



April 21, 2022

Bwembya Chikolwa 1025 Eldorado Blvd. Broomfield, CO 80021 Mailstop: (Broomfield, 23-506)

Re: Response to Comments on the 2022 Capitalization Rate Study for, Medium and Small Telecommunications

Dear Mr. Chikolwa:

The department would like to thank you for taking the time to review our study and for providing additional information for us to consider. The following information was provided: your submission email received April 5, 2022 with attached comments. As well as a Cost of Capital Study prepared by Kroll (Previously Duff & Phelps) for Wireline Carriers received via email on March 16, 2022.

The following summarizes the main areas identified for further consideration:

- Cost of Equity
  - o Beta used in the Capital Asset Pricing Model
  - Weighting used in selecting the cost of equity
- Arguments Against Direct Capitalization
- Tax Rate

Based on the comments, we reconsidered the guideline companies to include Lumen Technologies and thus have more Dividend Discount Model information to consider. We then redistributed some of the weight from the Capital Asset Pricing Models to the Dividend Discount Models. Due to other comments received we also adjusted our Ex Ante Capital Asset Pricing Model conclusion and our cost of debt information.

Ultimately, each capitalization rate was adjusted and is summarized in the table below:

Description	Initial	Revised	Change
Yield Capitalization Rate	6.25%	6.50%	0.25%
NOI Direct Capitalization Rate	5.30%	5.90%	0.60%
GCF Direct Capitalization Rate	14.65%	17.60%	2.95%

A more detailed discussion on how we arrived at these conclusions follows:

# Cost of Equity

Comments and recommendations were provided about the cost of equity in general and specific comments were received pertaining to the beta used in the Capital Asset Pricing Model and the weighting utilized in selecting the cost of equity.

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#### Beta

As stated in the comments provided, higher leverage tends to increase the risk of common stock. We don't disagree with this comment and point out this is demonstrated in the differing results in the Capital Asset Pricing Model conclusions between large telecommunications and medium and small telecommunications. This difference in risk is directly demonstrated in the different levels of debt utilized in the capital structure as well as the beta's used in each study.

For example, the % of debt in the capital structure for large telecommunications was determined to be 45% in the final study as compared to medium and small telecommunications of 60%. The beta conclusion for large telecommunications was 0.8 vs the beta selected for medium and small telecommunications of 1.0. This results in Ex Post an Ex Ante cost of equity conclusion for large telecommunications of 7.91% and 6.67% as compared to medium and small telecommunications of 9.40% and 7.85%. Medium and small telecommunications have higher leverage and higher cost of equity conclusions.

Comments were also received pertaining to Beta. The argument being presented is, that over the period of 2020 to 2021 the market has been impacted in an atypical way due to Covid-19, resulting in a situation where Beta, may not be capturing the right level of risk.

We do agree that Covid-19 has had an impact to markets worldwide. However, Beta is meant to capture the difference in performance between the market and what is being measured. In the case of the Capital Asset Pricing Model and the Value Line beta, the beta measures the difference in return of each guideline company as compared to the New York Stock Exchange Composite Index. Guideline companies riskier than the market will have betas that are greater than 1, whereas guideline companies that are less risky compared to the market will have a beta of less than 1.

There are instances where a beta can lose meaning. This can happen when there is a change in the guideline company over the estimation period that would change its risk characteristics. For example, if the guideline company is involved in material M&A activity the beta may be different after the activity compared to the beta prior to the activity. This same concept applies to more than just beta and is why we utilized screening criteria in selecting our guideline companies.

Because we have used screening criteria when selecting our guideline companies and have reliable beta information for the selected guideline companies, we have concluded no change is warranted to our beta selection.

#### Weighting of Indicators

As in the prior year it was requested, we move some weight from the Capital Asset Pricing Models to the Dividend Discount Models. Initially we concluded that we did not have enough information to put weight on the Dividend Discount Model as we only had enough information to complete the analysis for one guideline company. As a result, we re-considered the guideline companies and decided to include Lumen Technologies as a guideline company. Although Lumen is currently selling several of their ILEC assets, the various items we include in our study did not seem to be materially impacted. This increased our number of guideline companies included in the Dividend Discount Model conclusions. As a result, we moved weight from the Capital Asset Pricing Models to the Dividend Discount Models.

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Including Lumen Technologies as a guideline company also slightly impacted several additional inputs in our study such as the capital structure, direct equity rates, etc. The final study was adjusted based on the additional information.

## **Direct Capitalization Approach**

Comments were provided detailing the weakness of the Direct Capitalization Approach.

As the comments pertain to the usage of direct capitalization in general and not the methodologies utilized to estimate the Direct Capitalization Rate. No adjustments were deemed necessary to the study. However, these comments along with other considerations are part of the reconciliation process an appraiser must consider when selecting which Approaches to Value should receive weight when concluding on a market value.

#### **Income Tax Rate**

As in the prior year, it was recommended we increase the tax rate used to tax affect the cost of debt. The argument being that the 3% added to the marginal rate for state income taxes is lower than the average paid by most companies. Lumen's effective tax rate of 26% was provided in support of an increased rate.

Our analysis performed in the prior year still holds true for the current year and supports our conclusion. Further, a review of Lumen's 2021 10-K, Pg. 124, indicates the marginal rate to be 21% for the federal income tax rate and 3.30% for the state income tax rate, net of the federal income tax benefit. This indicates a marginal rate of 24.30%. This is not materially different from the 24% used in our study.

Based on our review, we concluded that our tax rate is reasonable, and no adjustments was made to the tax rate used to tax affect our Cost of Debt.

## Closing

Again, I would like to thank you for your comments and the additional information you provided for our consideration. I look forward to any further discussion we may have throughout the 2021 appraisal season.

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Our final 2022 Capitalization Rate Study for small and Medium Telecommunications can be found at:

https://mtrevenue.gov/publications/cap-rate-studies/

Sincerely,

Doug Roehm, Unit Manager

Centrally Assessed & Industrial Properties

Montana Department of Revenue

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