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WYOMING DEPARTMENT OF REVENUE  
MINERAL TAX DIVISION

CAPITALIZATION RATE  
STUDY

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MODIFIED NETBACK RATE OF RETURN

Production Year 2016

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# CAPITALIZATION RATE STUDY

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## MODIFIED NETBACK RATE OF RETURN

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### INTRODUCTION

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The capitalization rate applied to income is a means of estimating market value for properties. This capitalization rate reflects the relationship between one year's income or an annual average of several years' income and the corresponding capital value. This market value estimated by capitalizing an income is one indicator of what a willing buyer and a willing seller may consider a fair return on their investment in the open market.

The primary components of the capitalization rate are Debt, Preferred (if applicable), and Common Equity. The following data have been assembled to determine a rate of return for the Modified Netback valuation method.

The Mineral Tax Division develops its capitalization rates in accordance with WY Title 39-14-203(b)(vi)(E) and WY Title 39-14-201. As such, the capitalization rate used for all producers utilizing the Modified Netback method of valuation is derived from a calculation consisting of the highest ten producers of natural gas in the State of Wyoming.

### SOURCES OF INFORMATION AND DATA

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Source data used to compute the capitalization rates for the largest ten natural gas producers (top ten producers) was acquired from various sources:

- 1) Moody's Investor Service (February 8, 2017) and Standard & Poor's Record (February 8, 2017) provided bond ratings for the companies. In addition, the 2016 annual Debt Rates and Preferred Rates by industry grouping came from the same source.
- 2) Value Line provided statistical information. The data from Value Line included Betas, 2017 projected Annual Rates of Change in Earnings, Dividends, Book Value and Annual Total Return. Value Line also provided data for the calculation of the risk free (RF) rates; the specific weekly rates are detailed in Exhibit C of this report.
- 3) The required return on market (RM) came from the Duff & Phelps 2016 Valuation Handbook, "Guide to Cost of Capital" and is based on the arithmetic mean return realized on common stocks. This information source also supplied data used to develop the risk premium (RP) and firm size and adjustments.
- 4) The Wall Street Journal for January 3, 2017, was the source for stock prices for individual companies, as required in the Discounted Cash Flow Model and the Direct Capitalization Rates.
- 5) The Public Utility Financing Tracker provided the data for computing flotation costs.

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## CAPITAL STRUCTURE

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For appraisal purposes, capital structure has three components: long-term debt, preferred stock and net worth (or common equity or, simply, equity). It differs from financial structure, which includes other, primarily, short-term sources of capital, such as payables and operating loans. There are two primary methods of computing capital structure for appraisals - book structure and market structure. Book structure uses the relationships of the book values (i.e., accounting values) of debt, preferred and equity. Market structure uses the market values of these components. The appropriate capital structure to use in a capitalization rate study for the modified netback rate of return is the market structure of the publicly traded companies (often the parent holding companies) because it reflects the structure which a typical purchaser would probably use to acquire the operating assets of a subject company. To compute market capital structure, we used the book value of debt and preferred securities (since there usually are no material differences between book and market value for these securities), as reported in Value Line. We computed the market value of common equity by multiplying the shares outstanding by the recent price, also as reported in Value Line. The average market capital structure for the companies in the study population is as follows:

	DEBT	PREFERRED	EQUITY
Top 10 Producers	30%	0%	70%

*Table 1. Capital Structure*

These percentages will later be used to compute the cost of capital for the industry.

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## COST OF EQUITY

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The current cost of equity capital should be based on data taken from the capital markets for the top ten producers. Equity rates should reflect the representative cost of equity financing for a given industry type as of the appraisal date. There is no single commonly accepted method for making this estimate. However, there are three generally accepted methods which can be used in conjunction with each other. These include (1) the Discounted Cash Flow (DCF) model, (2) Capital Asset Pricing Model (CAPM), and (3) Risk Premium (RP) model.

**The Discounted Cash Flow Model (DCF):** This model measures the rate of return requirements of industrial stock (equity) as demonstrated by investors in the market. The basic theory of DCF is that the prices paid for a share of stock reflect the investors' discounted present values of future expected earnings/anticipated cash flows for both dividends and stock appreciation. The basic formula appears in the box to the right. The  $D_1$  variable comes from the dividend declared per share Value Line has projected for 2014.  $P_0$  is the average of the annual high and low prices of the stocks of the companies in our study. The growth factor in the

$$K_E = \frac{D_1}{P_0} + G$$

where:

$K_E$  = Cost of Capital  
 $D_1$  = Projected Dividend  
 $P_0$  = Current Stock Price  
 $G$  = Growth

model was computed using a weighted average of the growth indicators: Earnings, 1/6; Book Value, 2/6; and Dividends, 3/6. The Department looks at three computations of the DCF to determine the relative propriety of the indicator: 1) a DCF model that reduces the impact of any company for whom the projected dividend or any of the growth factors is "Nil" or "NMF" per Value Line; 2) a

DCF model which adjusts for the "Nil" and "NMF" items; and 3) a DCF model calculated on the average dividends, growth factors, and stock prices of the companies in the study group. Application of this model resulted in the equity rate shown in Table 3.

**Capital Asset Pricing Model (CAPM):** CAPM uses the concept that value is composed of a "safe rate" plus an add-on for equity risk. The market risk premium is defined as the difference between the expected rate of return in a given investment and the "risk-free rate" on government Treasury Bonds. This definition is based upon the premise that an informed investor expects to earn a greater return on his equity capital investment than he would receive from an alternative investment in risk free government bonds. Theoretically, the greater the investor's perceived risk in investment, the greater the risk premium. However, in the CAPM, the risk premium for the overall market must be adjusted by a market risk measure, "Beta", for the companies under review. The basic formula appears in the box at the right. Various versions of the CAPM take into account the different equity perceptions that prevail in the oil and gas industry, i.e. Long-Term, Intermediate, Short-Term and Corporate. Application of this formula to the various risk groups resulted in the use of the rate presented in Table 3.

$$K_E = R_F + B(R_M - R_F)$$

where:

$K_E$  = Cost of Capital  
 $R_F$  = Risk Free Rate  
 $B$  = Beta  
 $R_M$  = Return on the Market

**Risk Premium Model (RP):** This model assumes that the rate of return required by equity investors depends upon: (1) the risk-free rate of return or what investors could obtain by investing in Treasury Bonds, which have an assured rate of return guaranteed by the U.S. Government, and (2) some risk premium, or an amount of compensation above the risk-free rate required to induce investors to invest their money in a risky stock. The formula appears in the box on the right. Various versions of the Risk Premium consider the different equity perceptions that prevail in the oil and gas industry, i.e. Long-Term, Intermediate, Short-Term and Corporate.

$$K_E = R_F + R_P$$

where:

$K_E$  = Cost of Capital  
 $R_F$  = Risk Free Rate  
 $R_P$  = Risk Premium

As a matter of form, the Department calculates Long-Term, Intermediate, Short-Term and Corporate rates for both the CAPM and RP models. We then determine which rate is most appropriate for the top ten producers. The two primary considerations are the nature the operating assets and the term of debt instruments for companies within the industry. Generally speaking, the major assets of oil and gas companies have useful lives in excess of twenty years. Further, these oil and gas companies often issue debt with maturities in excess of twenty years. For these reasons, we consider the long-term rate, as shown in the table below, to be the most appropriate for the ten oil and gas companies used as a basis for the rate of return calculation.

	DCF	CAPM	RP
Top 10 Producers	3.08%	12.95%	9.66%

Table 3: Equity Rates

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## CONCLUSION REGARDING THE EQUITY RATE

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For the cost of equity, rates from the CAPM, RP model and the traditional DCF models were given consideration for the ten oil and gas companies. The resulting equity capitalization rate, adjusted for flotation cost for the top ten producers is 6.18%.

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## FLOTATION COST ADJUSTMENTS

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The costs of the various types of capital determined in the previous sections of this report consider only secondary market rates, the rates of return to be earned by the holders of the securities. These rates do not reflect any adjustment for primary costs, those costs a company incurs to raise capital initially. When a company issues new securities, it incurs legal, underwriting and accounting expenses. These expenses are known as “flotation” costs. They reduce the amount of actual proceeds the company receives from the issuance of the securities. As a result the effective required rates of return for the different types of securities are somewhat higher than the secondary rates indicate. Flotation costs are expressed as a percentage of the proceeds of the issue. To determine the true cost of capital the secondary rates must be adjusted for the flotation costs.

The objective of the flotation cost adjustment is to determine the effective rate of return for a security based on the net proceeds from the security issue. To calculate the real required rate of return for the two basic types of securities (debt and equity), we use the formulas in the box to the right. (Note: the term “equity” applies to both common and preferred stock issues.)

The formula for the debt rate requires some explanation. The reason for the income tax rate adjustment lies in the nature of flotation costs for debt issues. Under income tax law such costs are amortized and deducted to determine taxable income; however, they are not deductible to determine net operating income. Thus, the flotation cost has to be adjusted to recognize the difference between the tax treatment and the appraisal treatment of the flotation costs. There is no similar adjustment to the flotation costs for equity issues because they are not deductible for income tax purposes; the financial statements of the issuer simply reflect the net proceeds of the issue. The Department uses an income tax rate of 38% to incorporate the maximum federal corporate income tax rate of 35% plus an allowance of three percentage points for an average effective state corporate income tax rate.

*For Debt:*

$$K_A = \frac{K_B}{1 - (FC \times (1 - TR))}$$

*For Equity (Common and Preferred):*

$$K_A = \frac{K_B}{1 - FC}$$

where:

$K_A$  = Adjusted Cost of Capital

$K_B$  = Unadjusted (Base) Cost of Capital

FC = Flotation Cost as a Percentage

TR = Income Tax Rate (38%)

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## OVERALL WEIGHTED AVERAGE COST OF CAPITAL

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The Mineral Tax Division computed an overall weighted average cost of capital using the band of investment method. The basic formula appears in the box at the right. The resulting capitalization rate (also known as the discount rate) will be applied to the appropriate income stream to determine indicators of the current market value for the top ten producers. The results of this band of investment analysis for the cost of capital appear in Exhibit A.

$$K = (D \times D_R) + (P \times P_R) + (E \times E_R)$$

where:

K = Weighted Average Cost of Capital

D = Percent of Debt in Capital Structure

D<sub>R</sub> = Cost of Debt (Debt Rate)

P = Percent of Preferred in Capital Structure

P<sub>R</sub> = Cost of Preferred (Preferred Rate)

E = Percent of Equity in Capital Structure

E<sub>R</sub> = Cost of Equity (Equity Rate)

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## DIRECT CAPITALIZATION

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Direct capitalization is a valuation technique which takes a single year's income (or some other common unit of comparison) divided by a rate (or multiplied by a factor) to derive an estimate of value. This technique is often used in real estate appraisal to determine an overall or total valuation of the property. Income, whether potential gross income, effective gross income, or net operating income, is divided by the sales prices for comparable properties and the resulting ratio is then divided into the same level of income for the subject property to determine an overall valuation estimate.

This approach is not limited to various levels of income. The same concepts are used in the sales comparison approach, where various units of comparison are divided into the sales prices of comparable properties. The resulting rates (ratios) are then divided into the comparable units for the subject property to calculate an overall value.

The same procedures can be applied to ten producers. However, because direct capitalization is a comparable sales technique, it requires a higher level of comparability between the subject property (company) and the comparable than is required for yield capitalization. The process is one of identifying units of comparison, dividing such units by the sales price and applying the resulting average factor to the subject property (company). In the Direct Capitalization Study the goal is to develop value estimates for three distinct components system value: equity, preferred, and debt. This is a similar concept to the use of the Band of Investment method of rate development.

The Capitalization Rate Study lists six units of comparison for equity value from the December 2016, issue of The Value Line Investment Survey for the ten producers. All six units are shown on a per share basis for each individual company within the industry. The price per share used to compute the ratios is the same average of the 52-week highs and lows of the publicly traded prices for the preceding calendar year use in the DCF model. The resulting ratios appear in the table below. They are then divided into the appropriate figures for the subject company to obtain the estimate of value for the equity portion of the company.

	RATE
Revenue (Sales) per Share	69.84%
"Cash Flow" per Share	16.84%
Earnings per Share	17.64%
Dividends Declared per Share	2.02%
Capital Spending/Gross Equipment per Share	14.46%
Book Value per Share	62.59%

*Table 4. Direct Capitalization Rates*

It is important to emphasize that the developed value represents the value of the equity portion of the company, not the value of the item capitalized. This is because the basis for all the ratios is price per share of the common stock (or equity) of the company. After developing the equity value, the value of the preferred stock and the long-term debt must be derived directly from the market.

The market value of the preferred stock (if applicable) is obtained by dividing the preferred dividends paid by the subject company by the market preferred yield rate. This rate is found within the Capitalization Rate Study on page 2. The market value of the long-term debt is likewise found by dividing the long-term interest expense by the debt yield rate. Finally, the three portions (equity, preferred stock, and long-term debt) are added together to develop an estimate of the total value for the company.

The final step in calculating the Direct Capitalization indicator of value is to determine the market value for the operating property. It uses a factor developed in the stock and debt approach to remove non-operating property from the value of the company. Ratios that are generally utilized are the asset influence (operating assets divided by total assets), the income influence (operating income divided by total income), or an average of the two. The value of the non-operating property is thus excluded from the total valuation to determine the final value for the operating property by the Direct Capitalization approach.



# **EXHIBIT A**

## **WEIGHTED AVERAGE COST OF CAPITAL**

## Production Year 2016 Rate of Return on Investment

<u>Type of Capital</u>	<u>Cost of Capital</u>	<u>Flotation Cost</u>	<u>Adjusted Cost of Capital</u>	x	<u>Percent of Structure</u>	=	<u>Weighted Average Cost of Capital</u>
Debt	5.67%	2.12%	5.79%		30%		1.7254%
Preferred		<i>Not Applicable</i>					0.0000%
Equity	8.57%	2.70%	8.81%		70%		6.1846%
<b>Modified Netback Rate of Return</b>							<u><u>7.9100%</u></u>

# **EXHIBIT B**

## **DEBT & EQUITY INFORMATION**

Wyoming Department of Revenue  
 Netback Return on Investment Calculation  
 Debt to Equity Ratio's  
 Production Year: 2016

2016 Netback Return on Investment.xls  
 Debt - Equity

Company Name	Long Term Debt	Shares of Common Stock*	Value Line Recent Price	Value of Equity	Calculated from Source		
					Debt & Equity	Debt Equity %	
	a	b	c	d	e	f	g
Anadarko Petroleum	\$15,641,000,000	508,512,678	\$61.05	\$31,044,698,992	\$46,685,698,992	34%	66%
BP p.l.c.	\$53,300,000,000	3,153,486,000	\$34.40	\$108,479,918,400	\$161,779,918,400	33%	67%
Chesapeake Energy	\$9,022,000,000	887,389,891	\$6.36	\$5,643,799,707	\$14,665,799,707	62%	38%
Chevron Corp	\$39,462,000,000	1,887,769,320	\$110.18	\$207,994,423,678	\$247,456,423,678	16%	84%
Conoco Phillips	\$27,346,000,000	1,238,505,159	\$41.81	\$51,781,900,698	\$79,127,900,698	35%	65%
Devon Energy	\$11,000,000,000	523,600,000	\$44.90	\$23,509,640,000	\$34,509,640,000	32%	68%
EOG Resources	\$6,979,500,000	576,457,693	\$95.67	\$55,149,707,489	\$62,129,207,489	11%	89%
ExxonMobil	\$28,916,000,000	4,146,693,326	\$86.49	\$358,647,505,766	\$387,563,505,766	7%	93%
QEP Resources Inc.	\$2,019,300,000	239,557,986	\$18.09	\$4,333,603,967	\$6,352,903,967	32%	68%
WPX Energy Inc.	\$2,574,000,000	344,461,810	\$13.31	\$4,584,786,691	\$7,158,786,691	36%	64%

\* BP p.l.c is traded using American Depositary Receipt's (ADR's). An ADR represents the ownership in the shares of a foreign company trading on US financial markets. The stock of many non-US companies trades on US exchanges through the use of ADRs. ADRs enable US investors to buy shares in foreign companies without undertaking cross-border transactions. ADRs carry prices in US dollars, pay dividends in US dollars, and can be traded like the shares of US-based companies

RISK FREE RATES

**EXHIBIT C**

## Risk Free Rate for 2016 Capitalization Rates

<p>Source: 2016 Federal Reserve Bulletin monthly 30 year Treasury Bond yields with constant maturity</p>	<p>Long Term Risk Free Rate: <u>2.66%</u></p>
<p>Source: 2016 weekly Value Line Investment Survey "Selected Yields" Section, average of the annual high and low for the weekly 10 year US Treasury Securities yield rates</p>	<p>Intermediate Risk Free Rate: <u>1.97%</u></p>
<p>Source: 2016 weekly Value Line Investment Survey "Selected Yields" Section, average of the annual high and low for the weekly 5 year US Treasury Securities yield rates</p>	<p>Short Term Risk Free Rate: <u>1.50%</u></p>
<p>Source: 2016 weekly Value Line Investment Survey "Market Monitor" Selection &amp; Opinion reports, "Market Monitor" Section, average of the annual high and low for the weekly Mergent Aaa Corporate bond yield</p>	<p>Corporate Risk Free Rate: <u>3.65%</u></p>
<p>Source: Wall Street Journal, January 4, 2016 edition, "Bonds, Rates &amp; Yields" section</p>	<p>Prime Lending Rate: <u>3.75%</u></p>

DUFF & PHELPS DATA

**EXHIBIT D**

# Duff and Phelps Valuation Handbook

## Guide to Cost of Capital

### (Market Results for 1926 - 2015)

Series	Geometric Mean	Arithmetic Mean	Standard Deviation
Large Company Stocks	Total Return	10.00%	12.00%
Small Company Stocks	Total Return	12.00%	16.50%
Long-Term Corporate Bonds	Total Return	6.00%	6.30%
Long-Term Government Bonds	Total Return	5.60%	6.00%
	Income Return	5.00%	5.00%
Intermediate-Term Government Bonds	Total Return	5.20%	5.30%
	Income Return	4.40%	4.50%
U.S. Treasury Bills	Total Return	3.40%	3.50%
Inflation		2.90%	3.00%
	Equity Risk Premium	Equity Risk Premium	Equity Risk Premium
Long Term	Equity Risk Premium	12.00%	12.00%
Intermediate	Equity Risk Premium	12.00%	12.00%
Short Term	Equity Risk Premium	4.50%	3.50%
Corporate	Equity Risk Premium	5.70%	6.30%

RP Rate Calculation (Rated Companies)  
(Using Arithmetic Means)

Base:

Total return on Large Company Stocks

Risk Free Rates:

Income Return on Long-Term Government Bonds

Total Return on U.S. Treasury Bills

Total Return on Long-Term Corporate Bonds

Equity Risk Premiums

Note: This is the most recent data currently available.



LIBRARY OF RATINGS

**EXHIBIT E**

# State of Wyoming - Department of Revenue

## Capitalization Rate Study

Production Year 2016

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
COMPANY DATA													
Value Line Data													
Company Name	Standard & Poors Credit Rating	Moody's Credit Rating	Value Line Source	Capital Structure		% of Common Equity	Type of Operations (pure or diversified)	Projected Dividend Per Share (2017)	Earnings Growth Rate	Dividends Growth Rate	Book Value Growth Rate	Beta	Wall Street Journal Common Stock Price
				% of Debt	% of Preferred Stock								
12/31/2016													
Anadarko Petroleum BP p.l.c.	BBB	Ba1	Issue 12; 11/4/2016	34%	0%	66%	Diversified	\$0.20	NMF	-16.5%	3.5%	1.60	\$50.75
Chesapeake Energy	A-	A2	Issue 3; 12/2/2016	33%	0%	67%	Diversified	\$2.52	13.5%	3.0%	Nil	1.20	\$32.34
Chevron Corp	B-	Caa1	Issue 3; 12/2/2016	62%	0%	38%	Diversified	Nil	NMF	Nil	NMF	1.95	\$4.85
Conoco Phillips	AA-	Aa2	Issue 3; 12/2/2016	16%	0%	84%	Diversified	\$4.32	3.5%	2.5%	1.0%	1.15	\$97.17
Devon Energy	A-	Baa2	Issue 12; 11/4/2016	35%	0%	65%	Diversified	\$1.00	7.0%	-11.0%	-6.0%	1.35	\$42.11
EOG Resources	BBB	Ba2	Issue 3; 12/2/2016	32%	0%	68%	Diversified	\$0.24	1.0%	-16.0%	-9.5%	1.60	\$34.38
ExxonMobil	BBB+	Baa1	Issue 3; 12/2/2016	11%	0%	89%	Diversified	\$0.75	4.0%	10.5%	50.0%	1.40	\$83.26
QEP Resources Inc.	AA+	Aaa	Issue 3; 12/2/2016	7%	0%	93%	Diversified	\$3.06	5.0%	4.0%	4.5%	0.95	\$83.55
WPX Energy Inc.	BB+	B1	Issue 3; 12/2/2016	32%	0%	68%	Diversified	Nil	10.0%	Nil	NMF	1.60	\$14.83
	B+	B2	Issue 3; 12/2/2016	36%	0%	64%	Diversified	Nil	NMF	Nil	-8.0%	1.90	\$9.35
Mean				30%	0%	70%		\$1.21	6.3%	-2.4%	4.4%	1.47	\$45.26
Median				33%	0%	68%		\$1.00	5.0%	2.5%	1.0%	1.50	\$38.25
Minimum				7%	0%	38%		\$0.20	1.0%	-16.5%	-9.5%	0.95	\$4.85
Maximum				62%	0%	93%		\$4.32	13.5%	10.5%	50.0%	1.95	\$97.17

- @ - Calculation for Discounted Cash Flow (Traditional Model) is  $((i)/(n)) + (((i)^2) + (i)^3) / 6$
- - The Weighted Cap Rate is calculated using the total of all growth rates divided by the total of all weighting factors
- # - Long Term Equity Risk Premium from 2015 Duff & Phelps Valuation Handbook Guide to Cost of Capital

# State of Wyoming - Department of Revenue Capitalization Rate Study

Production Year 2016

(a)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	(v)	(w) RISK PREMIUM MODEL				(z)	
									Long-Term Risk Free Rate	Intermediate Risk Free Rate	Short-Term Risk Free Rate	Corporate Risk Premium		
12/31/2016														
Company Name	Long-Term Risk Free Rate	Long-Term Equity Risk Premium #	Intermediate Risk Free Rate	Intermediate Equity Risk Premium	Short-Term Risk Free Rate	Short-Term Equity Risk Premium	Corp. Risk Free Rate	Corp. Equity Risk Premium	Long-Term Risk Premium (o)+(p)	Intermediate Risk Premium (q)+(r)	Short-Term Risk Premium (s)+(t)	Corporate Risk Premium (u)+(v)		
Anadarko Petroleum	2.66%	7.00%	1.97%	7.50%	1.50%	8.50%	3.65%	5.70%	9.66%	9.47%	10.00%	9.35%		
BP p.l.c.	2.66%	7.00%	1.97%	7.50%	1.50%	8.50%	3.65%	5.70%	9.66%	9.47%	10.00%	9.35%		
Chesapeake Energy	2.66%	7.00%	1.97%	7.50%	1.50%	8.50%	3.65%	5.70%	9.66%	9.47%	10.00%	9.35%		
Chevron Corp	2.66%	7.00%	1.97%	7.50%	1.50%	8.50%	3.65%	5.70%	9.66%	9.47%	10.00%	9.35%		
Conoco Phillips	2.66%	7.00%	1.97%	7.50%	1.50%	8.50%	3.65%	5.70%	9.66%	9.47%	10.00%	9.35%		
Devon Energy	2.66%	7.00%	1.97%	7.50%	1.50%	8.50%	3.65%	5.70%	9.66%	9.47%	10.00%	9.35%		
EOG Resources	2.66%	7.00%	1.97%	7.50%	1.50%	8.50%	3.65%	5.70%	9.66%	9.47%	10.00%	9.35%		
ExxonMobil	2.66%	7.00%	1.97%	7.50%	1.50%	8.50%	3.65%	5.70%	9.66%	9.47%	10.00%	9.35%		
QEP Resources Inc.	2.66%	7.00%	1.97%	7.50%	1.50%	8.50%	3.65%	5.70%	9.66%	9.47%	10.00%	9.35%		
WPX Energy Inc.	2.66%	7.00%	1.97%	7.50%	1.50%	8.50%	3.65%	5.70%	9.66%	9.47%	10.00%	9.35%		
Mean														
Median														
Minimum														
Maximum														

# State of Wyoming - Department of Revenue Capitalization Rate Study

Production Year 2016

(a)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)	(ai)
	COMPANY FINANCIAL CALCULATIONS								
12/31/2016	Discounted Cash Flow								
	Capital Asset Pricing Model								
Company Name	Long-Term CAPM	Intermediate CAPM	Short-Term CAPM	Corporate CAPM	Traditional Model	Treating "Nil" as Zero	Based on Library Averages	Value Line Page Number	NYSE Ticker
	$(o)+(p)*(m)$	$(q)+(r)*(m)$	$(s)+(t)*(m)$	$(u)+(v)*(m)$	@	$(i)/(n)+(bb)$	(bb)		
Anadarko Petroleum	13.86%	13.97%	15.10%	12.77%	NMF	-6.69%	-7.08%	2401	APC
BP p.l.c.	11.06%	10.97%	11.70%	10.49%	NMF	11.54%	3.75%	502	BP
Chesapeake Energy	16.31%	16.60%	18.08%	14.77%	NMF	NMF	NMF	526	CHK
Chevron Corp	10.71%	10.60%	11.28%	10.21%	6.95%	6.61%	2.17%	505	CVX
Conoco Phillips	12.11%	12.10%	12.98%	11.35%	2.04%	-3.96%	-6.33%	2404	COP
Devon Energy	13.86%	13.97%	15.10%	12.77%	-4.64%	-10.30%	-11.00%	529	DVN
EOG Resources	12.46%	12.47%	13.40%	11.63%	21.32%	23.48%	22.58%	530	EOG
ExxonMobil	9.31%	9.10%	9.58%	9.07%	8.33%	8.00%	4.33%	506	XOM
QEP Resources Inc.	13.86%	13.97%	15.10%	12.77%	NMF	1.67%	1.67%	539	QEP
WPX Energy Inc.	15.96%	16.22%	17.65%	14.48%	NMF	-2.67%	-2.67%	543	WPX
Mean	12.95%	13.00%	14.00%	12.03%	6.80%	3.08%	0.82%		
Median	13.16%	13.22%	14.25%	12.20%	6.95%	1.67%	1.67%		
Minimum	9.31%	9.10%	9.58%	9.07%	-4.64%	-10.30%	-11.00%		
Maximum	16.31%	16.60%	18.08%	14.77%	21.32%	23.48%	22.58%		

# State of Wyoming - Department of Revenue

## Capitalization Rate Study

Production Year 2016

(a)	(aj)	(ak)	(al)	(am)	(an)	(ao)	(ap)	(aq)	(ar)	(as)	(at)	(au)
DIRECT CAPITALIZATION ANALYSIS												
Computed Equity Ratios												
Company Name	Revenue (Sales) Per Share	Cash Flow Per Share	Earnings Per Share	Dividends Declared Per Share	Capital Spending Per Share	Book Value Per Share	Revenue (Sales) Per Share	Cash Flow Per Share	Earnings Per Share	Dividends Declared Per Share	Capital Spending Per Share	Book Value Per Share
	(ap)/(n)	(aq)/(n)	(ar)/(n)	(as)/(n)	(at)/(n)	(au)/(n)						
Anadarko Petroleum	30.64%	7.59%	8.97%	0.39%	11.23%	39.02%	\$15.55	\$3.85	\$4.55	\$0.20	\$5.70	\$19.80
BP p.l.c.	186.46%	15.92%	0.93%	7.42%	18.24%	93.23%	\$60.30	\$5.15	\$0.30	\$2.40	\$5.90	\$30.15
Chesapeake Energy	184.54%	80.41%	123.71%	0.00%	34.02%	38.14%	\$8.95	\$3.90	\$6.00	Nil	\$1.65	\$1.85
Chevron Corp	56.14%	11.17%	0.21%	4.42%	13.89%	79.61%	\$54.55	\$10.85	\$0.20	\$4.29	\$13.50	\$77.35
Conoco Phillips	43.34%	11.28%	6.29%	2.37%	10.21%	66.49%	\$18.25	\$4.75	\$2.65	\$1.00	\$4.30	\$28.00
Devon Energy	57.16%	9.74%	0.73%	1.22%	11.93%	33.01%	\$19.65	\$3.35	\$0.25	\$0.42	\$4.10	\$11.35
EOG Resources	15.31%	5.40%	2.16%	0.80%	5.22%	24.38%	\$12.75	\$4.50	\$1.80	\$0.67	\$4.35	\$20.30
ExxonMobil	57.03%	8.02%	2.63%	3.57%	6.34%	48.95%	\$47.65	\$6.70	\$2.20	\$2.98	\$5.30	\$40.90
QEP Resources Inc.	39.45%	13.49%	13.15%	0.00%	14.83%	98.79%	\$5.85	\$2.00	\$1.95	Nil	\$2.20	\$14.65
WPX Energy Inc.	28.34%	5.35%	17.65%	0.00%	18.72%	104.28%	\$2.65	\$0.50	\$1.65	Nil	\$1.75	\$9.75
Mean	69.84%	16.84%	17.64%	2.02%	14.46%	62.59%	\$24.62	\$4.56	\$2.16	\$1.20	\$4.88	\$25.41
Median	49.74%	10.46%	4.46%	1.01%	12.91%	57.72%	\$16.90	\$4.20	\$1.88	\$1.00	\$4.33	\$20.05
Minimum	15.31%	5.35%	0.21%	0.00%	5.22%	24.38%	\$2.65	\$0.50	\$0.20	\$0.20	\$1.65	\$1.85
Maximum	186.46%	80.41%	123.71%	7.42%	34.02%	104.28%	\$60.30	\$10.85	\$6.00	\$4.29	\$13.50	\$77.35

# State of Wyoming - Department of Revenue

## Capitalization Rate Study

Production Year 2016

	(aw)	(ax)	(ay)	(az)	(ba)	(bb)	(bc)	(bd)	(be)	(bf)	(bg)	(bh)	(bi)	(bj)
12/31/2016	Capitalization Weighting													
Company Name	Weighted Earning Growth Rate	Factor	Weighted Dividend Growth Rate	Factor	Weighted Book Value Growth Rate	Weighted Cap. Rate	Disc. Cash Flow	Long Term Debt	Risk Premium	Total	Weighted Disc. Cash Flow	Weighted Long Term Debt	Weighted Risk Premium	Total
	(j)*(aw)		(k)*(ax)		(l)*(az)	-								
Anadarko Petroleum	1	0.0%	3	-49.5%	2	7.0%	33.00%	33.00%	34.00%	100%	1.02%	4.27%	3.28%	8.57%
BP p.l.c.	1	13.5%	3	9.0%	2	0.0%	66.00%	34.00%	0.00%	100%	2.03%	4.40%	0.00%	6.43%
Chesapeake Energy	1	0.0%	3	0.0%	2	NMF	34.00%	66.00%	0.00%	100%	1.05%	8.55%	0.00%	9.59%
Chevron Corp	1	3.5%	3	7.5%	2	2.2%	0.00%	33.00%	67.00%	100%	0.00%	4.27%	6.47%	10.75%
Conoco Philips	1	7.0%	3	-33.0%	2	-12.0%	33.00%	0.00%	67.00%	100%	1.02%	0.00%	6.47%	7.49%
Devon Energy	1	1.0%	3	-48.0%	2	-19.0%	66.00%	0.00%	34.00%	100%	2.03%	0.00%	3.28%	5.31%
EOG Resources	1	4.0%	3	31.5%	2	100.0%	0.00%	66.00%	34.00%	100%	0.00%	8.55%	3.28%	11.83%
ExxonMobil	1	5.0%	3	12.0%	2	9.0%	0.00%	66.00%	34.00%	100%	0.00%	0.00%	3.28%	11.83%
QEP Resources Inc.	1	10.0%	3	0.0%	2	0.0%	0.00%	66.00%	34.00%	100%	0.00%	0.00%	3.28%	11.83%
WPX Energy Inc.	1	0.0%	3	0.0%	2	-16.0%	0.00%	66.00%	34.00%	100%	0.00%	8.55%	3.28%	11.83%
Mean													<b>AVERAGE</b>	<b>8.57%</b>
Median														
Minimum														
Maximum														

FLOTATION COST DATA

**EXHIBIT F**

**2017 Summary of Flotation Cost Analyses**  
**Public Utilities Financing Tracker 2012 - 2016**  
 March 2017

<b>DEBT:</b>	<b>Number of Companies</b>	<b>Rate (Wtd. Avg.)</b>
Public Utilities Financing Tracker 2011 - 2015	372	2.12%

<b>COMMON:</b>		
Public Utilities Financing Tracker 2011 - 2015	23	2.70%



**FLOTATION COST ANALYSIS 2017**

**COMMON STOCK ISSUES - PUBLIC OFFERINGS - 2012 to 2016**

(NOTE: NO GOOD COMMON STOCK ISSUES IN 2012 FOR THIS STUDY )

Company	Type of Utility	Year Issued	Number of Shares (000)	Amount Offered (\$000)	Underwriter Commission Per Share (\$)	% of Price (%)	EARNINGS PER SHARE	Estimated Expenses (000)	Flotation Cost		
									Per Cent %	Wtd Avg %	
PIEDMONT NATURAL GAS CO.	GAS	2013	4,000	128,000	1.120	0.035	NA	350	4,830	3.77%	0.04%
PORTLAND GENERAL ELECTRIC CORP	ELEC	2013	11,100	327,450	0.939	0.033	NA	600	11,245	3.43%	0.10%
GAS NATURAL INC	GAS	2013	1,500	15,000	0.575	0.058	NA	285	1,148	7.65%	0.01%
WESTAR ENERGY	ELEC	2013	8,000	249,200	1.090	0.035	NA	250	8,970	3.60%	0.08%
UIL HOLDINGS CORP	ELEC	2013	5,000	186,250	1.304	0.035	NA	250	6,770	3.63%	0.06%
ALLETE, INC	ELEC	2014	2,800	1,393,000	1.741	3.500	NA	450	5,325	0.38%	0.05%
EXELON CORP	ELEC	2014	20,000	75,000	1.500	0.300	NA	1000	31,000	41.33%	0.27%
EXELON CORP	ELEC	2014	50,000	1,750,000	1.050	3.000	NA	600	53,100	3.03%	0.45%
DOMINION RESOURCES	ELEC	2014	18,000	75,000	0.900	1.800	NA	1500	17,700	23.60%	0.15%
TECO ENERGY	ELEC	2014	15,500	75,000	0.611	3.375	NA	350	9,821	13.09%	0.08%
FRONTIER COMMUNICATION CORP	TEL	2015	150,000	750,000	0.150	0.025	NA	2000	24,500	3.27%	0.21%
PG&E CORP	ELEC	2015	6,800	352,308	2.794	0.054	49.016	190	19,189	5.45%	0.16%
HC2 HOLDINGS INC	TEL	2015	7,350	51,450	0.350	0.369	-0.220	1900	4,473	8.69%	0.04%
BLACKHILLS CORP	ELEC	2015	5,200	260,000	1.500	0.073	NA	1700	9,500	3.65%	0.08%
BLACKHILLS CORP	ELEC	2015	5,500	221,375	1.410	0.086	NA	1200	8,955	4.05%	0.08%
SPECTRA ENERGY CORP	GAS	2016	1,400	210,000	0.270	0.900	NA	500	878	0.42%	0.01%
SOUTH JERSEY INDUSTRIES INC	GAS	2016	7,000	49,875	0.919	3.500	NA	NA	6,432	12.90%	0.06%
SPIRE INC	GAS	2016	1,900	1,891,500	2.049	3.250	NA	NA	3,893	0.21%	0.03%
NEXTERA ENERGY INC	ELEC	2016	30,000	1,466,250	0.375	-0.767	6.060	NA	11,250	0.77%	0.10%
CHESAPEAKE UTILITIES CORP	GAS	2016	835	51,987	2.330	3.742	2.730	157	2,103	4.04%	0.02%
GREAT PLAINS ENERGY INC	ELEC	2016	52,600	1,391,270	0.794	3.000	1.370	5260	46,998	3.38%	0.40%
DTE ENERGY CO	ELEC	2016	12,000	600,000	1.500	3.000	NA	750	18,750	3.13%	0.16%
AQUA VENTURE HOLDINGS LTD	WATER	2016	6,500	117,000	1.260	7.000	NA	585	8,775	7.50%	0.08%
<b>Flotation Cost All Companies</b>		<b>23</b>		<b>11,686,915</b>					<b>Average</b>	<b>7.00%</b>	<b>2.70%</b>

**FLOTATION COST ANALYSIS 2017  
DEBT ISSUES - PUBLIC OFFERINGS 2012 to 2016**

Company	Issue	Type of Utility	Year Issued	Amount Offered (\$000)	Price to Public (%)	Under- Writers' Commission (%)	Discount or Premium	Gross Proceeds to Issuer	Net Proceeds to Issuer	Estimated Expenses (\$000)	Flotation Amount (\$000)	Per Cent (%)	Weighted Average (%)
VIRGINIA ELEC & POWER CO.	SR. NOTES, SER. A	ELEC	2012	450,000	98.400	0.750	0.9765	\$439,425	\$435,800	250	3,625	3.16%	0.0095%
APS	NOTES	ELEC	2012	325,000	98.620	0.650	0.9797	\$318,403	\$315,802	488	2,601	2.83%	0.0062%
CENTER POINT ENERGY TRANSITION CO.	SR. SEC TRANSITION BONDS, BRANCH A-3	ELEC	2012	681,262	99.940	0.760	0.9918	\$675,676	\$666,398	4100	9,278	2.18%	0.0100%
TAMPA ELECTRIC CO	NOTES	ELEC	2012	250,000	99.160	0.780	0.9838	\$245,950	\$243,600	400	2,350	2.56%	0.0043%
SCANA CORP	MED TERM NOTES	ELEC	2012	250,000	96.340	0.620	0.9572	\$239,300	\$237,750	254	1,550	4.90%	0.0082%
SOUTHWESTERN ELECTRIC POWER CO	SR. NOTES, SERIES 1	ELEC	2012	275,000	99.720	0.650	0.9707	\$266,943	\$264,901	254	2,042	3.67%	0.0068%
WESTAR ENERGY	1ST MORT BOND	ELEC	2012	250,000	99.914	0.875	0.9904	\$247,598	\$245,260	150	2,338	1.90%	0.0032%
GEORGIA POWER	SR. NOTES, SERIES 2012A	ELEC	2012	750,000	99.949	0.875	0.9907	\$743,055	\$735,968	525	7,088	1.87%	0.0094%
CENTURY LINK	SR. NOTES, SER. U	TELE	2012	1,400,000	99.842	0.650	0.9919	\$1,388,688	\$1,379,588	9100	9,100	1.46%	0.0137%
CENTURY LINK	SR. NOTES, SER. U	TELE	2012	650,000	99.905	0.875	0.9903	\$643,695	\$638,008	5,688	5,688	1.85%	0.0080%
MISSISSIPPI POWER	SR. NOTES, SERIES 2012A	ELEC	2012	250,000	99.445	0.875	0.9857	\$246,425	\$243,918	320	2,508	2.43%	0.0041%
MISSISSIPPI POWER	SR. NOTES	ELEC	2012	300,000	99.689	1.000	0.9869	\$296,067	\$292,667	400	3,400	2.44%	0.0049%
CMS ENERGY	DEBT SERIES 2012A	ELEC	2012	400,000	99.644	0.875	0.9877	\$395,076	\$391,076	500	4,000	2.23%	0.0060%
CONSOLIDATED EDISON OF NY	1ST & REF MORT BONDS SER 2012A	ELEC	2012	400,000	98.818	0.875	0.9794	\$387,447	\$384,447	825	4,325	3.14%	0.0084%
SOUTHERN CALIFORNIA EDISON CO.	1ST MORT BONDS, SER L11	ELEC	2012	250,000	99.814	0.875	0.9894	\$247,348	\$244,810	350	2,538	2.08%	0.0035%
DUKE ENERGY INDIANA	NOTES	ELEC	2012	287,386	102.291	0.650	1.0164	\$292,102	\$290,234	N/A	1,868	-0.99%	-0.0019%
GREAT PLAINS ENERGY	1ST MORT BONDS, SERIES M1M	GAS	2012	250,000	99.481	0.875	0.9861	\$246,515	\$244,078	250	2,438	2.37%	0.0040%
SAN DIEGO GAS & ELEC	NOTES	TELE	2012	500,000	100.000	3.150	0.9685	\$484,250	\$467,700	800	16,550	6.46%	0.0217%
QWEST	SR. NOTES	GAS	2012	400,000	99.491	0.875	0.9862	\$394,464	\$390,229	735	4,235	2.44%	0.0066%
PACIFIC GAS & ELEC	1ST MORT BONDS	ELEC	2012	75,000	99.829	0.650	0.9918	\$74,384	\$73,897	488	488	1.47%	0.0007%
IDAH0 POWER CO.	1ST MORT BONDS	ELEC	2012	375,000	99.991	0.650	0.9934	\$372,529	\$369,691	400	2,838	1.42%	0.0036%
CONSUMERS ENERGY CO	SR. NOTES, SERIES 2012B	ELEC	2012	400,000	99.827	0.650	0.9918	\$396,708	\$393,738	370	2,970	1.57%	0.0042%
GEORGIA POWER	SR. NOTES, SERIES 2012A	ELEC	2012	350,000	101.208	0.875	1.0033	\$347,258	\$347,258	345	3,408	0.64%	0.0015%
FLORIDA POWER & LIGHT CO.	1ST MORT BONDS	ELEC	2012	600,000	99.813	0.875	0.9799	\$587,910	\$582,657	3	5,253	2.89%	0.0116%
WESTAR ENERGY	1ST MORT BONDS	ELEC	2012	300,000	99.451	0.875	0.9858	\$295,728	\$292,953	150	2,775	2.35%	0.0047%
GULF POWER	SR. NOTES	ELEC	2012	100,000	99.813	0.650	0.9916	\$99,163	\$98,259	254	904	1.74%	0.0012%
PROGRESS ENERGY CAROLINAS, INC	1ST MORT BONDS	ELEC	2012	500,000	99.775	0.650	0.9913	\$495,625	\$491,725	650	3,900	1.66%	0.0056%
PROGRESS ENERGY CAROLINAS, INC	1ST MORT BONDS	ELEC	2012	300,000	99.504	0.875	0.9863	\$493,145	\$488,120	650	5,025	2.38%	0.0080%
TAMPA ELECTRIC CO	NOTES	ELEC	2012	300,000	99.724	0.875	0.9885	\$296,547	\$293,537	385	3,010	2.15%	0.0043%
SOUTHWESTERN PUBLIC SERVICE CO	1ST MORT BONDS, SERIES NO. 1	ELEC	2012	100,000	110.058	0.875	1.0918	\$109,183	\$107,878	430	1,305	-7.88%	-0.0051%
PPL CAPITAL FUNDING	SR. NOTES	ELEC	2012	400,000	99.668	0.650	0.9902	\$396,072	\$393,197	275	2,875	1.70%	0.0046%
QWEST	NOTES	TELE	2012	400,000	100.000	3.150	0.9685	\$374,798	\$374,798	2	12,602	6.30%	0.0169%
DETROIT EDISON	2012 SER A GEN & REF MORT BONDS	ELEC	2012	250,000	99.844	0.650	0.9919	\$247,985	\$246,360	2	1,625	1.46%	0.0023%
DETROIT EDISON	2012 SER B GEN & REF MORT BONDS	ELEC	2012	250,000	99.565	0.875	0.9869	\$246,725	\$244,538	2188	2,188	2.19%	0.0037%
DELMARVA POWER & LIGHT CO.	1ST MORT BONDS	ELEC	2012	250,000	99.449	0.875	0.9857	\$246,435	\$243,898	350	2,538	2.44%	0.0041%
IDAH0 POWER CO.	1ST MORT BONDS	ELEC	2012	75,000	99.934	0.750	0.9918	\$74,388	\$73,826	563	563	1.57%	0.0008%
NORTHERN STATES POWER CO.	1ST MORT BONDS	ELEC	2012	250,000	108.628	0.875	1.0775	\$269,383	\$266,725	470	2,658	-6.69%	-0.0112%
NORTHERN STATES POWER CO.	1ST MORT BONDS	ELEC	2012	300,000	99.848	0.650	0.9920	\$297,594	\$294,194	1450	3,400	1.94%	0.0039%
FRONTIER COMMUNICATIONS CORP	1ST MORT BONDS	ELEC	2012	500,000	99.236	0.875	0.9836	\$491,805	\$485,980	1450	5,825	2.80%	0.0094%
FRONTIER COMMUNICATIONS CORP	SR. NOTE, SERIES 2012A	TELE	2012	600,000	100.000	1.875	0.9813	\$588,750	\$576,800	700	11,950	3.87%	0.0156%
MISSISSIPPI POWER	SR. NOTES, SERIES 2012A	ELEC	2012	200,000	104.826	0.875	1.0395	\$207,902	\$205,858	294	2,044	-2.93%	-0.0039%
AMEREN ILLINOIS	SEN SEC NOTES	ELEC	2012	400,000	99.964	0.650	0.9931	\$397,236	\$394,356	300	2,900	1.41%	0.0038%
PACIFIC GAS & ELECTRIC CO	1ST MORT BONDS, SER NO 23	GAS	2012	800,000	99.709	0.650	0.9906	\$396,236	\$392,936	700	3,300	1.77%	0.0047%
PACIFIC GAS & ELECTRIC CO	1ST MORT BONDS, SER NO 24	GAS	2012	350,000	99.911	0.875	0.9904	\$346,626	\$342,864	700	3,763	2.04%	0.0048%
BALTIMORE GAS & ELECTRIC CO.	NOTES	GAS	2012	250,000	99.620	0.650	0.9897	\$247,425	\$245,400	400	2,025	1.84%	0.0031%
PPL ELECTRIC UTILITIES CORP	1ST MORT BONDS	ELEC	2012	250,000	99.665	0.650	0.9902	\$247,538	\$245,513	400	2,025	1.84%	0.0031%
AMEREN MISSOURI	SR SEC NOTES	ELEC	2012	485,000	99.477	0.875	0.9860	\$478,220	\$473,676	300	4,544	2.33%	0.0076%
DOMINION RESOURCES, INC	SR NOTES, SERIES B	ELEC	2012	350,000	99.991	0.650	0.9934	\$347,694	\$345,282	137	2,412	1.35%	0.0032%
DOMINION RESOURCES, INC	SR NOTES, SERIES C	ELEC	2012	350,000	99.432	0.875	0.9856	\$344,950	\$341,750	137	3,200	2.36%	0.0055%
PECO ENERGY CORP	1ST & REF MORT BONDS	ELEC	2012	350,000	99.912	0.650	0.9926	\$347,417	\$344,642	500	2,775	1.53%	0.0036%
PSE&G	SEC MED TERM NOTES, SER H	ELEC	2012	350,000	99.513	0.750	0.9876	\$345,671	\$343,046	2,625	2,625	1.99%	0.0047%
TUSCON ELECTRIC POWER CO	NOTES	ELEC	2012	150,000	99.675	0.650	0.9903	\$148,538	\$147,288	275	1,250	1.81%	0.0018%
DUKE ENERGY CAROLINAS	1ST & REF MORT BONDS	ELEC	2012	650,000	99.204	0.875	0.9833	\$639,139	\$632,639	812	6,500	2.67%	0.0116%
SEMpra ENERGY	NOTES	GAS	2012	500,000	99.965	0.650	0.9932	\$496,575	\$493,075	250	3,500	1.39%	0.0046%
SYSTEM ENERGY RESOURCES, INC	1ST MORT BONDS	ELEC	2012	250,000	99.813	0.650	0.9916	\$247,908	\$245,748	535	2,160	1.70%	0.0046%
FRONTIER COMMUNICATIONS CORP	SR. NOTE	TELE	2012	250,000	104.250	1.750	1.0250	\$256,250	\$251,475	400	4,775	-5.59%	-0.0010%
PUBLIC SERVICE CO OF COLORADO	1ST MORT BONDS, SER. 23	ELEC	2012	300,000	99.902	0.650	0.9925	\$297,736	\$295,106	700	2,650	1.63%	0.0033%
PUBLIC SERVICE CO OF COLORADO	1ST MORT BONDS, SER. 24	ELEC	2012	500,000	99.654	0.875	0.9878	\$493,895	\$488,820	700	5,075	2.24%	0.0075%

NORTHERN STATES POWER CO., WISCONSIN	IST MORT BONDS	ELEC	2012	100,000	99.177	0.875	0.9830	\$98,302	\$97,027	400	1,275	2.97%	0.0020%
NSTAR ELECTRIC COMPANY	DEBENTURES	ELEC	2012	400,000	99.726	0.650	0.9908	\$396,304	\$393,044	660	3,260	1.74%	0.0047%
PPL CAPITAL FUNDING	SR. NOTES	ELEC	2012	400,000	99.843	0.650	0.9919	\$396,772	\$393,447	715	3,325	1.64%	0.0044%
PROGRESS ENERGY FLORIDA, INC	IST MORT BONDS	ELEC	2012	400,000	99.683	0.875	0.9881	\$395,232	\$388,732	3000	6,500	2.82%	0.0076%
DUKE ENERGY CORP	INTERNOTES	ELEC	2012	10,802	100.000	1.800	0.9820	\$10,608	\$10,413	N/A	194	3.60%	0.0003%
ENTERGY NEW ORLEANS	IST MORT BONDS	ELEC	2012	30,000	100.000	3.150	0.9685	\$29,055	\$27,735	375	1,320	7.55%	0.0015%
OGLETHORPE POWER CORP	IST MORT BONDS, SER 2012A	ELEC	2012	250,000	99.425	0.875	0.9855	\$246,375	\$243,313	875	3,063	2.68%	0.0049%
ELPASO ELECTRIC COMPANY	SR NOTES	ELEC	2012	150,000	99.788	0.650	0.9914	\$148,707	\$147,224	508	1,483	1.85%	0.0010%
ENTERGY MISSISSIPPI	IST MORT BONDS	ELEC	2012	250,000	99.606	0.650	0.9896	\$247,390	\$245,390	375	2,000	1.84%	0.0031%
WISCONSIN ELECTRIC POWER CO	DEBENTURES	ELEC	2012	250,000	99.602	0.875	0.9873	\$246,818	\$244,130	500	2,688	2.35%	0.0039%
AT&T	GLOBAL NOTES	TELE	2012	1,500,000	99.922	0.400	0.9952	\$1,492,810	\$1,485,930	900	6,900	0.94%	0.0094%
ENTERGY ARKANSAS, INC	IST MORT BONDS	ELEC	2012	300,000	100.000	3.150	0.9685	\$193,700	\$188,960	440	6,740	6.52%	0.0087%
AT&T	GLOBAL NOTES	TELE	2012	1,416	100.000	2.000	0.9800	\$1,290,718	\$1,284,288	450	6,430	1.21%	0.0105%
DUKE ENERGY CORP	INTERNOTES	ELEC	2012	10,063	100.000	2.000	0.9800	\$14,343	\$14,051	N/A	293	4.00%	0.0004%
DUKE ENERGY CORP	INTERNOTES	ELEC	2012	10,063	100.000	2.000	0.9800	\$14,343	\$14,051	N/A	293	4.00%	0.0004%
DUKE ENERGY CORP	INTERNOTES	ELEC	2012	10,063	100.000	2.000	0.9800	\$14,343	\$14,051	N/A	293	4.00%	0.0004%
VIRGINIA ELECT & POWER CO	2013 SER B SR. NOTES	ELEC	2013	500,000	99.600	0.875	0.9873	\$493,625	\$489,000	250	4,625	2.20%	0.0074%
PUBLIC SERVICE ELECTRIC & GAS CO.	SECURED MEDIUM TERM NOTES, SER. H	ELEC	2013	400,000	99.363	0.750	0.9861	\$394,452	\$391,452	N/A	3,000	2.14%	0.0057%
CONNECTICUT LIGHT & POWER CO.	1ST AND REFUNDING MORTGAGE, 2013 SER A	ELEC	2013	400,000	99.351	0.650	0.9870	\$394,804	\$391,573	631	3,231	2.11%	0.0057%
CONSOLIDATED EDISON COMPANY OF NEW YORK	DEBENTURES, SER. 2013A	ELEC	2013	700,000	99.304	0.875	0.9843	\$689,003	\$682,028	850	6,975	2.57%	0.0121%
SOUTHERN CALIFORNIA EDISON CO	1ST AND REFUNDING MORTGAGE, SER 2013A	ELEC	2013	400,000	99.403	0.875	0.9853	\$394,112	\$389,712	900	4,400	2.57%	0.0069%
VIRGINIA ELECTRIC POWER CO	2013 SER C SR. NOTES	ELEC	2013	500,000	99.688	0.650	0.9904	\$495,190	\$491,690	250	3,500	1.66%	0.0056%
KANSAS CITY POWER & LIGHT CO	INTERNOTES	ELEC	2013	300,000	99.906	0.650	0.9926	\$297,768	\$295,418	400	2,350	1.66%	0.0041%
POTOMAC ELECTRIC POWER CO	1ST MORT BONDS	ELEC	2013	250,000	99.609	0.875	0.9873	\$246,835	\$244,644	4	2,191	2.14%	0.0036%
GEORGIA POWER	SER. 2013A SR NOTES	ELEC	2013	400,000	99.349	0.875	0.9847	\$393,896	\$390,028	368	3,868	2.49%	0.0067%
INDIANA MICHIGAN POWER CO.	SR. NOTES, SER. J	ELEC	2013	250,000	99.839	0.650	0.9919	\$247,973	\$246,023	325	1,950	1.59%	0.0027%
DTE ELECT CO	SER A, GEN & REF MORT BONDS	ELEC	2013	375,000	99.549	0.875	0.9867	\$370,028	\$366,146	600	3,881	2.36%	0.0059%
PUBLIC SERVICE CO. OF COLORADO	1ST MORT BONDS, SER. NO. 25	ELEC	2013	250,000	99.537	0.650	0.9889	\$247,218	\$244,443	650	2,775	2.02%	0.0034%
PUBLIC SERVICE CO. OF COLORADO	1ST MORT BONDS, SER. NO. 26	ELEC	2013	250,000	99.323	0.875	0.9845	\$246,120	\$243,283	650	2,838	2.69%	0.0045%
CHS ENERGY CORP	SR. NOTES	ELEC	2013	250,000	99.411	1.000	0.9841	\$246,028	\$243,128	400	2,900	2.75%	0.0046%
IDAHO POWER CO	1ST MORT BONDS	ELEC	2013	75,000	99.501	0.625	0.9888	\$74,157	\$73,688	N/A	469	1.75%	0.0009%
IDAHO POWER CO	1ST MORT BONDS	ELEC	2013	75,000	99.741	0.750	0.9899	\$74,243	\$73,681	N/A	363	1.76%	0.0009%
OKLAHOMA ELECTRIC & GAS CO.	SR. NOTES	ELEC	2013	250,000	99.966	0.875	0.9909	\$247,728	\$245,040	500	2,688	1.98%	0.0033%
NORTHEAST UTILITIES	SR. NOTES SER. F	ELEC	2013	450,000	99.742	0.650	0.9909	\$445,914	\$441,889	1100	4,025	1.80%	0.0054%
ENERGY LOUISIANA LLC	1ST MORT BONDS	ELEC	2013	100,000	100.000	3.150	0.9685	\$96,850	\$93,334	366	3,516	6.67%	0.0045%
SOUTHWESTERN PUBLIC SERVICE CO	1ST MORT BONDS, SER NO 1	ELEC	2013	100,000	99.912	0.875	0.9504	\$95,037	\$93,637	525	1,400	6.36%	0.0043%
NORTHERN STATES POWER	1ST MORT BONDS	ELEC	2013	400,000	99.817	0.650	0.9917	\$396,668	\$392,668	1400	4,000	1.83%	0.0049%
CONSUMERS ENERGY CO	1ST MORT BONDS	ELEC	2013	425,000	99.843	0.875	0.9897	\$420,614	\$416,495	400	4,119	2.00%	0.0057%
PPL CAPITAL FUNDING, INC	SR NOTES	ELEC	2013	600,000	99.705	0.650	0.9906	\$594,330	\$589,760	670	4,570	1.71%	0.0069%
PPL CAPITAL FUNDING, INC	SR NOTES	ELEC	2013	300,000	99.648	0.875	0.9877	\$296,319	\$293,364	330	2,955	2.21%	0.0045%
ENTERGY ARKANSAS, INC	1ST MORT BONDS	ELEC	2013	600,000	99.718	0.650	0.9907	\$547,670	\$545,645	400	2,025	1.74%	0.0029%
ENTERGY ARKANSAS, INC	1ST MORT BONDS	ELEC	2013	250,000	99.718	0.650	0.9907	\$245,645	\$243,620	400	2,025	1.74%	0.0029%
FLORIDA POWER & LIGHT	1ST MORT BONDS	ELEC	2013	500,000	99.619	0.650	0.9885	\$121,063	\$116,750	375	4,313	6.60%	0.0055%
NEXTERA ENERGY	DEBENTURES	ELEC	2013	250,000	99.999	0.650	0.9897	\$494,845	\$489,195	2400	5,650	2.16%	0.0072%
GULF POWER	SERIES 2013A, SR NOTES	ELEC	2013	250,000	99.999	0.650	0.9935	\$248,373	\$246,248	500	2,125	1.50%	0.0025%
SOUTH CAROLINA ELECT & GAS CO.	1ST MORT BONDS	ELEC	2013	90,000	99.846	0.875	0.9897	\$89,074	\$88,044	242	1,030	2.17%	0.0013%
PACIFIC GAS & ELECT CO.	SR. NOTES	ELEC	2013	400,000	99.500	0.875	0.9863	\$394,500	\$390,280	720	4,220	2.43%	0.0065%
PACIFIC GAS & ELECT CO.	SR. NOTES	ELEC	2013	375,000	99.493	0.650	0.9884	\$370,661	\$367,999	725	3,163	2.00%	0.0050%
PACIFIC GAS & ELECT CO.	SR. NOTES	ELEC	2013	375,000	99.919	0.875	0.9904	\$371,415	\$367,409	725	4,006	2.07%	0.0051%
ENERGY NEW ORLEANS, INC	1ST MORT BONDS	ELEC	2013	100,000	99.687	0.650	0.9904	\$99,037	\$98,062	325	975	1.94%	0.0013%
PPL ELECTRIC UTILITIES CORP	1ST MORT BONDS	ELEC	2013	350,000	99.366	0.875	0.9849	\$344,719	\$341,256	400	3,463	2.50%	0.0059%
DUKE ENERGY INDIANA	1ST MORT BONDS, SER. YWVW	ELEC	2013	350,000	99.547	0.875	0.9867	\$345,352	\$341,540	750	3,813	2.42%	0.0057%
SOUTHERN POWER	SERIES 2013D, SR. NOTES	ELEC	2013	300,000	99.715	0.875	0.9884	\$296,520	\$293,557	338	2,963	2.15%	0.0043%
CONSUMER ENERGY	1ST MORT BONDS	ELEC	2013	325,000	99.949	0.650	0.9930	\$322,722	\$320,059	550	2,663	1.52%	0.0033%
LACLEDE GAS	1ST MORT BONDS	ELEC	2013	250,000	99.697	0.650	0.9905	\$247,618	\$245,922	71	1,696	1.63%	0.0027%
LACLEDE GAS	1ST MORT BONDS	ELEC	2013	100,000	99.373	0.875	0.9850	\$98,498	\$97,594	29	904	2.41%	0.0016%
VIRGINIA ELECTRIC POWER CO	SERIES D SR NOTES	ELEC	2013	585,000	99.932	0.875	0.9908	\$579,600	\$574,232	250	5,369	1.84%	0.0072%
COMMONWEALTH EDISON CO.	1ST MORT BONDS, SER 114	ELEC	2013	350,000	99.774	0.875	0.9890	\$346,147	\$341,984	1100	4,163	2.29%	0.0054%
SIERRA PACIFIC POWER CO	GEN & REF MORT BONDS, SER T	ELEC	2013	250,000	99.790	0.650	0.9914	\$247,850	\$245,725	500	2,125	1.71%	0.0029%
ENERGY LOUISIANA	1ST MORT BONDS	ELEC	2013	325,000	99.689	0.650	0.9904	\$321,877	\$319,298	466	2,579	1.75%	0.0038%
DTE ELECT CO	SER B, GENERAL & REF MORT. BONDS	ELEC	2013	400,000	99.591	0.650	0.9894	\$395,764	\$392,564	600	3,200	1.86%	0.0050%
DUKE ENERGY OF OHIO	1ST MORT BONDS	ELEC	2013	300,000	99.317	0.650	0.9867	\$296,001	\$293,551	500	2,450	2.15%	0.0043%
SAN DIEGO GAS & ELECT CO.	1ST MORT BONDS, SER NNN	ELEC	2013	450,000	99.984	0.650	0.9933	\$447,003	\$443,828	250	3,175	1.37%	0.0041%
MIDAMERICAN ENERGY CO	1ST MORT BONDS	ELEC	2013	350,000	99.528	0.875	0.9865	\$345,286	\$341,203	1020	4,083	2.51%	0.0059%
SOUTHERN CALIFORNIA EDISON CO.	1ST AND REFUNDING BONDS, SER 2013D	ELEC	2013	800,000	99.312	0.875	0.9844	\$787,496	\$777,996	2500	9,500	2.75%	0.0148%
INTERSTATE POWER & LIGHT CO	SR. DEBT	ELEC	2013	450,000	99.378	0.875	0.9850	\$443,264	\$438,826	500	4,438	2.48%	0.0075%

DUKE ENERGY INDIANA	SR, NOTES	ELEC	2013	400,000	99.795	0.650	0.9915	\$396,380	\$393,480	500	3,100	1.63%	0.0044%
PSEG	SR, NOTES	ELEC	2013	250,000	99.943	0.650	0.9929	\$248,233	\$245,908	700	2,325	1.64%	0.0027%
APPALACHIAN CONSUMER RATE RELIEF FUNDING SR, SEC CONSUMER RATE RELIEF BOND	SR, NOTES	ELEC	2013	215,000	100,000	0.400	0.9960	\$214,936	\$212,531	1,542	1,870	1.51%	0.0022%
APPALACHIAN CONSUMER RATE RELIEF FUNDING SR, SEC CONSUMER RATE RELIEF BOND	SR, NOTES	ELEC	2013	164,500	99,990	0.400	0.9959	\$163,825	\$161,955	1,212	1,470	1.55%	0.0017%
KENTUCKY UTILITIES CO	1ST MORT BONDS	ELEC	2013	250,000	99,280	0.875	0.9841	\$246,013	\$243,325	500	2,688	2.67%	0.0045%
LOUISVILLE GAS & ELEC CO.	1ST MORT BONDS	ELEC	2013	250,000	99,280	0.875	0.9841	\$246,013	\$243,325	500	2,688	2.67%	0.0045%
PACIFIC GAS & ELECT CO.	SR, NOTES	ELEC	2013	300,000	99,819	0.650	0.9917	\$297,407	\$295,055	302	2,452	1.65%	0.0033%
PACIFIC GAS & ELECT CO.	SR, NOTES	ELEC	2013	500,000	99,847	0.875	0.9897	\$494,860	\$489,667	818	5,193	2.07%	0.0069%
PUBLIC SERVICE CO OF NEW HAMPSHIRE	1ST MORT BONDS, SER S	ELEC	2013	250,000	99,634	0.650	0.9898	\$247,460	\$245,364	471	2,096	1.83%	0.0031%
DELMARVA POWER	1ST MORT BONDS	ELEC	2013	300,000	99,958	0.650	0.9931	\$297,924	\$295,349	625	2,575	1.55%	0.0031%
POTOMAC ELECTRIC POWER CO	1ST MORT BONDS	ELEC	2013	150,000	99,259	0.875	0.9838	\$147,576	\$145,874	390	1,703	2.75%	0.0028%
BLACK HILLS CORP	NOTES	ELEC	2013	525,000	99,530	0.650	0.9888	\$519,120	\$515,250	458	3,871	1.86%	0.0065%
WISCONSIN PUBLIC SERVICE CORP	SR, NOTES	ELEC	2013	450,000	100,000	0.875	0.9913	\$446,063	\$441,475	650	4,388	1.89%	0.0057%
DTE ELECT CO	2013 SER. F SR, NOTES	ELEC	2013	300,000	99,785	0.650	0.9914	\$297,405	\$295,105	350	2,300	1.63%	0.0033%
ALABAMA POWER CO.	SR, NOTES, SER. 2013A	ELEC	2013	300,000	99,717	0.650	0.9907	\$297,201	\$294,892	359	2,309	1.70%	0.0034%
AMEREN ILLINOIS	SR SECURED NOTES	ELEC	2013	280,000	99,464	0.875	0.9859	\$276,049	\$273,299	300	2,750	2.39%	0.0045%
SEMPRA ENERGY	NOTES	GAS	2013	500,000	99,665	0.650	0.9902	\$495,075	\$491,575	250	3,500	1.69%	0.0057%
NISOURCE FINANCE	NOTES	GAS	2013	50,000	100,000	0.625	0.9938	\$492,330	\$487,805	150	4,525	2.44%	0.0082%
NORTHWEST NATURAL GAS CO	SEC MED TERM NOTES, SER B	GAS	2013	300,000	99,952	0.875	0.9938	\$491,575	\$487,805	150	4,525	2.44%	0.0082%
PIEDMONT NATURAL GAS CO	SR, NOTES	GAS	2013	500,000	99,618	0.875	0.9908	\$493,715	\$489,015	325	4,700	2.20%	0.0038%
AGI CAPITAL	SR, NOTES	GAS	2013	500,000	99,812	0.875	0.9874	\$493,715	\$489,015	325	4,700	2.20%	0.0038%
AT&T	SR NOTES	GAS	2013	500,000	99,812	0.875	0.9874	\$493,715	\$489,015	325	4,700	2.20%	0.0038%
AT&T	GLOBAL NOTES	TELE	2013	1,625,625	99,790	0.350	0.9944	\$1,616,522	\$1,610,382	450	6,140	0.94%	0.0102%
FRONTIER COMM CORP	GLOBAL NOTES	TELE	2013	520,200	99,667	0.460	0.9925	\$516,075	\$513,532	150	2,543	1.28%	0.0045%
FRONTIER COMM CORP	SR, NOTES	TELE	2013	750,000	100,000	1.750	0.9825	\$736,875	\$732,950	800	13,925	3.61%	0.0181%
QWEST	GLOBAL NOTES	TELE	2013	1,560,500	99,377	0.600	0.9878	\$1,541,415	\$1,531,252	800	10,163	1.87%	0.0196%
CENTURY LINK	NOTES	TELE	2013	750,000	100,000	3.150	0.9685	\$726,375	\$720,150	600	24,225	6.38%	0.0321%
COMMONWEALTH EDISON CO	SR NOTES SER. W	TELE	2013	749,999	100,000	1.000	0.9900	\$742,499	\$734,499	500	8,000	2.07%	0.0104%
NORTHERN STATES POWER CO	1ST MORT BONDS, SER 116	ELEC	2014	350,000	99,967	0.875	0.9909	\$342,760	\$342,760	1,000	4,063	2.07%	0.0049%
ARIZONA PUBLIC SERVICE CO	1ST MORT BONDS	ELEC	2014	100,000	99,647	0.650	0.9900	\$98,997	\$97,847	500	1,190	2.15%	0.0014%
VIRGINIA ELECTRIC & POWER CO.	SR NOTES, SER A	ELEC	2014	250,000	99,600	0.875	0.9873	\$246,813	\$244,121	504	2,692	2.35%	0.0039%
VIRGINIA ELECTRIC & POWER CO	SR NOTES, SER B	ELEC	2014	400,000	99,212	0.875	0.9834	\$393,348	\$389,185	663	2,862	1.67%	0.0039%
PACIFIC GAS & ELECTRIC CO	SR, NOTES	ELEC	2014	450,000	99,901	0.650	0.9854	\$446,630	\$442,855	850	3,775	2.70%	0.0073%
PACIFIC GAS & ELECTRIC CO	SR, NOTES	ELEC	2014	450,000	99,973	0.875	0.9870	\$444,141	\$439,354	850	4,788	2.37%	0.0071%
CMS ENERGY CORP	SR, NOTES	ELEC	2014	250,000	99,926	0.650	0.9928	\$246,565	\$244,190	NA	1,625	1.94%	0.0039%
PUBLIC SERVICE CO. OF COLORADO	1ST MORT BONDS, SER #27	ELEC	2014	300,000	99,811	0.875	0.9894	\$296,808	\$294,183	NA	2,625	1.94%	0.0039%
COMMON WEALTH EDISON OF NY	SR NOTES, SER 2014 A	ELEC	2014	850,000	99,631	0.875	0.9876	\$292,268	\$292,893	750	3,375	2.37%	0.0048%
INSTAR ELECTRIC COMPANY	DEBENTURES, SERIES 2014 A	ELEC	2014	300,000	99,916	0.875	0.9904	\$841,849	\$833,061	1,350	8,788	1.99%	0.0114%
TUCSON ELECTRIC POWER CO	NOTES	ELEC	2014	300,000	99,309	0.875	0.9843	\$295,302	\$292,157	520	3,145	2.61%	0.0053%
ENERGY ARKANSAS	1ST MORT BONDS	ELEC	2014	150,000	99,445	0.875	0.9837	\$147,855	\$146,293	250	1,563	2.47%	0.0025%
PACIFICORP	1ST MORT BONDS	ELEC	2014	425,000	99,940	0.620	0.9928	\$372,293	\$369,255	600	3,038	1.53%	0.0039%
PEPCO	1ST MORT BOND	ELEC	2014	400,000	99,867	0.650	0.9932	\$422,110	\$418,685	790	3,425	1.49%	0.0044%
ENERGY MISSISSIPPI	1ST MORT BONDS	ELEC	2014	100,000	99,970	0.650	0.9922	\$96,868	\$96,768	350	6,100	2.31%	0.0062%
OKLAHOMA GAS & ELEC CO	SR, NOTES	ELEC	2014	250,000	99,677	0.875	0.9932	\$244,318	\$244,318	500	2,688	2.27%	0.0038%
MIDAMERICAN ENERGY CO	1ST MORT BONDS	ELEC	2014	300,000	99,511	0.650	0.9886	\$296,583	\$294,031	602	2,532	1.99%	0.0040%
MIDAMERICAN ENERGY CO	1ST MORT BONDS	ELEC	2014	400,000	99,399	0.875	0.9852	\$394,096	\$389,798	798	4,298	2.53%	0.0068%
DUKE ENERGY	SR, NOTES	ELEC	2014	350,000	99,941	0.650	0.9929	\$395,746	\$390,846	1,000	4,900	1.53%	0.0061%
AMEREN MISSOURI	SEN SEC NOTES	ELEC	2014	350,000	99,982	0.650	0.9933	\$297,174	\$293,953	596	3,231	2.03%	0.0041%
CONNECTICUT LIGHT AND POWER CO	1ST AND REFUNDING MORT BONDS, 2014 SERIES	ELEC	2014	250,000	100,000	0.875	0.9885	\$247,813	\$245,166	459	2,647	1.93%	0.0032%
APPALACHIAN PWER CO	SR, NOTES, SERIES U	ELEC	2014	300,000	99,306	0.875	0.9913	\$292,293	\$292,177	1,700	4,325	2.61%	0.0052%
NORTHERN STATES POWER CO	1ST MORT BONDS	ELEC	2014	300,000	99,709	0.875	0.9843	\$296,502	\$294,193	475	3,100	2.60%	0.0052%
FLORIDA POWER & LIGHT CO	1ST MORT BONDS	ELEC	2014	500,000	99,871	0.650	0.9922	\$496,105	\$490,455	2,400	5,650	1.91%	0.0064%
TAMPA ELECTRIC CO.	NOTES	ELEC	2014	300,000	99,933	0.875	0.9906	\$297,174	\$293,953	596	3,231	2.03%	0.0041%
ENERGY TEXAS INC	1ST MORT BONDS	ELEC	2014	180,000	100,000	3.150	0.9685	\$130,748	\$126,020	475	4,728	6.63%	0.0060%
WESTAR ENERGY	1ST MORT BONDS	ELEC	2014	180,000	96,675	0.875	0.9580	\$172,440	\$170,715	150	1,725	1.66%	0.0063%
DTE ENERGY COMPANY	SR, NOTES, SERIES C	ELEC	2014	350,000	99,914	0.650	0.9926	\$347,424	\$344,799	350	2,625	1.49%	0.0035%
SOUTH CAROLINA ELECTRIC & GAS CO	1ST MORT BONDS	ELEC	2014	300,000	98,938	0.875	0.9896	\$294,189	\$290,934	630	3,255	3.03%	0.0061%
PPL ELECTRIC UTILITY CORP	1ST MORT BONDS	ELEC	2014	300,000	98,827	0.875	0.9795	\$293,856	\$290,231	1,000	3,625	3.20%	0.0066%
SOUTHWESTERN PUBLIC SERVICE CO	1ST MORT BONDS, SER #3	ELEC	2014	150,000	99,670	0.650	0.9902	\$148,530	\$146,955	600	1,575	2.03%	0.0020%
OGLETHORPE POWER CO	1ST MORT BONDS, SER 2014 A	ELEC	2014	250,000	99,370	0.875	0.9850	\$246,238	\$243,150	900	3,088	2.74%	0.0046%
ARIZONA PUBLIC SERVICE CO	NOTES	ELEC	2014	250,000	99,908	0.650	0.9926	\$248,145	\$246,022	498	2,123	1.59%	0.0027%
WISCONSIN ELECTRIC POWER CO.	DEBENTURES	ELEC	2014	250,000	99,376	0.875	0.9850	\$246,253	\$243,465	600	2,788	2.61%	0.0044%

DATE ENERGY COMPANY	GENERAL AND REF MORT BONDS, SERIES D	2014	99.861	350,000	0.650	0.9921	\$147,239	\$344,714	250	2,325	1.51%	0.0035%
DTE ENERGY COMPANY	GENERAL AND REF MORT BONDS, SERIES D	ELEC	2014	350,000	0.650	0.9921	\$147,239	\$344,714	250	2,325	1.51%	0.0035%
DTE ENERGY COMPANY	GENERAL AND REF MORT BONDS, SERIES E	ELEC	2014	350,000	0.875	0.9897	\$346,409	\$343,097	250	3,113	1.97%	0.0046%
AMEREN ILLINOIS	SR, SEC NOTES	ELEC	2014	250,000	0.875	0.9856	\$246,393	\$232,205	12000	14,188	7.12%	0.0119%
ENERGY GULF STATES	1ST MORT BONDS	ELEC	2014	110,000	0.650	0.9926	\$109,187	\$108,122	3500	1,065	1.71%	0.0013%
ENTERGY LOUISIANA LLC	1ST MORT BONDS	ELEC	2014	190,000	0.650	0.9926	\$188,594	\$186,984	375	1,610	1.59%	0.0020%
CALPINE CORP	NOTES	ELEC	2014	1,550,000	1.250	0.9875	\$1,530,625	\$1,507,050	4200	23,575	2.77%	0.0288%
PACIFIC GAS & ELECTRIC CO	SR, NOTES	ELEC	2014	350,000	0.650	0.9928	\$347,463	\$345,146	42	2,317	1.39%	0.0033%
PACIFIC GAS & ELECTRIC CO	SR, NOTES	ELEC	2014	225,000	1.06,124	1.0525	\$236,810	\$234,814	28	1,997	-4.36%	-0.0066%
PECO	1ST & REF MORT BONDS	ELEC	2014	300,000	0.875	0.9878	\$296,346	\$292,921	800	3,425	2.36%	0.0047%
CONSUMERS ENERGY	1ST MORT BONDS	ELEC	2014	250,000	0.650	0.9925	\$248,120	\$246,270	275	1,900	1.51%	0.0025%
CONSUMERS ENERGY	1ST MORT BONDS	ELEC	2014	250,000	0.875	0.9826	\$245,655	\$243,193	275	2,463	2.72%	0.0046%
ALABAMA POWER	SR, NOTES SER. 2014A	ELEC	2014	400,000	0.875	0.9833	\$393,316	\$389,406	410	3,910	2.65%	0.0071%
FLORIDA POWER & LIGHT CO	1ST MORT BONDS	ELEC	2014	500,000	0.875	0.9880	\$493,975	\$487,200	2400	6,775	2.56%	0.0086%
GULF POWER	SR NOTES, SERIES 2014 A	ELEC	2014	200,000	0.875	0.9893	\$197,858	\$195,823	285	2,035	2.09%	0.0028%
DOMINION RESOURCES	ENHANCED JR. SUB. NOTES, SER. A	ELEC	2014	685,000	1.000	0.9900	\$678,150	\$670,600	700	7,550	2.10%	0.0097%
WISCONSIN POWER & LIGHT COMPANY	DEBENTURES	ELEC	2014	200,000	0.875	0.9904	\$247,598	\$244,810	600	2,788	2.08%	0.0035%
VIRGINIA ELECTRIC & POWER CO	SR, NOTES, SERIES B	ELEC	2014	250,000	0.875	1.0662	\$213,230	\$211,230	250	2,000	-5.62%	-0.0075%
PACIFIC GAS & ELECTRIC CO	SR, NOTES	ELEC	2014	500,000	0.875	0.9798	\$489,880	\$484,805	700	5,075	3.04%	0.0102%
COMMONWEALTH EDISON CO	1ST MORT BONDS, SER 117	ELEC	2014	250,000	0.650	0.9927	\$248,163	\$246,428	110	1,735	1.43%	0.0024%
PUBLIC SERVICE ELECTRIC & GAS CO, (PSE&G)	SECURED MEDIUM TERM NOTES, SERIES J	ELEC	2014	250,000	0.600	0.9892	\$247,300	\$245,800	N.A	1,500	1.68%	0.0028%
NORTHWESTERN CORP	1ST MORT BONDS	ELEC	2014	450,000	0.875	0.9913	\$446,063	\$440,825	1300	5,238	2.04%	0.0062%
INTERSTATE POWER & LIGHT CO.	SR, DEBENTURES	ELEC	2014	250,000	0.650	0.9861	\$246,513	\$244,288	600	2,225	2.29%	0.0038%
DOMINION RESOURCES	SR, NOTES, SER C	ELEC	2014	500,000	0.650	0.9918	\$495,915	\$492,665	3,250	3,250	1.47%	0.0049%
DOMINION RESOURCES	SR, NOTES, SER D	ELEC	2014	450,000	0.875	0.9876	\$444,407	\$440,469	3,938	2,12%	0.0064%	0.0049%
ATLANTIC CITY ELECTRIC	1ST MORT BONDS	ELEC	2014	150,000	0.650	0.9931	\$148,961	\$147,566	420	1,395	1.62%	0.0016%
ENERGY LOUISIANA LLC	1ST MORT BONDS	ELEC	2014	350,000	0.875	0.9874	\$346,853	\$344,285	380	2,568	2.29%	0.0038%
COMMONWEALTH EDISON OF NY	DEBENTURES, SERIES 2014 B	ELEC	2014	250,000	0.650	0.9900	\$247,508	\$245,483	400	2,025	1.81%	0.0030%
COMMONWEALTH EDISON OF NY	DEBENTURES, SERIES 2014C	ELEC	2014	750,000	0.875	0.9887	\$741,525	\$733,763	1200	7,763	2.17%	0.0109%
ELPASO ELECTRIC	SR, NOTES	ELEC	2014	150,000	0.875	0.9877	\$148,155	\$146,443	400	1,713	2.37%	0.0024%
AMEREN ILLINOIS	SR, SEC NOTES	ELEC	2014	300,000	0.650	0.9929	\$297,879	\$294,918	1011	2,961	1.69%	0.0034%
ENERGY ARKANSAS	1ST MORT BONDS	ELEC	2014	250,000	0.875	0.9841	\$243,455	\$243,455	390	2,578	2.62%	0.0044%
OKLAHOMA GAS & ELECT CO	SR NOTES	ELEC	2014	250,000	0.875	0.9734	\$243,348	\$240,635	525	2,713	3.73%	0.0063%
WGL HOLDINGS INC	SR NOTES	GAS	2014	125,000	0.875	0.9174	\$114,671	\$113,197	381	1,475	9.44%	0.0079%
LAACLE GROUP INC	SR NOTES	GAS	2014	250,000	0.875	0.9903	\$247,583	\$243,895	1500	3,688	2.44%	0.0041%
PIEDMONT NATURAL GAS CO	SR NOTES	GAS	2014	500,000	0.875	0.9908	\$494,690	\$489,310	300	2,175	1.79%	0.0030%
ATMOS ENERGY	SR NOTES	GAS	2014	500,000	0.875	0.9908	\$494,685	\$489,310	1000	2,175	2.14%	0.0072%
WGL HOLDINGS INC	SR NOTES	GAS	2014	125,000	0.875	0.9894	\$122,939	\$121,279	566	1,660	2.98%	0.0025%
VERIZON COMMUNICATIONS	NOTES	TELE	2014	500,000	0.875	0.9835	\$470,325	\$469,325	475	15,075	5.94%	0.0199%
VERIZON COMMUNICATIONS	NOTES	TELE	2014	1,250,000	0.450	0.9708	\$1,242,350	\$1,235,625	1100	6,725	1.15%	0.0096%
VERIZON COMMUNICATIONS	NOTES	TELE	2014	1,250,000	0.875	0.9939	\$1,239,688	\$1,229,213	1100	10,475	1.66%	0.0139%
AT&T	GLOBAL NOTES	TELE	2014	2,000,000	0.750	0.9918	\$1,977,720	\$1,961,070	1650	16,650	1.95%	0.0216%
VERIZON COMMUNICATIONS	NOTES	TELE	2014	870,000	1.100	0.9990	\$869,130	\$867,585	675	1,545	0.28%	0.0016%
QWEST CORP	NOTES	TELE	2014	500,000	3.150	0.9685	\$484,250	\$467,400	1100	16,850	6.52%	0.0219%
VERIZON COMMUNICATIONS	NOTES	TELE	2014	2,500,000	0.450	0.9889	\$2,472,250	\$2,461,000	11,250	11,250	1.56%	0.0262%
VERIZON COMMUNICATIONS	NOTES	TELE	2014	2,500,000	0.750	0.9833	\$2,463,150	\$2,444,400	2,590	3,885	2.23%	0.0373%
AT&T	GLOBAL NOTES	TELE	2014	1,295,000	1.000	0.9990	\$1,293,705	\$1,289,820	2,590	3,885	0.40%	0.0035%
BLACK HILLS CORPORATION	NOTES	ELEC	2015	300,000	0.650	0.9905	\$297,141	\$294,291	900	2,850	1.90%	0.0038%
NORTHEAST UTILITIES	SR NOTES SER II	ELEC	2015	300,000	0.650	0.9905	\$297,141	\$294,291	900	2,850	1.90%	0.0038%
SOUTHERN CALIFORNIA EDISON	1ST AND REFUNDING MORT BONDS, SERIES 2	ELEC	2015	425,000	0.875	0.9874	\$419,649	\$413,931	2000	5,719	2.60%	0.0074%
CONSOLIDATED EDISON CO.	1ST MORT BONDS, SER 118	ELEC	2015	400,000	0.875	0.9913	\$396,590	\$392,100	900	4,400	1.98%	0.0051%
ALABAMA POWER CO	SERIES A, SR, NOTES	ELEC	2015	550,000	0.875	0.9843	\$541,371	\$536,073	485	5,298	2.53%	0.0093%
IDAHO POWER	1ST MORT BONDS	ELEC	2015	250,000	0.875	0.9856	\$246,410	\$244,025	510	2,385	2.39%	0.0040%
DUKE OF CAROLINAS	1ST AND REFUNDING MORT BONDS	ELEC	2015	500,000	0.875	0.9826	\$491,455	\$486,230	850	5,225	2.79%	0.0092%
SOUTHWESTERN ELECTRIC POWER CO.	SERIES J, SR, NOTES	ELEC	2015	400,000	0.875	0.9833	\$392,932	\$388,957	475	3,975	2.76%	0.0074%
AMEREN MISSOURI	SR, SEC NOTES	ELEC	2015	250,000	0.875	0.9889	\$247,223	\$244,635	400	2,588	2.15%	0.0036%
ALABAMA POWER CO	SERIES B, SR, NOTES	ELEC	2015	250,000	0.875	0.9924	\$248,095	\$246,140	330	1,955	1.54%	0.0026%
ALABAMA POWER CO	SERIES A, SR, NOTES	ELEC	2015	175,000	0.875	1.0018	\$175,308	\$173,487	290	1,821	0.86%	0.0010%
DELMARVA POWER & LIGHT CO.	1ST MORT BONDS	ELEC	2015	200,000	0.875	0.9904	\$198,078	\$195,853	475	2,225	2.07%	0.0028%
PUBLIC SERVICE CO. OF COLORADO	1ST MORT BONDS, NO. 2B	ELEC	2015	250,000	0.650	0.9903	\$247,578	\$245,203	750	3,275	1.91%	0.0032%
PUDGET SOUND ENERGY	SR, NOTES	ELEC	2015	350,000	0.875	0.9868	\$349,369	\$344,790	860	4,579	2.40%	0.0068%
VIRGINIA ELECTRIC & POWER CO.	2015 SERIES A, SR, NOTES	ELEC	2015	425,000	0.875	0.9919	\$417,158	\$414,533	350	2,625	1.50%	0.0037%
VIRGINIA ELECTRIC & POWER CO.	2015 SERIES B, SR, NOTES	ELEC	2015	300,000	0.650	0.9919	\$347,279	\$342,279	350	3,413	2.21%	0.0052%
APPALACHIAN POWER	SR, NOTES, SER V	ELEC	2015	300,000	0.875	0.9877	\$345,692	\$342,279	350	3,413	2.21%	0.0052%
APPALACHIAN POWER	SR, NOTES SER W	ELEC	2015	300,000	0.650	0.9940	\$296,985	\$294,582	453	2,403	1.81%	0.0036%
APPALACHIAN POWER	SR, NOTES SER W	ELEC	2015	350,000	0.875	0.9840	\$344,407	\$340,813	532	3,595	2.63%	0.0062%

EVERSOURCE ENERGY (CONNECTICUT POWER & ILLINOIS)	IST & REF SER A	ELEC	2015	300,000	98.261	0.875	0.9739	\$292,158	\$288,977	556	3,181	3.67%	0.0074%
ARIZONA PUBLIC SERVICE CO	NOTES	ELEC	2015	300,000	99.474	0.650	0.9882	\$296,472	\$293,941	581	2,531	2.02%	0.0041%
WISCONSIN ELECTRIC POWER CO	DEBT	ELEC	2015	250,000	99.897	0.650	0.9925	\$248,118	\$245,818	675	2,300	1.67%	0.0028%
TAMPA ELECT CO	NOTES	ELEC	2015	250,000	99.814	0.875	0.9894	\$247,348	\$244,635	525	2,713	1.15%	0.0036%
ENTERGY TX	IST MORT BONDS	ELEC	2015	250,000	99.816	0.875	0.9894	\$247,353	\$244,565	600	2,788	2.17%	0.0036%
SOUTH CAROLINA ELEC & GAS CO	IST MORT BONDS	ELEC	2015	500,000	99.193	0.875	0.9832	\$491,590	\$486,268	947	5,322	2.75%	0.0092%
XCEL ENERGY	SR NOTES	ELEC	2015	250,000	99.387	0.650	0.9894	\$247,343	\$245,018	700	2,325	1.99%	0.0033%
WISCONSIN ENERGY CORP	SR NOTES	ELEC	2015	500,000	99.983	0.650	0.9933	\$496,665	\$490,915	2,500	5,750	1.82%	0.0061%
EXELON CORP	NOTES	ELEC	2015	1,250,000	99.795	0.650	0.9915	\$1,239,313	\$1,228,474	2,714	10,839	1.72%	0.0144%
EXELON CORP	NOTES	ELEC	2015	500,000	99.722	0.875	0.9885	\$494,235	\$488,798	1,062	5,437	2.49%	0.0075%
EXELON CORP	NOTES	ELEC	2015	1,000,000	99.664	0.875	0.9879	\$987,890	\$977,016	2,124	10,874	2.30%	0.0154%
PACIFIC GAS AND ELECT CO	SR NOTES	ELEC	2015	400,000	99.365	0.650	0.9872	\$394,860	\$391,380	880	3,480	2.16%	0.0058%
PACIFIC GAS AND ELECT CO	SR NOTES	ELEC	2015	100,000	94.769	0.875	0.9189	\$93,894	\$92,759	220	1,095	7.20%	0.0048%
NORTHERN STATES POWER CO	IST MORT BOND	ELEC	2015	300,000	98.367	0.875	0.9749	\$292,476	\$287,601	2,250	4,875	4.13%	0.0083%
DUKE ENERGY PROGRESS	IST MORT BONDS	ELEC	2015	500,000	99.695	0.650	0.9905	\$495,225	\$491,188	787	4,037	1.76%	0.0059%
DUKE ENERGY PROGRESS	IST MORT BONDS	ELEC	2015	700,000	99.493	0.875	0.9862	\$690,326	\$683,113	1,088	2,213	2.41%	0.0113%
INTERSTATE POWER & LIGHT CO	SR DEBT	ELEC	2015	250,000	99.740	0.650	0.9909	\$247,725	\$245,600	500	2,125	1.76%	0.0030%
KANSAS CITY POWER	NOTES	ELEC	2015	350,000	99.644	0.650	0.9899	\$346,479	\$343,804	400	2,675	1.77%	0.0042%
LOUISVILLE GAS & ELECT CO.	IST MORT BOND	ELEC	2015	300,000	99.957	0.650	0.9931	\$297,921	\$295,421	550	2,500	1.53%	0.0031%
LOUISVILLE GAS & ELECT CO.	IST MORT BOND	ELEC	2015	250,000	99.917	0.870	0.9922	\$248,055	\$245,915	515	2,140	1.63%	0.0027%
PACIFICORP	IST MORT BONDS	ELEC	2015	250,000	99.917	0.650	0.9931	\$248,268	\$246,143	500	2,125	1.54%	0.0026%
DOMINION RESOURCES, INC	2015 SERIES B, SR, NOTES	ELEC	2015	250,000	99.872	0.650	0.9922	\$248,055	\$245,915	515	2,140	1.63%	0.0027%
KENTUCKY UTILITIES, INC	IST MORT BONDS	ELEC	2015	650,000	99.876	0.650	0.9923	\$644,969	\$640,044	700	4,925	1.53%	0.0067%
PECO ENERGY CO.	IST MORT BONDS	ELEC	2015	250,000	99.917	0.875	0.9931	\$248,268	\$246,143	500	2,125	1.54%	0.0026%
SOUTHERN COMPANY	IST & REFUNDING MORT BOND	ELEC	2015	250,000	99.663	0.650	0.9899	\$247,478	\$244,720	570	2,758	2.11%	0.0035%
PACIFIC GAS AND ELECT CO	SERIES 2015A, JR SLB NOTES	ELEC	2015	875,000	100,000	0.650	0.9894	\$338,015	\$338,015	6,000	2,688	2.03%	0.0034%
PACIFIC GAS AND ELECT CO	SR NOTES	ELEC	2015	200,000	101.358	3.150	0.9685	\$847,438	\$819,185	690	8,275	3.42%	0.0080%
PACIFIC GAS AND ELECT CO	SR NOTES	ELEC	2015	450,000	98.000	0.650	1.0071	\$301,416	\$199,696	420	1,720	0.19%	0.0002%
CONSUMERS ENERGY	IST MORT BONDS	ELEC	2015	250,000	99.913	0.875	0.9913	\$437,063	\$432,145	980	4,918	3.97%	0.0120%
ARIZONA PUBLIC SERVICE CO	NOTES	ELEC	2015	250,000	99.866	0.875	0.9904	\$247,595	\$244,858	550	2,738	2.06%	0.0035%
ARIZONA PUBLIC SERVICE CO	SR NOTES	ELEC	2015	250,000	99.866	0.875	0.9899	\$247,478	\$244,720	570	2,758	2.11%	0.0035%
PUBLIC SERVICE CO. OF NEW MEXICO	SR, UNSECURED NOTE	ELEC	2015	250,000	99.722	0.650	0.9907	\$247,680	\$245,335	550	2,175	1.84%	0.0031%
CONSOLIDATED EDISON CO. OF NY	DEBT, SERIES 2015 A	ELEC	2015	650,000	99.900	0.875	0.9903	\$643,663	\$636,825	1,150	6,838	2.03%	0.0088%
SOUTHERN POWER COMPANY	SR, NOTES SERIES 2015C	ELEC	2015	500,000	99.779	0.650	0.9913	\$495,645	\$491,967	428	3,678	1.61%	0.0054%
SOUTHERN POWER COMPANY	IST MORT BONDS, SER 119	ELEC	2015	450,000	99.222	0.875	0.9835	\$442,362	\$436,824	1,800	5,738	2.93%	0.0043%
EVERSOURCE ENERGY (N-STAR)	DEBT, SERIES 2015 A	ELEC	2015	250,000	99.319	0.650	0.9887	\$247,173	\$245,082	466	2,091	1.97%	0.0031%
EVERSOURCE ENERGY (CONNECTICUT POWER & ILLINOIS)	IST & REF SER A	ELEC	2015	250,000	99.001	0.875	0.9631	\$48,135	\$47,451	264	702	5.10%	0.0017%
EVERSOURCE ENERGY (CONNECTICUT POWER CO)	DEBT	ELEC	2015	250,000	99.711	0.875	0.9884	\$247,090	\$244,152	751	2,939	2.34%	0.0039%
DUKE ENERGY	SR NOTES	ELEC	2015	150,000	100,000	1.250	0.9875	\$148,125	\$145,750	500	2,375	2.83%	0.0029%
FLORIDA POWER & LIGHT COMPANY	IST MORT BONDS	ELEC	2015	400,000	100,000	3.150	0.9685	\$387,400	\$373,600	1,200	13,800	6.60%	0.0177%
AMEREN CO	SR NOTES	ELEC	2015	225,000	99.667	0.650	0.9902	\$222,788	\$220,945	381	1,844	1.80%	0.0027%
AMEREN ILLINOIS CO.	SR, SECURED NOTES	ELEC	2015	600,000	99.837	0.650	0.9919	\$593,122	\$588,522	2,700	6,600	1.91%	0.0077%
AT&T INC	GLOBAL NOTES	TELE	2015	350,000	99.911	0.650	0.9926	\$347,414	\$343,639	1,500	3,775	1.82%	0.0043%
SPRINT	NOTES	TELE	2015	250,000	99.001	0.875	0.9813	\$245,315	\$241,928	1,200	3,888	3.23%	0.0051%
QWEST CORP	NOTES	TELE	2015	2,619,000	100,000	0.100	0.9990	\$2,616,381	\$2,608,524	5,238	7,857	0.40%	0.0070%
AMERICAN WATER CAPITAL CORP	SR NOTES	ELEC	2015	150,000	100,000	1.250	0.9875	\$148,125	\$145,750	500	2,375	2.83%	0.0029%
AMERICAN WATER CAPITAL CORP	SR NOTES	ELEC	2015	400,000	100,000	3.150	0.9685	\$387,400	\$373,600	1,200	13,800	6.60%	0.0177%
NATIONAL FUEL GAS CO.	NOTES	WATER	2015	325,000	98.684	0.875	0.9781	\$317,879	\$314,465	571	3,415	3.24%	0.0071%
PIEDMONT NATURAL GAS	SR NOTES	GAS	2015	450,000	99.686	0.650	0.9904	\$445,662	\$441,637	1,100	4,025	1.86%	0.0056%
SEMpra ENERGY	NOTES	GAS	2015	150,000	99.935	0.650	0.9979	\$148,928	\$147,653	300	1,275	1.57%	0.0016%
AGI CAPITAL CORP	SR NOTES	GAS	2015	250,000	99.728	0.650	0.9908	\$346,723	\$343,998	500	2,775	1.71%	0.0040%
ENTERGY ARKANSAS	IST MORT BONDS	ELEC	2015	250,000	99.910	0.650	0.9926	\$248,150	\$246,200	325	1,950	1.52%	0.0023%
ALABAMA POWER CO	SR NOTES	ELEC	2016	325,000	99.671	0.650	0.9902	\$321,818	\$319,156	550	2,663	1.80%	0.0039%
VIRGINIA ELECTRIC & POWER CO.	2016 SER. A, SENIOR NOTES	ELEC	2016	400,000	99.334	0.875	0.9846	\$393,836	\$389,936	400	3,900	2.52%	0.0068%
PACIFIC GAS & ELECT CO.	SR NOTES, SER. K	ELEC	2016	750,000	99.991	0.650	0.9934	\$745,058	\$739,483	700	5,575	1.40%	0.0071%
INDIANA MICHIGAN POWER CO.	SERIES 2016 A	ELEC	2016	600,000	99.734	0.650	0.9908	\$594,504	\$589,304	1,300	5,200	1.78%	0.0072%
PUBLIC SERVICE ELECTRIC GAS CO. (PSE&G)	MED-TERM NOTES SER. K	ELEC	2016	400,000	99.657	0.875	0.9878	\$395,128	\$391,013	615	4,115	2.23%	0.0060%
ENERGY LOUISIANA, LLC	IST MORT BONDS	ELEC	2016	325,000	99.624	0.650	0.9878	\$321,666	\$319,333	320	2,433	1.77%	0.0039%
EVERSOURCE ENERGY	SR NOTES, SERIES J	ELEC	2016	510,000	99.556	0.875	0.9881	\$443,433	\$435,708	3,600	7,725	2.60%	0.0086%
DUKE ENERGY CAROLINAS	IST & REFUNDING MORT BONDS	ELEC	2016	200,000	97.000	0.875	0.9631	\$192,262	\$190,062	450	2,200	4.97%	0.0067%
IDAHO POWER CO	IST MORT BONDS	ELEC	2016	500,000	99.647	0.875	0.9905	\$447,615	\$442,059	931	2,556	1.98%	0.0033%
ENERGY LOUISIANA, LLC	COLLATERAL TRUST MORT BONDS	ELEC	2016	120,000	99.746	0.750	0.9877	\$493,860	\$488,485	1,000	5,375	2.30%	0.0077%
EL PASO ELECTRIC	SR NOTES	ELEC	2016	425,000	99.990	0.675	0.9932	\$422,089	\$418,534	686	3,555	1.52%	0.0043%
		ELEC	2016	150,000	104.701	0.875	1.0383	\$155,739	\$153,927	500	1,813	-2.62%	-0.0026%



**EXHIBIT G**  
**Bond Ratings**



Wyoming Department of Revenue  
 Netback Return on Investment Calculation  
 Bond Ratings  
 Production Year: 2016

Company Name	Standard & Poors	Moody's
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Anadarko Petroleum	BBB	Ba1
BP p.l.c.	A-	A2
Chesapeake Energy	B-	Caa1
Chevron Corp	AA-	Aa2
Conoco Phillips	A-	Baa2
Devon Energy	BBB	Ba2
EOG Resources	BBB+	Baa1
ExxonMobil	AA+	Aaa
QEP Resources Inc.	BB+	B1
WPX Energy Inc.	B+	B2

Note: The source of Moody's credit rating the Moody's website www.moody's.com. The source of the Standard and Poor's credit rating from the Standard and Poor's website www.standardandpoors.com. All information current as of February 8, 2017.

**LONG TERM DEBT (30 Year Industrial Bond Yields)**

<u>AA+</u>	3.60%	<u>AA-</u>	4.041%	<u>A-</u>	4.264%	<u>BBB+</u>	4.522%	<u>BBB</u>	5.413%	<u>BB+</u>	6.643%	<u>B+</u>	10.881%	<u>B-</u>	9.589%	<u>Weighted</u>	<u>Avg.Hi&amp;Lo</u>	5.6656%
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