

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND)	
TRANSPORTATION COMMISSION,)	
)	
Complainant,)	
)	
v.)	DOCKET NOS. UE-140762 and
)	UE-140617 (<i>consolidated</i>)
PACIFICORP D/B/A PACIFIC POWER &)	
LIGHT COMPANY,)	
)	
Respondent.)	
_____)	
)	
In the Matter of the Petition of)	
)	
PACIFIC POWER & LIGHT)	DOCKET NO. UE-131384
COMPANY,)	(<i>consolidated</i>)
)	
For an Order Approving Deferral of)	
Costs Related to Colstrip Outage)	
_____)	
)	
In the Matter of the Petition of)	
)	
PACIFIC POWER & LIGHT)	DOCKET NO. UE-140094
COMPANY,)	(<i>consolidated</i>)
)	
For an Order Approving Deferral of)	
Costs Related to Declining Hydro)	
Generation)	
_____)	

RESPONSIVE TESTIMONY OF MICHAEL P. GORMAN

ON BEHALF OF

BOISE WHITE PAPER, L.L.C.

October 10, 2014

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RESPONSIVE TESTIMONY OF MICHAEL P. GORMAN**

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1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q. WHAT IS YOUR OCCUPATION?**

5 A. I am a consultant in the field of public utility regulation and a managing principal with
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
8 **EXPERIENCE.**

9 A. These are set forth in Exhibit No.__(MPG-2).

10 **Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

11 A. I am appearing on behalf of Boise White Paper, L.L.C.

12 **Q. ARE YOU SPONSORING ANY EXHIBITS IN CONNECTION WITH THIS**
13 **TESTIMONY?**

14 A. Yes. I am sponsoring Exhibit No.__(MPG-2) through Exhibit No.__(MPG-22).

15 **Q. WHAT IS THE SUBJECT OF YOUR RESPONSIVE TESTIMONY?**

16 A. I will recommend a fair return on common equity, and overall rate of return for
17 PacifiCorp d/b/a Pacific Power & Light Company (“PacifiCorp” or the “Company”).

18 **I. SUMMARY**

19 **Q. PLEASE SUMMARIZE YOUR RATE OF RETURN RECOMMENDATIONS.**

20 A. I recommend the Washington Utilities and Transportation Commission (“WUTC” or
21 “Commission”) award PacifiCorp a return on common equity of 9.30%.

22 My recommended return on equity of 9.30% would result in an overall rate of
23 return of 7.20%, as developed on my Exhibit No.__(MPG-3).

24 I also recommend the Commission continue to use a hypothetical capital
25 structure composed of 49.1% common equity to set PacifiCorp’s overall rate of return

1 in this case. I find that the Commission’s practice of using a reasonable hypothetical
2 capital structure for PacifiCorp supports its investment grade bond rating, is consistent
3 with industry practice, and produces a reasonable cost of service for Washington
4 customers.

5 I respond to the Company’s proposal to increase the authorized return on
6 equity and embedded debt components, if a hypothetical capital structure is used to set
7 rates, in lieu of the Company’s proposed actual capital structure. The Company’s
8 arguments for increased cost of capital using a hypothetical capital structure are
9 erroneous, without merit and should be rejected.

10 My recommended return on equity and capital structure will provide
11 PacifiCorp with an opportunity to realize cash flow financial coverages and balance
12 sheet strength that support its current investment grade bond rating. Consequently, my
13 recommended return on equity represents fair compensation for PacifiCorp’s
14 investment risk, and it will uphold the Company’s financial integrity and credit
15 standing.

16 I will also respond to PacifiCorp witness Mr. Kurt Strunk’s proposed return on
17 equity of 10.0% (and proposed adders if a hypothetical capital structure is awarded).
18 For the reasons discussed below, Mr. Strunk’s recommended return on equity and
19 adders are excessive and imbalanced, and should be rejected.

20 **Q. HOW DID YOU ESTIMATE PACIFICORP’S CURRENT MARKET**
21 **COST OF EQUITY?**

22 A. I performed three versions of the Discounted Cash Flow (“DCF”) model, Risk
23 Premium (“RP”) study, and Capital Asset Pricing Model (“CAPM”) to a proxy group
24 of publicly traded companies that have investment risk similar to PacifiCorp. Based

1 on these assessments, I estimate PacifiCorp's current market cost of equity to be
2 9.30%.

3 II. RATE OF RETURN

4 II.A. Electric Utility Industry Market Outlook

5 Q. PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.

6 A. I begin my estimate of a fair return on equity for PacifiCorp by reviewing the market's
7 assessment of electric utility industry investment risk, credit standing, and stock price
8 performance. I used this information to get a sense of the market's perception of the
9 risk characteristics of electric utility investments in general, which is then used to
10 produce a refined estimate of the market's return requirement for assuming investment
11 risk similar to PacifiCorp's utility operations.

12 Based on the assessments described below, I find the credit rating outlook of
13 the industry to be strong and supportive of the industry's financial integrity, and
14 electric utilities' stocks have exhibited strong price performance over the last several
15 years.

16 Further, the electric utility industry is funding large capital expenditure
17 programs, which is creating significant demands for external capital. Credit rating
18 agencies and market participants have embraced the utilities' need for significant
19 amounts of external capital by meeting the capital market demands of electric utilities
20 at near historical low capital market costs. All of this supports my belief that
21 PacifiCorp should have sufficient access to capital to support its capital program,
22 particularly since relatively moderate capital costs are currently available and expected
23 to be available for the next several years.

1 Based on this review of credit outlooks and stock price performance, I
2 conclude that the market continues to embrace the electric utility industry as a
3 safe-haven investment, and views utility equity and debt investments as low-risk
4 securities.

5 **Q. PLEASE DESCRIBE ELECTRIC UTILITIES' CREDIT RATING**
6 **OUTLOOK.**

7 A. Electric utilities' credit ratings have improved over the recent past and the credit
8 outlook is Stable-to-Improving. Standard & Poor's ("S&P") recently published a
9 report titled "U.S. Regulated Utilities Look Forward To Stability In 2014." In that
10 report, S&P noted the following:

11 **Effect on ratings**

12 Although the median investor-owned regulated utility corporate credit
13 rating remains at 'BBB+', credit quality actually improved as many
14 companies entered the low 'A' rating category and the already limited
15 number of speculative-grade utilities continued to diminish. Last year,
16 we raised the ratings on 42 utility holding companies and operating
17 subsidiaries.

18 * * *

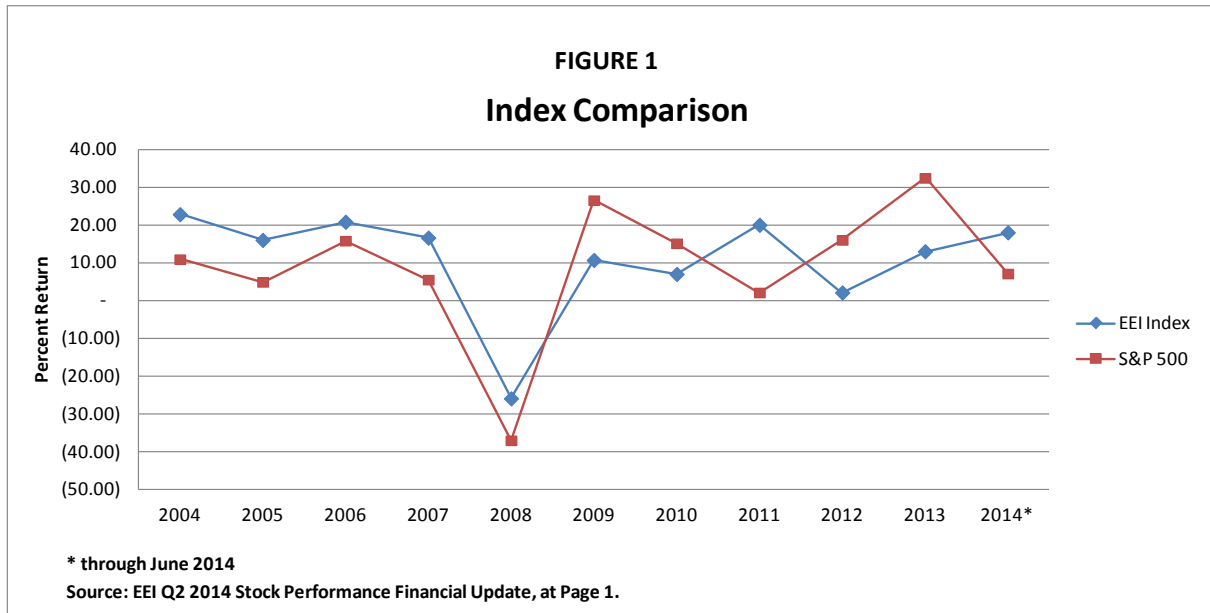
19 **Industry Ratings Outlook**

20 The prospective rating movement for U.S. regulated utilities, as
21 measured by outlooks and CreditWatch listings, is limited, with 6% of
22 companies having positive outlooks or positive CreditWatch listings
23 and 5% carrying negative outlooks. (It is important to note that
24 outlooks and CreditWatch placements do not predict rating changes.
25 Rather, they highlight the potential for rating changes and their
26 direction.) With the remaining 88% of the industry having stable
27 outlooks, and with only a modest influence on the sector's business risk
28 and financial risk profiles as a result of economic volatility, we expect
29 few rating changes in the sector in the near-to-intermediate term.^{1/}

30 * * *

^{1/} *Standard & Poor's RatingsDirect*: "Industry Economic and Ratings Outlook: U.S. Regulated Utilities Look Forward to Stability in 2014," January 22, 2014, at 4 and 7.

1 that its Electric Utility Index has outperformed the market in downturns and trailed the
2 market during recovery. This supports my conclusion that utility stock investments
3 are regarded by market participants as a moderate to low-risk investment.



4 **Q. WHAT ARE THE IMPORTANT TAKEAWAY POINTS FROM THIS**
5 **ASSESSMENT OF ELECTRIC UTILITY INDUSTRY CREDIT AND**
6 **INVESTMENT RISK OUTLOOKS?**

7 A. Credit rating agencies consider the electric utility industry to be stable and believe
8 investors will continue to provide an abundance of capital to support utilities' large
9 capital programs and at moderate capital costs. All of this supports the continued
10 belief that electric utility investments are generally regarded as safe-haven or low-risk
11 investments, and the market embraces low-risk investments, like utility investments.
12 The demand for low-risk investments will provide funding for electric utilities in
13 general.

1 **II.B. PacifiCorp Investment Risk**

2 **Q. PLEASE DESCRIBE THE MARKET’S ASSESSMENT OF THE**
3 **INVESTMENT RISK OF PACIFICORP.**

4 A. The market’s assessment of PacifiCorp’s investment risk (i.e., PacifiCorp) is described
5 by credit rating analysts’ reports. PacifiCorp’s current corporate and senior secured
6 bond ratings from S&P and Moody’s are “A-” and “A,” and “A3” and “A1,”
7 respectively.^{3/} Both rating agencies have a Stable outlook for PacifiCorp.

8 Specifically, S&P states the following:

9 **Initial Analytical Outcome ("Anchor") And Rating Result**

10 The stand-alone credit profile (SACP) of 'a-' on PacifiCorp, which is
11 one notch higher than our 'bbb+' group credit profile [(GCP)] on parent
12 holding company MidAmerican Energy Holdings Co. (MEHC),
13 reflecting our assessment of PacifiCorp's business risk and financial
14 risk profiles. Under our group rating methodology, we consider
15 PacifiCorp to be a core subsidiary of the MEHC group. PacifiCorp's
16 issuer credit rating is one notch higher than the 'bbb+' GCP on the
17 parent because the utility's SACP is stronger and there is sufficient
18 regulatory and structural insulation.

19 * * *

20 **Business Risk: Excellent**

21 We base our assessment of PacifiCorp's business risk profile as
22 "excellent," as defined in our criteria, on the company's "strong"
23 competitive profile, "very low" industry risk derived from the regulated
24 utility industry, and the "very low" country risk of the U.S., where the
25 utility operates. PacifiCorp's competitive position reflects the stable
26 regulatory framework of the low-risk regulated utility. We consider the
27 utility's geographical, market, and regulatory diversity over its six-state
28 service territory a strength because these factors provide extensive
29 market diversity. About 70% of retail revenue is derived from
30 residential and commercial customers, providing cash flow diversity
31 and at least a base level of usage. PacifiCorp serves a total of 1.7
32 million retail customers, in Utah, Wyoming, and Idaho through its
33 Rocky Mountain Power operating unit; and in Oregon, Washington,

^{3/} SNL Financial, online June 17, 2014.

1 and California through its Pacific Power unit, which provides a high
2 level of cash flow diversity.^{4/}

3 Moody's comments as follows:

4 PacifiCorp's A3 rating is supported by the geographically diverse and
5 relatively constructive regulatory environments in the six western states
6 where it operates. In the context of Moody's more favorable view of
7 US utility regulation, Moody's assesses PacifiCorp's overall regulatory
8 treatment as average. Although PacifiCorp has been filing rate cases
9 every year or so in its largest jurisdictions and getting reasonable
10 outcomes, regulatory lag remains an ongoing challenge. The company
11 however has made strides in obtaining multi-year rate increases,
12 notably in Utah (by far its biggest jurisdiction comprising 44% of
13 PacifiCorp's 2012 retail electricity volumes), and energy cost
14 adjustment mechanisms in all its jurisdictions now except Washington
15 (a minor jurisdiction at 7% of electricity volumes). Under MEHC's
16 ownership since 2006, PacifiCorp's capital structure has strengthened
17 organically as a result of both retained earnings and substantial equity
18 contributions from MEHC.

19 * * *

20 WHAT COULD CHANGE RATINGS -- UP

21 MEHC's ratings are unlikely to be upgraded again in the foreseeable
22 future given that the holding company's leverage has increased with the
23 NVE acquisition. For its US utility subsidiaries, upgrades are possible
24 if their regulatory treatment improves much more, enabling them to
25 sustain stronger credit metrics. For example, the following levels of
26 cash flow from operations pre-working capital-to-debt ratios could
27 indicate upgrades: around 20% for MEHC, above 18% for NVE and its
28 subsidiaries, the mid-20% range for PacifiCorp, and the 30% range for
29 MEC.

30 WHAT COULD CHANGE RATING -- DOWN

31 MEHC's ratings could be downgraded if business risk increases
32 materially; major investments are financed with excessive leverage;
33 and credit metrics sustain a decline. For example, the following levels
34 of cash flow from operations pre-working capital-to-debt ratios could

^{4/} *Standard & Poor's RatingsDirect Summary: "PacifiCorp,"* March 31, 2014, at 2-4.

1 indicate downgrades: in the low teens for MEHC, below 15% for NVE,
2 the mid-teens for PacifiCorp, and the low 20% range for MEC.^{5/}

3 **II.C. Capital Structure**

4 **Q. WHAT IS PACIFICORP'S PROPOSED CAPITAL STRUCTURE?**

5 **A.** PacifiCorp's proposed capital structure is shown in Table MPG-1 below.

<u>Description</u>	<u>Weight</u>
Short-Term Debt	0.19%
Long-Term Debt	48.06%
Preferred Stock	0.02%
Common Equity	<u>51.73%</u>
Total Regulatory Capital Structure	100.00%

Source: Direct Testimony of Bruce Williams at 2.

6 The capital structure shown in Table MPG-1 above, reflects PacifiCorp's
7 average quarterly capital structure weights during calendar year 2014. This capital
8 structure reflects the beginning of PacifiCorp's policy to now pay significant
9 dividends up to its parent company – Berkshire Hathaway Energy (“BHE”) (formerly
10 known as MidAmerican Energy Holding Company). These dividends are reducing
11 PacifiCorp's actual amount of common equity, and its common equity ratio compared
12 to previous rate cases.

^{5/} *Moody's Investors Service*: “Rating Action: Moody's upgrades MidAmerican Energy and its US utility subsidiaries; outlooks stable,” January 30, 2014, provided by PacifiCorp in response to Boise Data Request No. 2.6.

1 Mr. Williams' workpapers show that PacifiCorp will pay out more than 100%
2 of its 2014 income attributable to common stock as dividends to BHE in 2014.
3 PacifiCorp informed the market that PacifiCorp plans to continue to make dividend
4 payments in 2015 and 2016 that are in line with those to be paid in 2014.^{6/} Mr.
5 Williams' workpapers show that during 2014 the amount of debt for PacifiCorp will
6 increase by approximately \$190 million, while its common equity capital will decline
7 by \$6 million.

8 At page 3 under "Assumptions" in developing key metrics, S&P stated
9 "Annual owner distributions comparable to the 2013 level of roughly \$500 million in
10 2014, 2015, and 2016." S&P also notes that the dividend payment in conjunction with
11 capital spending will result in a drop in PacifiCorp's discretionary cash flow through
12 2016, which indicates that PacifiCorp will need external funding to support its capital
13 expenditure and dividend payment plans.^{7/}

14 All of these factors suggest that PacifiCorp's common equity ratio will decline
15 over time as it issues debt in order to cure cash deficiencies caused by its large capital
16 programs, and plans to make large dividend payments up to BHE.

17 **Q. DID MR. WILLIAMS DESCRIBE PACIFICORP'S RECENT PLANS TO**
18 **MAKE DIVIDEND PAYMENTS TO BHE?**

19 A. Yes. At pages 6 and 7 of his Direct Testimony, Mr. Williams testified that PacifiCorp
20 has initiated dividend payments up to its parent company, BHE. As noted above, in
21 2014, PacifiCorp plans to pay out more than 100% of its projected earnings as
22 dividends to BHE. The consequence of this is noted by Mr. Williams where he states

^{6/} Exhibit No.__(BNW-8) at 3, *Standard & Poor's RatingsDirect*: "PacifiCorp," March 31,
2014.

^{7/} Id. at 4.

1 that the Company's actual capital structure of 51.73% in 2014 is approximately 50
2 basis points lower than the capital structure common equity ratio it requested in its
3 2013 rate case.

4 **Q. IS THE CHANGE IN PACIFICORP'S DIVIDEND PLAN SIGNIFICANT**
5 **FOR THIS CASE?**

6 A. Yes. PacifiCorp's plan to pay dividends up to BHE is helping to reduce its high
7 common equity ratio, and create a more balanced capital structure. However, payment
8 of dividends from PacifiCorp up to its parent company is also needed by the parent
9 company in order to support the significant acquisitions it has made recently, and may
10 continue to make.

11 Specifically, BHE has made two significant recent acquisitions: NV Energy
12 Inc. ("NV Energy") and AltaLink Holdings L.P. ("AltaLink"). BHE acquired NV
13 Energy in December 2013 for around \$10.5 billion, composed of approximately \$5.6
14 billion cash transactions, and about \$4.8 billion of assumed debt. BHE's acquisition
15 of AltaLink was \$2.49 billion of cash for its equity and also about \$4 billion of
16 assumed debt. The cash component of these transactions is funded by BHE. Part of
17 its internal cash available to support the cash needed for these acquisitions is dividend
18 payments from PacifiCorp and other affiliated companies to BHE.

19 S&P affirmed BHE's current bond rating based on these acquisitions and the
20 bond ratings of all of the BHE utility affiliates, but in doing so noted a concern about
21 the use of debt financing for these utility acquisitions. S&P stated as follows:

22 Overview

23 We are affirming our 'BBB+' issuer credit rating (ICR) and 'A-2'
24 short-term rating on holding company Berkshire Hathaway Energy Co.
25 (BHE; formerly known as MidAmerican Energy Holdings Co.)
26 following the announcement of BHE's acquisition of Canadian holding

1 company AltaLink Holdings L.P. that ultimately owns Alberta Canada
2 electric transmission utility AltaLink L.P.

3 * * *

4 Rationale

5 The rating affirmation on BHE follows the extension of the company's
6 regulated utility business through the announced acquisition of
7 AltaLink for \$2.9 billion plus assumed debt, which we estimate to be
8 about \$4 billion. We view the transaction as consistent with BHE
9 strategic emphasis on growing its regulated businesses, but also
10 reflective of the company's willingness to pursue large acquisitions
11 with debt financing. The business risk profile would remain
12 "excellent" following the acquisition, and the proportion of the
13 consolidated EBITDA would strengthen to about 85% from the current
14 level of roughly 80%.

15 * * *

16 While we currently contemplate no rating implications based on our
17 assumptions related to the financing of the AltaLink transaction, we
18 will closely monitor the acquisition process as more information is
19 made available. We believe this purchase may be financed similarly to
20 some of BHE's previous acquisitions, which have included a
21 combination of debt and equity. While credit measures could be
22 stretched if the financing features a heavier reliance on debt, we expect
23 them to remain in line with those needed to support the current rating.^{8/}

24 PacifiCorp's dividend payments are reasonable because they rebalance its
25 excessive weight of common equity capital structure in support of its utility
26 operations, and are also supportive of BHE's acquisition plans to fund the acquisitions
27 with a reasonable balance of debt and equity capital. For this case, it clearly shows
28 that PacifiCorp's plans will reduce its common equity ratio, and that the
29 Commission's previous practice of using a hypothetical capital structure with around

^{8/} *Standard & Poor's RatingsDirect*: "Research Update: Berkshire Hathaway Energy Co. 'BBB+/A-2' Ratings Affirmed, Outlook Stable On Acquisition Of AltaLink Holdings L.P.," May 2, 2014, at 2, 4-5 (emphasis added).

1 49.1% common equity has been generally consistent with a capital structure mix that
2 does support PacifiCorp's current investment grade bond rating.

3 **Q. DID MR. WILLIAMS ALSO COMMENT ON THE COMMISSION'S**
4 **PRACTICE OF USING A HYPOTHETICAL CAPITAL STRUCTURE**
5 **FOR SETTING PACIFICORP'S RATES IN THE STATE OF**
6 **WASHINGTON?**

7 A. Yes. Mr. Williams comments on the hypothetical capital structure the Commission
8 has used to set rates in Washington at page 3 of his testimony in Table 2. An outline
9 of the capital structure weights for that ratemaking capital structure is shown below in
10 Table MPG-2.

TABLE MPG-2	
<u>Hypothetical Capital Structure</u>	
<u>Description</u>	<u>Percent of Total</u>
Short-Term Debt	0.19%
Long-Term Debt	50.69%
Preferred Stock	0.02%
Common Equity	<u>49.10%</u>
Total	100.00%

Source: Direct Testimony of Bruce Williams at 3.

11 However, Mr. Williams states concern about the hypothetical capital
12 structure's 49.1% common equity ratio. At page 4 of his testimony, Mr. Williams
13 opines that due to off-balance sheet obligations, PacifiCorp needs a common equity
14 component in excess of 50% to allow it to issue debt at the lowest possible cost to
15 customers. He argues that PacifiCorp's actual capital structure mix will maintain its
16 financing flexibility and better access to capital markets. He concludes that over the

1 long run this will provide a more stable credit rating, and access to capital for
2 PacifiCorp which will minimize debt cost to customers.

3 **Q. DOES MR. WILLIAMS SUPPORT HIS OPINION THAT A COMMON**
4 **EQUITY RATIO GREATER THAN 50% IS NECESSARY IN ORDER TO**
5 **MAINTAIN PACIFICORP'S INVESTMENT GRADE BOND RATING**
6 **AND SUPPORT ITS CONTINUED ACCESS TO LOW-COST DEBT**
7 **CAPITAL?**

8 A. No. However, a simple comparison of PacifiCorp's S&P adjusted total debt ratio to
9 those of other utilities with the same or similar bond ratings shows that PacifiCorp can
10 reduce its common equity ratio, and that the hypothetical capital structure used in
11 Washington is reasonable. This evidence contradicts Mr. Williams' arguments.

12 On my Exhibit No. ____ (MPG-4), I show the current S&P adjusted debt ratio^{9/}
13 for various electric utility companies included in its "Credit Stats: Electric Utility –
14 U.S." As shown on this exhibit, the average adjusted debt ratio for companies with an
15 "A-" bond rating is 52.3% over the period 2011-2013. In comparison, PacifiCorp's
16 S&P adjusted debt ratio during this time was 50.1%. Similarly, for utilities with an
17 S&P bond rating of "A," one notch stronger than PacifiCorp, the average adjusted debt
18 ratio is 53.58%. This is approximately 3.5 percentage points greater than PacifiCorp's
19 adjusted debt ratio of 50.1%.

20 This comparison of PacifiCorp's S&P adjusted debt ratio indicates that
21 Mr. Williams' opinion, that PacifiCorp cannot modify its capital structure and reduce
22 its common equity ratio while supporting its current bond rating, is without merit. In
23 fact, PacifiCorp has less debt and more equity than other utilities with the same or
24 stronger bond rating as that of PacifiCorp. Therefore, the Washington Commission's
25 use of a hypothetical capital structure with 49.1% common equity is reasonable.

^{9/} The adjusted debt ratios include S&P's off-balance sheet debt adjustment.

1 **Q. DOES MR. WILLIAMS PROPOSE ANY ADJUSTMENTS TO THE COST**
2 **RATES FOR THE CAPITAL STRUCTURE COMPONENTS IF THE**
3 **COMMISSION CONTINUES TO USE A HYPOTHETICAL CAPITAL**
4 **STRUCTURE?**

5 A. Yes. Mr. Williams and PacifiCorp's rate of return witness Mr. Strunk recommend an
6 increase to the return on common equity of 28 basis points, the cost of short-term debt
7 of 38 basis points (to 2.11% from 1.73%), and the cost of long-term debt of 61 basis
8 points (to 5.80% from 5.19%), if a hypothetical capital structure is used to set rates.

9 Based on these recommendations, Mr. Williams recommends an overall rate of
10 return of 7.99% using a hypothetical capital structure, or 7.67% if his proposed 2014
11 average capital structure is used to set rates.

12 **Q. IS THE COMPANY'S PROPOSED INCREASE TO THE COST RATE OF**
13 **COMMON EQUITY AND DEBT CAPITAL REASONABLE IF A**
14 **HYPOTHETICAL CAPITAL STRUCTURE IS USED TO SET RATES?**

15 A. No. Mr. Williams' and Mr. Strunk's assessments of the increased cost of equity and
16 debt capital if a hypothetical capital structure is used to set rates are based on flawed
17 premises. That is, PacifiCorp's argument is that the hypothetical capital structure
18 would result in a downgrade to PacifiCorp's bond rating from "A-" down to "BBB."
19 As described above, that notion is without merit, because PacifiCorp already has less
20 debt and more common equity than other electric utility companies with the same or
21 stronger bond rating. Therefore, a reduction in PacifiCorp's common equity ratio will
22 likely not result in a reduction to its bond rating.

23 Further, the methodologies used to gauge an increase in common equity and
24 debt costs are fundamentally flawed. My criticisms of the methodologies used to
25 estimate this increase in capital component costs are described as follows:

26 1. Mr. Strunk effectively recommends that PacifiCorp's return on equity should be
27 higher than that estimated from his proxy group if a hypothetical capital structure

1 composed of a 49.1% common equity ratio is used to set PacifiCorp's rates. This
2 position simply is not credible.

3 The proxy utility group Mr. Strunk uses to estimate PacifiCorp's cost of equity has
4 a common equity ratio of 49.1%. That is, the proxy group's common equity ratio
5 is lower than PacifiCorp's actual 51.8% common equity ratio and nearly identical
6 to the common equity ratio in the hypothetical capital structure.

7 Further, Mr. Strunk concludes that his proxy group is a reasonable risk proxy for
8 PacifiCorp. At page 7 of his testimony, Mr. Strunk states that he relied on the
9 proxy group of companies composed of those with comparable risk to that of
10 PacifiCorp, in order to produce a stable, reliable and objective estimate of
11 PacifiCorp's cost of capital. Therefore, an adjustment to the proxy group's return
12 on equity is not needed to produce a reasonable rate of return for PacifiCorp, if a
13 hypothetical capital structure with the same common equity ratio as the proxy
14 group is used.

15 2. Mr. Strunk's estimate of a 28 basis point increment "adder" to his proxy group
16 return is flawed. Mr. Strunk uses the proxy group *Value Line* beta, market
17 capitalization, and tax rate, and makes adjustments to estimate an appropriate
18 CAPM return estimate if the common equity ratio on a book value level is changed
19 from 51.7% down to 49.1%. However, Mr. Strunk fails to recognize that the proxy
20 group *Value Line* beta estimate starts at a common equity ratio of 49.1%. Hence, if
21 an adjustment is needed, it should reflect PacifiCorp's proposed higher equity ratio
22 of 51.7%, compared to the proxy group's 49.1% actual common equity ratio. That
23 is, Mr. Strunk should adjust his CAPM return estimate for the proxy group to
24 reflect PacifiCorp's proposed higher common equity ratio in comparison to the
25 proxy group. This adjustment would lower the CAPM return estimate for
26 PacifiCorp compared to the CAPM return for the proxy group. Hence, Mr.
27 Strunk's return on equity adder should actually be a return on equity reduction for
28 PacifiCorp relative to the proxy group.

29 3. Mr. Strunk's proposed adjustment to the debt cost to reflect a lower common
30 equity ratio of capital is based on a false assumption that PacifiCorp's bond rating
31 would be decreased if it had a lower common equity ratio. Mr. Williams and Mr.
32 Strunk simply have not supported their assertion that PacifiCorp's bond rating
33 would be negatively impacted if it reduced its actual common equity ratio to 49.1%
34 from the Company's current 51.7%. Therefore, their proposal to increase the debt
35 component costs of its overall rate of return should be denied.

36 **Q. WHY DO YOU BELIEVE THAT THE COMMISSION'S PROPOSED**
37 **HYPOTHETICAL CAPITAL STRUCTURE WITH A 49.1% COMMON**
38 **EQUITY COMPONENT IS REASONABLE FOR PACIFICORP?**

39 A. The Commission's use of a hypothetical capital structure is reasonable in several
40 significant regards. These include the following:

- 1 1. It supports PacifiCorp's current investment grade bond rating;
- 2 2. It is reasonably consistent with the industry average authorized common equity
- 3 ratios for electric utility companies;
- 4 3. The hypothetical capital structure common equity component is equal to the proxy
- 5 group's actual *Value Line* common equity component for the proxy group used to
- 6 estimate PacifiCorp's return on equity; and
- 7 4. It reduces PacifiCorp's cost of service and makes its rates more affordable and
- 8 competitive.

9 **Q. PLEASE EXPLAIN WHY YOU BELIEVE A 49.1% COMMON EQUITY**
10 **RATIO IS GENERALLY SUPPORTIVE OF PACIFICORP'S CURRENT**
11 **INVESTMENT GRADE BOND RATING.**

12 A. This was described above. As shown on Exhibit No.__(MPG-4), S&P's published
13 debt ratios for companies with an "A" and "A-" bond ratings over the period 2011-
14 2013. As shown on that exhibit, companies with "A" bond rating, a bond rating one
15 notch stronger than PacifiCorp's, had an average adjusted debt ratio of 53.6%. On that
16 same exhibit, PacifiCorp's adjusted debt ratio is shown as 50.1%. Hence, PacifiCorp
17 has less debt than that of companies with a stronger "A" rated S&P bond rating.
18 Similarly, the average adjusted debt ratios for "A-" electric utilities was 52.3% debt.
19 This is slightly less debt than those with an "A" bond rating, and shows that debt ratios
20 are similar between "A" and "A-" bond ratings. Also, PacifiCorp has less debt than
21 most of the other companies with the same bond rating.

22 If PacifiCorp increased its debt ratio by approximately 2 percentage points, it
23 would be in line with the average of other utility companies with "A" and "A-" S&P
24 bond ratings. Hence, Mr. Williams' and Mr. Strunk's arguments that use of a
25 hypothetical capital structure will erode its credit standing are simply without merit.

1 **Q. DIDN'T MR. STRUNK OPINE, BASED ON S&P'S CREDIT METRIC**
2 **METHODOLOGY, THAT INCREASING THE DEBT RATIO FROM**
3 **45%-50%, TO 50%-60%, WOULD MOVE IT FROM A "SIGNIFICANT"**
4 **TO AN "AGGRESSIVE" FINANCIAL POSITION RATING?**

5 A. Yes. I do not dispute that that is consistent with S&P's previous credit metric
6 guidelines for corporate issuers including utilities. However, S&P revised that credit
7 metric guideline on November 19, 2013, and the debt metric range is no longer
8 included in S&P's guidelines for utility companies. Further, the credit metrics
9 referenced by Mr. Strunk relate to general corporate issues, not just utility companies
10 specifically. S&P does recognize utility companies have lower business risk than
11 general corporate companies, and therefore can finance with greater amounts of
12 financial risk and maintain the same bond rating. This is clearly evident from a review
13 of actual capital structures for utilities rated by S&P as "A-" and "A," bond ratings
14 comparable to that of PacifiCorp.

15 **Q. PLEASE EXPLAIN WHY YOU BELIEVE THAT A 49.1% COMMON**
16 **EQUITY RATIO IS IN LINE WITH INDUSTRY AVERAGE COMMON**
17 **EQUITY RATIOS APPROVED FOR ELECTRIC UTILITY**
18 **COMPANIES.**

19 A. As shown below in Table MPG-3, I show the industry average common equity ratio
20 awarded for electric utility companies on a quarterly basis in 2013 and 2014, and an
21 average annual basis back through 2009. As shown in Table MPG-3 below, a 49.1%
22 common equity is reasonably consistent with industry averages throughout most of
23 2013 and 2014, and is actually above industry averages in 2009-2012.

TABLE MPG-3

Electric Utility Equity Percentage of Total Capital

<u>Period</u>	<u>Equity Ratio</u>
2009 Full Year	48.61%
2010 Full Year	48.45%
2011 Full Year	48.26%
2012 Full Year	50.55%
2013 1st Quarter	49.02%
2013 2nd Quarter	50.56%
2013 3rd Quarter	50.77%
2013 4th Quarter	<u>48.20%</u>
2013 Full Year	49.25%
2014 1st Quarter	51.08%
2014 2nd Quarter	<u>49.15%</u>
2014 Year-To-Date	50.55%

Source: *Regulatory Research Associates
Regulatory Focus*, “Major Rate Case
Decisions—January-June 2014,”
July 10, 2014, page 4.

1 As shown in Table MPG-3 above, industry practice has been to develop rates
2 using a capital structure with approximately a 49% to 50% common equity ratio. The
3 Commission’s hypothetical capital structure for PacifiCorp clearly falls within this
4 general range. More importantly, PacifiCorp’s proposed capital structure is above the
5 industry average common equity ratio used to set rates for other electric utilities across
6 the country. This is clear evidence that PacifiCorp’s proposed capital structure
7 contains too much common equity, and is not reasonable.

1 **Q. WHY DO YOU BELIEVE A CAPITAL STRUCTURE THAT CONTAINS**
2 **TOO MUCH COMMON EQUITY WILL NOT SUPPORT A**
3 **COMPETITIVE COST STRUCTURE AND RETAIL RATES?**

4 A. Common equity is the most expensive form of capital and is subject to income tax
5 expense. The revenue requirement cost of a 10% return on equity is approximately
6 16%, assuming federal income tax of 35%. The revenue requirement cost of a 5%
7 bond issue is 5%. Bond interest expense is not subject to income tax. Hence,
8 common equity is more than three times more expensive than debt capital.

9 A capital structure should contain a reasonable balance of debt and equity
10 because too much debt will create an unreasonable capital structure that contains too
11 much financial risk and will drive up the component costs. Conversely, a capital
12 structure composed of too much common equity will increase the cost of capital
13 because common equity is the most expensive form of capital and is subject to income
14 tax expense. As such, a reasonable capital structure should be used to set rates.

15 **Q. PLEASE EXPLAIN WHY YOU BELIEVE THAT THE PROXY GROUP**
16 **USED TO ESTIMATE PACIFICORP'S RETURN ON EQUITY IN THIS**
17 **CASE SUPPORTS THE COMMISSION'S HYPOTHETICAL CAPITAL**
18 **STRUCTURE INCLUDING A 49.1% COMMON EQUITY RATIO.**

19 A. As shown on my Exhibit No.____(MPG-5), the actual capital structure for the proxy
20 group excluding short-term debt was 49.1% in 2013. Including short-term debt it was
21 around 46.5%. That proxy group has an average bond rating of "BBB+/Baa1."
22 However, as shown on page 2 of that same exhibit, separating the proxy group
23 companies for those rated "A-" or "A" by S&P or "A3" by Moody's shows that in
24 2013 "A-" S&P rated companies had an average common equity ratio of 49.1%, and
25 "A3" Moody's companies had a common equity ratio of 49.8%. These actual equity
26 ratios for the proxy group support the use of a hypothetical capital structure, and refute

1 the notion that a hypothetical capital structure will erode PacifiCorp's current
2 investment grade bond rating.

3 **II.D. Return on Equity**

4 **Q. PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF**
5 **COMMON EQUITY."**

6 A. A utility's cost of common equity is the return investors require on an investment in
7 the utility. Investors expect to achieve their return requirement from receiving
8 dividends and stock price appreciation.

9 **Q. PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A**
10 **REGULATED UTILITY'S COST OF COMMON EQUITY.**

11 A. In general, determining a fair cost of common equity for a regulated utility has been
12 framed by two hallmark decisions of the U.S. Supreme Court: Bluefield Water Works
13 & Improvement Co. v. Pub. Serv. Comm'n of W. Va., 262 U.S. 679 (1923) and Fed.
14 Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944).

15 These decisions identify the general standards to be considered in establishing
16 the cost of common equity for a public utility. Those general standards provide that
17 the authorized return should: (1) be sufficient to maintain financial integrity;
18 (2) attract capital under reasonable terms; and (3) be commensurate with returns
19 investors could earn by investing in other enterprises of comparable risk.

20 **Q. PLEASE DESCRIBE THE METHODS YOU HAVE USED TO**
21 **ESTIMATE PACIFICORP'S COST OF COMMON EQUITY.**

22 A. I have used several models based on financial theory to estimate PacifiCorp's cost of
23 common equity. These models are: (1) a constant growth DCF model using
24 consensus analysts' growth rate projections; (2) a constant growth DCF using
25 sustainable growth rate estimates; (3) a multi-stage growth DCF model; (4) a Risk

1 Premium model; and (5) a CAPM. I have applied these models to a group of publicly
2 traded utilities that have investment risk similar to PacifiCorp's, which I discuss first
3 immediately below.

4 **II.E. Risk Proxy Group**

5 **Q. HOW DID YOU SELECT A UTILITY PROXY GROUP TO ESTIMATE**
6 **PACIFICORP'S CURRENT MARKET COST OF EQUITY?**

7 A. I relied on an electric utility proxy group that I determined to be comparable in
8 investment risk to PacifiCorp. My recommended proxy group is the same proxy
9 group used by PacifiCorp's witness Mr. Strunk to estimate PacifiCorp's return on
10 equity, with the exception of four companies. I removed Avista, Duke, Pepco
11 Holdings, and Wisconsin Energy for their involvement in significant merger and
12 acquisition activity.

13 **Q. PLEASE DESCRIBE WHY YOU BELIEVE YOUR PROXY GROUP IS**
14 **REASONABLY COMPARABLE IN INVESTMENT RISK TO**
15 **PACIFICORP.**

16 A. The proxy group is shown in Exhibit No.__(MPG-5). This proxy group has an
17 average corporate credit rating from S&P of "BBB+," which is one notch below
18 S&P's corporate credit rating for PacifiCorp of "A-." The proxy group's corporate
19 credit rating from Moody's of "Baa1" is also one notch below PacifiCorp's corporate
20 credit rating from Moody's of "A3."

21 The proxy group has an average common equity ratio of 46.5% (including
22 short-term debt) from SNL Financial ("SNL") and 49.1% (excluding short-term debt)
23 from *The Value Line Investment Survey* ("*Value Line*") in 2013. The proxy group's
24 common equity ratio is identical to the hypothetical capital structure common equity
25 ratio of 49.1% used to set PacifiCorp's rates over the last two rate cases. The proxy

1 group has comparable financial risk to PacifiCorp – at the hypothetical capital
2 structure used to set rates.

3 I believe that my proxy group reasonably approximates the investment risk of
4 PacifiCorp, and can be used to estimate a fair return on equity for PacifiCorp.

5 **II.F. Discounted Cash Flow Model**

6 **Q. PLEASE DESCRIBE THE DCF MODEL.**

7 A. The DCF model posits that a stock price is valued by summing the present value of
8 expected future cash flows discounted at the investor’s required overall rate of return.

9 This model is expressed mathematically as follows:

10
$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty}$$
 where (Equation 1)
11

12 P_0 = Current stock price
13 D = Dividends in periods 1 - ∞
14 K = Investor’s required return

15 This model can be rearranged in order to estimate the discount rate or investor-
16 required return, “K.” If it is reasonable to assume that earnings and dividends will
17 grow at a constant rate, then Equation 1 can be rearranged as follows:

18
$$K = D_1/P_0 + G$$
 (Equation 2)

19 K = Investor’s required return
20 D_1 = Dividend in first year
21 P_0 = Current stock price
22 G = Expected constant dividend growth rate

23 Equation 2 is referred to as the annual “constant growth” DCF model.

24 **Q. PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH**
25 **DCF MODEL.**

26 A. As shown in Equation 2 above, the DCF model requires a current stock price,
27 expected dividend, and expected growth rate in dividends.

1 **Q. WHAT STOCK PRICE HAVE YOU RELIED ON IN YOUR CONSTANT**
2 **GROWTH DCF MODEL?**

3 A. I relied on the average of the weekly high and low stock prices of the utilities in the
4 proxy group over a 13-week period ending on September 19, 2014. An average stock
5 price is less susceptible to market price variations than a spot price. Therefore, an
6 average stock price is less susceptible to aberrant market price movements, which may
7 not be reflective of the stock's long-term value.

8 A 13-week average stock price reflects a period that is still short enough to
9 contain data that reasonably reflect current market expectations, but the period is not
10 so short as to be susceptible to market price variations that may not reflect the stock's
11 long-term value. In my judgment, a 13-week average stock price is a reasonable
12 balance between the need to reflect current market expectations and the need to
13 capture sufficient data to smooth out aberrant market movements.

14 **Q. WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH**
15 **DCF MODEL?**

16 A. I used the most recently paid quarterly dividend, as reported in *Value Line*.^{10/} This
17 dividend was annualized (multiplied by 4) and adjusted for next year's growth to
18 produce the D_1 factor for use in Equation 2 above.

19 **Q. WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR**
20 **CONSTANT GROWTH DCF MODEL?**

21 A. There are several methods that can be used to estimate the expected growth in
22 dividends. However, regardless of the method, for purposes of determining the
23 market-required return on common equity, one must attempt to estimate investors'

^{10/} *The Value Line Investment Survey*, August 1, August 22, and September 19, 2014.

1 consensus about what the dividend or earnings growth rate will be, and not what an
2 individual investor or analyst may use to make individual investment decisions.

3 As predictors of future returns, security analysts' growth estimates have been
4 shown to be more accurate than growth rates derived from historical data.^{11/} That is,
5 assuming the market generally makes rational investment decisions, analysts' growth
6 projections are more likely to influence investors' decisions which are captured in
7 observable stock prices than growth rates derived only from historical data.

8 For my constant growth DCF analysis, I have relied on a consensus, or mean,
9 of professional security analysts' earnings growth estimates as a proxy for investor
10 consensus dividend growth rate expectations. I used the average of analysts' growth
11 rate estimates from three sources: Zacks, SNL, and Reuters. All such projections
12 were available on September 19, 2014, and all were reported online.

13 Each consensus growth rate projection is based on a survey of security
14 analysts. There is no clear evidence whether a particular analyst is most influential on
15 general market investors. Therefore, a single analyst's projection does not as reliably
16 predict consensus investor outlooks as does a consensus of market analysts'
17 projections. The consensus estimate is a simple arithmetic average, or mean, of
18 surveyed analysts' earnings growth forecasts. A simple average of the growth
19 forecasts gives equal weight to all surveyed analysts' projections. Therefore, a simple
20 average, or arithmetic mean, of analyst forecasts is a good proxy for market consensus
21 expectations.

^{11/} See, e.g., David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

1 **Q. WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT**
2 **GROWTH DCF MODEL?**

3 A. The growth rates I used in my DCF analysis are shown in Exhibit No.____(MPG-6).
4 The average growth rate for my proxy group is 5.21%.

5 **Q. WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF**
6 **MODEL?**

7 A. As shown in Exhibit No.____(MPG-7), the average and median constant growth DCF
8 returns for my proxy group are 8.95% and 8.78%, respectively.

9 **Q. DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR**
10 **CONSTANT GROWTH DCF ANALYSIS?**

11 A. Yes. The constant growth DCF analysis for my proxy group was based on a long-term
12 sustainable growth rate of 5.21%. This growth rate is higher than my estimate of a
13 maximum long-term sustainable growth rate of 4.7%, which I discuss later in this
14 testimony. I believe the constant growth DCF analysis produces slightly overstated
15 return estimates.

16 **Q. WHAT IS YOUR ESTIMATE OF A MAXIMUM LONG-TERM**
17 **SUSTAINABLE GROWTH RATE?**

18 A. A long-term sustainable growth rate for a utility stock cannot exceed the growth rate
19 of the economy in which it sells its goods and services. Hence, a reasonable proxy for
20 the long-term maximum sustainable growth rate for a utility investment is best proxied
21 by the projected long-term Gross Domestic Product (“GDP”). *Blue Chip Financial*
22 *Forecasts* projects that over the next 5 and 10 years, the U.S. nominal GDP will grow
23 in the range of 4.6% to 4.8%. As such, the average growth rate over the next 10 years

1 is around 4.7%, which I believe is a reasonable proxy of long-term sustainable
2 growth.^{12/}

3 I discuss, in my multi-stage growth DCF analysis, the academic and
4 investment practitioner evidence that accepts the projected long-term GDP growth
5 outlook as a maximum sustainable growth rate projection. Hence, recognizing the
6 long-term GDP growth rate as a maximum sustainable growth is logical, and generally
7 consistent with academic and economic practitioner accepted practices.

8 **II.G. Sustainable Growth DCF**

9 **Q. PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE** 10 **LONG-TERM GROWTH RATE FOR YOUR SUSTAINABLE GROWTH** 11 **DCF MODEL.**

12 A. A sustainable growth rate is based on the percentage of the utility's earnings that is
13 retained and reinvested in utility plant and equipment. These reinvested earnings
14 increase the earnings base (rate base). Earnings grow when plant funded by reinvested
15 earnings is put into service, and the utility is allowed to earn its authorized return on
16 such additional rate base investment.

17 The internal growth methodology is tied to the percentage of earnings retained
18 in the company and not paid out as dividends. The earnings retention ratio is 1 minus
19 the dividend payout ratio. As the payout ratio declines, the earnings retention ratio
20 increases. An increased earnings retention ratio will fuel stronger growth because the
21 business funds more investments with retained earnings.

22 The payout ratios of the proxy group are shown in my Exhibit
23 No.____(MPG-8). These dividend payout ratios and earnings retention ratios can then
24 be used to develop a sustainable long-term earnings retention growth rate. A

^{12/} *Blue Chip Financial Forecasts*, June 1, 2014, at 14.

1 sustainable long-term earnings retention ratio will help gauge whether analysts'
2 current three- to five-year growth rate projections can be sustained over an indefinite
3 period of time.

4 The data used to estimate the long-term sustainable growth rate is based on the
5 Company's current market-to-book ratio and on *Value Line's* three- to five-year
6 projections of earnings, dividends, earned returns on book equity, and stock issuances.

7 As shown in Exhibit No.____(MPG-9), page 1, the average sustainable growth
8 rate for the proxy group using this internal growth rate model is 4.92%.

9 **Q. WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE LONG-**
10 **TERM GROWTH RATES?**

11 A. A DCF estimate based on these sustainable growth rates is developed in Exhibit
12 No.____(MPG-10). As shown there, a sustainable growth DCF analysis produces
13 proxy group average and median DCF results of 8.61% and 8.35%, respectively.

14 **II.H. Multi-Stage Growth DCF Model**

15 **Q. HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?**

16 A. Yes. My first constant growth DCF is based on consensus analysts' growth rate
17 projections, so it is a reasonable reflection of rational investment expectations over the
18 next three to five years. The limitation on the constant growth DCF model is that it
19 cannot reflect a rational expectation that a period of high/low short-term growth can be
20 followed by a change in growth to a rate that is more reflective of long-term
21 sustainable growth. Hence, I performed a multi-stage growth DCF analysis to reflect
22 this outlook of changing growth expectations.

1 **Q. WHY DO YOU BELIEVE GROWTH RATES CAN CHANGE OVER**
2 **TIME?**

3 A. Analyst projected growth rates over the next three to five years will change as utility
4 earnings growth outlooks change. Utility companies go through cycles in making
5 investments in their systems. When utility companies are making large investments,
6 their rate base grows rapidly, which accelerates their earnings growth. Once a major
7 construction cycle is completed or levels off, growth in the utility rate base slows, and
8 its earnings growth slows from an abnormally high three- to five-year rate to a lower
9 sustainable growth rate.

10 As major construction cycles extend over longer periods of time, even with an
11 accelerated construction program, the growth rate of the utility will slow simply
12 because rate base will slow, and the utility has limited human and capital resources
13 available to expand its construction program. Hence, the three- to five-year growth
14 rate projection should be used as a long-term sustainable growth rate but not without
15 making a reasonable, informed judgment to determine whether it considers the current
16 market environment, the industry, and whether the three- to five-year growth outlook
17 is sustainable.

18 **Q. PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.**

19 A. The multi-stage growth DCF model reflects the possibility of non-constant growth for
20 a company over time. The multi-stage growth DCF model reflects three growth
21 periods: (1) a short-term growth period, which consists of the first five years; (2) a
22 transition period, which consists of the next five years (6 through 10); and (3) a
23 long-term growth period, starting in year 11 through perpetuity.

1 For the short-term growth period, I relied on the consensus analysts' growth
2 projections described above in relationship to my constant growth DCF model. For
3 the transition period, the growth rates were reduced or increased by an equal factor,
4 which reflects the difference between the analysts' growth rates and the long-term
5 sustainable growth rate. For the long-term growth period, I assumed each company's
6 growth would converge to the maximum sustainable long-term growth rate.

7 **Q. WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY**
8 **FOR THE MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?**

9 A. Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the
10 economy in which they sell services. Utilities' earnings/dividend growth is created by
11 increased utility investment or rate base. Such investment, in turn, is driven by service
12 area economic growth and demand for utility service. In other words, utilities invest
13 in plant to meet sales demand growth, and sales growth, in turn, is tied to economic
14 growth in their service areas.

15 The Energy Information Administration ("EIA") has observed that utility sales
16 growth tracks, albeit is lower than, the U.S. GDP growth, as shown in Exhibit
17 No.__(MPG-11). Utility sales growth has lagged behind GDP growth for more than
18 a decade. As a result, nominal GDP growth is a very conservative proxy for electric
19 utility sales growth, rate base growth, and earnings growth. Therefore, the U.S. GDP
20 nominal growth rate is a conservative proxy for the highest sustainable long-term
21 growth rate of a utility.

22 **Q. IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT,**
23 **OVER THE LONG TERM, A COMPANY'S EARNINGS AND**
24 **DIVIDENDS CANNOT GROW AT A RATE GREATER THAN THE**
25 **GROWTH OF THE U.S. GDP?**

26 A. Yes. This concept is supported in both published analyst literature and academic

1 work. Specifically, in a textbook entitled “Fundamentals of Financial Management,”
2 published by Eugene Brigham and Joel F. Houston, the authors state as follows:

3 The constant growth model is most appropriate for mature companies
4 with a stable history of growth and stable future expectations.
5 Expected growth rates vary somewhat among companies, but dividends
6 for mature firms are often expected to grow in the future at about the
7 same rate as nominal gross domestic product (real GDP plus
8 inflation).^{13/}

9 **Q. IS THERE ANY ACTUAL INVESTMENT HISTORY THAT SUPPORTS**
10 **THE NOTION THAT THE CAPITAL APPRECIATION FOR STOCK**
11 **INVESTMENTS WILL NOT EXCEED THE NOMINAL GROWTH OF**
12 **THE U.S. GDP?**

13 A. Yes. This is evident by a comparison of the compound annual growth of the U.S.
14 GDP and the geometric growth of the U.S. stock market. Ibbotson Associates
15 measures the historical geometric growth of the U.S. stock market over the period
16 1926-2013 to be approximately 5.8%. During this same time period, the U.S. nominal
17 compound annual growth of the U.S. GDP was approximately 6.2%.^{14/}

18 As such, the historical geometric growth of the U.S. stock market capital
19 appreciation has been lower but comparable to the nominal growth of the U.S. GDP.
20 This historical relationship indicates the U.S. GDP growth outlook is a conservative
21 estimate of the long-term sustainable growth of U.S. stock investments.

22 **Q. HOW DID YOU DETERMINE A SUSTAINABLE LONG-TERM**
23 **GROWTH RATE THAT REFLECTS THE CURRENT CONSENSUS**
24 **OUTLOOK OF THE MARKET?**

25 A. I relied on the consensus analysts’ projections of long-term GDP growth. *Blue Chip*
26 *Financial Forecasts* publishes consensus economists’ GDP growth projections twice a

^{13/} *Fundamentals of Financial Management*, Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298.

^{14/} *Morningstar, Inc., Ibbotson SBBI 2014 Classic Yearbook* inflation rate of 3.0%, and U.S. Bureau of Economic Analysis, April 30, 2014.

1 year. These consensus analysts' GDP growth outlooks are the best available measure
2 of the market's assessment of long-term GDP growth. These analyst projections
3 reflect all current outlooks for GDP, as reflected in analyst projections, and are likely
4 the most influential on investors' expectations of future growth outlooks. The
5 consensus economists' published GDP growth rate outlook is 4.6% to 4.8% over the
6 next 10 years.^{15/}

7 Therefore, I propose to use the consensus economists' projected 5- and 10-year
8 average GDP consensus growth rates of 4.8% and 4.6%, respectively, as published by
9 *Blue Chip Financial Forecasts*, as an estimate of long-term sustainable growth. *Blue*
10 *Chip Financial Forecasts'* projections provide real GDP growth projections of 2.6%
11 and 2.4%, and GDP inflation of 2.1%^{16/} over the 5-year and 10-year projection
12 periods, respectively. This consensus GDP growth forecast represents the most likely
13 views of market participants because it is based on published consensus economist
14 projections.

15 **Q. DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-**
16 **TERM GDP GROWTH?**

17 A. Yes, and these sources corroborate my consensus analysts' projections. The U.S. EIA
18 in its *Annual Energy Outlook* projects real GDP out until 2040. In its *2014 Annual*
19 *Report*, the EIA projects real GDP through 2040 to be in the range of 1.9% to 2.8%,
20 with a midpoint or reference case of 2.4%.^{17/}

21 Also, the Congressional Budget Office ("CBO") makes long-term economic
22 projections. The CBO is projecting real GDP growth of 2.8% to 2.1% during the next

^{15/} *Blue Chip Financial Forecasts*, June 1, 2014, at 14.

^{16/} Id.

^{17/} *DOE/EIA Annual Energy Outlook 2014 With Projections to 2040*, April 2014 at MT-2.

1 5 and 10 years, respectively, with GDP price inflation of 2.0%.^{18/} The CBO's real
2 GDP and GDP inflation projections are slightly lower than the consensus economists.

3 The real GDP and nominal GDP growth projections made by the U.S. EIA and
4 those made by the CBO support the use of the consensus analyst 5-year and 10-year
5 projected GDP growth outlooks as a reasonable estimate of market participants'
6 long-term GDP growth outlooks.

7 **Q. WHAT STOCK PRICE, DIVIDEND, AND GROWTH RATES DID YOU**
8 **USE IN YOUR MULTI-STAGE GROWTH DCF ANALYSIS?**

9 A. I relied on the same 13-week stock price and the most recent quarterly dividend
10 payment data discussed above. For stage one growth, I used the consensus analysts'
11 growth rate projections discussed above in my constant growth DCF model. The first
12 stage growth covers the first five years, consistent with the term of the analyst growth
13 rate projections. The second stage, or transition stage, begins in year 6 and extends
14 through year 10. The second stage growth transitions the growth rate from the first
15 stage to the third stage using a linear trend. For the third stage, or long-term
16 sustainable growth stage, which starts in year 11, I used a 4.7% long-term sustainable
17 growth rate, which is based on the consensus economists' long-term projected nominal
18 GDP growth rate.

19 **Q. WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF**
20 **MODEL?**

21 A. As shown in Exhibit No.____(MPG-12), the average and median DCF returns on equity
22 for my proxy group are 8.52% and 8.68%, respectively.

23 **Q. PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.**

24 A. The results from my DCF analyses are summarized in Table MPG-4 below:

^{18/} CBO: *The Budget and Economic Outlook: Fiscal Years 2014 to 2024*, February 2014 at 152.

TABLE MPG-4

Summary of DCF Results

<u>Description</u>	<u>Proxy Group</u>	
	<u>Average</u>	<u>Median</u>
Constant Growth DCF Model (Analysts' Growth)	8.95%	8.78%
Constant Growth DCF Model (Sustainable Growth)	8.61%	8.35%
Multi-Stage Growth DCF Model	<u>8.52%</u>	<u>8.68%</u>
Average	8.69%	8.60%

1 My DCF studies indicate a return on equity in the range of 8.52% to 8.95%.

2 To be conservative, I find that a DCF return for PacifiCorp of 8.95%, rounded to
3 9.00%, is a reasonable return in this case.

4 **II.I. Risk Premium Model**

5 **Q. PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM**
6 **MODEL.**

7 A. This model is based on the principle that investors require a higher return to assume
8 greater risk. Common equity investments have greater risk than bonds because bonds
9 have more security of payment in bankruptcy proceedings than common equity and
10 the coupon payments on bonds represent contractual obligations. In contrast,
11 companies are not required to pay dividends or guarantee returns on common equity
12 investments. Therefore, common equity securities are considered to be more risky
13 than bond securities.

14 This risk premium model is based on two estimates of an equity risk premium.

15 First, I estimated the difference between the required return on utility common equity

1 investments and U.S. Treasury bonds. The difference between the required return on
2 common equity and the Treasury bond yield is the risk premium. I estimated the risk
3 premium on an annual basis for each year over the period 1986 through March 2014.
4 The common equity required returns were based on regulatory commission-authorized
5 returns for electric utility companies. Authorized returns are typically based on expert
6 witnesses' estimates of the contemporary investor-required return.

7 The second equity risk premium estimate is based on the difference between
8 regulatory commission-authorized returns on common equity and contemporary
9 "A" rated utility bond yields by Moody's. I selected the period 1986 through June
10 2014 because public utility stocks consistently traded at a premium to book value
11 during that period. This is illustrated in Exhibit No.____(MPG-13), which shows that
12 the market to book ratio since 1986 for the electric utility industry was consistently
13 above a multiple of 1.0x. Over this period, regulatory authorized returns were
14 sufficient to support market prices that at least exceeded book value. This is an
15 indication that regulatory authorized returns on common equity supported a utility's
16 ability to issue additional common stock without diluting existing shares. It further
17 demonstrates that utilities were able to access equity markets without a detrimental
18 impact on current shareholders.

19 Based on this analysis, as shown in Exhibit No.____(MPG-14), the average
20 indicated equity risk premium over U.S. Treasury bond yields has been 5.36%. Of the
21 29 observations, 23 indicated risk premiums fall in the range of 4.41% to 6.18%.
22 Since the risk premium can vary depending upon market conditions and changing
23 investor risk perceptions, I believe using an estimated range of risk premiums provides

1 the best method to measure the current return on common equity using this
2 methodology.

3 As shown in Exhibit No.____(MPG-15), the average indicated equity risk
4 premium over contemporary Moody's utility bond yields was 3.98% over the period
5 1986 through June 2014. The indicated equity risk premium estimates based on this
6 analysis primarily fall in the range of 3.03% to 5.03% over this time period.

7 **Q. DO YOU BELIEVE THAT THESE EQUITY RISK PREMIUM**
8 **ESTIMATES ARE BASED ON A TIME PERIOD THAT IS TOO LONG**
9 **OR TOO SHORT TO DRAW ACCURATE CONCLUSIONS**
10 **CONCERNING CONTEMPORARY MARKET CONDITIONS?**

11 A. No. The time period I use in this risk premium study is a generally accepted period to
12 develop a risk premium study using "expectational" data.

13 Contemporary market conditions can change dramatically during the period
14 that rates determined in this proceeding will be in effect. A relatively long period of
15 time where stock valuations reflect premiums to book value is an indication that the
16 authorized returns on equity and the corresponding equity risk premiums were
17 supportive of investors' return expectations and provided utilities access to the equity
18 markets under reasonable terms and conditions. Further, this time period is long
19 enough to smooth abnormal market movement that might distort equity risk
20 premiums. While market conditions and risk premiums do vary over time, this
21 historical time period is a reasonable period to estimate contemporary risk premiums.

22 Alternatively, studies have recommended that use of "actual achieved
23 investment return data" in a risk premium study should be based on long historical
24 time periods. The studies find that achieved returns over short time periods may not
25 reflect investors' expected returns due to unexpected and abnormal stock price

1 performance. Short-term abnormal actual returns would be smoothed over time and
2 the achieved actual investment returns over long time periods would approximate
3 investors' expected returns. Therefore, it is reasonable to assume that averages of
4 annual achieved returns over long time periods will generally converge on the
5 investors' expected returns.

6 My risk premium study is based on expectational data, not actual investment
7 returns, and, thus, need not encompass a very long historical time period.

8 **Q. BASED ON HISTORICAL DATA, WHAT RISK PREMIUM HAVE YOU**
9 **USED TO ESTIMATE PACIFICORP'S COST OF COMMON EQUITY**
10 **IN THIS PROCEEDING?**

11 A. The equity risk premium should reflect the relative market perception of risk in the
12 utility industry today. I have gauged investor perceptions in utility risk today in
13 Exhibit No.__(MPG-16). In that exhibit, I show the yield spread between utility
14 bonds and Treasury bonds over the last 34 years. As shown on this exhibit, the
15 average utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utility
16 bonds for this historical period are 1.53% and 1.94%, respectively. The utility bond
17 yield spreads over Treasury bonds for "A" and "Baa" rated utilities during 2014 are
18 0.88% and 1.33%, respectively. The current average "A" and "Baa" rated utility bond
19 yield spreads over Treasury bond yields are now lower than the 34-year average
20 spreads.

21 A current 13-week average "A" rated utility bond yield of 4.20%, when
22 compared to the current Treasury bond yield of 3.27% as shown in Exhibit
23 No.__(MPG-17), page 1, implies a yield spread of around 93 basis points. This
24 current utility bond yield spread is lower than the 35-year average spread for "A"

1 utility bonds of 1.53%. Similarly, the current spread for the “Baa” utility yields of
2 1.42% is lower than the 35-year average spread of 1.94%.

3 These utility bond yield spreads are clear evidence that the market considers
4 the utility industry to be a relatively low-risk investment and demonstrates that utilities
5 continue to have strong access to capital.

6 **Q. HOW DID YOU ESTIMATE PACIFICORP’S COST OF COMMON**
7 **EQUITY WITH THIS RISK PREMIUM MODEL?**

8 A. I added a projected long-term Treasury bond yield to my estimated equity risk
9 premium over Treasury yields. The 13-week average 30-year Treasury bond yield,
10 ending September 19, 2014, was 3.27%, as shown in Exhibit No.____(MPG-17), page
11 1. *Blue Chip Financial Forecasts* projects the 30-year Treasury bond yield to be
12 4.30%, and a 10-year Treasury bond yield to be 3.60%.^{19/} Using the projected 30-year
13 Treasury bond yield of 4.30%, and a Treasury bond risk premium of 4.41% to 6.18%,
14 as developed above, produces an estimated common equity return in the range of
15 8.71% (4.30% + 4.41%) to 10.48% (4.30% + 6.18%). My risk premium estimates fall
16 in the range of 8.71% to 10.48%.

17 I next added my equity risk premium over utility bond yields to a current
18 13-week average yield on “Baa” rated utility bonds for the period ending
19 September 19, 2014, of 4.69%. Adding the utility equity risk premium of 3.03% to
20 5.03%, as developed above, to a “Baa” rated bond yield of 4.69%, produces a cost of
21 equity in the range of 7.72% (4.69% + 3.03%) to 9.72% (4.69% + 5.03%).

^{19/} *Blue Chip Financial Forecasts*, September 1, 2014, at 2.

1 **Q. WHAT IS YOUR RECOMMENDED RETURN FOR PACIFICORP**
2 **BASED ON YOUR RISK PREMIUM STUDY?**

3 A. My recommendation considers both utility security risk and market interest rate risk.
4 Current interest rate spreads suggest the market is embracing utility investments as
5 relatively low-risk investment alternatives. This is clearly evident from the low utility
6 bond spreads relative to Treasury bonds, currently, compared to the historical time
7 period studied.^{20/} Also, the market is pricing “Baa” utility bonds to produce lower
8 yields compared to general corporate “Baa” bonds. On average over time, “Baa”
9 utility bond yields are higher than “Baa” corporate bond yields, but not currently.^{21/}
10 All of this supports my conclusion that the utility industry is perceived as a low-risk
11 stable investment.

12 On the other hand, the Federal Reserve has been procuring long-term Treasury
13 and collateralized bonds in an effort to stimulate the U.S. economy. This stimulus has
14 reduced long-term interest rates. This government stimulus initiative has been
15 reduced and is expected to be suspended in the near future. The suspension of the
16 Federal Reserve’s stimulus in long-term interest rate markets could cause long-term
17 market interest rates to increase. I believe there is additional risk in long-term interest
18 rate markets created by this Federal Reserve stimulus policy.

19 I recommend giving more weight to the high-end of my risk premium results to
20 reflect the greater current market interest rate risk. I propose to provide 70% weight to
21 the high-end of my risk premium estimates and 30% to the low-end of my risk
22 premium estimates. Providing more weight to the high-end risk premium captures the
23 greater market interest rate risk. This results in a risk premium estimate over Treasury

^{20/} See Exhibit No.__(MPG-16) and Exhibit No.__(MPG-17).

^{21/} Id.

1 bond yields of 9.95%,^{22/} and a risk premium estimate over “Baa” utility bond yields of
2 9.12%.^{23/}

3 My risk premium analyses produce a return estimate in the range of 9.12% to
4 9.95%, with a midpoint of approximately 9.54%, rounded to 9.60%.

5 **II.J. Capital Asset Pricing Model (“CAPM”)**

6 **Q. PLEASE DESCRIBE THE CAPM.**

7 A. The CAPM method of analysis is based upon the theory that the market-required rate
8 of return for a security is equal to the risk-free rate, plus a risk premium associated
9 with the specific security. This relationship between risk and return can be expressed
10 mathematically as follows:

11
$$R_i = R_f + B_i \times (R_m - R_f) \text{ where:}$$

12 R_i = Required return for stock i

13 R_f = Risk-free rate

14 R_m = Expected return for the market portfolio

15 B_i = Beta - Measure of the risk for stock

16 The stock-specific risk term in the above equation is beta. Beta represents the
17 investment risk that cannot be diversified away when the security is held in a
18 diversified portfolio. When stocks are held in a diversified portfolio, firm-specific
19 risks can be eliminated by balancing the portfolio with securities that react in the
20 opposite direction to firm-specific risk factors (e.g., business cycle, competition,
21 product mix, and production limitations).

22 The risks that cannot be eliminated when held in a diversified portfolio are
23 non-diversifiable risks. Non-diversifiable risks are related to the market in general and
24 are referred to as systematic risks. Risks that can be eliminated by diversification are

^{22/} 70% (10.48%) + 30% (8.71%) = 9.95%.

^{23/} 70% (9.72%) + 30% (7.72%) = 9.12%.

1 regarded as non-systematic risks. In a broad sense, systematic risks are market risks,
2 and non-systematic risks are business risks. The CAPM theory suggests that the
3 market will not compensate investors for assuming risks that can be diversified away.
4 Therefore, the only risk that investors will be compensated for are systematic or
5 non-diversifiable risks. The beta is a measure of the systematic or non-diversifiable
6 risks.

7 **Q. PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

8 A. The CAPM requires an estimate of the market risk-free rate, the company's beta, and
9 the market risk premium.

10 **Q. WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-
11 FREE RATE?**

12 A. As previously noted, *Blue Chip Financial Forecasts'* projected 30-year Treasury bond
13 yield is 4.30%.^{24/} The current 30-year Treasury bond yield is 3.27%, as shown in
14 Exhibit No.__(MPG-17), page 1. I used *Blue Chip Financial Forecasts'* projected
15 30-year Treasury bond yield of 4.30% for my CAPM analysis.

16 **Q. WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN
17 ESTIMATE OF THE RISK-FREE RATE?**

18 A. Treasury securities are backed by the full faith and credit of the United States
19 government, so long-term Treasury bonds are considered to have negligible credit risk.
20 Also, long-term Treasury bonds have an investment horizon similar to that of common
21 stock. As a result, investor-anticipated long-run inflation expectations are reflected in
22 both common-stock required returns and long-term bond yields. Therefore, the
23 nominal risk-free rate (or expected inflation rate and real risk-free rate) included in a

^{24/} *Blue Chip Financial Forecasts*, September 1, 2014 at 2.

1 long-term bond yield is a reasonable estimate of the nominal risk-free rate included in
2 common stock returns.

3 Treasury bond yields, however, do include risk premiums related to
4 unanticipated future inflation and interest rates. A Treasury bond yield is not a
5 risk-free rate. Risk premiums related to unanticipated inflation and interest rates are
6 systematic or market risks. Consequently, for companies with betas less than 1.0,
7 using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis
8 can produce an overstated estimate of the CAPM return.

9 **Q. WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

10 A. As shown in Exhibit No. ___(MPG-18), the proxy group average *Value Line* beta
11 estimate is 0.73.

12 **Q. HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM**
13 **ESTIMATE?**

14 A. I derived two market risk premium estimates, a forward-looking estimate and one
15 based on a long-term historical average.

16 The forward-looking estimate was derived by estimating the expected return
17 on the market (as represented by the S&P 500) and subtracting the risk-free rate from
18 this estimate. I estimated the expected return on the S&P 500 by adding an expected
19 inflation rate to the long-term historical arithmetic average real return on the market.
20 The real return on the market represents the achieved return above the rate of inflation.

21 Morningstar's *Stocks, Bonds, Bills and Inflation 2014 Classic Yearbook*
22 estimates the historical arithmetic average real market return over the period 1926 to

1 2013 as 8.9%.^{25/} A current consensus analysts' inflation projection, as measured by
2 the Consumer Price Index, is 2.3%.^{26/} Using these estimates, the expected market
3 return is 11.40%.^{27/} The market risk premium then is the difference between the
4 11.40% expected market return, and my 4.30% risk-free rate estimate, or
5 approximately 7.10%.

6 The historical estimate of the market risk premium was also estimated by
7 Morningstar in *Stocks, Bonds, Bills and Inflation 2014 Classic Yearbook*. Over the
8 period 1926 through 2013, Morningstar's study estimated that the arithmetic average
9 of the achieved total return on the S&P 500 was 12.1%,^{28/} and the total return on
10 long-term Treasury bonds was 5.9%.^{29/} The indicated market risk premium is 6.2%
11 (12.1% - 5.9% = 6.2%). The average of my market risk premium estimates is 6.6%
12 (6.2% to 6.9%).

13 **Q. HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE**
14 **COMPARE TO THAT ESTIMATED BY MORNINGSTAR?**

15 A. Morningstar's analysis indicates that a market risk premium falls somewhere in the
16 range of 6.2% to 7.0%. My market risk premium falls in the range of 6.2% to 7.1%.
17 My average market risk premium of 6.7% is within Morningstar's range.

18 Morningstar estimates a forward-looking market risk premium based on actual
19 achieved data from the historical period of 1926 through 2013. Using this data,
20 Morningstar estimates a market risk premium derived from the total return on large
21 company stocks (S&P 500), less the income return on Treasury bonds. The total

^{25/} *Morningstar, Inc., Ibbotson SBBI 2014 Classic Yearbook: Market Results for Stocks, Bonds, Bills, and Inflation 1926-2013* at 92.

^{26/} *Blue Chip Financial Forecasts*, June 1, 2014 at 2.

^{27/} { [(1 + 0.089) * (1 + 0.023)] - 1 } * 100.

^{28/} *Morningstar, Inc. Ibbotson SBBI 2014 Classic Yearbook* at 91.

^{29/} Id.

1 return includes capital appreciation, dividend or coupon reinvestment returns, and
2 annual yields received from coupons and/or dividend payments. The income return, in
3 contrast, only reflects the income return received from dividend payments or coupon
4 yields. Morningstar argues that the income return is the only true risk-free rate
5 associated with Treasury bonds and is the best approximation of a truly risk-free
6 rate.^{30/} I disagree with this assessment from Morningstar, because it does not reflect a
7 true investment option available to the marketplace and therefore does not produce a
8 legitimate estimate of the expected premium of investing in the stock market versus
9 that of Treasury bonds. Nevertheless, I will use Morningstar's conclusion to show the
10 reasonableness of my market risk premium estimates.

11 Morningstar's range is based on several methodologies. First, Morningstar
12 estimates a market risk premium of 7.0% based on the difference between the total
13 market return on common stocks (S&P 500) less the income return on Treasury bond
14 investments. Second, Morningstar found that, if the New York Stock Exchange (the
15 "NYSE") was used as the market index rather than the S&P 500, the market risk
16 premium would be 6.8%, not 7.0%. Third, if only the two deciles of the largest
17 companies included in the NYSE were considered, the market risk premium would be
18 6.2%.^{31/}

19 Finally, Morningstar found that the 6.7% market risk premium based on the
20 S&P 500 was influenced by an abnormal expansion of price-to-earnings ("P/E") ratios
21 relative to earnings and dividend growth during the period 1980 through 2001.

^{30/} *Morningstar, Inc., Ibbotson SBBI 2014 Classic Yearbook* at 153.

^{31/} Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. *Id.* at 152.

1 Morningstar believes this abnormal P/E expansion is not sustainable.^{32/} Therefore,
2 Morningstar adjusted this market risk premium estimate to normalize the growth in the
3 P/E ratio to be more in line with the growth in dividends and earnings. Based on this
4 alternative methodology, Morningstar published a long-horizon supply-side market
5 risk premium of 6.1%.^{33/}

6 **Q. WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

7 A. As shown in Exhibit No.____(MPG-19), based on my range of market risk premiums
8 of 6.2% to 7.1%, a risk-free rate of 4.30%, and a beta of 0.73, my CAPM analysis
9 produces a return of 8.83% to 9.49% with a midpoint of approximately 9.2%.

10 This CAPM estimate reflects a projected risk-free rate that is more than
11 100 basis points higher than the current long-term risk-free rate as proxied by the U.S.
12 Treasury security. Using this projected Treasury bond yield largely captures the
13 additional risk in the marketplace related to the uncertainty of long-term interest rates
14 after the Federal Reserve discontinues its economic stimulus policies.

15 **II.K. Summary of Return on Equity and Overall Rate of Return**

16 **Q. BASED ON THE RESULTS OF YOUR RETURN ON COMMON**
17 **EQUITY ANALYSES DESCRIBED ABOVE, WHAT RETURN ON**
18 **COMMON EQUITY DO YOU RECOMMEND FOR PACIFICORP?**

19 A. Based on my analyses, I estimate PacifiCorp's current market cost of equity to be
20 9.30%.

^{32/} Id. at 156.

^{33/} Id. at 157.

TABLE MPG-5

Return on Common Equity Summary

<u>Description</u>	<u>Results</u>
DCF	9.00%
Risk Premium	9.60%
CAPM	9.20%

1 My recommended return on common equity of 9.30% is the midpoint of my
2 recommended range of 9.00% to 9.60%. The high-end of my estimated range is based
3 on my risk premium studies, and the low-end is based on my DCF studies. The
4 midpoint of this range reflects current market capital costs, increased interest rate risk
5 in the current market due to Federal Reserve policies and other factors, and represents
6 fair compensation to PacifiCorp's investors for the total investment risk of its
7 regulated utility.

8 **Q. BASED ON YOUR RECOMMENDED CAPITAL STRUCTURE AND**
9 **RETURN ON EQUITY, ARE YOU ABLE TO RECOMMEND AN OVERALL**
10 **RATE OF RETURN?**

11 A. Yes. Based on my recommended capital structure and return on equity, PacifiCorp's
12 overall rate of return should be 7.20%. This calculation is shown in Exhibit
13 No.__(MPG-3).

1 **II.L. Financial Integrity**

2 **Q. WILL YOUR RECOMMENDED OVERALL RATE OF RETURN**
3 **SUPPORT AN INVESTMENT GRADE BOND RATING FOR**
4 **PACIFICORP?**

5 A. Yes. I have reached this conclusion by comparing the key credit rating financial ratios
6 for PacifiCorp, at my proposed return on equity and capital structure, to S&P's
7 benchmark financial ratios using S&P's new credit metric ranges.

8 **Q. PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO**
9 **CREDIT METRIC METHODOLOGY.**

10 A. S&P publishes a matrix of financial ratios that correspond to its assessment of the
11 business risk of utility companies and related bond ratings. On May 27, 2009, S&P
12 expanded its matrix criteria^{34/} by including additional business and financial risk
13 categories. Based on S&P's most recent credit matrix, the business risk profile
14 categories are "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and
15 "Vulnerable." Most utilities have a business risk profile of "Excellent" or "Strong."
16 The financial risk profile categories are "Minimal," "Modest," "Intermediate,"
17 "Significant," "Aggressive," and "Highly Leveraged." Most of the utilities have a
18 financial risk profile of "Aggressive." PacifiCorp has an "Excellent" business risk
19 profile and a "Significant" financial risk profile.

20 **Q. PLEASE DESCRIBE S&P'S USE OF THE FINANCIAL BENCHMARK**
21 **RATIOS IN ITS CREDIT RATING REVIEW.**

22 A. S&P evaluates a utility's credit rating based on an assessment of its financial and
23 business risks. A combination of financial and business risks equates to the overall
24 assessment of PacifiCorp's total credit risk exposure. On November 19, 2013, S&P

^{34/} S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect*: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

1 updated its methodology. In its update, S&P published a matrix of financial ratios that
2 defines the level of financial risk as a function of the level of business risk.

3 S&P publishes ranges for three primary financial ratios that it uses as guidance
4 in its credit review for utility companies. The two core financial ratio benchmarks it
5 relies on in its credit rating process include: (1) Debt to Earnings Before Interest,
6 Taxes, Depreciation and Amortization (“EBITDA”); and (2) Funds From Operations
7 (“FFO”) to Total Debt.^{35/}

8 **Q. HOW DID YOU APPLY S&P’S FINANCIAL RATIOS TO TEST THE**
9 **REASONABLENESS OF YOUR RATE OF RETURN**
10 **RECOMMENDATIONS?**

11 A. I calculated each of S&P’s financial ratios based on PacifiCorp’s cost of service for its
12 retail jurisdictional operations. While S&P would normally look at total consolidated
13 PacifiCorp financial ratios in its credit review process, my investigation in this
14 proceeding is not the same as S&P’s. I am attempting to judge the reasonableness of
15 my proposed overall rate of return of 7.20% for rate-setting in PacifiCorp’s retail
16 regulated utility operations in Washington. Hence, I am attempting to determine
17 whether my proposed rate of return will in turn support cash flow metrics, balance
18 sheet strength, and earnings that will support an investment grade bond rating and
19 PacifiCorp’s financial integrity.

20 **Q. DID YOU INCLUDE ANY OFF-BALANCE SHEET DEBT**
21 **EQUIVALENTS?**

22 A. Yes. As shown on page 4 of my Exhibit No. ___(MPG-20), I included \$271 million of
23 off-balance sheet debt equivalents including purchased power agreements and
24 operating leases and their associated interest and depreciation expenses. I did not

^{35/} *Standard & Poor’s RatingsDirect*: “Criteria: Corporate Methodology,” November 19, 2013.

1 include some of the off-balance sheet debt equivalents that S&P includes in its credit
2 rating review. Certain off-balance sheet debt equivalents, such as pension and other
3 post-employment benefits (“OPEB”) accrued interest expense, were excluded from the
4 inclusion of off-balance sheet obligations. PacifiCorp’s OPEB is already included in
5 cost of service, and reflecting it again as an off-balance sheet obligation would be
6 counting it more than once. Further, the debt-like equivalent of OPEB obligations is
7 largely controlled by management through decisions on making cash contributions to
8 an external trust. Therefore, it would not be appropriate to judge the reasonableness of
9 a rate of return based on a financial obligation that can largely be controlled by utility
10 management. Utility management cannot control its financial obligations under debt,
11 purchased power agreement, leases, and other third-party arrangements.

12 Specifically, companies’ obligations for pension and OPEB are largely
13 impacted by management’s decisions to make cash contributions to the trust
14 supporting these employee benefits. In ratemaking, companies are allowed to fully
15 recover their pension and OPEB expenses from ratepayers over time in a manner
16 consistent with regulatory commission decisions. The debt-like nature of these
17 obligations is controlled in part by management’s discretion in making cash
18 contributions to the pension/OPEB trust, and in part by the regulatory commissions
19 finding an appropriate regulatory treatment for these employee costs.

20 All interest expense associated with investment in utility plant and equipment
21 is included in this analysis, and any accrued interest expense is not related to regulated
22 operations in this jurisdiction.

1 As such, I believe my off-balance sheet adjustments to my credit metrics
2 reasonably reflect the credit metrics consistent with the rate structure used to provide
3 full recovery of PacifiCorp's cost of service on its regulated investment serving
4 Washington.

5 These adjustments are necessary to measure the financial integrity of the retail
6 cost structure. To ignore these items places customers in Washington at risk of paying
7 a higher return to support financial obligations that are not related to Washington retail
8 utility operations.

9 **Q. PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC**
10 **ANALYSIS FOR PACIFICORP.**

11 A. The S&P financial metric calculations for PacifiCorp at a 9.30% return are developed
12 on Exhibit No. ___(MPG-20), page 1.

13 PacifiCorp's adjusted total debt ratio is approximately 51.7%. This adjusted
14 total debt ratio will support an investment grade bond rating.

15 Based on an equity return of 9.30%, PacifiCorp will be provided an
16 opportunity to produce a debt to EBITDA ratio of 3.2x. This is within S&P's
17 "Intermediate" guideline range of 2.5x to 3.5x.^{36/} This ratio also supports an
18 investment grade credit rating.

19 PacifiCorp's retail operations FFO to total debt coverage at a 9.30% equity
20 return is 22%, which is within S&P's "Significant" metric guideline range of 13% to
21 23%. This FFO/total debt ratio will support an investment grade bond rating.

^{36/} *Standard & Poor's RatingsDirect*: "Criteria: Corporate Methodology," November 19, 2013.

1 At my recommended return on equity of 9.30% and my proposed capital
2 structure, PacifiCorp's financial credit metrics are supportive of its current investment
3 grade utility bond rating.

4 **III. RESPONSE TO PACIFICORP WITNESS MR. KURT STRUNK**

5 **Q. WHAT RETURN ON COMMON EQUITY IS PACIFICORP**
6 **PROPOSING FOR THIS PROCEEDING?**

7 A. PacifiCorp is proposing to set rates based on a return on equity of 10.00%.
8
9 PacifiCorp's return on equity proposal is based on the analyses and judgment of Mr.
10 Kurt Strunk. Mr. Strunk's results are summarized on his Exhibit No. ____ (KGS-3).

11 **Q. DO MR. STRUNK'S METHODOLOGIES SUPPORT HIS 10.00%**
12 **RETURN ON EQUITY?**

13 A. No. As discussed in detail below, Mr. Strunk's own analyses would support a return
14 on equity in the range of 8.5% to 9.6% if it is adjusted to reflect current market data
15 and his models are properly applied. These adjustments to Mr. Strunk's return on
16 equity estimates support my recommended return on equity of 9.30%.

17 **III.A. 28 Basis Point Risk Adder to Proxy Group Return**

18 **Q. WHY DID MR. STRUNK INCLUDE A 28 BASIS POINT ADDER TO HIS**
19 **PROXY GROUP RETURN ON EQUITY TO FORM HIS**
20 **RECOMMENDED ADJUSTMENT IN HIS RETURN FOR PACIFICORP?**

21 A. Mr. Strunk asserts that it is appropriate to include a risk adjustment to his
22 recommended cost of equity of 10.0%, in the event the Commission decides to adopt a
23 hypothetical capital structure that has less common equity than PacifiCorp's request.
24 Mr. Strunk asserts that his recommended return on equity of 10% relies on
25 PacifiCorp's actual capital structure, and deviating from that would necessarily raise
the cost of common equity.

1 **Q. HOW DID MR. STRUNK CALCULATE HIS RISK ADJUSTMENT?**

2 A. Mr. Strunk began his process by deleveraging, or removing the leverage risk, from his
3 proxy group's beta of 0.71. His unlevered, equity-only proxy group beta is 0.49. Mr.
4 Strunk then re-levered the proxy group equity beta by the difference in PacifiCorp's
5 equity ratio at the actual capital structure and the hypothetical capital structure. Mr.
6 Strunk's re-levered beta for the requested and alternative capital structures are 0.78
7 (51.7% common equity) and 0.81 (49.1% common equity), respectively. He then
8 multiplies the difference in these two betas, or 0.03, by his forward-looking market
9 risk premium (8.36%) to get his return adder of 28 basis points.

10 **Q. IS MR. STRUNK'S PROPOSED 28 BASIS POINT RISK ADDER TO**
11 **THE PROXY GROUP REASONABLE IF A HYPOTHETICAL CAPITAL**
12 **STRUCTURE IS USED?**

13 A. No. Mr. Strunk's methodology simply is without merit and should be rejected. First,
14 his beta starting point of 0.71 relates to his proxy group as he clearly notes at page 22
15 of his testimony. The proxy group's starting common equity ratio is 49.1% as shown
16 on my Exhibit No.____(MPG-5). Hence, the proxy group re-levered beta or leverage
17 starting point is already the same as the hypothetical common equity ratio of 49.1%.
18 Hence, if he is attempting to determine a beta estimate that is appropriate for a
19 company with a capital structure equity ratio of 49.1%, he does not need to make any
20 adjustment to the proxy group actual beta estimate of 0.71. The proxy group has a
21 common equity ratio of 49.1%, and therefore the proxy group beta of 0.71 is
22 appropriate to reflect a fair return for PacifiCorp if a hypothetical capital structure is
23 used.

24 If this methodology is to be used to adjust the beta to reflect a change in book
25 value common equity ratio, then Mr. Strunk's analysis should be used to derive a

1 decrease in return on equity for PacifiCorp if a 51.7% common equity ratio is used
2 rather than the proxy group's 49.1% common equity ratio. In other words, if
3 PacifiCorp is awarded a higher common equity ratio than the proxy group's common
4 equity ratio, a leverage risk downward adjustment would be appropriate.

5 Hence, a more accurate application of his model would be to reduce the
6 authorized return on equity he proposes for PacifiCorp of 10% by 28 basis points if
7 PacifiCorp's actual capital structure including a common equity ratio of 51.7% is
8 approved rather than the 49.1% common equity ratio for the proxy group and
9 hypothetical capital structure.

10 Mr. Strunk's methodology simply turns the facts of the differential in capital
11 structure and leverage risk between the proxy group and PacifiCorp upon its head. He
12 simply has it completely backwards.

13 **III.B. Proxy Group Return Estimate**

14 **Q. HOW DID MR. STRUNK DEVELOP HIS RETURN ON EQUITY** 15 **RANGE?**

16 A. Mr. Strunk developed his return on equity recommendation by applying the DCF and
17 CAPM to his proxy group, as well as a risk premium model and Yield Plus Growth
18 analysis. He then corroborates his results by comparing them to the results of a
19 Comparable Earnings model applied to the Dow Jones Utilities Index, and allowed
20 returns for electric utilities in 2013.

21 As shown below in Table MPG-6, Mr. Strunk's analyses produce a return on
22 equity in the range of 9.2% to 10.2%.

1 **Q. ARE MR. STRUNK’S PROXY GROUP RETURN ON EQUITY**
2 **ESTIMATES REASONABLE?**

3 A. No. Reasonable adjustments to Mr. Strunk’s DCF, CAPM, risk premium and Yield
4 Plus Growth studies reduce his return on equity estimate for PacifiCorp to below
5 9.5%.

TABLE MPG-6
Mr. Strunk’s Return on Equity Analysis
(Proxy Group)

<u>Model</u>	<u>Strunk Direct¹</u> (1)	<u>Adjusted</u> (2)
<u>DCF Models</u>		
Proxy Group	9.23%	9.0% - 9.3%
Yield & Growth	9.90%	8.6% - 9.2%
<u>Risk Premium Models</u>		
CAPM	9.67%	8.9% - 9.5%
Risk Premium	10.22%	8.5% - 9.6%
PacifiCorp Range	9.23% - 10.22%	8.5% - 9.6%
Recommended Return on Equity	10.00%	9.15%
Recommended Return with Hypothetical Capital Structure	10.28%	Reject
<u>Comparable Earnings</u>		
Dow Jones Utilities	9.73%	Reject
Dow Jones Industrial	16.31%	Reject
Allowed Returns	10.02%	Reject
Sources:		
¹ Exhibit No.____(KGS-3).		

6 As shown under Column 2 in Table MPG-6 above, reasonable adjustments to
7 Mr. Strunk’s methodologies and data produce a return on equity for PacifiCorp with

1 the range of 8.5% to 9.6%. This range implies a point estimate of 9.15% which
2 supports my recommended return on equity for PacifiCorp in this proceeding.

3 **Q. PLEASE DESCRIBE MR. STRUNK'S DCF ANALYSIS.**

4 A. Mr. Strunk applied the traditional DCF model to his proxy group. Based on his proxy
5 group, the DCF results average 9.23%.^{37/}

6 In developing his constant growth DCF model, Mr. Strunk relied on the
7 average growth rate from Thomson Reuters and a calculated sustainable growth rate
8 ($B \cdot R + S \cdot V$). This produced an average growth rate for his proxy group of 5.24%.
9 He then applied this growth rate to the proxy group's 12-month dividend yield. This
10 produced an average proxy group DCF of 9.23%.

11 **Q. DO YOU HAVE ANY COMMENTS CONCERNING MR. STRUNK'S**
12 **DCF RETURN ESTIMATE?**

13 A. My only comment concerning Mr. Strunk's DCF return estimate is whether or not his
14 9.23% truly represents the proxy group's central tendency. Indeed, his proxy group
15 results, as shown on his Exhibit No.____(KGS-10), have several companies with very
16 high DCF return estimates. DCF return estimates are largely based on very high
17 growth rate estimates from Thomson Reuters or internal growth rate estimates
18 produced by Mr. Strunk. Because of the existence of high-end estimates and low-end
19 estimates, I believe this proxy group is better described by the median results of that
20 group. Reviewing the results of Mr. Strunk's analysis suggests proxy group average
21 and median results of 9.23% and 8.95%, respectively. I recommend using the median
22 result of 8.95% (rounded to 9.0%), as the most representative estimate of the proxy
23 group results.

^{37/} Exhibit No.____(KGS-10).

1 **Q. ARE THERE OTHER ISSUES WITH MR. STRUNK'S DCF STUDY**
2 **THAT QUESTION WHETHER OR NOT HIS DCF RESULTS ARE**
3 **REASONABLE?**

4 A. Yes. Many of the companies included in Mr. Strunk's constant growth DCF study
5 have growth rate estimates that exceed the growth rate of the U.S. GDP. Indeed, the
6 proxy group average growth rate is 5.24%, which exceeds the long-term GDP growth
7 rate of 4.7%.

8 Mr. Strunk's average growth rate of 5.24% exceeds the long-term growth rate
9 of the economy as I discussed at length previously in my testimony. Therefore, Mr.
10 Strunk's DCF estimate is overstated because his growth rates are not reasonable
11 estimates of indefinite growth as required by the constant growth DCF model.

12 **Q. PLEASE DESCRIBE MR. STRUNK'S CAPM ANALYSES.**

13 A. Mr. Strunk developed a CAPM analysis based on projected Treasury bond yields. Mr.
14 Strunk estimates projected return on the market of 12.06%. From this market return
15 estimate, he subtracts his risk-free rate of 3.7% to arrive at a market risk premium of
16 8.36%.^{38/}

17 He relies on the *Value Line* utility betas for the companies included in his
18 proxy group (0.71) to produce an average cost of equity for his proxy group of
19 9.67%.^{39/}

20 **Q. IS MR. STRUNK'S PROXY GROUP CAPM ANALYSIS REASONABLE?**

21 A. No. Mr. Strunk's CAPM analysis is based on a market risk premium of 8.36%. This
22 market risk premium estimate is based on an inflated DCF return on the market. Mr.

^{38/} Exhibit No.__(KGS-12).

^{39/} Exhibit No.__(KGS-13).

1 Strunk's DCF market return estimate of 12.06% is based on a growth rate projection
2 of 9.74% and a dividend yield of 2.11%.

3 This market DCF return of 12.1% is not reasonable because it is based on an
4 irrationally high market long-term growth outlook of 9.74%. It is not rational to
5 expect that the market can grow at a 9.74% annual rate for an indefinite period of
6 time.

7 This is important because the DCF model requires a sustainable long-term
8 growth rate, not simply a growth rate that might be appropriate for the next five years.
9 The growth rate for the overall securities market must reflect the economy in which its
10 companies operate, and the earnings and dividend-paying ability of those companies.
11 Companies produce earnings and dividends by selling goods and services in the
12 marketplace. Hence, companies' earnings growth and sales growth opportunities
13 cannot be substantially in excess of the expected growth in the overall economy. It is
14 simply not a rational expectation to believe that, for an extended period of time, the
15 growth rate of companies will exceed the growth of the overall economy in which they
16 sell their goods and services.

17 As I mentioned above, *Blue Chip Financial Forecasts* projects an average 5- to
18 10-year nominal growth in the GDP, or overall U.S. economy, of 4.7%.^{40/} Hence,
19 expecting a growth rate of 9.7%, in essence, assumes that the securities market can
20 grow at a rate more than twice that of the overall U.S. economy. This is simply not a
21 rational expectation because it defies economic logic.

^{40/} *Blue Chip Financial Forecasts*, June 1, 2014, at 14.

1 **Q. HOW WOULD MR. STRUNK'S PROJECTED CAPM RETURN**
2 **ESTIMATE CHANGE IF A REASONABLE MARKET RISK PREMIUM**
3 **WERE USED?**

4 A. Applying a market risk premium estimate of 7.1%, a beta of 0.73, and using Mr.
5 Strunk's current risk-free rate of 3.7% and my projected risk-free rate of 4.3%, will
6 produce a CAPM return in the range of 8.9% to 9.5%, with a midpoint of 9.2%.

7 **Q. PLEASE DESCRIBE MR. STRUNK'S UTILITY RISK PREMIUM**
8 **ANALYSIS.**

9 A. Mr. Strunk's bond yield versus authorized return on common equity risk premium is
10 shown in Exhibit No.__(KGS-14). Mr. Strunk estimated an annual equity risk
11 premium by subtracting Treasury yields, "A" rated utility bond yields and "BBB"
12 rated corporate bond yields from the electric utility regulatory commission authorized
13 return on common equity. These risk premiums were measured over the period 1994-
14 2013 for Treasury and "BBB" corporates, and 1998-2013 for "A" rated utility bonds.
15 Based on this analysis, Mr. Strunk estimates an average indicated equity risk premium
16 over Treasury bond yields of 5.67%, and equity risk premiums over "A" rated utility
17 and "BBB" corporate bond yields of 5.44% and 3.80%, respectively.

18 Mr. Strunk then performs a regression analysis of the annual equity risk
19 premiums against the corresponding bond yields for each year. Each of these
20 regression analyses has a corresponding formula in which Mr. Strunk inputs his
21 current Treasury, utility and corporate bond yields to come up with an expected risk
22 premium. The expected risk premiums that are a result of the regression formulas for
23 his current Treasury, "A" rated utility and "BBB" rated corporate bond yields are
24 6.57%, 6.67%, and 4.94%, respectively. These equity risk premiums combined with

1 his current Treasury, utility and corporate bond yields produce a return on equity in
2 the range of 10.1% to 10.3%.

3 **Q. ARE MR. STRUNK'S RISK PREMIUM ANALYSES REASONABLE?**

4 A. No. Mr. Strunk's risk premium methodology is based on his regression analysis,
5 which is based on the premise that changes in nominal interest rates by themselves can
6 explain changes in equity risk premiums. This model is simply inconsistent with
7 accepted academic literature that risk premium changes are based on changes in
8 perceived total investment risk of equity securities versus that of bond securities.
9 Further, the time period used by Mr. Strunk to develop his regression analysis is a
10 relatively short 20 years and 16 years for his three models, respectively.

11 Because Mr. Strunk's methodology simply does not reflect changes in
12 expected returns that correspond with differences in investment risk, I would
13 recommend that his risk premium study be rejected.

14 **Q. DO YOU HAVE ANY COMMENTS CONCERNING MR. STRUNK'S**
15 **USE OF CURRENT INTEREST RATES?**

16 A. Yes. Mr. Strunk relies on yields for his various series of bonds as of February 12,
17 2014. The yields he uses are spot yields that are potentially subject to market
18 aberrations. Mr. Strunk should have used a smoothed, or average, yield over some
19 various time period. Also, Mr. Strunk's yields are approximately eight months old.

20 **Q. PLEASE EXPLAIN THE ACADEMIC LITERATURE YOU WERE**
21 **REFERRING TO THAT RECOMMENDS MEASURING EQUITY RISK**
22 **PREMIUMS BASED ON CHANGES IN INVESTMENT RISK BETWEEN**
23 **DEBT AND EQUITY SECURITIES.**

24 A. Academic studies have shown that, in the past, there has been an inverse relationship
25 with these variables, and researchers have found that the relationship changes over

1 time and is influenced by changes in perception of the risk of bond investments
2 relative to equity investments, and not simply changes to interest rates.^{41/}

3 In the 1980s, equity risk premiums were inversely related to interest rates, but
4 that was likely attributable to the interest rate volatility that existed at that time.
5 Interest rate volatility currently is much lower than it was in the 1980s.^{42/} As such,
6 when interest rates were more volatile, the relative perception of bond investment risk
7 increased relative to the investment risk of equities. This changing investment risk
8 perception caused changes in equity risk premiums.

9 In today's marketplace, interest rate variability is not as extreme as it was
10 during the 1980s. Nevertheless, changes in the perceived risk of bond investments
11 relative to equity investments still drive changes in equity premiums. However, a
12 relative investment risk differential cannot be measured simply by observing changes
13 to nominal interest rates. Changes in nominal interest rates are highly influenced by
14 changes to inflation outlooks, which also change equity return expectations. As such,
15 the relevant factor needed to explain changes in equity risk premiums is the relative
16 changes to the risk of equity versus debt securities investments, not simply changes to
17 interest rates.

18 Importantly, Mr. Strunk's analysis simply ignores investment risk differentials.
19 He bases his analysis exclusively on changes in nominal interest rates. This is a

^{41/} "The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts," Robert S. Harris and Felicia C. Marston, *Journal of Applied Finance*, Volume 11, No. 1, 2001, and "The Risk Premium Approach to Measuring a Utility's Cost of Equity," Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *Financial Management*, Spring 1985.

^{42/} *Morningstar, Inc., SBBI 2009 Classic Yearbook: Market Results for Stocks, Bonds, Bills, and Inflation 1926-2013* at 95-96.

1 flawed methodology and does not produce accurate or reliable risk premium estimates.
2 His results should be rejected by the Commission.

3 **Q. CAN MR. STRUNK’S RISK PREMIUM ANALYSES BASED ON**
4 **CURRENT YIELDS BE MODIFIED TO PRODUCE MORE**
5 **REASONABLE RESULTS?**

6 A. Yes. As shown on my Exhibit No. ___(MPG-21), by eliminating the reliance on a
7 simple regression analysis, and relying on updated current Treasury, “A” rated utility,
8 and “Baa” rated corporate bond yields of 3.27%, 4.20%, and 4.74%, respectively, and
9 adding them to Mr. Strunk’s average historical equity risk premiums will result in a
10 cost of equity range of 8.5% to 9.6%, with a midpoint of approximately 9.1%.

11 **Q. PLEASE DESCRIBE MR. STRUNK’S COMPARABLE EARNINGS**
12 **ANALYSIS.**

13 A. Mr. Strunk performs a comparable earnings analysis using two different groups, a
14 non-regulated industrial group, and a utilities group. Mr. Strunk points to the Hope
15 decision as the basis for this analysis. Mr. Strunk simply measures the return on book
16 equity for the Dow Jones Utility Index and the Dow Jones Industrials Index over the
17 period 2002 through 2013.^{43/} The average return on book equity for the Utility Index
18 is 9.73%.

19 **Q. DO YOU HAVE ANY ISSUES WITH MR. STRUNK’S COMPARABLE**
20 **EARNINGS ANALYSIS?**

21 A. Yes. Comparable earnings analysis is a flawed method of estimating a fair return on
22 equity for PacifiCorp. Comparable earnings analysis does not measure the return an
23 investor demands in order to assume the risk of an investment opportunity. As such, it
24 does not measure a fair rate of return to allow the utility to make incremental plant
25 investments that are in line with the same return investors would expect by making

^{43/} Exhibit No. ___(KGS-15).

1 another investment of comparable risk. Rather, comparable earnings analysis simply
2 observes historical actual earnings, or projected earnings for the companies, with no
3 consideration of the risk or stability of the earnings.

4 It is simply inappropriate to rely on an actual earned return as a means of
5 estimating a fair rate of return. An illustration can help make this point clear.

6 Assume a utility issued a bond 10 years ago at a coupon rate of 7%. The
7 accounting cost of a bond a utility sold years ago is 7%. The cost of this bond can be
8 observed on the utility's books and records in a test year. However, if a utility went to
9 the market in the test year to issue bonds, it would pay the prevailing market rate on
10 the bond – say, 5%. That means a utility's cost of bond capital in the test year is 5%
11 based on the test year market cost of a bond.

12 The same is true for common equity investments. A utility issues common
13 equity over time to fund capital investments in plant and equipment. A utility has
14 added to its equity base by retaining earnings to grow its invested capital. A fair rate
15 of return on that invested capital should be set equal to the rate of return a utility
16 investor can earn by using its capital to invest in other enterprises of comparable risk.
17 That opportunity cost is based on market factors which relate to the market value of
18 stock, the investment risk, and the expected return of the investment.

19 Another reason a comparable earnings analysis should be rejected is it could
20 provide misleading results, even if the methodology was reasonable. Specifically,
21 there can be accounting differences between companies which make an earned return
22 on book equity for one company not necessarily comparable to that of another
23 company. For example, differences in accounting for inventory measures, differences

1 for regulatory treatment of construction work in progress, and other investments in
2 working capital accounts may result in earned return on equity not being directly
3 comparable between companies. This is in stark contrast to the comparability of
4 required returns based on market information. As such, comparable earnings based on
5 book returns on equity simply do not produce a reliable estimate of a fair return on
6 equity.

7 **Q. PLEASE DESCRIBE MR. STRUNK'S YIELD PLUS GROWTH**
8 **ANALYSIS.**

9 A. Mr. Strunk attempts to explain investors' expectations for the electric utility industry
10 by performing his Yield Plus Growth analysis. To do this analysis, Mr. Strunk
11 obtained the Electric Utility Industry's average dividend yield, 4.1%, from *Value Line*,
12 and average expected earnings growth rate, 5.8%, from Zacks Investment Research.
13 These two components added together result in Mr. Strunk's Yield Plus Growth
14 estimate of 9.9%.

15 **Q. DO YOU HAVE ANY ISSUES WITH MR. STRUNK'S YIELD PLUS**
16 **GROWTH ANALYSIS?**

17 A. Yes. Mr. Strunk's industry Yield Plus Growth analysis is unreasonable for several
18 reasons. First, he does not identify specifically the time period used to develop the
19 dividend yield and the growth outlook. Further, a 5.8% expected earnings growth rate
20 may reflect some or all the companies in *Value Line* but it is not clear what companies
21 comprise this "Industry" growth rate outlook from Zacks. Also, a three- to five-year
22 growth rate of 5.8% is not a reasonable estimate of a long-term sustainable growth rate
23 as required by the constant growth DCF methodology which is used by Mr. Strunk as
24 his Yield Plus Growth analysis.

1 Most importantly, Mr. Strunk simply has not shown that his industry Yield
2 Plus Growth analysis is based on a comparable investment risk to PacifiCorp and,
3 thus, produces a reasonable estimate of PacifiCorp's marketed required return.
4 PacifiCorp's authorized return on equity should be based on a proxy group that is
5 demonstrated to have comparable investment risk to PacifiCorp. Mr. Strunk has
6 provided no comparable risk analysis whatsoever in support of his Yield Plus Growth
7 analysis on an electric utility index.

8 Finally, Mr. Strunk's data is also stale, as he relies on dividend yields from
9 January 2014 and growth rates from February 2014.

10 **Q. CAN MR. STRUNK'S YIELD PLUS GROWTH ANALYSIS BE REVISED**
11 **TO PRODUCE A MORE REASONABLE, UP-TO-DATE ESTIMATE?**

12 A. Yes. As shown on my Exhibit No.____(MPG-22), I started with the Electric Utility
13 universe from *Value Line*. For that list of 40 companies, I used growth rate estimates
14 from *Yahoo! Finance* and *Zacks* and used the average growth rate from each source as
15 the expected industry growth rate. The average industry growth rate estimates from
16 *Yahoo! Finance* and *Zacks* were 5.25% and 4.71%, respectively. For the dividend
17 yield, I used the most recent reported dividend yield from *Value Line*. The industry
18 average dividend yield was 3.74%. I then adjusted the dividend yield for one full year
19 of growth. The average adjusted dividend yields using the growth rates from *Yahoo!*
20 *Finance* and *Zacks* were 3.93% and 3.91%, respectively. Adding the adjusted
21 dividend yields to the respective growth rates resulted in Yield Plus Growth estimates
22 of 9.19% and 8.62%, with a midpoint of 8.90%.

23 However, this industry DCF return is also not necessarily appropriate for
24 PacifiCorp because it has not been shown to be a risk comparable proxy index.

1 Hence, while it is a more robust and updated electric utility industry return on equity
2 relative to that developed by Mr. Strunk, it still is not a methodology that is
3 appropriate for estimating a fair return for PacifiCorp in this proceeding.

4 **Q. DID MR. STRUNK CONSIDER ANY OTHER MEASURE WHEN**
5 **MAKING HIS RECOMMENDED RETURN ON EQUITY?**

6 A. Yes. Mr. Strunk also relied on a report, “Major Rate Case Decisions – Calendar
7 2013,” from Regulatory Research Associates (“RRA”), an affiliate of SNL Energy.
8 The average allowed return on equity that Mr. Strunk obtained from that report,
9 10.02%, is flawed, stale, and overstated.

10 **Q. WHY DO YOU BELIEVE MR. STRUNK’S 10.02% NUMBER IS**
11 **FLAWED?**

12 A. In that report, RRA states that “[t]he average return on equity (ROE) authorized
13 electric utilities was 10.02% in 2013, compared to 10.17% in 2012.” RRA also notes
14 that,

15 The data includes several surcharge/rider generation cases in Virginia
16 that incorporate plant-specific ROE premiums. Virginia statutes
17 authorize the State Corporation Commission to approve ROE
18 premiums of up to 200 basis points for certain generation projects.
19 Excluding these Virginia surcharge/rider generation cases from the
20 data, the average authorized electric ROE was 9.8% in 2013 compared
21 to 10.01% in 2012.^{44/}

22 The correct average authorized return on equity that Mr. Strunk should have
23 used is 9.8%. In its most recent report covering the first six months of 2014, the
24 comparable average authorized return on equity (excluding the Virginia-specific
25 decisions) is 9.72%, with a range of 9.20% to 10.40%.^{45/}

^{44/} Regulatory Research Associates, “Major Rate Case Decisions – Calendar 2013,” January 15, 2014.

^{45/} Regulatory Research Associates, *Regulatory Focus*, July 10, 2014.

1 Importantly, the trend in industry authorized returns on equity shows that
2 authorized returns on equity are decreasing as capital market costs have been low, and
3 have stayed low. The authorized return in 2013, excluding Virginia decisions, was
4 9.8%, which was over 20 basis points lower than in 2012. This decline in authorized
5 returns on equity reflects the fact that capital market costs are low, and have been low
6 for several years. As such, I encourage the Commission to reduce the authorized
7 return on equity for PacifiCorp in line with the trend in the industry. The lower
8 authorized returns on equity in the industry have supported strong investment grade
9 bond ratings for electric utilities and have mitigated rate increases. Low capital
10 market costs can be used to offset increases in cost of service, which can mitigate the
11 impact on retail customers as the service area economy continues to improve over
12 time.

13 **Q. DOES THIS CONCLUDE YOUR RESPONSIVE TESTIMONY?**

14 A. Yes, it does.