BEFORE THE WASHINGTON

UTILITIES & TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

AVISTA CORPORATION d/b/a AVISTA UTILITIES,

Respondent.

DOCKET NOS. UE-200900, UG-200901 and UE-200894 (*Consolidated*)

**CROSS-ANSWERING TESTIMONY OF J. RANDALL WOOLRIDGE
ON BEHALF OF THE
WASHINGTON STATE OFFICE OF THE ATTORNEY GENERAL
PUBLIC COUNSEL UNIT**

EXHIBIT JRW-13T

May 28, 2021

CROSS-ANSWERING TESTIMONY OF J. RANDALL WOOLRIDGE

EXHIBIT JRW-13T

DOCKET NOS. UE-200900, UG-200901 and UE-200894 (*Consolidated*)

TABLE OF CONTENTS

TABLES & FIGURES

`

I.   INTRODUCTION / OVERVIEW

1 **Q.   Please state your name and business address.**

2 A.   My name is J. Randall Woolridge, and my business address is 120 Haymaker Circle,

3   State College, PA 16801. I am a Professor of Finance, and the Goldman, Sachs & Co.

4   and Frank P. Smeal Endowed University Fellow in Business Administration at the

5   University Park Campus of Pennsylvania State University.

6 **Q.   Have you previously provided testimony in this proceeding?**

7 A.   Yes, I provided testimony for the Public Counsel Unit of the Washington State Attorney

8   General's Office on the overall fair rate of return or cost of capital for the regulated electric

9   and gas utility service of Avista Corporation ("Avista" or "Company"). I also provided an

10   evaluation of Avista's rate of return testimony in this proceeding.

11 **Q.   What is the purpose of your cross-answering testimony?**

12 A.   I primarily address and critique the testimony and return on equity (ROE) recommendation

13   of Staff witness, Mr. David C. Parcell. I have not directly addressed the 9.40 percent ROE

14   recommendation of AWEC witness Mr. Bradley Mullins. However, I will note that

15   Mr. Mullins did not perform any analysis in arriving at his recommendation. All that

16   Mr. Mullins did was cite the authorized ROEs for electric and gas companies in the

17   Northwest in recent years. He performed no analyses of capital costs, relative risks, or any

18   other economic factors affecting ROEs.

II. PARCELL TESTIMONY

A. Summary

1 **Q. Please summarize Mr. Parcell's testimony.**

2 A. Mr. Parcell's testimony includes a discussion of the following topics: (1) the economic and

3   legal principles of the cost of capital for public utilities; (2) a review of general economic

4   conditions; (3) a summary of Avista's operations; (4) Avista's capital structure and cost of

5   debt; (5) proxy group selection; (6) discounted cash flow (DCF) model; (7) Capital Asset

6   Pricing Model (CAPM); (8) Comparable Earnings (CE) analysis; (9) the risk premium

7   (RP) approach; (10) ROE recommendation; and (11) the total proposed cost of capital.

8 **Q. What is Staff witness Mr. Parcell's cost of capital recommendation?**

9 A. Mr. Parcell's cost of capital recommendation is summarized in Table 1.[1]

Table 1
Staff's Cost of Capital Position

Item	Percent	Cost		Weighted Cost	
Short-Term Debt	2.48%	3.26%		0.08%	
Long-Term Debt	49.02%	5.05%		2.48%	
Common Equity	48.50%	9.1% 9.3% 9.5%	4.41%	4.51%	4.61%
Total	100.0%		6.97%		7.16%
				7.07%	

10   In his recommendation, Mr. Parcell employs a hypothetical capital structure with a

11   common equity ratio of 48.50 percent, uses the Company's debt cost rate, and applies a

12   common equity cost rate in the range of 9.1 percent to 9.5 percent, with a specific ROE

13   recommendation of 9.30 percent. His overall cost of capital recommendation is 7.07

14   percent.

---

[1] Response Testimony of David C. Parcell, Exh. DCP-1T at 2:14–15.

1 **Q.** **Which of the issues addressed by Mr. Parcell are you reviewing in your**

2 **cross-answering testimony?**

3 A. I am going to discuss: (1) Mr. Parcell's review of general economic conditions; (2) his

4 capital structure recommendation; (3) his DCF, CAPM, RP, and CE approaches and results;

5 and (4) his overall ROE and cost of capital recommendation.

6 **Q.** **Please summarize your assessment of Mr. Parcell's conclusions on these issues.**

7 A. I generally agree with Mr. Parcell's position on economic conditions as well as his

8 observation that interest rates and capital costs are at historic lows due, in part, to the

9 coronavirus pandemic. I also agree that Avista's proposed capital structure include an

10 inflated common equity ratio. However, Mr. Parcell's ROE recommendation does not

11 accurately reflect the results of his ROE studies. Simply put, Mr. Parcell has misstated and

12 distorted the results of his equity cost rate studies, as well as ignored low-end results, and

13 thereby reports a significantly higher recommended ROE than is supported by his ROE

14 studies. He appears to be misreporting the results of his ROE studies to arrive at a higher

15 ROE recommendation. As discussed below, in this process he has distorted the figures,

16 abandoned traditional statistical measures of central tendency, like mean and median, and

17 relied on ranges of individual outcomes. In doing so, he makes an elementary statistical

18 error that he highlights and recognizes in his testimony, but nevertheless commits the error.

19 The simple answer is that all four of Mr. Parcell's ROE studies suggest a significantly lower

20 ROE for Avista than he recommends. If he had just reported the actual ROE results, and not

21 distorted the data, he would have a much lower ROE recommendation.

B. **Distorted Reporting of ROE Results**

1   **Q.**   **What are the reported results of staff witness Mr. Parcell's equity cost rate studies**

2   **for Avista?**

3   A.   Mr. Parcell's reported equity cost rate results for his ROE studies are presented in Table 2.[2]

Table 2
Staff's Reported Cost of Equity Capital Position

Methodology	Range
Discounted Cash Flow ("DCF")	8.9%-9.3% (9.1% mid-point)
Capital Asset Pricing Model ("CAPM")	7.4%-7.5% (7.5% mid-point)
Comparable Earnings ("CE")	9.0%-10.0% (9.5% mid-point)
Risk Premium ("RP")	8.4%-9.7% (9.0% mid-point)

4   Mr. Parcell summarizes his equity cost rate recommendation in the following manner:[3]

> Based upon these findings, I conclude that Avista's ROE is within a range
> of 9.1 percent to 9.5 percent, which is based upon the mid-point of the upper
> end of the range of the results for the DCF model and mid-point of the range
> of results for the CE model. This is also supported by the results of my RP
> analysis. I specifically recommend a 9.3 percent ROE for Avista, which is
> the mid-point of this range. I note that I do not give the results of my CAPM
> weight in my final recommendation, since these are low relative to the other
> model results and can be considered anomalous.

5   **Q.**   **Do you agree with Mr. Parcell's reported ROE results?**

6   A.   No. He has seriously distorted his summary results as well as his overall ROE

7   recommendation, apparently with the goal of reporting a higher ROE recommendation than

8   indicated by his ROE studies.

9   **Q.**   **How has Mr. Parcell distorted his reported ROE results?**

10   A.   He has distorted his summary results as well as overall ROE recommendation using

11   non-traditional statistical measures. He notes in the quote above that the 9.10 percent to 9.50

---

[2] Parcell, Exh. DCP-1T at 5:4–5.
[3] *Id.*

1   percent represents "the mid-point of the upper end of the range of the results for the DCF

2   model and the mid-point of the range of the results for the CE model." There are two

3   related issues with using the "midpoint of the range" as a measure of central tendency.

4   (1)   The midpoint of the range of the outcomes: (1) is based on only two data

5   points—the lowest and the highest individual ROE outcomes; (2) can be

6   significantly impacted by outliers on either the low and high side; and (3) is not

7   necessarily reflective of all outcomes because only the lowest and highest go into

8   the calculation of the midpoint of the range.

9   (2)   He has made an elementary statistical mistake that he even recognizes as an error,

10   but he still commits it. In discussing his DCF results, he states: "I note that the

11   individual DCF calculations shown on Exh. DCP-9 should not be interpreted to

12   reflect the expected cost of capital for individual companies in the proxy

13   group…."[4] This observation is illustrative of the statistical error that Mr. Parcell is

14   making by only using the highest and lowest DCF growth rates in calculating the

15   midpoint of the range. The problem is that the individual DCF cost of equity

16   estimates are measured with error, most likely due to the growth rate estimates. In

17   statistics, this is the well-known errors-in-variables (EIV) problem. The EIV

18   problem results from incorrectly measured dependent variables (in this case, the

19   DCF equity cost rate estimates) in a regression model. Errors in measuring the

20   dependent variable (the growth rates) are incorporated in the error term in the

21   regression, which cause no problems. However, when an independent variable is

[4] Parcell, Exh. DCP-1T at 31:4–7.

1   measured with error, this error appears in both the regressor variable and in the error

2   term of the regression model. The typical way to address this issue is to group the

3   data to mitigate the EIV problem. And that is why, in estimating an equity cost rate,

4   rate of return analysts use a proxy group and employ the means or medians for the

5   entire group. The presumption in using such an approach is that the measurement

6   errors for the individual companies in the group will average out, and therefore the

7   results of the entire group are a meaningful measure for the cost of equity capital, but

8   not the individual company results.

9   **Q.   How does this distort Mr. Parcell's reported ROE results?**

10   A.   For each of Mr. Parcell's equity cost rate approaches, Table 3[5] shows the reported range, the

11   midpoint, and the actual mean and medians of the outcomes for the proxy group. There are

12   several issues highlighted here:

13   (1)   The Comparable Earnings ("CE") result is the only midpoint outcome that supports

14   Mr. Parcell's 9.305 percent ROE.

15   (2)   He has ignored his CAPM results because they are too low. This is addressed below.

16   (3)   With respect to the CE approach, Mr. Parcell reports ranges, but does not report

17   mean or median results. As discussed below, that is because this is a model of his

18   own creation, and only he can interpret the results.

19   (4)   Finally, the mean risk premium result is 9.0 percent. Mr. Parcell's range and

20   midpoint figures are based on his subjective estimates of the base yield and risk

21   premium. Both of these inputs are above current estimates.

[5] Parcell, Exh. DCP-1T at 51:4–14.

Table 3
Staff's Reported Cost of Equity Capital Position

Approach	Reported Range	Midpoint of Reported Range	Mean	Median
DCF	8.9% - 9.3%	9.10%	8.0%	8.0%
CAPM	7.4% - 7.5%	7.50%	7.5%	7.4%
Comparable Earnings	9.0% - 10.0%	9.50%	NA	NA
Risk Premium	8.4% - 9.7%	9.00%	9.0%	9.0%

C. Economic Conditions

1 Q. **Please review Mr. Parcell's discussion of general economic conditions.**

2 A. Between pages 8 through 16 of his Response Testimony, Mr. Parcell discusses general

3 economic conditions. On pages 15 through 16, he summarizes his view on economic

4 conditions:[6]

> Recent economic and financial circumstances have differed from any that
> have prevailed since at least the 1930s. Concurrent with the Great
> Recession, there was a decline in capital costs and returns which
> significantly reduced the values of most retirement accounts, investment
> portfolios, and other assets. One significant aspect of this has been a decline
> in investor expectations of returns even with the return of stock prices to
> levels achieved prior to the "crash." This is evidenced by: (1) lower interest
> rates on bank deposits; (2) lower interest rates on U.S. Treasury and utility
> bonds; and (3) lower authorized returns on equity by regulatory
> commissions. Finally, as noted above, utility bond interest rates are
> currently at levels well below those prevailing prior to the financial crisis of
> late 2008 to early 2009 and remain near the lowest levels in the past 35 years
> and are also generally lower than the embedded cost rates for most utilities,
> including Avista.

5 Q. **Do you agree with Mr. Parcell's view of general economic conditions?**

6 A. Yes. I discuss capital market conditions on pages 10 through 17 of my Response

7 Testimony.[7] Consistent with Mr. Parcell, I discuss how interest rates fell in 2019, and

8 then dropped to an all-time low in 2020 due to the coronavirus pandemic. However, since

---

[6] Parcell, Exh. DCP-1T at 15:15–22 and 16:1–3 (citations omitted).
[7] Public Counsel filed a revised Response Testimony of J.R. Woolridge, Exh. JRW-1Tr on May 24, 2021.

1   the market lows in March of this year, segments of the economy have rebounded

2   significantly, stock prices have hit all-time highs, interest rates have risen and the 30-year

3   Treasury yield is in the 2.30 percent range (near its pre-Covid-19 level), and the VIX,

4   which hit all-time highs in March of 2020, is back near its historic average of 20. I also

5   show that utilities are taking advantage of the market conditions and raising records

6   amount of capital. As a result, consistent with Mr. Parcell, I believe that with low interest

7   rates and high stock prices, expected returns and capital costs are near all-time lows.

D.   Capital Structure

8   **Q.   What is Mr. Parcell's capital structure recommendation for Avista?**

9   A.   Mr. Parcell recommends a capital structure with a common equity ratio of 48.50 percent.

10   Mr. Parcell explains his recommendation of pages 23 through 24 of his testimony:[8]

> I first note that Avista's actual capital structure as of December 31, 2020 contained 48.5 percent common equity, as shown on Exh. DCP-6, page 2. Thus, my proposed capital structure matches the recent actual capital structure ratio for Avista Utilities.
>
> Second, Exhibit DCP-6 shows that the actual equity ratios of Avista Utilities have not increased in recent years.
>
> Third, the common equity ratio in this capital structure matches the capital structure stipulated to by the parties and adopted by the Commission in Avista's last rate proceeding, as well as the capital structure determined by the Commission in Avista's last litigated rate proceeding. In the 2017 GRC, the Commission rejected Avista's proposed 50/50 capital structure in part because the actual equity component over the last few years was closer to 48.5 percent.
>
> Fourth, the proposed capital structure is similar to that of other electric and combination electric utilities, as shown on Exh. DCP-7.

---

[8] Parcell, Exh DCP-1T at 23:17–20 and 24:1–10 (citation omitted).

1   Mr. Parcell also cites the Commission's recent policy on capital structure, and

2   specifically the fact that the Commission has noted that the appropriate capital structure

3   can either be the Company's historical capital structure, the projected capital structure, or

4   a hypothetical capital structure. Mr. Parcell also notes that Avista's proposed capital

5   structure include a higher common equity ratio than the Company has maintained in

6   recent years. As a result, Mr. Parcell concludes that a hypothetical capital structure is

7   appropriate in this case and uses a capital structure with a common equity ratio of 48.5

8   percent.

9   **Q.   Do you agree with Mr. Parcell's capital structure recommendation?**

10   A.   Yes. Although we evaluate the capital structure in different ways, we both agree that a

11   capital structure with a common equity ratio of 48.5 percent is appropriate for Avista.

     E.   DCF Approach

12   **Q.   Please review Mr. Parcell's DCF results.**

13   A.   As shown in Table 4, Mr. Parcell states that his DCF results are in the range of 7.1 percent

14   to 9.3 percent for the two groups.[9]

Table 4
Staff's DCF Results

	Mean	Median	Mean Low[36]	Mean High[37]	Median Low[38]	Median High[39]
Parcell Proxy Group	8.0%	8.0%	7.1%	8.9%	7.2%	9.3%
McKenzie Proxy Group[40]	8.2%	8.0%	7.4%	9.1%	7.3%	9.1%

15   **Q.   What are your observations on how Mr. Parcell reports his DCF results?**

16   A.   I have three observations.

[9] Parcell, Exh. DCP-1T at 27:18–19.

1   (1)   I agree with Mr. Parcell when he states: "The DCF model is one of the oldest and

2   most commonly-used models for estimating the ROE for public utilities";[10]

3   (2)   Mr. Parcell has misstated the results of his DCF results by using non-traditional

4   statistical measures. In his summary, Mr. Parcell reports a DCF range of 8.9 percent

5   to 9.3 percent, with a midpoint of 9.1 percent. The mean and median of his DCF

6   results are 8.0 percent and 8.0 percent for the Parcel Proxy Group and 8.2 percent

7   and 8.0 percent for the McKenzie Proxy Group. How does he report results that are

8   much higher than the mean and median? He ignores the mean and median, and uses

9   the range of results. The range is represented by the lowest and highest of the

10   individual DCF results. However, as discussed above, even he acknowledges that "I

11   note that the individual DCF calculations shown on Exh. DCP-9 should not be

12   interpreted to reflect the expected cost of capital for individual companies in the

13   proxy groups: rather the individual value shown should be interpreted as

14   alternative information considered by investors."[11] As such, he acknowledges that

15   the individual high and low DCF ROE observations, which are used to establish

16   the range, do not represent the expected cost of equity capital; and

17   (3)   In addition, he proceeds to violate this principle a second time when he reports the

18   mean and median high observations in his summary of results. In this case, he is

19   reporting an individual DCF result, which only considers the high mean and median

20   DCF results, which in turn are based on the EPS growth rate forecast of only one

[10] *Id*. at 28:8–9 (punctuation omitted).
[11] Parcell, Exh DCP-1T at 31:4–7.

1   analyst. As noted above, in estimating an equity cost rate, we use proxy groups and

2   take a measure of central tendency.

F.   **CAPM Approach**

3   **Q.**   **Please review Mr. Parcell's CAPM results.**

4   A.   Mr. Parcell's CAPM results are presented in Table 5 for the gas group.[12]

Table 5
Staff's CAPM Results

	Mean	Median
Parcell Proxy Group	7.5%	7.4%
McKenzie Proxy Group[48]	7.4%	7.4%

5   **Q.**   **How much weight does Mr. Parcell give his CAPM results in his 9.30 percent ROE**

6   **recommendation?**

7   A.   None. As noted above, Mr. Parcell's ROE recommendation is based upon the midpoint of

8   the range of the results of the DCF, CE, and RP models.

9   **Q.**   **What is your observation on this omission?**

10   A.   I have three observations:

11   (1)   The CAPM is a well-recognized methodology for measuring the cost of equity

12   capital. The CAPM was developed in the late 1960s and early 1970s, is widely used

13   to compute the cost of equity capital, has been used routinely in utility rate cases,

14   and the academics who developed the model have won the Nobel prize in

15   economics.

16   (2)   Mr. Parcell offers no rational reason for discounting his CAPM results. In fact,

17   Mr. Parcell's testimony supports considering, not ignoring, his CAPM results in

---

[12] Parcell, Exh DCP-1T at 39:5–6.

1 analyzing Avista's cost of equity. Indeed, he states that the CAPM results are low

2 because of lower interest rates and a lower market risk premium, and that the CAPM

3 results should be considered in determining Avista's cost of equity. I wholeheartedly

4 agree with Mr. Parcell's observations regarding interest rates, market risk premium,

5 and view on CAPM results. I disagree with the ultimate treatment Mr. Parcell gives

6 to his CAPM results.

7 (3) By ignoring the CAPM results, Mr. Parcell's analysis does not accurately reflect the

8 result of the studies used to measure ROE. As a result, Mr. Parcell's ultimate

9 conclusion is unreasonably inflated.

G. Comparable Earnings Approach

10 **Q.** **Please review Mr. Parcell's CE results.**

11 A. Mr. Parcell's CE results are presented in Table 6 for the proxy groups.[13]

Table 6
Staff's CE Results

	Parcell Proxy Group	McKenzie Proxy Group [58]
Historic ROE		
Mean	9.0-9.2%	9.9-11.3%
Median	9.0-9.3%	9.8-10.0%
Historic M/B		
Mean	148-162%	169-175%
Median	147-157%	158-161%
Prospective ROE		
Mean	9.1-9.8%	9.9-10.3%
Median	9.0%	9.0-10.0%

12 **Q.** **How does Mr. Parcell explain his CE model?**

13 A. Mr. Parcell summarizes his CE model in the following:

---

[13] Parcell, Exh. DCP-1T at 44:14–25.

The CE method normally examines the experienced and/or projected return on book common equity. The logic for examining returns on book equity follows from the use of original cost rate base regulation for public utilities, which uses a utility's book common equity to determine the cost of capital. This cost of capital is, in turn, used as the fair rate of return which is then applied (multiplied) to the book value of rate base to establish the dollar level of capital costs to be recovered by the utility. This technique is thus consistent with the rate base – rate of return methodology used to set utility rates.[14]

1 Q. **Is the CE model as used by Mr. Parcell a model that is recognized in academics and**

2 **finance to compute an equity cost rate?**

3 A. No. As noted above, the DCF and CAPM models are well-recognized in the academic and

4 professional financial worlds and are regularly used to calculate equity cost rates.

5 Mr. Parcell's CE approach is a model of his own creation that is not generally recognized as

6 a cost of equity capital model. Moreover, his interpretation of the results of his CE model is

7 totally subjective.

8 Q. **Do you agree with any of the statements made by Mr. Parcell about his CE model?**

9 A. Yes. Mr. Parcell makes some general observations regarding ROEs, the cost of

10 equity capital, and market-to-book ("M/B") ratios that I do agree with. Specifically,

11 he notes the following: [15]

> I apply the CE methodology by examining realized ROEs for the group of proxy utilities, as well as unregulated companies, and evaluating investor acceptance of these returns by reference to the resulting market-to-book ratios ("M/Bs"). In this manner it is possible to assess the degree to which a given level of return equates to the COC. It is generally recognized for utilities that an M/B of greater than one (i.e., 100 percent) reflects a situation where a company is able to attract new equity capital without dilution (i.e., above book value). As a result, one objective of a fair cost of equity is the maintenance of stock prices at or above book value.

[14] Parcell, Exh. DCP-1T at 42:15–21.
[15] *Id.* at 45:2–11.

1   Mr. Parcel and I are in agreement about the relationship between ROEs, the cost of

2   equity capital, and M/B ratios. I discussed this exact point on pages 26 through 27 of my

3   Response Testimony. In particular, I agree with Mr. Parcell's observation in the above

4   except that "[t]here is no regulatory obligation to set rates designed to maintain an M/B

5   significantly above one."[16]

6   Q. **What does this tell you about the results of Mr. Parcell's CE approach?**

7   A. It tells me that the cost of equity capital that results from Mr. Parcell's CE approach should

8   be well below 9.0 percent. Additionally, I am not in agreement with Mr. Parcell's

9   interpretation of the CE results, in which he concludes that the results suggest a ROE of 9.0

10   percent to 10.0 percent, with a midpoint of 9.5 percent. This is a highly subjective

11   interpretation and recommendation, which are at odds with the ROE – M/B discussion cited

12   above.

13 Q. **What other specific issues occur within Mr. Parcell's CE approach?**

14 A. There are a number of issues with his CE approach. As such, I strongly suggest that the

15   Commission ignore the CE approach in setting a ROE for Avista. These issues include:

16   The CE Approach Does Not Measure the Market Cost of Equity Capital — First,

17   this accounting-based methodology does not measure investor return requirements.

18   Dr. Roger Morin's Book, *New Regulatory Finance*, is commonly cited as the source of

19   the Comparable Earnings approach. In his book on utility cost of capital, Dr. Morin has

20   made the following observation on the CE approach: "More simply, the Comparable

21   (Expected) Earnings standard ignores capital markets. If interest rates go up two

---

[16] Parcell, Exh. DCP-1T at 45:10–11.

1   percent for example, investor requirements and the cost of equity should increase

2   commensurably, but if regulation is based on accounting returns, no immediate change

3   in equity cost results."[17] As such, this method does not measure the market cost of

4   equity because there is no way to assess whether the earnings are greater than or less than

5   the earnings investors require.

6   The Expected ROEs are not Related to Investors' Market-Priced Opportunities —

7   The ROE ratios are an accounting measure that do not measure investor return

8   requirements. Investors had no opportunity to invest in the proxy companies at the

9   accounting book value of equity. As also indicated by Morin,

> The denominator of accounting return, book equity, is a historical cost-based concept, which is insensitive to changes in investor return requirements. Only stock market price is sensitive to a change in investor requirements. Investors can only purchase new shares of common stock at current market prices and not at book value.[18]

10   The CE Approach is Circular — The proxies' ROE ratios are not determined by

11   competitive market forces, but instead are largely the result of federal and state rate

12   regulation, including the present proceedings.

13   The Proxies' ROEs Reflect Earnings on Business Activities that are not

14   Representative of Avista's Rate-Regulated Utility Activities — The numerators of the

15   proxy companies' ROEs include earnings from business activities that are riskier and

16   produce more projected earnings per dollar of book investment than does regulated

17   electric utility service. These include earnings from: (1) unregulated businesses including

18   merchant generation; (2) electric generation; and (3) international operations.

---

[17] Roger Morin, NEW REG. FIN. at 293 (Pub. Utils. Report 2006).
[18] *Id.*

1   **Q.   Please summarize the observations of the Federal Energy Regulatory Commission's**

2   **(FERC) on the Comparable Earnings approach in its recent Midcontinent**

3   **Independent System Operator (MISO) decision.**

4   A.   In a 2019 order, FERC rejected the use of the CE or Expected Earnings approach to

5   estimate an equity cost rate to set an authorized ROE.[19] Specifically, FERC made note of

6   the following:

> While it may be true that the Expected Earnings model does not involve the same complexities as the market-based approaches, we find that this is because it does not reflect a utility's cost of equity. It is simpler because it does not consider the market price that an investor must pay to make its investment and other factors such as projected growth rates for the subject utility. Factors such as these—in particular the market price that an investor must pay for an investment, which is the basis for determining the return on that investment—are critical to determining a utility's cost of equity. While it may be simpler to use a model that does not consider such factors, doing so renders that model unable to effectively estimate the rate of return that investors require to invest in the market-priced common equity capital of a utility, which is the utility's cost of equity capital. We find that it is not appropriate to use a model that does not accurately measure the "return to the equity owner" as required by *Hope* merely because it may be simpler to administer. We are cognizant of the administrative burden that is placed on parties to evaluate models that are used in analyzing ROEs, but the mere simplicity of one model as compared to others does not justify using that model if it does not assist us in ensuring that returns to equity owners are just and reasonable.[20]

7   **Q.   Did Dr. Morin use this approach in his recent testimony in Washington?**

8   A.   No. Dr. Morin is a well-known utility company rate of return witness who testified on

9   behalf of Puget Sound Energy (PSE) in its 2019 rate case. And no, Dr. Morin did not use

---

[19] FERC called Mr. Parcell's CE approach "the Expected Earnings approach." In either case, the comparable or expected earnings are simply stated as an accounting return on book value (net income/book value of equity).

[20] *See*, *Ass'n of Bus. Advocating Tariff Equity Coalition of MISO Transmission Carriers v. Midcontinent Independent System Operator*, 169 FERC ¶ 61,129, Docket No. EL14-12-003 and EL15-45-000, Opinion No. 569, ¶ 204 (Nov. 21, 2019).

1   the Comparable Earnings approach in estimating PSE's cost of equity capital in the rate

2   case.[21]

3   Q.   **Please summarize your analysis of Mr. Parcell's Comparable Earnings approach.**

4   A.   In short, Mr. Parcell's CE approach does not measure the market cost of equity capital, is

5   independent of most cost of capital indicators, has a number of other empirical issues,

6   and was rejected in 2019 by FERC as a methodology to estimate the cost of equity capital

7   for a public utility. Therefore, the Commission should ignore this approach in

8   determining the appropriate ROE for Avista.

H.   **Risk Premium Approach**

9   Q.   **Please review Mr. Parcell's risk premium (RP) results.**

10 A.   In Mr. Parcell's risk premium approach, he simply makes modifications to Ms. McKenzie's

11   RP study.

12 Q.   **How has Mr. Parcell modified Ms. McKenzie's RP study?**

13 A.   Mr. Parcell claims Mr. McKenzie's RP study is flawed because she has recommended a

14   9.90 percent ROE for Avista, yet this figure exceeds all quarterly utility electric and gas

15   company average authorized ROEs for the past five years. As a result, he makes two

16   modifications to his approach: (1) he uses the yield on BBB utility bonds and not Treasury

17   bonds; and (2) to estimate a risk premium, instead of using a regression, he computes the

18   average annual difference between quarterly average electric and gas company authorized

19   ROEs and the yields on BBB utility bonds over the 2016–20 time period.

---

[21] *See* Direct Testimony of Roger A. Morin, Exh. RAM-1T, *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy* (June 20, 2019) (Dockets UE-190529 and UG-190530).

Table 7[22]
Staff's Risk Premium Study Results

Year	Avg ROE	Risk Premiums
2016	9.60%	4.36-4.92%
2017	9.68%	5.00-5.30%
2018	9.56%	4.89-5.24%
2019	9.65%	4.88-5.46%
2020	9.39%	5.20-6.00%
2016-2020 Avg.	9.58%	4.99-5.31%

1 **Q.   How has Mr. Parcell used this data to arrive at a recommended equity cost rate**

2 **using the RP model?**

3 A.   Table 8 provides the data and estimates used by Mr. Parcell. He does not use his actual

4   figures, but instead he make some very subjective adjustments to the risk premium data. As

5   I can figure, there are three different versions of Mr. Parcell's risk premium analysis—the

6   actual risk premium equity cost rate, and then two different Parcell-adjusted versions. These

7   are provided in Panel A of Table 8:

8   (1)   Actual — These are the actual data reported by Mr. Parcell. The based yield is the

9   three-month average BBB-utility bond yield of 3.42 percent. The risk premium

10   range is 4.99 percent to 5.31 percent, which is the 2016–20 average as found in

11   Table 7. The actual data show a ROE range of 8.41 percent to 8.73 percent, with the

12   midpoint of the range of 8.57 percent.

13   (2)   Parcell Modified I — This version uses the three-month average BBB-utility bond

14   yield of 3.42 percent as the base yield. The risk premium range is 5.0 percent to 6.0

15   percent. This range is based on Mr. Parcell's opinion after reviewing the data in

16   Table 7. As Mr. Parcell acknowledges, this range reflects "the high-end" of his

---

[22] Parcell, Exh. DCP-1T at 54:1–5.

1   historical risk premium range. There is no justification for the range, and no

2   empirical analysis to support using the "high-end of the range." Simply put, it is Mr.

3   Parcell's opinion, with no supporting analyses. This version produces a ROE range

4   of 8.42 percent to 9.42 percent, with the midpoint of the range of 8.92 percent.

5   (3)   Parcell Modified II — This version uses 2019 Pre COVID three-month average

6   BBB-utility bond yield of 3.7 percent as the base yield. The risk premium range of

7   5.0 percent to 6.0 percent is the range based on Mr. Parcell's opinion after reviewing

8   the data in Table 7. Again, simply put, it is Mr. Parcell's opinion. This version

9   produces a ROE range of 8.7 percent to 9.9 percent, with the midpoint of the range

10   of 9.20 percent.

Table 8
Staff's Risk Premium Study Results

	Actual	Parcell I	Parcell II
BBB-Utility Yield*	3.42%	3.42%	3.70%
Risk Premium**	4.99%-5.31%	5.00%-6.00%	5.00%-6.00%
RP-Equity Cost Rate	8.41% - 8.73%	8.42% - 9.42%	8.70% - 9.70%
Midpoint	8.57%	8.92%	9.20%
* BBB Utility Yield	3-Mo. Average	3-Mo. Average	Pre-2020 3-Mo. Average
** Risk Premium	2016-20	Parcell Estimate	Parcell Estimate

11   **Q.   What are your observations on Mr. Parcell's RP approach?**

12   A.   Once again, as with his DCF and CE approaches, Mr. Parcell does not use the actual data to

13   come to a ROE recommendation. As with the other approaches, the actual data suggest an

14   ROE. Mr. Parcell makes his own subjective judgement—which is not based on any studies

15   or analyses—to modify the actual data and recommend a high ROE than indicated by the

16   approaches and the data.

1	Q.	**Please summarize your assessment of Mr. Parcell's, testimony, ROE results,**
2		**and recommendation.**
3	A.	First, I agree with Mr. Parcell's position on economic conditions and capital
4		structure. However, I do not believe that Mr. Parcell's ROE recommendation
5		reflects the low capital cost environment because this recommendation does not
6		accurately reflect the results of his ROE studies. The fact is that Mr. Parcell's four
7		ROE studies suggest a lower ROE for Avista than he recommends. Specifically, Mr.
8		Parcell has misstated the results of his DCF and risk premium analyses by reporting
9		DCF results that are above the actual ROEs indicated by the data. Mr. Parcell has
10		totally ignored his CAPM analysis, which produces a ROE range of 6.0 percent to
11		6.4 percent. Finally, Mr. Parcell's CE approach is a model of his own creation and
12		interpretation and was recently rejected by FERC as an approach to estimating the
13		cost of equity capital.
14		In summary, the Commission should recognize the numerous errors,
15		distortions, and inconsistencies in Mr. Parcell's rate of return recommendation and
16		testimony and reject his 9.30 percent recommendation in setting a ROE for Avista.
17	Q.	**Does this conclude your testimony?**
18	A.	Yes.