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

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| In the Matter of the Petition of `<br><br>PUGET SOUND ENERGY, INC. and<br>NW ENERGY COALITION<br><br>For an Order Authorizing PSE to Implement Electric and Natural Gas Decoupling Mechanisms and to Record Accounting Entries Associated with the Mechanisms | DOCKET NOS. UE-121697 and UG-121705 (Consolidated) |
| WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,<br><br>Complainant,<br><br>v.<br><br>PUGET SOUND ENERGY, INC.,<br><br>Respondent. | DOCKET NOS. UE-130137 and UG-130138 (Consolidated) |

**REPLY BRIEF OF**
**PUGET SOUND ENERGY, INC.**

**MARCH 20, 2015**

**PUGET SOUND ENERGY, INC.**

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# I. INTRODUCTION

1. The return on equity ("ROE") of 9.80 percent that Puget Sound Energy, Inc. ("PSE") seeks in this case is supported by substantial evidence and will result in rates that are fair, just, reasonable and sufficient. The standards for which Public Counsel and the Industrial Customers of Northwest Utilities ("ICNU") advocate with respect to burden of proof and evaluation of decoupling's effect of cost of equity are not supported by law, contrary to the Commission's past practice, and inconsistent with the practice of the vast majority of state commissions.

2. As demonstrated in PSE's Initial Brief, a 9.80 percent ROE is supported by detailed cost of equity studies by Dr. Morin. It falls within a range of reasonableness based on testimony from Commission Staff witness David Parcell and based on studies performed by ICNU. Moreover, it is consistent with authorized ROEs throughout the country, both in 2013 and 2014. It is one piece of a carefully crafted rate plan that gives benefits to customers that they did not previously enjoy, while providing PSE a more fair opportunity to earn its ROE—something PSE had not been able to do for nearly a decade.

3. ICNU and Public Counsel completely ignore the new benefits that flow to customers as a result of decoupling and the rate plan—and the resulting limitations on PSE. To the extent the Commission considers decoupling when determining PSE's ROE, it must also consider the following benefits to customers and limitations to PSE that are part of the overall decoupling and rate plan package.

4. A new and substantial benefit to customers is their ability to share equally with PSE in any earnings above PSE's authorized rate of return. But this benefit to customers comes at a cost to PSE that cannot be ignored. This earnings sharing mechanism imposes an aggressive

limitation on traditional ratemaking. Without such a mechanism, and under traditional rate making, shareholders keep any earnings in excess of the authorized rate of return. Now, earnings greater than the allowed rate of return are shared 50/50 with customers, but there is no sharing if PSE under earns. The Commission shaped the earnings sharing mechanism in Order 07[1] in this proceeding, from that originally proposed by PSE. The earnings sharing mechanism has a downward skewing effect on PSE's ability to earn its ROE, on average, over time, as Dan Doyle testified.[2]

*5.* PSE has limited ability to seek rate relief under its current rate plan. PSE has forgone its ability to file rate cases; instead it must make due with annual increases that are significantly below the historical compound growth rate for non-production rate base and depreciation expense as approved in general rate cases from 2006-2011, and below the projected Consumer Price Index projections for the rate plan period for other non-production related revenue requirement.[3] To earn its authorized return on equity during the plan period, PSE must aggressively work to achieve efficiencies. This directly benefits customers.

*6.* Customers also stand to benefit under decoupling because it has a symmetrical effect—when usage is higher than normal due to cold weather or other factors, the higher revenues are deferred and flow back to customers in the following year. Prior to decoupling, those higher revenues went to PSE and its shareholders, not customers. Public Counsel and ICNU disregard the upside for customers that decoupling provides.

*7.* Finally, as part of its decoupling mechanism and multi-year rate plan, PSE committed to accelerate conservation achievement. Customers benefit from PSE's enhanced commitment to

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1 *WUTC v. Puget Sound Energy, Inc.*, Dockets UE-121697, *et al*., Order 07 (June 25, 2013) ("Order 07").
2 Doyle, Exh. No. DAD-4T at 15:14 – 16:7.
3 *See* Barnard, Exh. No. KJB-1T (Decoupling) at 6:8-15; Exh. No. KJB-4T (Decoupling) at 1.

conservation and energy efficiency, a least cost resource. When viewed in their totality, the decoupling mechanism, rate plan and earnings sharing mechanism are fair to customers and PSE and do not justify a separate decrement to PSE's ROE.

## II. PSE HAS MET ITS BURDEN OF PROOF

### A. The Evidence Filed By PSE In this Case Is More Than Sufficient for the Commission To Authorize a Return on Equity of 9.80 Percent

*8.* The claims of Public Counsel and ICNU that PSE has failed to meet its burden of proof must be recognized for what they are—rhetoric, that lacks a factual basis. Their claims are dispelled by the bulk of evidence in the record filed by PSE and supporting its proposed ROE.

*9.* Public Counsel makes an absurd claim that "PSE continues its efforts, similar to the initial phase of the case, to shift the burden of proof to other parties to rebut the presumption that its legacy ROE is still reasonable, failing to present a specific ROE recommendation."[4] Similarly, ICNU spends three pages of its brief arguing that PSE is shifting the burden of proof based on one statement by Dr. Morin that the 9.80 percent ROE set in 2012 remains in the range of reasonableness.[5] The fallacy with their arguments is that the actual evidence produced by PSE supporting its proposed ROE is more than substantial, bordering on excessive. The fact that Dr. Morin ultimately determines that the 9.80 percent ROE approved by the Commission in 2012 remains in a range of reasonableness—albeit according to Dr. Morin at the lower end of the range of reasonableness—does not mean that PSE has failed to meet its burden of proof. Based on this argument from Public Counsel and ICNU, anytime a utility proposes an ROE that has not changed from the existing ROE, there is a burden of proof issue. This, of course, is baseless.

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[4] Public Counsel Br. at 2.
[5] ICNU Br. at 7.

Whether or not PSE met its burden of proof goes to the evidence produced, not the ultimate ROE that PSE proposes.

*10.* The evidence produced by PSE is massive and substantial. Dr. Morin produced nearly 200 pages of testimony and exhibits supporting his cost of equity studies.[6] Dr. Morin performed cost of equity analyses for two different time periods—early 2013 and late 2014.[7] He conducted six different cost of equity methodologies for each of his studies. This, Public Counsel astonishingly characterizes as "artificially narrow expert analyses."[8] Dr. Morin testified that he performed these cost of equity studies in the same manner as he does in other cases.[9] Dr. Morin recommended an ROE in a range of reasonableness of 9.80 to 10.70 percent for 2013, and 9.40 to 11.0 percent for 2014.[10] He also identified a mid-point, and an average for each time period.[11] Even Public Counsel recognizes the fulsomeness of Dr. Morin's analysis later in its brief and concedes that "Michael Gorman and PSE witness Dr. Morin conducted a *full analyses* for 2014, in addition to their early 2013 target period analyses."[12]

*11.* Dr. Morin's determination of a range of reasonableness is fully consistent with past Commission practice. In fact, a zone of reasonableness is precisely what the Commission has focused on in past cases.[13] Based on this approach, the Commission may determine that a 9.80 percent return on equity is in a zone of reasonableness. Or alternatively, the Commission

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6 *See* Morin, Exh. No. RAM-1T through Exh. No. RAM-17.
7 *See* Morin, Exh. No. RAM 1T at 64:4-13.
8 Public Counsel Br. at 2.
9 Morin, TR. 692:21 – 693:3; *see also* Morin, TR. 665:18-21.
10 Morin, Exh. No. RAM-1T at 2:9-16
11 *Id.*
12 Public Counsel Br. at 9 (emphasis added).
13 *See, e.g., WUTC v. Puget Sound Energy, Inc.*, Docket UE-111048 & UG-111049, Order 08 ¶ 87 (May 7, 2012) (finding a zone of reasonableness between 9.5 and 10.1 percent); *WUTC v. Puget Sound Energy, Inc.*, Docket UE-090704 &UG-090705 Order 11 at ¶ 300 (Apr. 2, 2010) (finding a zone of reasonableness between 9.9 and 10.3 percent and noting that the zone of reasonableness for PSE's 2006 general rate case had been set at 10.3 to 10.5 percent by the Commission).

could authorize a higher return on equity supported by Dr. Morin's studies. PSE has presented sufficient evidence for the Commission to make either such finding.

*12.* The fact that PSE is willing to accept an ROE of 9.80 percent—which is at the very bottom of Dr. Morin's range of reasonableness[14]—does not change the fact that PSE met its burden of proof. CFO Dan Doyle testified that PSE committed to an authorized ROE of 9.80 percent as part of the multi-year rate plan and the adoption of decoupling mechanisms.[15] Therefore, PSE will accept the authorized ROE of 9.80 percent, along with an overall rate of return of 7.77 percent, even though Dr. Morin's testimony and evidence indicates that a higher authorized ROE is justifiable for PSE.[16] PSE has taken a reasonable approach by proposing to maintain the 9.80 percent ROE—unlike Public Counsel who unreasonably proposes a 115 basis point reduction in cost of equity over this 13-month period.[17]

### B. The Commission Should Reject the Heightened Burden of Proof that Public Counsel and ICNU Propose To Apply To Decoupling

*13.* ICNU and Public Counsel erroneously claim that PSE has not met its burden of proof because it has not proven the hypothesis that decoupling does not lower the cost of capital. They argue for a different standard than the Commission has applied in the past when determining cost of equity. The Commission looks at the cost of capital studies, using proxy groups. The companies in the proxy groups are not selected because they each have a suite of ratemaking mechanisms that are identical to PSE. Rather, they are chosen as integrated electric and gas

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[14] The fact that PSE is willing to accept an ROE at the bottom of Dr. Morin's range of reasonableness obviates the need for Dr. Morin to undertake any further risk analysis to determine where within his range of reasonableness PSE falls.

[15] Doyle, Exh. No. DAD-4T at 3:12-15.

[16] Doyle, Exh. No. DAD-4T at 16:6-10.

[17] Hill, TR. 620:2-8 (proposing a 115 basis point decrease in ROE from May 2012 to June 2013).

investment grade utilities, representative of the utility industry, and believed to be reasonably comparable in investment risk to PSE.[18]

*14.* Dr. Morin, who has testified in 42 states and the District of Columbia,[19] testified that PSE's ROE did not warrant a downward adjustment for decoupling due to decreased investment risk. He testified that decoupling and other alternative ratemaking mechanisms have become common in the industry and are reflected in the proxy group.[20] Thus, decoupling does not reduce risk on a relative basis—relative to the peer group.[21] This is a change that has occurred over the past five to ten years. Thus, although Dr. Morin had viewed decoupling mechanisms as unusual many years ago, these mechanisms—and the numerous other alternative rate making mechanisms—have proliferated and dramatically changed the regulatory landscape over the past several years.[22] These alternative rate making mechanisms are being used by Commissions, in large part, to address decreasing load that results from mandated increased energy efficiency, conservation, and distributed generation.[23] Dr. Vilbert likewise testified extensively as to the frequency of alternative ratemaking mechanisms including decoupling, in Dr. Morin's proxy group as well as in the utility industry.[24]

*15.* More importantly, it has never been this Commission's practice to determine the cost of equity by ticking through a list of rate mechanisms in a utility's tool box and making separate decreases or increases to cost of capital based on these circumstances. For example, the Commission did not expressly increase PSE's cost of equity after I-937 was passed by voters in

[18] *See, e.g.*, Gorman, Exh. No. MPG-3 9:9-10:15; Morin, Exh. No. RAM-1T at 22:4-7.
[19] Morin, Exh. No. RAM-2 at 3:3-8.
[20] Morin, Tr. 569:20-23 (noting that the whole industry is undergoing a sea change because demand has decreased).
[21] Morin, Tr. 686:8-12.
[22] Morin, Tr. 661-18-23; Exh. No. RAM-1T at 68:1-13.
[23] *Id.*
[24] *See* Vilbert, Exh. No. MJV-1T at 30:10-31:4; Exh. No. MJV-14; Exh. No. MJV-15; Exh. No. MJV-16.

2006, mandating conservation targets, renewable portfolio standards, and penalties for failure to meet those targets.[25] The Commission has not increased PSE's ROE with the proliferation of net metering and distributed generation over the past few years. Nor did the Commission expressly decrease PSE's ROE when it approved the PCA Mechanism in 2002,[26] yet the magnitude of revenues affected by the PCA Mechanism is approximately twice the magnitude of revenues affected by decoupling.[27] Moreover, the Commission did not lower Avista's ROE when it implemented Avista's decoupling mechanism in 2007.[28]

*16.* Public Counsel and ICNU's proposed new approach to determining cost of equity would create a morass. To determine the cost of equity for PSE the Commission would be required to spend countless hours poring through the details of multiple regulated utilities in the various proxy groups of each cost of capital expert and make decisions about the relative risk reduction allegedly attributable to each utility's various rate mechanisms. The Commission would be presented with laborious comparisons of PSE and the proxy group companies similar to the following:

- Does peer company Alliant Energy, with its regulated subsidiaries that have some of the following: forward test year,[29] electric fuel adjustment mechanism with deferred accounting and cost recovery,[30] securitization for environmental remediation costs,[31] performance based ratemaking and CWIP

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[25] *See generally WUTC v. Puget Sound Energy, Inc.*, Dockets UE-072300 & UG-072301, Order 12 (Oct. 8, 2008); *WUTC v. Puget Sound Energy, Inc.*, Dockets UE-090704 & UG-090705, Order 11 (Apr. 2, 2010); *WUTC v. Puget Sound Energy, Inc.*, Dockets UE-110408 & UG-110409, Order 08 (May 7, 2012).

[26] *See generally WUTC v. Puget Sound Energy, Inc.*, Dockets UE-011570 & UG-011571, Twelfth Supp. Order (June 20, 2002).

[27] *See* ERF Docket, Barnard, Exh. No. KJB-3T at 2 columns D, H.

[28] *See In re Petition of Avista Corp. for an Order Authorizing Implementation of a Natural Gas Decoupling Mechanism and to Record Accounting Entries Associated with the Mechanism*, Docket UG-060518, Order 04 at ¶ 30 (Feb. 1, 2007).

[29] *See, e.g., Application of Wisconsin Power and Light Company Regarding the 2015 Test Year Electric and Natural Gas Base Rates*, Docket 6680-UR-119, Final Decision (Wis. Pub. Serv. Comm'n July 17, 2014), Attachments A–E (demonstrating future test years of 2015 and 2016).

[30] Wis. Admin. Code § PSC 116.

[31] Wis. Stat. § 196.027.

in rate base, etc.[32] have less risk than PSE with its decoupling and rate plan, PCA Mechanism, general rate case stay out period, earnings sharing mechanism, etc.?

- Does peer company Duke Energy, with its regulated subsidiaries that have some of the following: decoupling and straight fixed variable rates, multi-year rate plans, capital expenditure riders, performance based rates, CWIP in rate base and fuel/purchased power adjustments,[33] etc., have less risk than PSE with its decoupling and rate plan, PCA Mechanism, general rate case stay out period, earnings sharing mechanism, etc.?

Such an analysis would require extensive research into each jurisdiction to determine what mechanisms are available both statutorily and through regulation. The Commission would need to examine how each mechanism works, as no two capital expenditure trackers are created equal. The logistics would be excruciating. This is not a road the Commission should travel.

*17.* Not surprisingly, the standard proposed by Public Counsel and ICNU has <u>not</u> been adopted by the majority of jurisdictions in which decoupling has been considered. The vast majority of commissions have not imposed a separate decrement to the authorized return when implementing decoupling.[34] Commissions around the country generally have not undertaken a "decoupling impact analysis"[35] as Public Counsel has proposed; they have not treated decoupling differently than other alternative ratemaking mechanisms—particularly in recent years, as decoupling has become more prevalent, along with other alternative ratemaking mechanisms.[36] Because ROE is based on a proxy group of peer companies, which have similar mechanisms reflected, it makes no sense to treat PSE differently.

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[32] *See* Vilbert, Exh. No. MJV-16.

[33] *See* Vilbert, Exh. No. MJV-15, Exh. No. MJV-16, Exh. No. MJV-17.

[34] Vilbert, Exh. No. MJV-4, Exh. No. MJV-5; Cavanagh, Exh. No. RCC-5 at 95-98.

[35] *See* Public Counsel Br. at 42.

[36] Vilbert, Exh. No. MV-1T at 8:12-16 (noting there have been no decisions imposing basis point reductions for decoupling for electric utilities since 2011); Exh. No. MJV-4.

18. Public Counsel and ICNU argue that there are few companies in the proxy group with precisely the same mechanisms as PSE, but this is not surprising. Every company and every jurisdiction differs in terms of the ratemaking tools in their respective toolboxes. As Dr. Morin testified, if he were to include only companies with ratemaking mechanisms identical to PSE's when setting up a proxy group, he would have a very small proxy group.[37] Investors consider the entire package, they do not make investment decisions based on whether or not a utility has decoupling:

> [I]nvestors do not discriminate, oh, this company has revenue decoupling, only covers one-third of revenue. This other company has depreciation tracker.
>
> They look at the degree of supportiveness of the commission. They look at risk mitigators as a package deal . . . .
>
> And that's the spirit in which I selected the group. They all had risk mitigators, 80 percent of them do.[38]

Public Counsel's own witness agrees that alternative rate making mechanisms are common, and it would be very difficult to try to quantify the risk reducing effects of these mechanisms:

> [I]t's generally true that there has been a big push for trackers. Let's call them trackers. And a lot of people do have them, you know. They started out as fuel cost adjustments, you know. That was the first tracker that was widely used.
>
> Pretty much everybody has those now. So that's a wash, you know, you have to say. But then -- then they begin to be construction trackers and begin to be quip [sic] trackers and -- and there's a lot of them out there. There's no question about it.
>
> But are they ubiquitous? No they're not ubiquitous. They exist for some companies, but not for others. And it's very difficult to get down to that. . . .

[37] Morin, TR. 663:23 – 665:7.
[38] Morin, TR. 664:20 – 665:4.

> It's very difficult with cost of capital analysis to get to that level, that granular level of can I assign a basis point impact of this company having a quip [sic] tracker and this company not. And I think the answer to that is "no." It's just not that accurate.[39]

Mr. Hill's prescient response should be heeded by the Commission. It is not reasonable or accurate for the Commission to assign basis point reductions to utilities' ROEs based on a comparison of the various alternative rate mechanisms—including decoupling—that commissions around the country are using.

*19.* In PSE's Initial Brief and in this Reply Brief, PSE has included just a few examples of the widely-differing mechanisms—whether decoupling, future test years, earnings sharing mechanisms, and various trackers—that have been approved for various companies in recent commission orders around the country. This is further demonstrated in Dr. Vilbert's exhibits showing the wide array of mechanisms available to different companies in the proxy group.[40] The examples could go on and on, with each description of alternative rate making mechanisms different from the last. But the bottom line is that companies around the country have a wide variety of ratemaking mechanisms available, and PSE's toolbox is not gold plated when compared to other companies and jurisdictions. There are other differences among the sample companies, as well, such as the rate of economic growth in the service territory, differences in how some costs are recovered, and differences in the average age of the companies' infrastructure which in turn drives differences in capital investment requirements. Cost of equity studies do not delve into these types of company specific details.

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[39] Hill TR. 670:1-19.

[40] Vilbert, Exh. No. MJV-14, Exh. No. MJV-15, Exh. No. MJV-16, Exh. No. MJV-17.

## III. THE EVIDENCE DEMONSTRATES THAT AN ROE OF 9.80 PERCENT FALLS WITHIN A ZONE OF REASONABLENESS

*20.* PSE's Initial Brief demonstrated that a 9.80 percent ROE is within a range or zone of reasonableness as Dr. Morin and Commission Staff witness David Parcell have testified. This range is further supported by testimony and evidence by ICNU and Public Counsel. For example, the testimony of ICNU witness Michael Gorman expressly supports a risk premium cost of equity above 9.80 percent in both 2013 and 2014.[41] Further, PSE's Initial Brief detailed the deficiencies with cost of equity analyses proffered by Public Counsel and ICNU. PSE will not repeat those points here, but focuses instead on responding to critiques of Dr. Morin's cost of equity analyses by Public Counsel and ICNU. As discussed below, these critiques are without merit and do not change the fact that a 9.80 percent ROE falls within a zone of reasonableness.

### A. Dr. Morin Discounted Cash Flow Analyses Provides Credible Testimony Supporting an ROE of at Least 9.80 Percent

#### 1. The Empirical Financial Evidence Demonstrates That Analysts' Growth Rate Projections Represent the Best Possible Source of Discounted Cash Flow Growth Rates

*21.* The Public Counsel Brief suggests that Dr. Morin's discounted cash flow ("DCF") analyses are flawed because they rely solely on analyst projections that overstate actual long-term growth.[42] Public Counsel's critique is baseless. The empirical financial evidence demonstrates that analysts' growth forecasts produce superior proxies for the expected growth

[41] Mr. Gorman's 2013 Treasury bond risk premium estimate produced a cost of equity in the range of 8.11 to 9.88 percent. His 2014 Treasury bond risk premium study produced a cost of equity in the range of 8.51 to 10.38 percent. His overall risk premium estimate for 2014 produced a range of 9.24 percent to 9.91 percent. *See* Gorman, Exh. No. MPG-3 at 25:12-15; Exh. No. MPG-3 at 22:2-4; Exh. No. MPG-25T at 25:1-4; Exh. No. MPG-25T at 30:3-4; Exh. No. MPG-36.

[42] Public Counsel Br. at ¶ 33.

rates in the DCF model.[43] Dr. Morin specifically cited to studies in which detailed empirical evidence proved that analysts' expectations are more similar to expectations being reflected in the marketplace than are historical growth rates, and represent the best possible source of DCF growth rates.[44] Indeed, the empirical evidence in the financial literature cited by Dr. Morin suggests that "historical growth rates do not contain any information that is not already impounded in analysts' growth forecasts."[45]

### 2. Dr. Morin Properly Excluded Companies with Projected *Negative* Growth Rates and Included *All* Companies with Projected *Positive* Growth Rates in His Proxy Groups

*22.* The ICNU Brief criticizes Dr. Morin's DCF analyses on the false premise that the ROEs resulting from his 2013 analyses "are derived by excluding unrealistically low growth rates but not unrealistically high growth rates."[46] The Public Counsel Brief also erroneously suggests that Dr. Morin's 2013 DCF analyses should have excluded NV Energy from the proxy group on the grounds that its "growth rate is beyond two standard deviations from the sample group average."[47] As discussed below, ICNU and Public Counsel witnesses acknowledge that Dr. Morin properly excluded companies with *negative* growth rates from his 2013 proxy group

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[43] *See, e.g.*, Morin, Ex. No. RAM-16T at 16 n.30 (citing Lawrence D. Brown & Michael S. Rozeff, *The Superiority of Analyst Forecasts as Measures of Expectations: Earnings from Evidence*, 33 Journal of Finance 1-16 (1978); Michael S. Rozeff, *Predicting Long-Term Earnings Growth: Comparisons of Expected Return Models, Submartingales and Value Line Analysts*, 2 Journal of Forecasting 425-35 (1983); R. Charles Moyer, *et al.*, *The Accuracy of Long-Term Earnings Forecasts in the Electric Utility Industry*, 1 International Journal of Forecasting 241- 52 (1985); and Robert E. Chatfield, *et al.*, *The Accuracy of Long-Term Earnings Forecasts for Industrial Firms*, 28 Quarterly Journal of Business and Economics 91-104 (1989)).

[44] Morin, Ex. No. RAM-16T at 33:6-10 (citing John G. Cragg & Burton G. Malkiel, *Expectations and the Structure of Share Prices* (1982)); *see also* id at 33 n.58 and 59 (citing James H. Vander Weide & Willard T. Carleton, *Investor Growth Expectations: Analysts vs. History*, 15 The Journal of Portfolio Management 78-83 (1988) and Stephen G. Timme & Peter C. Eisemann, *On the Use of Consensus Forecasts of Growth in the Constant Growth Model: The Case of Electric Utilities*, 18 Financial Management 23-35 (1989)).

[45] Morin, Ex. No. RAM-16T at 33:11-12 (citing John G. Cragg & Burton G. Malkiel, *Expectations and the Structure of Share Prices* (1982)).

[46] ICNU Br. at ¶ 27.

[47] Public Counsel Br. at ¶ 34.

because no rational investor would invest in such a company[48] but fail to provide any rationale as to why Dr. Morin should have excluded companies with *positive* growth rates from his proxy group.

*23.* Dr. Morin never excluded any growth rates as "unrealistically low," as suggested by the ICNU Brief, or because they were "outliers," as suggested by the Public Counsel Brief. Rather, he simply excluded companies from his proxy group for which analysts had projected *negative* growth rates because investors do not invest in companies with growth rate projections of zero or less.[49] Dr. Morin's analysis makes no value judgment as to the analyst growth projections. His analysis does not attempt to substitute his judgment for that of the analyst projections in Value Line or Zacks Investment Research; instead, he simply excludes those with negative growth projections on the logical grounds that investors would be loath to invest in an entity with negative prospects. Mr. Gorman agrees with the basic proposition: "A rational investor simply would not buy a stock if the outlook was for negative growth for that company into perpetuity."[50] Mr. Hill agrees as well: "It is certainly reasonable to believe that investors do not rely on negative earnings growth rate forecast in forming their long-term growth expectations for a utility investment . . . ."[51]

*24.* The DCF analyses performed by Messrs. Gorman and Hill, however, substitutes their judgment for that of analyst projections in Value Line or Zacks Investment Research by arguing that "consideration should be made for irrationally low growth rate estimates, and irrationally

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48 The estimated ROE for such companies would be less than the cost of debt unless the dividend yield was exceptionally high. *See, e.g.*, Morin, TR. 564:17 – 565:8.

49 Morin, TR. 564:17 – 565:8 (stating, in part, that including companies with negative growth rate projections would have "the end result of the DCF computation . . . be a number that is less than a cost of debt, which is economically, financially and legally nonsense" and that investors "simply don't invest in the company [with a projected negative growth rates]. Would you invest in a company with a zero growth projection? Perhaps not.").

50 Gorman, Ex. No. MPG-25T at 55:10-11.

51 Hill, Ex. No. SGH-2T at 54:16-18.

high growth rate estimates"[52] and that the "earnings growth rate estimate for NV Energy should be considered an outlier . . . ."[53] This statement suggests that the respective witnesses believe that their prognostications of projected growth rates of NV Energy are superior to those of security analysts. Neither ICNU nor Public Counsel presents any evidence that this is true or attempt to contradict the empirical financial evidence cited above that demonstrates that analysts' growth forecasts produce superior proxies for the expected growth rates in the DCF model. Perhaps more remarkably, neither ICNU nor Public Counsel provides a rational explanation as to why investors would exclude a company with a positive growth rate (and particularly a high positive growth rate) from the universe of entities in which they might invest or provides a rationale as to why investors would exclude them from DCF analyses (other than perhaps to reach a desired result).

*25.* Moreover, the Public Counsel Brief demonstrates that this disagreement is much ado about nothing even if one were to accept the erroneous premise that NV Energy should have been removed from Dr. Morin's proxy group from the 2013 DCF analyses. The Public Counsel Brief asserts that the removal of NV Energy from the proxy group would have reduced "the average growth rate to 5.27, or 23 basis points below the 5.5% he used in his Value Line growth projection analysis."[54] Substituting this improper average growth rate of 5.27% for the proper growth rate of 5.5% in the DCF formula using Value Line growth projections would result in an ROE of 9.81% for the first half of 2013:

[52] Gorman, Ex. No. MPG-25T at 55:14-15.
[53] Hill, Ex. No. SGH-2T at 55:17-18.
[54] Public Counsel Br. at ¶ 34.

| Average Current Dividend Yield | Projected EPS Growth | % Expected Divid Yield | Cost of Equity |
|---|---|---|---|
| 4.31[55] | 5.27[56] | 4.54[57] | 9.81[58] |

Similarly, the Public Counsel Brief asserts that the removal of NV Energy from the proxy group in the analyst growth consensus forecast analysis would have lowered "the growth rate by 49 basis points [from 5.31 to 4.82] . . . ."[59] Substituting this improper average growth rate of 4.82% for the proper growth rate of 5.31% in the DCF formula using analyst growth consensus forecasts would result in an ROE of 9.34% for the first half of 2013:

| Average Current Dividend Yield | Projected EPS Growth | % Expected Divid Yield | Cost of Equity |
|---|---|---|---|
| 4.31[60] | 4.82[61] | 4.52[62] | 9.34[63] |

Thus, even if Dr. Morin were to agree with the meritless adjustment of excluding NV Energy from the proxy group, his DCF analyses for the first half of 2013 would have been a range between 9.34% and 9.81%, which, again, supports Dr. Morin's position that PSE's authorized ROE is within a range of reasonableness. Indeed, this range, despites its flawed premise, corroborates the Commission's previous statement that the evidence available in 2013 "takes us

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55 Morin Exh. No. RAM-4 at 2:27 (column 2).

56 Public Counsel Br. at ¶ 34.

57 % Expected Divid Yield = Average Current Dividend Yield (4.31) x (1 + (Projected EPS Growth (5.27) / 100)). Morin, Exh. No. RAM-4 at 2 (Notes).

58 Cost of Equity = Projected EPS Growth (5.27) + % Expected Divid Yield (4.54). Morin, Exh. No. RAM-4 at 2 (Notes).

59 Public Counsel Br. at ¶ 34.

60 Morin Exh. No. RAM-5 at 2:27 (column 2).

61 Public Counsel Br. at ¶ 34.

62 % Expected Divid Yield = Average Current Dividend Yield (4.31) x (1 + (Projected EPS Growth (4.82) / 100)). Morin, Exh. No. RAM-5 at 2 (Notes).

63 Cost of Equity = Projected EPS Growth (4.82) + % Expected Divid Yield (4.52). Morin, Exh. No. RAM-5 at 2 (Notes).

only to the point of finding that 9.8 percent now resides at the higher end within the range of reasonable equity return . . . ."[64]

### 3. Dr. Morin Properly Excluded Companies with Projected *Negative* Growth Rates and Included *All* Companies with Projected *Positive* Growth Rates in His Proxy Groups

*26.* The Public Counsel Brief reiterates an argument made by Mr. Hill that was premised upon a simple misunderstanding.[65] In his testimony, Mr. Hill argued that Dr. Morin may have overstated the dividend yield by "double-counting" growth in adjusting the dividend yield published by Value Line for one year's expected growth because "the dividend yield published by Value Line, is based on the 'cash dividends estimated to be declared in the next 12 months divided by the recent [stock] price.'"[66] In rebuttal testimony, Dr. Morin clarified that such "double-counting" did not, in fact, occur because he used the "'current dividend yield' as defined by Value Line in the Value Line Investment Analyzer software and not the dividend yield figure to which Mr. Hill refers, and then grossed up the current dividend yield to produce the expected dividend yield required by the DCF model."[67] In other words, Mr. Hill's "double-counting" argument was premised on Mr. Hill's incorrect understanding that Dr. Morin was relying on the Value Line-adjusted dividend yield when, in fact, Dr. Morin was relying upon the unadjusted current dividend yield. Therefore, the Public Counsel Brief unfortunately perpetuates this misunderstanding that Dr. Morin clarified in rebuttal.

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64 Order 07 at ¶ 58.

65 *See* Public Counsel Br. at ¶ 35.

66 Hill, Exh. No. SGH-2T at 56:15-17.

67 Morin, Exh. No. RAM-16T at 31:20 – 32:2.

**B. Criticisms in the ICNU and Public Counsel Briefs of Dr. Morin's Capital Asset Pricing Model Analyses are Unfounded**

**1. Dr. Morin's Risk Premium of 7.2 Percent Has Considerable Support from a Variety of Sources**

*27.* The ICNU Brief and the Public Counsel Brief each fails in its attempt to discredit Dr. Morin's use of a market risk premium of 7.2 percent in his capital asset pricing model ("CAPM") analyses. The ICNU Brief suggests that Dr. Morin should have relied upon certain historical market risk premia in a range of 6.6 to 7.0 percent and ignored projected market risk premia.[68] The Public Counsel Brief argues that the market risk premium should be in a range of either between 3.5 and 6.5 percent or 4.0 and 6.0 percent.[69] Contrary to such faulty arguments, Dr. Morin's risk premium of 7.2 percent has considerable support from a variety of sources, including the Morningstar and Brealey and Myers textbooks on which Public Counsel and ICNU witnesses rely.

*28.* ICNU's argument regarding market risk premia is, in part, premised upon a faulty use of a Morningstar study of historical returns, which projects that the average total return on the S&P 500 was 12.1%, and the total return on long-term Treasury bonds was 5.9%, indicating a market risk premium of 6.2% (12.1% - 5.9% = 6.2%).[70] As stated in Dr. Morin's rebuttal testimony, the more accurate methodology to measure historical market risk premia is to use the income return, not total returns, on government bonds, which raises the estimated market risk premium from 6.2 percent to 7.0 percent.[71] The income return on government bonds is a more reliable estimate of the historical market risk premium because the income component of total bond return

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[68] ICNU Br. at ¶ 32.

[69] Public Counsel Br. at ¶ 37. Mr. Hill, witness for Public Counsel, used a market risk premium of 6.0 percent. Hill, Exh. No. SGH-11. The Public Counsel Brief incorrectly states that Mr. Hill relied upon a risk-free rate of 6.0 percent. *See* Public Counsel Br. at 16 n.57.

[70] Morin, Exh. No. RAM-16T at 59:15-19.

[71] Morin, Exh. No. RAM-16T at 60:3-7.

represents the risk-free rate of return. Capital gains/losses are by definition "unexpected" when investing in government bonds. Using income returns (i.e., the coupon rate) is a better estimate of expected return than the total return (i.e., the coupon rate + capital gain).[72] In other words, bond investors expected to receive the income return. Realized capital gains/losses are unexpected. If they were not unexpected, the investors would not have purchased the bond at the current price.[73] Coupling this historical estimate of 7.0 percent with Mr. Gorman's prospective estimate of 7.3 percent, the average market risk premium is 7.15 percent,[74] which is almost identical to Dr. Morin's market risk premium of 7.2 percent.

*29.* In arguing against Dr. Morin's market risk premium, the Public Counsel Brief falsely asserts that the leading textbook by Brealey and Myers does not support a market risk premium of 7.2 percent.[75] In fact, the 2010 edition of the Brealey, Myers, and Allen textbook acknowledges that the market risk premium has averaged 7.1 percent a year since 1900:

> The difference between the return on the market and the interest rate is termed the *market risk premium*. Since 1900 the market risk premium (rm - rf) has averaged 7.1% a year.[76]

Moreover, even if the market risk premium estimate of 7.2 percent were at the upper end of a range (which it is not), it would not be surprising that the market risk premium estimate has reached the upper end of the historical range, given the fundamental structural upward shift in risk aversion that occurred and the re-pricing of risk following the 2008-9 financial crisis and given the continuing uncertainties related to the domestic and European economies.[77]

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[72] Morin, Exh. No. RAM-16T at 60:8-11.
[73] Morin, Exh. No. RAM-16T at 60:11-12.
[74] Morin, Exh. No. RAM-16T at 60:12-14.
[75] Public Counsel Br. at ¶ 37.
[76] Morin, Exh. No. RAM-16T at 43:3-8 (quoting Richard A. Brealey, *et al.*, *Principles of Corporate Finance* 160 (10th ed. 2010) (italics in original)).
[77] Morin, Exh. No. RAM-16T at 43:9-14.

### 2. Dr. Morin's Risk-Free Rate of 4.6 is Reasonable and Well Substantiated

#### a. ICNU Cannot Simultaneously Argue That Dr. Morin Relies On Too Many Sources for His Treasury Bond Yield Projections and Somehow "Cherry Picks" Data

*30.* The ICNU Brief makes the outrageous argument that Dr. Morin averages projected Treasury bond yields from a multitude of sources (i.e., Global Insight, Value Line, Consensus Economics, Inc., the Congressional Budget Office, and EIA Energy Outlook) yet somehow "cherry picks" data from these multiple sources to arrive at a projected risk-free rate of 4.6 percent.[78] Cherry picking is a colloquial phrase for the fallacy of presenting incomplete evidence, which, by its very definition, involves the selection of individual cases or data that seem to confirm a particular position, while ignoring a significant portion of related cases or data that may contradict that position. It is unfathomable that a party would simultaneously criticize Dr. Morin for using a vast array of projected Treasury bond yields and argue that he somehow "cherry picked" data when he included all in his average risk-free rate. If Dr. Morin had, in fact, sought to "cherry pick" projected Treasury bond yields to achieve a desired result, he would have selected a single projection from a single source, as did the witness for ICNU.

#### b. Public Counsel's Arguments that Dr. Morin Should Have Relied Upon Current Treasury Bond Yields for the Risk-Free Rate is Unfounded

*31.* The Public Counsel Brief argues that Dr. Morin erred in using projected and not current Treasury bond yields in projecting the appropriate risk-free rate.[79] The Public Counsel Brief suggests that reliance on current yields is preferable as compared to projected yields because of

[78] ICNU Br. at ¶¶ 33-34.
[79] Public Counsel Br. at ¶¶ 40-41.

the difficulty of forecasting future yields.[80] These arguments are unfounded. The appropriate risk-free rate is the rate expected or forecast by the market irrespective of whether that rate turns out to be precisely correct. The risk-free rate estimate of 3.4 percent advocated in the Public Counsel Brief is far too low for purposes of applying the CAPM. Global Insight, Value Line and Consensus Forecasts all project higher long-term Treasury interest rates rising to an average of 4.6%.[81] Public Counsel should have relied on projected long-term Treasury interest rates for the simple reason that investors price securities on the basis of long-term expectations, including interest rates.[82] The CAPM is a prospective (i.e., forward-looking) model.[83] Public Counsel's own witness concedes that "[c]ost of capital is not set for ratemaking purposes by looking back at what happened in the past"[84] and that "[e]quity capital cost estimates are forward-looking and must take into account current market expectations for the future."[85] Instead of following this forward-looking advice, Public Counsel's witness significantly understates his CAPM projections by using a risk-free rate that is approximately 1.2% (4.6% - 3.4% = 1.2%) lower than projected.[86]

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80 Public Counsel Br. at ¶ 40 (citing Morin, Tr. at 673:10-12). Dr. Morin's statement at hearing that he has been incorrectly forecasting increases in Treasury bond yields for the past few years is neither a suggestion that such projections are meaningless or futile nor an indictment of Dr. Morin's methodologies or skill. Neither Dr. Morin nor any witness to this proceeding has made claims to be a modern-day Cassandra, and it would be improper to find fault with any witness for failing to predict the unpredictable. Indeed, this Commission has previously recognized "that determination of the components that underlie overall return, and hence determination of overall return itself, is at least as much art as it is science." *WUTC v. Am. Water Res., Inc.*, Docket Nos. UW-980072, *et al.*, Sixth Supp. Order (Jan. 21, 1999).

81 Morin, Exh. No. RAM-1T at 44:4 – 45:4.

82 Morin, Exh. No. RAM-16T at 23:8-10.

83 Morin, Exh. No. RAM-16T at 23:10-11.

84 Hill, Exh. No. SGH-2T at 50:7-8.

85 Hill, Exh. No. SGH-2T at 51:9-10.

86 Morin, Exh. No. RAM-16T at 23:14-17.

### C. Criticisms in the ICNU and Public Counsel Briefs of Dr. Morin's Risk Premium Analyses are Unfounded

*32.* The Public Counsel Brief attempts to direct two criticisms at Dr. Morin's historical risk premium analyses. First, the Public Counsel Brief asserts that Dr. Morin should have relied on current interest rates rather than forecasts.[87] As discussed above, the risk-free rate estimate of 3.4 percent advocated in the Public Counsel Brief is far too low for forward-looking projections, particularly when Global Insight, Value Line and Consensus Forecasts all project higher long-term Treasury interest rates rising to an average of 4.6%.[88]

*33.* Second, the Public Counsel Brief and the ICNU Brief question the well-known inverse relationship between interest rates and risk premium and cites a single Duke study by Professors John Graham and Campbell Harvey.[89] Contrary to assertions of Public Counsel otherwise, there is an abundance of studies that support the proposition that interest rates and risk premium are inversely related.[90] Other regulatory commissions have officially recognized this tendency. For example, the California Public Utility Commission recognizes that the cost of equity does not move in tandem with interest rates, and its long-standing practice has been to adjust the cost of equity by one-half to two-thirds of the change in bond yields.[91]

*34.* The ICNU Brief also suggests that Dr. Morin's risk premium is somehow flawed because he averages projected Treasury bond yields from a multitude of sources (i.e., Global Insight,

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[87] Public Counsel Br. at ¶ 42.

[88] Morin, Exh. No. RAM-1T at 44:4 – 45:4.

[89] Public Counsel Br. at ¶ 43; ICNU Br. at ¶¶ 38-39.

[90] *See, e.g.*, Morin, Exh. No. RAM-16T at 48:3-10 (citing Eugene F. Brigham, *et al*., *The Risk Premium Approach to Measuring a Utility's Cost of Capital*, 14 Financial Management 33-45 (1985); Robert S. Harris, *Using Analysts' Growth Forecasts to Estimate Shareholder Required Rates of Return*, 15 Financial Management 58-67 (1986); Robert S. Harris & Felicia C. Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, 21 Financial Management 63-70 (1992); Willard T. Carleton, *et al*., *Inflation Risk and Regulatory Lag*, 38 Journal of Financial 419-31 (1983); Farris M. Maddox, *et al*., An Empirical Study of Ex Ante Risk Premiums for the Electric Utility Industry, 24 Financial Management 89-95 (1995)).

[91] Morin, Exh. No. RAM-16T at 48:10-13.

Value Line, Consensus Economics, Inc., the Congressional Budget Office, and EIA Energy Outlook) to arrive at a projected risk-free rate of 4.6 percent.[92] As discussed above, it is difficult to comprehend how ICNU could simultaneously criticize Dr. Morin for using a vast array of projected Treasury bond yields and argue that he somehow "cherry picked" data when he included all in his average risk-free rate.

**D. There Is Nothing Inherently Wrong With a Commission Decision that the 9.80 Percent ROE Set in 2012 Remains Appropriate in 2013 and 2014**

*35.* ICNU argues that because the Commission set PSE's ROE at 9.80 percent in 2012 before decoupling, the Commission must necessarily decrease PSE's ROE to reflect the alleged decreased risk due to decoupling.[93] This argument fails for several reasons. First, it assumes there must be a decrease in ROE for decoupling, which is not supported by the evidence, [94] past practice of this Commission,[95] or the majority of decoupling decisions from commissions around the country.[96] Second, it fails to balance the full decoupling/rate plan package, including limitations on PSE' ability to earn its authorized ROE, file rate cases, and retain revenues resulting from higher customer usage. Third, it ignores the symmetrical nature of decoupling.[97] Fourth, it disregards testimony that decoupling is intended to be a response to other factors that increase risks for utilities such as mandated increased energy efficiency, distributed generation,

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[92] ICNU Br. at ¶¶ 36-37.
[93] ICNU Br. at ¶ 66.
[94] *See generally* Vilbert, Exh. No. MJV-1T, Exh. No. 18T; *see also* Morin Exh. No. RAM-1T 68:3-13.
[95] *See, e.g., In re Petition of Avista Corp.,* Docket UG-060518, Order 04 ¶30.
[96] *See, e.g.,* Cavanagh, Exh. No. RCC-5 at 14-16;Vilbert, Exh. No. MJV-3.
[97] Vilbert, Exh. No. MJV-1T 15:11-14; Exh. No. MJV-18 5:5-13; Cavanagh, Exh. No. RCC-5 at 16 ("First, it is clear that decoupling adjustments are both surcharges for under-collections of revenues for fixed costs and refunds of over-collections of such revenues. In the refund situation, the utility has foregone the opportunity to collect more revenue (for fixed costs) than the amount authorized in its last general rate case. While opponents of decoupling tend to testify extensively about the risk reduction associated with the possibility of surcharges, acknowledgements of lost opportunity associated with possible refunds are far more infrequent.").

decreasing load.[98] Finally, it ignores testimony that the risks that may be reduced by decoupling are diversifiable risks, such as weather, that do not affect ROE.[99]

*36.* While on one hand ICNU argues that the cost of equity must necessarily have decreased from May 2012 to June 2013, on the other hand it hails the "consistency" and "fundamental strength" of its own expert's testimony based on the fact that he recommended the same ROE result for spring 2013 and fall 2014—an 18 month period.[100] The Commission should be wary of this one-sided and conclusory perspective. Moreover, to the extent the Commission accepts the argument that there was a downward trend in cost of equity between May 2012 and June 2013, there is evidence in the record that the 30 basis point drop in PSE's ROE ordered by the Commission in May 2012 already incorporated a lowering in cost of equity that parties claim is appropriate due to changed market conditions. Bench Exhibit B-6C demonstrates that the 9.8 percent ROE ordered by the Commission in May 2012 was already below the average return on equity awarded in 2012 for both gas and electric utilities, according to the evidence in Exhibit B-6C. One could infer that the Commission reflected the downward trend that ICNU and Public Counsel allege occurred between May 2012 and June 2013 when it decreased PSE's return on equity 30 basis points, to 9.80 percent, in May 2012. Substantial evidence demonstrates that no further adjustment is supported by market conditions or by PSE's decoupling mechanism.

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[98] *See, e.g.,* Vilbert, Exh. No. MJV-1T 5:6-17("Effective energy efficiency programs, customer concerns over the environment, the requirement to integrated renewable energy sources, and in some areas customer distributed generation, together result in decreasing sales and increasing risk to utilities, a trend that is expected to continue. Decoupling is thus a way to balance those increasing risks to fixed cost recovery and a fair opportunity to earn the authorized rate of return); Exh. No. MJV-18T 4:17-22; Morin TR. 575:9-19.

[99] *See* Vilbert, Exh. No. MJV-1T 10:1-11:8.

[100] ICNU Br. ¶ 24.

## IV. THE COMMISSION SHOULD NOT IMPOSE A SEPARATE DECREMENT TO ROE DUE TO DECOUPLING

### A. Decoupling and Alternative Rate Making Mechanisms Are Common and the Vast Majority of Jurisdictions Have Not Expressly Reduced ROE Due To Decoupling

#### 1. The Majority of Jurisdictions Have Not Reduced ROE with Decoupling

*37.* Public Counsel and ICNU do not dispute that the vast majority of decoupling mechanisms were approved without explicit, one-off reductions to ROE. The evidence on this point is clear.[101] In the first phase of this proceeding, Mr. Gorman candidly admitted at hearing that he had not been successful in convincing other state regulatory commissions to explicitly adjust the utility's ROE downward when approving a decoupling mechanism.[102] When the Commission first authorized Avista's decoupling mechanism in 2007, it did not adjust Avista's ROE.[103]

*38.* Moreover, the evidence produced by Dr. Vilbert demonstrates that both electric and gas decoupling mechanisms, straight-fixed variable rates and lost revenue adjustment mechanisms ("LRAM") have become common, and electric decoupling mechanisms in particular have become more commonplace over the past few years. Thirty states have approved these types of mechanisms for gas utilities.[104] Twenty eight jurisdictions have approved these types of

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[101] Vilbert, Exh. No. MJV-3, Exh. No. MJV-4, Exh. No. MJV-5; Cavanagh, Exh. No. RCC-5 at 14-16.

[102] Gorman, TR. 210:1-5.

[103] *See In re Petition of Avista Corp.,* Docket UG-060518, Order 04 ¶30. Further, the recent Avista general rate case settlement approved by this Commission does not support a downward adjustment to ROE as part of that settlement. There is a black box settlement as part of a rate case, with no explicit ROE. Whatever give and take amongst the parties that occurred as part of that settlement, including with respect to the decoupling mechanisms, and whatever reasoning the parties to that settlement may have used to justify their particular rationale for joining in the settlement of this general rate case, it has no bearing on the appropriate ROE for PSE in this remand proceeding. *See WUTC v. Avista Corp.*, Dockets UE-140188 & UG-140199, Order 05 (Nov. 25, 2014) .

[104] Vilbert, Exh. No. MJV-8.

mechanisms for electric utilities.[105] In Exhibit No. MJV-4, Dr. Vilbert demonstrates not only the increase in electric decoupling mechanisms but also the lack of ROE adjustments made as a result of implementing decoupling. Since 2011, although nine decoupling mechanisms were authorized by commissions, there were no separate decrements to ROE when decoupling was implemented.

*39.* ICNU's use of the Wisconsin decision discontinuing decoupling for Wisconsin Public Services Corp.[106] must be carefully scrutinized, for the facts of that case are distinguishable from PSE's decoupling and rate plan. As ICNU noted, the Public Service Commission of Wisconsin discontinued the decoupling mechanism effective in 2014, which the company had proposed to continue, with modifications. A key reason for this was because Wisconsin Public Service Corp.'s proposed modifications to the decoupling program did not offer ratepayers anything in return for decoupling.[107] Unlike PSE's decoupling mechanism and rate plan, the proposed revisions to the decoupling mechanism at issue did not include an earnings sharing provision. It did not include a cap on the amount of revenues that could be deferred. Although this had been included in its original decoupling mechanism, the company proposed to eliminate these caps.[108] It did not include a firm commitment to accelerate conservation. In fact it was not clear that the company had the ability to influence ratepayers decisions on conservation, since utility conservation was managed by a third party.[109] Ultimately, the commission cited these reasons for discontinuing the decoupling mechanism. It did, however, authorize an ROE of 10.20

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[105] Vilbert, Exh. No. MJV-11.

[106] *See In re Application of Wisc. Pub. Serv. Corp. for Authority to Adjust Electric and Natural Gas Rates*, Docket 6690-UR-122, Final Decision (Dec. 18, 2013).

[107] *Id.* at 30.

[108] *Id.* at 29.

[109] *Id.* at 30.

effective January 1, 2014.[110] The facts of this case stand in stark contrast to PSE's decoupling mechanism and rate plan package that provides significant benefits to customers--earnings sharing, rate case stay-out period, accelerated conservation.

### 2. Rate plans are also common and do not warrant a decrease to ROE

*40.* Public Counsel and ICNU erroneously argue that the rate plan provides a basis for reducing PSE's ROE, because it is unusual in the context of decoupling. This is rebutted by testimony in the record, including testimony in the first phase of the proceeding. Mr. Cavanagh, one of the foremost experts in decoupling in the United States, testified that the K-factor—or rate plan—used in the decoupling mechanisms is mainstream and a conservative proposal.[111] K-factor falls within the family of attrition mechanisms that are quite common in revenue decoupling mechanisms across the country.[112] PSE's K-factor is conservative in that it only addresses delivery revenues, a relatively small portion of revenues, whereas other decoupling mechanisms address a larger fraction of utilities revenues.[113]

*41.* The Regulatory Assistance Project ("RAP") study recognizes the use of K-factors in decoupling mechanisms and confirms that this is a mainstream approach to dealing with cost increases during the course of the decoupling program.

> The new formulation of the K-factor follows very closely with the description of a K-factor provided in Section 5.4 of *Revenue Regulation and Decoupling: A Guide to Theory and Application,* published in June 2011 by the Regulatory Assistance Project ("RAP Manual"). Section 5.4 of the RAP Manual describes the K-factor as "an adjustment used to increase or decrease overall growth in revenues between rate cases." It goes on to note that "a successful revenue [K-factor] function would be one that keeps the utility's actual revenue collection as close as possible to its actual cost of service throughout the period between rate cases." As discussed in the Prefiled Direct testimony

[110] *Id.* at 8.
[111] Cavanagh, TR. 172:11 – 173:10.
[112] *Id.; see also* Cavanagh, Exh. No. RCC-5 at 12.
[113] *Id.*

> of Katherine J. Barnard, Exhibit No.___(KJB-1T), this aligns well with the intent of the K-factor in this case. In application, the RAP Manual suggests that the K-factor could be used "as an adjustment to the RPC allowed revenue determination. . . . [T]his is how the K-factor is being applied in this modified proposal (i.e., to allowed revenue per customer).[114]

*42.* The Commission has approved multi-year rate plans in the past without decreasing ROE due to the rate plan. The Commission authorized a two-year rate plan for Avista for 2013-2014, with an ROE of 9.80 percent, and rate increases during the course of the rate plan. Thus, while ICNU argues that PSE's ROE is unfair as compared to other utilities in the state,[115] it ignores the fact that Avista's two-year rate plan for 2013 through 2014—covering the exact time frame being considered in this case—included an ROE of 9.80 percent.[116]

*43.* The Commission also authorized a five-year rate plan when it approved the merger of Washington Natural Gas and Puget Sound Power & Light Company. The Commission did not lower the return on equity in conjunction with that five-year rate plan which provided for incremental rate increases each year.[117] Thus, the existence of rate plans with step up increases in rates is not novel to Washington or other jurisdictions. The inclusion of a rate plan does not justify lowering cost of equity.

*44.* In the absence of a rate plan, utilities in Washington use a revolving door approach to obtain rate relief through serial rate case filings. For example, in anticipation of the end of its two year rate plan, Avista filed a general rate case in 2014 to allow for new rates to go into effect

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[114] Piliaris, Exh. No. JAP-8T 9:14-10:9.

[115] ICNU Br. at 1.

[116] *WUTC v. Avista Corp.*, Dockets UE-120436 & UG-120436, Order 09 (Dec. 26, 2012).

[117] *In the Matter of the Application of Puget Sound Power & Light Co. and Wash. Natural Gas Co*, Docket No. UE-960195, Fourteenth Supp. Order (Feb. 5, 1997).

on January 1, 2015, at the conclusion of its two-year rate plan.[118] Similarly, PacifiCorp has filed repeated rate cases over the past decade.[119]

*45.* Decoupling with a rate plan is not uncommon and can be found in other jurisdictions. The Public Service Commission of New York approved electric and gas decoupling mechanisms for New York Electric and Gas Companies and Rochester Electric and Gas Companies.[120] The overall package approved by the New York Public Service Commission was more favorable to the utilities than what has been approved for PSE, yet there was no reduction to ROE. The commission noted that the implementation of revenue decoupling was consistent with its earlier investigation into potential electric and gas delivery rate disincentives against the promotion of energy efficiency, renewable technology, and distributed generation.[121] The New York Public Service Commission approved a three year, four month rate plan, with incremental increases in rates over the course of the rate plan.[122] The commission authorized a 10.0 percent ROE through the end of 2013 with an earnings sharing mechanism. Customers initially began 50/50 sharing at 10.30 percent in the first year; in the second year the sharing begins at 10.60 percent; in the third year the sharing begins at 10.90 percent.[123]

*46.* Another example of a rate plan approved in conjunction with decoupling is the Georgia Public Service Commission's approval of the Georgia Rate Adjustment Mechanism ("GRAM")

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[118] *WUTC v. Avista Corp.*, Dockets UE-140188 & UG-140189, Order 05 (Nov. 25, 2014) (authorizing rates effective January 1, 2015) .

[119] *See, e.g., WUTC v. PacifiCorp d/b/a Pacific Power & Light Co.*, Docket No. UE-090205, Order 09 (Dec. 16, 2009); *WUTC v. PacifiCorp d/b/a Pacific Power & Light Co.*, Docket No. UE-100749, Order 06 (Mar. 25, 2011); *WUTC v. PacifiCorp d/b/a Pacific Power & Light Co.*, Docket No. UE-111190, Order 07 (Mar. 30, 2012); *WUTC v. PacifiCorp d/b/a Pacific Power & Light Co.*, Docket No. UE-130043, Order 05 (Dec. 4, 2013).

[120] *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of New York State Electric & Gas Corporation for Electric Service*, Case No. 09-E-0715 (consol.), Order Establishing Rate Plan (N.Y Pub. Serv. Comm'n Sept. 16, 2010).

[121] *Id.*. at 71.

[122] *Id.* at 3.

[123] *Id. at* 10-11; *see also* Cavanagh, Exh. No. RCC-5 at 62-63.

for Atmos Energy Corporation.[124] Under this plan, Atmos Energy's rates were set to earn an ROE between 10.50 percent and 10.90 percent. If its earnings were projected to fall below 10.50 percent, rates were to be adjusted upward to the bottom of the range. Likewise, if Atmos Energy's rates were projected to exceed 10.90 percent ROE, rates shall be adjusted downward to the top of the range.[125]

*47.* With or without decoupling, rate plans are not unusual and do not justify a decrease to return on equity. For example, the Iowa Utility Board ("IUB") recently approved a three-year rate plan for MidAmerican Energy Company, an electric utility in Iowa.[126] The rate plan allowed for a phase in of $263.5 million increase over three years.[127] The IUB also approved an energy adjustment clause and transmission cost rider, both new to the utility. The ROE was set at 9.90–10.0 in 2014; and the earnings sharing opportunity for customers begins at 11.0 percent.[128] MidAmerican could not file for a rate case during the three-year stay out period unless its ROE fell below 10.0 percent.[129] The rate increase also included $40 million of post-test year environmental costs.[130]

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[124] *See* Cavanagh, Exh. No. RCC-05 at 24.

[125] *In re Atmos Energy Corporation's Georgia Rate Adjustment Mechanism ("GRAM") Proposed Joint Stipulation Between the Staff and Atmos Energy Corporation*, Docket No. 34734 at 3 (Ga. Pub. Serv. Comm'n Dec. 27, 2011).

[126] *In re MidAmerican Energy Co.*, Docket RPU-2013-0004, Order Approving Settlement with Modifications and Requiring Additional Information at 6 (Iowa Util. Bd. Mar. 17, 2014).

[127] *Id.*

[128] *Id. at 23, 24, 98*. The IUB accepted the settlement revenue requirement, in which MidAmerican used a 10.0 percent ROE and Consumer Advocate used a 9.90 percent ROE to reach the same revenue requirement. The approved equity level in the capital structure was over 50 percent, but agreed equity level between Consumer Advocate and MidAmerican differed slightly, and the Commission did not set a specific equity level.

[129] *Id.* at 1.

[130] *Id.* at 6.

### 3. PSE's Rate Plan Requires PSE to Stretch and Forego the Opportunity To File Rate Cases To Recover its Actual Costs During the Rate Plan

*48.* In the earlier phase of this proceeding, PSE provided evidence demonstrating that the rate plan creates a stretch goal for PSE, requiring PSE to operate even more efficiently and keep its costs down if it is to earn its authorized rate of return. As part of the decoupling mechanisms, PSE accepted an escalation factor well below the escalation factor justified by its historical growth in expenses as reflected in past general rate cases. Ms. Barnard testified that although PSE's experience over the past five years justified a delivery-related escalation factor of 4.06 percent for electric (i.e., a K-factor of 1.0406), PSE agreed to a three percent escalation factor (i.e., a K-factor of 1.03). Similarly, for natural gas, although PSE's experience over the past five years justified an annual delivery-related escalation factor of 3.8 percent (i.e., a K-factor of 1.038), PSE agreed to a 2.2 percent escalation factor (i.e., a K-factor of 1.022). PSE relied on the forecasted average Consumer Price Index ("CPI") for the 2013 to 2015 period less a one-half percent productivity factor for operating expense (excluding rate base and depreciation), which is significantly below PSE's actual growth in operating expenses over the past five years.[131] It cannot be disputed that this escalation factor is significantly lower than PSE's historical level of increase in delivery expenses. Thus, PSE must tighten its belt further during the stay-out period and under the K-factor. Without the K-factor and stay-out period, PSE could

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[131] Both the electric and natural gas K-factor values represent a weighted-average escalation factor based on the percentage of non-production related revenue requirements for the following: 1) non-production rate base, 2) depreciation expense and 3) all other operating expenses, which include O&M, Customer Service and Administrative and General expenses. The "all other operating expenses," which comprises 50 percent of the electric ERF revenue requirement and 44 percent of the natural gas ERF revenue requirement, is based on the CPI less productivity factor. The rate base and depreciation expense components of escalation factors are based upon the historical compound growth rate in these costs as shown in the approved general rate case compliance filings from 2006 through 2011. *See* Barnard, Exh. No. KJB-1T (Decoupling) at 6:8-15; Exh. No. KJB-4T (Decoupling) at 1. Ms. Barnard testified that historical trends are a fair representation of PSE's anticipated investment through the general rate case stay-out period. *See* Barnard, Exh. No. KJB-1T (Decoupling) at 8:19 – 9:14; Exh. No. KJB-5 (Decoupling).

file a general rate case and seek full recovery of these delivery expenses—which history has shown to be considerably higher than the CPI less productivity factor.

### 4. Decoupling's Effect on ROE Cannot Be Considered Without Also Considering the Earnings Sharing Mechanism

*49.* The Commission should not consider a separate decrement for decoupling without considering whether a separate increase to ROE is appropriate for the earnings share mechanisms that the Commission imposed in Order 07. In its final order the Commission modified the mechanism that PSE, Commission Staff and NW Energy Commission had proposed. The mechanism, as revised, requires equal sharing with customers for any earnings above PSE's authorized rate of return.

*50.* As PSE noted in its Initial Brief, the immediate 50/50 sharing is unusual in the utility industry. As discussed above, the earnings sharing mechanism for two New York state gas and electric utilities allowed a 30 basis point buffer above the authorized ROE before 50/50 sharing began.[132] The earnings sharing mechanism in the MidAmerican Energy Company does not begin for customers until the actual earned ROE exceeds the authorized ROE by at least 100 basis points.[133] The Georgia Public Services Commission authorized an earnings band, along with a revenue adjustment mechanism with a symmetrical range of 20 basis points, around the 10.70 percent ROE established in Atmos' last general rate case--assuring the utility of earning

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[132] *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of New York State Electric & Gas Corporation for Electric Service*, Case No. 09-E-0715, Order Establishing Rate Plan at 10-11.

[133] *In re MidAmerican Energy Co.*, Docket RPU-2013-0004, Order Approving Settlement with Modifications and Requiring Additional Information at 49.

within 20 basis points of its authorized ROE for as long as this alternative rate making tool continues.[134]

*51.* The evidence in the record, as well as the legal authority discussed above, demonstrate that PSE's earnings sharing mechanism should not be dismissed as irrelevant if the Commission finds it appropriate to separately adjust PSE's ROE for decoupling. In such case, it would be appropriate to adjust PSE's ROE upward to reflect the additional asymmetric risk it faces in earning its authorized ROE. PSE's earnings sharing mechanisms requires any earnings above PSE's authorized overall rate of return to be shared 50/50 with customers, but no sharing if earnings are less than authorized. This makes it more difficult for PSE to earn its authorized ROE, on average, over time.[135] PSE's modified earnings sharing mechanism is a deviation from traditional rate making and from the circumstances that existed in 2012 when the Commission last set PSE's ROE. It was specifically recognized by the Commission as an adjustment to be made as a balance to PSE's 9.80 percent ROE and the decoupling/rate plan package approved by the Commission in Order 07.[136]

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[134] *In re Atmos Energy Corporation's Georgia Rate Adjustment Mechanism ("GRAM") Proposed Joint Stipulation Between the Staff and Atmos Energy Corporation*, Docket No. 34734 at 3; *see also In the Matter of Cascade Natural Gas Corp. Request for Authorization to Establish a Decoupling Mechanism and Approval of Tariff Sheets No. 30 and No. 30-A*, Docket UG 167, Order 06-191(Apr. 14, 2006) (earnings sharing began at 175 basis points over authorized ROE); *see also In the Matter of MDU Resources Group, Inc., Application for Authorization to Acquire Cascade Natural Gas Corp*, Docket UM 1283, Order No. 07-221 at 4 (June 5, 2007) (extending decoupling to September 2012); *Application of Wisconsin Power & Light Co. Regarding the 2015 Test Year Electric and Natural Gas Base Rates*, Docket 6680-UR-119, Final Decision (PSCW July 17, 2014) (authorizing rates for 2015 including an earnings sharing mechanism that allowed WPL to retain any earnings 25 basis points above its authorized return on equity of 10.40 percent, sharing evenly with customers any earnings between 10.65 and 11.40 percent, and refunding to customers any earnings in excess of 11.40 percent return on equity).

[135] Doyle, Exh. No. DAD-4T at 18:7 – 22:2; Exh. No. DAD-8T at 15:14 – 16:7.

[136] Order 07 at ¶¶ 159-165.

## B. The Brattle Group Studies Demonstrate That There Is Not Sufficient Reliable Evidence To Justify Decreasing PSE's ROE Due To Decoupling

*52.* Contrary to the claims of ICNU and Public Counsel, the studies by The Brattle Group do not justify a decrease in cost of capital for PSE. Dr. Vilbert and Dr. Dubin rebutted testimony from ICNU and Public Counsel that the studies performed by The Brattle Group justify a reduction in cost of equity for PSE due to decoupling. The studies performed by The Brattle Group show that there is no statistically significant, or reliable, empirical evidence that decoupling decreases cost of capital. Without such evidence, the Commission should not adjust PSE's ROE downward.

### 1. The Updated Gas Study Is the Most Reliable Study, but Neither of The Brattle Group Studies Support a Decrease in ROE

*53.* Dr. Vilbert testified that The Brattle Group performed studies on two industries—the gas LDC industry and the regulated utility industry. The Brattle Group has updated the gas study several times and the electric study once.[137] As Dr. Vilbert testified, there is nothing sinister about these updates:

> Research represents learning. As the analyses progressed, The Brattle Group refined dates for release of decisions, updated and corrected some data points, included additional information from new information sources, used a different and more flexible software program, improved the treatment of residuals, and extended the length of the study period. For this proceeding, we also sought to make the studies for the two industries compatible in terms of methodology and data to the extent possible.[138]

*54.* Dr. Vilbert further testified that the updated electric study was preferable to the original study because it had a longer period of data, and it updated the data for example to recognize that

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[137] Vilbert, Exh. No. MJV-18T at 6:20-22.
[138] Vilbert, Exh. No. MJV-18T at 7:15-21.

one of the companies in the original study had straight fixed variable rates,[139] which is a form of decoupling.[140] The updated electric study also recognized that some companies evolved over time through mergers and acquisitions, and the updated electric study took steps to better address this factor.[141] Thus, contrary to Public Counsel's assertions, the original March 2014 electric study is not the most reliable study because several data points were appropriately corrected in the updated study. Ultimately, though, Dr. Vilbert testified that between the studies of the two industries, he believes the gas LDC study is the more reliable study:

> First, it is important to keep in mind that the true-up decoupling policy works similarly for the gas and electric industry as does the straight fixed-variable ratemaking policy. Therefore, whatever effect adoption of decoupling may have on the cost of capital, it will affect both the gas LDC industry and the electric utility industry similarly.
>
> Second, it does not seem to be a controversial statement to suggest that the electric utility industry has been undergoing far more disruption than the gas LDC industry. There have been more mergers and acquisitions in the electric utility industry than in the gas LDC industry. Moreover, the electric industry is struggling to adapt to (i) the introduction of distributed generation, (ii) connect and integrate the proliferation of renewable energy resources, and (iii) adjust to the effects of demand-side management and energy efficiency. . . . There are even articles warning of a "death spiral" for electric utilities stemming from increased rates and declining sales inducing more distributed generation and subsequently higher rates. In comparison, the gas LDC industry seems staid. Although The Brattle Group studies attempted to address these issues, it is possible that variables we omitted could be affecting the results, particularly for the electric utility study whose industry is much less settled than the gas LDC industry.[142]

Neither ICNU nor Public Counsel have a response to Dr. Vilbert's first point above. If decoupling reduces cost of capital as Public Counsel and ICNU claim--using their

[139] Public Counsel continues to misrepresent this point in its brief. The updated electric study did not add companies with straight fixed variable rates; it recognized that one of the companies in the study group did in fact already have straight fixed variable rates and so, consistent with the gas study, the updated electric study included straight fixed variable rates as a form of decoupling in its updated study. *See* Vilbert, Exh. No. MJV-18T 9:9-20.

[140] Vilbert, Exh. No. MJV-18T at 9:9-12.

[141] Vilbert, Exh. No. MJV-18T at 10: 1-3.

[142] Vilbert, Exh. No. MJV-18T at 10:8 – 11:5.

unconventional standards of statistical significance—why is this theory so clearly rejected in the gas decoupling study? Indeed, the p-value for the gas study was high: .373 (not statistically significant) and the decoupling index was very low: -8.7. Even Dr. Adolph does not attempt to claim that this result has statistical significance.[143]

*55.* Several other issues raised in the briefs of Public Counsel and ICNU were rebutted by Dr. Vilbert. First, Public Counsel's claim that the multi-stage DCF will mask the effect of decoupling on the cost of capital[144] is spurious and lacks proof. As Dr. Vilbert testified, all companies in the study are treated identically for cost of capital estimation. Whatever effect decoupling has, it will not be masked by the use of a multi-stage DCF model.[145] Second, Dr. Vilbert explained the reason for discontinuing the leading indicators measurements in the updated electric study. Although it seemed good, in theory, to measure when and whether the market reacts to decoupling before a commission decision is issued, this variation of the study did not provide reliable, valid information because of the practical difficulties of identifying when the market becomes aware of a not-yet announced decoupling decision.[146] Third, ICNU's claim that The Brattle Group studies are somehow flawed because they rely on cost of capital estimates and a number of other assumptions is puzzling.[147] Cost of capital cannot be observed. All cost of capital studies rely on estimates and assumptions.[148]

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[143] Adolph, Exh. No. CAA-1T 36:9-10 (noting low confidence levels in the gas study).
[144] Public Counsel Br. ¶ 69.
[145] Vilbert, Exh. No. MJV-18T, Exh. No. 28CX p. 1-2.
[146] Vilbert, Exh. No. MJV-18T at 11:13-19.
[147] ICNU Br. ¶ 78.
[148] Vilbert, Exh. No. MJV-28CX p. 1-2.

*56.* None of The Brattle Group Studies were statistically significant at the 0.05 level, which is the standard level of statistical significance needed to reject the null hypothesis.[149] In other words, there is no statistically significant evidence that decoupling lowers cost of capital. The updated gas study had a p-value of 0.37; the updated electric study had a p-value of 0.17.[150] Dr. Vilbert testified that The Brattle Group was aware of the small size of the sample and imprecision of the results, and thus was careful not to make definitive conclusions, other than that the results are not statistically significant at standard confidence levels.[151] Dr. Vilbert further testified:

> Although we used all available data and were careful in our analyses, we remain convinced that the results are not strong enough to justify a reduction in the cost of capital for a regulated entity. My conclusion is that more study and stronger statistical results would be required before concluding that the evidence was sufficient to reduce the allowed return on equity. As it stands, the null hypothesis that decoupling does not reduce the cost of capital cannot be rejected using standard confidence levels.[152]

*57.* Contrary to ICNU's assertions, Dr. Dubin testified clearly that the results of The Brattle Group study cannot be used to justify a reduction to cost of capital. Dr. Dubin testified that the results did not meet traditional standards of statistical significance used in scientific research. He further testified that the results of The Brattle Group studies were consistent with decoupling having no impact on the cost of capital or even raising it.[153]

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[149] *See, e.g., Contreras v. City of Los Angeles,* 656 F.2d 1267, 1273 n.3 (9th Cir. 1981) ("[A] .05 level of statistical significance . . . is generally recognized as the point at which statisticians draw conclusions[.]") (*quoting White v. City of San Diego,* 605 F.2d 455, 460 (9th Cir.1979)).

[150] Vilbert, Exh. No. MJV-18T at 8:8.

[151] Vilbert, Exh. No. MJV-18T at 14:14-18.

[152] Vilbert, Exh. No. MJV-18T at 14:18-24.

[153] Dubin, Exh. No. JAD-1T 3:2-10, 26:21-27:2.

58. Courts have recognized that the standard level of statistical significance relied upon in the scientific community is 0.05 p-value or 95 percent confidence level.[154] As the Ninth Circuit Court of Appeals said in *Contreras v. City of Los Angeles*, "a .05 level of statistical significance . . . is generally recognized as the point at which statisticians draw conclusions . . . ."[155] Further, courts have likewise recognized that a small sample size requires the exercise of caution when considering the reliability of statistical results.[156]

59. In contrast to Dr. Vilbert's measured and reasoned approach, ICNU and Public Counsel ask the Commission to rush to judgment and accept a lower confidence level than what is traditionally accepted for scientific studies. The Commission should decline to do so. The Commission may wait for "more study and stronger statistical results"[157] to determine whether decoupling has an effect on cost of capital; or the Commission may view the evidence in its totality, now, and decline to adjust PSE's ROE for decoupling, based on the results of The Brattle Group studies and consistent with its past practice for setting ROE as well as the practice of the majority of state commission that have considered this issue.

**2. The Commission Should Be Wary of Inaccurate Interpretation of Confidence Levels, the Null Hypothesis and Loose Standards of Statistical Significance by ICNU and Public Counsel**

60. Public Counsel inaccurately describes the meaning of the p-values in The Brattle Group studies. Public Counsel perpetuates an error made by its witness, Dr. Adolph, which was

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[154] *See, e.g.*, *ATA Airlines, Inc. v. Federal Express Corp.*, 665 F.3d 882, 895 (7th Cir. 2011) (noting that "95 percent confidence is the standard criterion of reasonable confidence used by statisticians"); *Contreras*, 656 F.2d at 1273 (noting that .05 level of statistical significance is "the level suggested by federal agency guidelines for the establishment of statistical proof") (citing 28 C.F.R. § 50.14, at § 12(b)(5) (1977)).

[155] *Contreras*, 656 F.2d at 1273 n.3.

[156] *See, e.g.*, *Teamsters v. United States*, 431 U.S. 324, 340 n.20 (1977) ("Considerations such as small sample size may . . . detract from the value of [statistical] evidence."); *Turpin v. Merrell Dow Pharmaceuticals, Inc.*, 959 F.2d 1349, 1353 n.1 (6th Cir. 1992) ("The sample size for any study also has an effect, both on the confidence interval and the "power" of the study . . . . If a sample population is small, however, the power of the study will likely be less.").

[157] Vilbert, Exh. No. 18T 14:21.

rebutted by Dr. Dubin. Specifically, Public Counsel inaccurately claims that "a confidence bound of 83 percent, (corresponding to a p-value of 0.17) means that in 100 different cases over time, if the Commission decides that the data supported by an 83% confidence bound can be used to confirm that there is a cost of capital reduction, it will be correct in 83% of those cases, and incorrect 17% of the time."[158] As Dr. Dubin testified, this interpretation "reflects a fundamental misunderstanding of *p*-values. The *p*-value is computed *conditional* upon the null hypothesis being true and does not, in general, give the probability (or expected proportion) of correct decisions when the null hypothesis does not hold."[159] Here, the null hypothesis is that there is no impact on the cost of capital due to decoupling, and therefore the p-value or confidence bound does not provide the probability or expected proportion that decoupling <u>does</u> decrease cost of capital, as Public Counsel claims. The correct interpretation of the .17 p-value in the electric study is that if the null hypothesis is true—that there is no impact on the cost of capital due to decoupling— the test will reject the null hypothesis, incorrectly, 17 percent of the time.[160]

*61.* ICNU misconstrues the purpose of the null hypothesis and demonstrates a basic misunderstanding of statistical testing when stating that Dr. Vilbert has stacked the deck with his use of the null hypothesis.[161] As Dr. Vilbert testified:

> In simple terms, the determination of statistical significance is a test of whether the evidence would lead you to reject the opposite hypothesis you wish to investigate. In this case, we set up the test to see if the evidence would allow rejection of the hypothesis that the cost of capital is not affected by the adoption of decoupling. This is called the null hypothesis. If the null hypothesis (i.e., there is no cost of capital effect) is rejected, then we would have statistical support for the hypothesis that decoupling does reduce the cost of capital. Typically a relatively high standard of statistical significance is

[158] Public Counsel Br. at 35.
[159] Dubin, Exh. No. JAD-1T at 25:20-23; *see id.* at 25:24-26:17.
[160] *See* Dubin, Exh. No. JAD-1T at 26:16-17 (using example to explain correct interpretation of p-value).
[161] ICNU Br. ¶ at 79.

required to reject the null hypothesis because the analyst does not want to accept the alternative hypothesis without sufficient evidence.[162]

Dr. Vilbert further testified that even if the null hypothesis had been reversed, the results remain too imprecise to determine that decoupling reduces cost of capital.[163]

### 3. Burden of Proof and Statistical Significance Standards Are Two Different Measures that Public Counsel and ICNU Confuse

*62.* Public Counsel and ICNU continue to conflate the preponderance of evidence standard with statistical significance standards—again falling into the same pitfall as did their expert witness, Dr. Adolph. However, this view was rebutted by Dr. Dubin, and has been rejected by courts. As Dr. Dubin testified, "courts have generally required that statistical evidence of discrimination meet the 95% criterion for statistical significance in order to be deemed to have satisfied the plaintiffs burden of proof under the preponderance standard."[164] In *Turpin v. Merrell Dow Pharmaceuticals, Inc.*, a case cited in ICNU's brief, the Sixth Circuit Court of Appeals made clear that statistical significance and preponderance of the evidence are two different standards: "The confidence interval is not a 'burden of proof' in the legal sense."[165] Other courts have likewise noted that it is a common error of lawyers to confuse burden of proof and statistical significance standards.[166]

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[162] Vilbert, Exh. No. MJV-1T at 21:3-12.

[163] Vilbert, Exh. No. MVJ-18T at 15:18 – 16:2.

[164] Dubin, Exh. No. JAD-1T at 20:22-21-9 (citing Michelle M. Mello, *Using Statistical Evidence to Prove the Malpractice Standard of Care: Bridging Legal, Clinical, and Statistical Thinking*, 37 Wake Forest L. Rev. 821, 841 (2002) (citing Marcel C. Garaud, *Comment, Legal Standards and Statistical Proof in Title VII Litigation: In Search of a Coherent Disparate Impact Model*, 139 U. Pa. L. Rev. 455, 468 (1990)).

[165] *Turpin*, 959 F.2d at 1353 n.1; *id.* at 1356 n.2 ("While scientists' use of confidence intervals is as a common-sense device to give professional weight to their results, such confidence intervals are not the same as the preponderance of the evidence standard of proof.").

[166] *See, e.g., Giles v. Wyeth, Inc.*, 500 F.Supp.2d 1048, 1056–57 (S.D. Ill. 2007) ("A common error made by lawyers, judges, and academics is to equate the level of alpha with the legal burden of proof.") (quoting *Reference Manual on Scientific Evidence* (2d ed.)).

63. In sum, the evidence produced by PSE demonstrates that there is insufficient reliable evidence to support the hypothesis that decoupling reduces cost of capital. Legal and scientific authorities agree that the standard statistical significance level of 0.05 is generally used to sift out unreliable results. One should not conflate the p-value with the preponderance of the evidence standard and assume a 0.51 p-value is good enough for the Commission or the courts—as ICNU and Public Counsel erroneously claim.

## V. PSE'S PROPOSED ROE AND OVERALL RATE OF RETURN IS FAIR

64. ICNU and Public Counsel make various arguments as to the "fairness" of PSE's ROE. ICNU argues that PSE's 9.80 percent ROE it is unfair when compared with other Washington utilities that currently have lower overall rates of return than PSE. Of course, as ICNU is well aware, the Commission has never set rates using such a standard, and it would be unusual to find a time when all utilities in Washington State have the same overall rate of return. ICNU has cited no legal authority for adopting such a standard. In addition to the lack of legal precedence, there are additional problems with ICNU's argument. First, a variety of factors play into each utility's rate of return including its unique capital structure and the historical, embedded rate of long-term debt, which may vary substantially for each utility depending on when the debt was financed. Second, the ROE component of the overall rate of return will depend on how much equity a utility has in its capital structure, its credit ratings, and the proxy groups by which it is judged in a cost of equity analysis. Third, the "current" rate of return is affected by when it was set. It may be in place for a long time for some utilities, if they do not file for a general rate case. A simple fairness analysis based on the current rates of return for Washington utilities is not an "apples to apples" comparison.

*65.* Public Counsel argues that customers will be treated unfairly if the Commission does not lower PSE's ROE and "investors receive years of unfairly elevated returns."[167] But, of course, the flip side of this argument holds true as well. PSE will be harmed if it does not receive years of fair returns due to the Commission improperly imposing a decrement for decoupling or accepting Public Counsel's and ICNU's unrealistically low ROE recommendations. In this case, substantial evidence demonstrates that a 9.80 percent ROE is an appropriate ROE that falls within a zone of reasonableness, based on the market conditions in 2013 as well as today.

## VI. CONCLUSION

*66.* PSE has met its burden of proof. Substantial evidence supports a 9.80 percent ROE. Consistent with the Commission's past practice--and the vast majority of decisions in other jurisdictions--the Commission should not impose a separate decrement to PSE's ROE for decoupling. PSE's carefully crafted decoupling mechanism, rate plan, and earnings sharing mechanism provide a reasonable balance of risk between PSE and its customers.

*67.* For the reasons set forth above and in the evidence that is before the Commission, PSE respectfully requests that the Commission issue an order authorizing a 9.80 percent ROE and a 7.77 percent rate of return.

[167] Public Counsel Br. at 45.

DATED this 20th day of March, 2015.

**Respectfully submitted**

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