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**Q. Please state your name, business address, and present position.**

A. My name is Kurt G. Strunk. I am Vice President at National Economic Research Associates, Inc. (NERA). NERA is a firm of consulting economists with its principal offices in a number of major U.S. and European cities. My business address is 1166 Avenue of the Americas, New York, New York 10036.

**Q. Have you already filed testimony in Docket UE-152253?**

A. Yes, I filed direct testimony in this case. My background and qualifications are described in my direct testimony as well as in Exhibit No. KGS-2 thereto.

# Purpose and Summary of Testimony

**Q. Please explain the purpose of your testimony.**

A. Its purpose is to respond to the testimony of Mr. David C. Parcell, who offers his opinions on Pacific Power’s cost of capital on behalf of the Staff of the Washington Utilities and Transportation Commission (Commission). My testimony rebuts Mr. Parcell’s claims that a fair return on equity (ROE) for the Company is 9.25 percent. I also affirm that the Company is not requesting any changes to its overall rate of return that was established in the last rate case.

**Q. Considering the testimony offered by Mr. Parcell and changes in capital markets since the Company’s November filing, do the conclusions you draw in your direct testimony still apply today?**

A. Yes, they do. The evidence contained in my direct testimony demonstrates that the required returns in capital markets today are similar, and certainly not lower, than they were when the Commission authorized an ROE of 9.5 percent in Order 08. From this, I conclude that it would not be unreasonable as a matter of public policy to leave the currently authorized cost of capital in place for the duration of the Company’s proposed two-year rate plan. My review of capital market indicators since the November filing did not identify anything that would alter my conclusion in that regard, although there does appear to be a rise in certain key return parameters.

**Q. What approach does Mr. Parcell choose to analyze ROE in this docket?**

A. Mr. Parcell performs the standard ROE analyses that he would in a general rate case and purports to use those analyses as a basis for recommending a reduction in the authorized ROE. He ignores the Company’s request to defer adjudication of the cost of capital until the Company’s next rate proceeding. Instead of assessing whether capital market conditions have changed since evidence was presented in the Company’s 2014 general rate case, Docket UE-140762 (2014 Rate Case) – consistent with the Commission’s own approach in Order 08 relative to the evidence underlying its finding in Docket UE-130043[[1]](#footnote-2) – Mr. Parcell makes a fresh examination of and recommendation for each component of the overall return on rate base (cost of debt, capital structure, and ROE).

**Q. Do the analyses presented by Mr. Parcell support a decrease in the authorized ROE of 25 basis points?**

A. No, they do not. A comparison of Mr. Parcell’s position in the instant docket to the one he took in the 2014 Rate Casereveals that his recommendation to lower the authorized ROE is without any basis in evidence. In fact, Mr. Parcell has increased his assessment of the required ROE by 25 basis points, now recommending a 9.25 percent ROE compared to the 9.0 percent he recommended in that docket. Similarly, his recommended short-term and long-term debt costs are higher than they were in that docket. It is ironic that he observes an increase in the cost of capital and simultaneously recommends that the Commission reduce the ROE it authorized in Order 08.[[2]](#footnote-3) While I do not believe there is a sufficient change in the capital markets to warrant re-litigating the ROE in this limited-issue case, the data and analyses he performs support a movement upwards in the cost of capital, not downwards.

**Q. Is Mr. Parcell’s recommended equity ratio of 49.1 percent consistent with his proposed ROE of 9.25 percent?**

A. No. Mr. Parcell’s overall recommendation is a mix of apples and oranges. His ROE estimate relies upon a proxy group with an average equity ratio of 52 percent (See Exhibit No. DCP-8). It is invalid to apply that ROE to Pacific Power, assuming the Commission continues to impute a 49.1 percent equity ratio for ratemaking purposes. An adjustment must be made to match the ROE to the leverage assumption that underlies it. Putting Mr. Parcell’s 9.25 percent ROE on a comparable basis with the Company’s 49.1 percent equity ratio yields an ROE of at least 9.5 percent.

**Q. Is the Company requesting a change in its capital structure in its rebuttal testimony?**

A. No. My discussion of the hypothetical capital structure, and rebuttal of Mr. Parcell’s testimony on this point, is intended only to demonstrate that the hypothetical capital structure does not support Mr. Parcell’s recommended ROE.

**Q. Mr. Parcell also recommends an increase of two basis points in the Company’s cost of long-term debt.[[3]](#footnote-4) Does the Company agree with this adjustment?**

A. No. As part of its original filing, the Company proposed leaving each component of its capital cost unchanged. In rebuttal, the Company has not changed its position and continues to request that the Commission maintain its currently authorized rate of return by affirming each of the components included in the cost of capital calculation.

**Q. How is the rest of your rebuttal testimony organized?**

A. I have structured the remainder of the testimony as follows:

* First, I describe salient trends in the capital markets since my direct testimony was prepared in November 2015.
* Second, I identify and explain the key flaws in the ROE analysis performed by Mr. Parcell.
* Third, I demonstrate that his recommendation of a hypothetical 49.1 percent equity ratio is below the equity ratios of his proxy group companies and therefore does not support his recommended ROE.
* Fourth, I present an update of my ROE analysis, which continues to show a required return on equity of approximately 10 percent.
* Fifth and finally, I respond to Mr. Parcell’s characterization of the effects of the two-year rate plan and decoupling mechanism on the cost of capital.

# Recent Indicators from Capital markets

**Q. Please describe recent developments in the capital markets.**

A. Investors in capital markets continue to anticipate intervention by central banks, leading to anomalous conditions and very low yields on government bonds. While foreign central banks have begun to sell U.S. treasuries, yields on long-term treasuries remain extremely low from a historical perspective.[[4]](#footnote-5) Equity prices continue to be driven up by demand for stocks.

Despite low long-term treasury yields, indications of the required returns for certain risky assets have recently exhibited increases. This is evident in the spreads of corporate bond yields relative to long-term treasuries. As shown in Exhibit No. KGS-33, both BBB and BB bond spreads over 30-year treasuries have been increasing over the past two years. This indicates a need for higher returns for bearing the risk of investing in risky securities.

**Q. Is the Federal Reserve continuing with its plan to normalize interest rate policy?**

A. Yes. In her March 29, 2016 address on “The Outlook, Uncertainty, and Monetary Policy,” Federal Reserve chair Janet Yellen discussed both the most recent federal funds rate increase and the plan to continue these adjustments going forward. The ¼ percentage point increase in the federal funds rate “marked the end of an extraordinary seven-year period during which the federal funds rate was held near zero.”[[5]](#footnote-6) While the Federal Open Market Committee expects gradual increases in the coming years, Yellen “consider[s] it appropriate for the Committee to proceed cautiously in adjusting policy.”[[6]](#footnote-7) As Yellen highlights in her speech, the past seven years with a near zero federal funds rate have been unprecedented, and this first increase in the interest rate marks the beginning of a series of increases meant to return the federal funds rate to pre-crisis levels.

**Q. Have Federal Reserve representatives indicated that plans to raise interest rates will be implemented soon?**

A. Yes. For example, Market News International reported on March 21, 2016 that “San Francisco Federal Reserve Bank President John Williams […] has left no doubt he will be advocating for another interest rate hike as early as the April meeting of the Fed’s rate-setting Federal Open Market Committee - or, failing that, at the June meeting - provided the economy continues to do as well as it has been.”[[7]](#footnote-8)

**Q. How have the forecasts of long-term treasury yield changed since you prepared your direct testimony in this case?**

A. The long-term treasury yield forecast has become steeper since the filing of my direct testimony, reflecting market expectations of higher yields going forward. As shown in Exhibit No. KGS-21, the median forecast for long-term treasury yields increases from 2.85 percent in Q2 2016 to 3.20 percent in Q2 2017. Thus, not only is the spread of required returns relative to treasury yield increasing for risky investments to reflect the increased cost of risk in capital markets, but the base level of yields for treasury bonds is also expected to increase.

Q. Is heightened volatility still a concern in today’s market?

A.Yes. 2016 is expected to be a more volatile year in the stock markets than the last.[[8]](#footnote-9) From December 2015 through February 2016, the VIX index, representing volatility in S&P 500 stocks, spiked and remained elevated relative to historic levels. In March 2016, VIX levels fell, ending closer to where they had been at the time the 2014 Rate Case was being adjudicated. Investors remain concerned over the large swings in the underlying stock market and also in the VIX. As shown in Exhibit No. KGS-38, index volatility itself has exhibited significant changes in trading patterns on several occasions in recent months.

**Q. Does Mr. Parcell accurately assess the impact of current capital market conditions on the Cost of Capital for the Company?**

A.While Mr. Parcell identifies the current economic and financial situations as fundamentally different from those of the last century, he does not acknowledge the increased cost of bearing equity risk that occurred in tandem with the “flight to safety” to the Treasury bond market.[[9]](#footnote-10) By highlighting only the decrease in treasury yields, Mr. Parcell implies that investors’ expectations of returns on the market have solely decreased. This ignores the parallel increase in expectations of returns spurred by an increase in the cost of bearing risk in the equity markets.[[10]](#footnote-11)

# Key Flaws in Mr. Parcell’s Analyses

**Q. Please summarize your critique of Mr. Parcell’s evidence.**

A. Mr. Parcell’s evidence suffers from four categories of flaws. First, as I describe in the summary of my testimony, he presents an ROE that has different financial leverage assumptions than the ones he recommends using for ratemaking purposes, resulting in an understatement of the fair return. Second, the ranges he presents for his models are not always reasonably based on the model results; he uses judgment to determine ranges in a way that seemingly does not reflect the data. Third, he relies upon certain data that are in error, and fourth, he uses certain methodologies that are not valid. Taken together, the host of problems affecting his evidence jeopardizes the credibility of his recommendations.

**Q. Please explain how Mr. Parcell’s recommended ranges do not always match his model results.**

A.Mr. Parcell outlines the range of his estimates for ROE on page 4 of his testimony. These ranges do not reflect the full range of data present in his models. For example, estimates of the Discounted Cash Flow (DCF) model are reported to range from 8.50 percent to 9.50 percent, with a midpoint of 9.00 percent in the testimony. However, the data in Exhibit No. DCP-9, p 4 suggests that the range goes from 7.83 percent to 10.91 percent with a midpoint of 9.37 percent. By narrowing the range and choosing an alternative midpoint than the actual, Mr. Parcell mischaracterizes the results of his DCF analyses. Estimates for his other ROE models exhibit similar trends, with his ranges and midpoints in the testimony falling below the numbers supported in his exhibits. Exhibit No. KGS-34 summarizes the differences between Mr. Parcell’s ranges in his testimony and the model results presented in his exhibits.

**Q. Turning to the second category of flaws, which data errors or issues have you identified in Mr. Parcell’s evidence?**

A.There are several. First, Mr. Parcell records the Value Line Beta of Westar Energy as 0.45 in Exhibit No. DCP-14. However, upon reviewing Mr. Parcell’s work papers, I discovered that the correct Value Line Beta for Westar is 0.75. This error causes Mr. Parcell to understate the beta and perceived riskiness of his proxy groups. In turn, this error artificially understates the expected ROE as calculated in the Capital Asset Pricing Model (CAPM). Second, in Exhibit No. DCP-12, Mr. Parcell also omits several ROEs and market-to-book ratios without explanation. Third and finally, I note that many differences exist in the historical figures presented by Mr. Parcell in Docket UE-147062 and those in this docket. Exhibit No. KGS-35 outlines the 32 instances of discrepancies in historical data that should be common across Mr. Parcell’s two testimonies. While some differences may reasonably be attributable to restatements of historical data by the agencies publishing it, the sheer amount of discrepancies across his two testimonies – with differences in data going as far back as 1992 – is astounding.

**Q. You mentioned Mr. Parcell uses invalid methodologies. Please expand.**

A.Mr. Parcell’s use of the geometric mean to inform his CAPM modeling results is not valid. The correct measure of the mean return achieved in the market is the arithmetic return. Financial analysts appropriately use the arithmetic return to represent the statistical expected value for a given year, taking into account the historic year-to-year fluctuations in returns achieved by investors. The geometric mean does not capture the actual expected value and is distorted downward because it ignores the volatility that investors face in the return they earn each year.

The financial literature explains further this rationale for the use of the arithmetic means of historic returns (not geometric means) to define the equity risk premium. For example, Roger Morin explains in his treatise, *Regulatory Finance*: “One major issue relating to the use of realized returns is whether to use the ordinary average (arithmetic mean) or the geometric mean return. Only arithmetic means are correct for forecasting purposes and for estimating the cost of capital.”[[11]](#footnote-12)

**Q. Do you have any other concerns with the methodologies used by Mr. Parcell?**

A.Yes. While Mr. Parcell and I agree that the use of the Comparable Earnings model is appropriate for evaluating the cost of equity in a public utility rate proceeding such as this one, I find his methodology to arrive at a forward-looking ROE from past earnings performance to be opaque. In Docket UE-147062, Mr. Parcell clarified through the discovery process that he does not use market-to-book ratios to adjust the historic returns downward. Yet, the numbers he recommends for the Comparable Earnings model appear to be lower than the data suggest they should be.

# Use of a Hypothetical Capital Structure

**Q. Mr. Parcell’s offers extensive testimony supporting the continued use of the hypothetical capital structure that the Commission affirmed in the Company’s last rate case. Is the Company recommending change in its currently authorized equity ratio?**

A. No. I rebut Mr. Parcell’s analysis, however, because he fails to appropriately account for the hypothetical capital structure in his recommendation to lower the Company’s ROE.

**Q. On what grounds does Mr. Parcell recommend the imputation of a hypothetical capital structure?**

A.Mr. Parcell gives two reasons: first, that 49.1 percent is consistent with the recent capital structures of other electric utilities, and, second, that the Commission has imputed that same capital structure in recent rate proceedings for the Company.

**Q. Is it fair for Mr. Parcell to characterize the 49.1 percent equity ratio as “consistent” with those of other electric utilities?**

A.No, Mr. Parcell’s statementis misleading. The hypothetical equity ratio recommended by Mr. Parcell is below each and every one of the equity ratios employed by the proxy companies he deems to be comparable. Table 1 below contains the proxy group equity ratios as reported by Mr. Parcell in Exhibit No. DCP‑8 (Proxy Companies: Basis for Selection).

**Table 1: Common Equity Ratios for Parcell Comparables**

|  |  |
| --- | --- |
| **Parcell Proxy Company** | **Common Equity Ratio (%)** |
| Alliant Energy | 50 |
| DTE Energy | 50 |
| Eversource Energy | 53 |
| OGE Energy | 55 |
| Pinnacle West Capital | 56 |
| Westar Energy | 50 |
| WEC Energy | 50 |
| Proxy Group Average | 52 |

As this data show, Mr. Parcell’s comparable utilities employ equity ratios that are on average 290 basis points higher than the 49.1 percent he recommends.

**Q. Are the equity ratios authorized by state regulators for the operating subsidiaries of these comparable companies also higher than the recommended 49.1 percent?**

A. Yes, as I show in Exhibit No. KGS-36, the average authorized equity ratio for the operating subsidiaries of Mr. Parcell’s comparable companies is approximately 50.5 percent, roughly 140 basis points above Mr. Parcell’s proposed hypothetical equity ratio of 49.1 percent.

**Q. Is the Company’s actual equity ratio of 51.03 percent for the year ending June 30, 2016, imprudent?**

A. No. It is well within the range of prudent equity ratios and is particularly compelling in light of the transformations occurring in the electric power industry now. These include a major change in the generation fuel mix, which will require significant investment. The industry seems intent on marching forward with these fuel mix changes irrespective of the outcome of the various challenges to the EPA’s Clean Power Plan, which led the Supreme Court to stay the Agency’s action. The potential for utilities to embrace new business models to accommodate a technologically-driven sector restructuring will also require a financially-strong and adaptive utility. In light of the fast-paced and dramatic changes facing the industry, it is prudent and efficient for customers for utilities to maintain equity ratios at levels that support single-A credit ratings.

**Q. What effect does the imputation of an equity ratio have?**

A. The imputation of a hypothetical equity ratio that is below a utility’s actual equity ratio is tantamount to a disallowance of costs if the ROE is not adjusted to reflect a higher level of leverage. For the Company, such a disallowance is not warranted as its actual capital structure is not imprudent.

**Q. Did Mr. Parcell adjust his recommended ROE to account for differences between the proxy companies’ equity ratio and the one he recommends using for establishing the Company’s rates?**

A. No. He did not. Making such an adjustment would place his ROE at the 9.5 percent level approved by the Commission in Order 08 or above. I illustrate this adjustment in my workpaper *Relevered beta analysis.xlsx*.

# UPDATED ROE ANALYSIS

Q. Have you refreshed your ROE analysis to incorporate more recent data since the Company’s direct filing?

A. Yes, I have. I have previously described trends in capital markets since November 2015. In addition, I have prepared Exhibit No. KGS-20 through Exhibit No. KGS-32, which update my cost of capital analyses, including the DCF model, CAPM, and risk premium model, as well as an examination of Comparable Earnings and Allowed Returns.

Q. What conclusions do you draw from your updated analysis?

A. I conclude that 10 percent continues to represent a fair return for the Company’s equity investors. While some recent indications of ROE have increased, others have decreased. On balance, a 10 percent ROE continues to fall squarely within the zone of reasonableness.

That said, if the Commission decides to approve the Company’s request to defer the adjudication of cost of capital until the next rate proceeding, the data contained in Exhibit No. KGS-20 through Exhibit No. KGS-32 confirm the relatively stability of required return indicators, on balance. They also confirm a projected uptick in returns that will accompany interest rate policy normalization by the Federal Reserve.

Q. To which proxy group did you apply these models?

A. The proxy group in this report remains the same as that presented in my direct testimony, Exhibit No. KGS-1T, in this matter filed in November 2015. This proxy group consists of the following twenty-three companies: Ameren Corporation, American Electric Power Company, Inc., Avista Corporation, Centerpoint Energy Inc., Consolidated Edison, Inc., DTE Energy Company, Edison International, El Paso Electric Company, Eversource Energy, Great Plains Energy Incorporated, IDACORP, Inc., NorthWestern Corporation, OGE Energy Corp., Pinnacle West Capital Corporation, Portland General Electric Company, Public Service Enterprise Group Incorporated, SCANA Corporation, Sempra Energy, Vectren Corporation, Westar Energy, Inc., and Xcel Energy Inc. From these, I removed Dominion Resources, Inc. and the Empire District Electric Company because they announced merger activity after my Direct Testimony was filed.

**Q. How does the Company’s current ROE compare with the authorized ROE for other Washington utilities?**

A. It is my understanding that on January 6, 2016, the Commission approved a stipulation that included an authorized ROE of 9.5 percent for Avista.[[12]](#footnote-13) In addition, on March 17, 2016, the Commission extended the rate plan for Puget Sound Energy (PSE), which includes a 9.8 percent ROE.[[13]](#footnote-14) Both ROEs were approved with the support of Staff. These decisions show that a continuation of the Company’s previously-authorized ROE will not put it in a situation where it receives a higher ROE than similarly-situated electric utilities in the state. Rather, the continuation will result in an ROE that is in line with that of Avista and 30 basis points below that of PSE.

# Decoupling and the Two-year Rate Plan

**Q. Is Mr. Parcell correct that Pacific Power’s proposal to implement a decoupling mechanism should limit the ROE the Commission awards the Company in this proceeding?[[14]](#footnote-15)**

A. No. There are two economic reasons why approval of a decoupling mechanism should not limit the ROE authorized by the Commission. The first is the lack of any scholarly evidence showing that decoupling actually affects the cost of equity. The empirical studies with which I am familiar show a lack of any relationship.[[15]](#footnote-16) Staff appears to agree, having previously testified that the “claim that decoupling reduces risk for regulated utilities has theoretical appeal, but is at best hypothetical and unsupported by empirical evidence.”[[16]](#footnote-17)

The second is the fact that if any effect were to exist, it would already be reflected in the ROE estimates for the proxy groups. I included with my direct testimony Exhibit No. KGS-18, which shows that the majority of companies in my proxy group have decoupling of one form or another. In connection with my rebuttal testimony, I have prepared Exhibit No. KGS-37, which provides a summary of decoupling mechanisms for Mr. Parcell’s proxy group companies. It shows that six of the seven companies in his proxy group have decoupling in place at operating subsidiaries. Since decoupling regulatory practices are already baked into the ROE estimates for the proxy group companies, capping the ROE arbitrarily, as suggested by Mr. Parcell, is not warranted.

**Q. On account of the proposed decoupling mechanism, Mr. Parcell seeks to limit the ROE to the midpoint of the zone of reasonableness. Does this run counter to the recent guidance from this Commission on the increased risk associated with regulatory packages of the type proposed by the Company?**

A. Yes, the Commission addressed this specific issue in its remand order for Puget Sound Energy (PSE) in Dockets UE-121697 and UG-121705. In that order, the Commission recognized that elements of PSE’s Application (earnings sharing, rate plan, and conservation targets) warrant an ROE above the mid-point of the zone of reasonableness. The rate package requested by Pacific Power bears many similarities to that approved for PSE. Mr. Parcell’s proposal is not suitable for such a rate package, and does not reflect the increased risks to Pacific Power.

**Q. How will Pacific Power face increased risk?**

A.The Company is agreeing to a stay-out provision that will last two years. While a step-up in rates in year two does mitigate the risks of that stay-out provision, it does not eliminate them. A sharp increase in financing cost could lead to substantial under-recoveries, as could a sharp increase in operating cost.

**Q. Does Staff witness Mr. Jason L. Ball recognize the increased risk to Pacific Power?**

A.Yes, he does. Mr. Ball testifies that an “additional return on equity” is one of the incentives that can be provided in exchange for an agreed upon stay-out period.[[17]](#footnote-18) In addition, Mr. Ball cites an academic article that provides a methodology for the empirical determination of the cost of stay-out provisions for utility investors. It does so using options valuation techniques and finds that the stay-out premium (designed to compensate the utility for the expected costs of not being able to file a rate proceeding) is 25 basis points, using a historical set of relevant data. The corresponding premium for Pacific Power would likely be lower in this instance, due to the step up in rates in year 2. However, the stay-out premium would not be zero.

# CONCLUSION

**Q. Based on your analysis, is it necessary to reduce the ROE in this proceeding based on the most current information available?**

A. No. My analysis shows that the ROE that was approved in the 2014 Rate Case is low relative to the benchmark evidence from the capital markets, low relative to the risks borne by the Company’s equity owners, and low relative to the returns available to similarly-situated electric utilities. The ROE is especially low when taken together with the hypothetical 49.1 percent equity ratio imputed by the Commission. If the Company were requesting to change its ROE in this proceeding, my recommendation would be to raise the ROE to 10.0 percent and to apply that ROE to the Company’s actual capital structure.

**Q. Does this conclude your rebuttal testimony?**

A. Yes.

1. *Wash. Utils. & Transp. Comm’n v. Pacific. Power & Light Co.*, Dockets UE-140762 *et al.*, Order 08, ¶ 181 (Mar. 25, 2015). [↑](#footnote-ref-2)
2. *Id.* ¶ 182. [↑](#footnote-ref-3)
3. Parcell, Exh. No. DCP-1T 3:6. [↑](#footnote-ref-4)
4. *See* Patrick Gillespie, *China leads global U.S. debt dump,* (Feb. 27, 2016),

   <http://money.cnn.com/2016/02/17/news/economy/china-us-debt-dump-central-banks/>. [↑](#footnote-ref-5)
5. *See* Janet Yellen, Chair, Fed. Reserve, “The Outlook, Uncertainty, and Monetary Policy” at the Econ. Club of N.Y., (Mar. 29, 2016), <http://www.federalreserve.gov/newsevents/speech/yellen20160329a.htm>. [↑](#footnote-ref-6)
6. *Id.* [↑](#footnote-ref-7)
7. *MNI Spotlight: Fed’s Williams: Wants to Hike in April or June* (Mar. 21, 2016) <https://mninews.marketnews.com/content/mni-spotlight-feds-williams-wants-hike-april-or-june>. [↑](#footnote-ref-8)
8. *See* Bill Luby, *The Case Against High Stock-Market Volatility in 2016* (Jan. 2, 2016) <http://www.barrons.com/articles/the-case-against-high-stock-market-volatility-in-2016-1451704416>. [↑](#footnote-ref-9)
9. Parcell, Exh. No. DCP-1T 13:21-23. [↑](#footnote-ref-10)
10. For an empirical study of how the risk premium varies with the overall level of interest rates, *see* W. Carleton, W. Chambers and J. Lakonishok, *Inflation Risk and Regulatory Lag*, Journal of Finance, (May 1983). [↑](#footnote-ref-11)
11. Morin, Roger A. *Regulatory Finance – Utilities’ Cost of Capital*, 275 (1994). [↑](#footnote-ref-12)
12. *Wash. Utils & Transp. Comm’n v. Avista Corp. d/b/a Avista Utils.*, Dockets UE-150204, *et al.*, Order 05, ¶ 12, 23 (Jan. 6, 2016). [↑](#footnote-ref-13)
13. *WUTC v. Puget Sound Energy*, Dockets UE-121697, *et al.*, Notice of Commission Action Amending Order 07, *Wash. Utils & Transp. Comm’n* (Mar. 17, 2016). [↑](#footnote-ref-14)
14. Parcell, Exh. No. DCP-1T 36:7-37:2. [↑](#footnote-ref-15)
15. For example, my own work in the area has found no relation between the existence of decoupling mechanisms and the value of the firm or the cost of capital. A group of economists at the Brattle Group also reached the same conclusion (see: <http://www.nmlegis.gov/lcs/handouts/WNR%20072715%20Item%206%20%20Effect%20of%20Electric%20Decoupling%20on%20the%20Cost%20of%20Capital.pdf>). [↑](#footnote-ref-16)
16. *Wash. Utils. & Transp. Comm’n v. Puget Sound Energy*, Dockets UE-121697, *et al.*, Schooley, Exh. No. TES-4T 5:6-8 (May 8, 2013); *Wash. Utils. & Transp. Comm’n v. Puget Sound Energy*, Dockets UE-121697, *et al.*, Schooley, Exh. No. TES-6T 5:14-16 (Dec. 3, 2014). [↑](#footnote-ref-17)
17. Ball, Exh. No. JLB-1T 18:4-14. [↑](#footnote-ref-18)