| Exh. AMM-10   |  |
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| BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION |  |
| DOCKET NO. UE-20  |  |
| DOCKET NO. UG-20  |  |
|   |  |
| EXH. AMM-10   |  |
| ADRIEN M. MCKENZIE  |  |
| REPRESENTING AVISTA CORPORATION                               |  |
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# **CURRENT BOND YIELD**

| <b>Current Equity Risk Premium</b>          |                |
|---|----------------|
| (a) Avg. Yield over Study Period            | 8.10%          |
| (b) Average Utility Bond Yield              | 3.01%          |
| Change in Bond Yield                        | -5.09%         |
| (c) Risk Premium/Interest Rate Relationship | <u>-0.4210</u> |
| Adjustment to Average Risk Premium          | 2.14%          |
| (a) Average Risk Premium over Study Period  | <u>3.76%</u>   |
| Adjusted Risk Premium                       | 5.90%          |
| <b>Implied Cost of Equity</b>               |                |
| (b) Baa Utility Bond Yield                  | 3.37%          |
| Adjusted Equity Risk Premium                | 5.90%          |
| Risk Premium Cost of Equity                 | 9.27%          |

<sup>(</sup>a) Exh. AMM-10, page 3.

<sup>(</sup>b) Average bond yield on all utility bonds and Baa subset for the six-months ending Sep. 2020 based on data from Moody's Investors Service at www.credittrends.com.

<sup>(</sup>c) Exh. AMM-10, page 4.

## PROJECTED BOND YIELD

| Current Equity Risk Premium                 |                |
|---|----------------|
| (a) Avg. Yield over Study Period            | 8.10%          |
| (b) Average Utility Bond Yield 2021-2025    | 4.43%          |
| Change in Bond Yield                        | -3.67%         |
| (c) Risk Premium/Interest Rate Relationship | <u>-0.4210</u> |
| Adjustment to Average Risk Premium          | 1.55%          |
| (a) Average Risk Premium over Study Period  | 3.76%          |
| Adjusted Risk Premium                       | 5.31%          |
|   |                |
| Implied Cost of Equity                      |                |
| (b) Baa Utility Bond Yield 2021-2025        | 4.79%          |
| Adjusted Equity Risk Premium                | 5.31%          |
| Risk Premium Cost of Equity                 | 10.10%         |

<sup>(</sup>a) Exh. AMM-10, page 3.

<sup>(</sup>b) Yields on all utility bonds and Baa subset based on data from IHS Markit, Long-Term Macro Forecast - Baseline (Jun. 29, 2020); Energy Information Administration, Annual Energy Outlook 2020 (Jan. 29, 2020); & Moody's Investors Service at www.credittrends.com.

<sup>(</sup>c) Exh. AMM-10, page 4.

#### ELECTRIC UTILITY RISK PREMIUM

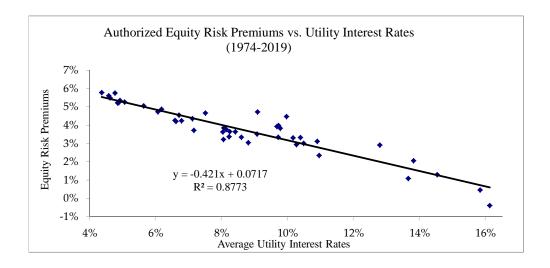
## **AUTHORIZED RETURNS**

|         | (a)     | <b>(b)</b>      |         |
|---------|---------|-----------------|---------|
|         | Allowed | Average Utility | Risk    |
| Year    | ROE     | Bond Yield      | Premium |
| 1974    | 13.10%  | 9.27%           | 3.83%   |
| 1975    | 13.20%  | 9.88%           | 3.32%   |
| 1976    | 13.10%  | 9.17%           | 3.93%   |
| 1977    | 13.30%  | 8.58%           | 4.72%   |
| 1978    | 13.20%  | 9.22%           | 3.98%   |
| 1979    | 13.50%  | 10.39%          | 3.11%   |
| 1980    | 14.23%  | 13.15%          | 1.08%   |
| 1981    | 15.22%  | 15.62%          | -0.40%  |
| 1982    | 15.78%  | 15.33%          | 0.45%   |
| 1983    | 15.36%  | 13.31%          | 2.05%   |
| 1984    | 15.32%  | 14.03%          | 1.29%   |
| 1985    | 15.20%  | 12.29%          | 2.91%   |
| 1986    | 13.93%  | 9.46%           | 4.47%   |
| 1987    | 12.99%  | 9.98%           | 3.01%   |
| 1988    | 12.79%  | 10.45%          | 2.34%   |
| 1989    | 12.97%  | 9.66%           | 3.31%   |
| 1990    | 12.70%  | 9.76%           | 2.94%   |
| 1991    | 12.55%  | 9.21%           | 3.34%   |
| 1992    | 12.09%  | 8.57%           | 3.52%   |
| 1993    | 11.41%  | 7.56%           | 3.85%   |
| 1994    | 11.34%  | 8.30%           | 3.04%   |
| 1995    | 11.55%  | 7.91%           | 3.64%   |
| 1996    | 11.39%  | 7.74%           | 3.65%   |
| 1997    | 11.40%  | 7.63%           | 3.77%   |
| 1998    | 11.66%  | 7.00%           | 4.66%   |
| 1999    | 10.77%  | 7.55%           | 3.22%   |
| 2000    | 11.43%  | 8.09%           | 3.34%   |
| 2001    | 11.09%  | 7.72%           | 3.37%   |
| 2002    | 11.16%  | 7.53%           | 3.63%   |
| 2003    | 10.97%  | 6.61%           | 4.36%   |
| 2004    | 10.75%  | 6.20%           | 4.55%   |
| 2005    | 10.54%  | 5.67%           | 4.87%   |
| 2006    | 10.34%  | 6.08%           | 4.26%   |
| 2007    | 10.32%  | 6.11%           | 4.21%   |
| 2008    | 10.37%  | 6.65%           | 3.72%   |
| 2009    | 10.52%  | 6.28%           | 4.24%   |
| 2010    | 10.29%  | 5.56%           | 4.73%   |
| 2011    | 10.19%  | 5.13%           | 5.06%   |
| 2012    | 10.02%  | 4.26%           | 5.76%   |
| 2013    | 9.82%   | 4.55%           | 5.27%   |
| 2014    | 9.76%   | 4.41%           | 5.35%   |
| 2015    | 9.60%   | 4.37%           | 5.23%   |
| 2016    | 9.60%   | 4.11%           | 5.49%   |
| 2017    | 9.68%   | 4.07%           | 5.61%   |
| 2018    | 9.56%   | 4.34%           | 5.22%   |
| 2019    | 9.64%   | 3.86%           | 5.78%   |
| Average | 11.86%  | 8.10%           | 3.76%   |

<sup>(</sup>a) Major Rate Case Decisions, Regulatory Focus, Regulatory Research Associates ("RRA"); UtilityScope Regulatory Service, Argus. Data for "general" rate cases (excluding limited-issue rider cases) beginning in 2006 (the first year such data presented by RRA).

<sup>(</sup>b) Moody's Investors Service.

## REGRESSION RESULTS



#### SUMMARY OUTPUT

| Regression Statistics |             |  |  |  |  |
|-----------------------|-------------|--|--|--|--|
| Multiple R            | 0.936629767 |  |  |  |  |
| R Square              | 0.87727532  |  |  |  |  |
| Adjusted R Square     | 0.874486122 |  |  |  |  |
| Standard Error        | 0.004786234 |  |  |  |  |
| Observations          | 46          |  |  |  |  |

## ANOVA

|            | df | SS          | MS          | F           | Significance F |
|------------|----|-------------|-------------|-------------|----------------|
| Regression | 1  | 0.007205175 | 0.007205175 | 314.5260916 | 1.15178E-21    |
| Residual   | 44 | 0.001007954 | 2.2908E-05  |             |                |
| Total      | 45 | 0.008213129 |             |             |                |

|              | Coefficients | Standard Error | t Stat       | P-value     | Lower 95%   | Upper 95%    | Lower 95.0% | Upper 95.0%  |
|--------------|--------------|----------------|--------------|-------------|-------------|--------------|-------------|--------------|
| Intercept    | 0.071731079  | 0.00204844     | 35.01742055  | 9.02999E-34 | 0.06760272  | 0.075859439  | 0.06760272  | 0.075859439  |
| X Variable 1 | -0.4210      | 0.023740031    | -17.73488347 | 1.15178E-21 | -0.46887158 | -0.373181801 | -0.46887158 | -0.373181801 |