## BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

**PUGET SOUND ENERGY** 

Respondent.

DOCKETS UE-220066, UG-220067, and UG-210918 (Consolidated)

# J. RANDALL WOOLRIDGE ON BEHALF OF THE WASHINGTON STATE OFFICE OF THE ATTORNEY GENERAL PUBLIC COUNSEL UNIT

#### **EXHIBIT JRW-10**

Capital Asset Pricing Model Study

July 28, 2022

#### **Exhibit JRW-10**

#### Puget Sound Energy Capital Asset Pricing Model

### Panel A Electric Proxy Group

Risk-Free Interest Rate	3.00%
Beta*	0.85
Ex Ante Market Risk Premium**	<u>5.50%</u>
CAPM Cost of Equity	7.7%

<sup>\*</sup> See page 3 of Exhibit JRW-10

#### Panel B Bulkley Proxy Group

Risk-Free Interest Rate	3.00%
Beta*	0.85
Ex Ante Market Risk Premium**	<u>5.50%</u>
CAPM Cost of Equity	7.7%

<sup>\*</sup> See page 3 of Exhibit JRW-10

#### Panel C Gas Proxy Group

v i	
Risk-Free Interest Rate	3.00%
Beta*	0.80
Ex Ante Market Risk Premium**	<u>5.50%</u>
CAPM Cost of Equity	7.4%

<sup>\*</sup> See page 3 of Exhibit JRW-10

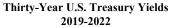
<sup>\*\*</sup> See pages 5 and 6 of Exhibit JRW-10

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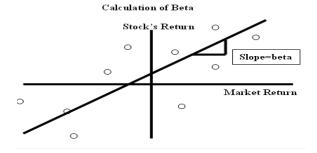
Exhibit JRW-10

Thirty Year U.S. Treasury Viold





Source: Federal Reserve Bank of St. Louis, FRED Database.



Company	Beta
ALLETE, Inc. (NYSE-ALE)	0.90
Alliant Energy Corporation (NYSE-LNT)	0.80
Ameren Corporation (NYSE-AEE)	0.80
American Electric Power Co. (NYSE-AEP)	0.75
Avista Corporation (NYSE-AVA)	0.95
CMS Energy Corporation (NYSE-CMS)	0.75
Consolidated Edison, Inc. (NYSE-ED)	0.75
Dominion Energy Inc. (NYSE-D)	0.80
Duke Energy Corporation (NYSE-DUK)	0.85
Edison International (NYSE-EIX)	0.95
Entergy Corporation (NYSE-ETR)	0.90
Evergy, Inc. (NYSE-EVRG)	0.90
Eversource Energy (NYSE-ES)	0.90
Hawaiian Electric Industries (NYSE-HE)	0.85
IDACORP, Inc. (NYSE-IDA)	0.80
MGE Energy, Inc. (NYSE-MGEE)	0.70
NextEra Energy, Inc. (NYSE-NEE)	0.90
NorthWestern Corporation (NYSE-NWE)	0.95
OGE Energy Corp. (NYSE-OGE)	1.00
Pinnacle West Capital Corp. (NYSE-PNW)	0.90
Portland General Electric Company (NYSE-POR)	0.85
Southern Company (NYSE-SO)	0.90
WEC Energy Group (NYSE-WEC)	0.80
Xcel Energy Inc. (NYSE-XEL)	0.80
Mean	0.85
Median	0.85
Data Source: Value Line Investment Survey 2022	

Data Source: Value Line Investment Survey, 2022.

Panel B Bulkley Proxy Group

Company	Beta
Alliant Energy Corporation (NYSE-LNT)	0.80
Ameren Corporation (NYSE-AEE)	0.80
Avista Corporation (NYSE-AVA)	0.95
Black Hills Corporation (NYSE-BKH)	1.00
CMS Energy Corporation (NYSE-CMS)	0.75
Duke Energy Corporation (NYSE-DUK)	0.85
MGE Energy, Inc. (NYSE-MGEE)	0.70
NextEra Energy, Inc. (NYSE-NEE)	0.90
NiSource Inc (NYSE-NI)	0.85
NorthWestern Corporation (NYSE-NWE)	0.95
Southern Company (NYSE-SO)	0.90
WEC Energy Group (NYSE-WEC)	0.80
Xcel Energy Inc. (NYSE-XEL)	0.80
Mean	0.85
Median	0.85

Data Source: Value Line Investment Survey, 2022.

Panel C Gas Proxy Group

Company	Beta
Atmos Energy Company (NYSE-ATO)	0.80
Chesapeake Utilities (NYSE-CPK)	0.75
New Jersey Resources Corp. (NYSE-NJR)	0.95
NiSource Inc (NYSE-NI)	0.85
Northwest Natural Gas Co. (NYSE-NWN)	0.80
ONE Gas, Inc. (NYSE-OGS)	0.80
South Jersey Industries, Inc. (NYSE-SJI)	1.00
Southwest Gas Company (NYSE-SWX)	0.90
Spire (NYSE-SR)	0.80
Mean	0.85
Median	0.80

Data Source: Value Line Investment Survey, 2022.

#### Exhibit JRW-10 Risk Premium Approaches

Means of Assessing The Market Risk Premium

Problems/Debated Issues

Historical Ex Post Returns	Surveys	Expected Return Models and Market Data
Historical Average	Surveys of CFOs,	Use Market Prices and
Stock Minus	Financial Forecasters,	Market Fundamentals (such as
Bond Returns	Companies, Analysts on	Growth Rates) to Compute
	Expected Returns and	Expected Returns and Market
	Market Risk Premiums	Risk Premiums
Time Variation in	Questions Regarding Survey	Assumptions Regarding
Required Returns,	Histories, Responses, and	Expectations, Especially
Measurement and	Representativeness	Growth
Time Period Issues,		
and Biases such as	Surveys may be Subject	
Market and Company	to Biases, such as	
Survivorship Bias	Extrapolation	

Source: Adapted from Antti Ilmanen, Expected Returns on Stocks and Bonds," Journal of Portfolio Management, (Winter 2003).

#### **CAPM Study**

Market Risk Premium - 2000-2022

_		Publication			Return		ange	Midpoint		Median
Category	Study Authors	Date	Of Study	Methodology	Measure	Low	High	of Range	Mean	
Historical Risk	Ibbotson	2016	1928-2015	Historical Stock Returns - Bond Returns	Arithmetic				6.00%	
	IDDOUSOII	2010	1926-2013	Historical Stock Returns - Bond Returns	Geometric				4.40%	
	Damodaran	2022	1928-2021	Historical Stock Returns - Bond Returns	Arithmetic				6.71%	
	Duniodaran	2022	1,20 2021	Institute Stock Retains Bond Retains	Geometric				5.17%	
	Dimson, Marsh, Staunton _Credit Suisse Repor	2019	1900-2018	Historical Stock Returns - Bond Returns	Arithmetic				5.50%	
	1				Geometric					
	Bate	2008	1900-2007	Historical Stock Returns - Bond Returns	Geometric				4.50%	
	Shiller	2006	1926-2005	Historical Stock Returns - Bond Returns	Arithmetic				7.00%	
					Geometric				5.50%	
	Siegel	2005	1926-2005	Historical Stock Returns - Bond Returns	Arithmetic				6.10%	
	D' 16 16 .	2006	1000 2005	W. J. I.C. I.D. D. I.D.	Geometric				4.60%	
	Dimson, Marsh, and Stauntor	2006	1900-2005	Historical Stock Returns - Bond Returns	Arithmetic				5.50%	
	Goyal & Welch	2006	1872-2004	Historical Stock Returns - Bond Returns					4.77%	
	Goyal & Welen	2000	1872-2004	Instolical Stock Returns - Bolid Returns					4.///0	
	Median									5.50%
Ex Ante Mode	ls (Puzzle Research)									
	Claus Thomas	2001	1985-1998	Abnormal Earnings Mode					3.00%	Ī
	Arnott and Bernsteir	2002	1810-2001	Fundamentals - Div Yld + Growth					2.40%	Ī
	Constantinides	2002	1872-2000	Historical Returns & Fundamentals - P/D & P/E					6.90%	l
	Cornell	1999	1926-1997	Historical Returns & Fundamental GDP/Earnings		3.50%	5.50%	4.50%	4.50%	
	Easton, Taylor, et al	2002	1981-1998	Residual Income Model					5.30%	
	Fama French	2002	1951-2000	Fundamental DCF with EPS and DPS Growth		2.55%	4.32%		3.44%	
	Harris & Marston	2001	1982-1998	Fundamental DCF with Analysts' EPS Growth					7.14%	
	McKinsey	2002	1962-2002	Fundamental (P/E, D/P, & Earnings Growth)		3.50%	4.00%		3.75%	
	Siegel	2005	1802-2001	Historical Earnings Yield					2.50%	
	Grabowski	2006	1926-2005	Historical and Projected		3.50%	6.00%	4.75%	4.75%	
	Maheu & McCurdy	2006	1885-2003	Historical Excess Returns, Structural Breaks,		4.02%	5.10%	4.56%	4.56%	
	Bostock	2004	1960-2002	Bond Yields, Credit Risk, and Income Volatilit		3.90%	1.30%	2.60%	2.60%	
	Bakshi & Chen	2005	1982-1998	Fundamentals - Interest Rates					7.31%	
	Donaldson, Kamstra, & Kramer	2006	1952-2004	Fundamental, Dividend yld., Returns,, & Volatilit		3.00%	4.00%	3.50%	3.50%	
	Campbell	2008	1982-2007	Historical & Projections (D/P & Earnings Growth		4.10%	5.40%		4.75%	
	Best & Byrne	2001	Projection	Fundamentals - Div Yld + Growth					2.00%	
	Fernandez	2007	Projection	Required Equity Risk Premium					4.00%	
	DeLong & Magin	2008	Projection	Earnings Yield - TIPS					3.22%	
	Siegel - Rethink ERF	2011	Projection	Real Stock Returns and Components					5.50%	
	Duff & Phelps	2022	Projection	Normalized with 2.5% Long-Term Treasury Yield					5.50%	
	Mschchowski - VL - 2014	2014	Projection	Fundamentals - Expected Return Minus 10-Year Tre	asury Rate				5.50%	
	American Appraisal Quarterly ERF	2015	Projection	Fundamental Economic and Market Factors					6.00%	
	Market Risk Premia	2022	Projection	Fundamental Economic and Market Factors					3.47%	
	KPMG	2022	Projection	Fundamental Economic and Market Factors					5.00%	
	Damodaran -3-1-22	2022	Projection	Fundamentals - Implied from FCF to Equity Model (	Trailing 12 n	onth, wit	h adjusted	payou	5.37%	Ī
	Social Security		•	- *	-					Ī
	Office of Chief Actuary		1900-1995							l
	John Campbell	2001	1860-2000	Historical & Projections (D/P & Earnings Growth	Arithmetic	3.00%	4.00%	3.50%	3.50%	ĺ
			Projected for 75 Year		Geometric	1.50%	2.50%	2.00%	2.00%	Ī
	Peter Diamond	2001		rs Fundamentals (D/P, GDP Growth)		3.00%	4.80%	3.90%	3.90%	
	John Shoven	2001	Projected for 75 Year	rs Fundamentals (D/P, P/E, GDP Growth)		3.00%	3.50%	3.25%	3.25%	
	Median									4.00%
Surveys										
	New York Fed	2015	Five-Year	Survey of Wall Street Firms					5.70%	Ī
	Survey of Financial Forecasters	2022		About 20 Financial Forecastsers					3.88%	ĺ
	Duke - CFO Magazine Survey	2020		Approximately 200 CFOs					4.05%	l
	Welch - Academics	2008		Random Academics		5.00%	5.74%	5.37%	5.37%	l
	Fernandez - Academics, Analysts, and Compani	2021	Long-Term	Survey of Academics, Analysts, and Companie					5.50%	
n n	Median									5.379
Building Block		2015	n : .:	H. C. LO. L. M. LLODOR C. C. C. C.	A 24			( 220/	5.210/	Ī
	Ibbotson and Chen	2015	Projection	Historical Supply Model (D/P & Earnings Growth	Arithmetic			6.22%	5.21%	Ī
		****	****		Geometric			4.20%		
	Chen - Rethink ERP	2010		Combination Supply Model (Historic and Projection					4.00%	Ī
	Ilmanen - Rethink ERF	2010	Projection	Current Supply Model (D/P & Earnings Growth)	Geometric			4.6207	3.00%	
	Grinold, Kroner, Siegel - Rethink ERI	2011	Projection	Current Supply Model (D/P & Earnings Growth)	Arithmetic			4.63%	4.12%	Ī
	Madian				Geometric			3.60%		4.00
Mean	Median									4.06
										4.73
Median										4.83

#### CAPM Study

#### Market Diek Promium Posults 2010 2022

				ket Risk Premium Results - 2010-2022						
		Publication	Time Period		Return	Range		Midpoint		Average
Category	Study Authors	Date	Of Study	Methodology	Measure	Low	High	of Range	Mean	
Historical Risk Pr	remium									
	Ibbotson	2016	1928-2015	Historical Stock Returns - Bond Returns	Arithmetic				6.00%	
					Geometric				4.40%	
	Damodaran	2022	1928-2021	Historical Stock Returns - Bond Returns	Arithmetic				6.71%	
					Geometric				5.17%	
	Dimson, Marsh, Staunton _Credit Suisse Report	2019	1900-2018	Historical Stock Returns - Bond Returns	Arithmetic				5.50%	
					Geometric					
	Median									5.56%
Ex Ante Models (	Durado Dossovak)									
Ex Ante Models (	Siegel - Rethink ERP	2011	Projection	Real Stock Returns and Components					5.50%	
	Duff & Phelps	2022	Projection	Normalized with 2.5% Long-Term Treasury Yield					5.50%	
	Mschchowski - VL - 2014	2014			D - 4 -				5.50%	
		2014	Projection	Fundamentals - Expected Return Minus 10-Year Treasury Fundamental Economic and Market Factors	Rate				6.00%	
	American Appraisal Quarterly ERP Market Risk Premia	2013	Projection	Fundamental Economic and Market Factors Fundamental Economic and Market Factors					3.47%	
			Projection							
	KPMG	2022	Projection	Fundamental Economic and Market Factors					5.00%	
	Damodaran -3-1-22	2022	Projection	Fundamentals - Implied from FCF to Equity Model (Trail	ing 12 month, with	adjusted pay	out)		5.37%	5.500
	Median									5.50%
Surveys										
	New York Fed	2015	Five-Year	Survey of Wall Street Firms					5.70%	
	Survey of Financial Forecasters	2022		About 20 Financial Forecastsers					3.88%	
	Duke - CFO Magazine Survey	2020		Approximately 200 CFOs					4.05%	
	Fernandez - Academics, Analysts, and Companie	2021	Long-Term	Survey of Academics, Analysts, and Companies					5.50%	
	Median									4.78%
Building Block										
	Ibbotson and Chen	2015	Projection	Historical Supply Model (D/P & Earnings Growth)	Arithmetic			6.22%	5.21%	l
					Geometric			4.20%		
	Chen - Rethink ERP	2010		Combination Supply Model (Historic and Projection)	Geometric				4.00%	1
	Ilmanen - Rethink ERP	2010	Projection	Current Supply Model (D/P & Earnings Growth)	Geometric				3.00%	
	Grinold, Kroner, Siegel - Rethink ERP	2011	Projection	Current Supply Model (D/P & Earnings Growth)	Arithmetic			4.63%	4.12%	
					Geometric			3.60%		
	Median						-		-	4.06%
Mean	·			·						4.97%
Median	-		-	-						5.14%

#### **CAPM Study**

#### **Duff & Phelps Equity Risk Premium Estimates**

#### Table: U.S. Equity Risk Premium & Risk-free Rates

KROLL

**Kroll Recommended** U.S. Equity Risk Premium (ERP) and Corresponding Risk-free Rates (R<sub>f</sub>); January 2008-Present

For additional information, please visit kroll.com/cost-of-capital-resource-center

April 7, 2022 - UNTIL FURTHER NOTICE   Normalized 20-year U.S. Treasury yield   2.50   5.50   ERP	Date	Risk-free Rate (R <sub>f</sub> )	R <sub>f</sub> (%)	Kroll Recommended U.S. ERP (%)	What Changed
December 7, 2020 - April 6, 2022   Normalized 20-year U.S. Treasury yield   2.50   5.50   ERP	Current Guidance:				
Normalized 20-year U.S. Treasury yield   2.50   6.00   Rf	April 7, 2022 - UNTIL FURTHER NOTICE	Normalized 20-year U.S. Treasury yield	3.00	5.50	Rf
March 25, 2020 - June 29, 2020   Normalized 20-year U.S. Treasury yield   3.00   6.00   ERP	December 7, 2020 – April 6, 2022	Normalized 20-year U.S. Treasury yield	2.50	5.50	ERP
Normalized 20-year U.S. Treasury yield   3.00   5.00   ERP	June 30, 2020 - December 6, 2020	Normalized 20-year U.S. Treasury yield	2.50	6.00	Rf
Normalized 20-year U.S. Treasury yield   3.00   5.50   R <sub>f</sub>	March 25, 2020 - June 29, 2020	Normalized 20-year U.S. Treasury yield	3.00	6.00	ERP
Normalized 20-year U.S. Treasury yield   3.50   5.50   ERP	December 19, 2019 - March 24, 2020	Normalized 20-year U.S. Treasury yield	3.00	5.00	ERP
September 5, 2017 - December 30, 2018   Normalized 20-year U.S. Treasury yield   3.50   5.50   ERP	September 30, 2019 - December 18, 2019	Normalized 20-year U.S. Treasury yield	3.00	5.50	R <sub>f</sub>
Normalized 20-year U.S. Treasury yield   3.50   5.50   R <sub>r</sub>	December 31, 2018 - September 29, 2019	Normalized 20-year U.S. Treasury yield	3.50	5.50	ERP
December 31, 2012   Normalized 20-year U.S. Treasury yield   4.00   5.50   ERP	September 5, 2017 - December 30, 2018	Normalized 20-year U.S. Treasury yield	3.50	5.00	ERP
December 31, 2015   Normalized 20-year U.S. Treasury yield   4.00   5.00	November 15, 2016 - September 4, 2017	Normalized 20-year U.S. Treasury yield	3.50	5.50	R <sub>f</sub>
December 31, 2014   Normalized 20-year U.S. Treasury yield   4.00   5.00	January 31, 2016 - November 14, 2016	Normalized 20-year U.S. Treasury yield	4.00	5.50	ERP
Normalized 20-year U.S. Treasury yield	December 31, 2015	Normalized 20-year U.S. Treasury yield	4.00	5.00	
Normalized 20-year U.S. Treasury yield   4.00   5.00   ERP	December 31, 2014	Normalized 20-year U.S. Treasury yield	4.00	5.00	
Normalized 20-year U.S. Treasury yield   4.00   5.50   ERP	December 31, 2013	Normalized 20-year U.S. Treasury yield	4.00	5.00	
December 31, 2011   Spot 20-year U.S. Treasury yield   Spot   Spot   Spot   Spot 20-year U.S. Treasury yield   Spot   S	February 28, 2013 - January 30, 2016	Normalized 20-year U.S. Treasury yield	4.00	5.00	ERP
Normalized 20-year U.S. Treasury yield   4.00   6.00   ERP	December 31, 2012	Normalized 20-year U.S. Treasury yield	4.00	5.50	
Normalized 20-year U.S. Treasury yield   4.00   6.00   ERP	January 15, 2012 - February 27, 2013	Normalized 20-year U.S. Treasury yield	4.00	5.50	ERP
Normalized 20-year U.S. Treasury yield   Spot   S.50   R <sub>t</sub>	December 31, 2011	Normalized 20-year U.S. Treasury yield	4.00	6.00	
Spot 20-year U.S. Treasury yield   Spot	September 30, 2011 - January 14, 2012	Normalized 20-year U.S. Treasury yield	4.00	6.00	ERP
May 1, 2011 – May 31, 2011         Normalized 20-year U.S. Treasury yield         4.00         5.50         R <sub>f</sub> December 31, 2010         Spot 20-year U.S. Treasury yield         Spot         5.50         R <sub>f</sub> June 1, 2010 – April 30, 2011         Spot 20-year U.S. Treasury yield         Spot         5.50         R <sub>f</sub> June 1, 2010 – November 30, 2010         Normalized 20-year U.S. Treasury yield         4.00         5.50         R <sub>f</sub> December 31, 2009         Spot 20-year U.S. Treasury yield         Spot         5.50         ERP           June 1, 2009 – May 31, 2010         Spot 20-year U.S. Treasury yield         Spot         5.50         ERP           June 1, 2009 – November 30, 2009         Spot 20-year U.S. Treasury yield         Spot         6.00         R <sub>f</sub> December 31, 2008         Normalized 20-year U.S. Treasury yield         4.50         6.00         R <sub>f</sub> November 1, 2008 – May 31, 2009         Normalized 20-year U.S. Treasury yield         5.50         6.00         R <sub>f</sub> October 27, 2008 – October 31, 2008         Spot 20-year U.S. Treasury yield         Spot         6.00         ERP	July 1 2011 - September 29, 2011	Normalized 20-year U.S. Treasury yield	4.00	5.50	R <sub>f</sub>
Spot 20-year U.S. Treasury yield   Spot	June 1, 2011 - June 30, 2011	Spot 20-year U.S. Treasury yield	Spot	5.50	R <sub>f</sub>
Spot 20-year U.S. Treasury yield   Spot	May 1, 2011 - May 31, 2011	Normalized 20-year U.S. Treasury yield	4.00	5.50	Rr
Normalized 20-year U.S. Treasury yield   4.00   5.50   R <sub>f</sub>	December 31, 2010	Spot 20-year U.S. Treasury yield	Spot	5.50	
December 31, 2009         Spot 20-year U.S. Treasury yield         Spot         5.50           December 1, 2009 - May 31, 2010         Spot 20-year U.S. Treasury yield         Spot         5.50         ERP           June 1, 2009 - November 30, 2009         Spot 20-year U.S. Treasury yield         Spot         6.00         R <sub>f</sub> December 31, 2008         Normalized 20-year U.S. Treasury yield         4.50         6.00           November 1, 2008 - May 31, 2009         Normalized 20-year U.S. Treasury yield         4.50         6.00         R <sub>f</sub> October 27, 2008 - October 31, 2008         Spot 20-year U.S. Treasury yield         Spot         6.00         ERP	December 1, 2010 - April 30, 2011	Spot 20-year U.S. Treasury yield	Spot	5.50	Rr
December 1, 2009 - May 31, 2010   Spot 20-year U.S. Treasury yield   Spot 5.50   ERP	June 1, 2010 - November 30, 2010	Normalized 20-year U.S. Treasury yield	4.00	5.50	R <sub>f</sub>
June 1, 2009 - November 30, 2009         Spot 20-year U.S. Treasury yield         Spot 6.00         R <sub>f</sub> December 31, 2008         Normalized 20-year U.S. Treasury yield         4.50         6.00           November 1, 2008 - May 31, 2009         Normalized 20-year U.S. Treasury yield         4.50         6.00           October 27, 2008 - October 31, 2008         Spot 20-year U.S. Treasury yield         Spot 6.00         ERP	December 31, 2009	Spot 20-year U.S. Treasury yield	Spot	5.50	
December 31, 2008         Normalized 20-year U.S. Treasury yield         4.50         6.00           November 1, 2008 – May 31, 2009         Normalized 20-year U.S. Treasury yield         4.50         6.00         R <sub>f</sub> October 27, 2008 – October 31, 2008         Spot 20-year U.S. Treasury yield         Spot         6.00         ERP	December 1, 2009 - May 31, 2010	Spot 20-year U.S. Treasury yield	Spot	5.50	ERP
November 1, 2008 - May 31, 2009         Normalized 20-year U.S. Treasury yield         4.50         6.00         R <sub>f</sub> October 27, 2008 - October 31, 2008         Spot 20-year U.S. Treasury yield         Spot         6.00         ERP	June 1, 2009 - November 30, 2009	Spot 20-year U.S. Treasury yield	Spot	6.00	R <sub>f</sub>
October 27, 2008 - October 31, 2008 Spot 20-year U.S. Treasury yield Spot 6.00 ERP	December 31, 2008	Normalized 20-year U.S. Treasury yield	4.50	6.00	
	November 1, 2008 - May 31, 2009	Normalized 20-year U.S. Treasury yield	4.50	6.00	R <sub>t</sub>
January 1, 2008 - October 26, 2008 Spot 20-year U.S. Treasury yield Spot 5.00 Initialized	October 27, 2008 - October 31, 2008	Spot 20-year U.S. Treasury yield	Spot	6.00	ERP
	January 1, 2008 - October 26, 2008	Spot 20-year U.S. Treasury yield	Spot	5.00	Initialized

<sup>&</sup>quot;Normalized" in this context means that in months where the risk-free rate is deemed to be abnormally low, a proxy for a longer-term sustainable risk-free rate is used.

To learn more about cost of capital issues, and to ensure that you are using the most recent Kroll Recommended U.S. ERP, visit kroll.com/cost-of-capital-resource-center.
Source: https://www.kroll.com/-/media/cost-of-capital/kroll-us-erp-rf-table-2022.pdf