.40%	(362.91)	(0.28%)	38.21	2.62%	25.00	4.00%	0.75
Plains All American PL LP	PAA	4.50%	2.70	5.13%	4.40	8.36%	19.24	5.20%	17.42	5.74%	16.00	6.25%	0.80

SUMS & AVGS - ALL COMPANIES	5.53%	4.64%	7.08%	5.78%	4.82%	5.39%	0.83
SUMS & AVGS - B++ COMPANIES	5.02%	3.37%	4.94%	5.42%	4.03%	5.70%	0.85
SUMS & AVGS - B+ COMPANIES	5.16%	4.69%	7.62%	5.44%	5.02%	5.17%	0.80
MEDIAN - ALL COMPANIES	5.49%	5.04%	7.54%	5.56%	4.97%	5.88%	0.83

** All **Negative** values left out of calculations*

Industry Beta Conclusion = 0.85

Notes/Rational for Changes to Guideline Companies
2013
No Changes were made to the Guide line companies

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model
Industry: Liquid Pipelines
2013 Assessment Year

$$K_E = R_F + \beta\ (R_M - R_F)$$

	Liquids
K_E = Cost of Equity	**8.52%**
R_F = Risk Free Rate	2.95%
β= Beta	0.85
R_M = Market Rate of Return	9.50%
R_P = Equity Risk Premium (RM - RF)	6.55%

R_m = Investor's Market Rate of Return

Ibbotson, SBBI, Large Company, Average Annual Return, ***Arithmetic** Average, Ex-Post	R_M=	11.80%
Ibbotson, SBBI, Large Company, Average Annual Return, ***Geometric** Average, Ex-Post	R_M=	9.80%
3 Stage Dividend Growth Model, S & P 500, See Exhibit, Ex Ante	R_M=	9.00%
	Mean =	10.20%
	Median =	9.80%
	R_M=	**9.50%**

R_f = Risk Free Rate

Internal Revenue Service, Rev Rule 2012-31 Table 2 December 3, 2012

Rev Rule 2012-31 Table 2

Annual Rates		
Short Term - AFR	R_f =	0.27%
Mid Term - AFR	R_f =	0.95%
Long Term - AFR	R_f =	2.83%

The ValueLine Investment Survey

U.S. Treasury Securities January 4, 2013

3 Month	R_f =	0.08%
6 Month	R_f =	0.13%
1 Year	R_f =	0.15%

Federal Reserve Statistical Release

Treasury constant Maturities, December 31, 2012

Market yield on U.S. Treasury securities, Annual Averages

3-month constant maturity, quoted on investment basis	R_f =	0.05%
6-month constant maturity, quoted on investment basis	R_f =	0.11%
1-year constant maturity, quoted on investment basis	R_f =	0.16%
	Mean =	0.53%
	Median =	0.15%
	Weighted Mean =	0.68%

U.S. Treasury Securities Long-Term December 31, 2012

20 year constant maturity	R_f =	**2.54%**
30 year constant maturity	R_f =	**2.95%**
	R_f =	**2.95%**

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Liquid Pipelines
2013 Assessment Year

$$K_E = D1 / P_O + G_A$$

KE= Cost of Equity
D1= Expected Dividends
Po= Current Price Per Share
G= Sustainable Growth

Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth	Ke 1 Year
Sunoco Logistics Partners L.P.	SXL	48.93			5.00%	
Enbridge Energy Partners LP	EEP	29.02			2.50%	
Magellan Midstream Partners LP	MMP	50.59	2.05	4.05%	7.00%	11.05%
Nustar Energy LP	NS	45.59			2.00%	
Buckeye Partners, L.P.	BPL	47.77	4.35	9.11%	4.00%	13.11%
Enterprise Products	EPD	51.75	2.74	5.29%	8.00%	13.29%
Kinder Morgan Egy Ptnrs L.P.	KMP	81.26	5.22	6.42%	7.00%	13.42%
Plains All American PL LP	PAA	52.62	2.28	4.33%	4.00%	8.33%

Weighted Mean	11.47%
Mean	11.84%
Median	13.11%

Cost of Equity, (K_E) = 11.50%

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Liquid Pipelines
2013 Assessment Year

Ticker	Company		Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS lst 12 mo
BPL	Buckeye Partners, L.P.	high	$64.95	$64.36	$62.66	$61.37	$58.05	$52.37	$54.68	$54.58	$51.82	$49.00	$50.91	$50.68	$47.77	$53.47	18.26	2.61
		low	$61.74	$58.50	$59.43	$55.76	$44.55	$45.86	$51.50	$47.06	$47.53	$47.01	$44.37	$44.64				
COP	ConocoPhillips Inc	high	$74.83	$77.72	$78.29	$77.31	$56.74	$56.00	$56.89	$57.77	$58.90	$58.52	$58.80	$59.65	$57.20	$61.76	7.14	8.14
		low	$68.00	$68.54	$74.44	$70.53	$50.66	$50.62	$52.84	$54.19	$54.83	$55.70	$53.95	$56.57				
CVX	ChevronTexaco Corp	high	$110.99	$110.92	$112.28	$108.79	$108.79	$105.51	$110.82	$113.87	$118.53	$118.38	$111.69	$111.11	$109.14	$107.51	8.82	12.19
		low	$102.08	$102.68	$104.85	$100.51	$96.68	$95.73	$103.29	$108.47	$110.59	$109.03	$100.66	$103.94				
EEP	Enbridge Energy Partners LP	high	$33.85	$33.00	$32.80	$31.43	$31.04	$31.00	$31.12	$30.04	$29.90	$30.64	$30.55	$29.20	$29.02	$30.15	14.60	1.92
		low	$31.53	$31.22	$30.42	$30.26	$28.96	$27.75	$28.52	$28.40	$28.26	$29.43	$27.41	$26.88				
EPD	Enterprise Products	high	$49.86	$52.95	$52.50	$52.40	$52.94	$51.32	$54.98	$53.98	$54.88	$55.38	$53.58	$52.20	$51.75	$51.14	17.69	2.85
		low	$45.78	$48.75	$49.26	$48.52	$48.00	$45.67	$50.78	$52.05	$52.25	$52.17	$48.52	$48.66				
HEP	Holly Energy Part. LP	high	$55.47	$63.76	$62.94	$62.87	$60.25	$57.14	$66.69	$68.29	$73.96	$68.81	$68.16	$68.28	$65.61	$61.73	47.40	1.38
		low	$53.27	$54.82	$58.27	$57.61	$54.12	$52.24	$57.11	$64.52	$64.61	$65.49	$60.38	$62.55				
KMP	Kinder Morgan Egy Ptnrs L.P.	high	$90.00	$90.60	$90.00	$85.50	$83.07	$78.68	$86.47	$83.40	$83.31	$86.32	$84.20	$82.08	$81.26	$82.32	(362.91)	(0.22)
		low	$81.80	$85.36	$80.40	$80.18	$76.65	$74.15	$78.60	$79.50	$80.50	$82.59	$74.76	$77.60				
MMP	Magellan Midstream Partners LP	high	$69.60	$73.32	$73.74	$72.91	$71.57	$71.07	$79.36	$83.34	$88.49	$90.64	$44.60	$44.60	$50.59	$67.59	24.99	1.73
		low	$64.34	$66.90	$70.15	$69.66	$67.20	$66.62	$70.16	$77.30	$82.96	$42.75	$39.06	$41.87				
NS	Nustar Energy LP	high	$59.06	$61.72	$62.64	$59.51	$55.72	$54.33	$54.84	$54.88	$51.18	$52.17	$48.11	$46.58	$45.59	$52.57	(11.68)	(3.76)
		low	$55.12	$56.82	$57.90	$53.90	$51.25	$49.38	$51.11	$50.38	$48.44	$47.00	$38.43	$41.26				
PAA	Plains All American PL LP	high	$78.02	$83.10	$84.48	$82.00	$82.46	$80.95	$88.00	$88.75	$91.13	$90.26	$47.14	$47.05	$52.62	$74.02	19.24	2.37
		low	$69.48	$76.76	$76.37	$76.86	$76.76	$75.18	$80.36	$84.90	$85.10	$44.50	$42.60	$44.15				
SUN	Sunoco Inc	high	NO DATA					Acquired by Energy Transfer Partners 10/12										
		low																
SXL	Sunoco Logistics Partners L.P.	high	$39.60	$42.11	$39.86	$40.99	$40.90	$36.42	$40.29	$47.08	$50.40	$51.86	$52.04	$51.49	$48.93	$41.74	13.32	3.74
		low	$35.01	$36.41	$36.26	$36.50	$33.05	$31.65	$36.29	$39.79	$45.60	$46.07	$44.00	$48.11				
TOT	Total SA	high	$53.41	$57.06	$56.89	$52.50	$48.64	$45.02	$46.71	$50.57	$55.07	$52.58	$51.03	$52.77	$50.29	$49.42	8.42	6.06
		low	$48.82	$53.01	$49.70	$46.51	$42.31	$41.75	$41.85	$45.29	$49.20	$49.04	$46.99	$49.33				
TSO	Tesoro Corp.	high	$25.97	$29.02	$30.15	$27.27	$24.33	$25.56	$28.48	$40.32	$42.37	$44.73	$42.50	$45.41	$40.33	$30.94	10.00	4.19
		low	$21.50	$24.16	$25.95	$22.42	$20.77	$21.63	$24.83	$27.32	$38.61	$35.61	$35.28	$38.42				
VLO	Valero Energy Corp.	high	$24.86	$25.86	$28.68	$26.54	$25.50	$24.61	$28.09	$31.48	$34.36	$33.44	$32.43	$34.49	$31.21	$27.06	16.28	2.01
		low	$19.12	$23.90	$24.63	$23.05	$20.99	$20.00	$23.47	$26.65	$30.47	$27.89	$28.07	$30.96				
WMB	Williams Cos	high	$29.68	$30.00	$32.09	$34.12	$34.63	$30.28	$31.95	$32.79	$35.39	$37.56	$35.40	$33.14	$33.55	$31.42	72.42	0.44
		low	$26.21	$28.51	$29.33	$30.51	$29.56	$27.25	$28.47	$29.89	$32.02	$34.08	$30.55	$30.59				
XOM	Exxon Mobil	high	$87.94	$87.83	$87.25	$87.67	$87.52	$85.70	$87.85	$88.91	$92.57	$93.67	$92.05	$90.37	$89.26	$86.32	9.25	9.46
		low	$83.46	$83.19	$84.05	$81.88	$78.41	$77.13	$82.83	$85.50	$86.52	$89.68	$85.06	$84.70				

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Liquid Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
XTO Energy Inc.	7.5	98385XAA4	Sr Nts	04/15/2012	AAA	7.39	7.44	7.49										7.44%	
XTO Energy Inc.	6.25	98385XAC0	Sr Nts	04/15/2013	AAA	5.86	5.89	5.91	5.93	5.96	5.98	6.01	6.04	6.06	6.10	6.12	6.15	6.00%	6.12%
XTO Energy Inc.	4.9	98385XAD8	Sr Nts	02/01/2014	AAA	4.52	4.54	4.56	4.57	4.56	4.58	4.59	4.61	4.62	4.64	4.65	4.67	4.59%	4.65%
XTO Energy Inc.	5.3	98385XAG1	Sr Nts	06/30/2015	AAA	4.62	4.65	4.68	4.68	4.69	4.71	4.71	4.66	4.68	4.70	4.73	4.75	4.69%	4.73%
XTO Energy Inc.	5.65	98385XAH9	Sr Nts	04/01/2016	AAA	4.74	4.78	4.81	4.75	4.76	4.77	4.79	4.80	4.82	4.85	4.85	4.88	4.80%	4.86%
XTO Energy Inc.	6.1	98385XAJ5	Sr Nts	04/01/2036	AAA	4.47	4.51	4.65	4.54	4.37	4.35	4.25	4.19	4.33	4.27	4.27	4.33	4.38%	4.29%
XTO Energy Inc.	5.9	98385XAK2	Sr Nts	08/01/2012	AAA	5.75	5.77	5.79	5.82	5.84	5.87	5.90						5.82%	
XTO Energy Inc.	6.25	98385XAL0	Sr Nts	08/01/2017	AAA	4.99	5.01	5.07	5.02	5.02	5.05	5.03	5.03	5.05	5.01	5.02	5.04	5.03%	5.02%
XTO Energy Inc.	6.75	98385XAM8	Sr Nts	08/01/2037	AAA	4.48	4.43	4.57	4.47	4.29	4.33	4.23	4.30	4.45	4.29	4.29	4.36	4.37%	4.31%
XTO Energy Inc.	4.62	98385XAN6	Sr Nts	06/15/2013	AAA	4.38	4.40	4.42	4.43	4.44	4.45	4.47	4.48	4.49	4.51	4.52	4.54	4.46%	4.52%
XTO Energy Inc.	5.5	98385XAP1	Sr Nts	06/15/2018	AAA	4.47	4.49	4.55	4.48	4.47	4.48	4.43	4.43	4.43	4.45	4.46	4.48	4.47%	4.46%
XTO Energy Inc.	6.38	98385XAQ9	Sr Nts	06/15/2038	AAA	4.46	4.50	4.61	4.50	4.30	4.28	4.18	4.20	4.35	4.28	4.28	4.34	4.36%	4.30%
Texaco Capital	9.75	881685AN1	GtdDeb	03/15/2020	AA	6.75	6.80	6.70	6.62	6.62	6.63	6.56	6.58	6.64	6.64	6.68	6.81	6.67%	6.71%
Texaco Capital	8.875	881685AV3	GtdDeb	09/01/2021	AA	6.16	6.21	6.12	6.02	6.02	6.02	5.94	5.96	6.01	6.01	6.04	6.08	6.05%	6.04%
Texaco Capital	8.625	881685AX9	GtdDeb	11/15/2031	AA	5.35	5.39	5.47	5.43	5.36	5.34	5.20	5.22	5.33	5.28	5.31	5.38	5.34%	5.32%
Texaco Capital	8.625	881685AY7	GtdDeb	04/01/2032	AA	5.32	5.36	5.51	5.42	5.35	5.32	5.18	5.21	5.32	5.27	5.30	5.36	5.33%	5.31%
Texaco Capital	8	881685BB6	GtdDeb	08/01/2032	AA	5.51	5.55	5.37	5.29	5.21	5.16	5.02	5.04	5.15	5.10	5.13	5.19	5.23%	5.14%
Texaco Capital	7.5	881685BD2	GtdDeb	03/01/2043	AA	6.99	7.02	6.98	7.01	7.05	7.07	7.09	7.12	7.14	7.18	7.20	7.24	7.09%	7.21%
Atlantic Richfield	9	048825AW3	Deb	04/01/2021	A	6.83	6.87	6.82	6.71	6.67	6.68	6.63	6.64	6.65	6.51	6.53	6.56	6.68%	6.53%
Atlantic Richfield	9	048825AY9	Deb	05/01/2031	A	6.63	6.64	6.42	6.31	6.17	6.18	6.07	6.10	6.22	5.94	5.94	6.00	6.22%	5.96%
Atlantic Richfield	9.125	048825AZ6	Deb	08/01/2031	A	6.61	6.62	6.43	6.32	6.17	6.18	6.08	6.11	6.23	5.88	5.91	5.97	6.21%	5.92%
Atlantic Richfield	8.25	048825BA0	Deb	02/01/2022	A	6.09	6.12	6.18	6.07	6.02	6.03	5.97	5.99	6.08	6.00	6.06	6.08	6.06%	6.05%
Atlantic Richfield	8.75	048825BB8	Deb	03/01/2032	A	6.24	6.24	6.33	6.22	6.07	6.08	5.98	6.00	6.13	5.78	5.81	5.87	6.06%	5.82%
Atlantic Richfield	8.5	048825BC6	Deb	04/01/2012	A	8.40	8.44	8.50										8.45%	
Burlington Resources Inc.	9.125	122014AE3	Deb	10/01/2021	A	6.29	6.34	6.47	6.37	6.41	6.50	6.44	6.46	6.53	6.53	6.57	6.61	6.46%	6.57%
Burlington Resources Inc.	8.2	122014AH6	Deb	03/15/2025	A	6.22	6.22	6.36	6.24	5.91	5.75	5.68	5.69	5.78	5.79	5.83	5.86	5.94%	5.83%
Burlington Resources Inc.	6.875	122014AJ2	Deb	02/15/2026	A	5.57	5.61	5.76	5.63	5.65	5.27	5.19	5.20	5.28	5.30	5.33	5.36	5.43%	5.33%
Burlington Resources Inc.	7.375	122014AL7	Deb	03/01/2029	A	5.67	5.70	5.78	5.70	5.66	5.51	5.38	5.41	5.54	5.43	5.46	5.51	5.56%	5.47%
Burlington Resources Fin	7.2	12201PAB2	Gtd Nt	8/15/2031	A	5.31	5.32	5.40	5.27	5.18	5.23	5.07	5.07	5.20	5.10	5.09	5.09	5.19%	5.09%
Conoco Inc	6.95	208251AE8	Nts	04/15/2029	A	5.12	5.09	5.13	5.11	5.09	5.06	4.86	4.90	5.03	4.82	4.92	4.98	5.01%	4.91%
ConocoPhillips	4.75	20825CAE4	Nts	10/15/2012	A	4.60	4.62	4.64	4.65	4.67	4.69	4.70	4.72	4.74				4.67%	
ConocoPhillips	5.9	20825CAF1	Nts	10/15/2032	A	4.77	4.81	4.84	4.71	4.75	4.66	4.56	4.54	4.61	4.43	4.46	4.60	4.65%	4.50%
Conoco Funding	7.25	20825UAC8	Sr Nt	10/15/2031	A	5.32	5.21	5.29	5.15	5.13	5.01	4.81	4.86	5.00	4.90	4.82	4.89	5.03%	4.87%
Louisiana Land/Exp	7.625	546268AF0	Deb	04/15/2013	A	7.06	7.10	7.12	7.16	7.21	7.24	7.28	7.33	7.35	7.40	7.43	7.48	7.26%	7.44%
Louisiana Land/Exp	7.65	546268AG8	Deb	12/01/2023	A	5.88	5.90	5.92	5.81	5.84	5.89	5.82	5.83	5.91	5.88	5.94	5.96	5.88%	5.93%
Occidental Petroleum Corp.	9.25	674599BE4	Sr Deb	08/01/2019	A	6.73	6.78	6.90	6.81	6.76	6.76	6.72	6.72	6.79	6.40	6.42	6.46	6.69%	6.43%
Occidental Petroleum Corp.	7.2	674599BM6	Sr Deb	04/01/2022	A	5.46	5.56	5.69	5.60	5.45	5.64	5.55	5.57	5.47	5.42	5.42	5.65	5.54%	5.50%
Occidental Petroleum Corp.	7.2	674599BM6	Sr Deb	4/1/2028	A	5.46	5.56	5.69	5.60	5.45	5.64	5.55	5.57	5.47	5.42	5.42	5.65	5.54%	5.50%
Occidental Petroleum Corp.	8.45	674599BT1	Sr Nts	02/15/2029	A	5.92	5.95	6.09	6.00	5.93	5.91	5.81	5.84	5.89	5.83	5.83	5.99	5.92%	5.88%
Occidental Pete Corp Med Term	8.75	67461FED5	'N Tranche # Tr 001	1/15/2023	A	6.51	6.55	6.69	6.56	6.48	6.47	6.31	6.32	6.33	6.26	6.28	6.18	6.41%	6.24%
Phillips Petroleum	6.65	718507BH8	Deb	07/15/2018	A	5.32	5.32	5.39	5.34	5.41	5.31	5.29	5.29	5.31	5.19	5.21	5.24	5.30%	5.21%
Phillips Petroleum	7	718507BK1	Deb	03/30/2029	A	5.42	5.45	5.59	5.50	5.37	5.31	5.23	5.25	5.38	5.21	5.23	5.22	5.35%	5.22%
ANR Pipeline	7.38	001814AQ5	Deb	2/15/2024	A-	5.73	5.73	5.88	5.72	5.67	5.67	5.58	5.59	5.56	5.48	5.51	5.52	5.64%	5.50%
ANR Pipeline	9.62	001814AR3	Deb	11/1/2021	A-	6.57	6.43	6.61	6.48	6.40	6.40	6.35	6.35	6.49	6.24	6.45	6.36	6.43%	6.35%
ANR Pipeline	7	001814AS1	Deb	6/1/2025	A-	5.55	5.57	5.72	5.57	5.51	5.51	5.41	5.42	5.42	5.42	5.42	5.42	5.50%	5.42%
Apache Corp.	7.7	037411AJ4	Nts	03/15/2026	A-	5.61	5.47	5.62	5.52	5.55	5.50	5.39	5.41	5.46	5.40	5.46	5.59	5.50%	5.48%
Apache Corp.	7.95	037411AK1	Nts	04/15/2026	A-	5.68	5.48	5.57	5.44	5.47	5.43	5.31	5.33	5.42	5.37	5.43	5.60	5.46%	5.47%
Apache Corp.	7.625	037411AL9	Deb	11/01/2096	A-	5.04	5.21	5.47	5.48	5.40	5.29	5.04	5.09	5.16	4.98	5.02	5.28	5.21%	5.09%
Apache Corp.	7.38	037411AM7	Deb	08/15/2047	A-	4.91	4.94	5.09	5.28	5.24	5.15	4.86	4.90	5.01	4.77	4.85	5.15	5.01%	4.92%
Apache Corp.	7	037411AN5	Sr Nts	02/01/2018	A-	5.56	5.60	5.65	5.61	5.66	5.67	5.63	5.61	5.60	5.62	5.64	5.71	5.63%	5.66%
Apache Corp.	7.62	037411AP0	Sr Nts	07/01/2019	A-	5.88	5.90	6.01	5.96	5.98	5.96	5.91	5.87	5.73	5.72	5.75	5.81	5.87%	5.76%
Apache Corp.	6.25	037411AQ8	Nts	04/15/2012	A-	6.17	6.20	6.21										6.19%	
Apache Corp.	6	037411AR6	Nts	01/15/2037	A-	4.71	4.65	4.90	4.89	4.84	4.74	4.53	4.48	4.57	4.41	4.54	4.75	4.67%	4.57%
Apache Corp.	5.62	037411AS4	Nts	01/15/2017	A-	4.71	4.74	4.79	4.74	4.77	4.78	4.73	4.73	4.72	4.72	4.74	4.80	4.75%	4.75%
Apache Corp.	5.25	037411AT2	Nts	04/15/2013	A-	4.96	4.98	5.00	5.02	5.05	5.07	5.07	5.10	5.11	5.14	5.15	5.18	5.07%	5.16%
Diamond Offshore Drilling, Inc.	5.15	25271CAG7	Sr Nts	09/01/2014	A-	4.72	4.71	4.73	4.74	4.76	4.78	4.74	4.74	4.75	4.75	4.76	4.78	4.75%	4.76%
Diamond Offshore Drilling, Inc.	4.88	25271CAJ1	Sr Nts	07/01/2015	A-	4.46	4.43	4.45	4.42	4.44	4.46	4.45	4.39	4.40	4.39	4.41	4.42	4.43%	4.41%
EOG Resources, Inc.	5.88	26875PAA9	Sr Nts	09/15/2017	A-	4.88	4.89	4.92	4.87	4.87	4.91	4.83	4.82	4.83	4.86	4.83	4.85	4.86%	4.85%
Enron Oil & Gas	6.65	293562AD6	Nts	04/01/2028	A-	5.27	5.25	5.46	5.37	5.26	5.22	5.16	5.18	5.33	5.15	5.14	5.20	5.25%	5.16%
Canadian Natural Resources Limited	5.45	136385AD3	Nt	10/1/2012	BBB+	5.29	5.30	5.32	5.34	5.36	5.38	5.40						5.34%	
Canadian Natural Resources Limited	6.45	136385AE1	Nt	6/30/2033	BBB+	5.11	5.15	5.26	5.19	5.12	5.18	5.16	5.00	5.11	4.92	5.04	5.04	5.11%	5.00%
Devon Fin Corp	7.95	251799AA0	Sr Deb	04/15/2032	BBB+	5.58	5.49	5.64	5.55	5.68	5.53	5.33	5.33	5.44	5.21	5.35	5.37	5.46%	5.31%
ENSCO International Inc.	7.2	26874QAB6	Deb	11/15/2027	BBB+	6.57	6.60	6.74	6.04	5.91	5.76	5.67	5.69	5.82	5.57	5.53	5.55	5.95%	5.55%
OceanEnergy	8.25	674812AK8	Sr Nts 'B'	07/01/2018	BBB+	6.35	6.40	6.50	6.44	6.52	6.54	6.50	6.50	6.52	6.57	6.47	6.49	6.48%	6.51%
Amerada Hess Corp.	7.875	023551AF1	Nts	10/01/2029	BBB	5.79	5.73	5.89	5.86	6.03	6.01	5.92	5.88	5.80	5.47	5.62	5.66	5.81%	5.58%
Amerada Hess Corp.	7.3	023551AJ3	Nts	08/15/2031	BBB	5.58	5.54	5.71	5.67	5.81	5.79	5.69	5.62	5.63	5.29	5.36	5.42	5.59%	5.36%
Buckeye Partners, L.P.	5.12	118230AE1	Fixed Rt Nts	07/01/2017	BBB	4.76	4.80	4.85	4.73	4.74	4.75	4.72	4.72	4.74	4.75	4.75	4.76	4.76%	4.75%

MONTANA DEPARTMENT OF REVENUE

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STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

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Diamond Shamrock	8.75	252747AD2	Deb	06/15/2015	BBB	7.32	7.37	7.42	7.42	7.49	7.51	7.52	7.56	7.58	7.62	7.64	7.67	7.51%	7.64%
Diamond Shamrock	7.65	252747AF7	Deb	07/01/2026	BBB	6.23	6.28	6.53	6.42	6.45	6.43	6.34	6.38	5.66	5.92	5.93	5.96	6.21%	5.94%
Enbridge Energy Partners, L.P.	4.75	29250RAC0	Sr Nts 'B'	06/01/2013	BBB	4.56	4.57	4.55	4.57	4.59	4.59	4.60	4.61	4.62	4.66	4.67	4.68	4.61%	4.67%
Enbridge Energy Partners, L.P.	5.95	29250RAD8	Sr Nts 'B'	06/01/2033	BBB	5.48	5.36	5.47	5.36	5.23	5.20	5.09	5.38	5.53	5.13	5.16	5.35	5.31%	5.21%
Enbridge Energy Partners, L.P.	5.88	29250RAH9	Nt	12/15/2016	BBB	5.08	5.11	5.10	5.09	5.10	5.11	5.12	5.06	5.03	5.00	5.05	5.08	5.08%	5.04%
Energen Corp MTN BE	7.32	29265AAP1	'N Tranche # Tr 000	7/28/2022	BBB	5.89	5.91	6.04	5.92	5.84	5.84	5.80	5.81	5.88	5.86	5.87	5.90	5.88%	5.88%
Energen Corp.	5	29265NAQ1	Nts	10/01/2013	BBB	4.85	4.86	4.87	4.87	4.88	4.86	4.87	4.88	4.89	4.90	4.91	4.90	4.88%	4.90%
Enterprise Products Oper	6.375	293791AD1	Sr Nts 'B'	02/01/2013	BBB	6.06	6.08	6.10	6.13	6.16	6.18	6.21	6.24	6.26	6.29	6.31	6.34	6.20%	6.31%
Enterprise Products Oper	5.6	293791AN9	Sr Nts'B'	10/15/2014	BBB	5.08	5.08	5.07	5.06	5.09	5.10	5.09	5.11	5.11	5.13	5.14	5.17	5.10%	5.15%
Enterprise Products Oper	6.65	293791AP4	Sr Nts'B'	10/15/2034	BBB	5.64	5.48	5.54	5.42	5.44	5.44	5.31	5.24	5.35	5.18	5.30	5.37	5.39%	5.28%
Enterprise Products Oper	5	293791AR0	Sr Nts'B'	03/01/2015	BBB	4.58	4.58	4.55	4.53	4.57	4.57	4.57	4.58	4.56	4.58	4.61	4.62	4.58%	4.60%
Enterprise Products Oper	5.75	293791AT6	Sr Nts'B'	03/01/2035	BBB	5.38	5.24	5.35	5.29	5.28	5.21	5.05	5.05	5.05	4.93	5.06	5.04	5.16%	5.01%
Kinder Morgan Energy Partners, L.P.	7.4	494550AJ5	Nts	03/15/2031	BBB	6.28	6.21	6.31	6.29	6.08	6.05	5.93	5.84	5.88	5.50	5.71	5.68	5.98%	5.63%
Kinder Morgan Energy Partners, L.P.	7.125	494550AK2	Nts	03/15/2012	BBB	7.07	7.11											7.09%	
Kinder Morgan Energy Partners, L.P.	7.75	494550AL0	Nts	03/15/2032	BBB	6.34	6.26	6.36	6.34	6.36	6.19	6.07	5.95	6.00	5.56	5.70	5.76	6.07%	5.67%
Kinder Morgan Energy Partners, L.P.	7.3	494550AQ9	Sr Nts	08/15/2033	BBB	6.26	6.13	6.16	6.20	6.22	6.05	5.93	5.77	5.82	5.40	5.54	5.59	5.92%	5.51%
Kinder Morgan Energy Partners, L.P.	5	494550AR7	Sr Nts	12/15/2013	BBB	4.72	4.73	4.70	4.72	4.75	4.76	4.74	4.75	4.76	4.78	4.80	4.81	4.75%	4.80%
Kinder Morgan Energy Partners, L.P.	6	494550AU0	Sr Nt	2/1/2017	BBB	5.24	5.15	5.21	5.15	5.20	5.19	5.19	5.15	5.10	5.06	5.11	5.13	5.16%	5.10%
Kinder Morgan Energy Partners, L.P.	6.5	494550AV8	Sr Nt	2/1/2037	BBB	6.00	5.79	5.87	5.76	5.79	5.79	5.55	5.45	5.41	5.07	5.29	5.32	5.59%	5.23%
Kinder Morgan Energy Partners, L.P.	6.95	494550AW6	Sr Nt	1/15/2038	BBB	6.09	5.90	6.03	5.91	5.94	5.80	5.58	5.55	5.48	5.17	5.46	5.28	5.68%	5.30%
Lakehead Pipe Line Co	7	511546AA1	Sr Nt	10/1/2018	BBB	5.94	5.96	6.02	5.89	5.90	5.91	5.85	5.83	5.85	5.88	5.86	5.82	5.89%	5.85%
Lakehead Pipe Line Co	7.12	511546AB9	Sr Nt	10/1/2028	BBB	5.62	5.67	5.79	5.65	5.52	5.50	5.47	5.45	5.66	5.58	5.58	5.58	5.59%	5.58%
Lakehead Pipe Line Co	7.9	511546AE3	Nt	11/21/2012	BBB	7.53	7.57	7.60	7.64	7.68	7.71	7.75	7.79	7.82	7.88			7.70%	7.88%
Marathon Oil Corp.	6.125	565849AA4	Nts	03/15/2012	BBB	5.80	5.80											5.80%	
Marathon Oil Corp.	6.8	565849AB2	Nts	03/15/2032	BBB	5.63	5.50	5.58	5.50	5.30	5.28	5.18	5.21	5.35	5.12	5.12	5.18	5.33%	5.14%
Murphy Oil Corp.	7.05	626717AA0	Nts	05/01/2029	BBB	5.88	5.92	6.09	5.99	6.02	5.91	5.82	5.74	5.87	5.81	5.78	5.73	5.88%	5.77%
Murphy Oil Corp.	6.38	626717AB8	Nts	05/01/2012	BBB	6.29	6.32	6.34	6.38									6.33%	
ONEOK Partners, L.P.	5.9	68268NAA1	Gtd Sr Nt	4/1/2012	BBB	5.85	5.87	5.90										5.87%	
ONEOK Partners, L.P.	6.15	68268NAB9	Gtd Sr Nt	10/1/2016	BBB	5.30	5.35	5.34	5.32	5.30	5.30	5.26	5.27	5.28	5.21	5.25	5.28	5.29%	5.25%
ONEOK Partners, L.P.	6.65	68268NAC7	Gtd Sr Nt	10/1/2036	BBB	5.45	5.50	5.73	5.62	5.64	5.65	5.61	5.56	5.66	5.08	5.29	5.36	5.51%	5.24%
Plains All Amer/PAA Fin	5.25	72650RAJ1	Sr Nts	06/15/2015	BBB	4.80	4.74	4.75	4.75	4.79	4.80	4.79	4.79	4.80	4.82	4.83	4.84	4.79%	4.83%
Plains All Amern Pipeline L P	6.7	72650RAM4	Sr Nt	5/15/2036	BBB	5.76	5.70	5.73	5.58	5.96	5.72	5.34	5.26	5.33	5.10	5.17	5.24	5.49%	5.17%
Talisman Energy Inc.	7.25	87425EAE3	Deb	10/15/2027	BBB	5.88	5.90	6.01	5.86	5.81	5.78	5.66	5.63	5.84	5.53	5.53	5.70	5.76%	5.59%
USX Corp.	9.375	902905AK4	Deb	02/15/2012	BBB	9.35												9.35%	
USX Corp.	9.375	902905AL2	Deb	05/15/2022	BBB	6.86	6.90	7.04	6.93	6.89	6.88	6.82	6.83	6.91	6.89	6.91	6.95	6.90%	6.92%
USX Corp.	9.125	902905AM0	Deb	01/15/2013	BBB	8.56	8.61	8.65	8.70	8.75	8.79	8.82	8.88	8.92	8.99	9.03	9.10	8.82%	9.04%
USX Corp.	8.5	902905AN8	Deb	03/01/2023	BBB	6.22	6.26	6.40	6.29	6.25	6.24	6.27	6.29	6.37	6.35	6.36	6.39	6.31%	6.37%
USX Corp.	8.125	902905AQ1	Deb	07/15/2023	BBB	6.05	6.10	6.23	6.12	6.08	6.06	6.03	6.04	6.12	6.10	6.11	6.14	6.10%	6.12%
Valero Energy	6.7	919138AD9	Sr Nts	01/15/2013	BBB	6.36	6.39	6.41	6.44	6.47	6.50	6.53	6.56	6.58	6.62	6.65	6.69	6.52%	6.65%
Valero Energy Corp. (New)	8.75	91913YAB6	Nts	06/15/2030	BBB	6.88	6.95	7.11	7.05	7.03	7.01	6.90	6.96	6.96	6.33	6.33	6.40	6.83%	6.35%
Valero Energy Corp. (New)	6.875	91913YAD2	Nts	04/15/2012	BBB	6.79	6.82	6.86										6.82%	
Valero Energy Corp. (New)	7.5	91913YAE0	Nts	04/15/2032	BBB	6.57	6.44	6.39	6.43	6.40	6.43	6.04	5.96	6.11	5.68	5.81	5.84	6.18%	5.78%
Valero Energy Corp. (New)	4.75	91913YAG5	Nts	06/15/2013	BBB	4.54	4.56	4.57	4.58	4.60	4.61	4.60	4.61	4.62	4.63	4.64	4.66	4.60%	4.64%
Valero Energy Corp. (New)	4.75	91913YAK6	Sr Nts	04/01/2014	BBB	4.46	4.48	4.48	4.48	4.50	4.51	4.50	4.51	4.52	4.54	4.55	4.56	4.51%	4.55%
Valero Energy Corp. (New)	6.62	91913YAL4	Nts	06/15/2037	BBB	6.15	5.87	6.01	6.12	6.08	5.94	5.54	5.48	5.48	5.30	5.47	5.37	5.73%	5.38%
Valero Energy Corp. (New)	6.12	91913YAM2	Nts	06/15/2017	BBB	5.32	5.26	5.33	5.23	5.28	5.26	5.17	5.14	5.07	5.05	5.10	5.14	5.20%	5.10%
Williams Ptns L P	7.25	96950HAD2	Sr Nt	2/1/2017	BBB	6.04	5.98	6.03	5.97	6.03	6.10	6.03	5.98	5.99	5.89	5.96	5.96	6.00%	5.94%
Anadarko Petroleum Corp.	7.25	032511AH0	Deb	03/15/2025	BBB-	5.77	5.75	5.85	5.89	6.04	6.05	5.86	5.88	5.88	5.75	5.84	5.92	5.87%	5.84%
Anadarko Petroleum Corp.	7.73	032511AJ6	Deb	09/15/2096	BBB-		6.03	6.49	6.46	6.39	6.57	6.29	6.33	6.41	6.15	6.30	6.43	6.35%	6.29%
Anadarko Petroleum Corp.	7.25	032511AK3	Deb	11/15/2096	BBB-	6.16	5.74	6.39	6.34	6.25	6.42	6.12	6.16	6.24	6.03	6.18	6.50	6.21%	6.24%
Anadarko Petroleum Corp.	7	032511AL1	Deb	11/15/2027	BBB-	5.97	5.85	6.45	6.43	6.55	6.55	6.32	6.35	6.40	6.22	6.32	6.40	6.32%	6.31%
Anadarko Petroleum Corp.	6.62	032511AM9	Deb	01/15/2028	BBB-	6.04	5.92	6.01	6.00	6.11	6.11	5.89	5.91	5.96	5.79	5.88	5.98	5.97%	5.88%
Anadarko Petroleum Corp.	7.2	032511AN7	Deb	03/15/2029	BBB-	6.03	5.91	6.00	6.19	6.31	6.30	6.07	6.04	6.10	5.79	5.88	5.99	6.05%	5.89%
Anadarko Petroleum Corp.	6.12	032511AT4	Nts	03/15/2012	BBB-	6.09	6.12											6.11%	
Anadarko Petroleum Corp.	5	032511AU1	Nts	10/01/2012	BBB-	4.88	4.89	4.90	4.92	4.94	4.95	4.97	4.93	5.00				4.93%	
Anadarko Petroleum Corp.	5.95	032511AX5	Sr Nts	09/15/2016	BBB-	5.19	5.14	5.17	5.14	5.25	5.25	5.18	5.14	5.13	5.12	5.15	5.16	5.17%	5.14%
Anadarko Petroleum Corp.	6.45	032511AY3	Sr Nts	09/15/2036	BBB-	5.47	5.31	5.53	5.47	5.57	5.56	5.14	5.22	5.25	5.01	5.12	5.14	5.32%	5.09%
Boardwalk Pipelines Llc	5.5	096629AA8	Nt	2/1/2017	BBB-	4.98	4.99	5.02	4.98	4.99	5.00	4.99	4.99	4.99	4.95	4.96	4.97	4.98%	4.96%
Boardwalk Pipelines Lp	5.88	096630AA6	Sr Nt	11/15/2016	BBB-	5.20	5.24	5.27	5.22	5.22	5.27	5.25	5.21	5.21	5.22	5.24	5.25	5.23%	5.24%
Energy Transfer Partners, L.P.	5.95	29273RAB5	Sr Nt	2/1/2015	BBB-	5.47	5.43	5.43	5.41	5.47	5.44	5.44	5.42	5.42	5.38	5.44	5.42	5.43%	5.41%
Energy Transfer Partners, L.P.	5.65	29273RAD1	Sr Nt	8/1/2012	BBB-	5.49	5.55	5.57	5.59	5.61	5.63	5.65						5.58%	
Energy Transfer Partners, L.P.	6.12	29273RAE9	Sr Nt	2/15/2017	BBB-	5.54	5.52	5.48	5.46	5.45	5.44	5.41	5.32	5.33	5.23	5.29	5.29	5.40%	5.27%
Energy Transfer Partners, L.P.	6.62	29273RAF6	Sr Nt	10/15/2036	BBB-	6.25	6.18	6.36	6.22	6.42	6.26	5.93	5.96	6.01	5.35	5.52	5.64	6.01%	5.50%
Kerr-McGee Corp.	7.125	492386AK3	Deb	10/15/2027	BBB-	5.93	6.09	6.18	6.17	6.28	6.28	6.06	6.09	5.91	5.72	5.82	5.87	6.03%	5.80%
Kerr-McGee Corp.	7.875	492386AT4	Nts	09/15/2031	BBB-	6.10	5.96	6.05	6.09	6.19	6.10	5.83	5.89	5.92	5.72	5.73	5.92	5.96%	5.79%
Kerr-McGee Corp.	6.95	492386AU1	Nts	07/01/2024	BBB-	5.70	5.66	5.77	5.55	5.64	5.65	5.41	5.42	5.42	5.28	5.36	5.48	5.53%	5.37%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Liquid Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Union Pacific Resources Group	7.5	907834AB1	Deb	10/15/2026	BBB-	5.88	5.83	5.95	6.31	6.47	6.48	6.27	6.28	6.26	6.11	6.21	6.29	6.20%	6.20%
Union Pacific Resources Group	7.5	907834AC9	Deb	11/01/2096	BBB-	6.15	5.98	6.39	6.36	6.29	6.47	6.17	6.21	6.29	6.03	6.18	6.50	6.25%	6.24%
Union Pacific Resources Group	7.05	907834AF2	Deb	05/15/2018	BBB-	6.06	6.06	6.12	6.15	6.24	6.05	5.98	5.98	5.98	5.97	6.02	6.07	6.06%	6.02%
Union Pacific Resources Group	7.15	907834AG0	Deb	05/15/2028	BBB-	6.23	6.11	6.21	6.25	6.36	6.36	6.14	5.93	5.98	5.80	5.91	5.92	6.10%	5.88%
Williams Companies, Inc. (The)	7.625	969457AW0	Nts	07/15/2019	BBB-	6.26	6.28	6.38	6.30	6.27	6.25	6.26	6.24	6.28	6.19	6.20	6.28	6.27%	6.22%
Williams Companies, Inc. (The)	7.5	969457BB5	Deb	01/15/2031	BBB-	6.44	6.31	6.26	6.16	6.05	6.12	6.05	5.98	6.06	5.87	6.06	5.99	6.11%	5.97%
Williams Companies, Inc. (The)	7.75	969457BD1	Nts	06/15/2031	BBB-	6.49	6.35	6.40	6.34	6.23	6.17	6.16	6.08	6.13	5.94	6.13	6.07	6.21%	6.05%
Williams Companies, Inc. (The)	7.875	969457BG4	Nts	09/01/2021	BBB-	6.27	6.25	6.25	6.20	6.12	6.21	6.19	6.06	6.05	5.93	6.07	6.11	6.14%	6.04%
Williams Companies, Inc. (The)	8.125	969457BK5	Nts	03/15/2012	BBB-	8.04	8.11											8.08%	
Williams Companies, Inc. (The)	8.75	969457BM1	Nts	03/15/2032	BBB-	6.71	6.56	6.62	6.51	6.39	6.37	6.36	6.35	6.44	6.10	6.37	6.31	6.42%	6.26%
Pioneer Natural Resources Co.	6.88	723787AF4	Sr Nts	05/01/2018	BB+	5.98	5.88	5.81	5.84	5.90	5.84	5.71	5.67	5.67	5.59	5.62	5.65	5.76%	5.62%
Pioneer Natural Resources Co.	6.65	723787AG2	Sr Nts	03/15/2017	BB+	5.85	5.77	5.82	5.85	5.89	5.79	5.70	5.61	5.61	5.58	5.59	5.64	5.73%	5.60%
Sunoco, Inc.	5.75	86764PAD1	Nts	01/15/2017	BB+	5.66	5.56	5.44	5.46	5.34	5.41	5.34	5.18	5.18	5.16	5.11	5.10	5.33%	5.12%
Tesoro Corp.	6.25	881609AQ4	Sr Nt	11/1/2012	BB+	6.09	6.09	6.12	6.12	6.18	6.20	6.18	6.21	6.25				6.16%	
Tesoro Corp.	6.62	881609AS0	Sr Nt	11/1/2015	BB+	6.47	6.47	6.49	6.47	6.49	6.52	6.48	6.51	6.51	6.55	6.56	6.56	6.51%	6.56%
Whiting Petroleum Corp.	7	966387AE2	Sr Sub Nts	02/01/2014	BB+	6.54	6.54	6.55	6.57	6.58	6.60	6.61	6.55	6.54	6.66	6.60	6.68	6.59%	6.65%
KN Energy	6.5	482620AN1	Deb	09/01/2013	BB	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50%	6.50%
KN Energy	6.67	482620AS0	Deb	11/01/2027	BB	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02%	7.02%
KN Energy	7.25	482620AW1	Sr Deb	03/01/2028	BB	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07%	7.07%
KN Energy	7.45	482620AX9	Sr Deb	03/01/2098	BB	7.84	7.84	7.84										7.84%	
Kinder Morgan Inc	6.5	494553AB6	Sr Nts	09/01/2012	BB	6.38	6.37	6.37	6.41	6.42	6.46	6.48	6.50					6.42%	
Kinder Morgan Inc	5.15	494553AC4	Sr Nts	03/01/2015	BB	5.01	4.92	4.90	4.92	4.91	4.91	4.88	4.89	4.84	4.81	4.82	4.84	4.89%	4.82%
Range Resources Corp.	7.5	75281AAG4	Sr Sub Nts	05/15/2016	BB	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23%	7.23%
Range Resources Corp.	7.5	75281AAH2	Sr Sub Nts	10/01/2017	BB	7.10	7.07	7.10	7.14	7.14	7.17	7.17	7.21	7.22	7.22	7.22	7.22	7.17%	7.22%
Range Resources Corp.	7.25	75281AAJ8	Sr Sub Nts	05/01/2018	BB	6.80	6.77	6.82	6.83	6.83	6.82	6.82	6.83	6.85	6.87	6.90	6.90	6.84%	6.89%
Whiting Petroleum Corp.	7.25	966387AB8	Sr Sub Nts	05/01/2012	BB	7.25	7.25	7.25	7.25									7.25%	
Whiting Petroleum Corp.	7.25	966387AC6	Sr Sub Nts	05/01/2013	BB	7.12	7.12	7.12	7.12	7.10	7.12	7.12	7.12	7.12	7.12	7.12	7.12	7.12%	7.12%
Chesapeake Energy Corp.	6.5	165167BS5	Sr Nts	08/15/2017	BB-	6.26	6.22	6.13	6.51	6.98	6.58	6.53	6.32	6.10	6.12	6.22	5.99	6.33%	6.11%
Chesapeake Energy Corp.	6.88	165167BU0	Sr Nts	11/15/2020	BB-	6.65	6.54	6.64	6.99	7.39	7.01	7.03	6.62	6.47	6.48	6.64	6.34	6.73%	6.49%
Chesapeake Energy Corp.	2.75	165167BW6	ontingent Sr Nt Cor	11/15/2035	BB-	2.84	2.75	2.74	2.98	3.16	2.97	2.99	2.94	2.83	2.85	2.89	2.87	2.90%	2.87%
Chesapeake Energy Corp.	7.62	165167BY2	Sr Nts	07/15/2013	BB-	7.22	7.19	7.22	7.33	7.58	7.40	7.36	7.36	7.33	7.36	7.36	7.40	7.34%	7.37%
Chesapeake Energy Corp.	2.5	165167BZ9	ontingent Sr Nt Cor	5/15/2037	BB-	2.82	2.68	2.67	2.92	3.10	2.87	2.86	2.80	2.75	2.70	2.79	2.78	2.81%	2.76%
Chesapeake Energy Corp.	2.5	165167CA3	r Contingent Conv N	5/15/2037	BB-	2.83	2.70	2.71	3.04	3.18	2.99	2.96	2.92	2.81	2.81	2.83	2.82	2.88%	2.82%
Chesapeake Energy Corp.	2.25	165167CB1	ontingent Sr Nt Cor	12/15/2038	BB-	2.81	2.82	2.77	2.90	3.03	2.78	2.81	2.76	2.72	2.69	2.77	2.78	2.80%	2.75%
Chesapeake Energy Corp.	7.25	165167CC9	Sr Nt	12/15/2018	BB-	6.79	6.65	6.80	7.21	7.63	7.12	7.07	6.92	6.68	6.80	6.83	6.65	6.93%	6.76%
El Paso Corp.	7.88	28336LAE9	Nts	06/15/2012	BB-	7.72	7.75	7.79	7.82	7.86								7.79%	
Plains Exploration & Production Compa	7	726505AC4	SrNts	03/15/2017	BB-	6.76	6.76	6.79	6.77	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.76%	6.76%
Plains Exploration & Production Compa	7.75	726505AD2	SrNts	06/15/2015	BB-	7.52	7.45	7.52	7.56	7.59	7.60	7.60	7.60	7.60	7.60	7.60	7.60	7.57%	7.60%
Swift Energy Co.	7.12	870738AF8	SrNts	06/01/2017	BB-	7.12	6.91	6.86	6.90	7.01	7.07	6.96	6.93	6.90	6.93	6.95	6.91	6.95%	6.93%
Ferrellgas,L.P./Finance	8.75	315292AD4	SrNts	06/15/2012	B+	8.75	8.75	8.75	8.75	8.75								8.75%	
Ferrellgas Partners L.P.	6.75	31529MAA6	Sr Nts	05/15/2014	B+	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72%	6.72%
KCS Energy, Inc.	7.125	482434AF4	Sr Nts	04/01/2012	B+	7.13	7.13	7.13										7.13%	
Berry Petroleum Co.	8.25	085789AC9	Sr SubNts	11/01/2016	B	7.91	7.91	7.91	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92	7.92%	7.92%
Quicksilver Resources Inc.	7.12	74837RAC8	Sr Sub Nts	04/01/2016	B-	7.46	7.40	7.74	7.78	8.09	8.87	8.96	8.79	8.28	8.18	8.58	8.90	8.25%	8.55%
Stone Energy Corp.	6.75	861642AG1	Sr Sub Nts	12/15/2014	CCC+	6.80	6.75	6.69	6.71	6.78	6.80	6.75	6.75	6.72	6.71	6.75	6.75	6.75%	6.74%
Cimarex Energy Co.	7.12	171798AA9	SrNts	05/01/2017	NR	6.83	6.81	6.81	6.90	6.87	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.87%	6.88%
Delta Petroleum Corp.	7	247907AC2	Sr Nts	04/01/2015	NR	8.75	9.09	9.85	10.60	10.85	11.66	11.66	11.67	11.67	11.67	11.67	11.67	10.90%	11.67%
Delta Petroleum Corp.	3.75	247907AD0	Sr Nt Conv	5/1/2037	NR	4.67	4.67	5.00	5.13									4.87%	
Encore Acquisition	6	29255WAG5	Sr Sub Nt	7/15/2015	NR	5.94	5.92	6.03	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.95%	5.94%
Forest Oil Corp.	7.75	346091AU5	Sr Nts	05/01/2014	NR	7.65	7.65	7.65	7.65	7.65	7.65	7.65	7.65	7.65	7.65	7.65	7.65	7.65%	7.65%
Houston Exploration Co. (The)	7	442120AE1	Sr Sub Nts	06/15/2013	NR	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00%	7.00%
Mariner Energy, Inc.	7.5	56845TAE7	Sr Nts	04/15/2013	NR	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22	7.22%	7.22%
Mariner Energy, Inc.	8	56845TAF4	Sr Nts	05/15/2017	NR	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02%	7.02%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Liquid Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Newfield Exploration Co.	6.62	651290AH1	Sr Sub Nts	09/01/2014	NR	6.52	6.54	6.53	6.55	6.55	6.55	6.55	6.55	6.55	6.55	6.55	6.55	6.55%	6.55%
Newfield Exploration Co.	6.62	651290AJ7	Sr Sub Nts	04/15/2016	NR	6.44	6.44	6.47	6.47	6.47	6.47	6.48	6.48					6.47%	
Offshore Logistics, Inc.	6.12	676255AL6	SrNts	06/15/2013	NR	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06%	6.06%
Pioneer Natural Resources Co.	7.2	723787AB3	Sr Nts	01/15/2028	NR	6.12	5.80	5.85	5.97	5.87	5.85	5.72	5.66	5.73	5.59	5.59	5.64	5.78%	5.61%
Pioneer Natural Resources Co.	7.2	723787AB3	Sr Nt	6/15/2028	NR	6.12	5.80	5.85	5.97	5.87	5.85	5.72	5.66	5.73	5.59	5.59	5.64	5.78%	5.61%
Plains All American Pipeline, L.P.	7.75	726503AD7	Sr Nts	10/15/2012	NR	7.00												7.00%	
Quicksilver Resources Inc.	1.88	74837RAB0	Sr Deb Conv	11/1/2024	NR	1.87	1.87	1.87										1.87%	
Range Resources Corp.	7.38	75281AAB5	Sr Sub Nts	07/15/2013	NR	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30%	7.30%
Rentech, Inc.	4	760112AA0	Sr Nt Conv	4/15/2013	NR	4.15	4.04	4.07	4.06	4.06	4.01	4.02	4.00	4.06	4.00	4.00	4.06	4.04%	4.02%
Sun Co	6.75	866762AG2	Conv Sub Deb	6/15/2012	NR	3.59	3.49	3.52	3.36									3.49%	
Sun Co	9	866762AK3	Deb	11/01/2024	NR	6.77	6.82	6.97	6.83	6.88	7.16	7.07	7.08	7.08	7.15	7.17		7.00%	7.16%
TEPPCO Partners, L.P.	6.125	872384AB8	Sr Nts	02/01/2013	NR	5.85	5.87	5.89	5.91	5.93	5.95	5.98	6.00	6.02	6.05	6.06	6.09	5.97%	6.07%
			Counts of data			197	196	192	184	180	178	178	175	173	170	169	168	198	170

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
AAA's	5.03%	4.73%
AA's	5.95%	5.96%
A's	5.65%	5.51%
BBB's	5.88%	5.68%
BB's	6.18%	5.94%
B's	7.75%	7.73%
CCC's	6.75%	6.74%
NR's	6.24%	6.78%
ALL	5.92%	5.78%
BBB- & Above	5.75%	5.57%
BB- & Above	5.82%	5.63%

*'*Investment Grade (BBB- & Above)*

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Liquid Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
XTO Energy Inc.	7.5	98385XAA4	Sr Nts	04/15/2012	AAA	0.40	1.49											0.95%	
XTO Energy Inc.	6.25	98385XAC0	Sr Nts	04/15/2013	AAA	0.72	0.81	0.82	0.81	0.78	0.76	0.70	0.77	0.66	0.85	0.67	0.79	0.76%	0.77%
XTO Energy Inc.	4.9	98385XAD8	Sr Nts	02/01/2014	AAA	0.68	0.80	0.90	0.78	0.53	0.52	0.43	0.44	0.43	0.46	0.40	0.41	0.57%	0.42%
XTO Energy Inc.	5.3	98385XAG1	Sr Nts	06/30/2015	AAA	0.96	1.09	1.19	1.05	1.06	1.07	0.95	0.48	0.46	0.51	0.66	0.65	0.84%	0.61%
XTO Energy Inc.	5.65	98385XAH9	Sr Nts	04/01/2016	AAA	0.98	1.11	1.18	0.79	0.72	0.72	0.73	0.67	0.69	0.75	0.70	0.74	0.82%	0.73%
XTO Energy Inc.	6.1	98385XAJ5	Sr Nts	04/01/2036	AAA	3.78	3.84	4.06	3.89	3.62	3.57	3.41	3.31	3.53	3.43	3.42	3.52	3.62%	3.46%
XTO Energy Inc.	5.9	98385XAK2	Sr Nts	08/01/2012	AAA	0.71	0.71	0.61	0.86	0.76	0.53							0.70%	
XTO Energy Inc.	6.25	98385XAL0	Sr Nts	08/01/2017	AAA	1.48	1.51	1.68	1.41	1.34	1.40	1.25	1.19	1.21	0.92	0.88	0.92	1.27%	0.91%
XTO Energy Inc.	6.75	98385XAM8	Sr Nts	08/01/2037	AAA	3.68	3.59	3.81	3.64	3.37	3.42	3.26	3.36	3.58	3.34	3.33	3.43	3.48%	3.37%
XTO Energy Inc.	4.62	98385XAN6	Sr Nts	06/15/2013	AAA	0.66	0.75	0.78	0.74	0.73	0.72	0.64	0.67	0.62	0.74	0.64	0.68	0.70%	0.69%
XTO Energy Inc.	5.5	98385XAP1	Sr Nts	06/15/2018	AAA	1.69	1.72	1.93	1.59	1.52	1.53	1.24	1.18	1.13	1.18	1.14	1.17	1.42%	1.16%
XTO Energy Inc.	6.38	98385XAQ9	Sr Nts	06/15/2038	AAA	3.78	3.84	4.01	3.84	3.54	3.49	3.33	3.36	3.58	3.48	3.47	3.57	3.61%	3.51%
Texaco Capital	9.75	881685AN1	GtdDeb	03/15/2020	AA	3.44	3.52	3.23	2.98	2.93	2.91	2.66	2.68	2.76	2.71	2.76	3.03	2.97%	2.83%
Texaco Capital	8.875	881685AV3	GtdDeb	09/01/2021	AA	3.44	3.52	3.28	3.02	2.98	2.96	2.71	2.72	2.81	2.76	2.81	2.86	2.99%	2.81%
Texaco Capital	8.625	881685AX9	GtdDeb	11/15/2031	AA	4.08	4.14	4.26	4.19	4.07	4.02	3.78	3.81	3.98	3.89	3.93	4.03	4.02%	3.95%
Texaco Capital	8.625	881685AY7	GtdDeb	04/01/2032	AA	4.08	4.14	4.36	4.21	4.09	4.04	3.80	3.83	4.00	3.91	3.95	4.05	4.04%	3.97%
Texaco Capital	8	881685BB6	GtdDeb	08/01/2032	AA	4.58	4.64	4.36	4.21	4.09	3.99	3.75	3.78	3.95	3.86	3.90	4.00	4.09%	3.92%
Texaco Capital	7.5	881685BD2	GtdDeb	03/01/2043	AA	6.93	6.96	6.92	6.95	6.99	7.01	7.04	7.08	7.10	7.14	7.17	7.20	7.04%	7.17%
Atlantic Richfield	9	048825AW3	Deb	04/01/2021	A	4.69	4.77	4.63	4.36	4.22	4.23	4.06	4.07	4.05	3.69	3.69	3.72	4.18%	3.70%
Atlantic Richfield	9	048825AY9	Deb	05/01/2031	A	5.88	5.89	5.56	5.39	5.17	5.17	5.01	5.04	5.22	4.78	4.77	4.85	5.23%	4.80%
Atlantic Richfield	9.125	048825AZ6	Deb	08/01/2031	A	5.83	5.84	5.56	5.39	5.17	5.17	5.01	5.04	5.22	4.68	4.72	4.80	5.20%	4.73%
Atlantic Richfield	8.25	048825BA0	Deb	02/01/2022	A	3.94	3.97	4.08	3.81	3.67	3.68	3.51	3.52	3.70	3.48	3.59	3.62	3.71%	3.56%
Atlantic Richfield	8.75	048825BB8	Deb	03/01/2032	A	5.43	5.44	5.56	5.39	5.17	5.17	5.01	5.04	5.22	4.68	4.72	4.80	5.14%	4.73%
Atlantic Richfield	8.5	048825BC6	Deb	04/01/2012	A	1.83	1.93											1.88%	
Burlington Resources Inc.	9.125	122014AE3	Deb	10/01/2021	A	3.58	3.66	3.92	3.67	3.71	3.89	3.72	3.73	3.87	3.84	3.89	3.94	3.79%	3.89%
Burlington Resources Inc.	8.2	122014AH6	Deb	03/15/2025	A	4.89	4.87	5.13	4.88	4.24	3.92	3.75	3.76	3.93	3.93	3.99	4.02	4.28%	3.98%
Burlington Resources Inc.	6.875	122014AJ2	Deb	02/15/2026	A	4.59	4.67	4.93	4.68	4.72	3.97	3.80	3.81	3.95	3.98	4.04	4.07	4.27%	4.03%
Burlington Resources Inc.	7.375	122014AL7	Deb	03/01/2029	A	4.78	4.82	4.96	4.81	4.75	4.47	4.25	4.28	4.50	4.30	4.34	4.42	4.56%	4.35%
Burlington Resources Fin	7.2	12201PAB2	Gtd Nt	8/15/2031	A	4.46	4.47	4.59	4.37	4.22	4.30	4.03	4.01	4.24	4.05	4.02	4.02	4.23%	4.03%
Conoco Inc	6.95	208251AE8	Nts	04/15/2029	A	4.05	3.99	4.06	4.00	3.96	3.89	3.53	3.59	3.81	3.42	3.60	3.70	3.80%	3.57%
ConocoPhillips	4.75	20825CAE4	Nts	10/15/2012	A	0.37	0.47	0.48	0.55	0.67	0.67	0.65	1.03					0.61%	
ConocoPhillips	5.9	20825CAF1	Nts	10/15/2032	A	4.18	4.24	4.29	4.07	4.14	3.97	3.80	3.76	3.88	3.57	3.61	3.85	3.95%	3.68%
Conoco Funding	7.25	20825UAC8	Sr Nt	10/15/2031	A	4.46	4.29	4.41	4.17	4.13	3.93	3.59	3.66	3.89	3.70	3.57	3.67	3.96%	3.65%
Louisiana Land/Exp	7.625	546268AF0	Deb	04/15/2013	A	1.02	1.12	0.88	0.92	1.06	1.08	1.02	1.12	0.92	1.14	0.97	1.12	1.03%	1.08%
Louisiana Land/Exp	7.65	546268AG8	Deb	12/01/2023	A	4.37	4.39	4.43	4.18	4.22	4.32	4.15	4.16	4.30	4.23	4.34	4.37	4.29%	4.31%
Occidental Petroleum Corp.	9.25	674599BE4	Sr Deb	08/01/2019	A	3.54	3.61	3.87	3.61	3.41	3.39	3.22	3.17	3.30	2.14	2.14	2.20	3.13%	2.16%
Occidental Petroleum Corp.	7.2	674599BM6	Sr Deb	04/01/2022	A	4.43	4.59	4.81	4.64	4.37	4.69	4.53	4.56	4.38	4.28	4.27	4.67	4.52%	4.41%
Occidental Petroleum Corp.	7.2	674599BM6	Sr Deb	4/1/2028	A	4.43	4.59	4.81	4.64	4.37	4.69	4.53	4.56	4.38	4.28	4.27	4.67	4.52%	4.41%
Occidental Petroleum Corp.	8.45	674599BT1	Sr Nts	02/15/2029	A	4.76	4.81	5.03	4.86	4.74	4.69	4.53	4.56	4.63	4.53	4.52	4.77	4.70%	4.61%
Occidental Pete Corp Med Term	8.75	67461FED5	'N Tranche # Tr 001	1/15/2023	A	4.69	4.76	5.02	4.75	4.56	4.52	4.15	4.16	4.15	3.98	3.99	3.74	4.37%	3.90%
Phillips Petroleum	6.65	718507BH8	Deb	07/15/2018	A	2.44	2.42	2.63	2.38	2.58	2.20	2.05	1.99	2.02	1.52	1.53	1.57	2.11%	1.54%
Phillips Petroleum	7	718507BK1	Deb	03/30/2029	A	4.53	4.59	4.81	4.66	4.44	4.32	4.16	4.19	4.41	4.10	4.14	4.10	4.37%	4.11%
ANR Pipeline	7.38	001814AQ5	Deb	2/15/2024	A-	4.30	4.29	4.58	4.23	4.11	4.10	3.90	3.90	3.82	3.62	3.68	3.68	4.02%	3.66%
ANR Pipeline	9.62	001814AR3	Deb	11/1/2021	A-	3.86	3.52	3.88	3.56	3.34	3.33	3.15	3.11	3.40	2.79	3.24	2.97	3.35%	3.00%
ANR Pipeline	7	001814AS1	Deb	6/1/2025	A-	4.39	4.42	4.71	4.40	4.27	4.26	4.05	4.05	4.05	4.05	4.05	4.05	4.23%	4.05%
Apache Corp.	7.7	037411AJ4	Nts	03/15/2026	A-	4.18	3.90	4.18	3.98	4.01	3.92	3.67	3.70	3.78	3.65	3.76	3.99	3.89%	3.80%
Apache Corp.	7.95	037411AK1	Nts	04/15/2026	A-	4.18	3.80	3.96	3.70	3.73	3.64	3.39	3.42	3.58	3.45	3.56	3.89	3.69%	3.63%
Apache Corp.	7.625	037411AL9	Deb	11/01/2096	A-	5.00	5.20	5.46	5.46	5.39	5.27	5.01	5.06	5.13	4.95	4.99	5.26	5.18%	5.07%
Apache Corp.	7.38	037411AM7	Deb	08/15/2047	A-	4.52	4.56	4.75	4.98	4.93	4.81	4.45	4.50	4.63	4.33	4.42	4.80	4.64%	4.52%
Apache Corp.	7	037411AN5	Sr Nts	02/01/2018	A-	2.36	2.45	2.58	2.38	2.51	2.50	2.27	2.14	2.04	2.07	2.08	2.30	2.31%	2.15%
Apache Corp.	7.62	037411AP0	Sr Nts	07/01/2019	A-	3.12	3.15	3.43	3.23	3.26	3.17	2.96	2.78	2.33	2.24	2.29	2.42	2.87%	2.32%
Apache Corp.	6.25	037411AQ8	Nts	04/15/2012	A-	0.74	0.74											0.74%	
Apache Corp.	6	037411AR6	Nts	01/15/2037	A-	4.21	4.12	4.49	4.47	4.41	4.24	3.93	3.84	3.97	3.73	3.92	4.24	4.13%	3.96%
Apache Corp.	5.62	037411AS4	Nts	01/15/2017	A-	1.55	1.64	1.83	1.53	1.59	1.58	1.27	1.21	1.09	0.98	1.04	1.26	1.38%	1.09%
Apache Corp.	5.25	037411AT2	Nts	04/15/2013	A-	0.47	0.51	0.56	0.61	0.81	0.78	0.48	0.55	0.43	0.53	0.42	0.70	0.57%	0.55%
Diamond Offshore Drilling, Inc.	5.15	25271CAG7	Sr Nts	09/01/2014	A-	1.61	1.41	1.45	1.42	1.52	1.58	1.00	0.80	0.75	0.61	0.56	0.55	1.11%	0.57%
Diamond Offshore Drilling, Inc.	4.88	25271CAJ1	Sr Nts	07/01/2015	A-	2.05	1.78	1.88	1.54	1.64	1.69	1.57	0.97	0.95	0.73	0.76	0.74	1.36%	0.74%
EOG Resources, Inc.	5.88	26875PAA9	Sr Nts	09/15/2017	A-	2.03	2.02	2.13	1.86	1.79	1.90	1.50	1.39	1.36	1.42	1.23	1.27	1.66%	1.31%
Enron Oil & Gas	6.65	293562AD6	Nts	04/01/2028	A-	4.38	4.34	4.71	4.54	4.34	4.24	4.13	4.16	4.43	4.08	4.07	4.17	4.30%	4.11%
Canadian Natural Resources Limited	5.45	136385AD3	Nt	10/1/2012	BBB+	1.00	0.85	0.82	0.82	0.87	0.81	0.73						0.84%	
Canadian Natural Resources Limited	6.45	136385AE1	Nt	6/30/2033	BBB+	4.53	4.59	4.76	4.64	4.54	4.61	4.58	4.33	4.50	4.18	4.37	4.37	4.50%	4.31%
Devon Fin Corp	7.95	251799AA0	Sr Deb	04/15/2032	BBB+	4.68	4.54	4.76	4.61	4.81	4.56	4.25	4.24	4.41	4.03	4.24	4.27	4.45%	4.18%
ENSCO International Inc.	7.2	26874QAB6	Deb	11/15/2027	BBB+	6.23	6.29	6.51	5.36	5.14	4.87	4.71	4.74	4.96	4.50	4.42	4.46	5.18%	4.46%
OceanEnergy	8.25	674812AK8	Sr Nts 'B'	07/01/2018	BBB+	3.09	3.18	3.43	3.22	3.41	3.42	3.23	3.17	3.20	3.27	2.90	2.91	3.20%	3.03%
Amerada Hess Corp.	7.875	023551AF1	Nts	10/01/2029	BBB	4.83	4.72	4.98	4.92	5.19	5.14	4.99	4.92	4.78	4.22	4.47	4.52	4.81%	4.40%
Amerada Hess Corp.	7.3	023551AJ3	Nts	08/15/2031	BBB	4.85	4.78	5.04	4.97	5.19	5.14	4.98	4.87	4.87	4.33	4.44	4.52	4.83%	4.43%
Buckeye Partners, L.P.	5.12	118230AE1	Fixed Rt Nts	07/01/2017	BBB	3.58	3.72	3.93	3.38	3.37	3.41	3.26	3.20	3.27	3.31	3.28	3.31	3.42%	3.30%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Liquid Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Diamond Shamrock	8.75	252747AD2	Deb	06/15/2015	BBB	2.66	2.78	2.88	2.78	2.93	2.93	2.81	2.83	2.81	2.87	2.83	2.82	2.83%	2.84%
Diamond Shamrock	7.65	252747AF7	Deb	07/01/2026	BBB	5.37	5.45	5.86	5.67	5.72	5.68	5.51	5.57	4.25	4.72	4.73	4.78	5.28%	4.74%
Enbridge Energy Partners, L.P.	4.75	29250RAC0	Sr Nts 'B'	06/01/2013	BBB	1.66	1.63	1.11	1.22	1.29	1.16	0.85	0.88	0.75	1.44	1.37	1.41	1.23%	1.41%
Enbridge Energy Partners, L.P.	5.95	29250RAD8	Sr Nts 'B'	06/01/2033	BBB	5.28	5.10	5.26	5.09	4.90	4.85	4.68	5.11	5.33	4.73	4.77	5.07	5.01%	4.86%
Enbridge Energy Partners, L.P.	5.88	29250RAH9	Nt	12/15/2016	BBB	2.49	2.54	2.48	2.36	2.34	2.35	2.35	1.95	1.75	1.48	1.71	1.77	2.13%	1.65%
Energen Corp MTN BE	7.32	29265AAP1	N Tranche # Tr 000	7/28/2022	BBB	4.42	4.44	4.70	4.43	4.24	4.22	4.10	4.11	4.26	4.19	4.20	4.24	4.30%	4.21%
Energen Corp.	5	29265NAQ1	Nts	10/01/2013	BBB	3.11	3.16	3.20	3.12	3.14	2.80	2.75	2.75	2.79	2.80	2.79	2.42	2.90%	2.67%
Enterprise Products Oper	6.375	293791AD1	Sr Nts 'B'	02/01/2013	BBB	1.18	1.09	1.13	1.19	1.36	1.27	1.22	1.31	1.04	1.24	1.10		1.19%	1.17%
Enterprise Products Oper	5.6	293791AN9	Sr Nts'B'	10/15/2014	BBB	1.75	1.61	1.41	1.28	1.34	1.29	1.07	1.04	0.95	0.94	0.87	0.93	1.21%	0.91%
Enterprise Products Oper	6.65	293791AP4	Sr Nts'B'	10/15/2034	BBB	5.29	5.06	5.14	4.96	4.99	4.99	4.80	4.69	4.85	4.59	4.76	4.87	4.92%	4.74%
Enterprise Products Oper	5	293791AR0	Sr Nts'B'	03/01/2015	BBB	1.93	1.91	1.59	1.34	1.51	1.45	1.36	1.30	0.98	1.09	1.24	1.16	1.41%	1.16%
Enterprise Products Oper	5.75	293791AT6	Sr Nts'B'	03/01/2035	BBB	5.24	5.04	5.19	5.11	5.09	4.98	4.74	4.74	4.74	4.56	4.75	4.72	4.91%	4.68%
Kinder Morgan Energy Partners, L.P.	7.4	494550AJ5	Nts	03/15/2031	BBB	5.84	5.74	5.88	5.85	5.54	5.47	5.29	5.14	5.20	4.59	4.92	4.87	5.36%	4.79%
Kinder Morgan Energy Partners, L.P.	7.125	494550AK2	Nts	03/15/2012	BBB	1.25	7.13											4.19%	
Kinder Morgan Energy Partners, L.P.	7.75	494550AL0	Nts	03/15/2032	BBB	5.86	5.74	5.88	5.85	5.87	5.62	5.44	5.26	5.32	4.64	4.86	4.94	5.44%	4.81%
Kinder Morgan Energy Partners, L.P.	7.3	494550AQ9	Sr Nts	08/15/2033	BBB	5.92	5.74	5.78	5.83	5.87	5.62	5.44	5.21	5.27	4.64	4.85	4.93	5.43%	4.81%
Kinder Morgan Energy Partners, L.P.	5	494550AR7	Sr Nts	12/15/2013	BBB	1.77	1.79	1.32	1.34	1.55	1.54	1.01	1.02	0.93	0.87	1.00	1.01	1.26%	0.96%
Kinder Morgan Energy Partners, L.P.	6	494550AU0	Sr Nt	2/1/2017	BBB	2.88	2.42	2.67	2.36	2.49	2.40	2.33	2.09	1.77	1.52	1.68	1.72	2.19%	1.64%
Kinder Morgan Energy Partners, L.P.	6.5	494550AV8	Sr Nt	2/1/2037	BBB	5.86	5.59	5.69	5.54	5.58	5.57	5.25	5.11	5.05	4.56	4.88	4.92	5.30%	4.79%
Kinder Morgan Energy Partners, L.P.	6.95	494550AW6	Sr Nt	1/15/2038	BBB	5.88	5.64	5.81	5.64	5.69	5.49	5.20	5.15	5.06	4.63	5.02	4.77	5.33%	4.81%
Lakehead Pipe Line Co	7	511546AA1	Sr Nt	10/1/2018	BBB	3.93	3.99	4.13	3.70	3.69	3.67	3.45	3.34	3.38	3.44	3.31	3.13	3.60%	3.29%
Lakehead Pipe Line Co	7.12	511546AB9	Sr Nt	10/1/2028	BBB	4.78	4.86	5.06	4.81	4.59	4.54	4.48	4.44	4.80	4.64	4.64	4.64	4.69%	4.64%
Lakehead Pipe Line Co	7.9	511546AE3	Nt	11/21/2012	BBB	1.85	1.87	1.74	1.90	1.92	1.74	1.68	1.94	1.43				1.79%	
Marathon Oil Corp.	6.125	565849AA4	Nts	03/15/2012	BBB	0.55	0.55											0.55%	
Marathon Oil Corp.	6.8	565849AB2	Nts	03/15/2032	BBB	5.13	4.94	5.06	4.92	4.62	4.57	4.41	4.44	4.66	4.29	4.28	4.38	4.64%	4.32%
Murphy Oil Corp.	7.05	626717AA0	Nts	05/01/2029	BBB	5.28	5.34	5.61	5.44	5.49	5.31	5.15	5.01	5.23	5.13	5.07	4.97	5.25%	5.06%
Murphy Oil Corp.	6.38	626717AB8	Nts	05/01/2012	BBB	1.48	1.50	1.30										1.43%	
ONEOK Partners, L.P.	5.9	68268NAA1	Gtd Sr Nt	4/1/2012	BBB	1.33	1.08											1.21%	
ONEOK Partners, L.P.	6.15	68268NAB9	Gtd Sr Nt	10/1/2016	BBB	2.53	2.67	2.58	2.41	2.24	2.20	1.95	1.89	1.86	1.42	1.58	1.62	2.08%	1.54%
ONEOK Partners, L.P.	6.65	68268NAC7	Gtd Sr Nt	10/1/2036	BBB	5.08	5.14	5.46	5.31	5.34	5.34	5.28	5.21	5.35	4.53	4.82	4.92	5.15%	4.76%
Plains All Amer/PAA Fin	5.25	72650RAJ1	Sr Nts	06/15/2015	BBB	2.37	1.93	1.88	1.84	2.01	1.98	1.81	1.77	1.76	1.81	1.78	1.77	1.89%	1.79%
Plains All Amern Pipeline L P	6.7	72650RAM4	Sr Nt	5/15/2036	BBB	5.48	5.39	5.44	5.22	5.74	5.41	4.88	4.76	4.85	4.52	4.62	4.72	5.09%	4.62%
Talisman Energy Inc.	7.25	87425EAE3	Deb	10/15/2027	BBB	5.08	5.12	5.28	5.03	4.94	4.87	4.65	4.59	4.96	4.39	4.38	4.68	4.83%	4.48%
USX Corp.	9.375	902905AL2	Deb	05/15/2022	BBB	4.81	4.88	5.14	4.90	4.79	4.75	4.58	4.59	4.73	4.66	4.67	4.72	4.77%	4.68%
USX Corp.	9.125	902905AM0	Deb	01/15/2013	BBB	2.24	2.29	2.17	2.22	2.19	2.14	1.66	1.86	1.56	2.02	1.46		1.98%	1.74%
USX Corp.	8.5	902905AN8	Deb	03/01/2023	BBB	4.31	4.38	4.64	4.40	4.29	4.25	4.30	4.31	4.45	4.38	4.39	4.44	4.38%	4.40%
USX Corp.	8.125	902905AQ1	Deb	07/15/2023	BBB	4.32	4.38	4.64	4.40	4.29	4.25	4.15	4.16	4.30	4.23	4.24	4.29	4.30%	4.25%
Valero Energy	6.7	919138AD9	Sr Nts	01/15/2013	BBB	1.11	1.14	1.04	1.07	1.16	1.13	1.08	1.28	1.06	1.42	1.00		1.14%	1.21%
Valero Energy Corp. (New)	8.75	91913YAB6	Nts	06/15/2030	BBB	6.24	6.34	6.56	6.48	6.45	6.40	6.24	6.32	6.32	5.37	5.36	5.46	6.13%	5.40%
Valero Energy Corp. (New)	6.875	91913YAD2	Nts	04/15/2012	BBB	1.08	1.20											1.14%	
Valero Energy Corp. (New)	7.5	91913YAE0	Nts	04/15/2032	BBB	6.25	6.07	6.01	6.06	6.02	6.05	5.48	5.36	5.58	4.92	5.12	5.16	5.67%	5.07%
Valero Energy Corp. (New)	4.75	91913YAG5	Nts	06/15/2013	BBB	1.43	1.52	1.55	1.50	1.64	1.63	1.01	1.09	1.04	0.65	0.55	0.60	1.18%	0.60%
Valero Energy Corp. (New)	4.75	91913YAK6	Sr Nts	04/01/2014	BBB	1.78	1.86	1.70	1.62	1.78	1.79	1.40	1.45	1.45	1.50	1.46	1.41	1.60%	1.46%
Valero Energy Corp. (New)	6.62	91913YAL4	Nts	06/15/2037	BBB	6.03	5.67	5.85	5.99	5.94	5.75	5.22	5.13	5.12	4.88	5.11	4.97	5.47%	4.99%
Valero Energy Corp. (New)	6.12	91913YAM2	Nts	06/15/2017	BBB	3.08	2.77	3.03	2.56	2.73	2.60	2.15	1.94	1.53	1.37	1.53	1.65	2.25%	1.52%
Williams Ptns L P	7.25	96950HAD2	Sr Nt	2/1/2017	BBB	2.93	2.62	2.78	2.48	2.64	2.85	2.50	2.19	2.16	1.62	1.83	1.77	2.36%	1.74%
Anadarko Petroleum Corp.	7.25	032511AH0	Deb	03/15/2025	BBB-	4.63	4.57	4.76	4.83	5.10	5.11	4.74	4.76	4.76	4.49	4.66	4.79	4.77%	4.65%
Anadarko Petroleum Corp.	7.73	032511AJ6	Deb	09/15/2096	BBB-		6.03	6.49	6.46	6.39	6.56	6.28	6.32	6.40	6.14	6.29	6.42	6.34%	6.28%
Anadarko Petroleum Corp.	7.25	032511AK3	Deb	11/15/2096	BBB-	6.15	5.98	6.39	6.34	6.25	6.41	6.11	6.15	6.23	6.02	6.17	6.50	6.23%	6.23%
Anadarko Petroleum Corp.	7	032511AL1	Deb	11/15/2027	BBB-	5.36	5.16	6.15	6.12	6.31	6.29	5.93	5.97	6.05	5.75	5.91	6.04	5.92%	5.90%
Anadarko Petroleum Corp.	6.62	032511AM9	Deb	01/15/2028	BBB-	5.70	5.50	5.65	5.62	5.81	5.79	5.43	5.46	5.54	5.24	5.39	5.57	5.56%	5.40%
Anadarko Petroleum Corp.	7.2	032511AN7	Deb	03/15/2029	BBB-	5.45	5.25	5.40	5.68	5.87	5.85	5.49	5.43	5.51	5.00	5.15	5.32	5.45%	5.16%
Anadarko Petroleum Corp.	6.12	032511AT4	Nts	03/15/2012	BBB-	1.51												1.51%	
Anadarko Petroleum Corp.	5	032511AU1	Nts	10/01/2012	BBB-	1.45	1.47	1.31	1.53	1.68	1.82	1.81						1.58%	
Anadarko Petroleum Corp.	5.95	032511AX5	Sr Nts	09/15/2016	BBB-	2.58	2.32	2.38	2.18	2.68	2.60	2.16	1.90	1.79	1.62	1.71	1.72	2.14%	1.68%
Anadarko Petroleum Corp.	6.45	032511AY3	Sr Nts	09/15/2036	BBB-	5.15	4.94	5.24	5.15	5.29	5.27	4.68	4.79	4.83	4.48	4.64	4.67	4.93%	4.60%
Boardwalk Pipelines Llc	5.5	096629AA8	Nt	2/1/2017	BBB-	3.23	3.27	3.38	3.16	3.14	3.18	3.07	3.01	3.02	2.72	2.73	2.76	3.06%	2.74%
Boardwalk Pipelines Lp	5.88	096630AA6	Sr Nt	11/15/2016	BBB-	2.98	3.12	3.21	2.91	2.89	3.08	2.92	2.69	2.61	2.62	2.63	2.67	2.86%	2.64%
Energy Transfer Partners, L.P.	5.95	29273RAB5	Sr Nt	2/1/2015	BBB-	2.93	2.53	2.44	2.22	2.56	2.23	2.14	1.83	1.71	1.24	1.55	1.27	2.05%	1.35%
Energy Transfer Partners, L.P.	5.65	29273RAD1	Sr Nt	8/1/2012	BBB-	2.73	1.63	1.68	1.89	2.22	1.89							2.01%	
Energy Transfer Partners, L.P.	6.12	29273RAE9	Sr Nt	2/15/2017	BBB-	3.83	3.72	3.49	3.39	3.26	3.20	2.99	2.54	2.51	1.95	2.19	2.12	2.93%	2.09%
Energy Transfer Partners, L.P.	6.62	29273RAF6	Sr Nt	10/15/2036	BBB-	6.15	6.06	6.29	6.11	6.37	6.16	5.73	5.76	5.83	4.92	5.16	5.32	5.82%	5.13%
Kerr-McGee Corp.	7.125	492386AK3	Deb	10/15/2027	BBB-	5.23	5.49	5.64	5.61	5.80	5.78	5.42	5.46	5.14	4.81	4.98	5.06	5.37%	4.95%
Kerr-McGee Corp.	7.875	492386AT4	Nts	09/15/2031	BBB-	5.45	5.24	5.37	5.41	5.57	5.41	5.00	5.09	5.13	4.82	4.83	5.12	5.20%	4.92%
Kerr-McGee Corp.	6.95	492386AU1	Nts	07/01/2024	BBB-	4.61	4.52	4.74	4.27	4.45	4.46	3.95	3.94	3.93	3.60	3.77	4.02	4.19%	3.80%
Union Pacific Resources Group	7.5	907834AB1	Deb	10/15/2026	BBB-	4.86	4.77	4.96	5.58	5.85	5.86	5.49	5.51	5.46	5.19	5.36	5.49	5.37%	5.35%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
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BOND YIELD TO MATURITY

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Union Pacific Resources Group	7.5	907834AC9	Deb	11/01/2096	BBB-	6.15	5.98	6.39	6.36	6.28	6.46	6.16	6.20	6.28	6.02	6.17	6.50	6.25%	6.23%
Union Pacific Resources Group	7.05	907834AF2	Deb	05/15/2018	BBB-	4.09	4.07	4.21	4.27	4.56	3.91	3.60	3.58	3.52	3.47	3.59	3.70	3.88%	3.59%
Union Pacific Resources Group	7.15	907834AG0	Deb	05/15/2028	BBB-	5.75	5.55	5.70	5.76	5.95	5.93	5.57	5.21	5.29	4.99	5.17	5.17	5.50%	5.11%
Williams Companies, Inc. (The)	8.875	969457AM2	Deb	09/15/2012	BBB-	5.95												5.95%	
Williams Companies, Inc. (The)	7.625	969457AW0	Nts	07/15/2019	BBB-	4.19	4.22	4.48	4.21	4.10	4.03	4.00	3.91	4.00	3.69	3.69	3.89	4.03%	3.76%
Williams Companies, Inc. (The)	7.5	969457BB5	Deb	01/15/2031	BBB-	6.03	5.84	5.76	5.61	5.45	5.54	5.43	5.31	5.43	5.13	5.42	5.32	5.52%	5.29%
Williams Companies, Inc. (The)	7.75	969457BD1	Nts	06/15/2031	BBB-	6.03	5.84	5.91	5.81	5.65	5.55	5.53	5.41	5.48	5.18	5.47	5.37	5.60%	5.34%
Williams Companies, Inc. (The)	7.875	969457BG4	Nts	09/01/2021	BBB-	4.55	4.49	4.46	4.33	4.12	4.32	4.25	3.91	3.85	3.53	3.84	3.91	4.13%	3.76%
Williams Companies, Inc. (The)	8.125	969457BK5	Nts	03/15/2012	BBB-	0.62												0.62%	
Williams Companies, Inc. (The)	8.75	969457BM1	Nts	03/15/2032	BBB-	6.10	5.89	5.98	5.81	5.64	5.59	5.58	5.56	5.68	5.18	5.56	5.47	5.67%	5.40%
Pioneer Natural Resources Co.	6.88	723787AF4	Sr Nts	05/01/2018	BB+	4.14	3.77	3.53	3.58	3.74	3.52	3.00	2.82	2.77	2.39	2.47	2.50	3.19%	2.45%
Pioneer Natural Resources Co.	6.65	723787AG2	Sr Nts	03/15/2017	BB+	3.73	3.37	3.53	3.61	3.69	3.23	2.82	2.35	2.26	2.07	2.03	2.19	2.91%	2.10%
Sunoco, Inc.	5.75	86764PAD1	Nts	01/15/2017	BB+	5.38	4.97	4.43	4.50	3.93	4.25	3.90	3.04	3.00	2.88	2.53	2.42	3.77%	2.61%
Tesoro Corp.	6.25	881609AQ4	Sr Nt	11/1/2012	BB+	2.86	2.48	2.79	2.29	3.80	3.98	2.23	3.16	6.09				3.30%	
Tesoro Corp.	6.62	881609AS0	Sr Nt	11/1/2015	BB+	5.94	5.89	5.99	5.90	5.96	6.11	5.89	6.00	6.04	6.25	6.25	6.25	6.04%	6.25%
Whiting Petroleum Corp.	7	966387AE2	Sr Sub Nts	02/01/2014	BB+	3.35	3.21	3.18	3.17	3.12	3.10	3.05	2.13	1.70	2.89	1.80	2.52	2.77%	2.40%
KN Energy	6.5	482620AN1	Deb	09/01/2013	BB	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50%	6.50%
KN Energy	6.67	482620AS0	Deb	11/01/2027	BB	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20%	7.20%
KN Energy	7.25	482620AW1	Sr Deb	03/01/2028	BB	6.95	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98	6.98%	6.98%
KN Energy /Kinder Morgan	7.45	482620AX9	Sr Deb	03/01/2098	BB	7.83	7.83	7.83										7.83%	
Kinder Morgan Inc	6.5	494553AB6	Sr Nts	09/01/2012	BB	3.45	2.51	1.72	2.44	1.99	3.53	3.34						2.71%	
Kinder Morgan Inc	5.15	494553AC4	Sr Nts	03/01/2015	BB	4.18	3.51	3.33	3.47	3.32	3.23	2.99	2.95	2.49	2.09	2.06	2.15	2.98%	2.10%
Range Resources Corp.	7.5	75281AAG4	Sr Sub Nts	05/15/2016	BB	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59	6.59%	6.59%
Range Resources Corp.	7.5	75281AAH2	Sr Sub Nts	10/01/2017	BB	6.32	6.21	6.30	6.39	6.37	6.47	6.45	6.55	6.57	6.59	6.57	6.56	6.45%	6.57%
Range Resources Corp.	7.25	75281AAJ8	Sr Sub Nts	05/01/2018	BB	5.98	5.87	6.00	6.04	6.02	5.96	5.94	5.98	6.02	6.05	6.15	6.13	6.01%	6.11%
Whiting Petroleum Corp.	7.25	966387AB8	Sr Sub Nts	05/01/2012	BB	7.25	7.25	7.25	7.25									7.25%	
Whiting Petroleum Corp.	7.25	966387AC6	Sr Sub Nts	05/01/2013	BB	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57%	6.57%
Chesapeake Energy Corp.	6.5	165167BS5	Sr Nts	08/15/2017	BB-	5.70	5.53	5.20	6.55	8.17	6.79	6.61	5.85	4.98	5.04	5.40	4.44	5.86%	4.96%
Chesapeake Energy Corp.	6.88	165167BU0	Sr Nts	11/15/2020	BB-	6.38	6.12	6.34	7.15	8.03	7.19	7.23	6.28	5.89	5.92	6.30	5.54	6.53%	5.92%
Chesapeake Energy Corp.	2.75	165167BW6	ontingent Sr Nt Cor	11/15/2035	BB-	2.94	2.76	2.73	3.23	3.58	3.20	3.25	3.14	2.93	2.96	3.05	3.00	3.06%	3.00%
Chesapeake Energy Corp.	7.62	165167BY2	Sr Nts	07/15/2013	BB-	3.71	3.14	3.24	4.20	7.14	4.65	3.86	3.50	2.53	2.57	1.98	1.99	3.54%	2.18%
Chesapeake Energy Corp.	2.5	165167BZ9	ontingent Sr Nt Cor	5/15/2037	BB-	3.17	2.88	2.85	3.36	3.69	3.27	3.25	3.13	3.03	2.93	3.12	3.10	3.15%	3.05%
Chesapeake Energy Corp.	2.5	165167CA3	r Contingent Conv I	5/15/2037	BB-	3.17	2.92	2.93	3.58	3.84	3.50	3.44	3.36	3.16	3.16	3.20	3.18	3.29%	3.18%
Chesapeake Energy Corp.	2.25	165167CB1	ontingent Sr Nt Cor	12/15/2038	BB-	3.38	3.40	3.32	3.57	3.80	3.35	3.41	3.32	3.24	3.18	3.34	3.36	3.39%	3.29%
Chesapeake Energy Corp.	7.25	165167CC9	Sr Nt	12/15/2018	BB-	6.03	5.63	6.05	7.15	8.25	6.90	6.75	6.32	5.60	5.96	6.04	5.45	6.34%	5.82%
El Paso Corp.	7.88	28336LAE9	Nts	06/15/2012	BB-	2.71	2.75	2.65	3.30									2.85%	
Plains Exploration & Production Company	7	726505AC4	SrNts	03/15/2017	BB-	6.19	6.18	6.28	6.21	6.14	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.18%	6.17%
Plains Exploration & Production Company	7.75	726505AD2	SrNts	06/15/2015	BB-	6.73	6.38	6.69	6.84	7.00	7.01	7.00	7.00	7.00	7.00	7.00	7.00	6.89%	7.00%
Swift Energy Co.	7.12	870738AF8	SrNts	06/01/2017	BB-	7.12	6.44	6.26	6.36	6.76	6.94	6.57	6.44	6.30	6.42	6.47	6.33	6.53%	6.41%
Berry Petroleum Co.	8.25	085789AC9	Sr SubNts	11/01/2016	B	7.17	7.16	7.14	7.16	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.22%	7.25%
Quicksilver Resources Inc.	7.12	74837RAC8	Sr Sub Nts	04/01/2016	B-	8.42	8.21	9.57	9.77	11.03	14.05	14.51	14.04	12.13	11.85	13.62	15.12	11.86%	13.53%
Ferrellgas,L.P./Finance	8.75	315292AD4	SrNts	05/01/2012	B+	8.75	8.75	8.75	8.75	8.75								8.75%	
Ferrellgas Partners L.P.	6.75	31529MAA6	Sr Nts	06/15/2014	B+	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56%	6.56%
KCS Energy, Inc.	7.125	482434AF4	Sr Nts	04/01/2012	B+	7.13	7.13	7.13										7.13%	
Stone Energy Corp.	6.75	861642AG1	Sr Sub Nts	12/15/2014	CCC+	7.03	6.74	6.43	6.53	6.96	7.08	6.74	6.74	6.55	6.51	6.74	6.74	6.73%	6.66%
Cimarex Energy Co.	7.12	171798AA9	SrNts	05/01/2017	NR	6.16	6.09	6.08	6.35	6.27	6.27	6.27	6.27	6.27	6.27	6.27	6.27	6.24%	6.27%
Delta Petroleum Corp.	7	247907AC2	Sr Nts	04/01/2015	NR	15.16	16.83	20.37	23.75	25.25	28.59	28.59	28.59	28.59	28.59	28.59	28.59	25.12%	28.59%
Delta Petroleum Corp.	3.75	247907AD0	Sr Nt Conv	5/1/2037	NR	5.15	5.15	5.61	5.81									5.43%	
Encore Acquisition	6	29255WAG5	Sr Sub Nt	7/15/2015	NR	5.77	5.77	5.77	5.77	5.77	5.77	5.78	5.77	5.77	5.77	5.77	5.77	5.77%	5.77%
Forest Oil Corp.	7.75	346091AU5	Sr Nts	05/01/2014	NR	7.38	7.38	7.38	7.38	7.38	7.38	7.38	7.38	7.38	7.38	7.38	7.38	7.38%	7.38%
Houston Exploration Co. (The)	7	442120AE1	Sr Sub Nts	06/15/2013	NR	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00%	7.00%
Mariner Energy, Inc.	7.5	56845TAE7	Sr Nts	04/15/2013	NR	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40	5.40%	5.40%
Mariner Energy, Inc.	8	56845TAF4	Sr Nts	05/15/2017	NR	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21	5.21%	5.21%
Newfield Exploration Co.	6.62	651290AH1	Sr Sub Nts	09/01/2014	NR	5.98	6.07	6.00	6.10	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03%	6.03%
Newfield Exploration Co.	6.62	651290AJ7	Sr Sub Nts	04/15/2016	NR	5.87	5.86	5.98	5.94	5.96	5.91	5.94	5.99					5.93%	
Offshore Logistics, Inc.	6.12	676255AL6	SrNts	06/15/2013	NR	5.74	5.74	5.74	5.74	5.74	5.74	5.74	5.74	5.74	5.74	5.74	5.74	5.74%	5.74%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Liquid Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Pioneer Natural Resources Co.	7.2	723787AB3	Sr Nts	01/15/2028	NR	5.56	5.02	5.09	5.29	5.12	5.08	4.84	4.74	4.85	4.59	4.58	4.68	4.95%	4.62%
Pioneer Natural Resources Co.	7.2	723787AB3	Sr Nt	6/15/2028	NR	5.56	5.02	5.09	5.29	5.12	5.08	4.84	4.74	4.85	4.59	4.58	4.68	4.95%	4.62%
Plains All American Pipeline, L.P.	7.75	726503AD7	Sr Nts	10/15/2012	NR	2.19												2.19%	
Quicksilver Resources Inc.	1.88	74837RAB0	Sr Deb Conv	11/1/2024	NR	1.87	1.87	1.87										1.87%	
Range Resources Corp.	7.38	75281AAB5	Sr Sub Nts	07/15/2013	NR	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00%	7.00%
Rentech, Inc.	4	760112AA0	Sr Nt Conv	4/15/2013	NR	7.15	4.90	5.72	5.75	5.89	4.30	4.70	3.99	6.96	4.26	4.30	9.54	5.62%	6.03%
Sun Co	9	866762AK3	Deb	11/01/2024	NR	5.39	5.46	5.73	5.45	5.53	6.01	5.84	5.85	5.84	5.95	5.97		5.73%	5.96%
TEPPCO Partners, L.P.	6.125	872384AB8	Sr Nts	02/01/2013	NR	1.49	1.40	1.44	1.49	1.29	1.20	1.30	1.38	1.13	1.48	0.41		1.27%	0.95%
			Counts of data			196	193	186	182	179	178	176	173	171	169	169	164	197	169

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
AAA's	1.56%	1.56%
AA's	4.19%	4.11%
A's	3.44%	3.36%
BBB's	3.79%	3.79%
BB's	5.06%	4.81%
B's	8.30%	9.11%
CCC's	6.73%	6.66%
NR's	6.26%	7.10%
ALL	4.15%	4.12%
BBB- & Above	3.52%	3.50%
BB- & Above	3.78%	3.71%

**'Investment Grade (BBB- & Above)*

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Liquid Pipelines
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
20 YR PLUS - BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
XTO Energy Inc.	6.1	98385XAJ5	Sr Nts	04/01/2036	AAA	3.78	3.84	4.06	3.89	3.62	3.57	3.41	3.31	3.53	3.43	3.42	3.52	3.62%	3.46%
XTO Energy Inc.	6.75	98385XAM8	Sr Nts	08/01/2037	AAA	3.68	3.59	3.81	3.64	3.37	3.42	3.26	3.36	3.58	3.34	3.33	3.43	3.48%	3.37%
XTO Energy Inc.	6.38	98385XAQ9	Sr Nts	06/15/2038	AAA	3.78	3.84	4.01	3.84	3.54	3.49	3.33	3.36	3.58	3.48	3.47	3.57	3.61%	3.51%
Texaco Capital	8.625	881685AY7	GtdDeb	04/01/2032	AA	4.08	4.14	4.36	4.21	4.09	4.04	3.80	3.83	4.00	3.91	3.95	4.05	4.04%	3.97%
Texaco Capital	8	881685BB6	GtdDeb	08/01/2032	AA	4.58	4.64	4.36	4.21	4.09	3.99	3.75	3.78	3.95	3.86	3.90	4.00	4.09%	3.92%
Texaco Capital	7.5	881685BD2	GtdDeb	03/01/2043	AA	6.93	6.96	6.92	6.95	6.99	7.01	7.04	7.08	7.10	7.14	7.17	7.20	7.04%	7.17%
Atlantic Richfield	8.75	048825BB8	Deb	03/01/2032	A	5.43	5.44	5.56	5.39	5.17	5.17	5.01	5.04	5.22	4.68	4.72	4.80	5.14%	4.73%
ConocoPhillips	5.9	20825CAF1	Nts	10/15/2032	A	4.18	4.24	4.29	4.07	4.14	3.97	3.80	3.76	3.88	3.57	3.61	3.85	3.95%	3.68%
Apache Corp.	7.625	037411AL9	Deb	11/01/2096	A-	5.00	5.20	5.46	5.46	5.39	5.27	5.01	5.06	5.13	4.95	4.99	5.26	5.18%	5.07%
Apache Corp.	7.38	037411AM7	Deb	08/15/2047	A-	4.52	4.56	4.75	4.98	4.93	4.81	4.45	4.50	4.63	4.33	4.42	4.80	4.64%	4.52%
Apache Corp.	6	037411AR6	Nts	01/15/2037	A-	4.21	4.12	4.49	4.47	4.41	4.24	3.93	3.84	3.97	3.73	3.92	4.24	4.13%	3.96%
Canadian Natural Resources Limited	6.45	136385AE1	Nt	6/30/2033	BBB+	4.53	4.59	4.76	4.64	4.54	4.61	4.58	4.33	4.50	4.18	4.37	4.37	4.50%	4.31%
Devon Fin Corp	7.95	251799AA0	Sr Deb	04/15/2032	BBB+	4.68	4.54	4.76	4.61	4.81	4.56	4.25	4.24	4.41	4.03	4.24	4.27	4.45%	4.18%
Enbridge Energy Partners, L.P.	5.95	29250RAD8	Sr Nts 'B'	06/01/2033	BBB	5.28	5.10	5.26	5.09	4.90	4.85	4.68	5.11	5.33	4.73	4.77	5.07	5.01%	4.86%
Enterprise Products Oper	6.65	293791AP4	Sr Nts'B'	10/15/2034	BBB	5.29	5.06	5.14	4.96	4.99	4.99	4.80	4.69	4.85	4.59	4.76	4.87	4.92%	4.74%
Enterprise Products Oper	5.75	293791AT6	Sr Nts'B'	03/01/2035	BBB	5.24	5.04	5.19	5.11	5.09	4.98	4.74	4.74	4.74	4.56	4.75	4.72	4.91%	4.68%
Kinder Morgan Energy Partners, L.P.	7.75	494550AL0	Nts	03/15/2032	BBB	5.86	5.74	5.88	5.85	5.87	5.62	5.44	5.26	5.32	4.64	4.86	4.94	5.44%	4.81%
Kinder Morgan Energy Partners, L.P.	7.3	494550AQ9	Sr Nts	08/15/2033	BBB	5.92	5.74	5.78	5.83	5.87	5.62	5.44	5.21	5.27	4.64	4.85	4.93	5.43%	4.81%
Kinder Morgan Energy Partners, L.P.	6.5	494550AV8	Sr Nt	2/1/2037	BBB	5.86	5.59	5.69	5.54	5.58	5.57	5.25	5.11	5.05	4.56	4.88	4.92	5.30%	4.79%
Kinder Morgan Energy Partners, L.P.	6.95	494550AW6	Sr Nt	1/15/2038	BBB	5.88	5.64	5.81	5.64	5.69	5.49	5.20	5.15	5.06	4.63	5.02	4.77	5.33%	4.81%
Marathon Oil Corp.	6.8	565849AB2	Nts	03/15/2032	BBB	5.13	4.94	5.06	4.92	4.62	4.57	4.41	4.44	4.66	4.29	4.28	4.38	4.64%	4.32%
ONEOK Partners, L.P.	6.65	68268NAC7	Gtd Sr Nt	10/1/2036	BBB	5.08	5.14	5.46	5.31	5.34	5.34	5.28	5.21	5.35	4.53	4.82	4.92	5.15%	4.76%
Plains All Amern Pipeline L P	6.7	72650RAM4	Sr Nt	5/15/2036	BBB	5.48	5.39	5.44	5.22	5.74	5.41	4.88	4.76	4.85	4.52	4.62	4.72	5.09%	4.62%
Valero Energy Corp. (New)	7.5	91913YAE0	Nts	04/15/2032	BBB	6.25	6.07	6.01	6.06	6.02	6.05	5.48	5.36	5.58	4.92	5.12	5.16	5.67%	5.07%
Valero Energy Corp. (New)	6.62	91913YAL4	Nts	06/15/2037	BBB	6.03	5.67	5.85	5.99	5.94	5.75	5.22	5.13	5.12	4.88	5.11	4.97	5.47%	4.99%
Anadarko Petroleum Corp.	7.73	032511AJ6	Deb	09/15/2096	BBB-		6.03	6.49	6.46	6.39	6.56	6.28	6.32	6.40	6.14	6.29	6.42	6.34%	6.28%
Anadarko Petroleum Corp.	7.25	032511AK3	Deb	11/15/2096	BBB-	6.15	5.98	6.39	6.34	6.25	6.41	6.11	6.15	6.23	6.02	6.17	6.50	6.23%	6.23%
Anadarko Petroleum Corp.	6.45	032511AY3	Sr Nts	09/15/2036	BBB-	5.15	4.94	5.24	5.15	5.29	5.27	4.68	4.79	4.83	4.48	4.64	4.67	4.93%	4.60%
Energy Transfer Partners, L.P.	6.62	29273RAF6	Sr Nt	10/15/2036	BBB-	6.15	6.06	6.29	6.11	6.37	6.16	5.73	5.76	5.83	4.92	5.16	5.32	5.82%	5.13%
Union Pacific Resources Group	7.5	907834AC9	Deb	11/01/2096	BBB-	6.15	5.98	6.39	6.36	6.28	6.46	6.16	6.20	6.28	6.02	6.17	6.50	6.25%	6.23%
Williams Companies, Inc. (The)	8.75	969457BM1	Nts	03/15/2032	BBB-	6.10	5.89	5.98	5.81	5.64	5.59	5.58	5.56	5.68	5.18	5.56	5.47	5.67%	5.40%
KN Energy /Kinder Morgan	7.45	482620AX9	Sr Deb	03/01/2098	BB	7.83	7.83	7.83										7.83%	
Chesapeake Energy Corp.	2.75	165167BW6	ntingent Sr Nt Co	11/15/2035	BB-	2.94	2.76	2.73	3.23	3.58	3.20	3.25	3.14	2.93	2.96	3.05	3.00	3.06%	3.00%
Chesapeake Energy Corp.	2.5	165167BZ9	ntingent Sr Nt Co	5/15/2037	BB-	3.17	2.88	2.85	3.36	3.69	3.27	3.25	3.13	3.03	2.93	3.12	3.10	3.15%	3.05%
Chesapeake Energy Corp.	2.5	165167CA3	Contingent Conv	5/15/2037	BB-	3.17	2.92	2.93	3.58	3.84	3.50	3.44	3.36	3.16	3.16	3.20	3.18	3.29%	3.18%
Chesapeake Energy Corp.	2.25	165167CB1	ntingent Sr Nt Co	12/15/2038	BB-	3.38	3.40	3.32	3.57	3.80	3.35	3.41	3.32	3.24	3.18	3.34	3.36	3.39%	3.29%
Delta Petroleum Corp.	3.75	247907AD0	Sr Nt Conv	5/1/2037	NR	5.15	5.15	5.61	5.81									5.43%	
			Counts of data			30	31	31	30	29	29	29	29	29	29	29	29	31	29

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
AAA's	3.57%	3.44%
AA's	5.06%	5.02%
A's	4.61%	4.39%
BBB's	5.33%	4.98%
BB's	4.14%	3.13%
B's	----	----
CCC's	----	----
NR's	5.43%	----
ALL	4.91%	4.56%
BBB- & Above	5.01%	4.74%
BB- & Above	4.89%	4.56%

**'Investment Grade (BBB- & Above)*

2013 Capitalization Rate Study

Railroads

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Class I Railroads
2013 Assessment Year

Equity Measures Calculated:

E/P estimates:

ALL	Median	
6.67%	6.75%	Yahoo
6.44%	6.53%	Value Line
6.56%	6.64%	Average of E/Ps

Inverse of P/E Ratios:

6.63%	6.63%	Yahoo
6.42%	6.47%	Value Line
6.53%	6.55%	Average of Inverse of the P/E
6.38%	6.67%	Inverse of median P/E, Value Line
6.54%	6.60%	Average of all above except median P/E
Mean = 6.51%	6.61%	
Median = 6.44%	6.63%	

Equity Measure NUOI = 6.40%

Debt Measure Calculated, Current Yield:

	Annual	4th Qtr	
	5.37%	5.27%	ALL
	5.29%	5.18%	BBB- & Above
	5.31%	5.20%	BB- & Above
Mean =	5.32%	5.22%	
Median =	5.31%	5.20%	

Debt Measure = 5.25%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate						
Equity	81.00%	x	6.40%	=	5.18%	
Debt	19.00%	x	5.25%	=	1.00%	
	100%				6.18%	
			Direct Cap Rate NUOI		=	**6.25%**

Gross Cash Flow / Price:

Mean	Median	
10.26%	9.40%	Value Line

Equity Measure Gross = 10.20%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)						
Equity	81.00%	x	10.20%	=	8.26%	
Debt	19.00%	x	5.25%	=	1.00%	
	100%				9.26%	
Direct Cap Rate GCF					=	**9.50%**

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Class III Railroads
2013 Assessment Year

Equity Measures Calculated:

E/P estimates:

ALL	Median	
2.33%	2.33%	Yahoo
3.77%	3.77%	Value Line
3.05%	3.05%	Average of E/Ps

Inverse of P/E Ratios:

2.24%	2.24%	Yahoo
3.88%	3.88%	Value Line
3.06%	3.06%	Average of Inverse of the P/E
5.56%	5.56%	Inverse of median P/E, Value Line
3.06%	3.06%	Average of all above except median P/E
Mean = 3.56%	3.56%	
Median = 3.77%	3.77%	

Equity Measure NUOI = 3.80%

Debt Measure Calculated, Current Yield:

	Annual	4th Qtr	
	5.37%	5.27%	ALL
	5.29%	5.18%	BBB- & Above
	5.31%	5.20%	BB- & Above
Mean =	5.32%	5.22%	
Median =	5.31%	5.20%	

Debt Measure = 5.40%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate						
Equity	84.00%	x	3.80%	=	3.19%	
Debt	16.00%	x	5.40%	=	0.86%	
	100%				4.06%	
			Direct Cap Rate NUOI	=		**4.25%**

Gross Cash Flow / Price:

Mean	Median	
6.14%	6.14%	Value Line

Equity Measure Gross = 6.20%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)						
Equity	84.00%	x	6.20%	=	5.21%	
Debt	16.00%	x	5.40%	=	0.86%	
	100%				6.07%	
Direct Cap Rate GCF				=		**6.25%**

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Study
Industry: Railroads
2013 Assessment Year

Equity Measures Calculated:

	Class I	Class III
Dividend Growth Model	17.00%	
Capital Asset Pricing Model	10.74%	11.14%
Mean =	13.87%	11.14%

Equity Measure FCF = **10.80%** **11.15%**

Debt Measures Calculated, Yield to Maturity:

	ALL DEBT		20 YEAR PLUS DEBT	
	Annual	4th Qtr	Annual	4th Qtr
45794	3.49%	3.41%	4.71%	4.52%
47255	3.41%	3.33%	4.71%	4.52%
44696	3.46%	3.38%	---	---
Mean =	3.46%	3.37%	4.71%	4.52%
Median =	3.46%	3.38%	4.71%	4.52%

Debt Measure = **4.65%**

CLASS I

Yield Cap Rate Free Cash Flow						
Equity	81.00%	x	10.80%	=	8.75%	
Debt	19.00%	x	4.65%	=	0.88%	
	100.00%				9.63%	
Weighted Average Cost of Capital (WACC) =						**9.75%**

CLASS III

Yield Cap Rate Free Cash Flow						
Equity	84.00%	x	11.15%	=	9.37%	
Debt	16.00%	x	4.65%	=	0.74%	
	100.00%				10.11%	
Weighted Average Cost of Capital (WACC) =						**10.25%**

Where Assumed Growth Rate = Inflation **Growth =** **2.00%**

see appendix for calculation 2.47%

Inflationdata.com 1/16/2013 1.74%

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Railroads
2012 Assessment Year

A	B	C	D	E	F	G	H	I	J	K	L	M
Company	Ticker Symbol	(VL) Financial Strength	(VL) Shares (000)	(YAHOO) Avg. Price Common 4th Quarter	(VL) Book Value Per Share H/D	Mkt. Value Common DxE	(VL) Book Value Common (000)	(VL) Book Value Preferred (000)	Mkt. Value Preferred (000) IxL	(VL) Book Value Debt (000)	Mkt/Book Debt Ratio	Mkt. Value Debt (000) KxL
Can. National Railway	CNI	A	442,100	88.41	23.673	39,086,798	10,466,000	0	0	6,312,000	1.00	6,312,000
Union Pacific	UNP	A	479,900	123.05	38.712	59,049,296	18,578,000	0	0	8,697,000	1.00	8,697,000
CSX Corp.	CSX	B++	1,049,200	20.31	8.071	21,304,006	8,468,000	0	0	8,734,000	1.00	8,734,000
Norfolk Southern	NSC	A	330,400	61.64	29.997	20,364,204	9,911,000	0	0	7,390,000	1.00	7,390,000
Kansas City South'n	KSU	B+	109,900	78.67	25.099	8,646,199	2,758,400	6,100	6,100	1,602,800	1.00	1,602,800
Can. Pacific Railway	CP	B+	170,000	92.63	26.800	15,747,667	4,556,000	0	0	4,601,100	1.00	4,601,100
Genesee & Wyoming	GWR	B+	42,500	71.71	22.602	3,047,533	960,600	0	0	569,000	1.00	569,000
RailAmerica Inc.	RA											
SUMS & AVERAGES - ALL						167,245,703	55,698,000	6,100	6,100	37,905,900		37,905,900
CLASS I SUMS & AVERAGES - ALL						164,198,169	54,737,400	6,100	6,100	37,336,900		37,336,900
CLASS I MEDIAN VALUE												
CLASS III SUMS & AVERAGES - ALL						3,047,533	960,600	0	0	569,000		569,000
CLASS III MEDIAN VALUE												

** All **Negative** values left out of calculations*

INDUSTRY MARKET STRUCTURE						
	CLASS I RAILROADS		CLASS III RAILROADS		ALL RAILROADS	
COMMON	81.00%	164,198,169	84.00%	3,047,533	82.00%	167,245,703
DEBT	19.00%	37,343,000	16.00%	569,000	18.00%	37,912,000
TOTAL	100.00%	201,541,169	100.00%	3,616,533	100.00%	205,157,703

2013 Notes/Rational for Changes to Guideline Companies

Genesee & Wyoming acquiring Rail America data no longer in Value Line for Rail America announced July 23, 2012

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Railroads
2012 Assessment Year

A	B	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Company	Ticker Symbol	(YAHOO) EPS ltst 12mo	(YAHOO) E/P N/E	(VL) EPS	(VL) E/P P/E	(VL) CF/S	(VL) CF/P R/E	(YAHOO) P/E	(YAHOO) Inverse of P/E 1/T	(VL) P/E	(VL) Inverse of P/E 1/V	(VL) Median P/E	(VL) Inverse of Median P/E 1/X	(VL) Beta
Can. National Railway	CNI	6.15	6.96%	5.55	6.28%	7.85	8.88%	14.75	6.78%	15.89	6.29%	14.00	7.14%	1.10
Union Pacific	UNP	8.06	6.55%	8.35	6.79%	12.20	9.92%	15.43	6.48%	15.04	6.65%	15.00	6.67%	1.15
CSX Corp.	CSX	1.79	8.82%	1.75	8.62%	2.80	13.79%	11.08	9.02%	11.76	8.50%	15.00	6.67%	1.20
Norfolk Southern	NSC	5.49	8.91%	5.30	8.60%	9.10	14.76%	11.13	8.98%	12.30	8.13%	14.00	7.14%	1.10
Kansas City South'n	KSU	3.46	4.40%	3.15	4.00%	5.10	6.48%	23.14	4.32%	24.90	4.02%	25.00	4.00%	1.30
Can. Pacific Railway	CP	4.09	4.42%	4.05	4.37%	7.15	7.72%	23.73	4.21%	20.32	4.92%	15.00	6.67%	1.30
Genesee & Wyoming	GWR	1.67	2.33%	2.70	3.77%	4.40	6.14%	44.58	2.24%	25.75	3.88%	18.00	5.56%	1.25
RailAmerica Inc.	RA													
SUMS & AVERAGES - ALL			6.05%		6.06%		9.67%		6.01%		6.06%		6.26%	1.20
CLASS I SUMS & AVERAGES - ALL			6.67%		6.44%		10.26%		6.63%		6.42%		6.38%	1.19
CLASS I MEDIAN VALUE			6.75%		6.53%		9.40%		6.63%		6.47%		6.67%	1.18
CLASS III SUMS & AVERAGES - ALL			2.33%		3.77%		6.14%		2.24%		3.88%		5.56%	1.25
CLASS III MEDIAN VALUE			2.33%		3.77%		6.14%		2.24%		3.88%		5.56%	1.25

** All **Negative** values left out of calculations*

Class I Industry Beta = 1.19
Class III Industry Beta = 1.25

2013 Notes/Rational for Changes to Gui
Genesee & Wyoming acquiring Rail A

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model
Industry: Railroads
2013 Assessment Year

$$K_E = R_F + \beta\ (R_M - R_F)$$

	Class I	Class III
K_E = Cost of Equity	**10.74%**	**11.14%**
R_F = Risk Free Rate	2.95%	2.95%
β= Beta	1.19	1.25
R_M = Market Rate of Return	9.50%	9.50%
R_P = Equity Risk Premium (RM - RF)	6.55%	6.55%

R_m = Investor's Market Rate of Return

		Class I	Class III
Ibbotson, SBBI, Large Company, Average Annual Return, ***Arithmetic** Average, Ex-Post	R_M=	11.80%	11.80%
Ibbotson, SBBI, Large Company, Average Annual Return, ***Geometric** Average, Ex-Post	R_M=	9.80%	9.80%
3 Stage Dividend Growth Model, S & P 500, See Exhibit, Ex Ante	R_M=	9.00%	9.00%
	Mean =	10.20%	10.20%
	Median =	9.80%	9.80%
	R_M=	**9.50%**	**9.50%**

R_f = Risk Free Rate

Internal Revenue Service, Rev Rule 2012-31 Table 2 December 3, 2012
Rev Rule 2012-31 Table 2

Annual Rates	Short Term - AFR	R_f =	0.27%
	Mid Term - AFR	R_f =	0.95%
	Long Term - AFR	R_f =	2.83%

The ValueLine Investment Survey
U.S. Treasury Securities January 4, 2013

3 Month	R_f =	0.08%
6 Month	R_f =	0.13%
1 Year	R_f =	0.15%

Federal Reserve Statistical Release
Treasury constant Maturities, December 31, 2012
Market yield on U.S. Treasury securities, Annual Averages

3-month constant maturity, quoted on investment basis	R_f =	0.05%
6-month constant maturity, quoted on investment basis	R_f =	0.11%
1-year constant maturity, quoted on investment basis	R_f =	0.16%
	Mean =	0.53%
	Median =	0.15%
	Weighted Mean =	0.68%

U.S. Treasury Securities Long-Term December 31, 2012

20 year constant maturity	R_f =	**2.54%**
30 year constant maturity	R_f =	**2.95%**
	R_f =	**2.95%**

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Railroads
2013 Assessment Year

$$K_E = D1 / P_O + G_A$$

KE= Cost of Equity
D1= Expected Dividends
Po= Current Price Per Share
G= Sustainable Growth

CLASS I RAILROADS

Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth (G_1)	Ke 1 Year
Can. National Railway	CNI	88.41	1.65	1.87%	14.50%	16.37%
Can. Pacific Railway	CP	92.63	1.40	1.51%	12.50%	14.01%
CSX Corp.	CSX	20.31	0.62	3.05%	19.50%	22.55%
Kansas City South'n	KSU	78.67	0.80	1.02%	NMF	
Norfolk Southern	NSC	61.64	2.00	3.24%	11.50%	14.74%
Union Pacific	**UNP**	**123.05**	**2.80**	**2.28%**	**17.50%**	**19.78%**

Weighted Mean= 17.09%
Median= 16.37%
Mean= 17.49%

Cost of Equity, (K_E) = 17.00%

CLASS III RAILROADS

Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth (G_1)	Ke 1 Year
Genesee & Wyoming	GWR	71.71	Nil		Nil	
RailAmerica Inc.	RA					

Weighted Mean=
Median=
Mean=

Cost of Equity, (K_E) = N/A

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Railroads
2013 Assessment Year

Ticker	Company		Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS lst 12 mo
CNI	Can. National Railway	high	$ 80.50	$ 79.30	$ 81.30	$ 86.33	$ 87.10	$ 86.06	$ 89.19	$ 93.46	$ 94.83	$ 90.88	$ 90.14	$ 92.54	$88.41	$84.27	14.75	6.15
		low	$ 74.82	$ 76.03	$ 74.50	$ 75.47	$ 78.73	$ 78.27	$ 83.38	$ 85.23	$ 87.50	$ 84.19	$ 83.83	$ 88.89				
CP	Can. Pacific Railway	high	$ 73.06	$ 77.55	$ 79.91	$ 78.23	$ 79.00	$ 74.59	$ 83.20	$ 86.92	$ 88.23	$ 94.78	$ 94.83	$ 102.80	$92.63	$80.37	23.73	4.09
		low	$ 66.23	$ 71.39	$ 71.67	$ 72.17	$ 70.85	$ 68.69	$ 71.22	$ 80.07	$ 80.02	$ 82.75	$ 89.30	$ 91.34				
CSX	CSX Corp.	high	$ 23.71	$ 23.31	$ 22.54	$ 23.02	$ 23.00	$ 22.91	$ 23.20	$ 23.49	$ 23.29	$ 21.76	$ 21.08	$ 20.31	$20.31	$21.60	11.08	1.79
		low	$ 21.55	$ 21.00	$ 19.99	$ 20.97	$ 20.41	$ 19.88	$ 21.49	$ 22.12	$ 20.65	$ 20.44	$ 18.88	$ 19.36				
GBX	Greenbrier Cos Inc.	high	$ 26.66	$ 26.28	$ 26.04	$ 21.23	$ 18.08	$ 17.60	$ 17.58	$ 16.55	$ 19.47	$ 17.93	$ 19.19	$ 21.63	$17.03	$18.32	9.70	1.91
		low	$ 21.85	$ 22.10	$ 19.64	$ 16.40	$ 13.10	$ 13.15	$ 13.56	$ 14.32	$ 13.85	$ 14.75	$ 13.25	$ 15.41				
GWR	Genesee & Wyoming	high	$ 64.24	$ 66.83	$ 60.63	$ 56.21	$ 59.99	$ 54.27	$ 64.15	$ 65.70	$ 67.95	$ 72.75	$ 75.82	$ 77.04	$71.71	$61.80	44.58	1.67
		low	$ 59.62	$ 57.46	$ 53.60	$ 50.88	$ 49.24	$ 47.08	$ 52.08	$ 60.24	$ 62.84	$ 66.11	$ 66.66	$ 71.86				
KSU	Kansas City South'n	high	$ 74.77	$ 71.15	$ 74.98	$ 79.17	$ 79.50	$ 72.38	$ 75.26	$ 78.99	$ 83.95	$ 81.80	$ 83.98	$ 84.16	$78.67	$73.49	23.14	3.46
		low	$ 64.07	$ 65.93	$ 66.95	$ 68.71	$ 63.30	$ 61.36	$ 65.86	$ 70.50	$ 75.00	$ 73.30	$ 72.80	$ 76.00				
NSC	Norfolk Southern	high	$ 78.50	$ 74.00	$ 69.39	$ 73.76	$ 74.89	$ 72.17	$ 75.23	$ 75.56	$ 75.14	$ 68.01	$ 62.54	$ 62.99	$61.64	$68.36	11.13	5.49
		low	$ 71.90	$ 67.56	$ 64.10	$ 64.91	$ 64.66	$ 62.82	$ 70.77	$ 72.22	$ 63.25	$ 60.96	$ 56.05	$ 59.26				
UNP	Union Pacific	high	$ 115.81	$ 117.40	$ 114.87	$ 114.48	$ 116.14	$ 119.82	$ 123.78	$ 126.91	$ 129.27	$ 128.38	$126.92	$ 127.55	$123.05	$116.90	15.43	8.06
		low	$ 107.05	$ 108.32	$ 104.77	$ 104.08	$ 106.88	$ 105.14	$ 115.38	$ 120.31	$ 116.86	$ 118.12	$116.06	$ 121.24				
PRRR	Pioneer Railcorp	high	$ 4.00	$ 4.40	$ 5.00	$ 5.10	$ 5.00	$ 4.65	$ 5.00	$ 4.98	$ 4.90	$ 6.00	$ 6.15	$ 5.59	$5.40	$4.67	16.79	0.31
		low	$ 3.30	$ 3.70	$ 4.11	$ 4.10	$ 4.49	$ 4.48	$ 4.05	$ 4.10	$ 4.41	$ 4.70	$ 5.15	$ 4.82				
PWX	Providence & Worcester R F	high	$ 12.40	$ 14.71	$ 15.61	$ 16.49	$ 16.36	$ 15.05	$ 13.90	$ 13.28	$ 14.00	$ 14.67	$ 15.21	$ 15.00	$14.02	$13.78	28.60	0.49
		low	$ 11.50	$ 11.51	$ 14.05	$ 14.70	$ 14.05	$ 12.50	$ 12.50	$ 12.00	$ 12.09	$ 13.05	$ 13.14	$ 13.03				

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Railroads
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Northern Pac.Ry	3	665585JP1	GenLn Mtg	01/01/2047	A	4.91	4.61	4.91	4.94	4.58	4.54	4.61	4.41	4.41	4.41	4.41	4.54	4.61%	4.45%
Northern Pac.Ry	3	665585KH7	Gen LnMtg-Stpd	01/01/2047	A	4.91	4.61	4.91	4.94	4.58	4.54	4.61	4.41	4.41	4.41	4.41	4.54	4.61%	4.45%
Canadian National Railway Company	7.62	136375AY8	Deb	5/15/2023	A-	5.59	5.66	5.78	5.65	5.58	5.55	5.51	5.51	5.53	5.43	5.44	5.47	5.56%	5.45%
Canadian National Railway Company	6.8	136375BA9	Nt	7/15/2018	A-	5.43	5.45	5.44	5.39	5.39	5.40	5.38	5.34	5.38	5.39	5.38	5.39	5.40%	5.39%
Canadian National Railway Company	6.9	136375BD3	Nt	7/15/2028	A-	5.19	5.17	5.22	5.11	5.00	4.95	4.85	4.91	4.94	4.87	4.94	4.97	5.01%	4.93%
Canadian National Railway Company	6.71	136375BE1	Puttable Reset Se	7/15/2036	A-	5.13	4.99	5.17	4.95	4.79	4.80	4.66	4.62	4.69	4.53	4.57	4.64	4.80%	4.58%
Union Pacific Corp.	7	907818AZ1	Deb	02/01/2016	A-	5.81	5.85	5.92	5.88	5.91	5.92	5.92	5.90	5.92	5.94	5.97	6.00	5.91%	5.97%
Union Pacific Corp.	7	907818AZ1	Deb	2/1/2016	A-	5.81	5.85	5.92	5.88	5.91	5.92	5.92	5.90	5.92	5.94	5.97	6.00	5.91%	5.97%
Union Pacific Corp.	7.12	907818BY3	Deb	02/01/2028	A-	5.60	5.46	5.59	5.40	5.37	5.34	5.25	5.28	5.19	5.12	5.16	5.22	5.33%	5.17%
Union Pacific Corp.	6.62	907818CF3	Deb	02/01/2029	A-	5.08	5.06	5.19	5.14	4.96	5.02	4.93	4.84	4.87	4.80	4.84	4.90	4.97%	4.85%
Union Pacific Corp.	6.5	907818CP1	Nts	04/15/2012	A-	6.38	6.38	6.38										6.38%	
Union Pacific Corp.	5.38	907818CT3	Nts	05/01/2014	A-	4.95	4.95	4.95	4.96	4.96	4.97	4.98	5.00	5.01	5.03	5.05	5.07	4.99%	5.05%
Union Pacific Corp.	6.25	907818CU0	Deb	05/01/2034	A-	5.00	4.90	5.08	5.01	4.89	4.94	4.82	4.81	4.95	4.66	4.74	4.77	4.88%	4.72%
Union Pacific Corp.	4.88	907818CV8	Sr Nt	1/15/2015	A-	4.40	4.43	4.45	4.44	4.46	4.47	4.47	4.45	4.46	4.47	4.49	4.50	4.46%	4.49%
Union Pacific Corp.	5.65	907818CW6	Nts	05/01/2017	A-	4.82	4.78	4.84	4.81	4.84	4.88	4.86	4.83	4.84	4.77	4.79	4.81	4.82%	4.79%
Union Pacific Corp.	6.15	907818CX4	Deb	05/01/2037	A-	4.92	4.87	5.02	5.00	4.86	4.78	4.68	4.71	4.86	4.62	4.67	4.71	4.81%	4.67%
Union Pacific Corp.	5.45	907818CY2	Nts	01/31/2013	A-	5.20	5.22	5.23	5.26	5.28	5.29	5.32	5.34	5.35	5.38	5.44		5.30%	5.41%
Burlington Northern	8.75	121897WQ1	Deb	02/25/2022	BBB+	6.14	6.15	6.31	6.21	6.20	6.19	6.13	6.12	6.09	6.05	6.06	6.10	6.15%	6.07%
Burlington NorthernR.R.	3.8	121899CC0	Con Mtg L	01/01/2020	BBB+	3.68	3.70	3.77	3.70	3.67	3.67	3.63	3.64	3.67	3.66	3.66	3.67	3.68%	3.66%
Burlington NorthernR.R.	6.55	121899CD8	Con Mtg K	01/01/2020	BBB+	5.55	5.58	5.68	5.60	5.56	5.57	5.52	5.53	5.59	5.54	5.55	5.58	5.57%	5.56%
Burlington NorthernR.R.	6.55	121899CE6	Con Mtg O	01/01/2020	BBB+	5.55	5.58	5.68	5.60	5.56	5.57	5.52	5.53	5.59	5.54	5.55	5.58	5.57%	5.56%
Burlington NorthernR.R.	8.15	121899CF3	Con Mtg N	01/01/2020	BBB+	6.32	6.36	6.48	6.38	6.34	6.36	6.32	6.33	6.40	6.39	6.40	6.44	6.38%	6.41%
Burlington NorthernR.R.	8.15	121899CG1	Con Mtg P	01/01/2020	BBB+	6.33	6.37	6.48	6.39	6.35	6.37	6.32	6.33	6.40	6.39	6.40	6.44	6.38%	6.41%
Burlington NorthernR.R.	3.2	121899CH9	Con Mtg M	01/01/2045	BBB+	5.61	5.06	4.75	4.61	4.43	4.43	4.30	4.32	4.49	4.63	4.62	4.70	4.66%	4.65%
Burlington Northern Santa Fe Corp.	7	12189TAA2	Deb	12/15/2025	BBB+	5.26	5.28	5.44	5.27	5.27	5.25	5.15	5.16	5.20	5.07	5.11	5.15	5.22%	5.11%
Burlington Northern Santa Fe Corp.	6.88	12189TAB0	Deb	02/15/2016	BBB+	5.90	5.91	5.98	5.94	5.86	5.88	5.81	5.83	5.84	5.88	5.91	5.93	5.89%	5.91%
Burlington Northern Santa Fe Corp.	7.29	12189TAD6	Deb	06/01/2036	BBB+	5.23	5.21	5.57	5.66	5.54	5.51	5.30	5.32	5.40	5.19	5.24	5.37	5.38%	5.27%
Burlington Northern Santa Fe Corp.	6.88	12189TAG9	Deb	12/01/2027	BBB+	5.43	5.42	5.63	5.55	5.50	5.48	5.34	5.36	5.31	5.26	5.31	5.35	5.41%	5.31%
Burlington Northern Santa Fe Corp.	6.7	12189TAJ3	Deb	08/01/2028	BBB+	5.35	5.34	5.56	5.47	5.42	5.40	5.26	5.28	5.40	5.33	5.38	5.44	5.39%	5.38%
Burlington Northern Santa Fe Corp.	7.08	12189TAK0	Deb	05/13/2029	BBB+	5.43	5.42	5.72	5.70	5.61	5.59	5.44	5.46	5.58	5.51	5.55	5.62	5.55%	5.56%
Burlington Northern Santa Fe Corp.	8.12	12189TAQ7	Deb	04/15/2020	BBB+	6.04	6.14	6.27	6.13	6.12	6.08	6.03	6.05	6.04	6.04	6.08	6.12	6.10%	6.08%
Burlington Northern Santa Fe Corp.	7.95	12189TAR5	Deb	08/15/2030	BBB+	5.65	5.64	5.81	5.76	5.69	5.67	5.51	5.54	5.65	5.58	5.62	5.65	5.65%	5.62%
Burlington Northern Santa Fe Corp.	5.9	12189TAU8	Nts	07/01/2012	BBB+	5.78	5.79	5.82	5.84	5.87								5.82%	
Burlington Northern Santa Fe Corp.	4.3	12189TAV6	Nts	07/01/2013	BBB+	4.11	4.13	4.13	4.14	4.16	4.16	4.15	4.17	4.17	4.19	4.20	4.22	4.16%	4.20%
Burlington Northern Santa Fe Corp.	6.2	12189TAX2	Deb	08/15/2036	BBB+	5.01	4.91	5.17	5.07	4.99	4.96	4.78	4.79	4.88	4.84	4.79	4.84	4.92%	4.82%
Burlington Northern Santa Fe Corp.	6.15	12189TAZ7	Deb	05/01/2037	BBB+	4.93	4.92	5.11	4.99	4.96	5.00	4.79	4.75	4.80	4.63	4.68	4.76	4.86%	4.69%
Norfolk Southern Corp.	7.7	655844AE8	Nts	05/15/2017	BBB+	6.04	6.09	6.12	6.04	6.07	6.09	6.08	6.07	6.11	6.06	6.10	6.10	6.08%	6.09%
Norfolk Southern Corp.	7.05	655844AF5	Nts	05/01/2037	BBB+	5.26	5.04	5.20	5.08	5.20	5.11	5.00	4.69	4.89	4.84	4.89	4.96	5.01%	4.90%
Norfolk Southern Corp.	7.8	655844AJ7	Nts	05/15/2027	BBB+	5.53	5.49	5.64	5.51	5.44	5.42	5.34	5.35	5.48	5.45	5.50	5.54	5.47%	5.50%
Norfolk Southern Corp.	7.9	655844AK4	Nt	5/15/2097	BBB+	5.06	5.22	5.45	5.30	5.13	5.09	4.93	4.96	5.26	4.86	4.93	5.05	5.10%	4.95%
Norfolk Southern Corp.	7.25	655844AQ1	Sr Nts	02/15/2031	BBB+	5.30	5.25	5.35	5.24	5.32	5.22	5.08	4.96	5.14	5.07	5.11	5.18	5.19%	5.12%
Norfolk Southern Corp.	6	655844AV0	Fixed Rt Sr Nt	3/15/2105	BBB+	5.02	5.14	5.36	5.18	5.04	5.05	4.80	4.85	5.07	4.79	4.86	4.93	5.01%	4.86%
Norfolk Southern Corp.	5.59	655844AW8	Nts	05/17/2025	BBB+	4.71	4.73	4.76	4.65	4.63	4.63	4.51	4.46	4.56	4.48	4.52	4.55	4.60%	4.52%
Norfolk Southern Corp.	5.64	655844AX6	Nts	05/17/2029	BBB+	4.70	4.79	4.89	4.81	4.63	4.69	4.61	4.47	4.53	4.48	4.52	4.57	4.64%	4.52%
CSX Corp.	8.62	126408AM5	Deb	05/15/2022	BBB	6.22	6.22	6.35	6.25	6.24	6.23	6.11	6.13	6.23	6.16	6.23	6.25	6.22%	6.21%
CSX Corp.	8.1	126408AQ6	Deb	09/15/2022	BBB	6.00	6.00	6.13	6.02	6.01	6.00	5.88	5.89	6.03	5.95	6.02	6.04	6.00%	6.00%
CSX Corp.	6.3	126408GB3	Nts	03/15/2012	BBB	6.25	6.29											6.27%	
CSX Corp.	5.3	126408GF4	Nts	02/15/2014	BBB	4.88	4.89	4.91	4.92	4.95	4.97	4.97	4.99	5.00	5.02	5.04	5.06	4.97%	5.04%
CSX Corp.	6	126408GH0	Nts	10/01/2036	BBB	5.10	5.04	5.15	5.13	5.10	5.07	4.84	4.76	4.88	4.70	4.80	4.84	4.95%	4.78%
CSX Corp.	5.6	126408GJ6	Nts	05/01/2017	BBB	4.85	4.84	4.87	4.82	4.86	4.88	4.84	4.79	4.76	4.74	4.77	4.79	4.82%	4.77%
CSX Corp.	6.15	126408GK3	Nts	05/01/2037	BBB	5.06	5.05	5.27	5.15	5.17	5.00	4.80	4.75	4.90	4.71	4.82	4.86	4.96%	4.80%
Csx Corp MTN BE	6.8	12641LBU6	MTN Ser C	12/1/2028	BBB	5.55	5.50	5.66	5.58	5.52	5.50	5.34	5.30	5.40	5.25	5.33	5.13	5.42%	5.24%
Kansas City Southern	7	485170AF1	Deb	12/15/2025	BB-	6.20	6.24	6.40	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28%	6.28%
Consolidated Rail	9.75	209864AT4	Deb	06/15/2020	NR	7.15	7.20	7.33	7.29	7.25	7.27	7.21	7.24	7.31	7.30	7.32	7.36	7.27%	7.33%
Missouri Pacific RR.	4.75	606198LF4	GenIncA	01/01/2020	NR	4.63	4.62	4.67	4.87	4.79	4.75	4.73	4.72	4.75	4.75	4.67	4.67	4.72%	4.70%
Missouri Pacific RR.	4.75	606198LG2	GenIncB	01/01/2030	NR	5.00	5.00	5.27	5.19	5.16	5.13	5.05	4.87	4.89	5.00	4.89	4.89	5.03%	4.93%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Railroads
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STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Missouri Pacific RR.	5	606198LH0	IncDeb	01/01/2045	NR	6.41	6.57	6.57	6.21	6.17	6.09	5.95	5.85	6.06	6.02	5.81	5.81	6.13%	5.88%
Norfolk Southern Corp.	9	655844AA6	Nts	03/01/2021	NR	6.56	6.60	6.73	6.63	6.61	6.61	6.55	6.57	6.68	6.66	6.71	6.75	6.64%	6.71%
			Counts of data			58	58	57	56	56	55	55	55	55	55	55	54	58	55

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
A's	5.16%	5.02%
BBB's	5.36%	5.26%
BB's	6.28%	6.28%
NR's	5.96%	5.91%
ALL	5.37%	5.27%
BBB & Above	5.29%	5.18%
BB- & Above	5.31%	5.20%

**Investment Grade (BBB- & Above)*

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STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Northern Pac.Ry	3	665585JP1	GenLn Mtg	01/01/2047	A	5.53	5.17	5.54	5.57	5.14	5.10	5.19	4.94	4.94	4.95	4.95	5.12	5.18%	5.01%
Northern Pac.Ry	3	665585KH7	Gen LnMtg-Stpd	01/01/2047	A	5.53	5.17	5.54	5.57	5.14	5.10	5.19	4.94	4.94	4.95	4.95	5.12	5.18%	5.01%
Canadian National Railway Compan	7.62	136375AY8	Deb	5/15/2023	A-	3.67	3.79	4.03	3.73	3.57	3.48	3.35	3.33	3.36	3.11	3.10	3.16	3.47%	3.12%
Canadian National Railway Compan	6.8	136375BA9	Nt	7/15/2018	A-	2.55	2.58	2.52	2.26	2.24	2.23	2.11	1.87	1.98	1.95	1.88	1.82	2.17%	1.88%
Canadian National Railway Compan	6.9	136375BD3	Nt	7/15/2028	A-	4.13	4.09	4.16	3.95	3.74	3.64	3.44	3.54	3.59	3.45	3.57	3.62	3.74%	3.55%
Union Pacific Corp.	7	907818AZ1	Deb	02/01/2016	A-	1.69	1.83	2.04	1.78	1.80	1.77	1.63	1.39	1.40	1.42	1.45	1.49	1.64%	1.45%
Union Pacific Corp.	7	907818AZ1	Deb	2/1/2016	A-	1.69	1.83	2.04	1.78	1.80	1.77	1.63	1.39	1.40	1.42	1.45	1.49	1.64%	1.45%
Union Pacific Corp.	7.12	907818BY3	Deb	02/01/2028	A-	4.68	4.44	4.66	4.31	4.26	4.18	4.02	4.05	3.88	3.73	3.80	3.90	4.16%	3.81%
Union Pacific Corp.	6.62	907818CF3	Deb	02/01/2029	A-	4.13	4.09	4.31	4.21	3.89	3.97	3.81	3.63	3.68	3.53	3.60	3.70	3.88%	3.61%
Union Pacific Corp.	5.38	907818CT3	Nts	05/01/2014	A-	1.52	1.41	1.25	1.18	0.99	0.97	0.87	0.88	0.87	0.88	0.83	0.83	1.04%	0.85%
Union Pacific Corp.	6.25	907818CU0	Deb	05/01/2034	A-	4.46	4.32	4.59	4.48	4.29	4.36	4.16	4.14	4.36	3.89	4.02	4.07	4.26%	3.99%
Union Pacific Corp.	4.88	907818CV8	Sr Nt	1/15/2015	A-	1.20	1.33	1.43	1.20	1.31	1.28	1.16	0.81	0.79	0.79	0.84	0.84	1.08%	0.82%
Union Pacific Corp.	5.65	907818CW6	Nts	05/01/2017	A-	2.19	1.97	2.18	2.00	2.08	2.23	2.08	1.84	1.86	1.42	1.46	1.50	1.90%	1.46%
Union Pacific Corp.	6.15	907818CX4	Deb	05/01/2037	A-	4.48	4.41	4.63	4.59	4.40	4.27	4.12	4.15	4.37	4.02	4.09	4.14	4.31%	4.08%
Union Pacific Corp.	5.45	907818CY2	Nts	01/31/2013	A-	0.66	0.71	0.64	0.73	0.76	0.64	0.61	0.74	0.51	0.55	4.45	0.00	0.92%	1.67%
Burlington Northern	8.75	121897WQ1	Deb	02/25/2022	BBB+	3.67	3.67	3.98	3.73	3.69	3.65	3.48	3.41	3.32	3.19	3.19	3.24	3.52%	3.21%
Burlington NorthernR.R.	3.8	121899CC0	Con Mtg L	01/01/2020	BBB+	3.33	3.42	3.68	3.41	3.27	3.29	3.12	3.13	3.27	3.20	3.21	3.26	3.30%	3.22%
Burlington NorthernR.R.	6.55	121899CD8	Con Mtg K	01/01/2020	BBB+	3.89	3.97	4.23	3.96	3.82	3.84	3.67	3.68	3.82	3.64	3.65	3.70	3.82%	3.66%
Burlington NorthernR.R.	6.55	121899CE6	Con Mtg O	01/01/2020	BBB+	3.89	3.97	4.23	3.96	3.82	3.84	3.67	3.68	3.82	3.64	3.65	3.70	3.82%	3.66%
Burlington NorthernR.R.	8.15	121899CF3	Con Mtg N	01/01/2020	BBB+	3.88	3.96	4.21	3.95	3.81	3.82	3.66	3.67	3.81	3.74	3.74	3.80	3.84%	3.76%
Burlington NorthernR.R.	8.15	121899CG1	Con Mtg P	01/01/2020	BBB+	3.89	3.97	4.23	3.96	3.82	3.84	3.66	3.67	3.81	3.74	3.74	3.80	3.84%	3.76%
Burlington NorthernR.R.	3.2	121899CH9	Con Mtg M	01/01/2045	BBB+	6.31	5.69	5.31	5.14	4.92	4.92	4.75	4.79	5.01	5.18	5.18	5.28	5.21%	5.21%
Burlington Northern Santa Fe Corp.	7	12189TAA2	Deb	12/15/2025	BBB+	3.89	3.92	4.23	3.88	3.86	3.82	3.60	3.61	3.67	3.38	3.47	3.52	3.74%	3.46%
Burlington Northern Santa Fe Corp.	6.88	12189TAB0	Deb	02/15/2016	BBB+	2.56	2.52	2.78	2.53	2.02	2.02	1.58	1.53	1.53	1.60	1.63	1.67	2.00%	1.63%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
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2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Burlington Northern Santa Fe Corp.	7.29	12189TAD6	Deb	06/01/2036	BBB+	4.58	4.56	5.06	5.19	5.02	4.97	4.66	4.69	4.80	4.49	4.56	4.75	4.78%	4.60%
Burlington Northern Santa Fe Corp.	6.88	12189TAG9	Deb	12/01/2027	BBB+	4.51	4.49	4.85	4.71	4.61	4.56	4.30	4.33	4.22	4.13	4.22	4.27	4.43%	4.21%
Burlington Northern Santa Fe Corp.	6.7	12189TAJ3	Deb	08/01/2028	BBB+	4.52	4.50	4.86	4.72	4.62	4.57	4.31	4.34	4.55	4.43	4.50	4.60	4.54%	4.51%
Burlington Northern Santa Fe Corp.	8.12	12189TAQ7	Deb	04/15/2020	BBB+	3.29	3.52	3.83	3.43	3.37	3.22	3.05	3.06	3.00	2.94	3.02	3.07	3.23%	3.01%
Burlington Northern Santa Fe Corp.	7.95	12189TAR5	Deb	08/15/2030	BBB+	4.65	4.63	4.90	4.81	4.69	4.64	4.38	4.41	4.58	4.46	4.53	4.57	4.60%	4.52%
Burlington Northern Santa Fe Corp.	5.9	12189TAU8	Nts	07/01/2012	BBB+	1.26	0.79	0.55	0.93	0.85								0.88%	
Burlington Northern Santa Fe Corp.	4.3	12189TAV6	Nts	07/01/2013	BBB+	1.11	1.21	1.14	1.11	1.25	1.08	0.55	0.59	0.47	0.51	0.54	0.58	0.85%	0.54%
Burlington Northern Santa Fe Corp.	6.2	12189TAX2	Deb	08/15/2036	BBB+	4.58	4.44	4.81	4.66	4.54	4.49	4.23	4.23	4.37	4.30	4.22	4.30	4.43%	4.27%
Burlington Northern Santa Fe Corp.	6.15	12189TAZ7	Deb	05/01/2037	BBB+	4.50	4.49	4.76	4.58	4.54	4.59	4.28	4.21	4.28	4.03	4.10	4.22	4.38%	4.12%
Norfolk Southern Corp.	7.7	655844AE8	Nts	05/15/2017	BBB+	2.17	2.31	2.33	1.98	2.01	2.02	1.87	1.75	1.84	1.54	1.58	1.48	1.91%	1.53%
Norfolk Southern Corp.	7.05	655844AF5	Nts	05/01/2037	BBB+	4.73	4.42	4.64	4.47	4.64	4.50	4.34	3.86	4.16	4.08	4.15	4.25	4.35%	4.16%
Norfolk Southern Corp.	7.8	655844AJ7	Nts	05/15/2027	BBB+	4.16	4.07	4.33	4.08	3.94	3.90	3.73	3.74	3.96	3.89	3.98	4.03	3.98%	3.97%
Norfolk Southern Corp.	7.9	655844AK4	Nt	5/15/2097	BBB+	5.03	5.20	5.43	5.28	5.11	5.06	4.90	4.93	5.23	4.83	4.90	5.02	5.08%	4.92%
Norfolk Southern Corp.	7.25	655844AQ1	Sr Nts	02/15/2031	BBB+	4.38	4.29	4.46	4.26	4.39	4.22	3.98	3.76	4.06	3.93	4.00	4.10	4.15%	4.01%
Norfolk Southern Corp.	6	655844AV0	Fixed Rt Sr Nt	3/15/2105	BBB+	5.00	5.12	5.36	5.17	5.03	5.04	4.79	4.84	5.06	4.78	4.85	4.92	5.00%	4.85%
Norfolk Southern Corp.	5.59	655844AW8	Nts	05/17/2025	BBB+	3.79	3.82	3.88	3.63	3.59	3.57	3.28	3.16	3.38	3.18	3.27	3.32	3.49%	3.26%
Norfolk Southern Corp.	5.64	655844AX6	Nts	05/17/2029	BBB+	4.03	4.19	4.36	4.21	3.89	3.99	3.83	3.56	3.66	3.56	3.63	3.73	3.89%	3.64%
CSX Corp.	8.62	126408AM5	Deb	05/15/2022	BBB	4.01	3.99	4.25	4.00	3.94	3.90	3.60	3.61	3.82	3.63	3.77	3.77	3.86%	3.72%
CSX Corp.	8.1	126408AQ6	Deb	09/15/2022	BBB	4.02	4.00	4.26	4.01	3.95	3.91	3.61	3.62	3.90	3.71	3.85	3.85	3.89%	3.80%
CSX Corp.	6.3	126408GB3	Nts	03/15/2012	BBB	1.08												1.08%	
CSX Corp.	5.3	126408GF4	Nts	02/15/2014	BBB	1.06	1.01	1.05	1.00	1.19	1.25	1.07	1.08	1.02	1.04	1.06	1.07	1.08%	1.06%
CSX Corp.	6	126408GH0	Nts	10/01/2036	BBB	4.78	4.69	4.85	4.81	4.77	4.72	4.38	4.26	4.43	4.16	4.32	4.37	4.55%	4.28%
CSX Corp.	5.6	126408GJ6	Nts	05/01/2017	BBB	2.48	2.37	2.46	2.21	2.32	2.38	2.15	1.84	1.64	1.44	1.53	1.57	2.03%	1.51%
CSX Corp.	6.15	126408GK3	Nts	05/01/2037	BBB	4.68	4.67	4.98	4.81	4.84	4.59	4.30	4.21	4.43	4.16	4.32	4.37	4.53%	4.28%
Csx Corp MTN BE	6.8	12641LBU6	MTN Ser C	12/1/2028	BBB	4.83	4.74	5.01	4.86	4.77	4.72	4.43	4.36	4.53	4.26	4.38	4.02	4.58%	4.22%
Kansas City Southern	7	485170AF1	Deb	12/15/2025	BB-	5.64	5.72	5.98	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78%	5.78%
Consolidated Rail	9.75	209864AT4	Deb	06/15/2020	NR	4.49	4.57	4.83	4.71	4.57	4.59	4.42	4.43	4.57	4.51	4.51	4.56	4.56%	4.53%
Norfolk Southern Corp.	9	655844AA6	Nts	03/01/2021	NR	4.06	4.14	4.40	4.15	4.06	4.02	3.85	3.86	4.08	4.02	4.10	4.15	4.07%	4.09%
			Counts of data			52	51	51	51	51	50	50	50	50	50	50	50	52	50

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
A's	2.97%	2.78%
BBB's	3.61%	3.58%
BB's	5.78%	5.78%
NR's	4.32%	4.31%
ALL	3.49%	3.41%
BBB & Above	3.41%	3.33%
BB- & Above	3.46%	3.38%

**Investment Grade (BBB- & Above)*

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Railroads
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
20 YR PLUS - BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Northern Pac.Ry	3	665585JP1	GenLn Mtg	01/01/2047	A	5.53	5.17	5.54	5.57	5.14	5.10	5.19	4.94	4.94	4.95	4.95	5.12	5.18%	5.01%
Northern Pac.Ry	3	665585KH7	Gen LnMtg-Stpd	01/01/2047	A	5.53	5.17	5.54	5.57	5.14	5.10	5.19	4.94	4.94	4.95	4.95	5.12	5.18%	5.01%
Union Pacific Corp.	6.25	907818CU0	Deb	05/01/2034	A-	4.46	4.32	4.59	4.48	4.29	4.36	4.16	4.14	4.36	3.89	4.02	4.07	4.26%	3.99%
Union Pacific Corp.	6.15	907818CX4	Deb	05/01/2037	A-	4.48	4.41	4.63	4.59	4.40	4.27	4.12	4.15	4.37	4.02	4.09	4.14	4.31%	4.08%
Burlington NorthernR.R.	3.2	121899CH9	Con Mtg M	01/01/2045	BBB+	6.31	5.69	5.31	5.14	4.92	4.92	4.75	4.79	5.01	5.18	5.18	5.28	5.21%	5.21%
Burlington Northern Santa Fe Corp.	7.29	12189TAD6	Deb	06/01/2036	BBB+	4.58	4.56	5.06	5.19	5.02	4.97	4.66	4.69	4.80	4.49	4.56	4.75	4.78%	4.60%
Burlington Northern Santa Fe Corp.	6.2	12189TAX2	Deb	08/15/2036	BBB+	4.58	4.44	4.81	4.66	4.54	4.49	4.23	4.23	4.37	4.30	4.22	4.30	4.43%	4.27%
Burlington Northern Santa Fe Corp.	6.15	12189TAZ7	Deb	05/01/2037	BBB+	4.50	4.49	4.76	4.58	4.54	4.59	4.28	4.21	4.28	4.03	4.10	4.22	4.38%	4.12%
Norfolk Southern Corp.	7.05	655844AF5	Nts	05/01/2037	BBB+	4.73	4.42	4.64	4.47	4.64	4.50	4.34	3.86	4.16	4.08	4.15	4.25	4.35%	4.16%
Norfolk Southern Corp.	7.9	655844AK4	Nt	5/15/2097	BBB+	5.03	5.20	5.43	5.28	5.11	5.06	4.90	4.93	5.23	4.83	4.90	5.02	5.08%	4.92%
Norfolk Southern Corp.	6	655844AV0	Fixed Rt Sr Nt	3/15/2105	BBB+	5.00	5.12	5.36	5.17	5.03	5.04	4.79	4.84	5.06	4.78	4.85	4.92	5.00%	4.85%
CSX Corp.	6	126408GH0	Nts	10/01/2036	BBB	4.78	4.69	4.85	4.81	4.77	4.72	4.38	4.26	4.43	4.16	4.32	4.37	4.55%	4.28%
CSX Corp.	6.15	126408GK3	Nts	05/01/2037	BBB	4.68	4.67	4.98	4.81	4.84	4.59	4.30	4.21	4.43	4.16	4.32	4.37	4.53%	4.28%
			Counts of data			13	13	13	13	13	13	13	13	13	13	13	13	13	13

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
A's	4.73%	4.52%
BBB's	4.70%	4.52%
NR's	---	---
ALL	4.71%	4.52%
BBB & Above	4.71%	4.52%
BB- & Above	---	---

**Investment Grade (BBB- & Above)*

Montana Department of
REVENUE

2013 Capitalization Rate Study

Telecommunications

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study

Industry: Telecommunications, Telephone Exchange Carriers

2013 Assessment Year

Equity Measures Calculated:

E/P estimates:

	All	B & Above	Local	
	4.26%	3.12%	3.52%	Yahoo
	6.30%	5.99%	5.25%	Value Line
	5.28%	4.55%	4.39%	Average of E/Ps
Inverse of P/E Ratios:				
	4.39%	3.21%	3.63%	Yahoo
	6.86%	6.20%	5.40%	Value Line
	5.62%	4.70%	4.52%	Average of Inverse of the P/E
	6.32%	6.53%	5.91%	Inverse of median P/E, Value Line
	5.45%	4.63%	4.45%	Average of all above except median P/E
Mean =	5.62%	5.01%	4.74%	
Median =	6.30%	5.99%	5.25%	

Equity Measure NUOI = 6.50%

Debt Measure Calculated, Current Yield:

	Annual	4th Qtr	
	6.22%	6.04%	ALL
	5.87%	5.69%	BBB- & Above
	6.04%	5.84%	BB- & Above
Mean =	6.04%	5.86%	
Median =	6.04%	5.84%	

Debt Measure = 6.00%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	70.00%	x	6.50%	=	4.55%
Debt	30.00%	x	6.00%	=	1.80%
	100.00%				6.35%
Direct Cap Rate NUIO =					**6.50%**

Gross Cash Flow / Price:

All	B & Above	Local	
30.34%	24.95%	28.42%	Value Line

Equity Measure Gross = 25.00%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	70.00%	x	25.00%	=	17.50%
Debt	30.00%	x	6.00%	=	1.80%
	100.00%				19.30%
Direct Cap Rate GCF =					**19.50%**

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Telecommunications - Wireless
2013 Assessment Year

Equity Measures Calculated:

E/P estimates:

All	Wireless	Mixed	Median	
5.02%	4.67%	5.25%	4.45%	Yahoo
6.86%	5.12%	8.03%	5.57%	Value Line
5.94%	4.89%	6.64%	5.01%	Average of E/Ps

Inverse of P/E Ratios:

5.20%	4.90%	5.40%	4.71%	Yahoo
7.06%	4.44%	8.80%	5.86%	Value Line
6.13%	4.67%	7.10%	5.29%	Average of Inverse of the P/E
5.43%	3.71%	7.14%	5.49%	Inverse of median P/E, Value Line
6.03%	4.78%	6.87%	5.15%	Average of all above except median P/E
5.91%	4.57%	6.92%	5.22%	Mean =
5.43%	4.67%	7.14%	5.49%	Median =

Equity Measure NUOI = 5.90%

Debt Measure Calculated, Current Yield:

Annual	4th Qtr	
6.22%	6.04%	ALL
5.87%	5.69%	BBB- & Above
6.04%	5.84%	BB- & Above
6.04%	5.86%	Mean =
6.04%	5.84%	Median =

Debt Measure = 5.85%

Industry Market Capital Structure			NUOI Rate		
Equity	75.00%	x	5.90%	=	4.43%
Debt	25.00%	x	5.85%	=	1.46%
	100.00%				5.89%
Direct Cap Rate NUIO =					**6.00%**

Gross Cash Flow / Price:

All	Wireless	Mixed	Median	
35.33%	37.14%	32.90%	23.83%	Value Line

Equity Measure Gross = 23.00%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	75.00%	x	23.00%	=	17.25%
Debt	25.00%	x	5.85%	=	1.46%
	100.00%				18.71%
Direct Cap Rate GCF =					**18.75%**

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study

Industry: Telecommunications with significant portion of Cable TV Service

2013 Assessment Year

Equity Measures Calculated:

E/P estimates:

All	B & Above	
6.06%	6.44%	Yahoo
5.47%	5.86%	Value Line
5.76%	6.15%	Average of E/Ps

Inverse of P/E Ratios:

5.94%	6.28%	Yahoo
5.42%	6.63%	Value Line
5.68%	6.45%	Average of Inverse of the P/E
4.85%	4.71%	Inverse of median P/E, Value Line
5.72%	6.30%	Average of all above except median P/E
Mean = 5.55%	5.98%	
Median = 5.47%	6.28%	

Equity Measure NUOI = 6.10%

Debt Measure Calculated, Current Yield:

Annual	4th Qtr	
5.96%	5.67%	ALL
5.64%	5.45%	BBB- & Above
5.96%	5.67%	BB- & Above
Mean = 5.85%	5.60%	
Median = 5.96%	5.67%	

Debt Measure = 6.00%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate						
Equity	61.00%	x	6.10%	=	3.72%	
Debt	39.00%	x	6.00%	=	2.34%	
	100.00%				6.06%	
Direct Cap Rate NUIO =						**6.25%**

Gross Cash Flow / Price:

All	B & Above	
22.63%	21.74%	Value Line

Equity Measure Gross = 22.00%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)						
Equity	61.00%	x	22.00%	=	13.42%	
Debt	39.00%	x	6.00%	=	2.34%	
	100.00%				15.76%	
Direct Cap Rate GCF =						**16.00%**

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Study
Industry: Telecommunications
2013 Assessment Year

Equity Measures Calculated:	**Exchange Carriers**	**Wireless Carriers**
Dividend Growth Model	7.50%	7.00%
Capital Asset Pricing Model	8.52%	10.16%
Mean =	8.01%	8.58%
Median =	8.01%	8.58%
Equity Measure FCF =	**8.30%**	**9.00%**

Debt Measures Calculated, Yield to Maturity:

	ALL DEBT		20 YEAR PLUS DEBT	
	Annual	**4th Qtr**	**Annual**	**4th Qtr**
ALL	4.56%	4.33%	5.66%	5.32%
BBB- & Above	3.89%	3.75%	5.24%	4.96%
BB- & Above	4.18%	4.04%	5.55%	5.25%
Mean =	4.21%	4.04%	5.49%	5.18%
Median =	4.18%	4.04%	5.55%	5.25%

Debt Measure = 5.30%

Yield Cap Rate Free Cash Flow - Telecommunications, Exchange Carriers						
Equity	70.00%	x	8.30%	=	5.81%	
Debt	30.00%	x	5.30%	=	1.59%	
	100.00%				7.40%	
Weighted Average Cost of Capital (WACC) =						**7.50%**

Yield Cap Rate Free Cash Flow - Telecommunications, Wireless Carriers						
Equity	75.00%	x	9.00%	=	6.75%	
Debt	25.00%	x	5.30%	=	1.33%	
	100.00%				8.08%	
Weighted Average Cost of Capital (WACC) =						**8.25%**

Where Assumed Growth Rate = Inflation **Growth = 2.00%**

see appendix for calculation		2.47%
Inflationdata.com	1/16/2013	1.74%

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Study
Industry: Telecommunications with significant portion of Cable TV Service
2013 Assessment Year

Equity Measures Calculated:	**Cable TV**
Dividend Growth Model	10.00%
Capital Asset Pricing Model	9.89%
Mean =	9.95%
Median =	9.95%
Equity Measure FCF =	**10.00%**

Debt Measures Calculated, Yield to Maturity:

	ALL DEBT		20 YEAR PLUS DEBT	
	Annual	**4th Qtr**	**Annual**	**4th Qtr**
ALL	4.05%	3.67%	5.52%	5.25%
BBB- & Above	3.08%	2.67%	3.08%	2.67%
B- & Above	5.66%	6.39%	5.66%	6.39%
Mean =	4.26%	4.25%	4.75%	4.77%
Median =	4.05%	3.67%	5.52%	5.25%

Debt Measure = 5.25%

Yield Cap Rate Free Cash Flow - Telecommunications, Cable TV					
Equity	61.00%	x	10.00%	=	6.10%
Debt	39.00%	x	5.25%	=	2.05%
	100.00%				8.15%
Weighted Average Cost of Capital (WACC) =					**8.25%**

Where Assumed Growth Rate = Inflation **Growth = 2.00%**

see appendix for calculation		2.47%
Inflationdata.com	1/16/2013	1.74%

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Telecommunications, Exchange Carriers
2013 Assessment Year

A	B	C	D	E	F	G	H	I	J	K	L
Company	Ticker Symbol A	(VL) Financial Strength	(VL) Shares (000)	(YAHOO) Avg. Price Common	(VL) Book Value Per Share	Mkt. Value Common DxE	(VL) Book Value Common (000) FxD	(VL) Book Value Preferred (000)	(VL) Book Value Debt (000)	Mkt/Book Debt Ratio	Mkt. Value Pref. & Debt
AT&T Inc**	**T**	**A++**	**5,926,500**	**34.55**	**17.85**	**204,770,453**	**105,788,025**	**0**	**61,300,000**	**1.00**	**61,300,000**
Verizon Communications**	**VZ**	**A++**	**2,835,500**	**44.32**	**12.69**	**125,664,634**	**35,982,495**	**0**	**50,303,000**	**1.00**	**50,303,000**
CenturyLink Inc	**CTL**	**B++**	**618,500**	**38.87**	**33.67**	**24,040,064**	**20,824,895**	**0**	**21,356,000**	**1.00**	**21,356,000**
Frontier Communications	**FTR**	**B**	**995,100**	**4.58**	**4.49**	**4,552,583**	**4,467,999**	**0**	**8,205,800**	**1.00**	**8,205,800**
Hickory Tech Corp	HTCO	**B**	**13,400**	10.11	**3.22**	135,407	43,148	**0**	**118,800**	1.00	118,800
Windstream Corportation	WIN	**B**	**586,300**	9.09	**2.56**	5,328,490	1,500,928	**0**	**8,936,700**	1.00	8,936,700
Alaska Communic Sys Grp**	ALSK	**C+**	**45,300**	2.16	**(1.12)**	97,848	(50,736)	**0**	**538,600**	1.00	538,600
Cincinnati Bell	CBB	**C+**	**196,600**	5.25	**(4.30)**	1,032,478	(845,380)	**129,400**	**2,520,600**	1.00	2,650,000

SUMS & AVERAGES	All	365,621,956	168,607,490	129,400	153,279,500	153,408,900
Cos. with positive per share- price, book value, and cash flow.	B and Above	364,491,630	168,607,490	0	150,220,300	150,220,300
Local Carriers - CTL, FTR, HTCO, WIN, CBB, Q	Local Carriers	35,089,021	26,836,970	129,400	41,137,900	41,267,300
Exclude AT&T, Verizon and Alaska	Mixed Carriers	330,532,935	141,770,520	0	112,141,600	112,141,600

* All **Negative** values left out of calculations

** 2011 Wireless & Wireline contributions:
AT&T Corp., 47% Wireless, 52% Wireline
Verizon Com., 60% Wireless, 40% Wireline
Alaska Com. SyS, Grp., 59% Wireless, 41% Wireline

Notes/Rational for Changes to Guideline Companies
No Changes for 2013

INDUSTRY MARKET STRUCTURES								
	ALL COMPANIES		B & ABOVE		LOCAL ONLY		MIXED	
COMMON	70.00%	365,621,956	71.00%	364,491,630	46.00%	35,089,021	75.00%	330,532,935
DEBT	30.00%	153,408,900	29.00%	150,220,300	54.00%	41,267,300	25.00%	112,141,600
TOTAL	100.00%	519,030,856	100.00%	514,711,930	100.00%	76,356,321	100.00%	442,674,535

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Telecommunications, Exchange Carriers
2013 Assessment Year

A	B	M	N	O	P	Q	R	S	T	U	V	W	X	Y
Company	Ticker Symbol	(YAHOO) EPS	(YAHOO) E/P	(VL) EPS	(VL) E/P	(VL) CF/S	(VL) CF/P	(YAHOO) P/E	(YAHOO) Inverse of P/E	(VL) P/E	(VL) Inverse of P/E	(VL) Median P/E	(VL) Inverse of Median P/E	(VL) Beta
	A		M/E		O/E		Q/E		1/S		1/U		1/X	
AT&T Inc**	**T**	**0.76**	**2.20%**	**2.40**	**6.95%**	**5.55**	**16.06%**	**44.60**	**2.24%**	**14.33**	**6.98%**	**14.00**	**7.14%**	**0.70**
Verizon Communications**	**VZ**	**1.08**	**2.44%**	**2.47**	**5.57%**	**7.90**	**17.83%**	**40.48**	**2.47%**	**17.06**	**5.86%**	**14.00**	**7.14%**	**0.70**
CenturyLink Inc	**CTL**	**1.05**	**2.70%**	**2.67**	**6.87%**	**10.60**	**27.27%**	**37.03**	**2.70%**	**14.86**	**6.73%**	**13.00**	**7.69%**	**0.75**
Frontier Communications	**FTR**	**0.15**	**3.28%**	**0.27**	**5.90%**	**1.65**	**36.07%**	**29.90**	**3.34%**	**15.93**	**6.28%**	**25.00**	**4.00%**	**0.95**
Hickory Tech Corp	HTCO	0.55	5.44%	**0.52**	5.15%			17.61	5.68%			**15.00**	**6.67%**	**0.65**
Windstream Corportation	WIN	0.24	2.64%	**0.50**	5.50%	2.50	27.51%	35.79	2.79%	**19.34**	5.17%			**0.90**
Alaska Communic Sys Grp**	ALSK	0.24	11.11%	**0.25**	11.57%	1.40	64.81%	8.71	11.48%	**7.37**	13.57%			**0.80**
Cincinnati Bell	CBB	(0.10)	(1.90%)	**0.15**	2.86%	1.20	22.85%	(51.85)	(1.93%)	**29.05**	3.44%	**19.00**	**5.26%**	**1.05**
SUMS & AVERAGES		All	4.26%		6.30%		30.34%		4.39%		6.86%		6.32%	0.81
Cos. with positive per share- price, book value, and cash flow.		B and Above	3.12%		5.99%		24.95%		3.21%		6.20%		6.53%	0.78
Local Carriers - CTL, FTR, HTCO, WIN, CBB, Q		Local Carriers	3.52%		5.25%		28.42%		3.63%		5.40%		5.91%	0.86
Exclude AT&T, Verizon and Alaska		Mixed Carriers	5.25%		8.03%		32.90%		5.40%		8.80%		7.14%	0.73

Beta of Exchange Carriers = 0.85

* All **Negative** values left out of calculations

** 2011 Wireless & Wireline contributions:
AT&T Corp., 47% Wireless, 52% Wireline
Verizon Com., 60% Wireless, 40% Wireline
Alaska Com. SyS, Grp., 59% Wireless, 41% Wireline

Notes/Rational for Changes to Guideline Companies
No Changes for 2013

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Telecommunications, Wireless
2013 Assessment Year

A	B	C	D	E	F	G	H	I	J	K	L
Company	Ticker Symbol	(VL) Financial Strength	(VL) Shares (000)	(YAHOO) Avg. Price Common	(VL) Book Value Per Share	Mkt. Value Common (000) DxE	(VL) Book Value Common (000) FxD	(VL) Book Value Preferred (000)	(VL) Book Value Debt (000)	Mkt/Book Debt Ratio	Mkt. Value Pref. & Debt
AT&T Inc**	T	**A++**	5,926,500	34.55	17.85	204,770,453	105,788,025	0	61,300,000	1.00	61,300,000
Verizon Communications**	VZ	**A++**	2,835,500	44.32	12.69	125,664,634	35,982,495	0	50,303,000	1.00	50,303,000
Alaska Communic Sys Grp**	ALSK	**C+**	45,300	2.16	(1.12)	97,848	(50,736)	0	538,600	1.00	538,600
U.S. Cellular	USM	**B+**	84,600	36.73	43.47	3,106,935	3,677,562	0	880,300	1.00	880,300
Telephone & Data Sys	TDS	**B**	117,900	24.07	33.60	2,837,853	3,961,440	800	1,529,900	1.00	1,530,700
Sprint Nextel Corp	S	**C++**	2,996,000	5.54	3.81	16,602,833	11,414,760	0	20,266,000	1.00	20,266,000
Leap Wireless	LEAP	**C**	78,900	6.35	7.77	500,752	613,053	0	3,198,700	1.00	3,198,700

SUMS & AVERAGES Cos. with positive per share- price, book value, and cash flow.						
	All Comp	353,581,308	161,437,335	800	138,016,500	138,017,300
	All Wireless	23,048,373	19,666,815	800	25,874,900	25,875,700
	Mixed	330,532,935	141,770,520	-	112,141,600	112,141,600

All Wireless excludes AT&T, Verizon and Alaska

* All **Negative** values left out of calculations

INDUSTRY MARKET STRUCTURE						
	All Companies		**All Wireless**		**Mixed**	
COMMON	72.00%	353,581,308	47.00%	23,048,373	75.00%	330,532,935
DEBT	28.00%	138,017,300	53.00%	25,875,700	25.00%	112,141,600
TOTAL	100.00%	491,598,608	100.00%	48,924,073	100.00%	442,674,535

Notes/Rational for Changes to Guideline Companies
No Changes for TY 2013

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Telecommunications, Wireless
2013 Assessment Year

A	B	M	N	O	P	Q	R	S	T	U	V	W	X	Y
Company	Ticker Symbol	(YAHOO) EPS	(YAHOO) E/P M/E	(VL) EPS	(VL) E/P O/E	(VL) CF/S	(VL) CF/P Q/E	(YAHOO) P/E	(YAHOO) Inverse of P/E 1/S	(VL) P/E	(VL) Inverse of P/E 1/U	(VL) Median P/E	(VL) Inverse of Median P/E 1/X	(VL) Beta
AT&T Inc**	T	0.76	2.20%	2.40	6.95%	**5.55**	16.06%	44.60	2.24%	14.33	6.98%	14.00	7.14%	0.70
Verizon Communications**	VZ	1.08	2.44%	2.47	5.57%	7.90	17.83%	40.48	2.47%	17.06	5.86%	14.00	7.14%	0.70
Alaska Communic Sys Grp**	ALSK	0.24	11.11%	0.25	11.57%	1.40	64.81%	8.71	11.48%	7.37	13.57%			0.80
U.S. Cellular	USM	1.80	4.90%	1.85	5.04%	8.75	23.83%	19.69	5.08%	23.65	4.23%	28.00	3.57%	1.10
Telephone & Data Sys	TDS	1.07	4.45%	1.25	5.19%	9.00	37.39%	21.22	4.71%	21.53	4.64%	26.00	3.85%	0.90
Sprint Nextel Corp	S	(1.44)	(25.98%)	(1.45)	(26.17%)	0.65	11.73%	(3.90)	(25.65%)					1.35
Leap Wireless	LEAP	(2.59)	(40.81%)	(4.46)	(70.27%)	4.80	75.63%	(2.58)	(38.77%)					1.40

SUMS & AVERAGES	All Comp	5.02%	6.86%	35.33%	5.20%	7.06%	5.43%	0.99
Cos. with positive per share- price, book value, and cash flow.	All Wireless	4.67%	5.12%	37.14%	4.90%	4.44%	3.71%	1.19
	Mixed	5.25%	8.03%	32.90%	5.40%	8.80%	7.14%	0.73
All Wireless excludes AT&T, Verizon and Alaska	All Median	4.45%	5.57%	23.83%	4.71%	5.86%	5.49%	0.90

Beta of Wireless Industry = **1.10**

* All **Negative** values left out of calculations

Notes/Rational for Changes to Guideline Companies
No Changes for TY 2013

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Telecommunications with significant portion of Cable TV Service
2013 Assessment Year

A	B	C	D	E	F	G	H	I	J	K	L
Company	Ticker Symbol A	(VL) Financial Strength	(VL) Shares (000)	(YAHOO) Avg. Price Common	(VL) Book Value Per Share	Mkt. Value Common DxE	(VL) Book Value Common (000) FxD	(VL) Book Value Preferred (000)	(VL) Book Value Debt (000)	Mkt/Book Debt Ratio	Mkt. Value Pref. & Debt
CenturyLink Inc	**CTL**	**B++**	**618,500**	**38.87**	**33.67**	**24,040,064**	**20,824,895**	**0**	**21,356,000**	**1.00**	**21,356,000**
Time Warner Cable	TWC	B+	315,000	95.93	23.91	30,219,000	7,531,650	0	24,320,000	1.00	24,320,000
Comcast Corp.	CMCSA	B+	2,705,900	36.70	17.47	99,315,550	47,272,073	0	37,942,000	1.00	37,942,000
Charter Communications	**CHTR**	**B**	**100,600**	**74.15**	**4.07**	**7,459,658**	**409,442**	**0**	**12,856,000**	**1.00**	**12,856,000**
Crown Media Holdings Inc Cl A	CRWN	B	359,700	1.73	0.68	621,682	244,596	0	498,500	1.00	498,500
Virgin Media	VMED	B	286,700	33.78	3.44	9,683,770	986,248	0	8,929,500	1.00	8,929,500
Frontier Communications	**FTR**	**B**	**995,100**	**4.58**	**4.49**	**4,552,583**	**4,467,999**	**0**	**8,205,800**	**1.00**	**8,205,800**
Consol. Communic.	CNSL	C++	29,900	15.58	1.42	465,892	42,458	0	875,700	1.00	875,700
Cablevision Sys. 'A'	CVC	C+	274,300	15.76	(20.33)	4,323,425	(5,576,519)	0	10,792,800	1.00	10,792,800
Cincinnati Bell	CBB	**C+**	**196,600**	5.25	**(4.30)**	1,032,478	(845,380)	**129,400**	**2,520,600**	1.00	2,650,000
FairPoint Communications Inc.	FRP		26,200	7.54	(4.05)	197,461	(106,110)	0	992,700	1.00	992,700
Hawaiian Telcom Holdco Inc	HCOM		10,200	17.87	13.36	182,223	136,272	0	297,400	1.00	297,400
MDU Communications Inc	MDTV		5,700	1.42	(2.23)	8,104	(12,711)	0	0	1.00	0
SUMS & AVERAGES					All	182,101,888	81,915,633		129,587,000		129,716,400
Cos. with positive per share- price, book value, and cash flow.					B and Above	175,892,306	81,736,903		114,107,800		114,107,800

* All **Negative** values left out of calculations

INDUSTRY MARKET STRUCTURES				
	ALL COMPANIES		B & ABOVE	
COMMON	58.00%	182,101,888	61.00%	175,892,306
DEBT	42.00%	129,716,400	39.00%	114,107,800
TOTAL	100.00%	311,818,288	100.00%	290,000,106

Notes/Rational for Changes to Guideline Companies
New for 2013

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Telecommunications with significant portion of Cable TV Service
2013 Assessment Year

M	N	O	P	Q	R	S	T	U	V	W	X	Y
(YAHOO) EPS	(YAHOO) E/P M/E	(VL) EPS	(VL) E/P O/E	(VL) CF/S	(VL) CF/P Q/E	(YAHOO) P/E	(YAHOO) Inverse of P/E 1/S	(VL) P/E	(VL) Inverse of P/E 1/U	(VL) Median P/E	(VL) Inverse of Median P/E 1/X	(VL) Beta
1.05	**2.70%**	**2.67**	**6.87%**	**10.60**	**27.27%**	**37.03**	**2.70%**	**14.86**	**6.73%**	**13.00**	**7.69%**	**0.75**
6.90	7.19%	5.61	5.85%	18.45	19.23%	13.82	7.24%	13.20	7.58%			1.00
2.28	6.21%	2.20	5.99%	2.20	5.99%	16.34	6.12%	16.48	6.07%	41.00	2.44%	0.95
(3.28)	**(4.42%)**	**(2.95)**	**(3.98%)**	**14.05**	**18.95%**	**(22.12)**	**(4.52%)**					**1.10**
0.17	9.84%	0.10	5.79%			10.62	9.42%					1.30
3.18	9.41%	1.60	4.74%	7.75	22.94%	11.31	8.84%	15.44	6.48%			1.40
0.15	**3.28%**	**0.27**	**5.90%**	**1.65**	**36.07%**	**29.90**	**3.34%**	**15.93**	**6.28%**	**25.00**	**4.00%**	**0.95**
0.37	2.37%	0.25	1.60%	3.10	19.90%	41.61	2.40%	46.86	2.13%			0.85
0.66	4.19%	1.05	6.66%	4.80	30.45%	21.87	4.57%	16.76	5.97%			
(0.10)	(1.90%)	**0.15**	2.86%	1.20	22.85%	(51.85)	(1.93%)	**29.05**	3.44%	**19.00**	**5.26%**	**1.05**
(7.91)	(104.95%)	(6.14)	(81.47%)			(0.97)	(103.60%)					
1.67	9.35%	1.50	8.40%			11.29	8.86%					
(0.80)	(56.27%)	(1.02)	(71.75%)			(1.66)	(60.15%)					0.60
All	6.06%		5.47%		22.63%		5.94%		5.42%		4.85%	1.00
B and Above	6.44%		5.86%		21.74%		6.28%		6.63%		4.71%	1.06

Beta of Exchange Carriers = 1.06

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model
Industry: Telecommunications
2013 Assessment Year

$$K_E = R_F + \beta\ (R_M - R_F)$$

	Exchange Carriers	Wireless Carriers	Telecom w/ Cable
K_E = Cost of Equity	**8.52%**	**10.16%**	**9.89%**
R_F = Risk Free Rate	2.95%	2.95%	2.95%
β= Beta	0.85	1.10	1.06
R_M = Market Rate of Return	9.50%	9.50%	9.50%
R_P = Equity Risk Premium (RM - RF)	6.55%	6.55%	6.55%

R_m = Investor's Market Rate of Return

Ibbotson, SBBI, Large Company, Average Annual Return, ***Arithmetic** Average, Ex-Post	R_M=	11.80%
Ibbotson, SBBI, Large Company, Average Annual Return, ***Geometric** Average, Ex-Post	R_M=	9.80%
3 Stage Dividend Growth Model, S & P 500, See Exhibit, Ex Ante	R_M=	9.00%
	Mean =	10.20%
	Median =	9.80%
	R_M=	**9.50%**

R_f = Risk Free Rate

Internal Revenue Service, Rev Rule 2012-31 Table 2 December 3, 2012

Rev Rule 2012-31 Table 2

Annual Rates	Short Term - AFR	R_f =	0.27%
	Mid Term - AFR	R_f =	0.95%
	Long Term - AFR	R_f =	2.83%

The ValueLine Investment Survey

U.S. Treasury Securities January 4, 2013

3 Month	R_f =	0.08%
6 Month	R_f =	0.13%
1 Year	R_f =	0.15%

Federal Reserve Statistical Release

Treasury constant Maturities, December 31, 2012

Market yield on U.S. Treasury securities, Annual Averages

3-month constant maturity, quoted on investment basis	R_f =	0.05%
6-month constant maturity, quoted on investment basis	R_f =	0.11%
1-year constant maturity, quoted on investment basis	R_f =	0.16%
	Mean =	0.53%
	Median =	0.15%
	Weighted Mean =	0.68%

U.S. Treasury Securities Long-Term December 31, 2012

20 year constant maturity	R_f =	**2.54%**
30 year constant maturity	R_f =	**2.95%**
	R_f =	**2.95%**

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Telecommunications
2013 Assessment Year

$$K_E = D1 / P_O + G_A$$

KE= Cost of Equity
D1= Expected Dividends
Po= Current Price Per Share
G= Sustainable Growth

Major Exchange Carriers:

Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth (G_1)	Ke
AT&T Inc.	T	34.55	1.80	5.21%	3.00%	8.21%
Verizon Communications	VZ	44.32	2.05	4.63%	2.00%	6.63%
CenturyLink Inc.	CTL	38.87	2.90	7.46%	Nil	7.46%
Alaska Communic Sys Grp	ALSK	2.16	*Nil*		*(22.00%)*	
Frontier Communications	FTR	4.58	0.40	8.74%	(12.50%)	
Hickory Tech Corp	HTCO	10.11			4.00%	
Windstream Corportation	WIN	9.09	1.00	11.00%	*Nil*	
Cincinnati Bell	CBB	5.25	*Nil*		*Nil*	

Mean = 7.43%
Median = 7.46%

Estimated Cost of Equity = 7.50%

Wireless Sector:

Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth (G_1)	Ke
AT&T Inc.	T	34.55	1.80	5.21%	3.00%	8.21%
Alaska Communic Sys Grp	ALSK	2.16	*Nil*		*(22.00%)*	
Leap Wireless	LEAP	6.35	*Nil*		*Nil*	
Verizon Communications	VZ	44.32	2.05	4.63%	*2.00%*	6.63%
Sprint Nextel Corp	S	5.54	*Nil*		*Nil*	
Telephone & Data Sys	TDS	24.07	0.51	2.12%	*4.00%*	6.12%
U.S. Cellular	USM	36.73	*Nil*		*Nil*	

Mean = 6.98%
Median = 6.63%

Estimated Cost of Equity = 7.00%

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Telecommunications with significant portion of Cable TV Service
2013 Assessment Year

$$K_E = D1 / P_O + G_A$$

KE= Cost of Equity
D1= Expected Dividends
Po= Current Price Per Share
G= Sustainable Growth

Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth (G_1)	Ke
Cablevision Sys. 'A'	CVC	15.76	0.62	3.93%	5.00%	8.93%
CenturyLink Inc.	CTL	38.87	2.90	7.46%	Nil	7.46%
Frontier Communications	FTR	4.58	0.40	8.74%	(12.50%)	
Cincinnati Bell	CBB	5.25	*Nil*		*Nil*	
Consol. Communic.	CNSL	15.58	1.55	9.95%	*Nil*	9.95%
FairPoint Communications Inc.	FRP	7.54				
Hawaiian Telcom Holdco Inc	HCOM	17.87				
Time Warner Cable	TWC	95.93	2.13	2.22%	14.50%	16.72%
Comcast Corp.	CMCSA	36.70	0.72	1.96%	13.50%	15.46%
Charter Communications	CHTR	74.15	*Nil*		*NMF*	
Crown Media Holdings Inc Cl A	CRWN	1.73				
MDU Communications Inc	MDTV	1.42				
Virgin Media	VMED	33.78	0.16	0.47%	*Nil*	

Mean = 11.70%
Median = 9.95%

Estimated Cost of Equity = 10.00%

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Telecommunications
2013 Assessment Year

Ticker	Company		Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS lst 12 mo
ALSK	Alaska Communic Sys Grp	high	$3.06	$3.25	$3.73	$3.10	$2.59	$2.55	$2.46	$2.24	$2.50	$2.37	$2.31	$2.25	$2.16	$2.46	8.71	0.24
		low	$2.58	$2.71	$3.01	$2.44	$1.73	$1.85	$2.09	$2.10	$2.10	$2.20	$1.90	$1.93				
AMT	American Tower Corp	high	$63.63	$64.55	$64.00	$65.59	$68.52	$70.65	$73.04	$75.62	$73.20	$76.22	$76.04	$77.27	$74.21	$68.36	42.60	1.77
		low	$57.98	$61.75	$61.27	$61.56	$64.15	$62.54	$68.65	$68.87	$69.84	$70.45	$71.76	$73.52				
CBB	Cincinnati Bell	high	$3.58	$3.97	$4.20	$4.14	$4.00	$3.75	$4.05	$4.74	$5.82	$5.89	$5.36	$5.58	$5.25	$4.26	(51.85)	(0.10)
		low	$3.10	$3.46	$3.69	$3.48	$3.37	$3.33	$3.55	$3.68	$4.73	$5.15	$4.74	$4.79				
CHTR	Charter Communications	high	$59.11	$64.39	$65.32	$64.77	$68.62	$71.86	$77.80	$80.57	$83.41	$79.95	$78.17	$76.69	$74.15	$68.81	(22.12)	(3.28)
		low	$56.05	$57.56	$60.45	$59.04	$59.95	$60.46	$70.70	$73.52	$73.01	$74.60	$67.06	$68.44				
CMCSA	Comcast Corp.	high	$26.81	$29.92	$30.41	$30.46	$30.88	$31.99	$32.78	$35.16	$36.90	$37.85	$37.96	$38.22	$36.70	$32.00	16.34	2.28
		low	$24.28	$26.57	$28.72	$28.54	$28.09	$28.34	$31.04	$33.38	$33.42	$34.94	$34.95	$36.30				
CNSL	Consol. Communic.	high	$19.35	$19.25	$19.92	$19.72	$19.74	$15.05	$17.46	$16.50	$18.00	$17.54	$16.93	$15.99	$15.58	$16.94	41.61	0.37
		low	$18.00	$18.65	$18.75	$18.62	$13.66	$14.00	$14.80	$15.62	$16.08	$15.26	$12.97	$14.80				
CRWN	Crown Media Holdings Inc Cl A	high	$1.35	$1.34	$1.64	$1.65	$1.57	$1.75	$1.98	$1.98	$1.78	$1.77	$1.84	$1.95	$1.73	$1.58	10.62	0.17
		low	$1.16	$1.15	$1.17	$1.36	$1.41	$1.46	$1.63	$1.63	$1.63	$1.60	$1.55	$1.66				
CVC	Cablevision Sys. 'A'	high	$15.32	$16.63	$15.18	$14.86	$15.24	$13.36	$15.53	$17.25	$17.43	$18.86	$17.87	$15.20	$15.76	$14.73	21.87	0.66
		low	$13.65	$13.88	$13.69	$13.15	$11.01	$10.76	$12.66	$14.62	$14.65	$15.76	$13.21	$13.67				
CTL	CenturyLink Inc	high	$38.04	$40.54	$40.42	$39.04	$39.89	$39.63	$41.84	$43.43	$43.08	$40.41	$40.49	$40.16	$38.87	$39.28	37.03	1.05
		low	$36.25	$36.57	$38.04	$37.76	$37.79	$36.91	$38.96	$41.24	$40.02	$38.02	$36.52	$37.61				
FTR	Frontier Communications	high	$5.37	$4.80	$4.59	$4.44	$4.06	$4.02	$4.05	$4.88	$5.15	$4.98	$4.82	$4.88	$4.58	$4.30	29.90	0.15
		low	$3.81	$3.98	$3.97	$4.02	$3.06	$3.30	$3.59	$4.05	$4.53	$4.54	$4.14	$4.09				
DY	Dycom Industries	high	$22.72	$23.76	$23.82	$23.93	$23.96	$20.10	$19.63	$19.62	$15.28	$14.78	$18.29	$20.00	$16.34	$18.90	17.03	1.11
		low	$20.38	$19.97	$21.20	$21.44	$18.69	$16.84	$16.61	$14.44	$13.04	$13.08	$14.10	$17.80				
FRP	FairPoint Communications Inc	high	$4.71	$5.15	$4.50	$4.70	$6.16	$6.50	$6.39	$7.00	$8.20	$8.15	$8.15	$7.95	$7.54	$5.81	(0.97)	(7.91)
		low	$3.83	$3.74	$3.58	$3.66	$4.44	$4.29	$5.25	$5.57	$6.47	$6.85	$6.80	$7.32				
HCOM	Hawaiian Telcom Holdco Inc	high	$15.40	$17.00	$17.25	$20.84	$20.88	$19.94	$20.04	$18.79	$19.10	$18.59	$18.27	$20.10	$17.87	$17.57	11.29	1.67
		low	$13.92	$13.31	$15.01	$17.05	$17.03	$17.61	$17.25	$17.04	$17.05	$16.28	$16.35	$17.60				
HTCO	Hickory Tech Corp	high	$11.54	$12.20	$10.99	$10.54	$10.29	$11.57	$11.83	$11.25	$10.98	$11.20	$10.89	$10.17	$10.11	$10.49	17.61	0.55
		low	$11.00	$10.50	$9.87	$9.51	$9.38	$9.22	$10.08	$10.16	$10.20	$10.26	$8.91	$9.20				
IDT	IDT Corp	high	$9.89	$9.65	$10.49	$9.89	$8.66	$9.87	$10.73	$10.43	$10.67	$11.00	$9.89	$9.93	$9.74	$9.48	4.58	2.07
		low	$8.76	$8.55	$7.81	$8.40	$7.90	$7.98	$9.73	$9.61	$9.96	$9.85	$8.76	$9.02				
LVLT	Level 3 Communications	high	$19.99	$25.16	$27.99	$27.10	$25.62	$22.20	$22.25	$22.94	$24.84	$23.63	$21.20	$23.85	$20.77	$21.59	(8.48)	(2.49)
		low	$16.52	$18.70	$23.33	$22.12	$20.72	$19.10	$17.38	$16.36	$21.26	$19.62	$17.95	$18.37				
PGI	Premiere Global Services	high	$9.30	$9.74	$9.55	$10.13	$9.02	$8.86	$9.83	$9.97	$10.00	$9.77	$8.99	$9.97	$8.89	$8.96	22.88	0.40
		low	$8.40	$8.65	$8.08	$7.83	$8.04	$7.89	$8.36	$9.00	$9.00	$8.36	$7.92	$8.33				

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Telecommunications
2013 Assessment Year

Ticker	Company		Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS lst 12 mo
S	Sprint Nextel Corp	high	$2.41	$2.60	$3.03	$2.90	$2.67	$3.33	$4.60	$5.49	$5.76	$6.04	$5.76	$5.83	$5.54	$3.82	(3.90)	(1.44)
		low	$2.10	$2.12	$2.36	$2.30	$2.32	$2.44	$3.15	$4.00	$4.80	$4.79	$5.43	$5.40				
T	AT&T Corp	high	$30.68	$30.64	$31.97	$32.95	$34.41	$36.00	$38.11	$38.28	$38.58	$38.43	$35.38	$34.69	$34.55	$33.81	44.60	0.76
		low	$29.02	$29.58	$30.44	$29.95	$32.47	$33.78	$34.24	$36.43	$36.54	$33.00	$32.71	$33.10				
TDS	Telephone & Data Sys	high	$29.32	$29.14	$25.61	$24.68	$24.77	$21.90	$24.27	$25.06	$26.25	$26.24	$26.99	$23.73	$24.07	$24.09	21.22	1.07
		low	$25.66	$25.26	$22.79	$22.26	$19.59	$19.20	$21.30	$22.48	$24.12	$24.11	$21.67	$21.68				
USM	U.S. Cellular	high	$47.00	$48.30	$43.59	$41.15	$40.99	$38.97	$41.54	$41.41	$39.68	$39.42	$40.40	$37.02	$36.73	$39.65	19.69	1.80
		low	$42.38	$42.89	$39.97	$38.26	$36.64	$36.55	$38.64	$36.30	$37.08	$36.49	$33.16	$33.86				
VZ	Verizon Communications	high	$40.48	$38.77	$39.90	$40.44	$41.96	$44.77	$46.41	$46.41	$46.06	$48.77	$45.45	$44.94	$44.32	$42.05	40.48	1.08
		low	$37.07	$37.50	$37.56	$36.80	$39.85	$40.92	$43.36	$42.18	$42.77	$43.75	$40.51	$42.49				
VOD	Vodafone Grp	high	$28.37	$28.28	$28.03	$28.39	$28.26	$28.29	$29.07	$30.07	$29.20	$29.46	$27.64	$26.34	$26.75	$27.55	(46.64)	(0.55)
		low	$26.59	$27.04	$26.00	$26.83	$26.00	$26.06	$27.47	$28.86	$27.84	$27.16	$24.95	$24.96				
VG	Vonage Holdings Corp	high	$2.60	$3.16	$2.41	$2.27	$2.10	$2.09	$2.10	$2.19	$2.55	$2.35	$2.43	$2.50	$2.30	$2.20	1.49	1.59
		low	$2.17	$2.26	$2.14	$1.96	$1.68	$1.64	$1.63	$1.90	$2.06	$2.13	$2.12	$2.25				
VMED	Virgin Media	high	$24.58	$26.01	$25.41	$25.53	$25.23	$24.86	$27.79	$28.19	$31.09	$34.51	$35.31	$37.11	$33.78	$27.26	11.31	3.18
		low	$21.05	$23.87	$23.83	$23.39	$21.25	$21.47	$23.92	$26.77	$27.36	$29.39	$31.50	$34.84				
WIN	Windstream Corportation	high	$12.39	$12.55	$12.29	$11.75	$11.44	$10.07	$10.12	$10.31	$11.04	$10.27	$9.70	$9.00	$9.09	$10.37	35.79	0.24
		low	$11.48	$12.00	$11.41	$11.11	$9.17	$9.00	$9.29	$9.11	$9.84	$9.52	$7.86	$8.18				
LEAP	Leap Wireless	high	$10.68	$11.30	$10.79	$8.95	$6.43	$6.70	$6.92	$6.70	$7.12	$8.16	$6.64	$7.18	$6.35	$7.03	(2.58)	(2.59)
		low	$8.08	$8.62	$8.63	$5.55	$4.68	$4.91	$5.02	$4.28	$5.33	$5.17	$4.75	$6.18				
CLWR	Clearwire Corp.	high	$2.05	$2.48	$2.48	$2.32	$1.57	$1.23	$1.17	$1.95	$1.74	$2.96	$2.47	$3.40	$2.40	$1.81	(0.60)	(4.76)
		low	$1.69	$1.70	$2.06	$1.27	$1.00	$1.07	$0.83	$1.13	$1.34	$1.21	$1.99	$2.35				
MDTV	MDU Communications Inc	high	$2.10	$1.70	$1.39	$1.01	$1.29	$1.00	$1.69	$1.70	$2.00	$1.90	$1.80	$1.65	$1.42	$1.31	(1.66)	(0.80)
		low	$1.38	$1.30	$1.00	$0.51	$0.75	$0.68	$0.75	$1.21	$1.50	$1.01	$1.16	$1.01				
TWC	Time Warner Cable	high	$74.94	$79.95	$81.75	$83.64	$81.97	$82.10	$86.30	$91.74	$96.57	$100.50	$100.02	$97.43	$95.93	$84.48	13.82	6.90
		low	$63.93	$73.81	$77.31	$77.67	$73.80	$73.52	$81.07	$83.83	$87.97	$95.36	$89.06	$93.23				

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Telecommunications
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
GTE Southwest	8.5	362338AQ8	1st	11/15/2031	A+	6.14	6.11	6.27	6.16	6.16	6.27	6.13	6.06	6.34	6.07	6.07	6.14	6.16%	6.09%
Telstra Corporation Limited	6.38	87969NAB1	Nt	4/1/2012	A	6.31	6.34											6.33%	
AT&T Corp.	6.5	001957AW9	Nts	03/15/2029	A-	5.47	5.47	5.59	5.53	5.53	5.44	5.20	5.14	5.24	5.20	5.24	5.30	5.36%	5.25%
AT&T Corp.	8	001957BD0	Sr Nts	11/15/2031	A-	5.57	5.56	5.70	5.58	5.58	5.39	5.11	5.17	5.27	5.14	5.16	5.28	5.38%	5.19%
AT&T Corp.	6.5	001957BJ7	Nts	03/15/2013	A-	6.12	6.14	6.16	6.18	6.18	6.24	6.27	6.30	6.32	6.38	6.40	6.43	6.26%	6.40%
AT&TCorp	6.5	001957BJ7	Nt	3/15/2013	A-	6.12	6.14	6.16	6.18	6.18	6.24	6.27	6.30	6.32	6.38	6.40	6.43	6.26%	6.40%
AT&T Inc.	6.8	00206RAB8	Nts	05/15/2036	A-	5.42	5.32	5.48	5.42	5.42	5.26	4.96	4.97	5.09	4.94	5.07	5.09	5.20%	5.03%
AT&T Inc.	6.5	00206RAD4	GlobalNts	09/01/2037	A-	5.28	5.20	5.36	5.30	5.30	5.13	4.87	4.89	4.92	4.78	4.92	4.96	5.08%	4.89%
AT&T Inc.	6.3	00206RAG7	GlobalNts	01/15/2038	A-	5.20	5.10	5.31	5.26	5.26	5.08	4.82	4.83	4.86	4.70	4.87	4.91	5.02%	4.83%
AT&T Inc.	5.5	00206RAJ1	GlobalNts	02/01/2018	A-	4.65	4.63	4.68	4.66	4.66	4.66	4.57	4.54	4.54	4.52	4.60	4.61	4.61%	4.58%
AT&T Inc.	5.6	00206RAM4	GlobalNts	05/15/2018	A-	4.71	4.69	4.74	4.70	4.70	4.69	4.61	4.56	4.58	4.56	4.64	4.64	4.65%	4.61%
AT&T Inc.	6.4	00206RAN2	GlobalNts	05/15/2038	A-	5.22	5.11	5.32	5.27	5.27	5.10	4.83	4.84	4.89	4.72	4.91	4.93	5.03%	4.85%
AT&T Wireless Services	8.75	00209AAF3	Sr Nts	03/01/2031	A-	6.02	5.84	6.02	5.88	5.88	5.77	5.46	5.48	5.56	5.39	5.38	5.39	5.67%	5.39%
AT&T Wireless Services	8.12	00209AAG1	Sr Nts	05/01/2012	A-	7.92	7.92	7.92	7.92									7.92%	
ALLTEL Corp	6.5	020039AD5	Deb	11/1/2013	A-	6.01	5.94	5.97	5.99	5.99	6.05	6.08	6.11	6.11	6.15	6.17	6.20	6.06%	6.17%
ALLTEL Corp	7	020039AE3	Deb	3/15/2016	A-	5.79	5.83	5.88	5.83	5.83	5.85	5.84	5.85	5.85	5.83	5.86	5.90	5.85%	5.86%
ALLTEL Corp	6.8	020039AJ2	Deb	5/1/2029	A-	5.38	5.36	5.35	5.25	5.25	5.14	4.93	4.92	5.05	4.87	4.94	4.97	5.12%	4.93%
ALLTEL Corp	7	020039DB6	Sr Nt	7/1/2012	A-	6.81	6.85	6.88	6.92	6.92	7.00							6.90%	
ALLTEL Corp	7.88	020039DC4	Sr Nt	7/1/2032	A-	5.46	5.34	5.48	5.39	5.39	5.26	5.02	4.95	5.03	4.91	5.03	5.02	5.19%	4.99%
America Movil, S.A.B. de C.V.	6.38	02364WAJ4	Sr Nt	3/1/2035	A-	5.27	5.18	5.34	5.26	5.26	5.14	4.92	4.92	4.94	4.87	4.88	4.82	5.07%	4.86%
Bell Atlantic-PA	6	07786DAA4	Deb	12/1/2028	A-	5.71	5.74	5.79	5.67	5.67	5.48	5.41	5.43	5.59	5.31	5.31	5.11	5.52%	5.24%
Bell Tel. of Penna	8.35	078167AZ6	Deb	12/15/2030	A-	6.63	6.67	6.65	6.54	6.54	6.34	6.11	6.17	6.35	6.03	6.03	6.10	6.35%	6.05%
Bell Tel. of Penna	8.75	078167BA0	Deb	8/15/2031	A-	6.68	6.72	6.78	6.54	6.54	6.50	6.25	6.28	6.47	6.14	6.14	6.21	6.44%	6.16%
BellSouth Capital Funding	6.04	079857AC2	Deb	11/15/2026	A-	5.75	5.71	5.86	5.71	5.71	5.55	5.44	5.44	5.55	5.53	5.54	5.57	5.61%	5.55%
BellSouth Capital Funding	7.88	079857AH1	Deb	02/15/2030	A-	5.90	5.94	6.12	6.01	6.01	6.02	5.77	5.79	5.93	5.77	5.84	5.97	5.92%	5.86%
BellSouth Corp.	6.875	079860AD4	Nts	10/15/2031	A-	5.59	5.60	5.68	5.62	5.62	5.61	5.51	5.47	5.58	5.45	5.47	5.52	5.56%	5.48%
BellSouth Corp.	6.55	079860AE2	Nts	06/15/2034	A-	5.62	5.56	5.71	5.66	5.66	5.57	5.35	5.38	5.50	5.42	5.32	5.46	5.52%	5.40%
BellSouth Corp.	5.2	079860AG7	Nts	09/15/2014	A-	4.69	4.69	4.72	4.74	4.74	4.78	4.77	4.77	4.78	4.79	4.81	4.84	4.76%	4.81%
BellSouth Corp.	4.75	079860AJ1	Nts	11/15/2012	A-	4.60	4.61	4.63	4.64	4.64	4.67	4.68	4.68					4.64%	
BellSouth Corp.	6	079860AK8	Nts	11/15/2034	A-	5.45	5.42	5.54	5.43	5.43	5.39	5.21	5.17	5.32	5.17	5.14	5.35	5.34%	5.22%
BellSouth Corp	5.2	079860AL6	Nt	12/15/2016	A-	4.52	4.52	4.54	4.52	4.52	4.54	4.47	4.48	4.50	4.53	4.49	4.53	4.51%	4.52%
BellSouthTelecommunications	7	079867AM9	Deb	10/01/2025	A-	5.61	5.63	5.85	5.69	5.69	5.59	5.46	5.47	5.58	5.49	5.49	5.53	5.59%	5.50%
BellSouthTelecommunications	5.85	079867AN7	Deb	11/15/2045	A-	5.66	5.71	5.90	5.75	5.75	5.72	5.50	5.44	5.58	5.40	5.45	5.53	5.62%	5.46%
BellSouthTelecommunications	7	079867AP2	Deb	12/15/2095	A-	5.62		6.04	5.82	5.82	5.75	5.49	5.57	5.69	5.47	5.48	5.71	5.68%	5.55%
BellSouthTelecommunications	7	079867AP2	Deb	12/15/2095	A-	5.62		6.04	5.82	5.82	5.75	5.49	5.57	5.69	5.47	5.48	5.71	5.68%	5.55%
BellSouthTelecommunications	6.3	079867AQ0	AmortizingDeb	12/15/2015	A-	5.89	5.91	5.93	5.93	5.93	5.96	5.96	5.97	5.99	5.94	5.95	5.95	5.94%	5.95%
BellSouthTelecommunications	6.375	079867AW7	Deb	06/01/2028	A-	5.49	5.50	5.60	5.54	5.54	5.41	5.20	5.30	5.46	5.20	5.30	5.32	5.41%	5.27%
Chesapeake Pot.Tel Md	8	165069AP0	Deb	10/15/2029	A-	6.60	6.64	6.62	6.51	6.51	6.32	6.19	6.22	6.30	6.02	6.02	6.08	6.34%	6.04%
Chesapeake Pot.Tel Md	8.3	165069AQ8	Deb	8/1/2031	A-	6.60	6.64	6.62	6.51	6.51	6.30	6.17	6.25	6.38	6.15	6.15	6.22	6.38%	6.17%
Chesapeake Pot.Tel Md	7.15	165069AS4	Deb	5/1/2023	A-	6.72	6.75	6.78	6.80	6.80	6.86	6.89	6.92	6.93	6.97	6.99	7.03	6.87%	7.00%
Chesapeake&Pot.Tel VA	8.38	165087AL1	Forty Yr Deb	10/1/2029	A-	6.69	6.73	6.71	6.60	6.60	6.41	6.33	6.31	6.39	6.04	6.04	6.11	6.41%	6.06%
Chesapeake&Pot.Tel VA	7.88	165087AN7	Deb	1/15/2022	A-	6.32	6.25	6.21	6.10	6.10	6.03	6.00	6.01	6.10	5.86	5.87	5.91	6.06%	5.88%
Chesapeake&Pot.Tel VA	7.62	165087AP2	20 Yr Deb	12/1/2012	A-	7.24	7.28	7.31	7.35	7.35	7.40	7.45	7.50	7.53	7.58	7.63		7.42%	7.61%
Cingular Wireless LLC	7.12	17248RAJ5	Sr Nt	12/15/2031	A-	5.62	5.46	5.54	5.48	5.48	5.37	5.07	5.09	5.20	4.98	5.23	5.30	5.32%	5.17%
GTE California	6.75	362311AG7	Deb 'F'	05/15/2027	A-	5.97	5.97	6.09	5.86	5.86	5.80	5.74	5.75	5.86	5.82	5.83	5.70	5.85%	5.78%
GTE Corp	8.75	362320AT0	Deb	11/01/2021	A-	6.24	6.29	6.37	6.24	6.24	6.23	6.15	6.09	6.18	6.11	6.12	6.22	6.21%	6.15%
GTE Corp	6.84	362320AZ6	Deb	04/15/2018	A-	5.53	5.52	5.61	5.54	5.54	5.58	5.53	5.50	5.42	5.45	5.39	5.46	5.51%	5.43%
GTE Corp	6.94	362320BA0	Deb	04/15/2028	A-	5.71	5.57	5.76	5.53	5.53	5.50	5.27	5.24	5.39	5.15	5.15	5.21	5.42%	5.17%
GTE Florida	6.86	362333AH9	Deb 'E'	02/01/2028	A-	6.11	6.14	6.19	5.98	5.98	5.89	5.77	5.59	5.75	5.61	5.60	5.66	5.86%	5.62%
Indiana Bell Telephone	7.3	454614AK4	Deb	08/15/2026	A-	5.99	5.95	6.10	5.85	5.85	5.75	5.63	5.56	5.67	5.53	5.57	5.55	5.75%	5.55%
Michigan Bell Telephone	7.85	594185AQ3	Deb	01/15/2022	A-	6.04	6.08	6.05	6.19	6.19	6.11	6.03	5.76	5.85	5.68	5.69	5.74	5.95%	5.70%
New England Tel. & Tel.	7.88	644239AY1	Deb	11/15/2029	A-	6.57	6.50	6.42	6.31	6.31	6.42	6.32	6.03	6.20	5.83	5.89	5.92	6.23%	5.88%
New Jersey Bell Tel	7.85	645767AW4	Deb	11/15/2029	A-	6.56	6.60	6.58	6.47	6.47	6.28	6.18	6.11	6.29	5.88	5.88	5.95	6.27%	5.90%
New Jersey Bell Tel	8	645767AY0	Deb	06/01/2022	A-	6.33	6.26	6.22	6.11	6.11	6.02	5.95	5.97	6.06	5.86	5.87	5.90	6.06%	5.88%
New York Telephone Co	7	650094BT1	Deb	05/01/2013	A-	6.54	6.58	6.61	6.63	6.63	6.69	6.69	6.73	6.75	6.79	6.82	6.86	6.69%	6.82%
New York Telephone Co	7	650094BV6	Deb	06/15/2013	A-	6.50	6.54	6.57	6.59	6.59	6.64	6.66	6.69	6.71	6.75	6.78	6.81	6.65%	6.78%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
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2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
New York Telephone Co	6.7	650094CA1	Deb	11/01/2023	A-	6.43	6.44	6.46	6.38	6.38	6.42	6.43	6.45	6.46	6.45	6.38	6.41	6.42%	6.41%
New York Telephone Co	7	650094CB9	Deb	12/01/2033	A-	6.56	6.58	6.60	6.61	6.61	6.65	6.67	6.69	6.70	6.75	6.70	6.72	6.65%	6.72%
New York Telephone Co	6.5	650094CJ2	Deb	04/15/2028	A-	6.02	6.05	6.06	5.94	5.94	5.77	5.67	5.60	5.76	5.45	5.64	5.70	5.80%	5.60%
Pacific Bell	7.125	694032AT0	Deb	03/15/2026	A-	5.46	5.43	5.52	5.37	5.37	5.40	5.32	5.30	5.31	5.21	5.29	5.32	5.36%	5.27%
Pacific Bell	7.375	694032AV5	Deb	07/15/2043	A-	6.85	6.77	6.86	6.87	6.87	6.89	6.88	6.90	6.92	7.00	7.02	7.07	6.91%	7.03%
Pacific Bell	6.625	694032AX1	Deb	10/15/2034	A-	6.25	6.25	6.25	6.27	6.27	6.27	6.23	6.25	6.27	6.29	6.31	6.32	6.27%	6.31%
SBC Communications Inc.	5.875	78387GAH6	Global Nts	02/01/2012	A-	5.71												5.71%	
SBC Communications Inc.	5.88	78387GAK9	Global Nts	08/15/2012	A-	5.71	5.73	5.75										5.73%	
SBCCommunications	5.62	78387GAL7	GlobalNts	06/15/2016	A-	4.85	4.83	4.85	4.82	4.82	4.86	4.80	4.79	4.80	4.82	4.88	4.90	4.84%	4.87%
SBCCommunications	6.45	78387GAM5	GlobalNts	06/15/2034	A-	5.38	5.26	5.42	5.34	5.34	5.20	4.97	4.95	5.01	4.84	4.94	5.07	5.14%	4.95%
SBCCommunications	6.45	78387GAM5	Gbl Nt	6/15/2034	A-	5.38	5.26	5.42	5.34	5.34	5.20	4.97	4.95	5.01	4.84	4.94	5.07	5.14%	4.95%
SBCCommunications	6.15	78387GAQ6	Gbl Nt	9/15/2034	A-	5.26	5.15	5.30	5.23	5.23	5.13	4.86	4.84	4.90	4.79	4.83	4.99	5.04%	4.87%
SBC Communications Capital	7	78387QAB7	MTN Tranche #	10/1/2012	A-	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97				6.97%	
Southwest'n Bell Tel	7	845335BQ0	Deb	07/01/2015	A-	5.95	5.98	5.99	5.99	5.99	6.03	6.03	6.05	6.07	6.12	6.07	6.09	6.03%	6.09%
Telefonos de Mexico, S.A.B. de C.V	5.5	879403AS2	Sr Nt	1/27/2015	A-	5.04	5.03	5.04	5.02	5.02	5.04	5.02	5.00	5.00	5.01	5.04	5.06	5.03%	5.04%
Verizon Communications Inc.	5.55	92343VAC8	Nts	02/15/2016	A-	4.79	4.79	4.84	4.80	4.80	4.84	4.80	4.78	4.80	4.82	4.85	4.87	4.82%	4.85%
Verizon Communications Inc.	6.25	92343VAF1	Nts	04/01/2037	A-	5.20	5.11	5.25	5.12	5.12	4.94	4.71	4.71	4.82	4.48	4.78	4.75	4.92%	4.67%
Verizon Communications Inc.	5.5	92343VAG9	Nts	04/01/2017	A-	4.68	4.66	4.72	4.68	4.68	4.70	4.66	4.60	4.60	4.63	4.67	4.68	4.66%	4.66%
Verizon Global Fndg	7.75	92344GAS5	Nts	06/15/2032	A-	5.70	5.67	5.76	5.65	5.65	5.53	5.30	5.30	5.31	5.15	5.22	5.26	5.46%	5.21%
Verizon Global Fndg	7.375	92344GAT3	Nts	09/01/2012	A-	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01					7.01%	
Verizon Global Fndg	4.375	92344GAV8	Nts	06/01/2013	A-	4.17	4.17	4.19	4.20	4.20	4.22	4.23	4.25	4.25	4.28	4.29	4.30	4.23%	4.29%
Verizon Global Fndg	4.9	92344GAW6	Nts	09/15/2015	A-	4.36	4.33	4.35	4.34	4.34	4.37	4.36	4.35	4.35	4.37	4.39	4.41	4.36%	4.39%
Verizon Global Fndg	5.85	92344GAX4	Nts	09/15/2035	A-	5.03	4.94	5.07	4.94	4.94	4.75	4.60	4.59	4.70	4.48	4.66	4.65	4.78%	4.60%
Verizon New England	4.75	92344RAB8	Deb 'C'	10/01/2013	A-	4.51	4.51	4.52	4.52	4.52	4.54	4.53	4.55	4.56	4.57	4.58	4.60	4.54%	4.58%
Verizon Maryland	5.125	92344WAB7	Deb'B'	06/15/2033	A-	5.10	5.01	5.18	5.08	5.08	4.94	4.84	4.77	4.91	4.69	4.84	4.90	4.95%	4.81%
VerizonNY	7.38	92344XAB5	Sr Deb Ser B	4/1/2032	A-	6.31	6.21	6.16	5.99	5.99	5.92	5.78	5.65	5.69	5.46	5.62	5.56	5.86%	5.55%
Verizon Virginia	4.625	92345NAA8	Deb 'A'	03/15/2013	A-	4.43	4.44	4.45	4.47	4.47	4.49	4.51	4.52	4.53	4.55	4.56	4.57	4.50%	4.56%
Vodafone Group plc	6.25	92857WAB6	Deb	11/30/2032	A-	4.95	4.96	5.16	5.10	5.10	5.00	4.72	4.70	4.80	4.72	4.73	4.80	4.90%	4.75%
Vodafone Group plc	5.38	92857WAD2	Nt	1/30/2015	A-	4.80	4.79	4.82	4.81	4.81	4.86	4.86	4.85	4.85	4.86	4.90	4.91	4.84%	4.89%
Vodafone Group plc	4.62	92857WAE0	Gbl Nt	7/15/2018	A-	4.12	4.09	4.08	4.03	4.03	4.05	4.01	4.00	4.02	4.01	3.97	4.00	4.03%	3.99%
Vodafone Group plc	5	92857WAF7	Nt	12/16/2013	A-	4.66	4.65	4.67	4.68	4.68	4.71	4.71	4.73	4.74	4.76	4.78	4.79	4.71%	4.78%
Vodafone Group plc	5	92857WAG5	Gbl Nt	9/15/2015	A-	4.43	4.43	4.45	4.44	4.44	4.47	4.47	4.46	4.45	4.47	4.49	4.50	4.46%	4.49%
Vodafone Group Plc	5.75	92857WAK6	Notes	03/15/2016	A-	4.93	4.92	4.98	4.96	4.96	4.99	4.97	4.96	4.95	4.96	4.99	5.02	4.97%	4.99%
Vodafone Group Plc	5.62	92857WAP5	Notes	02/27/2017	A-	4.76	4.76	4.80	4.78	4.78	4.82	4.75	4.74	4.73	4.73	4.78	4.79	4.77%	4.77%
Vodafone Group Plc	6.15	92857WAQ3	Notes	02/27/2037	A-	4.83	4.89	5.08	4.94	4.94	4.83	4.51	4.58	4.65	4.52	4.60	4.61	4.75%	4.58%
Wisconsin Bell Inc	6.35	976585AG4	Deb	12/01/2026	A-	5.92	5.96	6.09	5.99	5.99	5.84	5.65	5.67	5.83	5.79	5.82	5.88	5.87%	5.83%
AT&T Broadband	8.38	00209TAA3	Nts	03/15/2013	BBB+	7.71	7.76	7.80	7.84	7.84	7.95	7.98	8.03	8.07	8.14	8.18	8.24	7.96%	8.19%
AT&T Broadband	9.46	00209TAB1	Nts	11/15/2022	BBB+	6.57	6.55	6.54	6.48	6.48	6.51	6.32	6.33	6.36	6.24	6.33	6.25	6.41%	6.27%
TCI Communications	8.75	872287AC1	Sr Deb	08/01/2015	BBB+	7.13	7.15	7.10	7.12	7.12	7.21	7.16	7.21	7.23	7.23	7.27	7.33	7.19%	7.28%
TCI Communications	7.875	872287AF4	Sr Deb	02/15/2026	BBB+	6.03	6.02	6.06	5.95	5.95	5.84	5.62	5.60	5.51	5.44	5.53	5.60	5.76%	5.52%
TCI Communications	7.125	872287AL1	Sr Nts	02/15/2028	BBB+	5.89	5.69	5.75	5.69	5.69	5.65	5.39	5.36	5.48	5.28	5.36	5.39	5.55%	5.34%
Tele-Communications(Old)	9.8	879240AN9	Sr Deb	02/01/2012	BBB+	9.80												9.80%	
Tele-Communications(Old)	10.125	879240AQ2	Sr Deb	04/15/2022	BBB+	6.99	6.85	6.99	6.91	6.91	6.81	6.77	6.78	6.85	6.81	6.91	6.93	6.88%	6.88%
Tele-Communications(Old)	7.88	879240AX7	Sr Deb	08/01/2013	BBB+	7.18	7.22	7.22	7.26	7.26	7.36	7.39	7.39	7.42	7.47	7.50	7.55	7.35%	7.51%
Carolina Tel. & Tel	6.75	144195AN4	Deb	08/15/2013	BBB-	6.49	6.50	6.52	6.52	6.52	6.48	6.50	6.48	6.49	6.52	6.58	6.60	6.52%	6.57%
Centel Capital	9	15133KAC7	Deb	10/15/2019	BBB-	7.96	7.82	8.06	7.71	7.71	7.73	7.61	7.54	7.53	7.51	7.52	7.56	7.69%	7.53%
Mountain States Tel&Tel	7.38	624284BD6	Deb	05/01/2030	BBB-	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49	7.49%	7.49%
Northwestern Bell Tel	7.75	668027AT2	Deb	05/01/2030	BBB-	7.16	7.53	7.69	7.61	7.61	7.31	7.15	7.19	7.35	8.20	7.55	7.48	7.49%	7.74%
Qwest Corp	8.88	74913GAC9	Nts	03/15/2012	BBB-	8.62	8.62											8.62%	
Qwest Corp	7.5	74913GAG0	Nts	10/01/2014	BBB-	6.76	6.72	6.76	6.65	6.65	6.67	6.70	6.69	6.70	6.74	6.83	6.85	6.73%	6.81%
Qwest Corp	7.62	74913GAK1	Nts	06/15/2015	BBB-	6.79	6.68	6.75	6.63	6.63	6.68	6.64	6.64	6.64	6.69	6.71	6.74	6.69%	6.71%
Qwest Corp	3.56	74913GAN5	Nt Fltg Rate	6/15/2013	BBB-	3.75	3.73	3.66	3.67	3.67	3.71	3.69	3.69	3.61	3.62	3.59	3.53	3.66%	3.58%
Qwest Corp	3.8	74913GAN5	Nt Fltg Rate	6/15/2013	BBB-	3.75	3.73	3.66	3.67	3.67	3.71	3.69	3.69	3.61	3.62	3.59	3.53	3.66%	3.58%
Qwest Corp	6.5	74913GAT2	Nts	06/01/2017	BBB-	5.86	5.79	5.76	5.67	5.67	5.74	5.69	5.58	5.55	5.53	5.62	5.56	5.67%	5.57%
TCA Cable TV	6.53	872241AB0	Deb	02/01/2028	BBB-	6.02	5.97	6.10	5.81	5.81	5.84	5.70	5.69	5.74	5.47	5.53	5.59	5.77%	5.53%
United States Cellular Corp.	6.7	911684AD0	Sr Nts	12/15/2033	BBB-	6.76	6.81	6.86	6.73	6.73	6.47	6.39	6.41	6.58	6.39	6.27	6.38	6.57%	6.35%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Telecommunications
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
U S WESTCommunications	7.5	912920AB1	Deb	06/15/2023	BBB-	7.49	7.46	7.44	7.42	7.42	7.45	7.47	7.47	7.47	7.47	7.47	7.47	7.46%	7.47%
U S WESTCommunications	6.875	912920AC9	Deb	09/15/2033	BBB-	6.87	6.90	6.92	6.87	6.87	6.94	6.89	6.82	6.77	6.84	6.89	6.84	6.87%	6.86%
U S WESTCommunications	7.125	912920AG0	Deb	11/15/2043	BBB-	7.19	7.22	7.02	7.11	7.11	7.27	7.10	7.05	6.95	7.07	6.96	6.87	7.08%	6.97%
U S WESTCommunications	7.25	912920AK1	Deb	09/15/2025	BBB-	6.86	6.53	6.75	6.54	6.54	6.64	6.38	6.16	6.19	6.10	6.11	6.25	6.42%	6.15%
U S WESTCommunications	7.2	912920AL9	Deb	11/10/2026	BBB-	7.27	7.16	7.12	7.14	7.14	7.20	7.11	7.11	7.11	7.12	7.14	7.16	7.15%	7.14%
U S WESTCommunications	7.25	912920AM7	Deb	10/15/2035	BBB-	7.37	7.24	7.23	7.21	7.21	7.26	7.08	7.07	7.05	7.01	6.97	6.85	7.13%	6.94%
United Tel Co(Florida)	6.875	913026AS9	1st FF	07/15/2013	BBB-	6.54	6.54	6.56	6.57	6.57	6.60	6.62	6.64	6.65	6.67	6.69	6.72	6.61%	6.69%
United Tel Co(Florida)	8.375	913026AT7	1st HH	01/15/2025	BBB-	7.29	7.40	7.56	7.43	7.43	7.26	7.20	7.21	7.10	7.06	7.07	6.88	7.24%	7.00%
United Tel Co(Florida)	7.125	913026AU4	1st GG	07/15/2023	BBB-	6.86	6.90	7.05	6.90	6.90	6.75	6.69	6.70	6.55	6.51	6.52	6.43	6.73%	6.49%
Aliant Communications	6.75	016090AA0	Nts	04/01/2028	BB+	6.97	7.04	6.82	6.45	6.45	6.75	6.67	6.47	6.64	6.48	6.48	6.54	6.65%	6.50%
Century Tel Enterpr	7.2	156686AJ6	Sr Nts 'D'	12/01/2025	BB	7.01	7.03	7.13	6.99	6.99	6.94	6.81	6.47	6.50	6.52	6.78	6.81	6.83%	6.70%
Century Tel Enterpr	6.875	156686AM9	Deb 'G'	01/15/2028	BB	7.15	6.92	7.06	7.20	7.20	6.98	6.75	6.54	6.47	6.53	6.71	6.65	6.85%	6.63%
CenturyTel, Inc.	7.875	156700AG1	Sr Nts'L'	08/15/2012	BB	7.65	7.65	7.68	7.73	7.73	7.80	7.86						7.73%	
CenturyTel, Inc.	5	156700AJ5	Sr Nts'M'	02/15/2015	BB	4.82	4.79	4.78	4.74	4.74	4.77	4.75	4.72	4.71	4.68	4.69	4.70	4.74%	4.69%
CenturyTel, Inc.	5.5	156700AK2	SrNts'O'	04/01/2013	BB	5.40	5.31	5.33	5.32	5.32	5.34	5.36	5.37	5.38	5.41	5.43	5.44	5.37%	5.43%
CenturyTel, Inc.	6	156700AL0	SrNts'N'	04/01/2017	BB	5.71	5.66	5.69	5.58	5.58	5.65	5.56	5.47	5.32	5.40	5.43	5.41	5.54%	5.41%
Citizens Communications Co.	9	17453BAJ0	Sr Nts	08/31/2031	BB	9.67	9.37	9.32	9.43	9.43	9.44	9.29	8.57	8.28	8.43	8.55	8.18	9.00%	8.39%
Embarq Corp.	8	29078EAA3	Nts	06/01/2036	BB	7.52	7.53	7.71	7.96	7.96	7.64	7.47	7.22	6.96	7.40	7.35	7.23	7.50%	7.33%
Embarq Corp.	7.08	29078EAB1	Nts	06/01/2016	BB	6.34	6.37	6.28	6.22	6.22	6.21	6.16	6.04	6.01	6.01	6.01	6.04	6.16%	6.02%
Embarq Corp.	6.74	29078EAC9	Nts	06/01/2013	BB	6.45	6.42	6.45	6.30	6.30								6.38%	
GTE North Inc	6.73	362337AK3	Deb 'G'	02/15/2028	BB	9.50	8.95	8.35	8.38	8.38	8.74	8.52	7.89	7.46	7.28	7.28	7.08	8.15%	7.21%
Qwest Communications Internation	7.5	749121BR9	Sr Nts'B'	02/15/2014	BB	7.47	7.47	7.46	7.48	7.48	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.49%	7.50%
Qwest Cap Funding	7.75	74913EAJ9	Nts	02/15/2031	BB	8.06	7.59	7.95	7.77	7.77	7.82	7.70	7.50	7.11	7.33	7.36	7.39	7.61%	7.36%
Qwest Cap Fdg Inc	7.62	74913EAQ3	Nts 144a	8/3/2021	BB	7.50	7.31	7.44	7.11	7.11	7.02	7.25	7.02	6.96	6.75	6.78	6.95	7.10%	6.83%
Qwest Cap Funding	7.62	74913EAQ3	Nts	08/03/2021	BB	7.50	7.31	7.44	7.11	7.11	7.02	7.25	7.02	6.96	6.75	6.78	6.95	7.10%	6.83%
U S WEST Cap Fndg	6.88	912912AQ5	Deb	07/15/2028	BB	7.73	7.23	7.08	7.19	7.19	7.09	6.88	6.73	6.75	6.68	6.74	6.74	7.00%	6.72%
U S WEST Cap Fndg	6.5	912912AR3	Deb	11/15/2018	BB	6.38	6.28	6.19	6.08	6.08	6.10	6.05	5.83	5.71	5.65	5.68	5.73	5.98%	5.69%
Cin Bell Tel	7.25	171870AK4	Sec Nts	06/15/2023	BB-	8.89	9.11	9.06	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.99%	8.98%
Cincinnati Bell Tel	6.3	171875AD9	<SB>(Tel)<EB>	12/01/2028	BB-	7.87	7.83	7.87	7.83	7.83	7.63	7.47	7.28	7.00	6.92	6.64	6.63	7.40%	6.73%
NEXTEL Communications, Inc.	7.38	65332VBD4	Sr Nts	08/01/2015	B+	7.56	7.46	7.60	7.60	7.60	7.37	7.32	7.33	7.33	7.36	7.37	7.38	7.44%	7.37%
Sprint Capital	6.88	852060AD4	Nts	11/15/2028	B+	9.16	8.75	9.07	9.21	9.21	8.60	7.85	7.59	7.23	6.72	6.74	6.61	8.06%	6.69%
Sprint Capital	6.9	852060AG7	Nts	05/01/2019	B+	8.02	7.73	8.01	7.93	7.93	7.40	6.93	6.73	6.56	6.34	6.44	6.33	7.20%	6.37%
Sprint Capital	8.38	852060AS1	Nts	03/15/2012	B+	8.23												8.23%	
Sprint Capital	8.75	852060AT9	Nts	03/15/2032	B+	10.29	9.80	10.24	10.33	10.33	9.74	8.97	8.66	8.21	7.41	7.43	7.15	9.05%	7.33%
Sprint Nextel Corp.	9.25	852061AA8	Deb	04/15/2022	B+	9.63	9.27	9.43	9.42	9.42	9.09	8.60	8.20	8.03	7.74	7.72	7.72	8.69%	7.73%
Sprint Nextel Corp.	6	852061AD2	Nt	12/1/2016	B+	6.79	6.57	6.77	6.62	6.62	6.28	6.01	5.88	5.72	5.58	5.55	5.51	6.16%	5.55%
Sprint Nextel Corp.	6	852061AD2	Nt	12/1/2016	B+	6.79	6.57	6.77	6.62	6.62	6.28	6.01	5.88	5.72	5.58	5.55	5.51	6.16%	5.55%
Windstream Corp.	8.12	97381WAC8	SrNts	08/01/2013	B+	7.56	7.55	7.60	7.63	7.63	7.71	7.69	7.70	7.72	7.78	7.81	7.83	7.68%	7.81%
Windstream Corp.	7	97381WAF1	SrNts	03/15/2019	B+	6.76	6.74	6.85	6.87	6.87	6.85	6.87	6.91	6.82	6.83	6.93	6.84	6.85%	6.87%
Cincinnati Bell Tel	7	171871AH9	Sr Nts	02/15/2015	B	6.94	6.93	6.94	6.93	6.93	6.92	6.89	6.93	6.91	6.91	6.91	6.92	6.92%	6.91%
Cincinnati Bell Inc.	7.25	171871AB2	Sr Nt	7/15/2013	B-	8.98												8.98%	
NII Holdings, Inc.	3.12	62913FAJ1	Nt Conv	6/15/2012	B-	3.10	3.11	3.11	3.12	3.12								3.11%	
Level 3 Finan	12.25	527298AF0	SrNts	03/15/2013	CCC	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56%	11.56%
Level 3 Finan	9.25	527298AM5	SrNts	11/01/2014	CCC	9.00	9.04	9.04	9.04	9.04	9.04	9.04	9.04	9.04	9.04	9.04	9.04	9.04%	9.04%
Level 3 Communications, Inc.	3.5	52729NBK5	Sr Nt Conv	6/15/2012	CCC	3.49	3.49	3.49	3.49	3.49								3.49%	
AT&T Inc.	4.95	00206RAF9	GlobalNts	01/15/2013	NR	4.75	4.76	4.78	4.80	4.80	4.83	4.81	4.84	4.84	4.84	4.84	4.84	4.81%	4.84%
Centennial Com/Cell Op/PR	8.12	151352AB7	Sr Nts	02/01/2014	NR	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81%	7.81%
Centennial Commun/Oper Co	10.12	15135EAB1	GtdSr Nts	06/15/2013	NR	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81	9.81%	9.81%
Cincinnati Bell Tel	8.38	171871AE6	Sr Sub Nts	01/15/2014	NR	8.15	8.15	8.15	8.15	8.15	8.15	8.15	8.15	8.15	8.15	8.15	8.15	8.15%	8.15%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
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STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
NII Holdings, Inc.	2.88	62913FAC6	Nt Conv	2/1/2034	NR	3.82	3.63	3.82										3.76%	
Qwest Communications Internation	7.5	749121BV0	Sr Nts'B'	02/15/2014	NR	7.47	7.47		7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.49%	7.50%
Southwest'n Bell Tel	7.375	845335BX5	Deb	07/15/2027	NR	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18	7.18%	7.18%
Southwest'n Bell Tel	7	845335BZ0	Deb	11/15/2027	NR	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84	6.84%	6.84%
Tele-Communications(Old)	9.88	879240AR0	Sr Deb	06/15/2022	NR	6.88	6.91	6.99	6.83	6.83	6.79	6.65	6.74	6.81	6.77	6.85	6.87	6.83%	6.83%
			Counts of data			166	160	159	158	157	154	153	152	150	149	149	148	166	149

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
A's	5.60%	5.43%
BBB's	6.76%	6.52%
BB's	6.98%	6.72%
B's	7.27%	6.82%
CCC's	8.03%	10.30%
NR's	6.96%	7.37%
ALL	6.22%	6.04%
BBB- & Above	5.87%	5.69%
BB- & Above	6.04%	5.84%

**'Investment Grade (BBB- & Above)*

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Telecommunications with significant portion of Cable TV Service
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
CURRENT YIELD

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Comcast Corp.	5.88	20030NAR2	Nt	2/15/2018	BBB+	4.99	4.93	4.97	4.94	4.99	4.97	4.89	4.84	4.84	4.81	4.85	4.87	4.91%	4.84%
Comcast Corp.	6.5	20030NAP6	Nts	1/15/2017	BBB+	5.44	5.39	5.44	5.40	5.47	5.47	5.40	5.36	5.36	5.32	5.38	5.38	5.40%	5.36%
Comcast Corp.	6.45	20030NAM3	Gtd Nt	3/15/2037	BBB+	5.33	5.17	5.37	5.30	5.31	5.26	5.04	4.99	5.08	4.89	5.01	5.02	5.15%	4.97%
Comcast Corp.	5.9	20030NAL5	Gtd Nt	3/15/2016	BBB+	5.09	5.09	5.12	5.08	5.11	5.12	5.08	5.07	5.07	5.07	5.11	5.13	5.10%	5.10%
Comcast Corp.	6.95	20030NAV3	Sr Nts	8/15/2037	BBB+	5.42	5.30	5.46	5.47	5.50	5.41	5.13	5.11	5.21	5.00	5.07	5.12	5.27%	5.06%
Comcast Corp.	6.3	20030NAU5	Sr Nts	11/15/2017	BBB+	5.23	5.16	5.23	5.19	5.23	5.25	5.13	5.11	5.13	5.07	5.12	5.13	5.17%	5.11%
Comcast Corp.	4.95	20030NAG6	Gtd Fixed Rt Sr N	6/15/2016	BBB+	4.38	4.38	4.41	4.37	4.40	4.41	4.37	4.35	4.36	4.35	4.37	4.39	4.38%	4.37%
Comcast Corp.	5.65	20030NAF8	Gtd Fixed Rt Sr N	6/15/2035	BBB+	5.11	5.06	5.15	5.11	5.08	5.04	4.78	4.78	4.87	4.74	4.83	4.81	4.95%	4.79%
Comcast Corp.	5.3	20030NAE1	Sr Nt	1/15/2014	BBB+	4.90	4.90	4.92	4.94	4.96	4.98	4.98	4.99	4.99	5.01	5.03	5.05	4.97%	5.03%
Comcast Corp.	6.5	20030NAB7	Nt	1/15/2015	BBB+	5.66	5.68	5.69	5.68	5.74	5.76	5.73	5.74	5.76	5.77	5.80	5.83	5.74%	5.80%
Comcast Corp.	7.05	20030NAC5	Sr Nt	3/15/2033	BBB+	5.56	5.56	5.73	5.69	5.67	5.60	5.30	5.31	5.38	5.23	5.28	5.29	5.47%	5.27%
Comcast Cable Commun	7.12	20029PAN9	Sr Nt	6/15/2013	BBB+	6.57	6.60	6.62	6.65	6.70	6.72	6.74	6.77	6.80	6.85	6.88	6.92	6.74%	6.88%
Comcast Cable Commun	8.88	20029PAG4	Sr Nt - Exchanged	5/1/2017	BBB+	6.81	6.82	6.84	6.81	6.87	6.88	6.76	6.74	6.76	6.76	6.85	6.84	6.81%	6.82%
Comcast Cable Commun	8.5	20029PAH2	Sr Nt - Exchanged	5/1/2027	BBB+	6.21	6.23	6.28	6.18	6.23	6.20	5.96	5.88	5.89	5.82	5.92	5.90	6.06%	5.88%
Time Warner Inc.	6.5	887317AD7	Deb	11/15/2036	BBB	5.39	5.32	5.59	5.52	5.55	5.47	5.23	5.20	5.24	4.98	5.15	5.19	5.32%	5.11%
Time Warner Cos Inc	6.62	887315BN8	Deb	5/15/2029	BBB	5.55	5.43	5.57	5.53	5.52	5.53	5.33	5.30	5.35	5.13	5.15	5.19	5.38%	5.16%
Time Warner Inc.	5.88	887317AC9	Nt	11/15/2016	BBB	5.01	4.98	5.02	4.98	5.00	5.01	4.97	4.96	4.96	4.96	5.00	5.01	4.99%	4.99%
AOL Time Warner	7.62	00184AAC9	Deb	4/15/2031	BBB	5.88	5.69	5.93	5.88	5.94	5.91	5.64	5.61	5.63	5.31	5.47	5.53	5.70%	5.44%
Time Warner Cos Inc	6.95	887315BM0	Gtd Deb	1/15/2028	BBB	5.66	5.56	5.72	5.68	5.66	5.58	5.47	5.42	5.43	5.21	5.31	5.34	5.50%	5.29%
Time Warner Cos Inc	6.88	887315AY5	Deb	6/15/2018	BBB	5.66	5.56	5.67	5.58	5.61	5.59	5.46	5.46	5.43	5.38	5.46	5.45	5.53%	5.43%
Time Warner Cos Inc	6.85	887315BB4	Deb	1/15/2026	BBB	5.78	5.80	5.98	5.89	5.94	5.70	5.53	5.53	5.55	5.46	5.56	5.52	5.69%	5.51%
Time Warner Cos Inc	8.05	887315BA6	Deb	1/15/2016	BBB	6.74	6.78	6.88	6.86	6.70	6.70	6.67	6.75	6.75	6.80	6.85	6.88	6.78%	6.84%
Time Warner Cos Inc	9.15	887315AM1	Deb Dtd 02/04/19	2/1/2023	BBB	6.67	6.58	6.76	6.65	6.70	6.60	6.48	6.40	6.43	6.40	6.27	6.19	6.51%	6.29%
Time Warner Cos Inc	7.25	887315BJ7	Deb	10/15/2017	BBB	5.86	5.89	5.91	5.83	5.87	5.83	5.74	5.72	5.72	5.71	5.80	5.77	5.80%	5.76%
Time Warner Cos Inc	7.57	887315BH1	Deb	2/1/2024	BBB	5.95	5.96	5.98	5.91	5.93	5.77	5.69	5.69	5.71	5.61	5.73	5.61	5.80%	5.65%
Time Warner Entertainment	8.38	88731EAF7	Sr Deb	3/15/2023	BBB	6.26	6.16	6.30	6.19	6.29	6.22	6.01	5.98	5.98	5.87	5.89	5.92	6.09%	5.89%
Qwest Corp	8.88	74913GAC9	Nts	03/15/2012	BBB-	8.62	8.62											8.62%	
Qwest Corp	7.5	74913GAG0	Nts	10/01/2014	BBB-	6.76	6.72	6.76	6.65	6.65	6.67	6.70	6.69	6.70	6.74	6.83	6.85	6.73%	6.81%
Qwest Corp	7.62	74913GAK1	Nts	06/15/2015	BBB-	6.79	6.68	6.75	6.63	6.63	6.68	6.64	6.64	6.64	6.69	6.71	6.74	6.69%	6.71%
Qwest Corp	3.56	74913GAN5	Nt Fltg Rate	6/15/2013	BBB-	3.75	3.73	3.66	3.67	3.67	3.71	3.69	3.69	3.61	3.62	3.59	3.53	3.66%	3.58%
Qwest Corp	3.8	74913GAN5	Nt Fltg Rate	6/15/2013	BBB-	3.75	3.73	3.66	3.67	3.67	3.71	3.69	3.69	3.61	3.62	3.59	3.53	3.66%	3.58%
Qwest Corp	6.5	74913GAT2	Nts	06/01/2017	BBB-	5.86	5.79	5.76	5.67	5.67	5.74	5.69	5.58	5.55	5.53	5.62	5.56	5.67%	5.57%
TCA Cable TV	6.53	872241AB0	Deb	02/01/2028	BBB-	6.02	5.97	6.10	5.81	5.81	5.84	5.70	5.69	5.74	5.47	5.53	5.59	5.77%	5.53%
Century Tel Enterpr	7.2	156686AJ6	Sr Nts 'D'	12/01/2025	BB	7.01	7.03	7.13	6.99	6.99	6.94	6.81	6.47	6.50	6.52	6.78	6.81	6.83%	6.70%
Century Tel Enterpr	6.875	156686AM9	Deb 'G'	01/15/2028	BB	7.15	6.92	7.06	7.20	7.20	6.98	6.75	6.54	6.47	6.53	6.71	6.65	6.85%	6.63%
CenturyTel, Inc.	7.875	156700AG1	Sr Nts'L'	08/15/2012	BB	7.65	7.65	7.68	7.73	7.73	7.80	7.86						7.73%	
CenturyTel, Inc.	5	156700AJ5	Sr Nts'M'	02/15/2015	BB	4.82	4.79	4.78	4.74	4.74	4.77	4.75	4.72	4.71	4.68	4.69	4.70	4.74%	4.69%
CenturyTel, Inc.	5.5	156700AK2	SrNts'O'	04/01/2013	BB	5.40	5.31	5.33	5.32	5.32	5.34	5.36	5.37	5.38	5.41	5.43	5.44	5.37%	5.43%
CenturyTel, Inc.	6	156700AL0	SrNts'N'	04/01/2017	BB	5.71	5.66	5.69	5.58	5.58	5.65	5.56	5.47	5.32	5.40	5.43	5.41	5.54%	5.41%
Citizens Communications Co.	9	17453BAJ0	Sr Nts	08/31/2031	BB	9.67	9.37	9.32	9.43	9.43	9.44	9.29	8.57	8.28	8.43	8.55	8.18	9.00%	8.39%
Embarq Corp.	8	29078EAA3	Nts	06/01/2036	BB	7.52	7.53	7.71	7.96	7.96	7.64	7.47	7.22	6.96	7.40	7.35	7.23	7.50%	7.33%
Embarq Corp.	7.08	29078EAB1	Nts	06/01/2016	BB	6.34	6.37	6.28	6.22	6.22	6.21	6.16	6.04	6.01	6.01	6.01	6.04	6.16%	6.02%
Embarq Corp.	6.74	29078EAC9	Nts	06/01/2013	BB	6.45	6.42	6.45	6.30	6.30								6.38%	
Cin Bell Tel	7.25	171870AK4	Sec Nts	06/15/2023	BB-	8.89	9.11	9.06	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.98	8.99%	8.98%
Cincinnati Bell Tel	6.3	171875AD9	<SB>(Tel)<EB>Gt	12/01/2028	BB-	7.87	7.83	7.87	7.83	7.83	7.63	7.47	7.28	7.00	6.92	6.64	6.63	7.40%	6.73%
Cincinnati Bell Tel	7	171871AH9	Sr Nts	02/15/2015	B	6.94	6.93	6.94	6.93	6.93	6.92	6.89	6.93	6.91	6.91	6.91	6.92	6.92%	6.91%
Cincinnati Bell Inc.	7.25	171871AB2	Sr Nt	7/15/2013	B-	8.98												8.98%	
Time Warner Telecom	2.38	887319AC5	Sr Deb Conv	4/1/2026	B-	1.97	1.92	1.91	1.91	1.88	1.71	1.73	1.72	1.69	1.75	1.73	1.74	1.81%	1.74%
			Counts of data			48	47	46	46	46	45	45	44	44	44	44	44	48	44

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
BBB's	5.64%	5.45%
BB's	6.87%	6.63%
B's	6.28%	5.13%
ALL	5.96%	5.67%
BBB- & Above	5.64%	5.45%
B- & Above	5.96%	5.67%

**Investment Grade (BBB- & Above)*

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Telecommunications
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
GTE Southwest	8.5	362338AQ8	1st	11/15/2031	A+	5.33	5.29	5.51	5.34	5.34	5.49	5.28	5.16	5.58	5.18	5.17	5.27	5.33%	5.21%
Telstra Corporation Limited	6.38	87969NAB1	Nt	4/1/2012	A	1.00	1.46											1.23%	
AT&T Corp.	6.5	001957AW9	Nts	03/15/2029	A-	4.86	4.86	5.06	4.96	4.96	4.79	4.38	4.26	4.43	4.36	4.42	4.52	4.66%	4.43%
AT&T Corp.	8	001957BD0	Sr Nts	11/15/2031	A-	4.61	4.59	4.81	4.61	4.61	4.29	3.83	3.91	4.08	3.86	3.87	4.07	4.26%	3.93%
AT&T Corp.	6.5	001957BJ7	Nts	03/15/2013	A-	1.00	0.92	0.86	0.77	0.77	0.69	0.66	0.77	0.56	1.78	1.62	1.77	1.01%	1.72%
AT&TCorp	6.5	001957BJ7	Nt	3/15/2013	A-	1.00	0.92	0.86	0.77	0.77	0.69	0.66	0.77	0.56	1.78	1.62	1.77	1.01%	1.72%
AT&T Inc.	6.8	00206RAB8	Nts	05/15/2036	A-	4.98	4.84	5.06	4.97	4.97	4.73	4.30	4.31	4.48	4.26	4.44	4.47	4.65%	4.39%
AT&T Inc.	6.5	00206RAD4	GlobalNts	09/01/2037	A-	4.91	4.79	5.01	4.93	4.93	4.68	4.31	4.33	4.37	4.16	4.36	4.43	4.60%	4.32%
AT&T Inc.	6.3	00206RAG7	GlobalNts	01/15/2038	A-	4.86	4.72	5.01	4.93	4.93	4.68	4.30	4.31	4.36	4.12	4.36	4.42	4.58%	4.30%
AT&T Inc.	5.5	00206RAJ1	GlobalNts	02/01/2018	A-	2.23	2.12	2.28	2.16	2.16	2.10	1.64	1.43	1.40	1.25	1.56	1.56	1.82%	1.46%
AT&T Inc.	5.6	00206RAM4	GlobalNts	05/15/2018	A-	2.38	2.24	2.43	2.24	2.24	2.10	1.70	1.44	1.47	1.35	1.65	1.57	1.90%	1.52%
AT&T Inc.	6.4	00206RAN2	GlobalNts	05/15/2038	A-	4.86	4.72	5.01	4.93	4.93	4.69	4.30	4.31	4.38	4.14	4.41	4.43	4.59%	4.33%
AT&T Wireless Services	8.75	00209AAF3	Sr Nts	03/01/2031	A-	5.03	4.74	5.01	4.79	4.79	4.59	4.10	4.11	4.23	3.94	3.92	3.92	4.43%	3.93%
ALLTEL Corp	6.5	020039AD5	Deb	11/1/2013	A-	1.81	0.91	0.94	0.90	0.90	0.99	0.96	0.99	0.74	0.78	0.72	0.76	0.95%	0.75%
ALLTEL Corp	7	020039AE3	Deb	3/15/2016	A-	1.73	1.87	1.98	1.67	1.67	1.54	1.39	1.34	1.21	0.98	1.03	1.07	1.46%	1.03%
ALLTEL Corp	6.8	020039AJ2	Deb	5/1/2029	A-	4.58	4.54	4.51	4.34	4.34	4.12	3.73	3.71	3.93	3.60	3.72	3.77	4.07%	3.70%
ALLTEL Corp	7	020039DB6	Sr Nt	7/1/2012	A-	0.60	0.57	0.45	1.02	1.02								0.73%	
ALLTEL Corp	7.88	020039DC4	Sr Nt	7/1/2032	A-	4.53	4.34	4.56	4.41	4.41	4.18	3.78	3.66	3.78	3.58	3.77	3.74	4.06%	3.70%
America Movil, S.A.B. de C.V.	6.38	02364WAJ4	Sr Nt	3/1/2035	A-	4.85	4.72	4.96	4.83	4.83	4.64	4.32	4.31	4.33	4.22	4.24	4.15	4.53%	4.20%
Bell Atlantic-PA	6	07786DAA4	Deb	12/1/2028	A-	5.53	5.59	5.66	5.46	5.46	5.14	5.01	5.04	5.31	4.83	4.82	4.47	5.19%	4.71%
Bell Tel. of Penna	8.35	078167AZ6	Deb	12/15/2030	A-	6.03	6.09	6.06	5.89	5.89	5.58	5.23	5.31	5.58	5.08	5.07	5.17	5.58%	5.11%
Bell Tel. of Penna	8.75	078167BA0	Deb	8/15/2031	A-	6.03	6.09	6.16	5.81	5.81	5.74	5.38	5.41	5.68	5.18	5.17	5.27	5.64%	5.21%
BellSouth Capital Funding	6.04	079857AC2	Deb	11/15/2026	A-	5.53	5.47	5.73	5.46	5.46	5.17	4.95	4.96	5.15	5.11	5.14	5.19	5.28%	5.15%
BellSouth Capital Funding	7.88	079857AH1	Deb	02/15/2030	A-	5.03	5.09	5.36	5.19	5.19	5.19	4.78	4.81	5.03	4.76	4.87	5.07	5.03%	4.90%
BellSouth Corp.	6.875	079860AD4	Nts	10/15/2031	A-	5.03	5.04	5.16	5.06	5.06	5.04	4.88	4.81	4.98	4.76	4.80	4.87	4.96%	4.81%
BellSouth Corp.	6.55	079860AE2	Nts	06/15/2034	A-	5.28	5.19	5.41	5.34	5.34	5.19	4.88	4.91	5.08	4.97	4.82	5.02	5.12%	4.94%
BellSouth Corp.	5.2	079860AG7	Nts	09/15/2014	A-	1.06	0.96	1.05	1.13	1.13	1.25	0.90	0.82	0.75	0.69	0.71	0.81	0.94%	0.74%
BellSouth Corp.	4.75	079860AJ1	Nts	11/15/2012	A-	0.77	0.56	0.61	0.66	0.66	0.56							0.64%	
BellSouth Corp.	6	079860AK8	Nts	11/15/2034	A-	5.23	5.19	5.36	5.21	5.21	5.14	4.88	4.81	5.03	4.81	4.76	5.07	5.06%	4.88%
BellSouth Corp	5.2	079860AL6	Nt	12/15/2016	A-	1.98	1.92	1.98	1.81	1.81	1.80	1.35	1.34	1.41	1.50	1.23	1.37	1.63%	1.37%
BellSouthTelecommunications	7	079867AM9	Deb	10/01/2025	A-	4.54	4.57	4.99	4.68	4.68	4.47	4.20	4.21	4.40	4.21	4.22	4.27	4.45%	4.23%
BellSouthTelecommunications	5.85	079867AN7	Deb	11/15/2045	A-	5.63	5.69	5.91	5.74	5.74	5.69	5.43	5.36	5.53	5.31	5.37	5.47	5.57%	5.38%
BellSouthTelecommunications	7	079867AP2	Deb	12/15/2095	A-	5.61		6.04	5.81	5.81	5.74	5.48	5.56	5.68	5.46	5.47	5.70	5.67%	5.54%
BellSouthTelecommunications	7	079867AP2	Deb	12/15/2095	A-	5.61		6.04	5.81	5.81	5.74	5.48	5.56	5.68	5.46	5.47	5.70	5.67%	5.54%
BellSouthTelecommunications	6.3	079867AQ0	AmortizingDeb	12/15/2015	A-		4.49	4.57	4.81	4.68	4.78	4.24	4.34	4.44	4.14	4.23	4.22	4.45%	4.20%
BellSouthTelecommunications	6.375	079867AW7	Deb	06/01/2028	A-	4.93	4.94	5.11	5.01	5.01	4.76	4.38	4.56	4.83	4.36	4.55	4.57	4.75%	4.49%
Chesapeake Pot.Tel Md	8	165069AP0	Deb	10/15/2029	A-	6.03	6.09	6.06	5.89	5.89	5.58	5.38	5.41	5.53	5.08	5.07	5.17	5.60%	5.11%
Chesapeake Pot.Tel Md	8.3	165069AQ8	Deb	8/1/2031	A-	6.03	6.09	6.06	5.89	5.89	5.58	5.38	5.49	5.68	5.33	5.32	5.42	5.68%	5.36%
Chesapeake Pot.Tel Md	7.15	165069AS4	Deb	5/1/2023	A-	6.35	6.40	6.45	6.50	6.50	6.60	6.65	6.70	6.74	6.81	6.85	6.92	6.62%	6.86%
Chesapeake&Pot.Tel VA	8.38	165087AL1	Forty Yr Deb	10/1/2029	A-	6.03	6.09	6.06	5.89	5.89	5.58	5.45	5.41	5.53	4.97	4.96	5.06	5.58%	5.00%
Chesapeake&Pot.Tel VA	7.88	165087AN7	Deb	1/15/2022	A-	4.74	4.57	4.48	4.21	4.21	4.01	3.89	3.90	4.09	3.48	3.49	3.54	4.05%	3.50%
Chesapeake&Pot.Tel VA	7.62	165087AP2	20 Yr Deb	12/1/2012	A-	1.33	1.43	1.35	1.47	1.47	0.75	0.77	1.08	0.58				1.14%	
Cingular Wireless LLC	7.12	17248RAJ5	Sr Nt	12/15/2031	A-	4.98	4.74	4.86	4.76	4.76	4.57	4.08	4.11	4.28	3.91	4.32	4.42	4.48%	4.22%
GTE California	6.75	362311AG7	Deb 'F'	05/15/2027	A-	5.48	5.47	5.68	5.28	5.28	5.17	5.05	5.06	5.25	5.18	5.19	4.94	5.25%	5.10%
GTE Corp	8.75	362320AT0	Deb	11/01/2021	A-	3.79	3.87	4.03	3.71	3.71	3.62	3.40	3.21	3.40	3.19	3.19	3.39	3.54%	3.26%
GTE Corp	6.84	362320AZ6	Deb	04/15/2018	A-	2.68	2.62	2.88	2.58	2.58	2.65	2.40	2.24	1.86	1.92	1.63	1.82	2.32%	1.79%
GTE Corp	6.94	362320BA0	Deb	04/15/2028	A-	4.98	4.74	5.06	4.66	4.66	4.59	4.18	4.11	4.38	3.93	3.92	4.02	4.44%	3.96%
GTE Florida	6.86	362333AH9	Deb 'E'	02/01/2028	A-	5.68	5.74	5.81	5.46	5.46	5.29	5.09	4.76	5.03	4.78	4.77	4.87	5.23%	4.81%
Indiana Bell Telephone	7.3	454614AK4	Deb	08/15/2026	A-	5.14	5.07	5.33	4.88	4.88	4.67	4.45	4.31	4.50	4.21	4.29	4.24	4.66%	4.25%
Michigan Bell Telephone	7.85	594185AQ3	Deb	01/15/2022	A-	4.14	4.22	4.13	4.42	4.42	4.21	3.99	3.31	3.50	3.07	3.07	3.14	3.80%	3.09%
New England Tel. & Tel.	7.88	644239AY1	Deb	11/15/2029	A-	6.03	5.94	5.81	5.64	5.64	5.79	5.63	5.16	5.43	4.83	4.92	4.97	5.48%	4.91%
New Jersey Bell Tel	7.85	645767AW4	Deb	11/15/2029	A-	6.03	6.09	6.06	5.89	5.89	5.58	5.43	5.31	5.58	4.93	4.92	5.02	5.56%	4.96%
New Jersey Bell Tel	8	645767AY0	Deb	06/01/2022	A-	4.74	4.57	4.48	4.21	4.21	3.96	3.79	3.80	3.99	3.48	3.49	3.54	4.02%	3.50%
New York Telephone Co	7	650094BT1	Deb	05/01/2013	A-	1.42	1.51	1.54	1.53	1.53	1.50	0.86	0.94	0.77	0.90	0.74	0.86	1.18%	0.83%
New York Telephone Co	7	650094BV6	Deb	06/15/2013	A-	1.42	1.51	1.54	1.52	1.52	1.40	1.15	1.21	1.07	1.16	1.05	1.12	1.31%	1.11%
New York Telephone Co	6.7	650094CA1	Deb	11/01/2023	A-	6.19	6.22	6.25	6.09	6.09	6.15	6.18	6.21	6.23	6.21	6.08	6.13	6.17%	6.14%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Telecommunications
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
New York Telephone Co	7	650094CB9	Deb	12/01/2033	A-	6.42	6.45	6.48	6.49	6.49	6.55	6.57	6.59	6.61	6.67	6.60	6.64	6.55%	6.64%
New York Telephone Co	6.5	650094CJ2	Deb	04/15/2028	A-	5.73	5.79	5.81	5.61	5.61	5.30	5.13	5.01	5.28	4.73	5.07	5.17	5.35%	4.99%
Pacific Bell	7.125	694032AT0	Deb	03/15/2026	A-	4.24	4.17	4.33	4.03	4.03	4.07	3.89	3.85	3.85	3.64	3.79	3.84	3.98%	3.76%
Pacific Bell	7.375	694032AV5	Deb	07/15/2043	A-	6.78	6.69	6.79	6.80	6.80	6.83	6.81	6.84	6.86	6.95	6.97	7.03	6.85%	6.98%
Pacific Bell	6.625	694032AX1	Deb	10/15/2034	A-	6.13	6.14	6.13	6.15	6.15	6.15	6.10	6.13	6.15	6.19	6.21	6.21	6.15%	6.20%
SBC Communications Inc.	5.875	78387GAH6	Global Nts	02/01/2012	A-	2.93	3.38											3.16%	
SBC Communications Inc.	5.88	78387GAK9	Global Nts	08/15/2012	A-	0.53	0.50	0.40										0.48%	
SBCCommunications	5.62	78387GAL7	GlobalNts	06/15/2016	A-	1.83	1.65	1.73	1.46	1.46	1.52	1.10	0.96	0.96	0.95	1.23	1.24	1.34%	1.14%
SBCCommunications	6.45	78387GAM5	GlobalNts	06/15/2034	A-	4.96	4.79	5.02	4.91	4.91	4.69	4.33	4.29	4.38	4.11	4.27	4.47	4.59%	4.28%
SBCCommunications	6.45	78387GAM5	Gbl Nt	6/15/2034	A-	4.96	4.79	5.02	4.91	4.91	4.69	4.33	4.29	4.38	4.11	4.27	4.47	4.59%	4.28%
SBCCommunications	6.15	78387GAQ6	Gbl Nt	9/15/2034	A-	4.91	4.74	6.81	4.86	4.86	4.69	4.28	4.25	4.33	4.16	4.22	4.47	4.72%	4.28%
SBC Communications Capital	7	78387QAB7	MTN Tranche #	10/1/2012	A-	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81				6.81%	
Southwest'n Bell Tel	7	845335BQ0	Deb	07/01/2015	A-	1.70	1.73	1.68	1.55	1.55	1.53	1.39	1.36	1.39	1.48	1.01	0.96	1.44%	1.15%
Telefonos de Mexico, S.A.B. de C.V	5.5	879403AS2	Sr Nt	1/27/2015	A-	2.39	2.19	2.24	1.96	1.96	1.88	1.58	1.26	1.22	1.13	1.31	1.27	1.70%	1.24%
Verizon Communications Inc.	5.55	92343VAC8	Nts	02/15/2016	A-	1.52	1.42	1.63	1.36	1.36	1.40	1.10	0.86	0.86	0.87	1.03	1.02	1.20%	0.97%
Verizon Communications Inc.	6.25	92343VAF1	Nts	04/01/2037	A-	4.85	4.72	4.92	4.73	4.73	4.46	4.13	4.12	4.28	3.76	4.22	4.17	4.42%	4.05%
Verizon Communications Inc.	5.5	92343VAG9	Nts	04/01/2017	A-	1.93	1.79	2.03	1.79	1.79	1.77	1.50	1.14	1.06	1.16	1.27	1.29	1.54%	1.24%
Verizon Global Fndg	7.75	92344GAS5	Nts	06/15/2032	A-	4.93	4.89	5.01	4.84	4.84	4.64	4.28	4.26	4.28	4.01	4.12	4.17	4.52%	4.10%
Verizon Global Fndg	7.375	92344GAT3	Nts	09/01/2012	A-	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08					2.08%	
Verizon Global Fndg	4.375	92344GAV8	Nts	06/01/2013	A-	0.76	0.61	0.64	0.67	0.67	0.56	0.45	0.48	0.38	0.62	0.45	0.45	0.56%	0.51%
Verizon Global Fndg	4.9	92344GAW6	Nts	09/15/2015	A-	1.40	1.13	1.21	1.04	1.04	1.12	0.94	0.76	0.64	0.64	0.76	0.80	0.96%	0.73%
Verizon Global Fndg	5.85	92344GAX4	Nts	09/15/2035	A-	4.70	4.57	4.76	4.57	4.57	4.26	4.03	4.01	4.18	3.83	4.12	4.10	4.31%	4.02%
Verizon New England	4.75	92344RAB8	Deb 'C'	10/01/2013	A-	1.51	1.41	1.35	1.19	1.19	1.14	0.70	0.67	0.65	0.62	0.57	0.59	0.97%	0.59%
Verizon Maryland	5.125	92344WAB7	Deb'B'	06/15/2033	A-	5.08	4.96	5.21	5.06	5.06	4.84	4.68	4.57	4.78	4.43	4.67	4.77	4.84%	4.62%
VerizonNY	7.38	92344XAB5	Sr Deb Ser B	4/1/2032	A-	5.93	5.79	5.71	5.46	5.46	5.34	5.13	4.93	4.98	4.63	4.87	4.77	5.25%	4.76%
Verizon Virginia	4.625	92345NAA8	Deb 'A'	03/15/2013	A-	0.82	0.83	0.63	0.74	0.74	0.59	0.54	0.61	0.51	0.56	0.42		0.64%	0.49%
Vodafone Group plc	6.25	92857WAB6	Deb	11/30/2032	A-	4.33	4.34	4.66	4.56	4.56	4.39	3.93	3.88	4.05	3.90	3.92	4.03	4.21%	3.95%
Vodafone Group plc	5.38	92857WAD2	Nt	1/30/2015	A-	1.31	1.15	1.26	1.10	1.10	1.23	1.11	0.91	0.77	0.67	0.89	0.82	1.03%	0.79%
Vodafone Group plc	4.62	92857WAE0	Gbl Nt	7/15/2018	A-	2.58	2.42	2.33	2.10	2.10	2.15	1.90	1.84	1.92	1.80	1.57	1.68	2.03%	1.68%
Vodafone Group plc	5	92857WAF7	Nt	12/16/2013	A-	1.08	0.88	0.93	0.89	0.89	0.89	0.68	0.57	0.56	0.55	0.67	0.56	0.76%	0.59%
Vodafone Group plc	5	92857WAG5	Gbl Nt	9/15/2015	A-	1.41	1.29	1.40	1.24	1.24	1.27	1.20	0.95	0.86	0.87	0.92	0.91	1.13%	0.90%
Vodafone Group Plc	5.75	92857WAK6	Notes	03/15/2016	A-	1.59	1.48	1.74	1.51	1.51	1.56	1.36	1.15	1.03	1.01	1.10	1.17	1.35%	1.09%
Vodafone Group Plc	5.62	92857WAP5	Notes	02/27/2017	A-	1.88	1.82	1.96	1.81	1.81	1.91	1.46	1.34	1.24	1.19	1.35	1.32	1.59%	1.29%
Vodafone Group Plc	6.15	92857WAQ3	Notes	02/27/2037	A-	4.35	4.44	4.71	4.51	4.51	4.34	3.85	3.96	4.05	3.85	3.97	3.99	4.21%	3.94%
Wisconsin Bell Inc	6.35	976585AG4	Deb	12/01/2026	A-	5.63	5.69	5.91	5.74	5.74	5.47	5.13	5.16	5.43	5.36	5.42	5.52	5.52%	5.43%
AT&T Broadband	8.38	00209TAA3	Nts	03/15/2013	BBB+	0.78	0.81	0.71	0.75	0.75	0.85	0.43	0.57	0.41	0.66	0.45	0.67	0.65%	0.59%
AT&T Broadband	9.46	00209TAB1	Nts	11/15/2022	BBB+	4.33	4.26	4.21	4.06	4.06	4.08	3.64	3.62	3.67	3.38	3.55	3.32	3.85%	3.42%
TCI Communications	8.75	872287AC1	Sr Deb	08/01/2015	BBB+	2.01	1.98	1.60	1.54	1.54	1.63	1.19	1.27	1.22	1.00	1.01	1.13	1.43%	1.05%
TCI Communications	7.875	872287AF4	Sr Deb	02/15/2026	BBB+	4.84	4.82	4.88	4.68	4.68	4.45	4.01	3.96	3.77	3.61	3.77	3.89	4.28%	3.76%
TCI Communications	7.125	872287AL1	Sr Nts	02/15/2028	BBB+	5.18	4.84	4.94	4.83	4.83	4.74	4.27	4.21	4.41	4.04	4.18	4.23	4.56%	4.15%
Tele-Communications(Old)	10.125	879240AQ2	Sr Deb	04/15/2022	BBB+	4.57	4.27	4.53	4.33	4.33	4.07	3.93	3.92	4.04	3.93	4.11	4.10	4.18%	4.05%
Tele-Communications(Old)	7.88	879240AX7	Sr Deb	08/01/2013	BBB+	1.40	1.43	1.06	1.15	1.15	1.46	1.33	0.73	0.58	0.78	0.61	0.65	1.03%	0.68%
Carolina Tel. & Tel	6.75	144195AN4	Deb	08/15/2013	BBB-	4.11	4.06	4.10	4.03	4.03	3.04	3.01	2.31	2.18	2.23	3.17	3.19	3.29%	2.86%
Centel Capital	9	15133KAC7	Deb	10/15/2019	BBB-	6.79	6.47	6.98	6.18	6.18	6.17	5.85	5.66	5.60	5.54	5.54	5.59	6.05%	5.56%
Mountain States Tel&Tel	7.38	624284BD6	Deb	05/01/2030	BBB-	7.52	7.52	7.52	7.52	7.52	7.52	7.52	7.52	7.52	7.52	7.52	7.52	7.52%	7.52%
Northwestern Bell Tel	7.75	668027AT2	Deb	05/01/2030	BBB-	6.95	7.46	7.66	7.56	7.56	7.15	6.93	6.98	7.20	8.35	7.47	7.38	7.39%	7.73%
Qwest Corp	7.5	74913GAG0	Nts	10/01/2014	BBB-	3.19	2.86	2.95	2.13	2.13	1.90	1.90	1.64	1.45	1.51	2.11	1.97	2.15%	1.86%
Qwest Corp	7.62	74913GAK1	Nts	06/15/2015	BBB-	3.72	3.12	3.34	2.60	2.60	2.66	2.29	2.11	1.99	2.15	2.11	2.11	2.57%	2.12%
Qwest Corp	3.56	74913GAN5	Nt Fltg Rate	6/15/2013	BBB-	3.05	2.51	2.44	2.59	2.59	3.58	3.01	2.86	2.84	2.86	1.45	1.85	2.64%	2.05%
Qwest Corp	3.8	74913GAN5	Nt Fltg Rate	6/15/2013	BBB-	3.05	2.51	2.44	2.59	2.59	3.58	3.01	2.86	2.84	2.86	1.45	1.85	2.64%	2.05%
Qwest Corp	6.5	74913GAT2	Nts	06/01/2017	BBB-	4.20	3.89	3.78	3.36	3.36	3.55	3.30	2.79	2.62	2.47	2.78	2.47	3.21%	2.57%
TCA Cable TV	6.53	872241AB0	Deb	02/01/2028	BBB-	5.72	5.63	5.85	5.36	5.36	5.39	5.16	5.14	5.22	4.73	4.84	4.94	5.28%	4.84%
United States Cellular Corp.	6.7	911684AD0	Sr Nts	12/15/2033	BBB-	6.78	6.84	6.91	6.74	6.74	6.39	6.28	6.31	6.53	6.28	6.12	6.27	6.52%	6.22%
U S WESTCommunications	7.5	912920AB1	Deb	06/15/2023	BBB-	7.49	7.43	7.39	7.36	7.36	7.41	7.45	7.45	7.45	7.45	7.45	7.45	7.43%	7.45%
U S WESTCommunications	6.875	912920AC9	Deb	09/15/2033	BBB-	6.86	6.91	6.94	6.87	6.87	6.96	6.89	6.80	6.74	6.82	6.89	6.82	6.86%	6.84%
U S WESTCommunications	7.125	912920AG0	Deb	11/15/2043	BBB-	7.20	7.23	7.01	7.11	7.11	7.28	7.10	7.04	6.93	7.06	6.94	6.84	7.07%	6.95%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Telecommunications
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
U S WESTCommunications	7.25	912920AK1	Deb	09/15/2025	BBB-	6.61	6.04	6.43	6.06	6.06	6.22	5.75	5.36	5.40	5.23	5.24	5.49	5.82%	5.32%
U S WESTCommunications	7.2	912920AL9	Deb	11/10/2026	BBB-	7.31	7.14	7.08	7.11	7.11	7.19	7.05	7.05	7.05	7.08	7.11	7.13	7.12%	7.11%
U S WESTCommunications	7.25	912920AM7	Deb	10/15/2035	BBB-	7.40	7.24	7.22	7.20	7.20	7.27	7.03	7.02	7.00	6.95	6.89	6.75	7.10%	6.86%
United Tel Co(Florida)	6.875	913026AS9	1st FF	07/15/2013	BBB-	3.31	3.06	3.09	3.05	3.05	2.90	2.83	2.85	2.58	2.63	2.57	2.61	2.88%	2.60%
United Tel Co(Florida)	8.375	913026AT7	1st HH	01/15/2025	BBB-	6.64	6.82	7.08	6.86	6.86	6.57	6.45	6.46	6.25	6.18	6.19	5.84	6.52%	6.07%
United Tel Co(Florida)	7.125	913026AU4	1st GG	07/15/2023	BBB-	6.64	6.72	6.98	6.71	6.71	6.42	6.30	6.31	6.00	5.93	5.94	5.74	6.37%	5.87%
Aliant Communications	6.75	016090AA0	Nts	04/01/2028	BB+	7.08	7.19	6.86	6.29	6.29	6.74	6.63	6.31	6.58	6.33	6.32	6.42	6.59%	6.36%
Century Tel Enterpr	7.2	156686AJ6	Sr Nts 'D'	12/01/2025	BB	6.89	6.92	7.08	6.86	6.86	6.77	6.55	5.96	6.00	6.03	6.49	6.54	6.58%	6.35%
Century Tel Enterpr	6.875	156686AM9	Deb 'G'	01/15/2028	BB	7.28	6.94	7.16	7.36	7.36	7.04	6.68	6.34	6.23	6.33	6.62	6.52	6.82%	6.49%
CenturyTel, Inc.	7.875	156700AG1	Sr Nts'L'	08/15/2012	BB	2.48	1.51	1.42	1.72	1.72	1.36							1.70%	
CenturyTel, Inc.	5	156700AJ5	Sr Nts'M'	02/15/2015	BB	3.70	3.43	3.34	2.99	2.99	3.11	2.89	2.50	2.34	1.99	1.96	1.95	2.77%	1.97%
CenturyTel, Inc.	5.5	156700AK2	SrNts'O'	04/01/2013	BB	3.91	2.31	2.34	1.83	1.83	1.71	1.65	1.45	1.31	1.90	1.79	1.48	1.96%	1.72%
CenturyTel, Inc.	6	156700AL0	SrNts'N'	04/01/2017	BB	4.88	4.67	4.78	4.30	4.30	4.55	4.15	3.69	2.97	3.32	3.38	3.26	4.02%	3.32%
Citizens Communications Co.	9	17453BAJ0	Sr Nts	08/31/2031	BB	9.81	9.45	9.39	9.52	9.52	9.54	9.35	8.46	8.09	8.28	8.43	7.95	8.98%	8.22%
Embarq Corp.	8	29078EAA3	Nts	06/01/2036	BB	7.43	7.44	7.66	7.96	7.96	7.57	7.36	7.06	6.73	7.28	7.22	7.07	7.40%	7.19%
Embarq Corp.	7.08	29078EAB1	Nts	06/01/2016	BB	4.13	4.22	3.78	3.46	3.46	3.25	2.95	2.27	2.06	1.91	1.84	1.87	2.93%	1.87%
Embarq Corp.	6.74	29078EAC9	Nts	06/01/2013	BB	3.32	2.81	2.84	0.47	0.47								1.98%	
GTE North Inc	6.73	362337AK3	Deb 'G'	02/15/2028	BB	10.53	9.84	9.06	9.11	9.11	9.59	9.32	8.45	7.84	7.58	7.57	7.27	8.77%	7.47%
Qwest Communications Internation	7.5	749121BR9	Sr Nts'B'	02/15/2014	BB	7.28	7.30	7.20	7.33	7.33	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.41%	7.50%
Qwest Cap Funding	7.75	74913EAJ9	Nts	02/15/2031	BB	8.15	7.54	8.01	7.78	7.78	7.84	7.68	7.41	6.88	7.18	7.22	7.27	7.56%	7.22%
Qwest Cap Fdg Inc	7.62	74913EAQ3	Nts 144a	8/3/2021	BB	7.38	7.00	7.26	6.56	6.56	6.37	6.85	6.36	6.20	5.73	5.79	6.16	6.52%	5.89%
Qwest Cap Funding	7.62	74913EAQ3	Nts	08/03/2021	BB	7.38	7.00	7.26	6.56	6.56	6.37	6.85	6.36	6.20	5.73	5.79	6.16	6.52%	5.89%
U S WEST Cap Fndg	6.88	912912AQ5	Deb	07/15/2028	BB	8.10	7.40	7.18	7.35	7.35	7.19	6.88	6.66	6.68	6.58	6.67	6.67	7.06%	6.64%
U S WEST Cap Fndg	6.5	912912AR3	Deb	11/15/2018	BB	6.17	5.87	5.58	5.26	5.26	5.30	5.10	4.38	3.97	3.71	3.78	3.91	4.86%	3.80%
Cin Bell Tel	7.25	171870AK4	Sec Nts	06/15/2023	BB-	10.00	10.36	10.29	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.93%	9.84%
Cincinnati Bell Tel	6.3	171875AD9	<SB>(Tel)<EB>C	12/01/2028	BB-	8.56	8.51	8.57	8.53	8.53	8.26	8.04	7.77	7.36	7.25	6.84	6.81	7.92%	6.97%
NEXTEL Communications, Inc.	7.38	65332VBD4	Sr Nts	08/01/2015	B+	8.21	7.79	8.41	8.43	8.43	7.37	7.09	7.17	7.17	7.31	7.36	7.37	7.68%	7.35%
Sprint Capital	6.88	852060AD4	Nts	11/15/2028	B+	9.96	9.45	9.87	10.05	10.05	9.28	8.28	7.92	7.41	6.64	6.66	6.46	8.50%	6.59%
Sprint Capital	6.9	852060AG7	Nts	05/01/2019	B+	9.62	8.96	9.64	9.47	9.47	8.23	6.99	6.45	5.94	5.29	5.58	5.21	7.57%	5.36%
Sprint Capital	8.75	852060AT9	Nts	03/15/2032	B+	10.55	10.00	10.51	10.61	10.61	9.94	9.02	8.64	8.08	7.03	7.05	6.67	9.06%	6.92%
Sprint Nextel Corp.	9.25	852061AA8	Deb	04/15/2022	B+	9.87	9.28	9.56	9.54	9.54	8.97	8.11	7.37	7.04	6.46	6.41	6.39	8.21%	6.42%
Sprint Nextel Corp.	6	852061AD2	Nt	12/1/2016	B+	9.04	8.25	9.07	8.54	8.54	7.20	6.06	5.46	4.73	3.99	3.82	3.58	6.52%	3.80%
Sprint Nextel Corp.	6	852061AD2	Nt	12/1/2016	B+	9.04	8.25	9.07	8.54	8.54	7.20	6.06	5.46	4.73	3.99	3.82	3.58	6.52%	3.80%
Windstream Corp.	8.12	97381WAC8	SrNts	08/01/2013	B+	3.06	2.72	2.85	2.93	2.93	3.07	2.41	2.03	1.97	2.20	2.09	1.63	2.49%	1.97%
Windstream Corp.	7	97381WAF1	SrNts	03/15/2019	B+	6.37	6.33	6.61	6.65	6.65	6.60	6.66	6.75	6.51	6.53	6.79	6.55	6.58%	6.62%
Cincinnati Bell Tel	7	171871AH9	Sr Nts	02/15/2015	B	6.72	6.62	6.70	6.59	6.59	6.52	6.34	6.55	6.42	6.39	6.37	6.41	6.52%	6.39%
Cincinnati Bell Inc.	7.25	171871AB2	Sr Nt	7/15/2013	B-	9.84												9.84%	
NII Holdings, Inc.	3.12	62913FAJ1	Nt Conv	6/15/2012	B-	1.80	1.89	2.00	3.08	3.08								2.37%	
Level 3 Finan	12.25	527298AF0	SrNts	03/15/2013	CCC	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84%	9.84%
Level 3 Finan	9.25	527298AM5	SrNts	11/01/2014	CCC	8.10	8.25	8.25	8.35	8.35	8.35	8.35	8.35	8.35	8.35	8.35	8.35	8.31%	8.35%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Telecommunications
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Level 3 Communications, Inc.	3.5	52729NBK5	Sr Nt Conv	6/15/2012	CCC	2.82	2.66	2.37	1.60	1.60								2.21%	
AT&T Inc.	4.95	00206RAF9	GlobalNts	01/15/2013	NR	0.54	0.64	0.58	0.74	0.74	0.40	2.51	2.51	2.51	2.51	2.51	2.51	1.56%	2.51%
Centennial Com/Cell Op/PR	8.12	151352AB7	Sr Nts	02/01/2014	NR	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95%	6.95%
Centennial Commun/Oper Co	10.12	15135EAB1	GtdSr Nts	06/15/2013	NR	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02	9.02%	9.02%
Cincinnati Bell Tel	7	171871AH9	Sr Nts	02/15/2015	B	6.72	6.62	6.70	6.59	6.59	6.52	6.34	6.55	6.42	6.39	6.37	6.41	6.52%	6.39%
Cincinnati Bell Inc.	7.25	171871AB2	Sr Nt	7/15/2013	B-	9.84												9.84%	
Qwest Communications Internation	7.5	749121BV0	Sr Nts'B'	02/15/2014	NR	7.28	7.30		7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.46%	7.50%
Southwest'n Bell Tel	7.375	845335BX5	Deb	07/15/2027	NR	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09%	7.09%
Southwest'n Bell Tel	7	845335BZ0	Deb	11/15/2027	NR	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77%	6.77%
Tele-Communications(Old)	9.88	879240AR0	Sr Deb	06/15/2022	NR	4.57	4.60	4.73	4.38	4.38	4.25	3.91	4.06	4.18	4.07	4.22	4.21	4.30%	4.17%
			Counts of data			161	158	157	157	157	153	151	151	150	148	148	147	162	148

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
A's	3.65%	3.55%
BBB's	4.68%	4.38%
BB's	5.91%	5.82%
B's	6.82%	5.52%
CCC's	6.79%	9.10%
NR's	6.61%	6.30%
ALL	4.56%	4.33%
BBB- & Above	3.89%	3.75%
BB- & Above	4.18%	4.04%

**'Investment Grade (BBB- & Above)*

Industry: Telecommunications with significant portion of Cable TV Service

Support for Debt Rating
Industry: Telecommunications, Cable TV
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Comcast Corp.	5.88	20030NAR2	Nt	2/15/2018	BBB+	2.68	2.42	2.55	2.38	2.53	2.40	2.05	1.78	1.72	1.52	1.63	1.67	2.11%	1.61%
Comcast Corp.	6.5	20030NAP6	Nts	1/15/2017	BBB+	2.35	2.05	2.21	1.96	2.21	2.14	1.75	1.49	1.40	1.12	1.33	1.25	1.77%	1.23%
Comcast Corp.	6.45	20030NAM3	Gtd Nt	3/15/2037	BBB+	4.97	4.75	5.03	4.93	4.94	4.86	4.55	4.48	4.60	4.33	4.50	4.51	4.70%	4.45%
Comcast Corp.	5.9	20030NAL5	Gtd Nt	3/15/2016	BBB+	1.88	1.80	1.93	1.61	1.69	1.70	1.37	1.18	1.11	0.98	1.11	1.15	1.46%	1.08%
Comcast Corp.	6.95	20030NAV3	Sr Nts	8/15/2037	BBB+	4.98	4.82	5.04	5.04	5.09	4.95	4.56	4.53	4.66	4.36	4.46	4.53	4.75%	4.45%
Comcast Corp.	6.3	20030NAU5	Sr Nts	11/15/2017	BBB+	2.49	2.18	2.41	2.19	2.31	2.36	1.80	1.64	1.66	1.32	1.48	1.46	1.94%	1.42%
Comcast Corp.	4.95	20030NAG6	Gtd Fixed Rt Sr N	6/15/2016	BBB+	1.88	1.79	1.94	1.66	1.76	1.75	1.43	1.21	1.21	1.07	1.17	1.18	1.50%	1.14%
Comcast Corp.	5.65	20030NAF8	Gtd Fixed Rt Sr N	6/15/2035	BBB+	4.88	4.82	4.94	4.89	4.84	4.77	4.38	4.38	4.52	4.31	4.45	4.42	4.63%	4.39%
Comcast Corp.	5.3	20030NAE1	Sr Nt	1/15/2014	BBB+	1.11	1.02	0.96	1.01	1.14	1.18	0.91	0.77	0.64	0.57	0.56	0.54	0.87%	0.56%
Comcast Corp.	6.5	20030NAB7	Nt	1/15/2015	BBB+	1.40	1.38	1.34	1.15	1.36	1.39	1.02	0.92	0.89	0.73	0.84	0.83	1.10%	0.80%
Comcast Corp.	7.05	20030NAC5	Sr Nt	3/15/2033	BBB+	4.98	4.99	5.24	5.17	5.14	5.02	4.56	4.57	4.68	4.44	4.52	4.52	4.82%	4.49%
Comcast Cable Commun	7.12	20029PAN9	Sr Nt	6/15/2013	BBB+	0.97	1.00	0.82	0.82	1.07	0.92	0.72	0.61	0.46	0.67	0.59	0.64	0.77%	0.63%
Comcast Cable Commun	8.88	20029PAG4	Exchanged From	5/1/2017	BBB+	2.65	2.62	2.61	2.44	2.54	2.50	1.96	1.79	1.78	1.65	1.88	1.73	2.18%	1.75%
Comcast Cable Commun	8.5	20029PAH2	Exchanged From	5/1/2027	BBB+	5.01	5.03	5.11	4.94	5.01	4.95	4.52	4.36	4.37	4.23	4.39	4.34	4.69%	4.32%
Time Warner Inc.	6.5	887317AD7	Deb	11/15/2036	BBB	5.03	4.94	5.31	5.21	5.26	5.14	4.80	4.75	4.80	4.43	4.67	4.73	4.92%	4.61%
Time Warner Cos Inc	6.62	887315BN8	Deb	5/15/2029	BBB	4.95	4.74	4.98	4.91	4.89	4.88	4.55	4.49	4.56	4.18	4.20	4.26	4.63%	4.21%
Time Warner Inc.	5.88	887317AC9	Nt	11/15/2016	BBB	2.08	1.87	2.03	1.79	1.79	1.81	1.51	1.35	1.29	1.20	1.33	1.33	1.62%	1.29%
AOL Time Warner	7.62	00184AAC9	Deb	4/15/2031	BBB	5.17	4.87	5.24	5.16	5.25	5.19	4.77	4.71	4.73	4.21	4.47	4.56	4.86%	4.41%
Time Warner Cos Inc	6.95	887315BM0	Gtd Deb	1/15/2028	BBB	4.88	4.71	4.98	4.89	4.86	4.71	4.50	4.40	4.41	4.01	4.17	4.22	4.56%	4.13%
Time Warner Cos Inc	6.88	887315AY5	Deb	6/15/2018	BBB	3.15	2.77	3.10	2.76	2.81	2.69	2.15	2.12	1.97	1.68	1.92	1.84	2.41%	1.81%
Time Warner Cos Inc	6.85	887315BB4	Deb	1/15/2026	BBB	4.99	5.02	5.35	5.18	5.27	4.82	4.48	4.47	4.49	4.31	4.49	4.41	4.77%	4.40%
Time Warner Cos Inc	8.05	887315BA6	Deb	1/15/2016	BBB	2.85	2.94	3.27	3.10	2.24	2.13	1.87	2.10	2.03	2.12	2.24	2.25	2.43%	2.20%
Time Warner Cos Inc	9.15	887315AM1	eb Dtd 02/04/199	2/1/2023	BBB	4.76	4.57	4.90	4.66	4.75	4.52	4.25	4.06	4.10	3.99	3.69	3.49	4.31%	3.72%
Time Warner Cos Inc	7.25	887315BJ7	Deb	10/15/2017	BBB	2.75	2.79	2.83	2.49	2.56	2.35	1.95	1.76	1.70	1.58	1.87	1.67	2.19%	1.71%
Time Warner Cos Inc	7.57	887315BH1	Deb	2/1/2024	BBB	4.59	4.60	4.63	4.48	4.50	4.17	3.97	3.96	3.98	3.73	3.99	3.71	4.19%	3.81%
Time Warner Entertainment	8.38	88731EAF7	Sr Deb	3/15/2023	BBB	4.49	4.27	4.53	4.29	4.48	4.32	3.84	3.75	3.72	3.45	3.48	3.51	4.01%	3.48%
Qwest Corp	7.5	74913GAG0	Nts	10/01/2014	BBB-	3.19	2.86	2.95	2.13	2.13	1.90	1.90	1.64	1.45	1.51	2.11	1.97	2.15%	1.86%
Qwest Corp	7.62	74913GAK1	Nts	06/15/2015	BBB-	3.72	3.12	3.34	2.60	2.60	2.66	2.29	2.11	1.99	2.15	2.11	2.11	2.57%	2.12%
Qwest Corp	3.56	74913GAN5	Nt Fltg Rate	6/15/2013	BBB-	3.05	2.51	2.44	2.59	2.59	3.58	3.01	2.86	2.84	2.86	1.45	1.85	2.64%	2.05%
Qwest Corp	3.8	74913GAN5	Nt Fltg Rate	6/15/2013	BBB-	3.05	2.51	2.44	2.59	2.59	3.58	3.01	2.86	2.84	2.86	1.45	1.85	2.64%	2.05%
Qwest Corp	6.5	74913GAT2	Nts	06/01/2017	BBB-	4.20	3.89	3.78	3.36	3.36	3.55	3.30	2.79	2.62	2.47	2.78	2.47	3.21%	2.57%
Century Tel Enterpr	7.2	156686AJ6	Sr Nts 'D'	12/01/2025	BB	6.89	6.92	7.08	6.86	6.86	6.77	6.55	5.96	6.00	6.03	6.49	6.54	6.58%	6.35%
Century Tel Enterpr	6.875	156686AM9	Deb 'G'	01/15/2028	BB	7.28	6.94	7.16	7.36	7.36	7.04	6.68	6.34	6.23	6.33	6.62	6.52	6.82%	6.49%
CenturyTel, Inc.	7.875	156700AG1	Sr Nts'L'	08/15/2012	BB	2.48	1.51	1.42	1.72	1.72	1.36							1.70%	
CenturyTel, Inc.	5	156700AJ5	Sr Nts'M'	02/15/2015	BB	3.70	3.43	3.34	2.99	2.99	3.11	2.89	2.50	2.34	1.99	1.96	1.95	2.77%	1.97%
CenturyTel, Inc.	5.5	156700AK2	SrNts'O'	04/01/2013	BB	3.91	2.31	2.34	1.83	1.83	1.71	1.65	1.45	1.31	1.90	1.79	1.48	1.96%	1.72%
CenturyTel, Inc.	6	156700AL0	SrNts'N'	04/01/2017	BB	4.88	4.67	4.78	4.30	4.30	4.55	4.15	3.69	2.97	3.32	3.38	3.26	4.02%	3.32%
Citizens Communications Co.	9	17453BAJ0	Sr Nts	08/31/2031	BB	9.81	9.45	9.39	9.52	9.52	9.54	9.35	8.46	8.09	8.28	8.43	7.95	8.98%	8.22%
Embarq Corp.	8	29078EAA3	Nts	06/01/2036	BB	7.43	7.44	7.66	7.96	7.96	7.57	7.36	7.06	6.73	7.28	7.22	7.07	7.40%	7.19%
Embarq Corp.	7.08	29078EAB1	Nts	06/01/2016	BB	4.13	4.22	3.78	3.46	3.46	3.25	2.95	2.27	2.06	1.91	1.84	1.87	2.93%	1.87%
Embarq Corp.	6.74	29078EAC9	Nts	06/01/2013	BB	3.32	2.81	2.84	0.47	0.47								1.98%	
Qwest Communications Internatior	7.5	749121BR9	Sr Nts'B'	02/15/2014	BB	7.28	7.30	7.20	7.33	7.33	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.41%	7.50%
Century Tel Enterpr	7.2	156686AJ6	Sr Nts 'D'	12/01/2025	BB	6.89	6.92	7.08	6.86	6.86	6.77	6.55	5.96	6.00	6.03	6.49	6.54	6.58%	6.35%
Century Tel Enterpr	6.875	156686AM9	Deb 'G'	01/15/2028	BB	7.28	6.94	7.16	7.36	7.36	7.04	6.68	6.34	6.23	6.33	6.62	6.52	6.82%	6.49%
Citizens Communications Co.	9	17453BAJ0	Sr Nts	08/31/2031	BB	9.81	9.45	9.39	9.52	9.52	9.54	9.35	8.46	8.09	8.28	8.43	7.95	8.98%	8.22%
Embarq Corp.	8	29078EAA3	Nts	06/01/2036	BB	7.43	7.44	7.66	7.96	7.96	7.57	7.36	7.06	6.73	7.28	7.22	7.07	7.40%	7.19%
Cincinnati Bell Tel	6.3	171875AD9	B>(Tel)<EB>Gtd[	12/01/2028	BB-	8.56	8.51	8.57	8.53	8.53	8.26	8.04	7.77	7.36	7.25	6.84	6.81	7.92%	6.97%
Cincinnati Bell Tel	7	171871AH9	Sr Nts	02/15/2015	B	6.72	6.62	6.70	6.59	6.59	6.52	6.34	6.55	6.42	6.39	6.37	6.41	6.52%	6.39%
Cincinnati Bell Inc.	7.25	171871AB2	Sr Nt	7/15/2013	B-	9.84												9.84%	
Time Warner Telecom	2.38	887319AC5	Sr Deb Conv	4/1/2026	B-	0.84	0.62	0.58	0.57	0.43								0.61%	
			Counts of data			50	49	49	49	49	47	46	46	46	46	46	46	50	46

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
BBB's	3.08%	2.67%
BB's	5.64%	5.70%
B's	5.66%	6.39%
ALL	4.05%	3.67%
BBB- & Above	3.08%	2.67%
B- & Above	5.66%	6.39%

**Investment Grade (BBB- & Above)*

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Telecommunications
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
20 YEAR PLUS - BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
GTE Southwest	8.5	362338AQ8	1st	11/15/2031	A+	5.33	5.29	5.51	5.34	5.34	5.49	5.28	5.16	5.58	5.18	5.17	5.27	5.33%	5.21%
AT&T Corp.	6.5	001957AW9	Nts	03/15/2029	A-	4.86	4.86	5.06	4.96	4.96	4.79	4.38	4.26	4.43	4.36	4.42	4.52	4.66%	4.43%
AT&T Corp.	8	001957BD0	Sr Nts	11/15/2031	A-	4.61	4.59	4.81	4.61	4.61	4.29	3.83	3.91	4.08	3.86	3.87	4.07	4.26%	3.93%
AT&T Inc.	6.8	00206RAB8	Nts	05/15/2036	A-	4.98	4.84	5.06	4.97	4.97	4.73	4.30	4.31	4.48	4.26	4.44	4.47	4.65%	4.39%
AT&T Inc.	6.5	00206RAD4	GlobalNts	09/01/2037	A-	4.91	4.79	5.01	4.93	4.93	4.68	4.31	4.33	4.37	4.16	4.36	4.43	4.60%	4.32%
AT&T Inc.	6.3	00206RAG7	GlobalNts	01/15/2038	A-	4.86	4.72	5.01	4.93	4.93	4.68	4.30	4.31	4.36	4.12	4.36	4.42	4.58%	4.30%
AT&T Inc.	6.4	00206RAN2	GlobalNts	05/15/2038	A-	4.86	4.72	5.01	4.93	4.93	4.69	4.30	4.31	4.38	4.14	4.41	4.43	4.59%	4.33%
AT&T Wireless Services	8.75	00209AAF3	Sr Nts	03/01/2031	A-	5.03	4.74	5.01	4.79	4.79	4.59	4.10	4.11	4.23	3.94	3.92	3.92	4.43%	3.93%
ALLTEL Corp	6.8	020039AJ2	Deb	5/1/2029	A-	4.58	4.54	4.51	4.34	4.34	4.12	3.73	3.71	3.93	3.60	3.72	3.77	4.07%	3.70%
ALLTEL Corp	7.88	020039DC4	Sr Nt	7/1/2032	A-	4.53	4.34	4.56	4.41	4.41	4.18	3.78	3.66	3.78	3.58	3.77	3.74	4.06%	3.70%
America Movil, S.A.B. de C.V.	6.38	02364WAJ4	Sr Nt	3/1/2035	A-	4.85	4.72	4.96	4.83	4.83	4.64	4.32	4.31	4.33	4.22	4.24	4.15	4.53%	4.20%
Bell Atlantic-PA	6	07786DAA4	Deb	12/1/2028	A-	5.53	5.59	5.66	5.46	5.46	5.14	5.01	5.04	5.31	4.83	4.82	4.47	5.19%	4.71%
Bell Tel. of Penna	8.35	078167AZ6	Deb	12/15/2030	A-	6.03	6.09	6.06	5.89	5.89	5.58	5.23	5.31	5.58	5.08	5.07	5.17	5.58%	5.11%
Bell Tel. of Penna	8.75	078167BA0	Deb	8/15/2031	A-	6.03	6.09	6.16	5.81	5.81	5.74	5.38	5.41	5.68	5.18	5.17	5.27	5.64%	5.21%
BellSouth Capital Funding	6.04	079857AC2	Deb	11/15/2026	A-	5.53	5.47	5.73	5.46	5.46	5.17	4.95	4.96	5.15	5.11	5.14	5.19	5.28%	5.15%
BellSouth Capital Funding	7.88	079857AH1	Deb	02/15/2030	A-	5.03	5.09	5.36	5.19	5.19	5.19	4.78	4.81	5.03	4.76	4.87	5.07	5.03%	4.90%
BellSouth Corp.	6.875	079860AD4	Nts	10/15/2031	A-	5.03	5.04	5.16	5.06	5.06	5.04	4.88	4.81	4.98	4.76	4.80	4.87	4.96%	4.81%
BellSouth Corp.	6.55	079860AE2	Nts	06/15/2034	A-	5.28	5.19	5.41	5.34	5.34	5.19	4.88	4.91	5.08	4.97	4.82	5.02	5.12%	4.94%
BellSouth Corp.	6	079860AK8	Nts	11/15/2034	A-	5.23	5.19	5.36	5.21	5.21	5.14	4.88	4.81	5.03	4.81	4.76	5.07	5.06%	4.88%
BellSouthTelecommunications	7	079867AM9	Deb	10/01/2025	A-	4.54	4.57	4.99	4.68	4.68	4.47	4.20	4.21	4.40	4.21	4.22	4.27	4.45%	4.23%
BellSouthTelecommunications	5.85	079867AN7	Deb	11/15/2045	A-	5.63	5.69	5.91	5.74	5.74	5.69	5.43	5.36	5.53	5.31	5.37	5.47	5.57%	5.38%
BellSouthTelecommunications	7	079867AP2	Deb	12/15/2095	A-	5.61		6.04	5.81	5.81	5.74	5.48	5.56	5.68	5.46	5.47	5.70	5.67%	5.54%
BellSouthTelecommunications	7	079867AP2	Deb	12/15/2095	A-	5.61		6.04	5.81	5.81	5.74	5.48	5.56	5.68	5.46	5.47	5.70	5.67%	5.54%
BellSouthTelecommunications	6.375	079867AW7	Deb	06/01/2028	A-	4.93	4.94	5.11	5.01	5.01	4.76	4.38	4.56	4.83	4.36	4.55	4.57	4.75%	4.49%
Chesapeake Pot.Tel Md	8	165069AP0	Deb	10/15/2029	A-	6.03	6.09	6.06	5.89	5.89	5.58	5.38	5.41	5.53	5.08	5.07	5.17	5.60%	5.11%
Chesapeake Pot.Tel Md	8.3	165069AQ8	Deb	8/1/2031	A-	6.03	6.09	6.06	5.89	5.89	5.58	5.38	5.49	5.68	5.33	5.32	5.42	5.68%	5.36%
Chesapeake Pot.Tel Md	7.15	165069AS4	Deb	5/1/2023	A-	6.35	6.40	6.45	6.50	6.50	6.60	6.65	6.70	6.74	6.81	6.85	6.92	6.62%	6.86%
Chesapeake&Pot.Tel VA	8.38	165087AL1	Forty Yr Deb	10/1/2029	A-	6.03	6.09	6.06	5.89	5.89	5.58	5.45	5.41	5.53	4.97	4.96	5.06	5.58%	5.00%
Chesapeake&Pot.Tel VA	7.88	165087AN7	Deb	1/15/2022	A-	4.74	4.57	4.48	4.21	4.21	4.01	3.89	3.90	4.09	3.48	3.49	3.54	4.05%	3.50%
Cingular Wireless LLC	7.12	17248RAJ5	Sr Nt	12/15/2031	A-	4.98	4.74	4.86	4.76	4.76	4.57	4.08	4.11	4.28	3.91	4.32	4.42	4.48%	4.22%
GTE California	6.75	362311AG7	Deb 'F'	05/15/2027	A-	5.48	5.47	5.68	5.28	5.28	5.17	5.05	5.06	5.25	5.18	5.19	4.94	5.25%	5.10%
GTE Corp	6.94	362320BA0	Deb	04/15/2028	A-	4.98	4.74	5.06	4.66	4.66	4.59	4.18	4.11	4.38	3.93	3.92	4.02	4.44%	3.96%
GTE Florida	6.86	362333AH9	Deb 'E'	02/01/2028	A-	5.68	5.74	5.81	5.46	5.46	5.29	5.09	4.76	5.03	4.78	4.77	4.87	5.23%	4.81%
Indiana Bell Telephone	7.3	454614AK4	Deb	08/15/2026	A-	5.14	5.07	5.33	4.88	4.88	4.67	4.45	4.31	4.50	4.21	4.29	4.24	4.66%	4.25%
Michigan Bell Telephone	7.85	594185AQ3	Deb	01/15/2022	A-	4.14	4.22	4.13	4.42	4.42	4.21	3.99	3.31	3.50	3.07	3.07	3.14	3.80%	3.09%
New England Tel. & Tel.	7.88	644239AY1	Deb	11/15/2029	A-	6.03	5.94	5.81	5.64	5.64	5.79	5.63	5.16	5.43	4.83	4.92	4.97	5.48%	4.91%
New Jersey Bell Tel	7.85	645767AW4	Deb	11/15/2029	A-	6.03	6.09	6.06	5.89	5.89	5.58	5.43	5.31	5.58	4.93	4.92	5.02	5.56%	4.96%
New Jersey Bell Tel	8	645767AY0	Deb	06/01/2022	A-	4.74	4.57	4.48	4.21	4.21	3.96	3.79	3.80	3.99	3.48	3.49	3.54	4.02%	3.50%
New York Telephone Co	6.7	650094CA1	Deb	11/01/2023	A-	6.19	6.22	6.25	6.09	6.09	6.15	6.18	6.21	6.23	6.21	6.08	6.13	6.17%	6.14%
New York Telephone Co	7	650094CB9	Deb	12/01/2033	A-	6.42	6.45	6.48	6.49	6.49	6.55	6.57	6.59	6.61	6.67	6.60	6.64	6.55%	6.64%
New York Telephone Co	6.5	650094CJ2	Deb	04/15/2028	A-	5.73	5.79	5.81	5.61	5.61	5.30	5.13	5.01	5.28	4.73	5.07	5.17	5.35%	4.99%
Pacific Bell	7.125	694032AT0	Deb	03/15/2026	A-	4.24	4.17	4.33	4.03	4.03	4.07	3.89	3.85	3.85	3.64	3.79	3.84	3.98%	3.76%
Pacific Bell	7.375	694032AV5	Deb	07/15/2043	A-	6.78	6.69	6.79	6.80	6.80	6.83	6.81	6.84	6.86	6.95	6.97	7.03	6.85%	6.98%
Pacific Bell	6.625	694032AX1	Deb	10/15/2034	A-	6.13	6.14	6.13	6.15	6.15	6.15	6.10	6.13	6.15	6.19	6.21	6.21	6.15%	6.20%
SBCCommunications	6.45	78387GAM5	GlobalNts	06/15/2034	A-	4.96	4.79	5.02	4.91	4.91	4.69	4.33	4.29	4.38	4.11	4.27	4.47	4.59%	4.28%
SBCCommunications	6.45	78387GAM5	Gbl Nt	6/15/2034	A-	4.96	4.79	5.02	4.91	4.91	4.69	4.33	4.29	4.38	4.11	4.27	4.47	4.59%	4.28%
SBCCommunications	6.15	78387GAQ6	Gbl Nt	9/15/2034	A-	4.91	4.74	6.81	4.86	4.86	4.69	4.28	4.25	4.33	4.16	4.22	4.47	4.72%	4.28%
Verizon Communications Inc.	6.25	92343VAF1	Nts	04/01/2037	A-	4.85	4.72	4.92	4.73	4.73	4.46	4.13	4.12	4.28	3.76	4.22	4.17	4.42%	4.05%
Verizon Global Fndg	7.75	92344GAS5	Nts	06/15/2032	A-	4.93	4.89	5.01	4.84	4.84	4.64	4.28	4.26	4.28	4.01	4.12	4.17	4.52%	4.10%
Verizon Global Fndg	5.85	92344GAX4	Nts	09/15/2035	A-	4.70	4.57	4.76	4.57	4.57	4.26	4.03	4.01	4.18	3.83	4.12	4.10	4.31%	4.02%
Verizon Maryland	5.125	92344WAB7	Deb'B'	06/15/2033	A-	5.08	4.96	5.21	5.06	5.06	4.84	4.68	4.57	4.78	4.43	4.67	4.77	4.84%	4.62%
VerizonNY	7.38	92344XAB5	Sr Deb Ser B	4/1/2032	A-	5.93	5.79	5.71	5.46	5.46	5.34	5.13	4.93	4.98	4.63	4.87	4.77	5.25%	4.76%
Vodafone Group plc	6.25	92857WAB6	Deb	11/30/2032	A-	4.33	4.34	4.66	4.56	4.56	4.39	3.93	3.88	4.05	3.90	3.92	4.03	4.21%	3.95%
Vodafone Group Plc	6.15	92857WAQ3	Notes	02/27/2037	A-	4.35	4.44	4.71	4.51	4.51	4.34	3.85	3.96	4.05	3.85	3.97	3.99	4.21%	3.94%
Wisconsin Bell Inc	6.35	976585AG4	Deb	12/01/2026	A-	5.63	5.69	5.91	5.74	5.74	5.47	5.13	5.16	5.43	5.36	5.42	5.52	5.52%	5.43%
AT&T Broadband	9.46	00209TAB1	Nts	11/15/2022	BBB+	4.33	4.26	4.21	4.06	4.06	4.08	3.64	3.62	3.67	3.38	3.55	3.32	3.85%	3.42%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Telecommunications
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
20 YEAR PLUS - BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
TCI Communications	7.875	872287AF4	Sr Deb	02/15/2026	BBB+	4.84	4.82	4.88	4.68	4.68	4.45	4.01	3.96	3.77	3.61	3.77	3.89	4.28%	3.76%
TCI Communications	7.125	872287AL1	Sr Nts	02/15/2028	BBB+	5.18	4.84	4.94	4.83	4.83	4.74	4.27	4.21	4.41	4.04	4.18	4.23	4.56%	4.15%
Tele-Communications(Old)	10.125	879240AQ2	Sr Deb	04/15/2022	BBB+	4.57	4.27	4.53	4.33	4.33	4.07	3.93	3.92	4.04	3.93	4.11	4.10	4.18%	4.05%
Mountain States Tel&Tel	7.38	624284BD6	Deb	05/01/2030	BBB-	7.52	7.52	7.52	7.52	7.52	7.52	7.52	7.52	7.52	7.52	7.52	7.52	7.52%	7.52%
Northwestern Bell Tel	7.75	668027AT2	Deb	05/01/2030	BBB-	6.95	7.46	7.66	7.56	7.56	7.15	6.93	6.98	7.20	8.35	7.47	7.38	7.39%	7.73%
TCA Cable TV	6.53	872241AB0	Deb	02/01/2028	BBB-	5.72	5.63	5.85	5.36	5.36	5.39	5.16	5.14	5.22	4.73	4.84	4.94	5.28%	4.84%
United States Cellular Corp.	6.7	911684AD0	Sr Nts	12/15/2033	BBB-	6.78	6.84	6.91	6.74	6.74	6.39	6.28	6.31	6.53	6.28	6.12	6.27	6.52%	6.22%
U S WESTCommunications	7.5	912920AB1	Deb	06/15/2023	BBB-	7.49	7.43	7.39	7.36	7.36	7.41	7.45	7.45	7.45	7.45	7.45	7.45	7.43%	7.45%
U S WESTCommunications	6.875	912920AC9	Deb	09/15/2033	BBB-	6.86	6.91	6.94	6.87	6.87	6.96	6.89	6.80	6.74	6.82	6.89	6.82	6.86%	6.84%
U S WESTCommunications	7.125	912920AG0	Deb	11/15/2043	BBB-	7.20	7.23	7.01	7.11	7.11	7.28	7.10	7.04	6.93	7.06	6.94	6.84	7.07%	6.95%
U S WESTCommunications	7.25	912920AK1	Deb	09/15/2025	BBB-	6.61	6.04	6.43	6.06	6.06	6.22	5.75	5.36	5.40	5.23	5.24	5.49	5.82%	5.32%
U S WESTCommunications	7.2	912920AL9	Deb	11/10/2026	BBB-	7.31	7.14	7.08	7.11	7.11	7.19	7.05	7.05	7.05	7.08	7.11	7.13	7.12%	7.11%
U S WESTCommunications	7.25	912920AM7	Deb	10/15/2035	BBB-	7.40	7.24	7.22	7.20	7.20	7.27	7.03	7.02	7.00	6.95	6.89	6.75	7.10%	6.86%
United Tel Co(Florida)	8.375	913026AT7	1st HH	01/15/2025	BBB-	6.64	6.82	7.08	6.86	6.86	6.57	6.45	6.46	6.25	6.18	6.19	5.84	6.52%	6.07%
United Tel Co(Florida)	7.125	913026AU4	1st GG	07/15/2023	BBB-	6.64	6.72	6.98	6.71	6.71	6.42	6.30	6.31	6.00	5.93	5.94	5.74	6.37%	5.87%
Aliant Communications	6.75	016090AA0	Nts	04/01/2028	BB+	7.08	7.19	6.86	6.29	6.29	6.74	6.63	6.31	6.58	6.33	6.32	6.42	6.59%	6.36%
Century Tel Enterpr	7.2	156686AJ6	Sr Nts 'D'	12/01/2025	BB	6.89	6.92	7.08	6.86	6.86	6.77	6.55	5.96	6.00	6.03	6.49	6.54	6.58%	6.35%
Century Tel Enterpr	6.875	156686AM9	Deb 'G'	01/15/2028	BB	7.28	6.94	7.16	7.36	7.36	7.04	6.68	6.34	6.23	6.33	6.62	6.52	6.82%	6.49%
Citizens Communications Co.	9	17453BAJ0	Sr Nts	08/31/2031	BB	9.81	9.45	9.39	9.52	9.52	9.54	9.35	8.46	8.09	8.28	8.43	7.95	8.98%	8.22%
Embarq Corp.	8	29078EAA3	Nts	06/01/2036	BB	7.43	7.44	7.66	7.96	7.96	7.57	7.36	7.06	6.73	7.28	7.22	7.07	7.40%	7.19%
GTE North Inc	6.73	362337AK3	Deb 'G'	02/15/2028	BB	10.53	9.84	9.06	9.11	9.11	9.59	9.32	8.45	7.84	7.58	7.57	7.27	8.77%	7.47%
Qwest Cap Funding	7.75	74913EAJ9	Nts	02/15/2031	BB	8.15	7.54	8.01	7.78	7.78	7.84	7.68	7.41	6.88	7.18	7.22	7.27	7.56%	7.22%
U S WEST Cap Fndg	6.88	912912AQ5	Deb	07/15/2028	BB	8.10	7.40	7.18	7.35	7.35	7.19	6.88	6.66	6.68	6.58	6.67	6.67	7.06%	6.64%
Cin Bell Tel	7.25	171870AK4	Sec Nts	06/15/2023	BB-	10.00	10.36	10.29	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.93%	9.84%
Cincinnati Bell Tel	6.3	171875AD9	<SB>(Tel)<EB>	12/01/2028	BB-	8.56	8.51	8.57	8.53	8.53	8.26	8.04	7.77	7.36	7.25	6.84	6.81	7.92%	6.97%
Sprint Capital	6.88	852060AD4	Nts	11/15/2028	B+	9.96	9.45	9.87	10.05	10.05	9.28	8.28	7.92	7.41	6.64	6.66	6.46	8.50%	6.59%
Sprint Capital	8.75	852060AT9	Nts	03/15/2032	B+	10.55	10.00	10.51	10.61	10.61	9.94	9.02	8.64	8.08	7.03	7.05	6.67	9.06%	6.92%
Sprint Nextel Corp.	9.25	852061AA8	Deb	04/15/2022	B+	9.87	9.28	9.56	9.54	9.54	8.97	8.11	7.37	7.04	6.46	6.41	6.39	8.21%	6.42%
NII Holdings, Inc.	2.88	62913FAC6	Nt Conv	2/1/2034	NR	4.70	4.37	4.70										4.59%	
Southwest'n Bell Tel	7.375	845335BX5	Deb	07/15/2027	NR	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09%	7.09%
Southwest'n Bell Tel	7	845335BZ0	Deb	11/15/2027	NR	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77	6.77%	6.77%
Tele-Communications(Old)	9.88	879240AR0	Sr Deb	06/15/2022	NR	4.57	4.60	4.73	4.38	4.38	4.25	3.91	4.06	4.18	4.07	4.22	4.21	4.30%	4.17%
			Counts of data			87	85	87	86	86	86	86	86	86	86	86	86	87	86

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
A's	4.99%	4.70%
BBB's	6.12%	5.88%
BB's	7.76%	7.28%
B's	8.59%	6.64%
CCC's	----	----
NR's	5.69%	6.01%
ALL	5.66%	5.32%
BBB- & Above	5.24%	4.96%
BB- & Above	5.55%	5.25%

**'Investment Grade (BBB- & Above)*

Industry: Telecommunications with significant portion of Cable TV Service

Support for Debt Rating
Industry: Telecommunications, Cable TV
2013 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Avg Full Year	Avg 4th QTR
Comcast Corp.	7.05	20030NAC5	Sr Nt	3/15/2033	BBB+	4.98	4.99	5.24	5.17	5.14	5.02	4.56	4.57	4.68	4.44	4.52	4.52	4.82%	4.49%
Comcast Corp.	5.65	20030NAF8	Gtd Fixed Rt Sr N	6/15/2035	BBB+	4.88	4.82	4.94	4.89	4.84	4.77	4.38	4.38	4.52	4.31	4.45	4.42	4.63%	4.39%
Comcast Corp.	6.45	20030NAM3	Gtd Nt	3/15/2037	BBB+	4.97	4.75	5.03	4.93	4.94	4.86	4.55	4.48	4.60	4.33	4.50	4.51	4.70%	4.45%
Comcast Corp.	6.95	20030NAV3	Sr Nts	8/15/2037	BBB+	4.98	4.82	5.04	5.04	5.09	4.95	4.56	4.53	4.66	4.36	4.46	4.53	4.75%	4.45%
Time Warner Inc.	6.5	887317AD7	Deb	11/15/2036	BBB	5.03	4.94	5.31	5.21	5.26	5.14	4.80	4.75	4.80	4.43	4.67	4.73	4.92%	4.61%
Embarq Corp.	8	29078EAA3	Nts	06/01/2036	BB	7.43	7.44	7.66	7.96	7.96	7.57	7.36	7.06	6.73	7.28	7.22	7.07	7.40%	7.19%
Embarq Corp.	8	29078EAA3	Nts	06/01/2036	BB	7.43	7.44	7.66	7.96	7.96	7.57	7.36	7.06	6.73	7.28	7.22	7.07	7.40%	7.19%
			Counts of data			7	7	7	7	7	7	7	7	7	7	7	7	7	7

NOTES:
Data downloaded from the S&P website and missing data supplemented from month end Bond Guides when available.
means the data was not available in S&P Guide
means issuance matured or called

	Annual	4th Qtr
BBB's	4.77%	4.48%
BB's	7.40%	7.19%
B's	---	---
ALL	5.52%	5.25%
BBB- & Above	4.77%	4.48%
B- & Above	5.52%	5.25%

**Investment Grade (BBB- & Above)*

2013 Capitalization Rate Study

Appendix and Supporting Documents

Table Showing The Implied Risk Premium Using Macroeconomic Data
This type of calculation can also be found in Chapter 9 of Ibbotson's (MorningStar) SBBI, Supply Side Model

3 Stage Dividend Growth Model

Assumptions:

Stages	Years		Growth	Model 1				Model 2			
1st Stage	1-5 years		Constant @:	12.70%				10.60%			*S & P GICS Composite 1500 Valuations as of 12/31/12 Monthly Investment Review, January 2013*
2nd Stage	6-15 years		Linear from:	12.04%	to	5.47%	OR	10.05%	to	4.56%	*Linear from 1st Stage to 3rd Stage*
				Real Growth				Inflation			
3rd Stage	15 years -perpetuity	GDP Growth:	Real and Inflation	2.10%		3.00%	+	2.46%	to	2.47%	*Inflation Range = Federal Reserve, Treasuries Inflation - Indexed*
		GDP Growth*:	Real + Inflation	5.47%			TO	4.56%			**GDP Growth = Real growth + Inflation*

First Quarter 2013 Survey of Professional Forecasters - Philadelphia Federal Reserve Release Date 2/15/2013

Model 1

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
		Expected	1st Stage Growth Rates					2nd Stage Growth Rates												
Starting Industry	Start Price	Dividends	12.700%	12.700%	12.700%	12.700%	12.700%	12.04%	11.385%	10.728%	10.071%	9.414%	8.756%	8.099%	7.442%	6.785%	6.127%	5.470%	5.470%	5.470%
S & P 500	$ (1,426.19)	$ 33.85	$ 38.15	$ 42.99	$ 48.45	$ 54.61	$ 61.54	$ 68.95	$ 76.81	$ 85.04	$ 93.61	$ 102.42	$ 111.39	$ 120.41	$ 129.37	$ 138.15	$ 146.61	$ 154.63	$ 163.09	$ 172.01

Implied Market Return = 9.55%

Model 2

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
		Expected	1st Stage Growth Rates					2nd Stage Growth Rates												
Starting Industry	Start Price	Dividends	10.600%	10.600%	10.600%	10.600%	10.600%	10.05%	9.502%	8.953%	8.404%	7.855%	7.305%	6.756%	6.207%	5.658%	5.109%	4.560%	4.560%	4.560%
S & P 500	$ (1,426.19)	$ 33.85	$ 37.44	$ 41.41	$ 45.80	$ 50.65	$ 56.02	$ 61.65	$ 67.51	$ 73.55	$ 79.73	$ 85.99	$ 92.28	$ 98.51	$ 104.63	$ 110.55	$ 116.19	$ 121.49	$ 127.03	$ 132.82

Implied Market Return = 8.30%

Conclusions:

Implied Market Rate Range =	8.30%	to	9.55%

Mean	***8.93%***
Median	***8.93%***
Market Rate Used	**9.00%**

2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%
$181.42	$191.35	$201.81	$212.85	$224.50	$236.78	$249.73	$263.39	$277.80	$292.99	$309.02	$325.92	$343.75	$362.55	$382.38	$403.30	$425.36	$448.63	$473.17	$499.05	$526.35	$555.14	$585.51	$617.53

2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%
$138.88	$145.21	$151.84	$158.76	$166.00	$173.57	$181.48	$189.76	$198.41	$207.46	$216.92	$226.81	$237.15	$247.97	$259.28	$271.10	$283.46	$296.39	$309.90	$324.03	$338.81	$354.26	$370.41	$387.31

2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075
5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%
$ 651.31	$ 686.94	$ 724.51	$ 764.14	$ 805.94	$ 850.03	$ 896.52	$ 945.56	$ 997.29	$ 1,051.84	$ 1,109.37	$ 1,170.06	$ 1,234.06	$ 1,301.56	$ 1,372.76	$ 1,447.85	$ 1,527.04	$ 1,610.57	$ 1,698.67	$ 1,791.59

2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075
4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%
$ 404.97	$ 423.43	$ 442.74	$ 462.93	$ 484.04	$ 506.11	$ 529.19	$ 553.32	$ 578.55	$ 604.94	$ 632.52	$ 661.36	$ 691.52	$ 723.06	$ 756.03	$ 790.50	$ 826.55	$ 864.24	$ 903.65	$ 944.85

2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095
3rd Stage Growth Rates																			
5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%
$ 1,889.59	$ 1,992.95	$ 2,101.96	$ 2,216.94	$ 2,338.21	$ 2,466.11	$ 2,601.00	$ 2,743.28	$ 2,893.34	$ 3,051.60	$ 3,218.53	$ 3,394.58	$ 3,580.26	$ 3,776.10	$ 3,982.66	$ 4,200.51	$ 4,430.27	$ 4,672.61	$ 4,928.20	$ 5,197.77

2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095
3rd Stage Growth Rates																			
4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%
$ 987.94	$ 1,032.99	$ 1,080.09	$ 1,129.35	$ 1,180.84	$ 1,234.69	$ 1,290.99	$ 1,349.86	$ 1,411.42	$ 1,475.78	$ 1,543.07	$ 1,613.44	$ 1,687.01	$ 1,763.94	$ 1,844.37	$ 1,928.48	$ 2,016.41	$ 2,108.36	$ 2,204.50	$ 2,305.03

2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113
5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%
$ 5,482.09	$ 5,781.96	$ 6,098.24	$ 6,431.81	$ 6,783.63	$ 7,154.69	$ 7,546.06	$ 7,958.83	$ 8,394.17	$ 8,853.34	$ 9,337.61	$ 9,848.38	$ 10,387.09	$ 10,955.26	$ 11,554.51	$ 12,186.54	$ 12,853.15	$ 13,556.22

2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113
4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%
$ 2,410.14	$ 2,520.04	$ 2,634.95	$ 2,755.11	$ 2,880.74	$ 3,012.10	$ 3,149.46	$ 3,293.07	$ 3,443.23	$ 3,600.25	$ 3,764.42	$ 3,936.07	$ 4,115.56	$ 4,303.23	$ 4,499.46	$ 4,704.63	$ 4,919.16	$ 5,143.48

2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129
5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%	5.470%
$ 14,297.74	$ 15,079.83	$ 15,904.69	$ 16,774.68	$ 17,692.26	$ 18,660.02	$ 19,680.72	$ 20,757.26	$ 21,892.68	$ 23,090.21	$ 24,353.25	$ 25,685.37	$ 27,090.36	$ 28,572.20	$ 30,135.10	$ 31,783.49

2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129
4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%	4.560%
$ 5,378.02	$ 5,623.26	$ 5,879.68	$ 6,147.79	$ 6,428.13	$ 6,721.25	$ 7,027.74	$ 7,348.21	$ 7,683.28	$ 8,033.64	$ 8,399.98	$ 8,783.02	$ 9,183.52	$ 9,602.29	$ 10,040.15	$ 10,497.99

Files to include in final Capitalization Rate

	File Name	Extension	PATH
1	2013 Cover & Narrative	PDF	H:\CAB\Excel.icb\Capitalization\2013\2013 Cap Rate Files - Posted on Website
2	2013 Airline Cap Rate Study_Reviewed	PDF	
3	2013 Electric Cap Rate Study_Reviewed	PDF	
4	2013 GasPipeline Cap Rate Study_Reviewed	PDF	
5	2013 Liquid Cap Rate Study_Reviewed	PDF	
6	2013 Railroad Class I and III Cap Rate Study_Reviewed	PDF	
7	2013 Telecom Cap Rate Study_Reviewed2	PDF	
8	2013 Appendix	PDF	H:\CAB\Excel.icb\Capitalization\2013\2013 Cap Rate Files - Posted on Website\Appendix

Attached files to be scanned
Please give up the final PDF

Here are the files that are in a pdf format for the Appendix attached by Paper clip

			Description
9	spfq113	PDF	Survey of Professional Forecasters
10	2013- 3 Stage Dividend Growth Model	PDF	
11	h-15 Federal Reserve Statistical Release January	PDF	

FEDERAL RESERVE statistical release

H.15 (519) SELECTED INTEREST RATES

Yields in percent per annum

For use at 2:30 p.m. Eastern Time
January 7, 2013

Instruments	2012 Dec 31	2013 Jan 1*	2013 Jan 2	2013 Jan 3	2013 Jan 4	Week Ending Jan 4	Week Ending Dec 28	2012 Dec
Federal funds (effective)[1 2 3]	0.09	0.09	0.17	0.17	0.16	0.15	0.17	0.16
Commercial Paper[3 4 5 6]								
Nonfinancial								
1-month	0.10		0.13	0.12	0.11	0.12	0.12	0.13
2-month	n.a.		0.15	0.14	0.13	0.14	0.15	0.16
3-month	0.19		0.17	0.17	0.16	0.17	0.18	0.20
Financial								
1-month	0.05		0.12	0.12	0.11	0.10	0.10	0.10
2-month	0.09		0.15	0.11	0.12	0.12	0.14	0.13
3-month	0.12		0.18	0.28	0.14	0.18	0.21	0.17
CDs (secondary market)[3 7]								
1-month	0.19		0.19	0.17	0.17	0.18	0.19	0.19
3-month	0.24		0.23	0.23	0.23	0.23	0.23	0.24
6-month	0.33		0.30	0.30	0.30	0.31	0.31	0.32
Eurodollar deposits (London)[3 8]								
1-month	0.27		0.27	0.26	0.26	0.27	0.27	0.27
3-month	0.31		0.31	0.30	0.30	0.31	0.31	0.31
6-month	0.53		0.53	0.51	0.51	0.52	0.53	0.54
Bank prime loan[2 3 9]	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
Discount window primary credit[2 10]	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
U.S. government securities								
Treasury bills (secondary market)[3 4]								
4-week	0.02		0.07	0.06	0.06	0.05	0.02	0.04
3-month	0.05		0.08	0.08	0.07	0.07	0.06	0.07
6-month	0.11		0.12	0.12	0.11	0.12	0.12	0.12
1-year	0.15		0.14	0.14	0.14	0.14	0.15	0.15
Treasury constant maturities								
Nominal[11]								
1-month	0.02		0.07	0.06	0.06	0.05	0.02	0.04
3-month	0.05		0.08	0.08	0.07	0.07	0.06	0.07
6-month	0.11		0.12	0.12	0.11	0.12	0.12	0.12
1-year	0.16		0.15	0.15	0.15	0.15	0.16	0.16
2-year	0.25		0.27	0.27	0.27	0.27	0.26	0.26
3-year	0.36		0.37	0.40	0.41	0.39	0.38	0.35
5-year	0.72		0.76	0.81	0.82	0.78	0.74	0.70
7-year	1.18		1.25	1.31	1.32	1.27	1.18	1.13
10-year	1.78		1.86	1.92	1.93	1.87	1.76	1.72
20-year	2.54		2.63	2.70	2.70	2.64	2.50	2.47
30-year	2.95		3.04	3.12	3.10	3.05	2.91	2.88
Inflation indexed[12]								
5-year	-1.37		-1.36	-1.30	-1.31	-1.34	-1.36	-1.40
7-year	-1.09		-1.06	-0.99	-0.99	-1.03	-1.09	-1.13
10-year	-0.67		-0.62	-0.54	-0.55	-0.60	-0.72	-0.76
20-year	0.15		0.22	0.31	0.27	0.24	0.05	0.00
30-year	0.41		0.47	0.56	0.53	0.49	0.35	0.33
Inflation-indexed long-term average[13]	-0.04		0.01	0.10	0.08	0.04	-0.09	-0.12
Interest rate swaps[14]								
1-year	0.33		0.33	0.32	0.32	0.32	0.35	0.33
2-year	0.38		0.39	0.38	0.40	0.39	0.41	0.38
3-year	0.48		0.50	0.49	0.52	0.50	0.51	0.47
4-year	0.63		0.66	0.66	0.71	0.66	0.66	0.61
5-year	0.83		0.88	0.88	0.94	0.88	0.87	0.81
7-year	1.26		1.34	1.34	1.41	1.34	1.29	1.23
10-year	1.79		1.88	1.88	1.97	1.88	1.80	1.75
30-year	2.74		2.87	2.87	2.93	2.85	2.73	2.67
Corporate bonds								
Moody's seasoned								
Aaa[15]	3.67		3.77	3.81	3.81	3.77	3.65	3.65
Baa	4.63		4.71	4.76	4.74	4.71	4.61	4.63
State & local bonds[16]				3.68		3.68	3.58	3.48
Conventional mortgages[17]				3.34		3.34	3.35	3.35

See overleaf for footnotes.

* Markets closed.

n.a. Not available.

Footnotes

1. The daily effective federal funds rate is a weighted average of rates on brokered trades.
2. Weekly figures are averages of 7 calendar days ending on Wednesday of the current week; monthly figures include each calendar day in the month.
3. Annualized using a 360-day year or bank interest.
4. On a discount basis.
5. Interest rates interpolated from data on certain commercial paper trades settled by The Depository Trust Company. The trades represent sales of commercial paper by dealers or direct issuers to investors (that is, the offer side). The 1-, 2-, and 3-month rates are equivalent to the 30-, 60-, and 90-day dates reported on the Board's Commercial Paper Web page (www.federalreserve.gov/releases/cp/).
6. Financial paper that is insured by the FDIC's Temporary Liquidity Guarantee Program is not excluded from relevant indexes, nor is any financial or nonfinancial commercial paper that may be directly or indirectly affected by one or more of the Federal Reserve's liquidity facilities. Thus the rates published after September 19, 2008, likely reflect the direct or indirect effects of the new temporary programs and, accordingly, likely are not comparable for some purposes to rates published prior to that period.
7. An average of dealer bid rates on nationally traded certificates of deposit.
8. Source: Bloomberg and CTRB ICAP Fixed Income & Money Market Products.
9. Rate posted by a majority of top 25 (by assets in domestic offices) insured U.S.-chartered commercial banks. Prime is one of several base rates used by banks to price short-term business loans.
10. The rate charged for discounts made and advances extended under the Federal Reserve's primary credit discount window program, which became effective January 9, 2003. This rate replaces that for adjustment credit, which was discontinued after January 8, 2003. For further information, see www.federalreserve.gov/boarddocs/press/bcreg/2002/200210312/default.htm. The rate reported is that for the Federal Reserve Bank of New York. Historical series for the rate on adjustment credit as well as the rate on primary credit are available at www.federalreserve.gov/releases/h15/data.htm.
11. Yields on actively traded non-inflation-indexed issues adjusted to constant maturities. The 30-year Treasury constant maturity series was discontinued on February 18, 2002, and reintroduced on February 9, 2006. From February 18, 2002, to February 9, 2006, the U.S. Treasury published a factor for adjusting the daily nominal 20-year constant maturity in order to estimate a 30-year nominal rate. The historical adjustment factor can be found at www.treasury.gov/resource-center/data-chart-center/interest-rates/. Source: U.S. Treasury.
12. Yields on Treasury inflation protected securities (TIPS) adjusted to constant maturities. Source: U.S. Treasury. Additional information on both nominal and inflation-indexed yields may be found at www.treasury.gov/resource-center/data-chart-center/interest-rates/.
13. Based on the unweighted average bid yields for all TIPS with remaining terms to maturity of more than 10 years.
14. International Swaps and Derivatives Association (ISDA®) mid-market par swap rates. Rates are for a Fixed Rate Payer in return for receiving three month LIBOR, and are based on rates collected at 11:00 a.m. Eastern time by Garban Intercapital plc and published on Reuters Page ISDAFIX®1. ISDAFIX is a registered service mark of ISDA. Source: Reuters Limited.
15. Moody's Aaa rates through December 6, 2001, are averages of Aaa utility and Aaa industrial bond rates. As of December 7, 2001, these rates are averages of Aaa industrial bonds only.
16. Bond Buyer Index, general obligation, 20 years to maturity, mixed quality; Thursday quotations.
17. Contract interest rates on commitments for fixed-rate first mortgages. Source: Primary Mortgage Market Survey® data provided by Freddie Mac.

Note: Weekly and monthly figures on this release, as well as annual figures available on the Board's historical H.15 web site (see below), are averages of business days unless otherwise noted.

Current and historical H.15 data are available on the Federal Reserve Board's web site (www.federalreserve.gov/). For information about individual copies or subscriptions, contact Publications Services at the Federal Reserve Board (phone 202-452-3244, fax 202-728-5886).

Description of the Treasury Nominal and Inflation-Indexed Constant Maturity Series

Yields on Treasury nominal securities at "constant maturity" are interpolated by the U.S. Treasury from the daily yield curve for non-inflation-indexed Treasury securities. This curve, which relates the yield on a security to its time to maturity, is based on the closing market bid yields on actively traded Treasury securities in the over-the-counter market. These market yields are calculated from composites of quotations obtained by the Federal Reserve Bank of New York. The constant maturity yield values are read from the yield curve at fixed maturities, currently 1, 3, and 6 months and 1, 2, 3, 5, 7, 10, 20, and 30 years. This method provides a yield for a 10-year maturity, for example, even if no outstanding security has exactly 10 years remaining to maturity. Similarly, yields on inflation-indexed securities at "constant maturity" are interpolated from the daily yield curve for Treasury inflation protected securities in the over-the-counter market. The inflation-indexed constant maturity yields are read from this yield curve at fixed maturities, currently 5, 7, 10, and 20 years.

SURVEY OF PROFESSIONAL FORECASTERS

Release Date: February 15, 2013

FIRST QUARTER 2013

Forecasters Predict Stronger Labor Market

The outlook for growth in the U.S. economy over the next three years looks mostly unchanged from that of three months ago, according to 46 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The panel expects real GDP to grow at an annual rate of 2.1 percent this quarter and 2.3 percent next quarter and to rise to 2.7 percent in the first quarter of 2014. On an annual-average over annual-average basis, the forecasters see real GDP growing 1.9 percent in 2013, down slightly from the previous estimate of 2.0 percent. The forecasters predict real GDP will grow 2.8 percent in 2014, 2.9 percent in 2015, and 3.0 percent in 2016.

Healthier conditions in the labor market accompany the nearly stable outlook for real output. The forecasters predict that the unemployment rate will be an annual average of 7.7 percent in 2013, before falling to 7.2 percent in 2014, 6.7 percent in 2015, and 6.3 percent in 2016. These projections are below those of the last survey.

The forecasters are also more optimistic about the employment front. They have revised upward their estimates of the growth in jobs in the next four quarters. The forecasters see nonfarm payroll employment growing at a rate of 165,300 jobs per month this quarter and 154,200 jobs per month next quarter. The forecasters' projections for the annual-average level of nonfarm payroll employment suggest job gains at a monthly rate of 164,100 in 2013 and 176,800 in 2014, as the table below shows. (These annual-average estimates are computed as the year-to-year change in the annual-average level of nonfarm payroll employment, converted to a monthly rate.)

Median Forecasts for Selected Variables in the Current and Previous Surveys

	Real GDP (%)		*Unemployment Rate (%)*		*Payrolls (000s/month)*	
	Previous	*New*	*Previous*	*New*	*Previous*	*New*
Quarterly data:						
2013:Q1	1.7	2.1	7.9	7.8	127.4	165.3
2013:Q2	2.0	2.3	7.8	7.7	146.1	154.2
2013:Q3	2.7	2.6	7.8	7.6	170.2	172.0
2013:Q4	2.8	2.5	7.6	7.5	178.3	180.4
2014:Q1	N.A.	2.7	N.A.	7.4	N.A.	171.5
Annual data (projections are based on annual-average levels):						
2013	2.0	1.9	7.8	7.7	143.3	164.1
2014	2.7	2.8	7.4	7.2	N.A.	176.8
2015	2.9	2.9	6.9	6.7	N.A.	N.A.
2016	N.A.	3.0	N.A.	6.3	N.A.	N.A.

RESEARCH DEPARTMENT FEDERAL RESERVE BANK OF PHILADELPHIA
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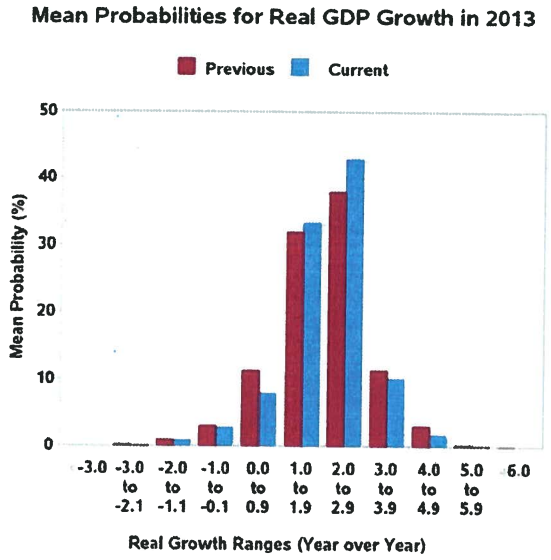
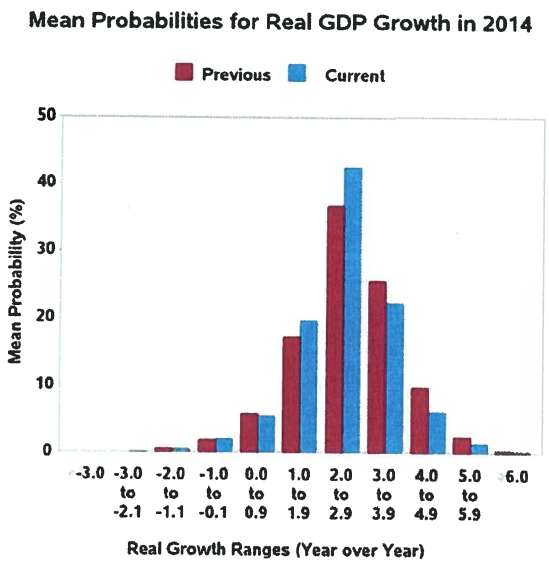
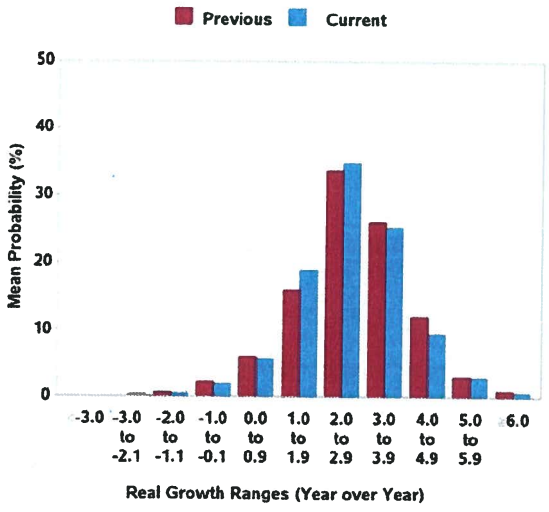
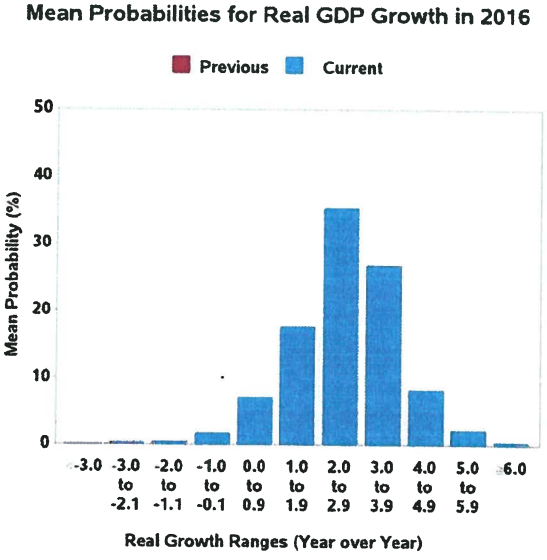
The charts below provide some insight into the degree of uncertainty the forecasters have about their projections for the rate of growth in the annual-average level of real GDP. Each chart presents the forecasters' previous and current estimates of the probability that growth will fall into each of 11 ranges. The forecasters have revised upward their estimate of the probability that growth will fall into the range of 2.0 to 2.9 percent in 2013, 2014, and 2015.

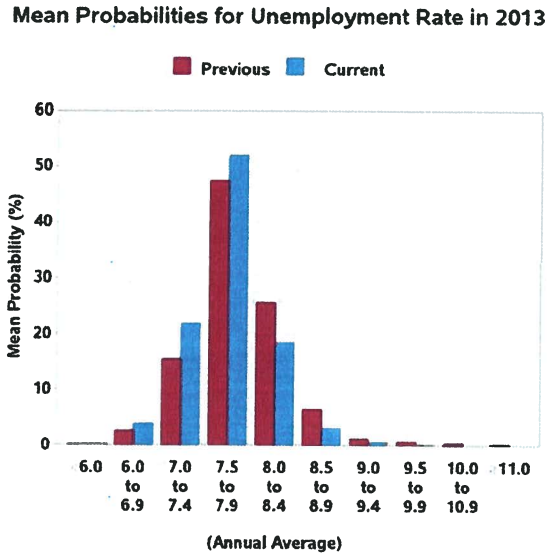


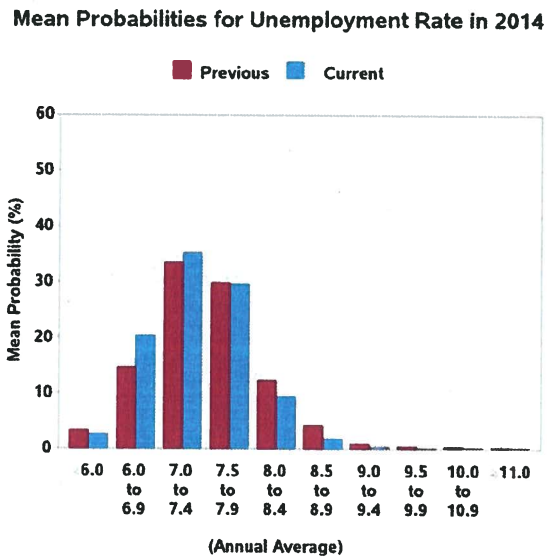


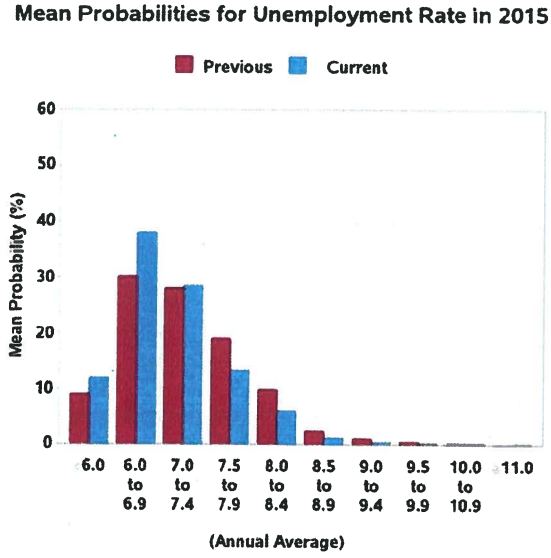


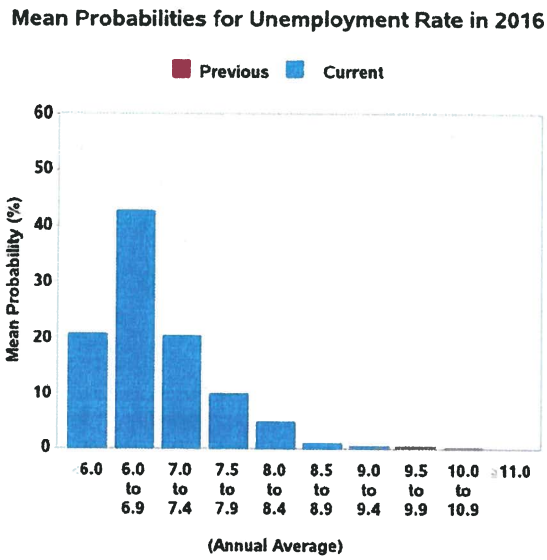


The forecasters' density projections, as shown in the charts below, shed light on the odds of a recovery in the labor market over the next four years. Each chart for unemployment presents the forecasters' previous and current estimates of the probability that unemployment will fall into each of 10 ranges. Consistent with their more optimistic point forecasts on unemployment, the forecasters have revised upward their estimate of the probability that unemployment will fall below 7.5 percent in 2013, 2014, and 2015.









Forecasters See Lower Near-Term Inflation

The forecasters expect current-quarter headline CPI inflation to average 1.8 percent, lower than the last survey's estimate of 2.1 percent. The forecasters predict current-quarter headline PCE inflation of 1.4 percent, lower than the prediction of 1.8 percent from the survey of three months ago.

The forecasters also see lower headline and core measures of CPI and PCE inflation during the next two years. Measured on a fourth-quarter over fourth-quarter basis, headline CPI inflation is expected to average 2.0 percent in 2013, down from 2.2 percent in the last survey, and 2.2 percent in 2014, down 0.1 percentage point from the previous estimate. Forecasters expect fourth-quarter over fourth-quarter headline PCE inflation to average 1.8 percent in 2013, down from 2.0 percent in the last survey, and 2.0 percent in 2014, down 0.2 percentage point from the previous estimate.

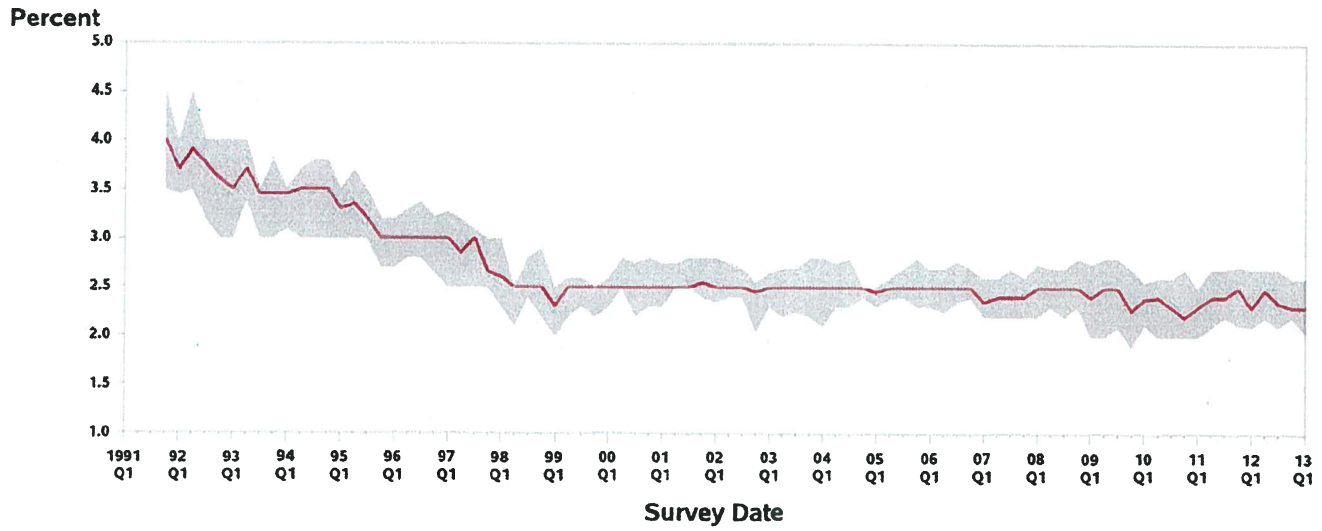
Over the next 10 years, 2013 to 2022, the forecasters expect headline CPI inflation to average 2.3 percent at an annual rate. The corresponding estimate for 10-year annual-average PCE inflation is 2.0 percent.

Median Short-Run and Long-Run Projections for Inflation (Annualized Percentage Points)

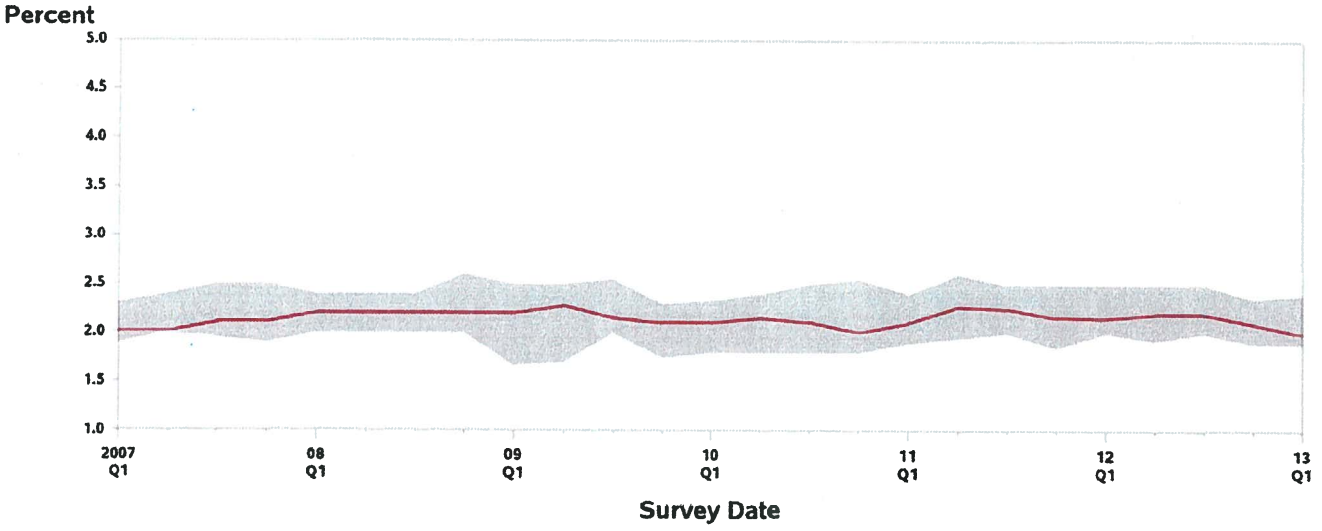
	Headline CPI		Core CPI		Headline PCE		Core PCE	
	Previous	Current	Previous	Current	Previous	Current	Previous	Current
Quarterly								
2013:Q1	2.1	1.8	1.9	1.8	1.8	1.4	1.8	1.4
2013:Q2	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.7
2013:Q3	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.8
2013:Q4	2.3	2.1	2.0	2.0	2.1	1.9	1.9	1.7
2014:Q1	N.A.	2.1	N.A.	2.0	N.A.	2.0	N.A.	1.8
Q4/Q4 Annual Averages								
2013	2.2	2.0	2.0	1.9	2.0	1.8	1.9	1.6
2014	2.3	2.2	2.2	2.1	2.2	2.0	2.0	1.9
2015	N.A.	2.3	N.A.	2.2	N.A.	2.0	N.A.	1.9
Long-Term Annual Averages								
2012-2016	2.28	N.A.	N.A.	N.A.	2.00	N.A.	N.A.	N.A.
2013-2017	N.A.	2.30	N.A.	N.A.	N.A.	2.00	N.A.	N.A.
2012-2021	2.30	N.A.	N.A.	N.A.	2.10	N.A.	N.A.	N.A.
2013-2022	N.A.	2.30	N.A.	N.A.	N.A.	2.00	N.A.	N.A.

The charts below show the median projections (the red line) and the associated interquartile ranges (the gray area around the red line) for the projections for the 10-year annual-average CPI and PCE inflation. The top panel shows the unchanged long-term projection for CPI inflation, at 2.3 percent. The bottom panel highlights the slightly lower 10-year forecast for PCE inflation at 2.0 percent.

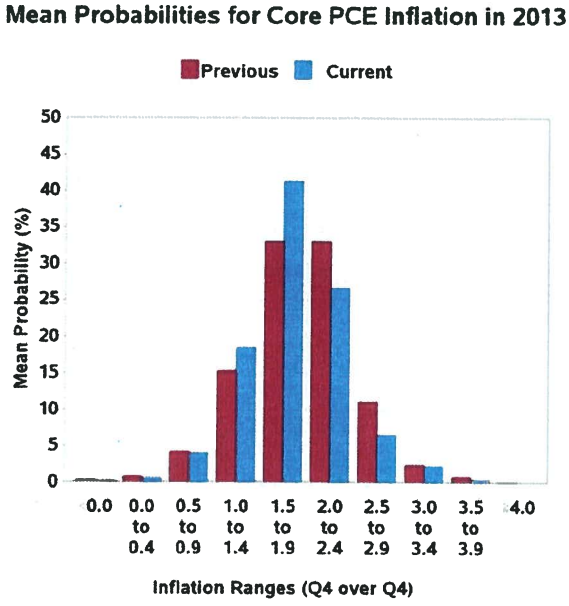
Projections for the 10-Year Annual-Average Rate of CPI Inflation
(Median and Interquartile Range)

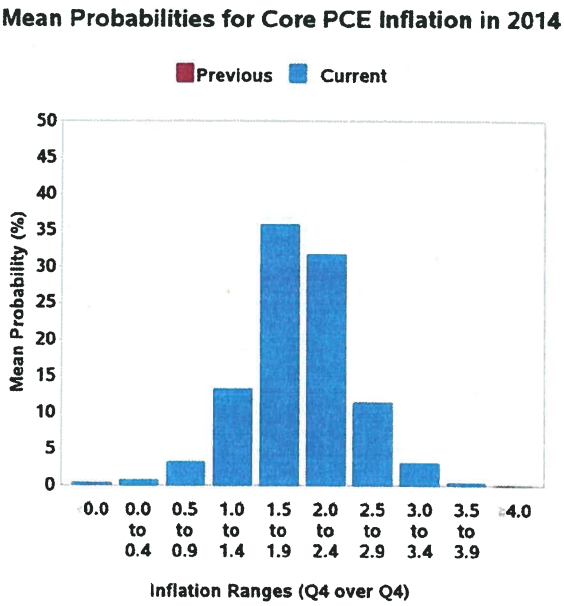


Projections for the 10-Year Annual-Average Rate of PCE Inflation
(Median and Interquartile Range)



The figures below show the probabilities that the forecasters are assigning to the possibility that fourth-quarter over fourth-quarter core PCE inflation in 2013 and 2014 will fall into each of 10 ranges. For 2013, the forecasters assign a higher chance than previously that core PCE inflation will fall in the range of 1.0 to 1.9 percent (and a lower probability that inflation will exceed 1.9 percent).





Lower Risk of a Negative Quarter

The forecasters have revised downward the chance of a contraction in real GDP in any of the next four quarters. For the current quarter, they predict a 15.3 percent chance of negative growth, down from 23.0 percent in the survey of three months ago. As the table below shows, the panelists have also made downward revisions to their forecasts for the following three quarters.

Risk of a Negative Quarter (%)

Quarterly data:	*Previous*	*New*
2013: Q1	23.0	15.3
2013: Q2	21.7	18.0
2013: Q3	17.9	15.2
2013: Q4	16.4	13.6
2014: Q1	N.A.	13.2

Forecasters State Their Views on House Prices

In this survey, a special question asked panelists to provide their forecasts for fourth-quarter over fourth-quarter growth in house prices, as measured by a number of alternative indices. The panelists were allowed to choose from a provided list of indices or to write in their own index. For each index of their choosing, the panelists provided forecasts of growth in 2013 and 2014.

Thirty-one panelists answered the special question. Some panelists provided projections for more than one index. The table below provides a summary of the forecasters' responses. For some indices, the number of responses (N) is very small. The median estimates for the six house-price indices listed in the table below range from 2.0 percent to 9.2 percent in 2013 and 3.9 percent to 7.8 percent in 2014.

Projections for Growth in Various Indices of House Prices
Q4/Q4, Percentage Points

Index	2013 (Q4/Q4 Percent Change)			2014 (Q4/Q4 Percent Change)		
	N	Mean	Median	N	Mean	Median
S&P/Case-Shiller: U.S. National	15	3.5	3.3	15	3.5	4.0
S&P/Case-Shiller: Composite 20	6	4.8	4.5	6	4.6	3.9
FHFA: U.S. Total	9	2.6	2.0	9	4.4	4.0
FHFA: Purchase Only	4	2.7	2.8	4	4.1	3.9
CoreLogic: National HPI, incl Distressed Sales (Single Family Combined)	7	4.8	5.0	7	4.6	4.8
NAR Median: Total Existing	4	8.1	9.2	4	7.4	7.8

Forecasters Reduce Estimates for Long-Run Growth in Output and Productivity and Returns on Financial Assets

In first-quarter surveys, the forecasters provide their long-run projections for an expanded set of variables, including growth in output and productivity, as well as returns on financial assets.

As the table below shows, the forecasters have reduced their long-run estimates for the annual-average rate of growth in real GDP. Currently, the forecasters expect real GDP to grow 2.50 percent per year over the next 10 years, down from 2.64 percent in the survey of 2012 Q1.

Similarly, productivity growth is now expected to average 1.80 percent, down from 1.85 percent. Downward revisions to the return on financial assets accompany the current outlook. The forecasters see the S&P 500 returning an annual-average 6.13 percent per year over the next 10 years, down from 6.80 percent. The forecasters expect 10-year Treasuries to return 3.83 percent per year over the next 10 years, down from 4.00 percent. Three-month Treasury bills will return 2.40 percent, down from 2.50 percent.

	Long-Term (10-year) Forecasts (%)	
	First Quarter 2012	*Current Survey*
Real GDP Growth	2.64	2.50
Productivity Growth	1.85	1.80
Stock Returns (S&P 500)	6.80	6.13
Bond Returns (10-year)	4.00	3.83
Bill Returns (3-month)	2.50	2.40

The Federal Reserve Bank of Philadelphia thanks the following forecasters for their participation in recent surveys:

Scott Anderson, Bank of the West (BNP Paribas Group); **Robert J. Barbera**, Johns Hopkins University Center for Financial Economics; **Peter Bernstein**, RCF Economic and Financial Consulting, Inc.; **Christine Chmura, Ph.D.** and **Xiaobing Shuai, Ph.D.**, Chmura Economics & Analytics; **Gary Ciminero, CFA**, GLC Financial Economics; **Julia Coronado**, BNP Paribas; **David Crowe**, National Association of Home Builders; **Nathaniel Curtis**, EconLit LLC; **Rajeev Dhawan**, Georgia State University; **Shawn Dubravac**, Consumer Electronics Association; **Michael R. Englund**, Action Economics, LLC; **Timothy Gill**, NEMA; **James Glassman**, JPMorgan Chase & Co.; **Daniel Hanson**, LTZF Economics; **Keith Hembre**, Nuveen Asset Management; **Peter Hooper**, Deutsche Bank Securities, Inc.; **IHS Global Insight**; **Fred Joutz**, Benchmark Forecasts and Research Program on Forecasting, George Washington University; **N. Karp**, BBVA Compass; **Walter Kemmsies**, Moffatt & Nichol; **Jack Kleinhenz**, Kleinhenz & Associates, Inc.; **Thomas Lam**, OSK Group/DMG & Partners; **L. Douglas Lee**, Economics from Washington; **Allan R. Leslie**, Economic Consultant; **John Lonski**, Moody's Capital Markets Group; **Macroeconomic Advisers, LLC**; **Dean Maki**, Barclays Capital; **Jim Meil** and **Arun Raha**, Eaton Corporation; **Anthony Metz**, Pareto Optimal Economics; **Michael Moran**, Daiwa Capital Markets America; **Joel L. Naroff**, Naroff Economic Advisors; **Mark Nielson, Ph.D.**, MacroEcon Global Advisors; **Michael P. Niemira**, International Council of Shopping Centers; **Luca Noto**, Anima Sgr; **Brendon Ogmundson**, BC Real Estate Association; **Martin A. Regalia**, U.S. Chamber of Commerce; **Philip Rothman**, East Carolina University; **Chris Rupkey**, Bank of Tokyo-Mitsubishi UFJ; **John Silvia**, Wells Fargo; **Allen Sinai**, Decision Economics, Inc; **Tara M. Sinclair**, Research Program on Forecasting, George Washington University; **David Sloan**, Thomson Reuters; **Sean M. Snaith, Ph.D.**, University of Central Florida; **Constantine G. Soras, Ph.D.**, CGS Economic Consulting; **Neal Soss**, Credit Suisse; **Stephen Stanley**, Pierpont Securities; **Charles Steindel**, New Jersey Department of the Treasury; **Susan M. Sterne**, Economic Analysis Associates, Inc.; **Thomas Kevin Swift**, American Chemistry Council; **Andrew Tilton**, Goldman Sachs; **Lea Tyler**, Oxford Economics USA, Inc.; **Jay N. Woodworth**, Woodworth Holdings, Ltd.; **Richard Yamarone**, Bloomberg, LP; **Mark Zandi**, Moody's Analytics; **Ellen Zentner**, Nomura Securities.

This is a partial list of participants. We also thank those who wish to remain anonymous.

SUMMARY TABLE
SURVEY OF PROFESSIONAL FORECASTERS
MAJOR MACROECONOMIC INDICATORS

	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2013	2014	2015	2016
						(YEAR-OVER-YEAR)			
PERCENT GROWTH AT ANNUAL RATES									
1. REAL GDP (BILLIONS, CHAIN WEIGHTED)	2.1	2.3	2.6	2.5	2.7	1.9	2.8	2.9	3.0
2. GDP PRICE INDEX (PERCENT CHANGE)	1.7	1.9	2.1	1.7	2.0	1.7	2.1	N.A.	N.A.
3. NOMINAL GDP ($ BILLIONS)	4.0	4.2	4.4	4.3	5.0	3.6	4.7	N.A.	N.A.
4. NONFARM PAYROLL EMPLOYMENT									
(PERCENT CHANGE)	1.5	1.4	1.5	1.6	1.5	1.5	1.6	N.A.	N.A.
(AVG MONTHLY CHANGE)	165.3	154.2	172.0	180.4	171.5	164.1	176.8	N.A.	N.A.
VARIABLES IN LEVELS									
5. UNEMPLOYMENT RATE (PERCENT)	7.8	7.7	7.6	7.5	7.4	7.7	7.2	6.7	6.3
6. 3-MONTH TREASURY BILL (PERCENT)	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6	1.7
7. 10-YEAR TREASURY BOND (PERCENT)	1.9	2.0	2.1	2.3	2.5	2.1	2.6	3.3	3.8

	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2013	2014	2015
						(Q4-OVER-Q4)		
INFLATION INDICATORS								
8. CPI (ANNUAL RATE)	1.8	2.1	2.1	2.1	2.1	2.0	2.2	2.3
9. CORE CPI (ANNUAL RATE)	1.8	2.0	2.0	2.0	2.0	1.9	2.1	2.2
10. PCE (ANNUAL RATE)	1.4	1.9	1.9	1.9	2.0	1.8	2.0	2.0
11. CORE PCE (ANNUAL RATE)	1.4	1.7	1.8	1.7	1.8	1.6	1.9	1.9

THE FIGURES ON EACH LINE ARE MEDIANS OF 46 INDIVIDUAL FORECASTERS.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA.
SURVEY OF PROFESSIONAL FORECASTERS, FIRST QUARTER 2013.

SURVEY OF PROFESSIONAL FORECASTERS

First Quarter 2013

Tables

Note: Data in these tables listed as "actual" are the data that were available to the forecasters when they were sent the survey questionnaire on January 30; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before February 11, 2013.

TABLE ONE
MAJOR MACROECONOMIC INDICATORS
MEDIANS OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL	FORECAST					ACTUAL	FORECAST			
		2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2012 ANNUAL	2013 ANNUAL	2014 ANNUAL	2015 ANNUAL	2016 ANNUAL
1. GROSS DOMESTIC PRODUCT (GDP) ($ BILLIONS)	42	15829	15986	16150	16325	16499	16700	15676	16239	16997	N.A.	N.A.
2. GDP PRICE INDEX (2005=100)	43	115.98	116.47	117.02	117.63	118.14	118.72	115.36	117.32	119.79	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES ($ BILLIONS)	21	N.A.	1536.0	1545.8	1577.1	1587.5	1612.1	N.A.	1570.6	1669.8	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	44	7.8	7.8	7.7	7.6	7.5	7.4	8.1	7.7	7.2	6.7	6.3
5. NONFARM PAYROLL EMPLOYMENT (THOUSANDS)	38	133864	134360	134822	135338	135879	136394	133241	135210	137332	N.A.	N.A.
6. INDUSTRIAL PRODUCTION (2007=100)	39	97.6	98.3	99.1	100.0	100.8	101.7	97.2	99.5	102.9	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	41	0.90	0.92	0.95	0.98	1.03	1.09	0.78	0.97	1.17	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	42	0.09	0.10	0.10	0.10	0.10	0.11	0.09	0.10	0.16	0.55	1.69
9. AAA CORPORATE BOND YIELD (PERCENT)	34	3.54	3.73	3.80	3.90	4.04	4.15	3.67	3.85	4.30	N.A.	N.A.
10. BAA CORPORATE BOND YIELD (PERCENT)	33	4.57	4.80	4.82	4.96	5.05	5.17	4.94	4.91	5.52	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	42	1.71	1.91	2.00	2.14	2.29	2.45	1.80	2.10	2.60	3.25	3.75
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	45	13648	13720	13799	13888	13973	14067	13589	13847	14229	14640	15072
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	43	9671.9	9710.5	9757.0	9813.6	9872.7	9937.7	9605.3	9789.2	10023.5	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	41	1506.2	1518.9	1539.3	1564.3	1587.6	1608.1	1483.8	1553.3	1646.7	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	41	384.3	396.1	408.8	421.3	434.5	450.1	366.6	415.5	466.3	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	40	1004.4	1004.3	1002.9	1003.0	998.0	995.3	1024.0	1001.6	992.8	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	40	1460.2	1458.8	1458.7	1460.1	1463.1	1463.0	1462.4	1459.5	1469.0	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	40	20.0	36.9	41.1	43.7	45.0	45.0	44.6	42.5	44.5	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	41	-404.0	-404.3	-404.2	-410.0	-411.1	-409.2	-405.6	-406.3	-408.8	N.A.	N.A.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA. SURVEY OF PROFESSIONAL FORECASTERS, FIRST QUARTER 2013.

TABLE TWO
MAJOR MACROECONOMIC INDICATORS
PERCENTAGE CHANGES AT ANNUAL RATES

	NUMBER OF FORECASTERS	Q4 2012 TO Q1 2013	Q1 2013 TO Q2 2013	Q2 2013 TO Q3 2013	Q3 2013 TO Q4 2013	Q4 2013 TO Q1 2014	2012 TO 2013	2013 TO 2014	2014 TO 2015	2015 TO 2016
1. GROSS DOMESTIC PRODUCT (GDP) ($ BILLIONS)	42	4.0	4.2	4.4	4.3	5.0	3.6	4.7	N.A.	N.A.
2. GDP PRICE INDEX (2005=100)	43	1.7	1.9	2.1	1.7	2.0	1.7	2.1	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES ($ BILLIONS)	21	5.7	2.6	8.4	2.7	6.3	5.3	6.3	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	44	0.0	-0.1	-0.1	-0.1	-0.1	-0.4	-0.4	-0.5	-0.5
5. NONFARM PAYROLL EMPLOYMENT										
(PERCENT CHANGE)	38	1.5	1.4	1.5	1.6	1.5	1.5	1.6	N.A.	N.A.
(AVG MONTHLY CHANGE)	38	165.3	154.2	172.0	180.4	171.5	164.1	176.8	N.A.	N.A.
6. INDUSTRIAL PRODUCTION (2007=100)	39	3.0	3.3	3.6	3.4	3.4	2.4	3.3	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	41	9.2	14.7	13.2	22.0	23.2	24.6	20.2	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	42	0.01	0.00	0.00	0.00	0.01	0.01	0.06	0.39	1.14
9. AAA CORPORATE BOND YIELD (PERCENT)	34	0.19	0.07	0.10	0.15	0.11	0.18	0.45	N.A.	N.A.
10. BAA CORPORATE BOND YIELD (PERCENT)	33	0.23	0.02	0.14	0.09	0.12	-0.04	0.61	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	42	0.19	0.10	0.14	0.16	0.16	0.30	0.50	0.65	0.50
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	45	2.1	2.3	2.6	2.5	2.7	1.9	2.8	2.9	3.0
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	43	1.6	1.9	2.3	2.4	2.7	1.9	2.4	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	41	3.4	5.5	6.7	6.1	5.3	4.7	6.0	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	41	12.9	13.4	12.9	13.1	15.2	13.4	12.2	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	40	-0.0	-0.6	0.0	-2.0	-1.1	-2.2	-0.9	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	40	-0.4	-0.0	0.4	0.8	-0.0	-0.2	0.6	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	40	16.9	4.2	2.6	1.3	0.0	-2.1	2.0	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	41	-0.3	0.1	-5.8	-1.1	1.9	-0.7	-2.5	N.A.	N.A.

NOTE: FIGURES FOR UNEMPLOYMENT RATE, TREASURY BILL RATE, AAA CORPORATE BOND YIELD, BAA CORPORATE BOND YIELD, AND 10-YEAR TREASURY BOND YIELD ARE CHANGES IN THESE RATES, IN PERCENTAGE POINTS.
FIGURES FOR CHANGE IN PRIVATE INVENTORIES AND NET EXPORTS ARE CHANGES IN BILLIONS OF CHAIN-WEIGHTED DOLLARS.
ALL OTHERS ARE PERCENTAGE CHANGES AT ANNUAL RATES.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA. SURVEY OF PROFESSIONAL FORECASTERS, FIRST QUARTER 2013.

TABLE THREE
MAJOR PRICE INDICATORS
MEDIANS OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL	FORECAST (Q/Q)					ACTUAL	FORECAST (Q4/Q4)		
		2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2012 ANNUAL	2013 ANNUAL	2014 ANNUAL	2015 ANNUAL
1. CONSUMER PRICE INDEX (ANNUAL RATE)	43	2.1	1.8	2.1	2.1	2.1	2.1	1.9	2.0	2.2	2.3
2. CORE CONSUMER PRICE INDEX (ANNUAL RATE)	41	1.6	1.8	2.0	2.0	2.0	2.0	1.9	1.9	2.1	2.2
3. PCE PRICE INDEX (ANNUAL RATE)	38	1.2	1.4	1.9	1.9	1.9	2.0	1.5	1.8	2.0	2.0
4. CORE PCE PRICE INDEX (ANNUAL RATE)	39	0.9	1.4	1.7	1.8	1.7	1.8	1.5	1.6	1.9	1.9

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA. SURVEY OF PROFESSIONAL FORECASTERS, FIRST QUARTER 2013.

TABLE FOUR
ESTIMATED PROBABILITY OF DECLINE IN REAL GDP

ESTIMATED PROBABILITY (CHANCES IN 100)	Q4 2012 TO Q1 2013	Q1 2013 TO Q2 2013	Q2 2013 TO Q3 2013	Q3 2013 TO Q4 2013	Q4 2013 TO Q1 2014
			NUMBER OF FORECASTERS		
10 OR LESS	22	12	13	21	22
11 TO 20	8	16	22	15	15
21 TO 30	8	9	5	4	2
31 TO 40	2	4	1	1	2
41 TO 50	1	0	0	0	0
51 TO 60	0	0	0	0	0
61 TO 70	0	0	0	0	0
71 TO 80	0	0	0	0	0
81 TO 90	0	0	0	0	0
91 AND OVER	0	0	0	0	0
NOT REPORTING	5	5	5	5	5
MEAN AND MEDIAN					
MEDIAN PROBABILITY	10.00	16.00	15.00	10.00	10.00
MEAN PROBABILITY	15.32	17.99	15.21	13.64	13.16

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 41.
SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA.
SURVEY OF PROFESSIONAL FORECASTERS, FIRST QUARTER 2013.

TABLE FIVE
MEAN PROBABILITIES

MEAN PROBABILITY ATTACHED TO POSSIBLE
CIVILIAN UNEMPLOYMENT RATES:
(ANNUAL AVERAGE)

	2013	2014	2015	2016
11.0 PERCENT OR MORE	0.00	0.13	0.16	0.00
10.0 TO 10.9 PERCENT	0.01	0.15	0.18	0.18
9.5 TO 9.9 PERCENT	0.18	0.16	0.19	0.20
9.0 TO 9.4 PERCENT	0.50	0.44	0.42	0.41
8.5 TO 8.9 PERCENT	2.98	1.88	1.10	0.87
8.0 TO 8.4 PERCENT	18.35	9.38	6.04	4.78
7.5 TO 7.9 PERCENT	52.04	29.59	13.34	9.92
7.0 TO 7.4 PERCENT	21.85	35.30	28.55	20.28
6.0 TO 6.9 PERCENT	3.96	20.31	38.03	42.74
LESS THAN 6.0 PERCENT	0.13	2.68	11.98	20.60

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN REAL GDP:
(ANNUAL-AVERAGE OVER ANNUAL-AVERAGE)

	2012-2013	2013-2014	2014-2015	2015-2016
6.0 OR MORE	0.02	0.21	0.62	0.45
5.0 TO 5.9	0.14	1.38	2.84	2.15
4.0 TO 4.9	1.74	6.08	9.38	8.19
3.0 TO 3.9	10.12	22.28	25.24	26.78
2.0 TO 2.9	42.98	42.50	34.83	35.38
1.0 TO 1.9	33.35	19.65	18.85	17.59
0.0 TO 0.9	7.84	5.42	5.61	6.99
-1.0 TO -0.1	2.80	2.01	1.90	1.74
-2.0 TO -1.1	0.95	0.38	0.51	0.42
-3.0 TO -2.1	0.06	0.08	0.21	0.28
LESS THAN -3.0	0.00	0.01	0.01	0.05

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN GDP PRICE INDEX:
(ANNUAL-AVERAGE OVER ANNUAL-AVERAGE)

	2012-2013	2013-2014
8.0 OR MORE	0.00	0.00
7.0 TO 7.9	0.00	0.00
6.0 TO 6.9	0.00	0.02
5.0 TO 5.9	0.11	0.13
4.0 TO 4.9	0.82	2.00
3.0 TO 3.9	5.23	8.98
2.0 TO 2.9	35.89	44.02
1.0 TO 1.9	49.34	36.90
0.0 TO 0.9	7.84	7.07
WILL DECLINE	0.78	0.86

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA.
SURVEY OF PROFESSIONAL FORECASTERS, FIRST QUARTER 2013.

TABLE SIX
MEAN PROBABILITY OF CORE CPI AND CORE PCE INFLATION (Q4/Q4)

MEAN PROBABILITY ATTACHED TO CORE CPI INFLATION:

	12Q4 TO 13Q4	13Q4 TO 14Q4
4 PERCENT OR MORE	0.05	0.35
3.5 TO 3.9 PERCENT	0.50	0.73
3.0 TO 3.4 PERCENT	2.86	5.60
2.5 TO 2.9 PERCENT	10.27	15.55
2.0 TO 2.4 PERCENT	30.49	32.55
1.5 TO 1.9 PERCENT	40.36	31.51
1.0 TO 1.4 PERCENT	12.94	10.29
0.5 TO 0.9 PERCENT	1.77	2.62
0.0 TO 0.4 PERCENT	0.34	0.53
WILL DECLINE	0.42	0.28

MEAN PROBABILITY ATTACHED TO CORE PCE INFLATION:

	12Q4 TO 13Q4	13Q4 TO 14Q4
4 PERCENT OR MORE	0.00	0.03
3.5 TO 3.9 PERCENT	0.29	0.37
3.0 TO 3.4 PERCENT	2.14	3.01
2.5 TO 2.9 PERCENT	6.46	11.40
2.0 TO 2.4 PERCENT	26.68	31.74
1.5 TO 1.9 PERCENT	41.32	35.88
1.0 TO 1.4 PERCENT	18.51	13.26
0.5 TO 0.9 PERCENT	3.97	3.25
0.0 TO 0.4 PERCENT	0.52	0.70
WILL DECLINE	0.10	0.36

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA.
SURVEY OF PROFESSIONAL FORECASTERS, FIRST QUARTER 2013.

TABLE SEVEN
LONG-TERM (5-YEAR AND 10-YEAR) FORECASTS

ANNUAL AVERAGE OVER THE NEXT 5 YEARS: 2013-2017

CPI INFLATION RATE		PCE INFLATION RATE	
MINIMUM	0.60	MINIMUM	0.61
LOWER QUARTILE	2.00	LOWER QUARTILE	1.80
MEDIAN	2.30	MEDIAN	2.00
UPPER QUARTILE	2.50	UPPER QUARTILE	2.30
MAXIMUM	3.10	MAXIMUM	2.80
MEAN	2.24	MEAN	2.01
STD. DEVIATION	0.45	STD. DEVIATION	0.41
N	40	N	38
MISSING	6	MISSING	8

ANNUAL AVERAGE OVER THE NEXT 10 YEARS: 2013-2022

CPI INFLATION RATE		PCE INFLATION RATE	
MINIMUM	0.97	MINIMUM	0.99
LOWER QUARTILE	2.05	LOWER QUARTILE	1.90
MEDIAN	2.30	MEDIAN	2.00
UPPER QUARTILE	2.60	UPPER QUARTILE	2.40
MAXIMUM	3.50	MAXIMUM	3.00
MEAN	2.33	MEAN	2.12
STD. DEVIATION	0.45	STD. DEVIATION	0.40
N	39	N	37
MISSING	7	MISSING	9

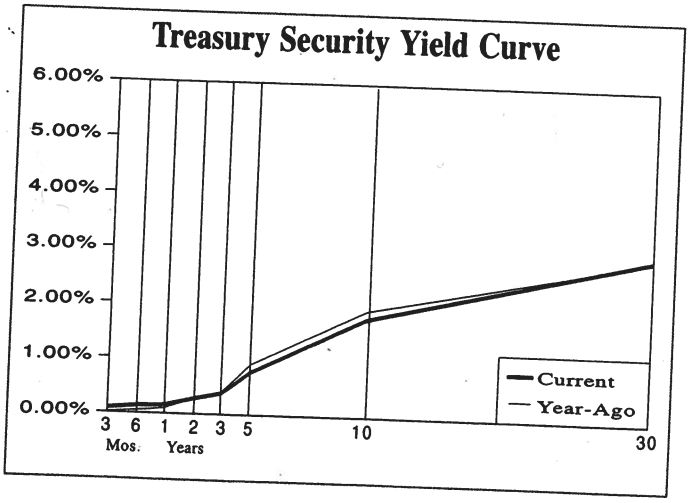
REAL GDP GROWTH RATE		PRODUCTIVITY GROWTH RATE	
MINIMUM	1.75	MINIMUM	0.90
LOWER QUARTILE	2.43	LOWER QUARTILE	1.50
MEDIAN	2.50	MEDIAN	1.80
UPPER QUARTILE	2.80	UPPER QUARTILE	2.20
MAXIMUM	3.50	MAXIMUM	3.00
MEAN	2.57	MEAN	1.86
STD. DEVIATION	0.35	STD. DEVIATION	0.51
N	37	N	30
MISSING	9	MISSING	16

STOCK RETURNS (S&P 500)		BOND RETURNS (10-YEAR)		BILL RETURNS (3-MONTH)	
MINIMUM	4.00	MINIMUM	1.90	MINIMUM	0.50
LOWER QUARTILE	5.05	LOWER QUARTILE	2.75	LOWER QUARTILE	1.80
MEDIAN	6.13	MEDIAN	3.83	MEDIAN	2.40
UPPER QUARTILE	6.95	UPPER QUARTILE	4.30	UPPER QUARTILE	2.85
MAXIMUM	10.00	MAXIMUM	7.00	MAXIMUM	4.25
MEAN	6.15	MEAN	3.70	MEAN	2.46
STD. DEVIATION	1.58	STD. DEVIATION	1.32	STD. DEVIATION	0.98
N	24	N	26	N	25
MISSING	22	MISSING	20	MISSING	21

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA.
SURVEY OF PROFESSIONAL FORECASTERS, FIRST QUARTER 2013.

Selected Yields

	Recent (12/26/12)	3 Months Ago (9/26/12)	Year Ago (12/28/11)
TAXABLE			
Market Rates			
Discount Rate	0.75	0.75	0.75
Federal Funds	0.00-0.25	0.00-0.25	0.00-0.25
Prime Rate	3.25	3.25	3.25
30-day CP (A1/P1)	0.24	0.26	0.19
3-month LIBOR	0.31	0.36	0.58
Bank CDs			
6-month	0.10	0.13	0.22
1-year	0.13	0.17	0.34
5-year	0.70	0.86	1.15
U.S. Treasury Securities			
3-month	0.08	0.09	0.01
6-month	0.13	0.13	0.05
1-year	0.15	0.17	0.10
5-year	0.77	0.64	0.91
10-year	1.77	1.63	1.92
10-year (inflation-protected)	-0.78	-0.81	-0.11
30-year	2.95	2.81	2.92
30-year Zero	3.16	2.99	3.02
Mortgage-Backed Securities			
GNMA 5.5%	1.79	0.65	1.12
FHLMC 5.5% (Gold)	2.16	1.93	2.12
FNMA 5.5%	1.82	1.64	1.99
FNMA ARM	2.17	2.25	2.37
Corporate Bonds			
Financial (10-year) A	3.06	2.98	4.17
Industrial (25/30-year) A	3.86	3.68	4.26
Utility (25/30-year) A	3.92	3.82	4.14
Utility (25/30-year) Baa/BBB	4.24	4.16	4.78
Foreign Bonds (10-Year)			
Canada	1.82	1.75	1.96
Germany	1.37	1.46	1.89
Japan	0.79	0.78	1.00
United Kingdom	1.89	1.69	2.01
Preferred Stocks			
Utility A	5.54	5.08	5.37
Financial BBB	6.20	5.93	6.71
Financial Adjustable A	5.47	5.47	5.48



	Recent (12/26/12)	3 Months Ago (9/26/12)	Year Ago (12/28/11)
TAX-EXEMPT			
Bond Buyer Indexes			
20-Bond Index (GOs)	3.64	3.72	3.92
25-Bond Index (Revs)	4.26	4.37	5.01
General Obligation Bonds (GOs)			
1-year Aaa	0.21	0.20	0.22
1-year A	0.81	0.78	1.06
5-year Aaa	0.90	0.76	0.97
5-year A	1.81	1.74	2.07
10-year Aaa	1.99	1.98	2.12
10-year A	2.85	3.10	3.23
25/30-year Aaa	3.16	3.34	3.86
25/30-year A	4.83	4.81	5.24
Revenue Bonds (Revs) (25/30-Year)			
Education AA	4.23	4.25	4.56
Electric AA	4.37	4.36	4.73
Housing AA	4.64	4.70	5.29
Hospital AA	4.49	4.45	4.87
Toll Road Aaa	4.41	4.30	4.54

Source: Bloomberg Finance L.P.

Federal Reserve Data

BANK RESERVES

(Two-Week Period; in Millions, Not Seasonally Adjusted)

	Recent Levels 12/12/12	11/28/12	Change	Average Levels Over the Last... 12 Wks.	26 Wks.	52 Wks.
Excess Reserves	1463863	1427749	36114	1424705	1448342	1475871
Borrowed Reserves	947	990	-43	1375	2768	5171
Net Free/Borrowed Reserves	1462916	1426759	36157	1423330	1445573	1470700

MONEY SUPPLY

(One-Week Period; in Billions, Seasonally Adjusted)

	Recent Levels 12/10/12	12/3/12	Change	Ann'l Growth Rates Over the Last... 3 Mos.	6 Mos.	12 Mos.
M1 (Currency+demand deposits)	2429.1	2406.2	22.9	10.1%	16.5%	11.9%
M2 (M1+savings+small time deposits)	10355.5	10300.7	54.8	10.2%	8.6%	7.9%

Source: United States Federal Reserve Bank

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U.S. Companies Jan-13

ASWATH DAMODARAN'S 2013 WACC

For Tax Year 2013

Industry Name	Number of Firms	Beta	Cost of Equity	E/(D+E)	Std Dev in Stock	Cost of Debt	Tax Rate	After-tax Cost of Debt	D/(D+E)	Pre-Tax Cost of Capital	Cost of Capital
Advertising	32	1.68	11.51%	71.00%	97.40%	4.76%	16.02%	4.00%	29.00%	9.55%	9.33%
Aerospace/Defense	66	0.98	7.45%	78.97%	44.98%	2.76%	20.08%	2.21%	21.03%	6.46%	6.35%
Air Transport	36	1.03	7.73%	62.86%	64.94%	3.26%	21.35%	2.56%	37.14%	6.07%	5.81%
Apparel	54	1.36	9.68%	87.89%	74.88%	3.76%	18.57%	3.06%	12.11%	8.96%	8.87%
Auto Parts	54	1.76	11.94%	80.41%	57.43%	3.26%	18.77%	2.65%	19.59%	10.24%	10.12%
Automotive	12	1.73	11.79%	49.16%	59.23%	3.26%	16.24%	2.73%	50.84%	7.45%	7.18%
Bank	416	0.77	6.24%	43.82%	50.34%	3.26%	16.39%	2.73%	56.18%	4.57%	4.27%
Bank (Midwest)	68	0.89	6.95%	66.73%	36.37%	2.76%	20.99%	2.18%	33.27%	5.56%	5.36%
Beverage	35	0.95	7.26%	81.78%	47.17%	2.76%	18.82%	2.24%	18.22%	6.44%	6.34%
Biotechnology	214	1.23	8.89%	86.27%	79.99%	3.76%	2.98%	3.65%	13.73%	8.19%	8.17%
Building Materials	43	1.57	10.87%	60.52%	79.76%	3.76%	9.48%	3.40%	39.48%	8.06%	7.92%
Cable TV	20	1.40	9.90%	60.20%	40.45%	2.76%	21.23%	2.17%	39.80%	7.06%	6.82%
Chemical (Basic)	18	1.37	9.73%	80.17%	39.24%	2.76%	21.89%	2.16%	19.83%	8.34%	8.22%
Chemical (Diversified)	33	1.55	10.75%	85.70%	49.02%	2.76%	19.75%	2.21%	14.30%	9.61%	9.53%
Chemical (Specialty)	70	1.18	8.59%	82.97%	62.90%	3.26%	15.35%	2.76%	17.03%	7.68%	7.59%
Coal	20	1.47	10.28%	59.39%	56.54%	3.26%	11.27%	2.89%	40.61%	7.43%	7.28%
Computer Software	191	0.98	7.42%	93.85%	68.39%	3.76%	12.43%	3.29%	6.15%	7.19%	7.16%
Computers/Peripherals	81	1.37	9.68%	91.16%	81.83%	4.26%	10.01%	3.83%	8.84%	9.20%	9.16%
Diversified Co.	113	1.22	8.82%	55.96%	60.46%	3.26%	17.18%	2.70%	44.04%	6.37%	6.13%
Drug	223	1.08	8.00%	87.11%	80.68%	4.26%	5.14%	4.04%	12.89%	7.52%	7.49%
E-Commerce	64	1.05	7.86%	93.69%	80.60%	4.26%	10.52%	3.81%	6.31%	7.64%	7.61%
Educational Services	33	0.91	7.01%	80.17%	83.08%	4.26%	21.72%	3.33%	19.83%	6.47%	6.28%
Electric Util. (Central)	20	0.57	5.08%	54.05%	17.29%	2.26%	30.12%	1.58%	45.95%	3.79%	3.47%
Electric Utility (East)	17	0.43	4.24%	59.56%	13.21%	2.26%	33.49%	1.50%	40.44%	3.44%	3.13%
Electric Utility (West)	15	0.58	5.14%	55.13%	14.19%	2.26%	29.09%	1.60%	44.87%	3.85%	3.55%
Electrical Equipment	64	1.43	10.03%	89.06%	67.79%	3.76%	16.15%	3.15%	10.94%	9.34%	9.28%
Electronics	123	1.22	8.81%	81.66%	74.24%	3.76%	11.31%	3.33%	18.34%	7.88%	7.81%
Engineering & Const	30	1.28	9.19%	88.32%	46.03%	2.76%	25.00%	2.07%	11.68%	8.44%	8.36%
Entertainment	76	1.60	11.05%	74.70%	70.99%	3.76%	12.56%	3.29%	25.30%	9.21%	9.09%
Entertainment Tech	42	1.11	8.20%	89.65%	53.25%	3.26%	11.01%	2.90%	10.35%	7.69%	7.66%
Environmental	84	0.66	5.62%	69.89%	79.24%	3.76%	7.60%	3.47%	30.11%	5.06%	4.97%
Financial Svcs. (Div.)	256	1.34	9.53%	32.85%	55.15%	3.26%	16.23%	2.73%	67.15%	5.32%	4.96%
Food Processing	119	0.87	6.83%	80.97%	52.26%	3.26%	21.63%	2.55%	19.03%	6.15%	6.02%
Foreign Electronics	10	1.10	8.13%	68.63%	31.24%	2.76%	23.12%	2.12%	31.37%	6.44%	6.24%
Funeral Services	6	1.12	8.26%	66.90%	26.75%	2.76%	28.66%	1.97%	33.10%	6.44%	6.17%
Furn/Home Furnishings	32	1.63	11.20%	81.93%	55.60%	3.26%	16.69%	2.72%	18.07%	9.76%	9.67%
Healthcare Information	20	0.97	7.36%	89.59%	44.41%	2.76%	20.31%	2.20%	10.41%	6.88%	6.82%
Heavy Truck & Equip	23	1.80	12.22%	67.89%	55.26%	3.26%	22.74%	2.52%	32.11%	9.34%	9.10%
Homebuilding	22	1.55	10.73%	66.86%	66.75%	3.76%	7.12%	3.49%	33.14%	8.42%	8.33%
Hotel/Gaming	57	1.65	11.33%	69.09%	55.66%	3.26%	17.52%	2.69%	30.91%	8.84%	8.66%
Household Products	27	0.98	7.42%	84.67%	50.86%	3.26%	24.66%	2.46%	15.33%	6.78%	6.66%
Human Resources	25	1.38	9.76%	90.25%	51.64%	3.26%	26.61%	2.39%	9.75%	9.12%	9.04%
Industrial Services	136	0.97	7.38%	73.23%	57.24%	3.26%	20.19%	2.60%	26.77%	6.27%	6.10%
Information Services	28	1.25	9.00%	77.85%	48.75%	2.76%	18.33%	2.25%	22.15%	7.62%	7.50%
Insurance (Life)	32	1.44	10.11%	64.16%	42.20%	2.76%	21.09%	2.18%	35.84%	7.47%	7.27%
Insurance (Prop/Cas.)	62	0.85	6.69%	82.32%	28.57%	2.76%	10.73%	2.46%	17.68%	6.00%	5.95%
Internet	194	1.17	8.56%	97.76%	97.81%	4.76%	8.43%	4.36%	2.24%	8.47%	8.47%
Investment Companies	31	1.27	9.11%	92.98%	24.10%	2.26%	2.26%	2.21%	7.02%	8.63%	8.63%
IT Services	63	1.05	7.83%	94.59%	56.11%	3.26%	16.27%	2.73%	5.41%	7.58%	7.55%
Machinery	94	1.26	9.07%	85.19%	45.07%	2.76%	22.73%	2.13%	14.81%	8.14%	8.05%
Maritime	51	1.51	10.53%	35.56%	62.52%	3.26%	7.92%	3.00%	64.44%	5.85%	5.68%

U.S. Companies

Jan-13

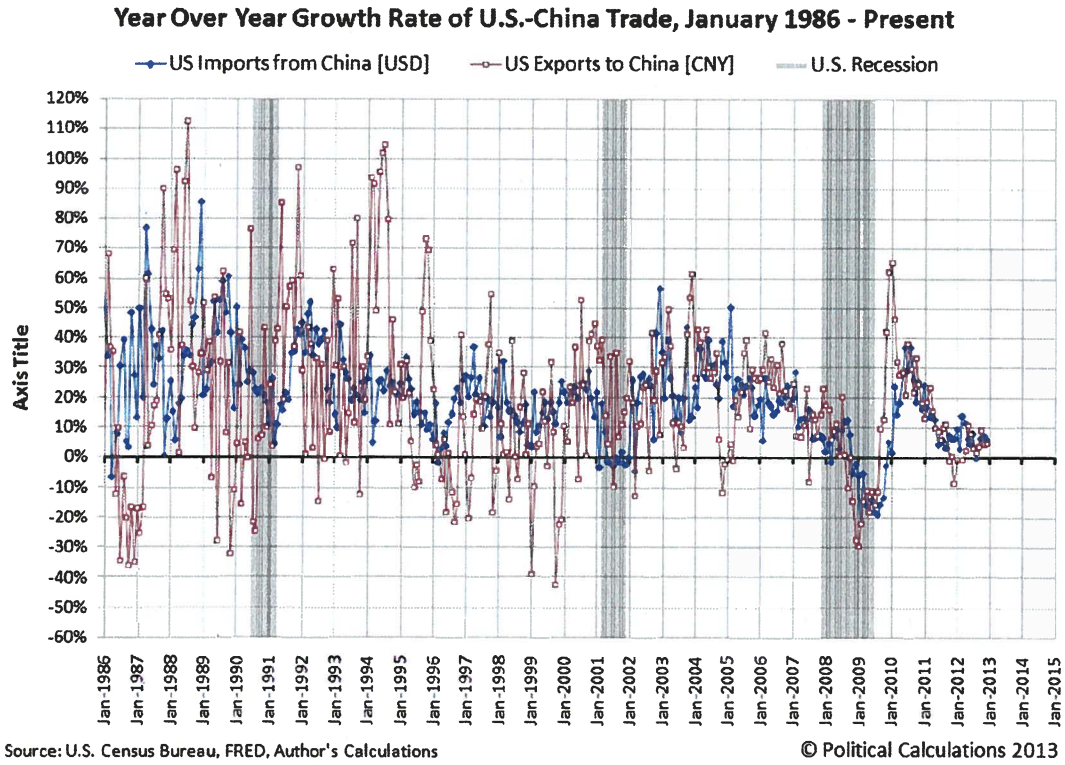
ASWATH DAMODARAN'S 2013 WACC

For Tax Year 2013

Med Supp Invasive	87	0.87	6.78%	85.85%	55.49%	3.26%	12.60%	2.85%	14.15%	6.29%	6.23%
Med Supp Non-Invasive	143	1.07	7.94%	88.58%	67.73%	3.76%	10.61%	3.36%	11.42%	7.47%	7.42%
Medical Services	118	0.84	6.62%	66.56%	74.16%	3.76%	17.72%	3.09%	33.44%	5.66%	5.44%
Metal Fabricating	25	1.63	11.19%	80.91%	60.59%	3.26%	23.30%	2.50%	19.09%	9.67%	9.53%
Metals & Mining (Div.)	77	1.62	11.14%	86.64%	93.05%	4.76%	11.24%	4.23%	13.36%	10.29%	10.22%
Natural Gas (Div.)	31	1.28	9.16%	70.88%	44.57%	2.76%	22.02%	2.15%	29.12%	7.29%	7.12%
Natural Gas Utility	27	0.46	4.40%	60.18%	28.44%	2.76%	28.80%	1.97%	39.82%	3.75%	3.43%
Newspaper	14	1.86	12.56%	71.79%	54.39%	3.26%	18.35%	2.66%	28.21%	9.93%	9.77%
Office Equip/Supplies	22	1.43	10.03%	58.09%	51.92%	3.26%	22.66%	2.52%	41.91%	7.19%	6.88%
Oil/Gas Distribution	12	1.02	7.65%	65.19%	35.63%	2.76%	18.11%	2.26%	34.81%	5.95%	5.77%
Oilfield Svcs/Equip.	81	1.66	11.39%	78.30%	59.58%	3.26%	18.20%	2.67%	21.70%	9.63%	9.50%
Packaging & Container	27	1.20	8.72%	64.03%	36.52%	2.76%	23.09%	2.12%	35.97%	6.58%	6.35%
Paper/Forest Products	32	1.37	9.73%	69.93%	52.28%	3.26%	11.43%	2.89%	30.07%	7.78%	7.67%
Petroleum (Integrated)	26	1.17	8.55%	83.01%	47.25%	2.76%	30.34%	1.92%	16.99%	7.56%	7.42%
Petroleum (Producing)	176	1.45	10.18%	78.05%	71.26%	3.76%	11.71%	3.32%	21.95%	8.77%	8.68%
Pharmacy Services	18	1.17	8.53%	84.12%	42.23%	2.76%	23.18%	2.12%	15.88%	7.62%	7.51%
Pipeline MLPs	53	0.74	6.05%	69.27%	24.88%	2.26%	4.30%	2.16%	30.73%	4.89%	4.86%
Power	101	1.35	9.61%	37.96%	84.63%	4.26%	6.19%	4.00%	62.04%	6.29%	6.13%
Precious Metals	83	1.03	7.75%	87.99%	77.77%	3.76%	11.13%	3.34%	12.01%	7.27%	7.22%
Precision Instrument	82	1.27	9.12%	82.50%	60.11%	3.26%	14.13%	2.80%	17.50%	8.09%	8.01%
Property Management	31	1.30	9.30%	47.04%	50.63%	3.26%	16.50%	2.72%	52.96%	6.10%	5.82%
Public/Private Equity	12	2.02	13.48%	77.68%	42.00%	2.76%	19.17%	2.23%	22.32%	11.08%	10.97%
Publishing	29	1.17	8.56%	73.45%	65.72%	3.76%	22.69%	2.91%	26.55%	7.28%	7.06%
R.E.I.T.	127	1.43	10.04%	72.99%	34.76%	2.76%	0.04%	2.76%	27.01%	8.07%	8.07%
Railroad	12	1.32	9.40%	81.00%	35.73%	2.76%	28.60%	1.97%	19.00%	8.14%	7.99%
Recreation	51	1.45	10.14%	72.59%	52.30%	3.26%	20.31%	2.60%	27.41%	8.26%	8.08%
Reinsurance	11	0.82	6.49%	84.10%	20.74%	2.26%	3.58%	2.18%	15.90%	5.82%	5.80%
Restaurant	65	1.16	8.48%	88.38%	50.92%	3.26%	19.23%	2.63%	11.62%	7.87%	7.80%
Retail (Hardlines)	79	1.79	12.14%	79.36%	63.49%	3.26%	22.55%	2.52%	20.64%	10.30%	10.15%
Retail (Softlines)	42	1.43	10.05%	94.71%	42.54%	2.76%	25.57%	2.05%	5.29%	9.66%	9.63%
Retail Automotive	19	1.39	9.82%	69.29%	64.20%	3.26%	32.69%	2.19%	30.71%	7.80%	7.48%
Retail Building Supply	10	1.11	8.22%	89.51%	31.82%	2.76%	25.56%	2.05%	10.49%	7.65%	7.57%
Retail Store	38	1.29	9.26%	79.63%	63.15%	3.26%	24.83%	2.45%	20.37%	8.04%	7.87%
Retail/Wholesale Food	30	0.68	5.69%	74.16%	29.93%	2.76%	31.18%	1.90%	25.84%	4.93%	4.71%
Securities Brokerage	27	1.07	7.95%	27.43%	40.56%	2.76%	30.41%	1.92%	72.57%	4.18%	3.57%
Semiconductor	142	1.49	10.41%	90.86%	53.65%	3.26%	11.71%	2.88%	9.14%	9.76%	9.72%
Semiconductor Equip	10	1.79	12.16%	85.48%	40.44%	2.76%	15.21%	2.34%	14.52%	10.80%	10.73%
Shoe	17	1.26	9.09%	98.10%	47.32%	2.76%	19.89%	2.21%	1.90%	8.97%	8.96%
Steel	33	1.65	11.32%	64.02%	45.66%	2.76%	24.24%	2.09%	35.98%	8.24%	8.00%
Telecom. Equipment	105	1.07	7.96%	88.25%	64.86%	3.26%	14.01%	2.80%	11.75%	7.41%	7.35%
Telecom. Services	76	1.15	8.43%	75.86%	64.04%	3.26%	16.22%	2.73%	24.14%	7.18%	7.05%
Telecom. Utility	23	0.92	7.08%	48.02%	43.85%	2.76%	26.94%	2.02%	51.98%	4.84%	4.45%
Thrift	170	0.68	5.68%	83.68%	41.73%	2.76%	15.84%	2.32%	16.32%	5.21%	5.13%
Tobacco	11	0.86	6.75%	84.13%	36.44%	2.76%	32.82%	1.85%	15.87%	6.12%	5.97%
Toiletries/Cosmetics	14	1.17	8.52%	82.90%	40.10%	2.76%	27.33%	2.01%	17.10%	7.53%	7.41%
Trucking	34	1.09	8.08%	70.26%	48.32%	2.76%	25.94%	2.04%	29.74%	6.50%	6.28%
Water Utility	11	0.49	4.61%	57.74%	37.24%	2.76%	31.45%	1.89%	42.26%	3.83%	3.46%
Wireless Networking	58	1.35	9.62%	79.57%	62.91%	3.26%	10.06%	2.93%	20.43%	8.32%	8.25%
Total Market	**6177**	**1.17**	**8.53%**	**69.97%**	**59.15%**	**3.26%**	**14.93%**	**2.77%**	**30.03%**	**6.95%**	**6.80%**

S&P GICS Composite 1500 Valuations as of 12/31/12

	Earnings % Change		P/E Ratios			P/Es Rel. to the S&P 1500			Proj. 5-Yr %	2013e P/E to	Div'd
	2012e	2013e	2012e	2013e	5 Yr Avg	2012e	2013e	5 Yr Avg	G. Rate	G. Rate	Yield
S&P GICS Composite 1500	**3.8**	**14.4**	**14.8**	**12.9**	**15.1**	**1.0**	**1.0**	**1.0**	**10.8**	**1.2**	**2.2**
S&P 500	3.1	13.5	14.3	12.6	14.6	1.0	1.0	1.0	10.6	1.2	2.3
S&P 400	10.0	19.5	18.4	15.4	19.1	1.2	1.2	1.3	12.7	1.2	1.5
S&P 600	9.4	32.4	21.2	16.0	21.2	1.4	1.2	1.4	13.5	1.2	1.7
Consumer Discretionary	**8.0**	**15.4**	**17.3**	**15.0**	**17.9**	**1.2**	**1.2**	**1.2**	**15.3**	**1.0**	**1.6**
Advertising	(8.7)	18.4	16.1	13.6	15.8	1.1	1.1	1.0	11.0	1.2	2.0
Apparel Retail	32.1	12.9	15.6	13.9	18.0	1.1	1.1	1.2	13.1	1.1	1.4
Apparel, Accessories & Luxury Goods	11.6	17.3	17.4	14.8	18.9	1.2	1.1	1.3	14.4	1.0	1.1
Auto Parts & Equipment	(11.0)	22.2	14.9	12.2	13.7	1.0	0.9	0.9	15.4	0.8	1.8
Automobile Manufacturers	(32.3)	10.4	9.5	8.6	6.9	0.6	0.7	0.5	6.5	1.3	1.5
Automotive Retail	12.7	12.4	16.4	14.5	18.0	1.1	1.1	1.2	15.2	1.0	0.1
Broadcasting	21.8	14.5	17.1	15.0	20.7	1.2	1.2	1.4	14.8	1.0	0.8
Cable & Satellite	24.0	11.4	15.9	14.3	18.7	1.1	1.1	1.2	14.5	1.0	2.6
Casinos & Gaming	11.5	20.8	19.1	15.8	21.4	1.3	1.2	1.4	16.2	1.0	4.5
Computer & Electronics Retail	(24.7)	7.3	7.2	6.7	5.8	0.5	0.5	0.4	1.0	6.7	4.1
Consumer Electronics	29.3	8.7	13.6	12.5	16.6	0.9	1.0	1.1	11.7	1.1	3.1
Department Stores	9.2	25.6	14.0	11.2	13.9	0.9	0.9	0.9	12.9	0.9	2.1
Distributors	14.1	11.4	18.2	16.3	20.4	1.2	1.3	1.4	12.9	1.3	1.8
Education Services	(41.5)	(16.6)	8.0	9.6	5.5	0.5	0.7	0.4	11.0	0.9	0.6
Footwear	(1.8)	22.7	20.8	17.0	19.6	1.4	1.3	1.3	12.6	1.3	0.7
General Merchandise Stores	4.8	9.6	13.9	12.7	14.3	0.9	1.0	1.0	13.9	0.9	1.5
Home Furnishings	25.4	18.1	19.3	16.4	21.0	1.3	1.3	1.4	16.0	1.0	1.5
Home Improvement Retail	18.5	17.9	20.9	17.8	22.8	1.4	1.4	1.5	15.8	1.1	1.8
Homebuilding	NM	83.7	35.6	19.4	64.9	2.4	1.5	4.3	14.7	1.3	0.4
Homefurnishing Retail	17.6	14.6	13.8	12.1	15.5	0.9	0.9	1.0	14.8	0.8	0.4
Hotels, Resorts & Cruise Lines	(3.3)	17.0	19.8	16.9	19.6	1.3	1.3	1.3	15.7	1.1	2.1
Household Appliances	(33.0)	26.4	14.7	11.6	11.6	1.0	0.9	0.8	10.0	1.2	1.6
Housewares & Specialties	33.4	6.2	12.1	11.4	14.7	0.8	0.9	1.0	10.3	1.1	1.9
Internet Retail	(7.8)	60.8	70.2	43.6	56.4	4.7	3.4	3.7	33.6	1.3	0.1
Leisure Facilities	12.1	16.7	18.4	15.8	20.2	1.2	1.2	1.3	15.0	1.1	0.2
Leisure Products	23.5	14.7	15.7	13.7	17.9	1.1	1.1	1.2	11.9	1.2	2.7
Motorcycle Manufacturers	10.4	20.5	17.3	14.4	18.8	1.2	1.1	1.2	13.3	1.1	1.3
Movies & Entertainment	15.0	13.4	15.3	13.5	16.6	1.0	1.0	1.1	13.1	1.0	1.5
Publishing	15.8	5.0	13.0	12.3	13.7	0.9	1.0	0.9	13.0	0.9	2.3
Restaurants	6.3	10.3	19.3	17.5	20.2	1.3	1.4	1.3	12.9	1.4	2.5
Specialized Consumer Services	(3.8)	17.4	15.0	12.7	14.1	1.0	1.0	0.9	12.4	1.0	2.4
Specialty Stores	6.1	16.8	16.0	13.7	16.7	1.1	1.1	1.1	14.1	1.0	1.5
Tires & Rubber	(9.0)	31.7	7.6	5.8	8.1	0.5	0.4	0.5	45.1	0.1	Nil
Consumer Staples	**3.6**	**9.5**	**16.4**	**15.0**	**16.8**	**1.1**	**1.2**	**1.1**	**9.4**	**1.6**	**2.8**
Agricultural Products	(13.7)	20.7	12.6	10.4	10.6	0.9	0.8	0.7	13.2	0.8	2.2
Brewers	0.1	8.7	12.8	11.8	12.5	0.9	0.9	0.8	5.5	2.2	2.6
Distillers & Vintners	(28.5)	8.1	21.5	19.9	19.3	1.5	1.5	1.3	12.0	1.7	1.2
Drug Retail	12.6	23.6	14.6	11.8	14.9	1.0	0.9	1.0	12.9	0.9	1.9
Food Distributors	(3.6)	NM	16.7	NM	16.3	1.1	NM	1.1	8.8	NM	3.0
Food Retail	4.3	8.0	15.0	13.9	15.9	1.0	1.1	1.1	13.2	1.0	1.8
Household Products	1.6	4.5	17.1	16.4	17.3	1.2	1.3	1.1	8.4	2.0	3.1
Hypermarkets & Super Centers	10.2	10.9	15.8	14.2	16.7	1.1	1.1	1.1	10.5	1.4	2.0
Packaged Foods & Meats	4.5	10.0	17.4	15.9	17.7	1.2	1.2	1.2	9.1	1.7	2.0
Personal Products	(24.6)	17.5	21.8	18.6	17.3	1.5	1.4	1.2	9.7	1.9	1.3
Soft Drinks	0.9	6.1	17.1	16.1	17.5	1.2	1.2	1.2	7.8	2.0	2.8
Tobacco	9.2	9.7	15.2	13.9	16.3	1.0	1.1	1.1	9.5	1.5	4.7
Energy	**(6.8)**	**9.2**	**12.1**	**11.1**	**12.3**	**0.8**	**0.9**	**0.8**	**6.4**	**1.7**	**2.2**
Coal & Consumable Fuels	(92.1)	(10.9)	110.8	124.3	14.8	7.5	9.6	1.0	NM	NM	1.2
Integrated Oil & Gas	(4.0)	(2.3)	9.6	9.8	10.4	0.7	0.8	0.7	1.6	6.3	2.8
Oil & Gas Drilling	7.0	28.8	12.8	10.0	12.9	0.9	0.8	0.9	19.8	0.5	1.7
Oil & Gas Equipment & Services	7.6	13.1	14.7	13.0	16.2	1.0	1.0	1.1	18.2	0.7	1.1
Oil & Gas Exploration & Production	(32.8)	84.5	24.4	13.2	15.9	1.6	1.0	1.1	5.6	2.3	1.5
Oil & Gas Refining & Marketing	63.8	(7.3)	7.1	7.7	13.5	0.5	0.6	0.9	9.0	0.9	2.3
Oil & Gas Storage & Transport	(8.9)	16.0	25.2	21.7	23.9	1.7	1.7	1.6	11.1	2.0	4.1
Financials	**4.9**	**16.5**	**14.0**	**12.0**	**14.1**	**0.9**	**0.9**	**0.9**	**10.0**	**1.2**	**2.0**
Asset Management & Custody Banks	7.6	13.9	14.0	12.3	14.2	0.9	1.0	0.9	12.1	1.0	2.3
Consumer Finance	8.7	9.7	10.7	9.7	11.9	0.7	0.8	0.8	11.1	0.9	1.1
Diversified Banks	14.4	6.6	10.3	9.7	11.8	0.7	0.7	0.8	8.9	1.1	2.7
Diversified REITs	(7.4)	(4.4)	61.2	64.0	49.1	4.1	5.0	3.3	0.1	873.3	4.0
Industrial REITs	NM	(43.5)	93.5	165.5	NM	6.3	12.8	NM	8.4	19.7	3.1



Here, a nation experiencing economic growth will tend to increase the year-over-year rate at which it imports goods from other nations to meet growing levels of demand in its domestic economy. We see that both the U.S. and China have been experiencing near-recessionary levels of sluggish economic growth in 2012, with the U.S. economy slowing and China's economy improving during much of the year.

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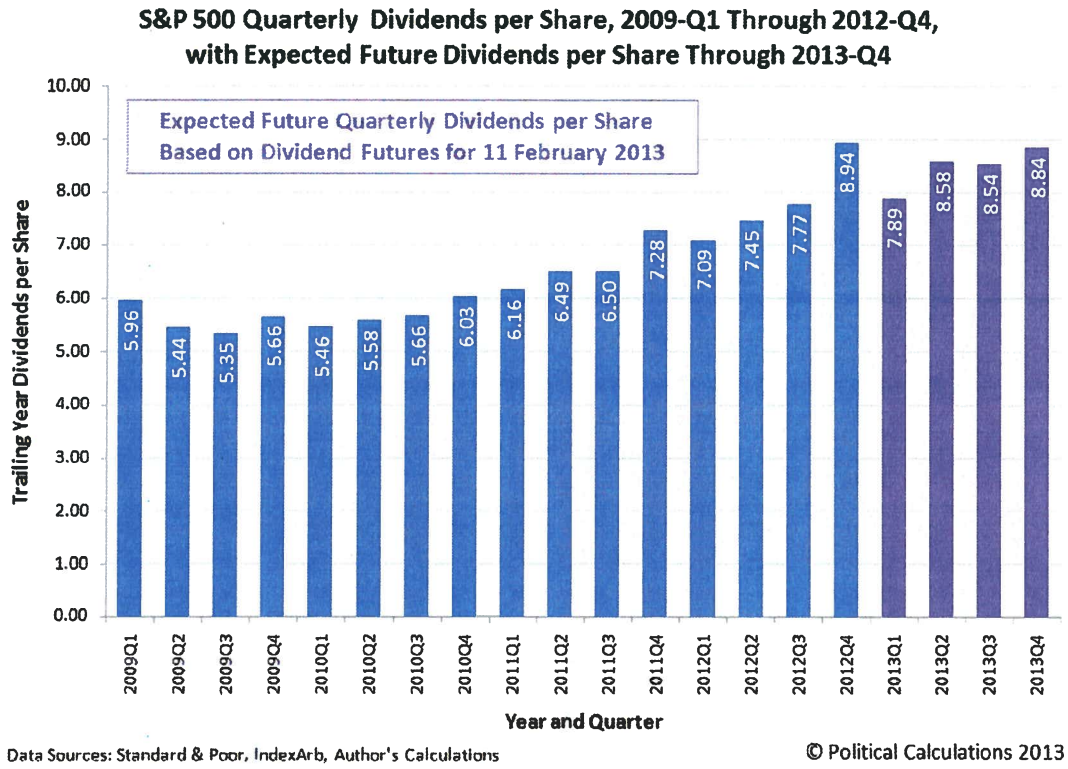
February 11, 2013

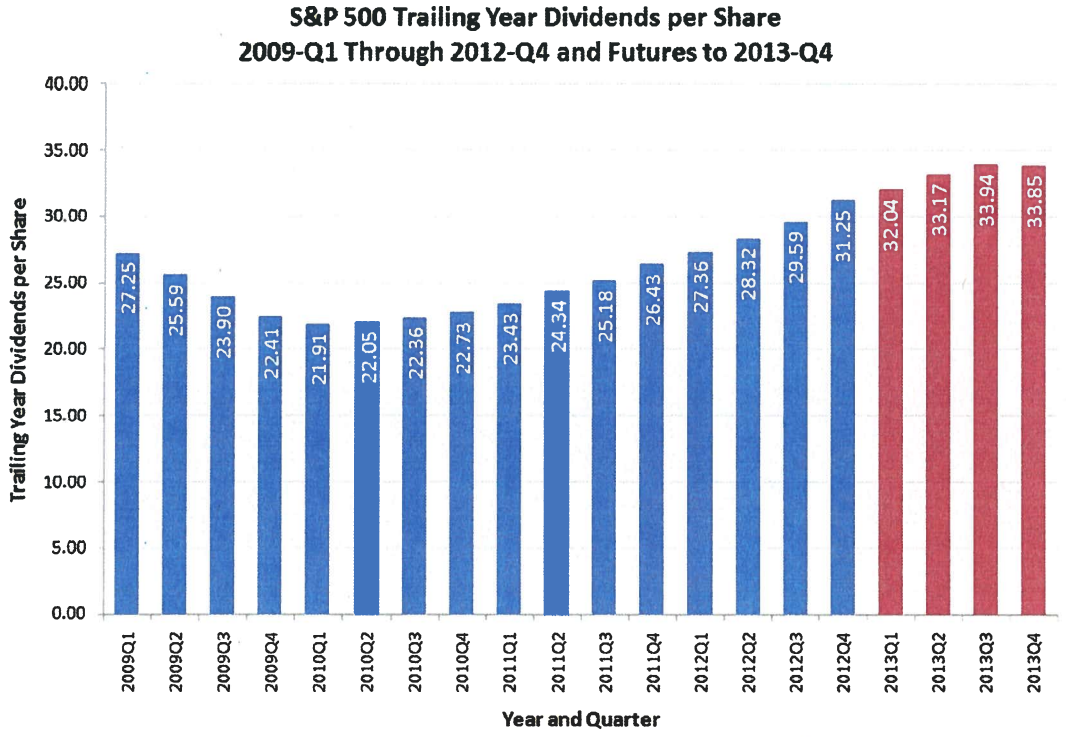
Dividends and Stock Prices: Welcome Back to the Cutting Edge

We're returning to the **cutting edge** of the physics that describes how stock prices behave today, as we look backwards and forwards in time to sort out why the U.S. stock market is behaving as it is

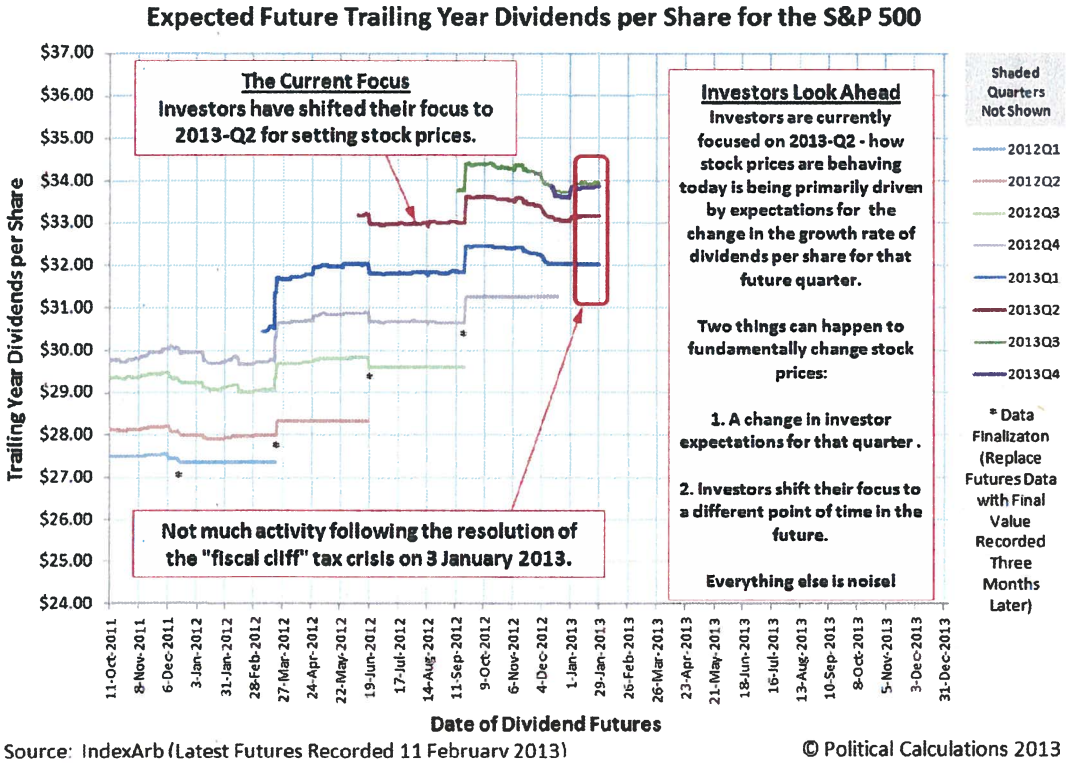
First, let's cover what's going on with the fundamental driver of stock prices: their underlying dividends per share. Our first chart shows what the dividend futures contracts reported by **IndexArb** indicate that investors are currently expecting to be paid out by S&P 500 companies in 2013:



Next, here's how those quarterly dividends per share translate into trailing year dividends per share, which stock prices more closely track:



Our next chart shows how the expected future for trailing year dividends per share has changed since 11 October 2011:

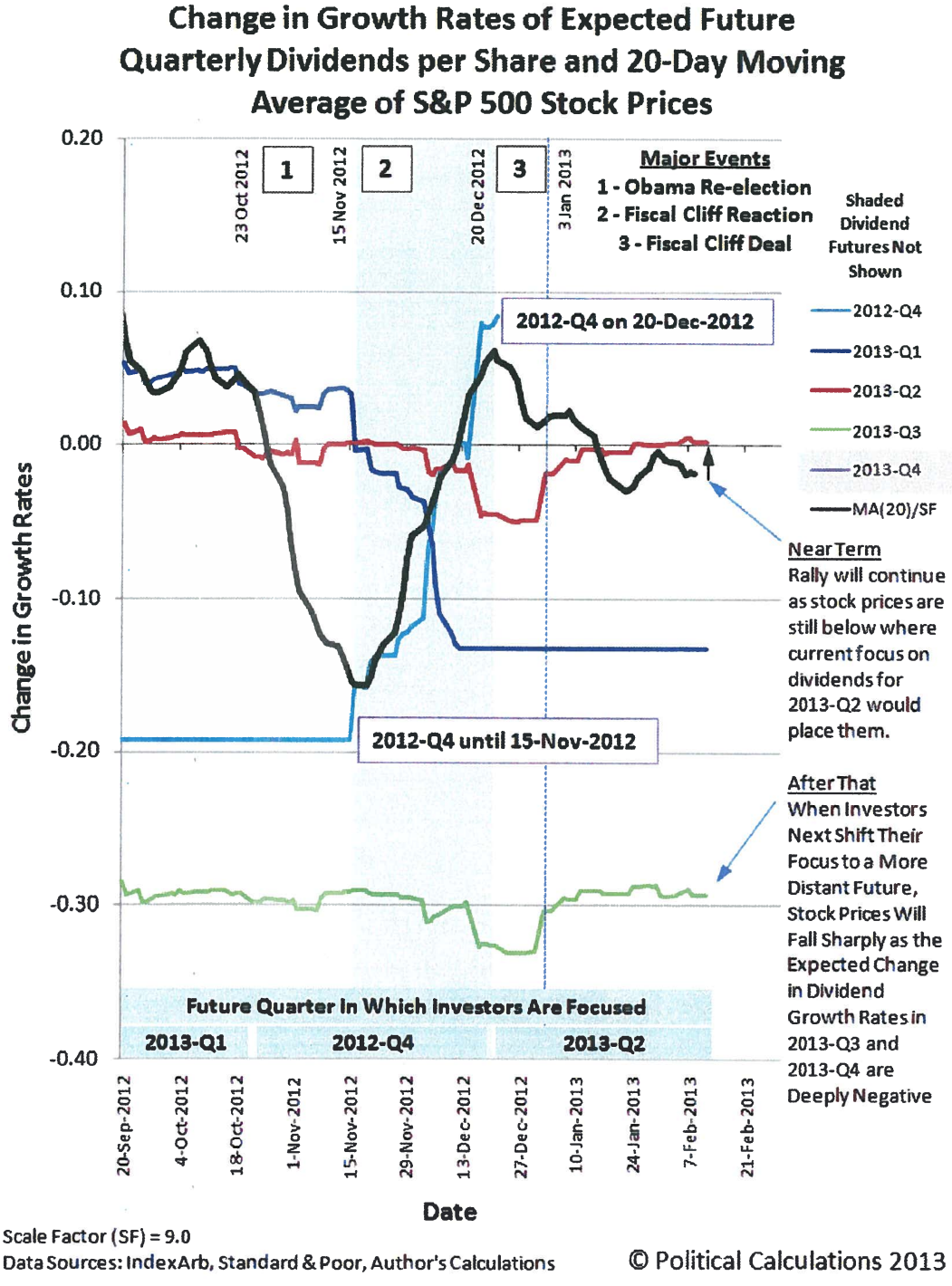


Previously, we **revealed** that changes in the growth rate of stock prices closely follow changes in the expected growth rate of their underlying dividends per share at distinct points of time in the future, or as we frequently describe it, the point in the future where investors are focusing their attention in setting stock prices today.

We then **worked out the math** by which we can use what we know of the expected future for dividends to determine how stock prices today will change.

Normally, we would show the outcome of that math in a chart that covers 10 years worth of data for the S&P 500, in which we would **perhaps animate** to illustrate the shifts in the future points of time in which investors are focusing their attention in setting stock prices.

Today, we're going to take you right to the cutting edge of what the kind of analysis we've invented here at Political Calculations can do. Our chart below, which we're presenting publicly for the first time, shows how the change in the growth rate of the 20-day moving average of stock prices (which corresponds to a month of trading activity) has evolved since 20 September 2012, when the futures contract for 2012-Q3 expired, with respect to the changes we've recorded in the growth rates of dividends per share for future quarters.



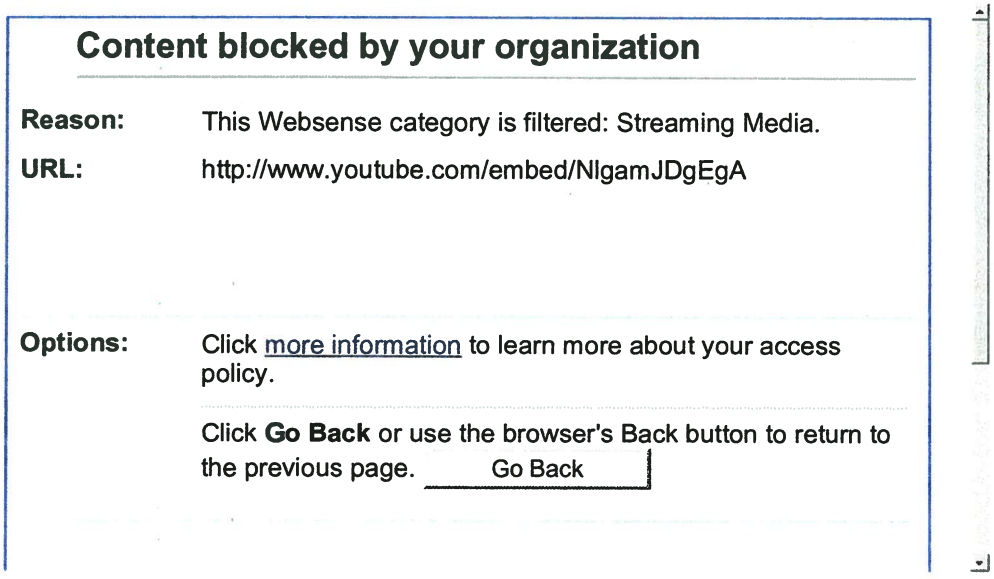
In this chart, we can determine which quarter investors are focusing their attention in setting current day stock prices by identifying the colored trend lines for a given future quarter that the black trend line for stock prices is in closest proximity. We have steadily observed over time that stock prices only deviate from the change in the growth rate of a given future quarter's dividends per share when investors when

the presence of larger than typical quantities of noise in the markets (such as we **observed** with how asset prices reacted in response to the Federal Reserve's first and second quantitative easing programs, and later with the speculative bubble that preceded Apple's announcement that it would initiate a dividend in March 2012.)

We first observe that investors were focused on the first quarter of 2013 back in September 2012, which continued through 22 October 2012.

But then, the change in the growth rate of stock prices decoupled from the expected change in the growth rate of dividends per share for that quarter, as investors suddenly shifted their focus backward to the fourth quarter of 2012 instead.

As best as we can tell, the event that forced investors to focus back upon the current fourth quarter of 2012 was President Barack Obama's **clear victory** in the third and final debate over Republican party candidate Mitt Romney on 22 October 2012. In winning the third Presidential campaign debate, investors judged that President Obama had done enough to secure his re-election and would continue his presence in office for another four years.



Elections have consequences, and in this case, the re-election of President Obama would guarantee higher taxes upon investment income far above and beyond their 2012 level, which would take effect on 1 January 2013 - even if no action were taken by either President Obama or the U.S. Congress.

With future tax rate hikes now made certain, the only question left for

the fourth quarter of 2012 came because any action that companies might take on behalf of their investors interests in avoiding the risk of exposure to President Obama's higher tax rates after the end of the year would have to be made in the current fourth quarter.

That question was never answered by President Obama, who consistently refused to take any leadership in defining how much tax rates would rise on dividends, which put a large number of influential investors at risk of seeing the tax rates on all dividends nearly triple, from 2012's level of 15% to potentially as high as 43.4% in 2013.

The last straw came on 14 November 2012, eight days after the election, when President Obama **met with the chief executive officers** of a number of large publicly-traded U.S. companies at the White House, as the President once again declined the opportunity to put a ceiling on his tax hike ambitions.

The highly-networked CEOs who attended that **ironic, symbolic White House meeting** communicated their discouragement to their peers, many of whom began to respond to the increased risk facing their company's major investors by meeting with their boards of directors and gaining approval for major changes in their company's dividend policies that would take effect before the end of the 2012.

The first companies to respond did so after the close of market trading the very next day, on 15 November 2012. For the next month, through 20 December 2012, which was the last day by which companies would be able to act to make a special or extra dividend payments to their investments before the end of the year, many S&P 500 companies acted to pull money they had been reserving to pay dividends throughout 2013, and primarily from their reserves for 2013-Q1, to pay out larger or extra dividend payments by 31 December 2012.

We can see that's exactly what happened in our chart above, where we added the dividends being pulled from each quarter in 2013 to be paid out in the fourth quarter of 2012 instead. Here, we observe that the trajectory of the change in the growth rate of stock prices closely paralleled the announced changes in dividends expected for 2012-Q4, which is what was primarily behind the beginning of the recent rally in stock prices.

After 20 December 2012, the change in the growth rate for stock prices decoupled from the change in the growth rate for 2012-Q4's dividends per share as investors shifted their focus. This time, they

the World

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Political Calculations' U.S. GDP Temperature Gauge provides a means to quickly evaluate the growth rate of the U.S. economy

The biggest change since then for expected future dividends was the 3 January 2013 **resolution** of the fiscal cliff tax crisis, which set the maximum tax rate for dividends and capital gains at 23.8%.

Type of Income	2012 Maximum Federal Tax Rate	2013 Maximum Federal Income and Medicare Tax Rate			Change (%)	
		Income[6]	Medicare[7]	Total	Rate	Percentage
Dividends						
Qualified dividend income[1]	15%	20.00%	3.80%	23.80%	8.80%	59%
Nonqualified dividend income[2]	35%	39.60%	3.80%	43.40%	8.40%	24%
Tax-exempt dividend income[3]	0%	0.00%	0.00%	0.00%	0.00%	0%
Dividends						
Long-term capital gains[4]	15%	20.00%	3.80%	23.80%	8.80%	59%
Short-term capital gains[5]	35%	39.60%	3.80%	43.40%	8.40%	24%

At present, the relative level of the change in the growth rate of stock prices with respect to the current focus of investors on 2013-Q2 indicates that the rally in stock prices will continue for a bit longer, although with less steam behind it as compared to the rally sparked by the reaction to the risk presented by fiscal cliff.

Once investors shift their gaze to a more distant future quarter however, we can expect stock prices to fall sharply, as the expected change in the growth rate of trailing year dividends per share for 2013-Q3 and 2013-Q4 are both deeply negative.

Since we don't have super powers and aren't really psychic, even though we have demonstrated an uncanny ability to predict events in the future, what we don't know yet is when investors might shift their focus away from 2013-Q2. All we can tell you is that they will do so no later than 20 June 2013.

The wild card in all this is the Fed's latest generation of quantitative easing (QE) programs, where the U.S. central bank is buying up to $85 billion per month in U.S. Treasury securities and mortgage-backed securities.

In the past, we observed that stock prices decoupled in the positive direction while the Fed operated its previous QE efforts, which we saw take effect within their first months. This time however, we're not seeing any impact on asset prices from the Fed's latest QE program. They may very well be out of gas.

We'll close with our familiar warning: "at least now, you can't say you weren't warned, while you still had time to make plans to deal with it."

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Start Date: Dec 26 2012 Eg. Jan 1, 2010

End Date: Dec 31 2012

- (•) Daily
- ( ) Weekly
- ( ) Monthly
- ( ) Dividends Only

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Prices

Date	Open	High	Low	Close	Volume	Adj Close*
Dec 31, 2012	1,402.43	1,426.74	1,398.11	1,426.19	3,204,330,000	1,426.19
Dec 28, 2012	1,418.10	1,418.10	1,401.58	1,402.43	2,426,680,000	1,402.43
Dec 27, 2012	1,419.83	1,422.80	1,401.80	1,418.10	2,830,180,000	1,418.10
Dec 26, 2012	1,426.66	1,429.42	1,416.43	1,419.83	2,285,030,000	1,419.83

* Close price adjusted for dividends and splits.

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H.15 Selected Interest Rates for Jan 22, 2013

Series Description	Market yield on U.S. Treasury securities at 1-year constant maturity, quoted on investment basis	Market yield on U.S. Treasury securities at 5-year constant maturity, quoted on investment basis	Market yield on U.S. Treasury securities at 5-year constant maturity, quoted on investment basis, inflation-indexed	Market yield on U.S. Treasury securities at 10-year constant maturity, quoted on investment basis	Market yield on U.S. Treasury securities at 10-year constant maturity, quoted on investment basis, inflation-indexed	Market yield on U.S. Treasury securities at 20-year constant maturity, quoted on investment basis	Market yield on U.S. Treasury securities at 20-year constant maturity, quoted on investment basis, inflation-indexed					
Unit:	Percent:_Per	Percent:_Per	Percent:_Per	Percent:_Per	Percent:_Per	Percent:_Per	Percent:_Per_Year					
Multiplier:	1	1	1	1	1	1	1					
Currency:	NA	NA	NA	NA	NA	NA	NA					
Unique Identifier:	H15/H15/RIF	H15/H15/RIF	H15/H15/RIFL	H15/H15/RIFI	H15/H15/RIFI	H15/H15/RIF	H15/H15/RIFLGFCY20_XII_N.WF					
Time Period	RIFLGFCY01	RIFLGFCY0!	RIFLGFCY05	RIFLGFCY10	RIFLGFCY10	RIFLGFCY2	RIFLGFCY2	Inflation on 10 year	Average	Inflation on 20 year	Average	Used in 3 stage growth Model
2012-09-07	0.17	0.64	-1.36	1.64	-0.67	2.36	0.02	2.31	2.458235	2.34	2.474118	
2012-09-14	0.18	0.68	-1.51	1.76	-0.69	2.52	0.04	2.45		2.48		
2012-09-21	0.18	0.7	-1.52	1.81	-0.73	2.6	0.04	2.54		2.56		
2012-09-28	0.17	0.65	-1.48	1.68	-0.76	2.45	0	2.44		2.45		
2012-10-05	0.17	0.63	-1.56	1.67	-0.82	2.45	-0.06	2.49		2.51		
2012-10-12	0.18	0.67	-1.54	1.71	-0.79	2.47	-0.03	2.5		2.5		
2012-10-19	0.18	0.74	-1.46	1.79	-0.7	2.55	0.04	2.49		2.51		
2012-10-26	0.19	0.78	-1.35	1.81	-0.68	2.56	0.02	2.49		2.54		
2012-11-02	0.18	0.73	-1.39	1.74	-0.75	2.49	-0.05	2.49		2.54		Average of 10 & 20 year
2012-11-09	0.19	0.68	-1.39	1.68	-0.79	2.42	-0.09	2.47		2.51		**2.466176**
2012-11-16	0.17	0.63	-1.39	1.59	-0.82	2.31	-0.14	2.41		2.45		
2012-11-23	0.17	0.68	-1.37	1.67	-0.74	2.4	-0.03	2.41		2.43		
2012-11-30	0.18	0.64	-1.37	1.63	-0.76	2.37	0	2.39		2.37		
2012-12-07	0.18	0.62	-1.44	1.62	-0.84	2.36	-0.09	2.46		2.45		
2012-12-14	0.15	0.66	-1.43	1.69	-0.79	2.44	-0.04	2.48		2.48		
2012-12-21	0.15	0.76	-1.37	1.8	-0.69	2.56	0.07	2.49		2.49		
2012-12-28	0.16	0.74	-1.36	1.76	-0.72	2.5	0.05	2.48		2.45		
2013-01-04	0.15	0.78	-1.34	1.87	-0.6	2.64	0.24	2.47		2.4		
2013-01-11	0.14	0.79	-1.38	1.9	-0.62	2.67	0.18	2.52		2.49		
2013-01-18	0.14	0.77	-1.41	1.87	-0.65	2.63	0.16	2.52		2.47		

9%. Table 5 contains the federal rate for determining the present value of an annuity, an interest for life or for a term of years, or a remainder or a reversionary interest for purposes of section 7520. Finally, Table 6 contains contains the 2013 interest rate for sections 846 and 807.

REV. RUL. 2012–31 TABLE 1

Applicable Federal Rates (AFR) for December 2012

	Period for Compounding			
	Annual	*Semiannual*	*Quarterly*	*Monthly*
		Short-term		
AFR	.24%	.24%	.24%	.24%
110% AFR	.26%	.26%	.26%	.26%
120% AFR	.29%	.29%	.29%	.29%
130% AFR	.31%	.31%	.31%	.31%
		Mid-term		
AFR	.95%	.95%	.95%	.95%
110% AFR	1.05%	1.05%	1.05%	1.05%
120% AFR	1.14%	1.14%	1.14%	1.14%
130% AFR	1.24%	1.24%	1.24%	1.24%
150% AFR	1.44%	1.43%	1.43%	1.43%
175% AFR	1.67%	1.66%	1.66%	1.65%
		Long-term		
AFR	2.40%	2.39%	2.38%	2.38%
110% AFR	2.65%	2.63%	2.62%	2.62%
120% AFR	2.89%	2.87%	2.86%	2.85%
130% AFR	3.13%	3.11%	3.10%	3.09%

REV. RUL. 2012–31 TABLE 2

Adjusted AFR for December 2012

	Period for Compounding			
	Annual	*Semiannual*	*Quarterly*	*Monthly*
Short-term adjusted AFR	.27%	.27%	27%	.27%
Mid-term adjusted AFR	.95%	.95%	.95%	.95%
Long-term adjusted AFR	2.83%	2.81%	2.80%	2.79%

REV. RUL. 2012–31 TABLE 3

Rates Under Section 382 for December 2012

Adjusted federal long-term rate for the current month	2.83%
Long-term tax-exempt rate for ownership changes during the current month (the highest of the adjusted federal long-term rates for the current month and the prior two months.)	2.87%