BEFORE THE WASHINGTON

UTILITIES & TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

V.

PUGET SOUND ENERGY, INC.

Dockets UE-121697 and UG-121705

AND

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

V.

PUGET SOUND ENERGY, INC.

Dockets UE-130137 and UG-130138

CROSS-ANSWERING TESTIMONY OF STEPHEN G. HILL (SGH-21T)

ON BEHALF OF

PUBLIC COUNSEL

DECEMBER 19, 2014

CROSS-ANSWERING TESTIMONY OF STEPHEN G. HILL (SGH-21T)
DOCKETS UE-121697, UG-121705, UE-130137 & UG-130138

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1   **I.   INTRODUCTION / SUMMARY**

2   **Q: Please state your name and business address.**

3   A: My name is Stephen G. Hill. My business address is P.O. Box 587, Hurricane,

4   West Virginia 25526 [hillassociates@gmail.com].

5   **Q: Did you testify previously in this proceeding on behalf of Public Counsel**

6   **regarding cost of equity and the impact of decoupling?**

7   A**:**   Yes.

8   **Q: What is the purpose of your testimony at this time?**

9   A**:**   I will address certain aspects of the Direct Testimony of Commission Staff

10   witness David Parcell, which I believe lead to an overstatement of the target

11   period (early 2013) cost of equity capital for Puget Sound Energy (PSE, the

12   Company). In addition, I note a modification I believe would be appropriate in

13   ICNU witness Michael P. Gorman's analysis which, if adopted, would reduce his

14   recommended ROE. I have known both witnesses for many years and find their

15   testimony in this proceeding as well as the many others in which we have been

16   involved to be generally reliable and well-founded. There are areas, however, in

17   which we disagree regarding the methods used to estimate the current cost of

18   common equity capital.

19   **A.   COMMISSION STAFF WITNESS DAVID PARCELL.**

20
21   **Q: What comments do you have regarding the testimony of Staff witness Mr.**

22   **Parcell?**

23   A: I believe Mr. Parcell's cost of capital analyses generally produce accurate results,

24   but he elects to focus only on the highest results to determine his recommended

1   return in this proceeding. In my view, that focus on *only* the highest results

2   indicates a cost of equity range that overstates PSE's target period cost of equity

3   capital.

4   Mr. Parcell states that his recommendations based on his Discounted Cash

5   Flow (DCF) and Comparable Earnings analyses are "conservative," i.e., higher

6   than they would be if he had "emphasized mean or median values." (Exhibit No.

7   DCP-1T, p. 18 (Parcell)). I agree, and happen to be one of the "other analysts"

8   Mr. Parcell references who believe that cost of equity results based on the central

9   nature of the results (mean or median) are the most accurate representation of the

10   cost of equity capital.

11   When the cost of equity capital is determined with a DCF model on a large

12   sample of utilities (Mr. Parcell used not only his own sample but also that of PSE

13   witness Dr. Morin and ICNU witness Mr. Gorman), the results will be arrayed

14   symmetrically around the mean or average of the sample. As with any sampling

15   process, there will be outliers, i.e., some DCF results will be unreasonably low

16   and some will be unreasonably high. However, the essential value of using a

17   large number of companies in the sample, to answer the question "what is the

18   current cost of equity capital?", resides in the mean (average) or the median

19   (middle value) of those results, not the outliers. Yet, for his DCF results Mr.

20   Parcell has elected to rely *only* on his highest DCF results, giving unnecessary

21   weight to the outlying higher results.

22   In some instances, cost of capital experts move away from the central

23   nature of the sample result data (mean, median) to the upper or lower portion of a

1   reasonable range of equity cost estimates when making a recommendation. Such

2   a move is usually due to differences in risk between the applicant utility and the

3   sample group selected, but that does not appear to be the case here. Mr. Parcell

4   chose a sample group to be similar in risk to PSE (13 companies), and also

5   utilized the sample groups of Dr. Morin (25 companies) and Mr. Gorman (22

6   companies), who also chose companies to be similar in risk to PSE. In addition,

7   Mr. Parcell determined that there were no substantial risk differences to be

8   accounted for. (Exhibit No, DCP-1T, pp. 10, 11, 12 (Parcell)).

9   The average (mean) results of Mr. Parcell's DCF analysis in this

10   proceeding are: 8.3 percent (Parcell proxy group), 8.5 percent (Gorman proxy

11   group) and 8.6 percent (Morin proxy group), and the median results for each

12   proxy group are slightly lower. Overall, Mr. Parcell estimated the DCF cost of

13   equity of 36 different electric companies and the average (mean) DCF equity cost

14   estimate was 8.5 percent.

15   However, basing his DCF estimate on only his highest results, Mr. Parcell

16   reports his DCF estimate ranges from 9.1 percent to 9.7 percent. The mid-point

17   of that range (9.4 percent) is 90 basis points higher than the actual central nature

18   of those data represented by the average results, 8.5 percent. This difference

19   between the central nature of Mr. Parcell's DCF results, as compared to his DCF

20   recommendation, is shown graphically in Exhibit No. SGH-22.

21   Of course, cost of capital analysis cannot exist without the use of

22   judgment by the analyst, and if Mr. Parcell believes it necessary to be

23   "conservative" and recommend a result higher than the central indication

1   produced by his DCF analysis, that is his prerogative. That move away from the

2   central nature of those data should, however, be accompanied by a rationale for

3   that move, which Mr. Parcell does not provide.

4   Also, Mr. Parcell indicates he has elected to rely on *the highest* DCF

5   results he produces, which is necessarily based on a smaller group of companies

6   than the whole sample (i.e., only those with the highest growth rates). For that

7   reason, the result at the top-most end of Mr. Parcell's DCF scale should be

8   considered less reliable than the central nature of those data (the average or

9   median).

10   A more reasonable "conservative" option, in my view would be to

11   establish a DCF range between the mid-point all of his DCF results (8.5 percent)

12   and the mid-point of his highest DCF (9.4 percent). That would create a DCF

13   result range of 8.5 percent to 9.4 percent, with a mid-point of 8.95 percent, which

14   remains "conservative" (higher than his average results) but which better

15   represents the strongest cost of equity indication produced by his DCF analyses.

16 Q: **Mr. Parcell indicates that he has also utilized the highest results of his**

17   **Comparable Earnings (CE) analysis. What are your comments in that**

18   **regard?**

19 A: My concern with Mr. Parcell's CE analysis is similar to my concern with his DCF

20   results. He has selected a range for the cost of equity that is higher than indicated

21   by the data in his analysis. For example, if we examine the CE results for Mr.

22   Parcell's proxy group (the group of utilities he selected to be similar in risk to

23   PSE), that analysis shows that the average ROE earned over the past 10 years

1   ranged from 8.3 percent to 9.1 percent. Most importantly, the average market-to-

2   book ratio that resulted from those ROEs ranged from 124 percent to 152

3   percent—well over 100 percent. That fact indicates, as Mr. Parcell himself points

4   out,[1] the cost of equity capital (the return stockholders expected to earn during

5   that time period) was below the ROE range, i.e., *below* 8.3 percent to 9.1 percent.

6   In addition, the forward-looking CE indications for Mr. Parcell's sample

7   group produces similar results. His sample group is projected to earn average

8   equity returns in the 8.7 percent to 9.6 percent range (slightly higher than the

9   historical range). Also, with those return of equity (ROE) expectations,

10 stockholders are currently providing stock prices for Mr. Parcell's sample group

11 that average 1.39 (see Exhibit No. DCP-10, p. 2). When an investor provides a

12 stock price that is almost 40 percent above book value for a stock that will earn

13 8.7 percent to 9.6 percent on its book value (a surrogate for rate base), the

14 investors' required return (the cost of equity capital) must be *below* the 8.7

15 percent to 9.6 percent.

16   Mr. Parcell's selection of 9 percent to 10 percent for his CE cost of equity

17 estimate is above the range of expected equity returns for his sample companies

18 and, according to well-established capital cost tenets, also above the cost of equity

19 capital appropriate for PSE. As he, himself notes, Mr. Parcell's selection of a CE

20 equity cost indication is "conservative" and is based on the highest results. In my

21 view those results are too conservative and overstate PSE's cost of equity capital.

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[1] Exhibit No. DCP-1T, p. 27 (Parcell).

1   Again, honoring Mr. Parcell's desire to provide a conservative cost of

2   equity estimate, I believe the range of projected equity returns for his sample

3   group of companies, 8.7 percent to 9.6 percent, should be sufficient for that

4   purpose. That expected ROE range currently produces market prices for those

5   companies that exceed their book value by 40 percent and, thus, are likely to be

6   higher than the cost of equity capital, and would certainly support the financial

7   well-being of those firms. A CE result of 8.7 percent to 9.6 percent, with a mid-

8   point of 9.15 percent would represent a "conservative" estimate of the Company's

9   cost of equity but would also provide a more balanced estimate of the cost of

10   equity capital.

11 **Q: Does Mr. Parcell's CE equity cost estimate have an impact on the Staff's**

12   **position on whether or not the Company's previously-set ROE is reasonable?**

13 A: In my view, it does. Mr. Parcell's CE analysis appears to provide a basis for

14   selecting a cost of capital range that encompasses the Company's previously-set

15   ROE of 9.8 percent. However, starting with Mr. Parcell's conservative DCF and

16   CE equity cost estimates based on the results of his analyses, and modifying the

17   indicated ranges so that they are based on results between the overall average and

18   the highest average (rather than just the highest results), produces the following

19   / /

20   / / /

1   cost of equity indication:

2   **Table I.**

3   **Staff Cost of Equity Results Using Results Between Average and Highest**

Method	Range	Mid-point
DCF	8.5%-9.4%	9.00%
CAPM	6.5%-6.8%	6.70%
CE	8.7%-9.6%	9.15%

4

5   With those modest adjustments, the results of Mr. Parcell's analyses support a

6   lower cost of equity for PSE. The resulting mid-points of these conservative

7   ranges indicate that the Company's requested equity return of 9.8 percent is not

8   within the range of reasonableness.

9   **Q:**   **In addition to selecting the highest DCF and CE results to determine his**

10   **recommended ranges, does Mr. Parcell apply another conservative measure**

11   **in determining his overall recommended ROE range?**

12   **A:**   Yes. The overall range of Mr. Parcells cost of equity analyses, focusing on the

13   mid-points of those analyses, is 6.7 percent to 9.5 percent, as he notes at page 27,

14   line 21 of Exhibit No. DCP-1T (Parcell). As he also notes, that range is based on

15   the highest results. However, instead of relying on the mid-points of those results,

16   the highest of which is 9.5 percent, Mr. Parcell elects to recommend a return on

17   equity range of 9.0 percent to 10.0 percent, which is based on the highest of the

18   high results, and recommends the mid-point of that range for his recommended

19   ROE in this proceeding—9.5 percent.

1 **Q:** **Does Mr. Parcell provide a rationale for using a range for his overall**

2 **recommended ROE that is not based on the mid-points of his conservative**

3 **cost of capital ranges?**

4 A: No, he does not.

5 **Q:** **Does Mr. Parcell discuss the issue of decoupling in his testimony?**

6 A: No, he does not. Mr. Schooley is the only Staff witness that discusses decoupling.

7 Mr. Schooley testifies that Staff's original wait-and-see position on decoupling

8 has not changed since the initial phase of this case. In other words it appears that

9 Staff has elected not to present any evidence regarding the impact of decoupling

10 in this proceeding.

11 **Q:** **Has Mr. Parcell previously testified regarding the impact of decoupling on**

12 **the cost of equity capital?**

13 A: Yes, in prior proceedings in which revenue decoupling with a true-up (similar to

14 that awarded to PSE by the Commission) was instituted, Mr. Parcell has

15 consistently been a strong advocate in favor of reducing the allowed return on

16 common equity capital in order to recognize the risk shift from stockholders to

17 ratepayers created by decoupling.

18   For example, in his testimony on behalf of the Hawaii Consumer

19 Advocate in Hawaii Public Utilities Commission Docket No. 2008-0083, Mr.

20 Parcell recommended a 50 basis point reduction in the market-based cost of

21 equity capital to recognize the lower risk of decoupling. In that Hawaii rate case,

22 the utility was on the verge of instituting a decoupling mechanism that included

23 revenue decoupling with a true-up (termed a "revenue balancing account" or

1   RBA) as well as a between-rate-case automatic rate base adjustment (termed a

2   "revenue adjustment mechanism" or RAM), which is similar in design to PSE's

3   "K-factor." The Hawaii regulatory changes under consideration in Docket No.

4   2008-0083 also included a "Clean Energy Infrastructure Surcharge" which

5   allowed the Company to petition the Commission to recover a return on "green

6   energy" investments while under construction and also create a separate

7   proceeding for power purchase agreements (which had previously been

8   considered only in rate cases).

9   Regarding the regulatory mechanisms under consideration by the Hawaii

10 Commission, Mr. Parcell testified:

11   The effect will be to transfer a significant portion of
12   HECO's business risks from its shareholders to its
13   ratepayers. This will, in turn, reduce the cost of capital of
14   HECO. In fact, it is conceivable that ultimately a
15   combination of new regulatory mechanisms, including the
16   RBA, RAM, Clean Energy Infrastructure Surcharges and a
17   new PPA could have the effects of virtually guaranteeing
18   that HECO would earn at or above its authorized rate of
19   return. This would have the effect of reducing the common
20   equity risk to approximately that of the cost of debt.
21
22 (H.P.U.C. Docket No. 2008-0083, Direct Testimony of David Parcell, CA-T-4, p.
23 51).
24
25 Mr. Parcell did not recommend a cost of equity rate that approximated debt costs,

26 however. In that Hawaii proceeding he analyzed the cost rate differential between

27 "A" and "BBB" bond ratings, found that differential to be about 30 basis points,

28 and concluded that the cost rate differential appropriate for common equity should

29 be higher than that amount because common equity has a higher cost rate. As a

30 result, in response to the institution of revenue decoupling in Hawaii, Mr. Parcell

1   recommended a 50 basis point reduction in the cost of common equity, which

2   placed his recommended equity return at the low end of his cost of equity range.

3   (H.P.U.C. Docket No. 2008-0083, Direct Testimony of David Parcell, CA-T-4, p.

4   54)

5   In this proceeding, a 50 basis point reduction in Mr. Parcell's

6   recommended range to account for decoupling would indicate a reasonable range

7   for the cost of capital to be from 8.5 percent to 9.5 percent, with a mid-point of

8   9.0 percent.

9   **Q: There are some differences between the regulatory mechanisms introduced**

10   **in Hawaii and those under consideration here. Does that make Mr. Parcell's**

11   **analysis in Hawaii unrelated to the adjudication of that issue here?**

12   A: No. Mr. Parcell's prior opinions regarding decoupling and the cost of capital, at

13   their core, are certainly pertinent in this proceeding. Mr. Parcell's

14   Hawaii/decoupling testimony indicates that decoupling reduces risk for

15   stockholders and increases it for ratepayers, and the manner in which that risk-

16   shift is most appropriately balanced is through lowering the allowed return on

17   common equity. In that regard, Mr. Parcell's Hawaii testimony is the same as that

18   offered by Public Counsel in this proceeding.

19   Moreover, as I discussed in Exhibit No. SGH-2T, there is sufficient

20   evidence in the record in this proceeding, provided through a market-based

21   analysis as well as an analysis of PSE's actual historical revenue volatility, to

22   support an ROE decrement for decoupling in this proceeding of 35 basis points.

23   That decrement is below the 50 basis points recommended by Mr. Parcell in

1   Hawaii, but, like Mr. Parcell's prior recommendation, it serves to compensate

2   ratepayers for the volatility risk shift occasioned by decoupling in this proceeding.

3   **Q: Has Mr. Parcell recognized the fact that decoupling reduces risk and the cost**

4   **of capital in other proceedings in which he has offered testimony?**

5   A: Yes. Public Counsel Data Request No. 2 requested that Mr. Parcell provide

6   testimony in which decoupling was considered and accounted for in his cost of

7   capital testimony. He provided copies of three other testimonies in addition to the

8   Hawaiian Electric testimony discussed above.

9   In Case No. 9092 before the Maryland Public Service Commission, Mr.

10   Parcell testified that Potomac Electric Power Company was proposing a

11   decoupling adjustment that is "intended to insulate the Company from any

12   variation in distribution revenues attributed to conservation, weather effects or

13   price responses by the customer. This mechanism is especially risk reducing."[2]

14   Mr. Parcell continues in that Maryland proceeding to state: "The effect

15   will be to transfer a significant portion of Pepco's business risks from its

16   stockholders to its ratepayers. This will, in turn, reduce the cost of equity capital

17   of Pepco."[3]

18   In an Arizona proceeding before the Arizona Corporation Commission,

19   Mr. Parcell testified that the decoupling mechanism proposed by Southwest Gas

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[2] *In the Matter of the Application of Potomac Electric Power Company*, Maryland Public Service
Commission, Case No. 9092, Direct Testimony of David C. Parcell on Behalf of University of Maryland, at
19 (March 7, 2007) (Staff Response to Public Counsel Data Request No. 2, Attachment 2, p. 2).
[3] *Id.,* at 20 (Staff Response to Public Counsel Data Request No. 2, Attachment 2, p. 3).

1   would reduce the Company's risk, "normally a consideration in the cost of equity

2   estimation."[4]

3   Mr. Parcell also provided a copy of his May 2012 testimony in a Delmarva

4   Power & Light case before the Maryland Public Service Commission. In that

5   proceeding the utility was requesting implementation of several measures that

6   would reduce its revenue volatility. Mr. Parcell testified in that proceeding that,

7   with the implementation of those regulatory measures the utility was "requesting

8   that a significant portion of its risks be transferred from its stockholders to its

9   ratepayers." After noting that credit rating agencies have recognized the risk-

10   reducing impact of regulatory cost recovery mechanisms, Mr. Parcell

11   recommends that if the Maryland commission elected to implement "one or all"

12   of those regulatory mechanisms, the lower end of his cost of equity should be

13   used in setting the Company's cost of capital. In that 2012 testimony, Mr. Parcell

14   also notes that allowed equity returns were previously reduced by 50 basis points

15   in both Maryland and the District of Columbia to account for the lower risk of

16   decoupling.[5]

17   / /

18   / / / /

19   / / / / /

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[4] *In the Matter of the Application of Southwest Gas Corporation*, Arizona Corporation Commission, Docket No. G-01551A-10-0458, Direct Testimony of David C. Parcell on Behalf of the Utilities Division of Arizona Corporation Commission, at 16 (June 10, 2010)(Staff Response to Public Counsel Data Request No. 2, Attachment 2, p. 5).

[5] *In the Matter of the Application of Delmarva Power & Light Company,* Delaware Public Service Commission, Docket No. 11-528, Pre-Filed Direct Testimony of David C. Parcell on Behalf of Commission Staff, at 26-28 (May 15, 2012)(Staff Response to Public Counsel Data Request No. 2, Attachment 2, pp. 14-17).

1   Q: **Does Mr. Parcell explain why he did not perform an analysis of the impact of**

2   **decoupling on ROE in this proceeding?**

3   A: No.

4   **B.   ICNU WITNESS MICHAL P. GORMAN.**

5   Q: **What issues related to the testimony of ICNU witness Mr. Gorman will you**

6   **address?**

7   A: Mr. Gorman has already provided and was, in fact, the only party to provide a full

8   analysis of the cost of common equity in the initial portion of these proceedings.

9   Mr. Gorman's original testimony (Exhibit No. MPG-1T (Gorman)) estimated

10   PSE's "early 2013" cost of common equity to be 9.3 percent, absent any reduction

11   due to the lower risk of decoupling, which he estimated should be "at a

12   minimum" 25 basis points. Therefore, ICNU's cost of capital testimony in this

13   proceeding does not provide a new analysis examining PSE's equity capital cost

14   during the 2013 target period; rather, it offers confirmation that its original

15   testimony remains an accurate estimate of PSE's cost of equity capital in today's

16   capital market. The issue I address related to Mr. Gorman's testimony is that his

17   "late 2014" cost of equity estimate may be somewhat overstated, for the reasons

18   discussed below.

19   Mr. Gorman uses Treasury Bond yield projections in his Capital Asset

20   Pricing Model (CAPM) and Risk Premium (RP) analyses. My concerns with

21   potential cost of capital overstatement from using interest rate projections were

1   discussed in Exhibit No. SGH-2T, and will not be repeated here.[6] The concern

2   here is that Mr. Gorman's application of projected interest rates in his risk

3   premium methods, results in a modest overstatement of the current cost of equity.

4 Q: **Can you explain how Mr. Gorman's treatment of projected bond yields**
5   **works to cause his results to be somewhat overstated?**
6
7 A: Mr. Gorman uses *Blue Chip Financial Forecasts* in his RP analysis and in his

8   CAPM analysis. At the conclusion of his CAPM analysis, Mr. Gorman states that

9   his CAPM uses a projected risk-free rate that is 95 basis points higher than the

10   current risk-free rate (the projected T-Bond yield is higher than the current T-

11   Bond yield) . Moreover, he states, at page 35 of Exhibit No. MPG-23T (Gorman),

12   Using this projected Treasury bond yield largely captures
13   the additional risk in the marketplace related to the
14   uncertainty of long-term interest rates since the Federal
15   Reserve discontinued its economic stimulus intervention.
16
17   However, in his risk premium analysis, even though he uses projected

18   bond yields from the same source as a basis, he cites the cessation of Federal

19   Reserve stimulus as a reason to give more weight to the higher end of his risk

20   premium equity cost estimates. Accordingly Mr. Gorman gives 25 percent weight

21   to his lower risk premium results and 75 percent weight to his higher risk

22   premium results. He describes this as a "conservative" adjustment to his analysis

23   to account for a risk that is already accounted for through the use of a projected T-

24   Bond yield. Also, Mr. Gorman correctly notes that, since the discontinuation of

25   the Federal Reserve's direct stimulus policy, there has been no increase in interest

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[6] One has only to compare Mr. Gorman's "early 2013" T-Bond yield (3.10%-Exhibit No. MPG-3, p. 25) to
the "late 2014" T-Bond yield (3.14%-Exhibit No. MPG-23T, p. 24) to see that although interest rate
projections are higher than current yields, they can exaggerate the actual cost of capital.

1   rates. Mr. Gorman's "conservative" risk premium adjustment, therefore, appears

2   to be unnecessary.

3   If Mr. Gorman's risk premium results are recalculated without using his

4   weighting approach, his range of results would be lower—from 8.74 percent to

5   9.44 percent, with a mid-point of 9.09 percent,[7] significantly below the 9.60

6   percent reported in his Direct Testimony. Also, incorporating a risk premium

7   result of 9.09 percent (i.e., without the weighting) into Mr. Gorman's overall

8   results and using his method of creating a range with his highest and lowest

9   results, would indicate a range of results for Mr. Gorman's recent (late 2014) cost

10   of equity analysis of 9.00 percent (DCF) to 9.18 percent CAPM), and a mid-point

11   of 9.09 percent. [9.00% + 9.18%]/2 = 9.09%] That result is below the 9.30

12   percent Mr. Gorman found to be a reasonable no-decoupling cost of equity for

13   PSE in his recent testimony in this proceeding.

14 **Q: Does this conclude your testimony, Mr. Hill?**

15 A: Yes, it does.

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[7] [10.38%+8.51%}/2 = 9.44%; [9.74%+7.74%]/2 = 8.74%. All data from Exhibit No. MPG-23T, p. 30
(Gorman).