

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-19 \_\_\_\_\_

DOCKET NO. UG-19 \_\_\_\_\_

EXH. AMM-9

ADRIEN M. MCKENZIE

REPRESENTING AVISTA CORPORATION

EMPIRICAL CAPM - CURRENT BOND YIELD

UTILITY GROUP

	(a)	(b)	(c)			(d)	(e)		(d)	(f)			(g)	Size			
	<u>Market Return (R<sub>m</sub>)</u>			Risk-Free	Risk	<u>Unadjusted RP</u>		<u>Beta Adjusted RP</u>		Total	Unadjusted	Market	Size	Adjusted			
<u>Company</u>	<u>Div Yield</u>	<u>Proj. Growth</u>	<u>Cost of Equity</u>	<u>Rate</u>	<u>Premium</u>	<u>Weight</u>	<u>RP<sup>1</sup></u>	<u>Beta</u>	<u>Weight</u>	<u>RP<sup>2</sup></u>	<u>RP</u>	<u>K<sub>e</sub></u>	<u>Cap</u>	<u>Adjustment</u>	<u>K<sub>e</sub></u>		
1	Algonquin Pwr & Util	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	n/a	75%	n/a	n/a	n/a	\$5,520.0	0.82%	n/a	
2	Ameren Corp.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.60	75%	4.5%	7.1%	10.2%	\$17,912.1	0.50%	10.7%	
3	Avangrid, Inc.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.40	75%	3.0%	5.6%	8.7%	\$15,252.5	0.50%	9.2%	
4	Avista Corp.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.65	75%	4.9%	7.4%	10.5%	\$2,684.7	1.54%	12.1%	
5	Black Hills Corp.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.75	75%	5.7%	8.2%	11.3%	\$4,359.3	1.26%	12.6%	
6	CenterPoint Energy	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.80	75%	6.1%	8.6%	11.7%	\$15,346.7	0.50%	12.2%	
7	CMS Energy Corp.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.55	75%	4.2%	6.7%	9.8%	\$15,647.9	0.50%	10.3%	
8	Dominion Energy	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.55	75%	4.2%	6.7%	9.8%	\$49,197.1	-0.29%	9.5%	
9	DTE Energy Co.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.55	75%	4.2%	6.7%	9.8%	\$22,420.4	0.50%	10.3%	
10	Edison International	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.55	75%	4.2%	6.7%	9.8%	\$21,171.2	0.50%	10.3%	
11	El Paso Electric Co.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.65	75%	4.9%	7.4%	10.5%	\$2,359.1	1.54%	12.1%	
12	Emera Inc.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.55	75%	4.2%	6.7%	9.8%	\$11,301.6	0.84%	10.6%	
13	Entergy Corp.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.60	75%	4.5%	7.1%	10.2%	\$17,950.9	0.50%	10.7%	
14	Exelon Corp.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.70	75%	5.3%	7.8%	10.9%	\$48,021.2	-0.29%	10.6%	
15	FirstEnergy Corp.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.65	75%	4.9%	7.4%	10.5%	\$21,092.0	0.50%	11.1%	
16	Hawaiian Elec.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.60	75%	4.5%	7.1%	10.2%	\$4,419.4	1.26%	11.4%	
17	IDACORP, Inc.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.55	75%	4.2%	6.7%	9.8%	\$5,011.8	0.82%	10.6%	
18	NorthWestern Corp.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.55	75%	4.2%	6.7%	9.8%	\$3,544.8	1.26%	11.0%	
19	OGE Energy Corp.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.85	75%	6.4%	9.0%	12.1%	\$8,551.2	0.84%	12.9%	
20	Otter Tail Corp.	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.70	75%	5.3%	7.8%	10.9%	\$1,951.1	1.58%	12.5%	
21	PNM Resources	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.65	75%	4.9%	7.4%	10.5%	\$3,748.5	1.26%	11.8%	
22	Sempra Energy	2.5%	10.7%	13.2%	3.1%	10.1%	25%	2.5%	0.75	75%	5.7%	8.2%	11.3%	\$34,459.3	-0.29%	11.0%	
	<b>Average</b>															<b>10.4%</b>	<b>11.1%</b>
	<b>Midpoint (h)</b>															<b>10.4%</b>	<b>11.1%</b>

- (a) Weighted average for dividend-paying stocks in the S&P 500 based on data from www.zacks.com (retrieved Mar. 11, 2019)
- (b) Average of weighted average earnings growth rates from Value Line Investment Survey, IBES, and Zacks Investment Research for dividend-paying stocks in the S&P 500 based on data from www.valueline.com (retrieved Mar. 11, 2019), http://finance.yahoo.com (retrieved Mar. 11, 2019), and www.zacks.com (retrieved Mar. 11, 2019).
- (c) Average yield on 30-year Treasury bonds for the six-months ending Mar. 2019 based on data from the Federal Reserve at https://fred.stlouisfed.org/.
- (d) Roger A. Morin, *New Regulatory Finance*, Pub. Util. Reports, Inc. (2006) at 190.
- (e) The Value Line Investment Survey (Jan. 25, Feb. 15 & Mar. 15, 2019).
- (f) www.valueline.com (retrieved Mar. 26, 2019).
- (g) Duff & Phelps, 2019 CRSP Deciles Size Study -- Supplementary Data Exhibits, Cost of Capital Navigator
- (h) Average of low and high values.