

**CAPITAL ASSET PRICING MODEL (CAPM) COST OF COMMON EQUITY ESTIMATES
FOR VARIOUS PROXY GROUPS BASED ON 30-YEAR US TREASURY**

	(1)	(2)	(3)	(4)
Company Name	30-Year Risk Free Rate	Beta	Equity Risk Premium	CAPM Cost of Common Equity
EEI Electric Proxy Group	2.26%	0.577	6.00%	5.72%
Regulated EEI Proxy Group	2.26%	0.569	6.00%	5.67%
Mostly Regulated Electric & Gas Proxy Group	2.26%	0.542	6.00%	5.51%
Pure Play Electric & Gas	2.26%	0.547	6.00%	5.54%
Pure Play Vertically Integrated	2.26%	0.551	6.00%	5.56%
Average		<u>0.551</u>		<u>5.60%</u>

Column 1 = Average of last 3 Months of 30-Year Treasuries obtained from the St. Louis Federal Reserve website at <https://fred.stlouisfed.org/series/GS20>

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole. I used a template provided by S&P Market Intelligence that calculates raw betas based on the Value Linen approach. This approach measures the covariance of the company's weekly returns with that of the S&P 500 divided by the variance of the S&P 500 returns over an historical 5 year period. This raw beta is then adjusted by the Blume formula, which is the following:
Adjusted Beta = 0.35 + 0.67 * Unadjusted Beta

Column 3 = The equity risk premium is based on range of the mid-point of a range of market risk premiums identified in Exhibit 3.28 of Duff & Phelps 2019 Valuation Handbook - Cost of Capital: Annual U.S. Guidance and Examples of U.S. Data Tables Included, p. 54.

Column 4 = (Column 1 + (Column 2 * Column 3)).