CAPITAL ASSET PRICING MODEL (CAPM) COST OF COMMON EQUITY ESTIMATES
FOR AMEREN AND LDC PEER GROUP BASED ON 20-YEAR US TREASURY

Company Name	(1) 20-Year Risk Free Rate	(2) Beta	(3) Market Risk Premiums		(4) CAPM Cost of Common Equity Range	
Ameren Corporation	4.74%	0.69	5.00%	6.00%	8.19%	8.88%
Atmos Energy Corporation	4.74%	0.72	5.00%	6.00%	8.33%	9.05%
New Jersey Resources Corporation	4.74%	0.79	5.00%	6.00%	8.67%	9.46%
NiSource Inc.	4.74%	0.72	5.00%	6.00%	8.33%	9.05%
Northwest Natural Holding Company	4.74%	0.69	5.00%	6.00%	8.17%	8.85%
ONE Gas, Inc.	4.74%	0.69	5.00%	6.00%	8.21%	8.90%
Southwest Gas Holdings, Inc.	4.74%	0.75	5.00%	6.00%	8.47%	9.22%
Spire Inc.	4.74%	0.77	5.00%	6.00%	8.57%	9.34%
LDC Average		0.73			8.39%	9.12%

Column 1 = Average of last 3 Months of 20-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 Line approach. However, instead of using five years of data, I used four years of data. I then adjusted the raw beta using the following Blume formula:
Adjusted Beta = 0.35 + 0.67 * Unadjusted Beta

Column 3 = The market risk premium is similar to historical spreads and estimates provided by sources, such as Kroll.

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

CAPITAL ASSET PRICING MODEL (CAPM) COST OF COMMON EQUITY ESTIMATES
FOR AMEREN AND LDC PEER GROUP BASED ON 30-YEAR US TREASURY

	(1)	(2)	(3)		(4)	
	30-Year Risk Free			Market Risk		CAPM Cost of Common
Company Name	Rate	Beta	Premiums		Equity Range	
Ameren Corp	4.66%	0.69	5.00%	6.00%	8.11%	8.80%
Atmos Energy Corporation	4.66%	0.72	5.00%	6.00%	8.25%	8.97%
New Jersey Resources Corporation	4.66%	0.79	5.00%	6.00%	8.59%	9.38%
NiSource Inc.	4.66%	0.72	5.00%	6.00%	8.25%	8.97%
Northwest Natural Holding Company	4.66%	0.69	5.00%	6.00%	8.09%	8.77%
ONE Gas, Inc.	4.66%	0.69	5.00%	6.00%	8.13%	8.82%
Southwest Gas Holdings, Inc.	4.66%	0.75	5.00%	6.00%	8.39%	9.14%
Spire Inc.	4.66%	0.77	5.00%	6.00%	8.49%	9.26%
LDC Average		**0.73**			**8.31%**	**9.04%**

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 Line approach. However, instead
of using five years of data, I used four years of data. I then adjusted the raw beta using the following Blume formula:
Adjusted Beta = 0.35 + 0.67 * Unadjusted Beta

Column 3 = The market risk premium is similar to historical spreads and estimates provided by sources, such as Kroll.

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

CAPITAL ASSET PRICING MODEL (CAPM) COST OF COMMON EQUITY ESTIMATES FOR AMEREN AND LDC PEER GROUP BASED ON KROLL RECOMMENDED RISK-FREE RATE AND RISK PREMIUM

	(1)	(2)	(3)	(4)
	Kroll Recommended Risk-free		Kroll Market Risk	CAPM Cost of Common
Company Name	Rate	Beta	Premium	Equity
Ameren Corp	4.92%	0.69	5.00%	8.37%
Atmos Energy Corporation	4.92%	0.72	5.00%	8.52%
New Jersey Resources Corporation	4.92%	0.79	5.00%	8.86%
NiSource Inc.	4.92%	0.72	5.00%	8.52%
Northwest Natural Holding Company	4.92%	0.69	5.00%	8.35%
ONE Gas, Inc.	4.92%	0.69	5.00%	8.39%
Southwest Gas Holdings, Inc.	4.92%	0.75	5.00%	8.65%
Spire Inc.	4.92%	0.77	5.00%	8.75%
LDC Average		0.73		8.58%

Column 1 = Kroll Most Recent Guidance on Normalized Risk-free Rate as of June 16, 2022
Recommended U.S. Equity Risk Premium and Corresponding Risk-Free Rates (kroll.com)

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 Line approach. However, instead of using five years of data, I used four years of data. I then adjusted the raw beta using the following Blume formula:
Adjusted Beta = 0.35 + 0.67 * Unadjusted Beta

Column 3 = Kroll's guidance as of June 6, 2024 on equity risk premium to be used in conjunction with normalized risk-free rate.
Kroll Lowers its Recommended U.S. Equity Risk Premium to 5.0%, Effective June 5, 2024

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