

BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION COMMISSION

WUTC V. PACIFICORP D/B/A PACIFIC POWER & LIGHT COMPANY

DOCKET NOS. UE-050684 and UE-050412

SUPPLEMENTAL TESTIMONY OF STEPHEN G. HILL (SGH-18T)

ON BEHALF OF

PUBLIC COUNSEL

JANUARY 27, 2006

SUPPLEMENTAL TESTIMONY OF STEPHEN G. HILL (SGH-18T)

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EXHIBITS

Exhibit No. ____ (SGH-19)	Leverage/Beta Adjustment to Company Cost of Equity Capital
Exhibit No. ____ (SGH-20)	Ratemaking Capital Structure Double Leverage Adjustment

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I. INTRODUCTION AND SUMMARY

Q. Please state your name, occupation and address.

A. My name is Stephen G. Hill. I am self-employed as a financial consultant, and principal of Hill Associates, a consulting firm specializing in financial and economic issues in regulated industries. My business address is P.O. Box 587, Hurricane, West Virginia, 25526 (e-mail: sghill@compuserve.com).

Q. Are you the same Stephen Hill that testified previously on behalf of Public Counsel regarding capital structure and the overall cost of capital?

A. Yes, I am.

Q. What is the purpose of your testimony at this time?

A. As a result of a bench request in this proceeding, the parties have been asked to address the issue of parent company debt, also termed “double leverage,” and its impact on the overall cost of capital appropriate for ratesetting. Double leverage is a financial condition that does not now exist within the PacifiCorp/Scottish Power corporate structure, but will exist if the pending merger with Mid-American Energy Holding Company (MEHC) is allowed to proceed.

My testimony explains what double leverage is, why regulators should take account of it in setting rates for utility subsidiaries, why double leverage does not exist with the relationship between PacifiCorp and Scottish Power but will exist if the MEHC merger is allowed to proceed. My testimony also addresses the analysis of the overall return that would be appropriate in this proceeding, if the return is set assuming the completion of the MEHC merger. That analysis includes an appropriate upward adjustment to the cost of equity to recognize the additional financial risk occasioned by the debt at the parent company level. Finally, my testimony responds to issues raised in the Supplementary testimony filed by PacifiCorp witness Dr. James Vander Weide on January 16, 2006, which

1 I have not otherwise addressed in the body of my earlier testimony.

2 **II. THE IMPACT OF PARENT COMPANY DEBT ON RATESETTING IN THIS**
3 **DOCKET**

4 **Q. Mr. Hill, do you believe there is something “wrong” with or underhanded**
5 **about MEHC’s election to utilize debt at the parent company level to finance**
6 **its utility operations?**

7 A. Not at all. The management of MEHC has made a capital structure choice that
8 maximizes their expected return for assuming a given level of risk—exactly what
9 they’re supposed to do. They have chosen to finance their investment in
10 PacifiCorp partly with common equity and partly with debt issued by MEHC,
11 thereby increasing the amount of debt supporting PacifiCorp’s assets beyond that
12 which appears on PacifiCorp’s books of account. If regulators ignore parent
13 company debt in setting rates for its utility subsidiaries and MEHC earns a return
14 on its utility common equity investment in excess of that available in the market,
15 so much the better for them. However, in that case, ratepayers would be paying
16 rates that provided a return in excess of the cost of equity capital for MEHC, and
17 would be disadvantaged by doing so.

18 The reliable cost of capital evidence in this proceeding indicates that utility
19 investors currently require a return on their utility equity investment of, very
20 generally, 9% to 10%. In order to give the owners of PacifiCorp an opportunity
21 (under efficient management) to earn an equity return of 9% to 10%, this
22 Commission must take into account the additional debt used by MEHC. If it does
23 not do so and, instead, elects to consider only PacifiCorp’s subsidiary capital
24 structure, it will allow PacifiCorp’s owners the opportunity to earn a return that
25 exceeds the cost of equity capital—a return that is substantially higher than the
26 equity capital cost rate for utility equity investments indicated by the capital

1 markets.

2 It is up to this Commission to see that the interests of the Company's
3 stockholder (MEHC) and its ratepayers are properly balanced. With regard to rate
4 of return, if the merger proceeds, that balance will occur only with due
5 consideration of double leverage.

6 **Q. What is double leverage?**

7 A. Leverage, in financial terms, is the use of debt capital. Utility assets are financed,
8 generally, with common equity and debt capital. Under normal circumstances
9 then, utility assets are leveraged. When a utility operation is owned by a parent
10 holding company, which has purchased the common equity of the utility with
11 both debt and equity, the utility assets are effectively leveraged twice—once at
12 the subsidiary level and once at the parent company level. Hence the term double
13 leverage.

14 **Q. Can you provide a simple example of double leverage?**

15 A. Yes. If we assume a utility operation is financed with \$200 equity and \$200 debt,
16 the capital structure of the utility on a stand-alone basis would be 50% equity and
17 50% debt, as shown below.

18 **Table A**
SUBSIDIARY-ONLY
CAPITAL STRUCTURE

	<u>Amount</u>	<u>Percent</u>
Common Equity	\$200	50%
Subsidiary Debt	<u>\$200</u>	<u>50%</u>
Totals	\$400	100%

19 Let's also assume that the \$200 of common equity of this utility is provided by
20 holding company through issuing \$100 of its own common equity and \$100 of
21 debt. The capital structure of parent company on a stand-alone basis (i.e., parent
22 only) would also be 50% equity and 50% debt.

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Table B
PARENT-ONLY
CAPITAL STRUCTURE

	<u>Amount</u>	<u>Percent</u>
Parent Equity	\$100	50%
Parent Debt	<u>\$100</u>	<u>50%</u>
Totals	\$200	100%

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Table C
PARENT COMPANY
CONSOLIDATED
CAPITAL STRUCTURE

	<u>Amount</u>	<u>Percent</u>
Parent Equity	\$100	25%
Parent Debt	\$100	25%
Subsidiary Debt	<u>\$200</u>	<u>50%</u>
Totals	\$400	100%

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However, the consolidated parent company capital structure—the capital structure that combines the utility subsidiary and the parent—would show \$100 of parent company common equity, and \$300 of debt (\$100 of parent company debt and \$200 of subsidiary debt). That additional leverage issued at the parent company level would make the consolidated common equity ratio of the parent lower than that of the subsidiary. As shown below, the consolidated common equity ratio of the parent company in our example is 25% of total capital.

Therefore, when the consolidated capital structure of a parent holding company has a common equity ratio well below that of the subsidiary utility operating company— arising from additional debt at the parent level— double leverage.

1 **Q. Does double leverage exist currently in the corporate relationship between**
2 **Scottish Power and PacifiCorp?**

3 A. No. The average consolidated common equity ratio of Scottish Power is higher
4 than that of PacifiCorp, which means that the consolidated parent company is
5 actually financed with less debt than the subsidiary operating company. As shown
6 in my Exhibit No. __ (SGH-7), p. 1, attached to my direct testimony in this
7 proceeding, PacifiCorp's recent average common equity ratio is approximately
8 44% of total capital. In contrast, Scottish Power's most recent consolidated
9 common equity ratio is 54%¹. An additional layer of debt at the parent company
10 level does not exist in that corporate relationship.

11 **Q. If the Mid-American Energy Holding Company purchase of PacifiCorp**
12 **proceeds, will double leverage exist?**

13 A. Yes. As shown on Exhibit No. __ (SGH-3), page 3, attached to my testimony in
14 the merger case (Docket No. UE-051090), the recent average consolidated
15 common equity ratio for MEHC is approximately 20% of total capital. Also,
16 MEHC estimates that following its merger with PacifiCorp, its consolidated
17 common equity ratio will approximate 30% of total capital. Clearly there will be
18 more debt at the consolidated parent-company (MEHC) than exists at the
19 PacifiCorp, MEHC's investment in PacifiCorp equity will be financed partly with
20 equity and partly with debt, and double leverage will exist.

21 **Q. How does double leverage work to increase the return to PacifiCorp's owner**
22 **above the level that is appropriate for utility operations?**

23 A. This can be explained most easily through an example. Continuing with the
24 assumptions set out above to illustrate double leveraging, if we assume our utility

¹ Scottish Power Balance Sheet at 9/30/05, MSNMoney.com.

1 subsidiary was allowed a 10% return on equity and had a 5% cost of debt, the
2 overall allowed return would be 7.50%, as shown below.

3 **Table D**
SUBSIDIARY OVERALL COST OF CAPITAL

	<u>Amount</u>	<u>Percent</u>	<u>Cost</u>	<u>Wt. Cost</u>
Common Equity	\$200	50%	10.00%	5.00%
Subsidiary Debt	<u>\$200</u>	<u>50%</u>	5.00%	<u>2.50%</u>
Totals	\$400	100%		7.50%

4 When that 7.50% overall return is applied to a \$400 rate base, the subsidiary will
5 be allowed to earn an after-tax overall return of \$30 [$\$400 \times 7.50\% = \30]. Out of
6 that \$30 overall return, the subsidiary will pay its own debt expenses of \$10 [$\200
7 $\times 5.00\% = \$10$], leaving a \$20 return on equity for the parent/owner [$\$30$ total
8 return less \$10 debt cost = \$20].

9 As discussed above in our example, the parent company's investment in
10 the subsidiary's equity is financed with \$100 of parent company equity and \$100
11 of parent company debt. We assume here that the parent company debt cost rate is
12 6% (higher than that of the subsidiary due to the additional debt). When the \$20
13 of equity return flows to the parent from the utility's allowed return, the parent
14 pays its debt costs of \$6 [$\100 of parent debt $\times 6\%$ cost rate = \$6.00]. After
15 paying its debt costs, the parent is left with a profit of \$14 [$\$20 - \$6 = \14]. When
16 that amount of profit is measured against the amount of common equity on the
17 parent's books (\$100), the rate of return on equity for the parent is 14% [$\$14/\100
18 = 14%].

19 Therefore, because of the additional layer of leverage at the parent
20 company level, even though the utility subsidiary is allowed and earns a 10%
21 return on equity, the parent company earns a 14% return on its equity investment
22 in the utility. If double leverage is ignored by regulators, the parent holding

1 company is able to earn a return on its utility investment that is higher than the
2 market-based cost of common equity.

3 **Q. In your example the consolidated parent company has a more leveraged**
4 **capital structure consisting of 25% common equity and 75% debt, correct?**

5 A. Yes.

6 **Q. Because of the additional leverage and higher financial risk, isn't it**
7 **appropriate that the equity return earned by the parent is higher than that**
8 **appropriate for a utility that has a 50% equity ratio?**

9 A. Yes. The equity ratio should be somewhat higher to recognize the additional
10 financial risk, but not as high as the 14% represented in our example. My analysis
11 of the impact of the difference in the cost of equity, discussed later in my
12 testimony, indicates that an increase in the equity cost rate of about one
13 percentage point would be sufficient to recognize the difference in financial risk.
14 In our example that would mean that an appropriate return on equity for the parent
15 company would be 11%. The difference between that risk-adjusted 11% and the
16 14% realized through double-leverage represents earnings above the cost of
17 capital that should not be recovered from ratepayers.

18 The appropriate return can be realized by the parent/owner if regulators
19 adjust the return allowed the regulated subsidiary. In our example, if the regulated
20 utility subsidiary were allowed an overall return of 6.75% to recognize double
21 leverage, rather than the 7.50% calculated for the subsidiary on a stand-alone
22 basis, the overall dollar return, based on a \$400 rate base would be \$27 ($\$400 \times$
23 $6.75\% = \$27$). When the subsidiary pays the \$10 interest on its debt, the profit
24 flowing to the parent's equity investment is \$17 [$\$27 - \$10 = \17]. As before, the
25 parent incurs a \$6 interest charge for its debt and is left with \$11 to apply to its
26 \$100 equity investment [$\$17 - \$6 = \11]. That residual equity dollar amount

1 represents an 11% return on the parent's common equity—an appropriate risk-
2 adjusted return for the parent company.

3 **Q. The Company takes the position that the additional leverage of the parent**
4 **company would raise the cost of common equity to the point that the overall**
5 **rate of return is no different for the regulated subsidiary. In your example,**
6 **that would be an equity cost of 14%. What is your response to that position?**

7 A. First, I disagree that the additional leverage at the parent company is precisely
8 negated by the increase in the cost of capital. I will demonstrate subsequently that
9 the increase in common equity costs is not so great as to negate the after-tax
10 overall cost rate advantage of double leverage, as the Company claims.

11 Second, even if we assume that what the Company postulates were true,
12 i.e., if the cost of parent company equity increased dramatically over that of the
13 subsidiary and the overall after-tax cost of capital for the subsidiary did not
14 change as a result of double leverage, there would still be an advantage for
15 ratepayers in considering double leverage. The advantage for ratepayers lies in the
16 pre-tax or ratemaking overall cost of capital.

17 **Q. Can you explain why there is an advantage for ratepayers through a double**
18 **leverage adjustment even if the cost of equity for the parent in your example**
19 **jumps to 14% due to additional leverage?**

20 A. Yes. If we set rates for our example utility subsidiary with a 10% equity return
21 and a 5% debt cost rate, as noted above the after-tax overall cost of capital would
22 be 7.50%. Assuming a 35% tax rate, the pre-tax cost of capital (the cost of capital
23 on which rates are based) would be 10.2% [weighted cost of equity $5\% / (1 - 35\%) +$
24 weighted cost of debt 2.5% = 10.19%].

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Table E
 SUBSIDIARY PRE-TAX OVERALL COST OF CAPITAL

	<u>Amount</u>	<u>Percent</u>	<u>Cost</u>	<u>Wt. Cost</u>	<u>Pre-tax Cost</u>
Common Equity	\$200	50%	10.00%	5.00%	7.69%
Subsidiary Debt	<u>\$200</u>	<u>50%</u>	5.00%	<u>2.50%</u>	<u>2.50%</u>
Totals	\$400	100%		7.50%	10.19%

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As noted previously, a double leverage adjustment for the subsidiary considers its \$200 of equity capital to be financed with \$100 of parent debt and \$100 of parent equity. Therefore setting rates for the subsidiary with a capital structure consisting of 25% common equity (at a 14% cost rate), 25% parent debt (at 6%) and 50% subsidiary debt (at 5%) the after-tax overall cost of capital is also 7.50% [14% x 25% + 6% x 25% + 5% x 50%]. The pre-tax or ratemaking cost of capital, however, is 9.4% [3.5% weighted cost of equity/(1-35%)+the weighted cost of parent debt 2.5%+ the weighted cost of subsidiary debt 1.5%=9.38%].

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Table F
 DOUBLE LEVERAGED PRE-TAX OVERALL COST OF CAPITAL

	<u>Amount</u>	<u>Percent</u>	<u>Cost</u>	<u>Wt. Cost</u>	<u>Pre-tax Cost</u>
Parent Equity	\$100	25%	14.00%	3.50%	5.38%
Parent Debt	\$100	25%	6.00%	1.50%	1.50%
Subsidiary Debt	<u>\$200</u>	<u>50%</u>	5.00%	<u>2.50%</u>	<u>2.50%</u>
Totals	\$400	100%		7.50%	9.38%

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Therefore, even if it were true that the increase in the parent company cost of equity made the after-tax cost of capital for double leverage identical to the stand-alone situation, ratepayers are disadvantaged if the regulator ignores the additional leverage at the parent company level. In our example, the pre-tax cost of capital of the stand-alone subsidiary is 10.2% and the pre-tax overall cost of capital of the double leveraged Company is substantially lower at 9.4%, even when the after-tax overall cost of capital is the same.

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1 Finally, it is important to underscore the fact that it is not reasonable to
2 believe, as the Company claims, that a double leverage adjustment makes no
3 difference in the after-tax overall return due to the increase in the cost of equity at
4 the parent level. The evidence indicates that the increase in common equity
5 capital costs are on the order of 1%, not 4% as shown in the example. However,
6 even if there were a dramatic increase in equity cost that caused the after-tax
7 overall return of a double leveraged capital structure to be the same as that of a
8 stand-alone capital structure, the discussion above shows that utility rates would
9 still be too high absent a double leverage adjustment.

10 **Q. You noted in your discussion previously that you estimate that the additional**
11 **debt at MEHC would increase its common equity costs by about 1% above**
12 **that of PacifiCorp. How have you estimated the cost of equity impact of an**
13 **increase in debt leverage?**

14 A. I have examined the change in the cost of equity due to increased leverage in two
15 ways. First, the impact of debt leverage on the cost of equity capital can be
16 approximated through an examination of the changes in beta, which occurs when
17 leverage is increased or decreased.

18 The Value Line betas for the sample companies used in my cost of capital
19 analysis in this proceeding reflect the market's (investors') perception of both the
20 business risks and the financial risks of a firm. That is, one portion of the beta of a
21 firm is related to the business risk of the firm (the risk inherent in its operations)
22 and one portion of the beta is related to the financial risk of that firm (the risk
23 associated with the use of debt). Therefore, if a firm elects to finance its
24 operations with debt as well as equity, the beta coefficient of that firm will reflect
25 both the business and financial risk. When a firm uses debt to finance its

1 operations, the beta can also be referred to as a “levered” beta (i.e., a beta
2 coefficient that includes the impact of debt leverage).

3 The average beta coefficient of the sample group of utilities can be
4 “unlevered.” That is, the beta-risk related to the level of debt capital used by the
5 firm can be removed. “Unlevering the betas” amounts to estimating what the
6 average beta would be if the companies were financed entirely with equity capital.
7 Equation (1) is used to estimate the unlevered beta for a firm or a group of
8 similar-risk firms.²

9

$$\beta_U = \frac{\beta_{\text{Measured}}}{(1+(1-t)D/E)} \quad (1)$$

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12 Equation (1) indicates that an estimate of the unlevered beta (β_U) of a firm
13 can be calculated by dividing the measured beta (β_{Measured} , e.g. the beta
14 coefficient reported by investor services such as Value Line) by one plus the
15 average debt-to-equity ratio, adjusted to account for taxes. The debt-to-equity
16 ratio is measured using the average market value of the sample group’s common
17 equity capital. Once the unlevered beta for the firm (or, in this case, for the
18 sample group of market-traded utility companies) is calculated, the beta
19 coefficient is “re-levered” and adjusted to conform to the double leveraged capital
20 structure arising from the use of debt at MEHC. For purposes of determining the
21 additional common equity risk arising from double leverage, the common equity
22 ratio of the capital structure to be examined is that of MEHC, which is projected
23 to be 29% of total capital following the merger with PaicifCorp.³ The formula

² Equation (1) is a version of the Hamada equation which combines the Miller-Modigliani theories regarding capital structure and the logic of the CAPM: Hamada, R.S., “Portfolio Analysis, Market equilibrium and Corporation Finance,” *Journal of Finance*, March 1969, pp. 13-31.

³ Docket No. UE-051090, testimony of Patrick Goodman, Exhibit No.__(PJG-1T), p. 5.

1 used to “re-lever” the utility betas is shown below.

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$$\beta_{\text{Relevered}} = \beta_U (1 + (1-t)D/E) \quad (2)$$

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5 Equation (2) states that the relevered beta equals the unlevered beta (β_U)
6 multiplied times one plus the target debt-to-equity ratio (in this case MEHC’s
7 consolidated capital structure—29% equity/71% debt), again adjusted for taxes.

8 Exhibit No. __ (SGH-19) shows that, the average capital structure of the
9 sample group of electric companies used to estimate the cost of equity capital in
10 my direct testimony consists of 45.92% common equity and 54.08% fixed-income
11 capital. That capital structure, adjusted to market levels by an average 1.69
12 market-to-book ratio and accounting for a 35% tax rate, produces a value for (1-
13 t)D/E in Equation (1) of 0.49.

14 Exhibit__ (SGH-19) shows further that the measured (average Value Line)
15 beta coefficient of the sample group of utility firms is 0.76, and the unlevered beta
16 coefficient of those firms (i.e., what the average beta would be if those firms were
17 financed entirely with common equity) is 0.51. When that beta is “relevered”
18 using the methodology described above to conform to MEHC’s consolidated
19 capital structure, the resulting average beta coefficient is 0.99, an increase in beta
20 of 0.23 due to the sample group’s higher average equity capitalization
21 [“measured” beta of 0.76 vs. “relevered” beta of 0.99].

22 Finally, with the increase in beta determined, the CAPM can be used to
23 estimate the impact of that adjustment on the cost of capital. A review of the
24 CAPM equation (Equation (i) in Exhibit__ (SGH-5)) indicates that the beta
25 coefficient is multiplied by the market risk premium ($r_m - r_f$) as a step in the
26 determination of the cost of capital. Therefore, it is possible to measure the impact

1 of an adjustment to beta by multiplying the difference in the measured and
2 relevered betas of the electric companies by the market risk premium.

3 As I noted in my discussion of the CAPM analysis in Exhibit No. __ (SGH-
4 5), the long-term historical market risk premium provided by Ibbotson
5 Associates' historical database is 5% to 6.6%. I also discuss, in Exhibit No.
6 __ (SGH-5), the fact that the most recent research by Fama and French regarding
7 the market risk premium indicates that the Ibbotson historical risk premium data
8 overstate investor expectations, which are a return of 2.5% to 4.5% over the risk-
9 free rate of interest.⁴ Ibbotson has also published a paper recently, which indicates
10 that investors can expect returns in the future of from 4% to 6% above the risk-
11 free rate in the future.⁵ Therefore, for purposes of this analysis, I will use a range
12 of market risk premium from 3% to 6%.

13 As shown in Exhibit No. __ (SGH-19), an increase in the average beta
14 coefficient of 0.21, multiplied by a market risk premium ranging from 3% to 6%,
15 indicates an increase in the cost of equity capital due to additional leverage at
16 MEHC of from 68 to 150 basis points ($0.23 \times 3\% - 6\% = 0.68\% - 1.50\%$). The mid-
17 point of that range is 1.09%.

18 The cost of common equity for PacifiCorp, presented in my direct
19 testimony is 9.125%. Recognizing the increase in financial risk due to leverage at
20 the parent company and MEHC's projected 29% common equity ratio, an
21 increase in the cost of equity of 100 basis points is reasonable. In my opinion
22 10.125% would be reasonable equity return for a double leverage ratemaking
23 adjustment for PacifiCorp.

⁴ Fama, E., French, K., "The Equity Premium," *The Journal of Finance*, Vol. LVII, No. 2, April 2002, pp. 637-659.

⁵ Ibbotson, R, Chen, P., "Long-Run Stock Returns: Participating in the Real Economy," *Financial Analysts Journal*, January/February 2003, pp. 88-89.

1 **Q. What is the second method of estimating the impact of leverage on the cost of**
2 **equity?**

3 A. The second method I have used to estimate the impact of increased leverage on
4 the cost of equity doesn't employ beta. This method of measuring the impact of
5 leverage on the cost of equity utilizes an iterative technique and is shown in
6 equation (3) below:

7

$$8 \quad k_e = k_u + (k_u - i)(1 - t) B/S. \quad (3)$$

9

10 Equation (3) states that the cost of common equity (k_e) equals the unlevered cost
11 of equity (the cost of equity if the firm had no debt capital — k_u), plus the
12 unlevered cost of equity minus the current marginal debt cost rate (i), times the
13 market value debt-to-equity ratio adjusted for taxes ($(1 - t) B/S$). Using the
14 current yield for Baa-rated utility debt (5.95%, *Value Line Selection & Opinion*,
15 January 13, 2006, p. 1337) as the marginal cost rate for utility debt, the cost of
16 equity estimate of 9.125% provided in my Direct Testimony and the average tax-
17 adjusted debt to capital ratio of the sample group of electric companies (0.49,
18 shown in Exhibit__(SGH-19), Equation (3) can be solved iteratively for the
19 unlevered cost of equity. The result is 8.08%, as shown below.

$$20 \quad 9.125\% = 8.08\% + (8.08\% - 5.95\%)(0.49)$$

21 The unlevered cost of equity (8.08%) and the same formula can be used to
22 estimate the re-levered cost of equity appropriate for a double leveraged capital
23 structure that contains 29% common equity (MEHC's consolidated common
24 equity ratio). As shown in Exhibit No.__(SGH-19) the tax-adjusted debt ratio
25 factor for the MEHC capital structure is 0.94. The result of that re-leveraging is an
26 equity cost of 10.08%. A re-levered cost of equity of 10.08% is 0.955% higher

1 than the cost of equity for PacifiCorp, and slightly below the 100 basis point
2 estimate provided by the beta analysis.

3

4
$$10.08\% = 8.08\% + (8.08\% - 5.95\%)(0.94)$$

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6 This second analysis, indicates that my initial analysis based on beta, which
7 indicates an equity cost increase of 1%, is generally accurate, but may be
8 overstated.

9 **Q. The Company indicates that a double leverage adjustment is unnecessary**
10 **due to the ring-fencing measures that MEHC is willing to implement, which**
11 **will shield PacifiCorp from financial risk at the parent company. Is this**
12 **correct?**

13 A. No. Ring-fencing is a corporate structure that will prevent the parent company
14 from “raiding” utility assets in the event of financial troubles at the parent
15 company level. That serves as protection in the event of a parent-company
16 financial emergency, which the parties believe is a real but remote possibility.
17 Ring-fencing will have no impact whatsoever on the day-to-day equity return
18 relationship between the subsidiary and the parent. Absent a regulatory
19 adjustment to recognize the existence of double leverage, the parent company will
20 earn a higher return on common equity than that earned by the subsidiary because
21 of the additional debt. Ring-fencing does nothing to abate the problem of over-
22 earning at the parent company level.

23 **Q. The Company also indicates that utilizing debt at the parent company level**
24 **for setting utility subsidiary rates is not a balanced approach because utility**
25 **ratemaking does not consider the acquisition adjustment which also resides**
26 **at the parent level. If the Commission utilizes a double-leverage adjustment,**

1 **should it also include the acquisition adjustment in regulated utility rate**
2 **base?**

3 A. No. Rates are based on the depreciated original cost of used and useful utility
4 assets. The acquisition premium is the difference between the market price paid
5 for the utility assets and the depreciated original cost (book value) of those assets.
6 It does not represent utility rate base and should not be included in setting rates
7 for the utility. The use of an acquisition adjustment in ratesetting would
8 effectively turn cost-based ratemaking into “deal-based” ratemaking. In other
9 words, a firm could earn a return on whatever they paid for utility assets. Such a
10 regulatory paradigm would not promote economic efficiency and was long ago
11 rejected in favor of depreciated original cost ratemaking in the U.S.

12 Moreover, it is reasonable to believe MEHC management was quite aware
13 that utility rates are based on depreciated original cost when they elected to
14 purchase PacifiCorp for an amount that exceeded its book value, because that is
15 long-standing regulatory practice. Also, in purchasing PacifiCorp, MEHC elected
16 to use both debt and equity capital—adding additional leverage to the debt already
17 carried by PacifiCorp.

18 Also the capital structure used in ratemaking represents the mix of capital
19 used to finance the assets of the Company and that mix of assets is assumed to
20 finance the portion of the Company that represents utility rate base. Although it is
21 often assumed that the amount of capital employed by a firm is equivalent to the
22 amount of utility assets (rate base), in practice that is rarely the case.

23 Finally on this point, the Company’s position that consideration of
24 additional debt at the parent level calls for consideration of the acquisition
25 premium for subsidiary ratemaking purposes incorrectly attributes the financing
26 of the acquisition premium solely to debt. In fact the purchase of PacifiCorp is to

1 be carried out with \$5.1 Billion in cash and \$4.3 Billion in debt.⁶ Clearly the
2 acquisition premium will not be financed exclusively with debt and, because
3 capital dollars are not color-coded it is not possible to discern what type of capital
4 finances any particular asset. Moreover, as projected by the Company the
5 financing of PacifiCorp actually improves MEHC's consolidated capital structure
6 and lessens the impact of a double leverage adjustment. Therefore, in my view,
7 there is no nexus between the consideration of double leverage for determining an
8 appropriate cost of capital and the consideration of any portion of the acquisition
9 adjustment in rate base.

10 **Q. If this Commission sets rates for PacifiCorp in expectation of the acquisition**
11 **by MEHC and uses a double leverage adjustment, what overall return**
12 **should be applied to PacifiCorp's rate base in Washington?**

13 A. Exhibit No. ___(SGH-20) shows the calculation. The basis for the calculation is
14 my recommendation for a stand-alone capital structure presented in Exhibit No.
15 ___(SGH-17) attached to my direct testimony in this proceeding. The equity ratio
16 contained in that capital structure is 44% of total capital.

17 Next, the parent-only capital structure subsequent to the merger of
18 PacifiCorp and MEHC is examined to determine the relative amounts of equity
19 and debt with which MEHC's parent company operations are capitalized.
20 According to post-merger data provided by MEHC witness Patrick Goodman in
21 Docket No. UE-051090, the parent company operations will be capitalized with
22 about 52% equity and 42% debt.

23 Breaking down PacifiCorp's 44% common equity into amounts financed by
24 MEHC debt and MEHC equity produces the double-leverage capital structure for
25 PacifiCorp shown at the bottom of page of ___(SGH-20). That capital structure

⁶ MEHC/PacifiCorp Joint Application, p. 6, Docket No. UE-051090.

1 contains 22.78% parent company equity, 21.22% parent company debt, 1.0%
2 PacifiCorp preferred stock, 52% PacifiCorp long-term debt and 3.0% PacifiCorp
3 short-term debt. The parent company equity has a parent company risk-adjusted
4 cost rate of 10.125%, the parent company long-term debt has a cost rate of
5 7.76%.⁷

6 The overall after-tax cost of capital for PacifiCorp on a stand-alone basis is
7 7.52%. The overall after-tax cost of capital for PacifiCorp adjusted for double
8 leverage is 7.45%. On a pre-tax basis, assuming a 38% tax rate, the overall cost of
9 capital for PacifiCorp stand-alone would be 10.02%; and the double leveraged
10 overall cost of capital would be 8.90%. That 1.12% difference in pre-tax overall
11 return, times the Company's requested jurisdictional rate base in this proceeding
12 (\$615.154 Million) indicates that a double-leverage adjustment would reduce
13 rates to Washington ratepayers by \$6.89 Million annually [(10.02% - 8.90%) x
14 \$615.154 Million = \$6.89 Million].

15 **Q. Are there any specific comments your have regarding the testimony of**
16 **Company witness Vander Weide?**

17 A. Yes. The majority of Dr. Vander Weide's testimony targets the problems with a
18 double-leverage treatment in which the additional risk of debt leverage at the
19 parent company level is not recognized in the ratemaking process at the subsidiary
20 level. However, that is not my testimony in this proceeding. I have specifically
21 identified the additional costs associated with parent company leverage and have
22 incorporated them into my ratemaking recommendations for PacifiCorp.

23 Therefore, much of Dr. Vander Weide's testimony regarding the theoretical

⁷ Data provided in Company's Response to Public Counsel Data Request No. 189. Weighted average cost of parent-only debt at 9/30/05. Included in that cost rate are 11% preferred trust securities held by Berkshire Hathaway.

1 shortcomings of “typical” double-leverage treatment is not relevant to my
2 testimony.

3 For example, as Dr. Vander Weide notes in his discussion of buying stock
4 “on margin,” on page 4 of his testimony:

5
6 “A leveraged investor incurs more risk only if he expects to
7 earn a higher return. Although double-leverage proponents
8 argue that a leveraged investor should expect no greater
9 return than a non-leveraged investor, fortunately for
10 personal finance decisions, most stock buyers realize
11 otherwise.”

12 This proponent of double-leverage does not take the position that “a leveraged
13 investor should expect no greater return than a non-leveraged investor,” and Dr.
14 Vander Weide’s criticisms of that approach do not apply to my recommendations
15 in this proceeding.

16 **Q. Does this conclude your supplemental testimony?**

17 **A.** Yes, it does.