

**BEFORE THE WASHINGTON STATE
UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

DOCKETS UE-121697 and
UG-121705 (*consolidated*)

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

DOCKETS UE-130137 and
UG-130138 (*consolidated*)

REPLY BRIEF OF PUBLIC COUNSEL

March 20, 2015

TABLE OF CONTENTS

I. INTRODUCTION1

II. MARKET-BASED COST OF EQUITY ISSUES2

 A. The Weight Of Evidence Supports An ROE Below 9.5%.....2

 B. PSE Has Not Carried Its Burden Of Proof.....3

 1. PSE’s analysis seriously overstates ROE.....3

 2. PSE continues to shift the burden of proof to other parties.....5

 C. Staff Does Not Rebut Public Counsel’s ROE Evidence.....7

 D. PSE’s Criticisms of Mr. Hill’s Testimony Are Not Well Founded.....8

 1. PSE mischaracterizes Mr. Hill’s earlier testimony.....8

 2. PSE’s objections to Mr. Hill’s DCF analysis are without merit.....9

 3. Mr. Hill’s CAPM analysis is sound.....11

III. THE EFFECT OF DECOUPLING ON COST OF EQUITY12

 A. The Issue Of Decoupling Impact Is Within The Scope Of The Remand.....12

 1. All factors affecting PSE’s risk must be considered in setting cost of equity.....12

 2. The issue of decoupling impact is not barred by the Superior Court Order.....13

 B. The Empirical Evidence Presented By PSE Is Sufficient To Establish That Decoupling Reduces Cost of Capital.....14

 C. PSE Criticisms of Mr. Hill’s Revenue Volatility Analysis Are Not Persuasive.....17

IV. CONCLUSION20

TABLE OF AUTHORITIES

Cases

<i>Federal Power Comm'n v. Hope Natural Gas Co.</i> , 320 U.S. 591	1
<i>Indus. Customers of Nw. Utils. v. Wash Utils. & Transp. Comm'n; Wash. Utils. & Transp. Comm'n v. Public Counsel</i> , Nos. 13-2-01576-2 & 13-2-01582-7 (<i>consolidated</i>), Superior Court Order (July 25, 2014)	5, 12, 13
<i>Permian Basin Area Rate Cases</i> , 390 U.S. 747	1
<i>State of North Carolina ex rel Util. Comm'n v. Cooper</i> , No. 268A12-2, slip op. (NC, Dec. 19, 2014)	6

Regulatory Decisions

<i>In the Matter of the Wash. Utils. & Transp. Comm'n Investigation Into Energy Conservation Incentives</i> (Decoupling Policy Statement), Docket U-100522 (November 4, 2010)	12
<i>Petition of Western Massachusetts Electric Co. For Approval of a General Increase in Electric Distribution Rates and A Revenue Decoupling Mechanism</i> , Massachusetts Dept. of Public Utilities, DPU 10-70, Final Order at 279-288 (January 31, 2011)	13
<i>Wash. Utils. & Transp. Comm'n v. Puget Sound Energy (PSE 2006 GRC)</i> , Dockets UE-060266/060267, Order 08 (January 5, 2007)	6
<i>Wash. Utils. & Transp. Comm'n v. Puget Sound Energy (PSE 2009 GRC)</i> , Dockets UE-090704/UG-090705, Order 11 (April 2, 2010)	6
<i>Wash. Utils. & Transp. Comm'n v. Puget Sound Energy (PSE 2011 GRC)</i> , Dockets UE-111048/UG-111049, Order 08 (May 7, 2012)	6, 7
<i>Wash. Utils. & Transp. Comm'n v. PacifiCorp d/b/a Pacific Power & Light Co.</i> , Docket UE -100749, Order 07 (May 12, 2011)	6

Other Authorities

Thomas H. Wonnacott & Ronald J. Wonnacott, <i>Introductory Statistics</i> (New York: Wiley, 5 th ed. 1990)	16
--	----

I. INTRODUCTION

1. In its opening brief, Puget Sound Energy (PSE) agrees that the fundamental principles applicable to the determination of cost of capital are found in the governing United States Supreme Court precedents, and followed in the Washington courts.¹ Among these important principles is the need to balance the interests of customers and shareholders. As the Supreme Court said in *Permian Basin*:

The Commission cannot confine its inquires either to the costs of service or to conjectures about the prospective responses of the capital market; it is instead obliged at each step of its regulatory process to assess the requirements of the broad public interest entrusted to its protection by Congress. Accordingly, the ‘end result’ of the Commission’s orders must be measured as much by the success with which they protect those interests as by the effectiveness with which they ‘maintain credit . . . and . . . attract capital.’²

2. The interest of ratepayers in just and reasonable rates has equal stature with the interests of investors in a reasonable level of return. The return allowed to investors is not the pre-eminent concern. There must be a balance.³ In addition, the allowed return should match the risk attendant to the enterprise.⁴ If the risk declines so too should the return. The legal standard is that rates must be just and reasonable, and this is just as important as establishing a return sufficient to fairly compensate investors. PSE’s request that it be allowed to continue enjoying, for the multiple years of its Rate Plan, a return on equity established in 2012, despite significant declines in capital cost, and substantial reduction in risk, violates these principles.

¹ Initial Brief of PSE (PSE Brief), ¶¶ 18-20.

² *Permian Basin Area Rate Cases*, 390 U.S. 747, 791 (citations omitted).

³ *Federal Power Comm’n v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (“the fixing of ‘just and reasonable’ rates involves a balancing of the investor and the consumer interests.”)

⁴ *Id.*

II. MARKET-BASED COST OF EQUITY ISSUES

A. The Weight Of Evidence Supports An ROE Below 9.5%.

3. All parties agree that the focus of this case is the establishment of the appropriate return on equity for PSE at the time of the initiation of the Rate Plan in early 2013.⁵ Rates under the Rate Plan must then be reset to reflect the updated ROE. As stated in the Staff Brief:

Judge Murphy's order explicitly reverses the Commission's determination of the rates in the rate plan. In order to correct the error, it is necessary to correct the base rates that flow through into the rate plan. The base rates went into effect in 2013 based on updated material and testimony as of the first quarter of 2013 at the latest. All evidence that the Commission considers to re-set the base rates that flow through into the rate plan should be contemporaneous with the other testimony and evidence presented in support of the ERF rates [the baseline of the decoupling and K-factor mechanisms]. The time period in which this evidence was presented or would have been presented is early 2013. Accordingly, it is appropriate to authorize a return on equity that would have been applicable in the first quarter of 2013.⁶

4. The substantial weight of the evidence submitted in this case, considering market-based cost of capital analysis alone, is that a just, reasonable, and sufficient cost of equity for PSE is now demonstrably lower than when the ROE of 9.8% was set in the PSE 2011 general rate case (GRC).⁷ The expert analysis of all the non-company witnesses confirms this downward trend. Stephen Hill, for Public Counsel, recommends a 9.0% ROE. Michael Gorman, for Industrial Customers of NW Utilities (ICNU) recommends a 9.3% return, and David Parcell, on behalf of Commission Staff, recommends a 9.5% ROE.⁸ In combination, these results are based on the

⁵ PSE Brief, ¶ 21; Initial Brief of Commission Staff (Staff Brief), ¶ 11.

⁶ Staff Brief, ¶ 11 (emphasis added).

⁷ Although the PSE 2011 GRC order was issued in October 2012, the cost of capital data presented by the witnesses was based on market data from the period October 2010 through November 2011. Stephen G. Hill, Exh. No. SGH-1T at 8:3-12.

⁸ Hill, Exh. No. SGH-2T at 43:1-10; Gorman, Initial Brief of Industrial Customers of NW Utilities (ICNU Brief), ¶¶ 23-24; David C. Parcell, Exh. No. DCP-1T at 4:1-6.

analysis of 13 model runs, using 9 different cost of capital models, and many proxy group sample companies. As addressed below, PSE's efforts to support a higher ROE for early 2013, somewhere in a range from 9.8% to 10.7%, are unreliable and unpersuasive.

B. PSE Has Not Carried Its Burden Of Proof.

1. PSE's analysis seriously overstates ROE.

5. PSE presents the outlier analysis in the case. PSE's position is that cost of capital is dramatically increasing, notwithstanding the strong weight of evidence that cost of capital has shown steady declines from the 2011 GRC until the target period in 2013. In Order 07, in the initial phase of this case, the Commission itself recognized that cost of capital had been declining since the 2011 PSE rate case.⁹
6. PSE suggests it is sacrificing by not pursuing the higher level of ROE supported by Dr. Morin, remaining "committed to the terms it proposed to the Commission in its 2013 filings."¹⁰ This argument has at least two flaws. First, it only makes sense if one accepts that but for the Rate Plan, PSE's ROE would be higher, presumably at the excessive ROE levels produced by Dr. Morin's analysis. This is highly speculative. No other Washington regulated electric investor owned utility (IOU) currently has an ROE above 10%. As detailed in Public Counsel's Initial Brief, Mr. Hill shows the flaws in Dr. Morin's ROE analysis, including his exclusive reliance on analyst projections, previously rejected by the Commission.¹¹ As to the notion that accepting 9.8% is a sacrifice on PSE's part, it is worth recalling that in the initial Rate Plan hearing, Staff witness Tom Schooley agreed with Commissioner Goltz that "locking in the

⁹ Order 07, ¶ 58.

¹⁰ PSE Brief, ¶ 27.

¹¹ Public Counsel Brief, ¶ 44 (Table 3).

9.8% [ROE in the Rate Plan] cuts in the favor of the Company.”¹² In an era of declining capital costs, locking in a cost of capital for a four or five year period under the Rate Plan is unquestionably a benefit to PSE investors rather than a sacrifice.

7. Second, PSE’s reference to a “commitment” again seeks to import irrelevant considerations from the initial phase of the case to the ROE analysis. If PSE is referring to its commitment in the Multiparty Settlement in the initial phase of the case, that settlement was rejected by the Commission.¹³ No commitments exist under the rejected settlement and it has no bearing whatever on the Remand proceeding. PSE has been free from the outset of this proceeding to recommend the specific ROE that it believes is warranted by the evidence for purposes of the Rate Plan, without reference to any previous number, just as it would in a rate case, and indeed has the burden of proof to do so. Instead, it has chosen to take a more passive role, suggesting that the Company, and by extension the Commission, are bound to the previous ROE.

8. PSE further argues against a lower ROE on the ground it has given up opportunities for rate relief during the course of the plan.¹⁴ This is an interesting characterization, given that PSE voluntarily advocated for the adoption of the Rate Plan, under which it receives guaranteed annual rate increases for every year of the plan, and in addition is permitted to file unlimited Power Cost Only Rate Cases (PCORCs).¹⁵

¹² Thomas E. Schooley, TR. 131:9-13.

¹³ Order 07, n.22.

¹⁴ PSE Brief, ¶ 28.

¹⁵ Order 07, ¶¶ 21-22. PSE has filed two PCORCs since the beginning of the Rate Plan, in Dockets UE-130617 *et al.* and Docket UE-141141.

9. PSE also argues that it faces new risk due to its earnings sharing mechanism which risk offsets the decoupling risk reduction.¹⁶ The earnings sharing mechanism, however, gives the Company an opportunity to earn a return greater than its cost of capital, and to keep a portion of these overearnings. Because it takes effect only after the Company is earning its authorized return, it hardly constitutes a risk to investors.¹⁷

2. PSE continues to shift the burden of proof to other parties.

10. As one of two main grounds for reversing the Commission's Rate Plan, the Superior Court identified the failure of PSE to carry its burden of proof to establish a cost of equity capital for rate setting purposes.¹⁸ In spite of this, PSE avoids a direct and specific recommendation for an ROE in its expert testimony. Instead, PSE simply presents ranges, all of which are inordinately high, while suggesting that it would be satisfied if the ROE of 9.8% were left in place.¹⁹ According to the PSE Brief, the "ROE [of 9.8 %] was reasonable when the Commission issued Order 07 in this proceeding in June 2013 and it remains a reasonable and appropriate ROE[.]"²⁰

11. Whether the legacy ROE should remain is not the issue in the case. The issue in the case is to determine the appropriate cost of capital, as of 2013, to be incorporated in the setting of rates in the Rate Plan. There is no presumption in law or fact that the previous ROE is the just

¹⁶ PSE Brief, ¶ 28.

¹⁷ Hill, Exh. No. SGH-2T at 48.

¹⁸ *Indus. Customers of Nw. Utils. v. Wash Utils. & Transp. Comm'n; Wash. Utils. & Transp. Comm'n v. Public Counsel*, Nos. 13-2-01576-2 & 13-2-01582-7 (*consolidated*), Superior Court Order at 2 (July 25, 2014).

¹⁹ Dr. Roger A. Morin, Exh. No. RAM-1T at 2:9-20.

²⁰ PSE Brief, ¶ 26. At the Remand hearing, Dr. Morin stated: "Now the 9.8 percent that you decreed in that decision And the fundamental question here today, is that a fair and reasonable number." TR. 656:1-4.

and reasonable return.²¹ PSE appears to argue that if the Commission determines that a range, whatever it may be, incorporates 9.8%, the Commission's analysis is at an end and 9.8% must be selected.²² This would be a patently arbitrary result, effectively eliminating the key final step of the Commission's task, the selection of the specific ROE within the range that is fair, just, and reasonable, based on the evidence in the case. The ROE from the previous case is entirely irrelevant to that determination.²³

12. In the same vein, PSE cites the boilerplate principle of appellate law that agencies on remand can "reach the same result."²⁴ This familiar principle has no particular significance for this case.²⁵ Here, in the initial phase, the Commission simply did not require the submission of evidence or conduct the type of analysis normally used to determine cost of capital in Commission proceedings. The Remand proceeding is the first time the Commission has addressed the issue on a complete and almost entirely new record. Again, PSE appears to be suggesting that the Commission give special status to the prior ROE decision as a target for the new cost of equity analysis.

²¹ *Wash. Utils. & Transp. Comm'n v. PacifiCorp d/b/a Pacific Power & Light Co.*, Docket UE -100749, Order 07, ¶ 26 (May 12, 2011).

²² In recent PSE contested ROE decisions, the Commission has adopted relatively narrow ROE ranges and selected the mid-point of those ranges: *PSE 2006 GRC*, Dockets UE-060266/060267, Order 08 (January 5, 2007) (range: 10.3-10.5, ROE set at 10.4); *PSE 2009 GRC*, Dockets UE-090704/UG-090705, Order 11 (April 2, 2010) (range: 9.9-10.3, ROE set at 10.1); *PSE 2011 GRC*, Dockets UE-111048/UG-111049, Order 08 (May 7, 2012) (range: 9.5-10.1, ROE set at 9.8).

²³ Hill, TR. 658:2-21 ("There's no guidepost . . . That's very unusual. I'm not aware of a situation where a prior allowed return has been something to be of concern in estimating the cost of capital.").

²⁴ PSE Brief, ¶ 13.

²⁵ None of the cases cited by PSE are on point. In the North Carolina case, the regulatory commission had originally merely recited witness testimony without evaluating its weight. On remand the commission, on the same record, "revisited the evidence related to ROE and explained the weight give to each witness's testimony." *State of North Carolina ex rel Util. Comm'n v. Cooper*, No. 268A12-2, slip op. at 7 (NC, Dec. 19, 2014). The other cases cited enunciated the principle that an agency could reach the same result on the same record on alternative *legal* grounds, not the situation presented here.

C. Staff Does Not Rebut Public Counsel's ROE Evidence.

13. Staff's brief does not address or take issue in any respect with the market-based ROE recommendation of Mr. Hill, consistent with the fact that Staff witness Mr. Parcell did not disagree in his testimony with any aspect of Mr. Hill's market-based analysis. Staff indeed agrees with Public Counsel that a 9.8% ROE for the Rate Plan is too high, stating that "[h]ad Staff made a cost of equity recommendation at that time, in early 2013, Staff would have recommended authorizing PSE's cost of equity at 9.50 percent."²⁶

14. While Mr. Parcell and Staff do not recommend 9.8% as the appropriate target ROE for the Rate Plan, both Mr. Parcell's range (9.0% to 10.0%) and his 9.5% ROE are nevertheless overstated.²⁷ As discussed in detail in Public Counsel's Initial Brief, Mr. Parcell arrived at his range and his target ROE by systematically using the highest results of his models without explanation, and by entirely discarding the results of his CAPM analysis.²⁸ Staff's Brief cites the importance of relying on a "variety of perspectives and analytic results,"²⁹ stating that "Staff's cost of equity witness, Mr. Parcell, used three different methodologies to determine PSE's cost of equity [.]"³⁰ Staff's Brief describes the results of each of Mr. Parcell's models, including CAPM, without acknowledging or explaining that the CAPM results were dropped from the final analysis, or that Mr. Parcell relied, by his own admission, on his highest DCF and CE results. As a result of this approach, Mr. Parcell's recommended range and target ROE are substantially

²⁶ Staff Brief, ¶ 2.

²⁷ In the PSE 2011 GRC, Staff recommended an ROE of 9.5%. *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy* (PSE 2011 GRC), Dockets UE-111048 & UG-111049, Order 08, ¶¶ 40-41 (May 7, 2012). This was prior to the subsequent declines in capital cost and PSE's adoption of full decoupling.

²⁸ Public Counsel Brief, ¶¶ 49-59.

²⁹ Staff Brief, ¶ 12.

³⁰ *Id.*

higher than warranted by his own model results. As Mr. Hill's cross-answering testimony shows, if a more reasonable, "conservative" approach is developed, the mid-points for Mr. Parcell's DCF, CAPM, and CE are 9.0%, 6.7% and 9.15% respectively.³¹

D. PSE's Criticisms of Mr. Hill's Testimony Are Not Well Founded.

1. PSE mischaracterizes Mr. Hill's earlier testimony.

15. PSE criticizes Mr. Hill for his 2013 ROE recommendation of 9.50% in the initial phase of this Rate Plan case, based on market conditions, comparing it to his current recommendation of 9.0% for the same time period.³² PSE takes Mr. Hill's earlier recommendation out of context, ignoring the explanation in his testimony.³³ As PSE is aware, Mr. Hill did not perform a full cost of equity capital analysis for PSE in the initial phase of the case, but referred to a recent analysis he had done for a similarly-rated electric utility.³⁴ For that company, he found that a cost of equity range of 8.50% to 9.50% was reasonable, the same as he found in his analysis in this proceeding.³⁵ Mr. Hill also noted in his initial testimony that even compared to the uppermost end of that range, the Commission's allowed 9.8% was too high to be representative of the cost of equity capital in early 2013.³⁶ Ultimately, Mr. Hill recommended in his initial testimony that if the Commission approved PSE's full Rate Plan, a return between 8.50% and 9.0% would be

³¹ Hill, Exh. No. SGH-21T at 7 (Table I). These results are developed using Mr. Parcell's overall average as the low end of the range and his highest average results (rather than the highest results) as the top of the range.

³² PSE Brief, ¶ 43.

³³ Exh. No. SGH-2T at 45:3-21(explanation of reasons for difference).

³⁴ Hill, Exh. No. SGH-1T at 10:14-11:11.

³⁵ *Id.*

³⁶ Hill, Exh. No. SGH-1T at 11:1-6.

reasonable to reflect both the lower costs in capital markets and the effect of decoupling.³⁷ That is precisely the range in which his recommendation falls in this Remand proceeding.

16. PSE also criticizes Mr. Hill's recommended ROE citing Mr. Hill's statements to the Alabama Commission in 2013 that a cost of equity of 10% was reasonable in 2013.³⁸ As Mr. Hill explained at the Remand hearing, his actual ROE range presented to the Alabama Commission was 8.5% and 9.25%, comparable to the results of his analysis here.³⁹ The 10% equity return recommendation was presented as a conciliatory gesture by AARP because the then-current allowed return on equity in Alabama was 14%. The 10% level would have saved Alabama ratepayers \$250 Million annually.⁴⁰

2. PSE's objections to Mr. Hill's DCF analysis are without merit.

17. PSE cites Dr. Morin's testimony that Mr. Hill used a "shotgun approach to growth rates" which is unreliable and arbitrary rather than choosing an optimal growth rate proxy based on objective scientific research that is easily reproducible.⁴¹ PSE fails to mention that Mr. Hill also presents an additional DCF analysis as a check on the traditional DCF, the "Mechanical DCF." The Mechanical DCF is based only on published, projected growth rates without independent judgment or input by Mr. Hill. The result of this method is 8.30%,⁴² well below Mr. Hill's traditional DCF result of 8.69%.⁴³

³⁷ Hill, Exh. No. SGH-1T at 13:11-15.

³⁸ PSE Brief, ¶ 43.

³⁹ Hill, TR. 625:24-626:5.

⁴⁰ Hill, TR. 626:8-627:5.

⁴¹ PSE Brief, ¶ 46.

⁴² Hill, Exh. No. SGH-10.

⁴³ Hill, Exh. No. SGH-9.

18. PSE argues that Mr. Hill unduly restricted the size of his proxy group (sample size) by including only utilities with senior bond ratings and with 70% or more of revenues generated by utility operations. As a result, according to PSE, Mr. Hill's dividend yield component of the DCF does not generate an accurate projection.⁴⁴ This criticism is not well founded. Mr. Hill's method is to assemble a sample group with risk characteristics similar to PSE's—similar bond ratings, and a similar mix of regulated and unregulated operations.⁴⁵ Dr. Morin's analysis includes companies whether or not they are similar in risk to PSE. As a result, Mr. Hill's analysis is more accurate because it is more attuned to the specific risks of PSE. With regard to dividend yields, Mr. Hill's DCF uses the dividend yield published by Value Line.⁴⁶ PSE has pointed to no evidence in the record that Value Line's published projected dividend yield is inaccurate in any way, and Dr. Morin performed no analysis on that point. His testimony is merely conjecture on this issue.

19. PSE also challenges Mr. Hill's DCF on the basis that none of his proxy companies has an *allowed* ROE below 10.0% as of May 2013.⁴⁷ PSE appears not to properly differentiate between an allowed return—an accounting measure based on accounting book value—and the market-based cost of common equity capital -- (a market-based measure determined by the market price of the stock). It is the latter that must be determined in this proceeding. If the cost of common equity (the equity investors' required return) were 10% and the utilities, on average, are allowed to earn a 10% return on book value, then the market price investors would be willing

⁴⁴ PSE Brief, ¶ 45.

⁴⁵ Hill, Exh. No. SGH-2T at 20:17-21:14.

⁴⁶ Hill, Exh. No. SGH-2T at 30:4-10.

⁴⁷ PSE Brief, ¶ 44.

to pay would approximate utility book value. That is not the case under current market conditions. The market prices investors pay for the opportunity to earn a return of 10% on book value is far above book value. Therefore, the return they require—the market-based return (the cost of equity capital)—is currently far below that 10% level.⁴⁸

3. Mr. Hill's CAPM analysis is sound.

20. PSE complains that Mr. Hill's risk-free rate estimate of 3.4% is far too low because it is approximately 1.2% lower than the projected rates preferred by Dr. Morin.⁴⁹ This issue was addressed in Public Counsel's Initial Brief.⁵⁰ Mr. Hill declines to use projected rates by design. His risk-free rate is based on the actual trend of United States Treasury-Bond yields—known and measureable data which is representative of the actual risk-free rate of return investors were accepting in early-2013. Mr. Hill shows that interest rate projections are inaccurate and, over the past few years, have consistently overstated actual yields. Dr. Morin's use of Treasury-Bond yield projections, as opposed to actual yields, inflates his CAPM result. If current "target period" 2013 bond yields were used in Dr. Morin's CAPM, his indicated ROE would be below 9.0%.⁵¹

21. PSE's Brief also argues that Mr. Hill's CAPM analysis improperly uses total returns on government bonds, rather than income returns to estimate the market risk premium from historical data.⁵² PSE states that this correction alone increases Public Counsel's CAPM

⁴⁸ Hill, Exh. No. SGH-2T at 62:3-65:10. *See also*, Parcell, Exh. No. DCP-1T at 27:1-4.

⁴⁹ PSE Brief, ¶ 49.

⁵⁰ Public Counsel Brief, ¶¶ 40-41.

⁵¹ *Id.*

⁵² PSE Brief, ¶ 49.

estimate by 47 basis points.⁵³ Even assuming, *arguendo*, that PSE is correct, adding 47 basis points would result in a “corrected” CAPM for Mr. Hill of 7.89% -- almost 200 basis points below the 9.8% level currently built in to Rate Plan rates.⁵⁴

III. THE EFFECT OF DECOUPLING ON COST OF EQUITY

A. The Issue Of Decoupling Impact Is Within The Scope Of The Remand.

1. All factors affecting PSE’s risk must be considered in setting cost of equity.

22. PSE’s Brief argues that decoupling is an important state energy policy and that the Commission should, therefore, not “penalize” utilities for supporting this policy by reducing their return.⁵⁵ PSE cites no statement of state energy policy that bars review of rate of return impact, and fails to mention that the most detailed state policy statement on decoupling, this Commission’s Decoupling Policy Statement, takes the opposite view.⁵⁶

23. Setting a fair rate of return requires an assessment of all relevant risk factors.⁵⁷ Both PSE and Staff experts are on record agreeing that decoupling should specifically be recognized in an adjustment to cost of capital to reflect reduced risk.⁵⁸ Adjusting the return to match the reduction in risk is, therefore, not a penalty in any sense. Quite the opposite, failure to lower the return

⁵³ Morin, Exh. No. RAM-16T at 24:14–25:19.

⁵⁴ Hill, Exh. No. SGH-2T (CAPM).

⁵⁵ PSE again introduces policy discussion about the value and purpose of decoupling that has no relevance for this proceeding. PSE Brief, ¶ 55. This is not and has never been an issue at any stage of this appeal or on remand. Public Counsel did not oppose adoption of decoupling in the initial proceeding and does not seek its discontinuance now. The Superior Court expressly stated that decoupling is not an issue on the appeal. Court Order, Appendix A (Ruling), n.1. The decoupling mechanism will continue as part of the PSE Rate Plan regardless of the outcome of this remand. PSE cites Mr. Cavanagh’s concern that the Commission should be reluctant to decide that “revenue decoupling should come packaged with an automatic upfront penalty for PSE, the state’s largest utility and most important energy efficiency investor.” PSE Brief, ¶ 56. Mr. Cavanagh may not be aware that PSE’s energy efficiency programs are not paid by PSE investors, but entirely by PSE customers through a conservation tariff rider on the customer bill.

⁵⁶ *In the Matter of the Wash. Utils. & Transp. Comm’n Investigation Into Energy Conservation Incentives* (Decoupling Policy Statement), Docket U-100522, ¶ 27 (November 4, 2010).

⁵⁷ Public Counsel Brief, ¶ 14-16 (*citing* applicable U.S. Supreme Court decisions).

⁵⁸ Public Counsel Brief, ¶ 6.

after implementing a comprehensive, risk-reducing mechanism penalizes ratepayers. PSE's requested result skews away from ratepayers toward PSE's private equity investors. Absent action by the Commission to restore a fair balance, the Company would be allowed to earn a return on equity that is appropriate for a firm without decoupling, while enjoying the benefits of risk-reduction resulting from shifting volatility risk to ratepayers. Decoupling can be, and has been adopted in Washington and many other states without abandoning the fundamental legal principles relating to cost of capital and assessment of risk.⁵⁹

2. The issue of decoupling impact is not barred by the Superior Court Order.

24. Staff argues that the Superior Court did not remand the issue to the Commission.⁶⁰ This is not a correct understanding. The Court's Order reversed all of the PSE "rates to be charged under the rate plan."⁶¹ The Court reversed the Commission Order because the "findings of fact with respect to the return on equity component of Puget Sound Energy's cost of capital *in the context of a multi-year rate plan*" were not supported by substantial evidence.⁶² The Court ordered the Commission to establish "fair, just, reasonable, and sufficient rates to be charged under the rate plan."⁶³ There is no dispute that the Rate Plan includes PSE's full decoupling mechanism. Determining the return on equity component of PSE's cost of capital "in the context

⁵⁹ See e.g., *Petition of Western Massachusetts Electric Co. For Approval of a General Increase in Electric Distribution Rates and A Revenue Decoupling Mechanism*, Massachusetts Dept. of Public Utilities, DPU 10-70, Final Order at 279-288 (January 31, 2011) (Approving revenue decoupling mechanism and recognizing impact on ROE).

⁶⁰ Staff Brief, ¶¶ 16-18. PSE also raises the point on brief but does not explain how the Court Order is consistent with its view. PSE Brief, ¶ 25.

⁶¹ Court Order, at 2.

⁶² Court Order, at 2 (emphasis added).

⁶³ Court Order, at 3.

of the multi-year rate plan,” is not possible without considering the impact of decoupling, a part of the plan.

25. The Court’s Order does not contain any statement, nor does Staff cite any, carving out and excluding the decoupling impact issue from cost of equity capital. Staff and PSE had ample opportunity to ask the Superior Court for a ruling limiting the scope of the remand to exclude this issue, or to request limiting language in the final order presented to the Court for signature. No such request was made. The parties argued the issue of decoupling impact in the original case. The issue was expressly raised in the appeal, addressed in brief, and in oral argument.⁶⁴ It is now properly before the Commission on remand.

B. The Empirical Evidence Presented By PSE Is Sufficient To Establish That Decoupling Reduces Cost of Capital.

26. PSE makes seemingly inconsistent arguments throughout its brief about the evidence of decoupling impact. It argues on the one hand that the Commission should wait until it has some type of empirical evidence to determine the impact of decoupling.⁶⁵ On the other hand, PSE itself has submitted extensive empirical evidence through Dr. Michael Vilbert and the Brattle Group for this record regarding the impact of decoupling on cost of capital. Having submitted a substantial body of data, all of which shows a reduction in cost of capital when decoupling is adopted, PSE dismisses its own submitted data, stating that “[e]mpirical studies undertaken on

⁶⁴ Superior Court Oral Argument (May 9, 2014), TR. 37:17-38:5 (Commission counsel), TR. 48:2-23 (PSE counsel).

⁶⁵ PSE Brief, ¶ 54.

the topic demonstrates that there is not reliable evidence that decoupling reduces cost of capital.”⁶⁶

27. Public Counsel and ICNU’s statistical expert Dr. Christopher Adolph provides a sound basis for the Commission to reach a different conclusion. His analysis determines that “[t]he key findings in the Brattle Group’s research –the statistical evidence at the heart of Dr. Vilbert’s testimony –*support* the contention that decoupling is associated with lower costs of capital in the electric and gas utilities[.]”⁶⁷ This result is comprehensive, “across every model considered.”⁶⁸ Regarding the March 2014 Brattle Report data, which Mr. Hill testifies is the most reliable data presented, Dr. Adolph states that:

If the Commission finds these models are the best available for the electric industry, we can conclude there is relatively strong statistical certainty of a large substantive reduction in the cost of capital in the electric industry under decoupling. These four models estimate a reduction in the cost of capital on the order of -41 to -49 basis points, and have confidence in the neighborhood of 90 percent. *From a statistical viewpoint, assuming we trust the March 2014 Brattle Group model, it is my opinion that a preponderance of the statistical evidence supports the claim the decoupling lowers the cost of capital in the electric utility industry.*⁶⁹

28. Dr. Adolph does not dispute the data presented. The only debate is what significance to accord the results. In order to bolster its selection of a 95% confidence level, PSE accuses Public Counsel of asking the Commission to ignore traditional standards of statistical significance. PSE

⁶⁶ PSE Brief, ¶ 4. It is worth recalling that the null hypothesis selected by Dr. Vilbert and the Brattle Group has the effect of placing the burden of proof on non-company parties to *disprove* the proposition the decoupling does not reduce cost of capital. Public Counsel Brief, ¶¶ 80-82. There is no reasonable dispute, however, that decoupling affects PSE’s risk. In fact, therefore, the burden of proof in this case is on PSE to establish that a mechanism designed to stabilize its revenues and reduce its financial risk has *no* impact on its cost of capital. PSE’s cost of capital witness does not take on that burden, nor does any other PSE witness.

⁶⁷ Dr. Christopher A. Adolph, Exh. No. CAA-1T at 6:17-23.

⁶⁸ Adolph, Exh. No. CAA-1T at 6:21.

⁶⁹ Adolph, Exh. No. CAA-1T at 30:23-31:8 (emphasis added).

claims that Dr. Adolph arbitrarily adopts confidence levels of 87%, 83%, and 63% to “force” the negative point estimates for the effect of decoupling on the cost of capital to pass the statistical significance test.⁷⁰ These negative point estimates and the related confidence bounds (*p*-factors), however, are not creations of Dr. Adolph’s. They are in fact the results of the Brattle Group study, which are not in dispute.⁷¹

29. The point being made by Dr. Adolph is that mandatory use of a 95% significance requirement is itself arbitrary in the statistical sense. As his testimony explains, “[q]uite a few scientists—myself included—think that arbitrary significance thresholds are too limiting, and that it is always valuable to consider a variety of confidence levels before drawing a conclusion from a sample.”⁷² This approach is described in an introductory statistics text:

Applied statisticians, increasingly prefer *p*-values to classical testing because classical tests involve setting . . . [the significance level] arbitrarily (usually at 5 percent). Rather than introduce such an arbitrary element, it is often preferable just to quote the *p*-value, leaving the readers to pass their own judgment on the . . . [the null hypothesis].⁷³

30. The Commission in this case is free to make its own determination of the value of the evidence and the significance level to be afforded it. The Commission can reasonably conclude, under a preponderance of the evidence standard, that the Brattle Report data is sufficiently probative to show a reduction in the cost of capital from the adoption of decoupling.

⁷⁰ PSE Brief, ¶ 59.

⁷¹ Dr. Michael J. Vilbert, Exh. No. MJV-39CX, App. B to Public Counsel Brief. PSE argues that the logical implication of Dr. Adolph’s position is that the preponderance of the evidence standard should be based on 50% confidence levels PSE Brief, ¶ 61. Dr. Adolph does not recommend use of a 50% confidence level anywhere in his testimony.

⁷² Adolph, Exh. No. CAA-1T at 21:16-18.

⁷³ Adolph, Exh. No. CAA-1T at 21, n.5 (*quoting* Thomas H. Wonnacott & Ronald J. Wonnacott, *Introductory Statistics*, at 302 (New York: Wiley, 5th ed. 1990).

31. PSE attempts to challenge the testimony of Dr. Adolph, on the basis that he is a political scientist who admittedly is not an expert in financial accounting, utility regulation, cost of capital, or the policy of decoupling.⁷⁴ Dr. Adolph did not testify on utility regulation, cost of capital, or decoupling policy, however. Those aspects of Public Counsel's case were addressed by Mr. Hill, an expert in those areas. Dr. Adolph testified on the specific issue of statistical significance of data presented by Dr. Vilbert. As Dr. Adolph's qualifications exhibit shows, he is eminently qualified to provide an expert opinion on the specific issues he addressed, perhaps the witness in the case most qualified to testify on statistical issues.⁷⁵ It is somewhat surprising that PSE tries to raise questions about Dr. Adolph's qualifications, after having chosen not to conduct any cross-examination of him on that issue, or any other aspect of his evidence.⁷⁶

C. PSE Criticisms of Mr. Hill's Revenue Volatility Analysis Are Not Persuasive.

32. PSE's position on revenue volatility is consistent with its efforts to shift the burden of proof to other parties in this case. There is no serious dispute that decoupling is specifically designed and intended to address revenue volatility, and that revenue stabilization of this type has an impact on the Company's risk. The burden is on PSE, therefore, as part of its cost of capital case, to prove that this reduction of risk has no impact on its cost of capital. Rather than

⁷⁴ PSE Brief, ¶ 59.

⁷⁵ Dr. Adolph holds a Ph.D in Political Science from Harvard University. He is a core faculty member of the Center for Statistics and Social Sciences at the University of Washington. All of his published research is in the field of statistical analysis of data and he teaches a variety of graduate courses in the subject. He is an expert in the construction, interpretation and evaluation of linear regression models and panel data, and the visual presentation of statistical models, all areas relevant to this case. Adolph, Exh. No. CAA-1T at 2:1-23; Exh. No. CAA-2 (qualifications).

⁷⁶ Although Dr. Vilbert testified extensively on the lack of statistical significance of the Brattle Group data, his qualification exhibit does not mention any academic training, qualifications, testimony, or written work in statistics. Vilbert, Exh. No. MJV-2.

carry this burden, its case consists of critiquing Mr. Hill's analysis on various points. It did not follow through on its criticisms and provide its own revenue volatility analysis.

33. PSE questions the net revenues used by Mr. Hill in his revenue volatility analysis. After the issue was raised in PSE's rebuttal, as Mr. Hill explained at the Remand hearing, Public Counsel requested data regarding net revenues from the Company. PSE provided some revenue data, which Mr. Hill then used to evaluate the Company argument. As Mr. Hill stated on the stand, he re-ran his revenue volatility regressions with the data provided by the Company. He concluded that, while there were some minor changes in the historical volatility impact, they were not sufficient to cause any change in his recommended ROE decrement. While the number differences cited by PSE appear to be large, it is not the absolute value of the numbers that matters, but the historical volatility of those numbers that impacts the relative risk. Again, Mr. Hill's analysis of the data indicated that the change in the Company's historical volatility of revenues unaffected by decoupling was not significantly different from the analysis of net revenues over the 1999-2013 period presented by Mr. Hill in his testimony.⁷⁷

34. PSE complains that Public Counsel did not use net revenues or other accounting variables in its cost of equity studies, but measured expected returns in capital markets.⁷⁸ Dr. Vilbert's studies, however, also use market-based analysis and those studies show exactly the same result as Mr. Hill—decoupling lowers the cost of equity capital. Mr. Hill's accounting analysis produces results that comport with market based analyses.

⁷⁷ Hill, Exh. No. SGH-2T at 110:15-112:8.

⁷⁸ PSE Brief, ¶ 65.

35. PSE argues that Public Counsel's R-squared of 90% is inflated because revenues and Washington's Gross State Product are both growing (i.e., trending together),⁷⁹ and because Mr. Hill did not take "first differences" into account.⁸⁰ Dr. Vilbert's "first differences" analysis produced an R-squared of 0.38, or that approximately 38% of the historical net revenue variance for PSE was due to economic and weather-related factors.⁸¹ In performing his net revenue analysis, Mr. Hill assumed that the historical variance for PSE would be reduced by decoupling by 35%,⁸² which is very similar to the relationship shown in Dr. Vilbert's "first differences" analysis. Again, any differences that might result from alternative analyses suggested by PSE are small. Moreover, the combination of the evidence supporting the reduction in the cost of equity due to decoupling—both Mr. Hill's net revenue volatility analysis and Dr. Vilbert's market based analysis—indicate that Mr. Hill's recommended ROE reduction for decoupling of 35 basis points is modest. The March 2014 Brattle Group study of decoupling and electric utilities indicates that the *average* cost of equity reduction caused by decoupling ranged from 68 to 82 basis points.⁸³

36. PSE sets up a straw man, citing Dr. Vilbert's testimony which stated if one assumes investors dislike all negative outcomes, not just those falling within the third standard deviation, the reduction in ROE would be 5.29% using Mr. Hill's methodology, and would decrease PSE's ROE from 9.80% to 4.51%, which is less than the cost of debt for PSE.⁸⁴ From this, PSE concludes that the assumptions in Public Counsel's analysis are baseless and, carried to their

⁷⁹ PSE Brief, ¶ 67.

⁸⁰ *Id.*

⁸¹ Vilbert, Exh. No. MJV-37CX.

⁸² Hill, Exh. No. SGH-2T at 114:1-4.

⁸³ Hill, Exh. No. SGH-2T at 93:13-18.

⁸⁴ Vilbert, Exh. No. MJV-18T at 44:18-45:14.

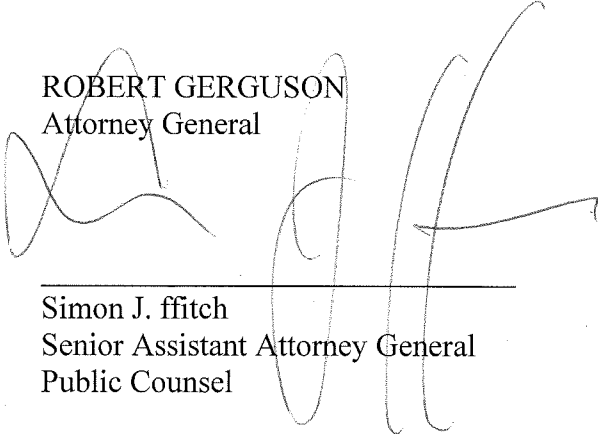
logical conclusion, led to a nonsensical result.⁸⁵ None of these assumptions or results were made or recommended by Mr. Hill. Mr. Hill intended his analysis to be conservative, analyzing the reduction of historical variance of 35% versus 90%, and examining the cost of capital impact of a reduction -- the probability of an extreme negative event (i.e., one beyond three standard deviations from the mean). That analysis is conservative and indicates a reduction in the cost of equity of approximately 35 basis points, far below the 68 to 82 basis points reduction indicated by the market-based analysis of the Brattle Group.

IV. CONCLUSION

37. For the foregoing reasons, Public Counsel respectfully requests that the Commission adopt Public Counsel's recommendations and establish a return on equity of 8.65% for the target period of early 2013. This equity return establishes a basis for setting fair, just, reasonable, and sufficient rates to be charged PSE's customers during the multi-year Rate Plan.

DATED this 20th day of March, 2015.

ROBERT GERGUSON
Attorney General



Simon J. Fitch
Senior Assistant Attorney General
Public Counsel

⁸⁵ PSE Brief, ¶ 71.