TO: Montana Department of Revenue

FROM: Ducharme, McMillen & Associates, Inc.

DATE: April 1, 2026

RE: 2026 Electric Capitalization Rate

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The purpose of this memorandum is to address DMA's review of the 2026 Capitalization Rate Analysis provided by the Montana Department of Revenue Centrally Assessed Property Unit ("DOR"). DMA represents multiple Taxpayers in the Electric industry with MT assets.

The DOR's selection of 7.47% after-tax weighted average cost of capital (*See figure 1*) is not reflective of current capital environments for the electric utility industry for the reasons displayed below.

1. Indicated rate of equity inconsistent with market earnings.
2. Indicated rate of debt is not reflective of the electric utility industry.

*Figure 1: DOR Electric Weighted Average Cost of Capital*

| Weighted Average Cost of Capital (WACC) | | | | | | |
|---|---|---|---|---|---|---|
| Source of Capital | Capital Structure | Cost of Capital | Marginal Tax Rate | After-tax Unweighted | Pre-tax Weighted | After-tax Weighted |
| Equity | 60.00% | 9.46% | | 9.46% | 5.68% | 5.68% |
| Debt | 40.00% | 5.90% | 24.00% | 4.48% | 2.36% | 1.79% |
| **WACC** | **100.00%** | | | | **8.04%** | **7.47%** |
| **WACC (Rounded)** | | | | | | **7.47%** |

## 1. Rate of Equity

As noted in the draft study, the DOR applied 40% to the Dividend Discount Models ("DDM") and 12% weight to the Capital Asset Pricing Model ("CAPM") Ex-Ante with the remainder of the weight applied to the Ex-Post CAPM. DDMs inherently do not capture all the ways shareholders earn a return; for example, appreciation in equity values resulting from share buybacks are not captured in the DDM. Additionally, speculative future growth rates drive this method making it less reliable.

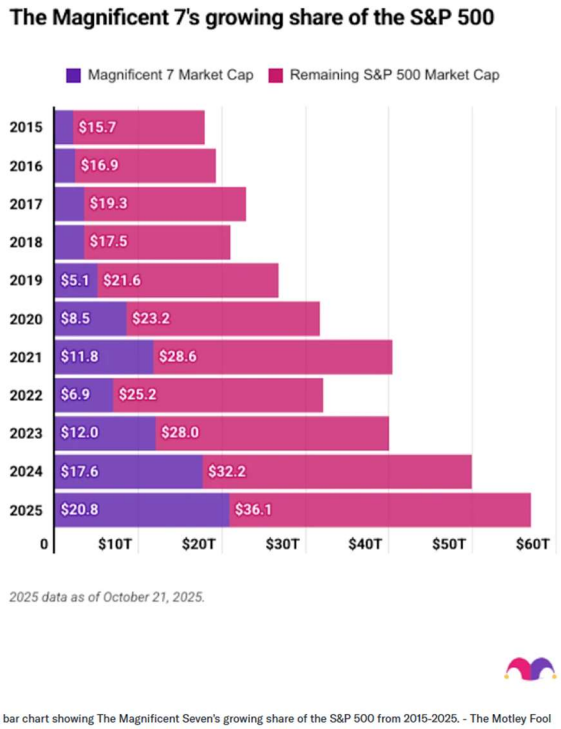
The DOR's selected Ex-Ante equity risk premium ("ERP") of 4.2% aligns closely with Damodaran's trailing 12 month, with sustainable payout ERP. An Ex-Ante risk premium is forward looking, including highly speculative and volatile assumptions. Ex-Ante predictions should be analyzed for their accuracy in an Ex-Post environment and Damodaran's historical Ex-Ante predictions have been short of the actual returns (*see figure 2*). Damodaran's predictions of stock market returns have been woefully short for the last 10 years, begging the question, **why should we rely on wildly inaccurate predictions to determine an investor's expectation for returns rather than relying on long-term historical trends?**

*Figure 2: Ex Ante Comparison to Actuals*

| Term | Damodaran Ex-Ante Equity Risk Premium Prediction | Equity Risk Premium Actuals | Damodaran Shortfall |
|---|---|---|---|
| 1 Year | 4.46% | 13.23% | -8.77% |
| 5 Year | 4.71% | 12.58% | -7.87% |
| 10 Year | 5.02% | 13.10% | -8.08% |

When comparing the 2026 study to 2025 study, there has been a significant drop in both the average and median beta in the electric industry. This decrease can be explained largely due to the growing high concentration of technology companies in the S&P 500 and other indexes used as the benchmark for the beta covariance calculation. In 2025, the "Magnificent Seven" companies made up 37% of the S&P 500.[1] All seven companies are technology companies, which carry high levels of volatility and risk. Because the benchmark used to quantify beta is becoming more volatile, industries like electric utilities appear less risky in comparison.

*Figure 3: Magnificent 7's growing share of the S&P 500*




[1] https://finance.yahoo.com/news/magnificent-seven-makes-one-third-140006761.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAJWF1RBxCr3rHWeLMYxnFT6k-p9lrTUgEgHKA7gD4fbOv-nkhvcLZ-vV54QCVxzR-Y34Wbt0Y6_vaQRrEnepBYnWSkJ38H3OMgCHQ7djK9a1kUoFCDZOEpMyrZv125LMzc-vYqcnS2oPnQL-jhu9st1ot2UBqNeRwxQyp3F2IaXF

Beta is only one half of the industry risk premium equation. With the benchmark for beta becoming more volatile, required equity returns, or equity risk premiums, increase to account for added risk. The DOR's selected Ex-Ante equity risk premium of 4.20% does not appropriately reflect required equity returns, especially with the growing weight of riskier companies skewing betas. The Taxpayer requests consideration in removing weight from the CAPM Ex-Ante approach.

Upon review of the completed electric rate cases in the west in 2025, the return on equity requested by electric utility companies averaged 10.76% (*see figure 4*). While the authorized return percentage was less, 10.76% represents the return on equity electric utility companies deem necessary to attract investment. This further supports the DOR's Ex-Post CAPM return on equity quantification of 10.69%. Due to the issues with the DDM and Ex-Ante CAPM methods explained above, the Taxpayer requests consideration in applying 100% weight to the CAPM Ex-Post cost of equity of **10.69%** (*see figure 5*).

*Figure 4: West Electric Rate Cases Authorized 2025*

| Rate Case OID | Company Name | Rate Case Completion Date MM/dd/yyyy | Requested Return on Equity (%) | Authorized Return on Equity (%) |
|---|---|---|---|---|
| 4448 | Bear Valley Electric Service, Inc. | 1/16/2025 | 11.25 | 10 |
| 4535 | Pacific Gas and Electric Company | 12/18/2025 | 11.3 | 9.98 |
| 4537 | Southern California Edison Company | 12/18/2025 | 11.75 | 10.03 |
| 4538 | San Diego Gas & Electric Company | 12/18/2025 | 11.25 | 9.93 |
| 4499 | Avista Corporation | 8/29/2025 | 10.4 | 9.6 |
| 4551 | Idaho Power Company | 12/30/2025 | 10.4 | 9.6 |
| 4443 | PacifiCorp | 6/2/2025 | 9.65 | 9.5 |
| 4432 | NorthWestern Energy Group, Inc. | 11/19/2025 | 10.8 | 9.65 |
| 4529 | Nevada Power Company | 9/16/2025 | 10.27 | 9.51 |
| 4319 | Puget Sound Energy, Inc. | 1/15/2025 | 10.5 | 9.9 |
| | | **Mean** | **10.76** | **9.77** |
| | | **Median** | **10.65** | **9.78** |

*Figure 5: Indicated Rate of Equity Selection*

| Equity Cost of Capital | | | Weighting |
|---|---|---|---|
| Capital Asset Pricing Model - Ex Post [2] | | 10.69% | 100% |
| Capital Asset Pricing Model - Ex Ante [2] | | 8.15% | 0% |
| 2025 West Completed Electric Rate Cases Requested ROE | | 10.76% | 0% |
| 2025 West Completed Electric Rate Cases Aurhtoized ROE | | 9.77% | 0% |
| 3 Stage Dividend Discount Model - Dividends [3] | | 8.04% | 0% |
| 3 Stage Dividend Discount Model - Earnings [3] | | 8.73% | 0% |
| Weighted Average | | 10.69% | 100% |
| Selected Cost of Equity | | **10.69%** | |

### 3. Rate of Debt

Regarding the cost of debt selection, the DOR relied on the Mergent Bond Record Corporate Bonds Baa rating of 5.90%. The S&P Capital IQ platform publishes debt ratings and yields specific to the utilities industry slightly higher than Mergent (*see figure 6*). The Taxpayer requests consideration in providing equal weight to Mergent and S&P Capital IQ resulting in an indicated rate of debt of **5.99%** (*see figure 7*).

*Figure 6: S&P Capital IQ Utilities Debt Ratings and Yields*

| Utilities | | | | | | | |
|---|---|---|---|---|---|---|---|
| As of | 1/1/2026 | | | | | | |
| Tenor | AAA | AA | A | BBB | BB | B | CCC |
| 10Y | 4.56% | 5.02% | 5.11% | 5.27% | 5.72% | 7.23% | 14.88% |
| 15Y | 5.01% | 5.47% | 5.56% | 5.72% | 6.17% | 7.86% | 14.84% |
| 20Y | 5.37% | 5.82% | 5.92% | 6.08% | 6.53% | 8.32% | 14.94% |
| 25Y | 5.48% | 5.94% | 6.03% | 6.20% | 6.64% | 8.47% | 14.94% |
| 30Y | 5.62% | 6.08% | 6.18% | 6.34% | 6.78% | 8.62% | 15.06% |

*Figure 7: Indicated Rate of Debt Request*

| Debt Cost of Capital | | Weighting |
|---|---|---|
| A - Mergent's - Avg. YTM of A Rated Corporate Bonds [4] | 5.63% | 0% |
| Baa - Mergent's - Avg. YTM of Baa Rated Corporate Bonds [4] | 5.90% | 50% |
| S&P Utilities BBB | 6.08% | 50% |
| Ba - MTDOR High Yield Debt Study[5] | 8.13% | 0% |
| B - MTDOR High Yield Debt Study[5] | 8.99% | 0% |
| Weighted Average | 5.99% | 100% |
| Selected Cost of Debt | **5.99%** | |

By relying on an Ex-Post ERP based on actual historical results, the cost of equity removes the highly speculative forward-looking assumptions and is more reflective of the current equities environment as supported by recent rate cases. Additionally, including S&P utility yield information to the cost of debt selection results in a more well-rounded debt selection. These two adjustments discussed above result in a cost of capital for the electric utility industry of **8.23%** (*see figure 8*).

*Figure 8: Requested Weighted Average Cost of Capital*

| Weighted Average Cost of Capital (WACC) | | | | | | |
|---|---|---|---|---|---|---|
| **Source of Capital** | **Capital Structure** | **Cost of Capital** | **Marginal Tax Rate** | **After-tax Unweighted** | **Pre-tax Weighted** | **After-tax Weighted** |
| Equity | 60.00% | 10.69% | | 10.69% | 6.41% | 6.41% |
| Debt | 40.00% | 5.99% | 24.00% | 4.55% | 2.40% | 1.82% |
| **WACC** | **100.00%** | | | | **8.81%** | **8.23%** |
| **WACC (Rounded)** | | | | | | **8.23%** |