Exhibit No (AMM-10)
BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
DOCKET NO. HE 16
DOCKET NO. UG-16  DOCKET NO. UG-16
DOCKET NO. OG 10
EXHIBIT NO(AMM-10)
ADRIEN M. MCKENZIE
REPRESENTING AVISTA CORPORATION

# **ELECTRIC UTILITY RISK PREMIUM**

Exhibit No.\_\_\_(AMM-10)

Page 1 of 4

# **CURRENT BOND YIELD**

Current 1	Equity	<u>y Risk</u>	<u>Premium</u>

(a) Avg. Yield over Study Period	8.48%
(b) Average Utility Bond Yield	4.65%
Change in Bond Yield	-3.83%
(c) Risk Premium/Interest Rate Relationship	-0.4281
Adjustment to Average Risk Premium	1.64%
(a) Average Risk Premium over Study Period	<u>3.62%</u>
Adjusted Risk Premium	5.26%
Implied Cost of Equity	
(b) Baa Utility Bond Yield	5.41%
Adjusted Equity Risk Premium	5.26%
Risk Premium Cost of Equity	10.67%

- (a) Exhibit No.\_\_\_(AMM-10), page 3.
- (b) Average bond yield for six-months ending Dec. 2015 based on data from Moody's Investors Service at www.credittrends.com.
- (c) Exhibit No.\_\_\_(AMM-10), page 4.

8.48%

# **PROJECTED BOND YIELD**

**Current Equity Risk Premium** 

(a)	Avg. Yield over Study Period
(b)	Average Utility Bond Yield 2016-2020

<u>6.38%</u>

Change in Bond Yield -2.10%

(c) Risk Premium/Interest Rate Relationship

Adjustment to Average Risk Premium

0.90%

(a) Average Risk Premium over Study Period 3.62%

Adjusted Risk Premium 4.52%

# **Implied Cost of Equity**

(b) Baa Utility Bond Yield 2016-2020	7.14%
Adjusted Equity Risk Premium	4.52%

Risk Premium Cost of Equity 11.66%

- (a) Exhibit No.\_\_\_(AMM-10), page 3.
- (b) Based on data from IHS Global Insight, The U.S. Economy: The 30-Year Focus (Third-Quarter 2015); Energy Information Administration, Annual Energy Outlook 2015 (April 2015); & Moody's Investors Service at www.credittrends.com.
- (c) Exhibit No.\_\_\_(AMM-10), page 4.

#### ELECTRIC UTILITY RISK PREMIUM

#### **AUTHORIZED RETURNS**

	(a)	(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	10.36%	6.08%	4.28%
2007	10.36%	6.11%	4.25%
2008	10.46%	6.65%	3.81%
2009	10.48%	6.28%	4.20%
2010	10.34%	5.56%	4.78%
2011	10.29%	5.13%	5.16%
2012	10.17%	4.26%	5.91%
2013	10.02%	4.55%	5.47%
2014	9.92%	4.41%	5.51%
2015	<u>9.85%</u>	<u>4.37%</u>	<u>5.48%</u>
Average	12.10%	8.48%	3.62%

<sup>(</sup>a) Major Rate Case Decisions, *Regulatory Focus*, Regulatory Research Associates; *UtilityScope Regulatory Service*, Argus.

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

# **ELECTRIC UTILITY RISK PREMIUM**

# **REGRESSION RESULTS**

# SUMMARY OUTPUT

Regression Statistics						
Multiple R	0.9270912					
R Square	0.8594981					
Adjusted R Square	0.8559856					
Standard Error	0.0050171					
Observations	42					

# ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.0061593	143 0.006159	244.6937	1.2107E-18
Residual	40	0.0010068	833 2.52E-05		
Total	41	0.0071659	976		

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	<i>Upper 95.0%</i>
Intercept	0.0725018	0.002446981	29.62907	7.81E-29	0.06755625	0.07744732	0.067556248	0.077447316
X Variable 1	-0.4281032	0.027367621	-15.6427	1.21E-18	-0.48341523	-0.37279118	-0.48341523	-0.37279118