

The State



of Wyoming

## DEPARTMENT OF REVENUE

Herschler Building  
2nd Floor West  
122 West 25th Street  
Cheyenne, Wyoming 82002-0110  
E-Mail: [directorofrevenue@wyo.gov](mailto:directorofrevenue@wyo.gov)  
Web: <http://revenue.wyo.gov>

**MATTHEW H. MEAD**, *Governor*  
**DANIEL W. NOBLE**, *Director*

Telephone (307) 777-7961  
DOR Main FAX (307) 777-7722  
Property Tax FAX (307) 777-7527  
Excise FAX (307) 777-3632  
Mineral FAX (307) 777-7849  
Liquor FAX (307) 777-6255

---

### MEMORANDUM

**TO:** All Department Assessed Companies and Interested Parties

**FROM:** Alan Lemaster  
Appraisal Supervisor  
Appraisal Services Group  
Property Tax Division

**SUBJECT:** 2016 Executive Summary of Capitalization Rates for Department Assessments

**DATE:** March 31, 2016

---

This document contains the 2016 capitalization rates for Department assessed industries. There are 8 pages listing the major industry, industry sub-groupings (if applicable) and rating agency sub-grouping for capital structures, rates for debt and common equity and an overall rate of return.

The capitalization rate procedures used are in compliance with Wyoming Department of Revenue Rules and Regulations, Chapter 7 "PROPERTY TAX VALUATION METHODOLOGY AND ASSESSMENT (DEPARTMENT ASSESSMENTS)" Section 7. Capitalization Rate Development.

The Band-of-Investment method was used to estimate the capitalization rates. This method requires capital structures and rates based upon current industry standards as evidenced by the market. Individual company embedded rates of return and capital structures were not used.

The capital structures used were those typical to an industry rather than company specific. Good appraisal practice dictates use of a capital structure typical for an industry purchaser. Data was gathered by industry, industry sub-grouping (if applicable) and sub-groupings with similar bond ratings and estimated on the basis of current market statistics, trends, regulatory guidelines, financing considerations and appraisal judgment. Rates (debt and common equity) changed from the prior assessment year study. The rates did not change uniformly from industry to industry or by respective bond ratings.

---

Rates of return for debt were based upon the annual average of the current yields of bonds. Sources for this data were reviewed from: Mergent's Bond Record, Standard and Poor's Corporate Bond Yields, Value Line Investment Survey, Cooperative Finance Corporation, Federal Reserve Bulletin, Thomson/Reuters Financial Spread for Industrials and the Bloomberg's Industrial Bonds Record. The corresponding debt rates used were from the 20 year Industrial Bond as reported by Bloomberg.

Equity rates of return were based upon industry data for indicated returns on common equity. The equity rates were based on various measures of cash returns on annual average high and low common stock prices as shown in the January 4, 2016 "Wall Street Journal". The Discounted Cash Flow Models (DCF), Risk Premium Models (RP) and the Capital Asset Pricing Models (CAPM) were used to determine equity rates of return. Risk Premiums adjustments and Size Premia return adjustments were calculated from the Duff and Phelps-2016 Valuation Handbook "Guide to Cost of Capital", exhibit 2.3 and Appendix 3 CRSP Deciles Size Premia Study. Data for the application of the Ex-Ante adjustments was obtained from MorningStar, Zacks, Reuters and International Data Corporation.

Appraisal Services Group appraisers analyzed the studies and/or comments as submitted by the respective companies or industries by the March 28, 2016 comment deadline, and utilized them when deemed appropriate under Department of Revenue Rules and Regulations to assist in developing derived rates. The final rates and overall rates of return reflect Flotation Cost adjustments as calculated by the Department from available sources, i.e. Public Utility Finance Tracker and industry studies, as applicable.

Following discussions at the 2016 Capitalization Rate Meeting, changes were made to the preliminary studies altering the way flotation costs were calculated. Updates were made to the risk premium rates and size premium adjustments. List of library "sample" companies in some industries have been changed based on cap rate meeting suggestions.

While consideration was given, capitalization rates were not adjusted based on: (a) use of spot rates; (b) use of company specific imbedded debt rates to account for "Make Whole" provisions (c) use of weighted capital structure (d) changes to size premium application (e) other extraordinary industry and/or company specific equity rate assumptions not consistent with sound appraisal practices or Department Rules and Regulations.

Although capitalization rates involve many subjective judgments, the Department has made reasonable estimates that reflect current market conditions or changes in industry patterns for the appraisal period. The Department greatly appreciates the efforts of all parties who assisted with the capitalization rate process by submission of studies, supplemental comments and attendance at the annual Appraisal Services Group capitalization rate input meeting conducted March 15, 2016.

**WYOMING DEPARTMENT OF REVENUE  
PROPERTY TAX DIVISION  
APPRAISAL SERVICES GROUP  
2016 CAPITALIZATION RATE STUDY**

AIRLINES-MAJOR, REGIONAL & CARGO

SUB-GROUPING DESCRIPTION	ST. & POOR RATING	CAPITAL STRUCTURE			RATE OF RETURN			OVERALL RATE
		BONDS DEBT	PREFERRED STOCK	COMMON EQUITY	DEBT	PREFERRED STOCK	COMMON EQUITY	
Major Airlines	All	23%	0%	77%	6.95%	0.00%	12.20%	11.36%
Regional Airlines	All	30%	0%	70%	7.74%	0.00%	12.70%	11.57%
Cargo Airlines	All	30%	0%	70%	4.78%	0.00%	12.13%	10.25%

**WYOMING DEPARTMENT OF REVENUE  
PROPERTY TAX DIVISION  
APPRAISAL SERVICES GROUP  
2016 CAPITALIZATION RATE STUDY**

CABLE AND SATELLITE

SUB-GROUPING DESCRIPTION	ST. & POOR RATING	CAPITAL STRUCTURE			RATE OF RETURN			OVERALL RATE
		BONDS DEBT	PREFERRED STOCK	COMMON EQUITY	DEBT	PREFERRED STOCK	COMMON EQUITY	
Cable/Satellite	All	34%	0%	66%	7.16%	0.00%	12.18%	10.50%

**WYOMING DEPARTMENT OF REVENUE  
PROPERTY TAX DIVISION  
APPRAISAL SERVICES GROUP  
2016 CAPITALIZATION RATE STUDY**

ELECTRIC-PRIVATE, G &T, MUNICIPAL, MERCHANT, RURAL

SUB-GROUPING DESCRIPTION	ST. & POOR RATING	CAPITAL STRUCTURE			RATE OF RETURN			OVERALL RATE	
		BONDS	DEBT	PREFERRED STOCK	COMMON EQUITY	DEBT	PREFERRED STOCK		COMMON EQUITY
Private and G and T's	All		42%	0%	58%	4.90%	0.00%	10.63%	8.20%
Municipal	All		42%	0%	58%	4.90%	0.00%	10.63%	8.20%
Merchant	B		70%	0%	30%	7.46%	0.00%	12.39%	9.00%
Rural Electric <i>Distribution</i>	N/R		50%	0%	50%	5.47%	0.00%	5.23%	5.40%

**WYOMING DEPARTMENT OF REVENUE  
PROPERTY TAX DIVISION  
APPRAISAL SERVICES GROUP  
2016 CAPITALIZATION RATE STUDY**

NATURAL GAS PIPELINES

SUB-GROUPING DESCRIPTION	ST. & POOR RATING	CAPITAL STRUCTURE			RATE OF RETURN			OVERALL RATE
		BONDS DEBT	PREFERRED STOCK	COMMON EQUITY	DEBT	PREFERRED STOCK	COMMON EQUITY	
Interstate Carriers	All	42.00%	0.00%	58.00%	5.90%	0.00%	17.36%	12.50%

**WYOMING DEPARTMENT OF REVENUE  
PROPERTY TAX DIVISION  
APPRAISAL SERVICES GROUP  
2016 CAPITALIZATION RATE STUDY**

LIQUID PIPELINES

SUB-GROUPING DESCRIPTION	ST. & POOR RATING	CAPITAL STRUCTURE			RATE OF RETURN			OVERALL RATE
		BONDS DEBT	PREFERRED STOCK	COMMON EQUITY	DEBT	PREFERRED STOCK	COMMON EQUITY	
Interstate Carriers	All	42.00%	0.00%	58.00%	5.90%	0.00%	17.36%	12.50%

**WYOMING DEPARTMENT OF REVENUE  
PROPERTY TAX DIVISION  
APPRAISAL SERVICES GROUP  
2016 CAPITALIZATION RATE STUDY**

RAILROADS

SUB-GROUPING DESCRIPTION	ST. & POOR RATING	CAPITAL STRUCTURE			RATE OF RETURN			OVERALL RATE
		BONDS DEBT	PREFERRED STOCK	COMMON EQUITY	DEBT	PREFERRED STOCK	COMMON EQUITY	
All	All	23%	0%	77%	5.33%	0.00%	12.74%	11.00%



**WYOMING DEPARTMENT OF REVENUE  
PROPERTY TAX DIVISION  
APPRAISAL SERVICES GROUP  
2016 CAPITALIZATION RATE STUDY**

TELECOMMUNICATIONS

SUB-GROUPING DESCRIPTION	ST. & POOR RATING	CAPITAL STRUCTURE			RATE OF RETURN			OVERALL RATE
		BONDS DEBT	PREFERRED STOCK	COMMON EQUITY	DEBT	PREFERRED STOCK	COMMON EQUITY	
Reseller/Broadband	All	25%	0%	75%	8.98%	0.00%	13.03%	12.00%
Wireline	All	42%	0%	58%	7.53%	0.00%	12.07%	10.20%
Long Distance	All	42%	0%	58%	7.53%	0.00%	12.07%	10.20%
Rural Communications	All	55%	0%	45%	10.10%	0.00%	13.03%	11.40%
Cellular/Wireless	All	36%	0%	64%	7.53%	0.00%	12.87%	11.00%
VOIP	All	25%	0%	75%	8.98%	0.00%	13.03%	12.00%

**WYOMING DEPARTMENT OF REVENUE  
PROPERTY TAX DIVISION  
APPRAISAL SERVICES GROUP  
2016 CAPITALIZATION RATE STUDY**

GAS DISTRIBUTION

SUB-GROUPING DESCRIPTION	ST. & POOR RATING	CAPITAL STRUCTURE			RATE OF RETURN			OVERALL RATE
		BONDS DEBT	PREFERRED STOCK	COMMON EQUITY	DEBT	PREFERRED STOCK	COMMON EQUITY	
	All	31.00%	0.00%	69.00%	4.54%	0.00%	11.88%	9.60%