

**STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION**

**Liberty Utilities (Midstates Natural
Gas) Corp. d/b/a Liberty Utilities** :
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:
Proposed General Increase in : Docket No. 14-0371
Natural Gas Rates :

SURREBUTTAL TESTIMONY OF

ROBERT B. HEVERT

SUSSEX ECONOMIC ADVISORS, LLC

SUBMITTED ON BEHALF OF

LIBERTY UTILITIES (MIDSTATES NATURAL GAS) CORP. D/B/A LIBERTY UTILITIES

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1 **ILLINOIS COMMERCE COMMISSION**

2 **DOCKET NO. 14-0371**

3 **SURREBUTTAL TESTIMONY**

4 **OF**

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6 **SUSSEX ECONOMIC ADVISORS, LLC**

7 **Submitted on Behalf Of**

8 **Liberty Utilities**

9 **I. INTRODUCTION**

10 **Q. Please state your name, affiliation and business address.**

11 A. My name is Robert B. Hevert. I am Managing Partner of Sussex Economic
12 Advisors, LLC (“Sussex”). My business address is 161 Worcester Road, Suite
13 503, Framingham, Massachusetts 01701.

14 **Q. Are you the same Robert B. Hevert who previously sponsored direct and
15 rebuttal testimony in this proceeding?**

16 A. Yes, I am. I provided direct testimony (“Direct Testimony”) and rebuttal testimony
17 (“Rebuttal Testimony”) before the Illinois Commerce Commission (“Commission”)
18 on behalf of Liberty Utilities (Midstates Natural Gas) Corporation d/b/a Liberty
19 Utilities (“Liberty Utilities” or the “Company”), an indirect wholly owned subsidiary
20 of Algonquin Power & Utilities Corp. (“APUC”).

21 **II. PURPOSE AND OVERVIEW OF TESTIMONY**

22 **Q. What is the purpose of your Surrebuttal Testimony?**

23 A. The purpose of my Surrebuttal Testimony is to respond to the rebuttal testimony
24 of Ms. Rochelle M. Phipps on behalf of the Staff of the Illinois Commerce
25 Commission as her rebuttal testimony relates to the Company's Return on Equity
26 ("ROE"), capital structure and cost of debt. My analyses and conclusions are
27 supported by the data presented in Schedules 10.1 through 10.3, which have
28 been prepared by me or under my direction.

29 **Q. How is the remainder of your Surrebuttal Testimony organized?**

30 A. The remainder of my Surrebuttal Testimony is organized as follows:

- 31 • Section III – Provides a summary of my primary conclusions and
32 recommendations;
- 33 • Section IV – Provides my response to Ms. Phipps' regarding the
34 Company's cost of capital and capital structure; and
- 35 • Section V – Summarizes my conclusions and recommendations.

36 **III. SUMMARY OF TESTIMONY**

37 **Q. Please summarize the key issues and recommendations addressed in your**
38 **Surrebuttal Testimony.**

39 A. In my Direct Testimony, I recommended a Return on Equity ("ROE") of 10.50
40 percent, based on a range of 10.00 percent to 10.50 percent. I also found that
41 the Company's capital structure, which included 58.30 percent common equity
42 and 41.70 percent long-term debt, was generally consistent with those in place at
43 the proxy companies used in my analyses. As to the Company's 4.78 percent

44 proposed cost of debt, I found that cost rate was consistent with, although lower
45 than the average debt cost rates approved for natural gas utilities during the
46 twelve months ended January 2014. Based on that observation, I concluded that
47 the Company's proposed cost of debt was reasonable and appropriate.¹

48 In my Rebuttal Testimony, I maintained my recommended range of 10.00
49 percent to 10.50 percent, and my 10.50 percent point estimate. My Rebuttal
50 Testimony also supported the Company's revised proposed capital structure
51 (updated to 60.10 percent), and cost of debt. In addition to supporting those
52 proposals, my Rebuttal Testimony responded to several points raised by Ms.
53 Phipps; those points generally related to Staff's proposed hypothetical capital
54 structure, its recommended ROE, and the interactions between the two. In
55 general, I found that Ms. Phipps' proposed capital structure, which included
56 56.49 percent debt, reflected an unreasonably high degree of financial leverage,
57 and that her proposed ROE (9.23 percent) did not adequately reflect either the
58 Company's business risk in general, or the increased financial risk created by her
59 proposed capital structure.²

60 My Surrebuttal Testimony responds to Ms. Phipps' revised hypothetical
61 capital structure, and to certain methodological issues raised in her rebuttal
62 testimony. As discussed later in my Surrebuttal Testimony, I appreciate that Ms.
63 Phipps revised both her proposed capital structure and cost of debt. That said, I
64 continue to believe that Ms. Phipps' proposed equity ratio (now 45.59 percent)

¹ Direct Testimony of Robert B. Hevert, at 2 – 3.

² Direct Testimony of Robert B. Hevert, at 16 – 18.

65 remains overly leveraged. Not only is the Company's actual capital structure
66 significantly less leveraged than Ms. Phipps' proposal, a number of other
67 benchmarks ranging from 56.40 percent equity to 50.07 equity (with a middle
68 estimate of 51.48 percent equity) that I discuss later in my testimony confirm that
69 a higher equity ratio than that proposed by Ms. Phipps is reasonable. In addition,
70 Ms. Phipps' proposed ROE (still 9.23 percent) remains inadequate relative to the
71 business risks to which the Company is exposed and the financial risks
72 introduced by her proposed capital structure. As to methodological issues, Ms.
73 Phipps' rebuttal testimony has not caused me to revise either my analytical
74 approach or my ROE recommendation.

75 Those areas of disagreement aside, I understand that in order to narrow
76 the scope of contested issues in this proceeding, the Company is willing to
77 accept Ms. Phipps' recommended 0.46 percent short-term debt ratio, 1.41
78 percent cost of short-term debt, and 4.81 percent cost of long-term debt. This
79 leaves the ROE, the equity ratio and the long-term debt ratio as the unresolved
80 issues concerning the cost of capital (including weighted average cost of capital,
81 and interest synchronization).

82 **IV. RESPONSE TO COMMISSION STAFF WITNESS, MS. PHIPPS**

83 **Q. Please briefly summarize Ms. Phipps' rebuttal testimony.**

84 A. Turning first to the issue of capital structure, Ms. Phipps' somewhat revises the
85 approach and recommendation contained in her direct testimony. Based on the
86 results of her revised capital structure analysis, Ms. Phipps adjusts her

87 recommended equity ratio from 43.51 percent to 45.59 percent.³ Ms. Phipps
88 also updates her Cost of Equity analyses by revising certain of the assumptions
89 and inputs contained in the Multi-Stage DCF and CAPM analyses contained in
90 my Rebuttal Testimony, although she does not revise her ROE recommendation
91 (9.23 percent).⁴

92 Ms. Phipps' rebuttal testimony also addresses the following areas of
93 disagreement between our respective analyses and conclusions:

- 94 • The appropriate capital structure for the Company;
- 95 • The long-term growth rate used in the terminal stage of the Multi-Stage
96 DCF model;
- 97 • The payout ratio used in the terminal stage of the Multi-Stage DCF model;
- 98 • The appropriateness of using a forward-looking risk-free rate in the CAPM;
- 99 • The Beta coefficients used in the CAPM;
- 100 • The Market Risk Premium used in the CAPM; and
- 101 • The relevance of the Bond Yield Plus Risk Premium approach.

102 Each of those points is discussed in turn, below.

103 ***Capital Structure***

104 **Q. Please summarize the methods by which Ms. Phipps developed her**
105 **imputed capital structure.**

106 A. In her direct testimony, Ms. Phipps proposed an imputed (or hypothetical) capital
107 structure including 43.51 percent common equity, 56.03 percent long-term debt,
108 and 0.46 percent short-term debt. Ms. Phipps stated that she chose to impute a

³ See Schedule 3.01 and Schedule 8.01.

⁴ Rebuttal Testimony of Rochelle M. Phipps, at 3.

109 capital structure because she did not have confidence in the Company's capital
110 structure data, and because Liberty Utilities Company ("LUC") holds both the
111 Company's debt and equity.⁵

112 To arrive at her imputed capital structure, Ms. Phipps began with a three-
113 year average equity ratio (for her proxy companies) of 49.91 percent and
114 deducted 6.40 percentage points from that amount. Ms. Phipps' downward
115 adjustment was based on her observation that Standard & Poor's ("S&P")
116 currently rates LUC BBB, whereas the proxy group average credit rating is A-.
117 Reasoning that the difference between BBB and A- represents two of the three
118 credit "notch" differences in a letter grade (e.g., the difference between A and
119 BBB), Ms. Phipps reduced her proposed equity ratio by two-thirds of the
120 difference between the equity ratio benchmarks for Moody's equivalent ratings
121 (i.e., the difference between A and Baa).⁶ The resulting equity ratio, then, was
122 43.51 percent (i.e., 49.91 percent less 6.40 percent).

123 Ms. Phipps then calculated the net short-term debt ratio (0.46 percent)
124 based on the proportion of LUC's December 31, 2013 average annual net short-
125 term debt balance relative to its capital structure, including ratemaking
126 adjustments. In that calculation, net short-term debt represented the difference
127 between gross short-term debt outstanding, and the amount of Construction
128 Work in Progress ("CWIP") accruing an Allowance For Funds Used During

⁵ Direct Testimony of Rochelle M. Phipps, at 4 – 5. Please see also Rebuttal Testimony of Robert B. Hevert at 9 – 11.

⁶ Direct Testimony of Rochelle M. Phipps, at 5 – 6.

129 Construction (“AFUDC”).⁷ Ms. Phipps’ long-term debt ratio simply was the
130 difference between 100.00 percent and the sum of (1) the imputed equity ratio;
131 and (2) the assumed short-term debt ratio.⁸

132 In her rebuttal testimony, Ms. Phipps noted that while her calculation of
133 LUC’s short-term debt balances were net of CWIP, the short-term debt amounts
134 used to calculate her initial 49.91 percent equity ratio were not.⁹ To address that
135 inconsistency, Ms. Phipps “reversed the order of operations”, such that she
136 allocated LUC’s 4.99 percent gross short-term debt ratio between the common
137 equity and long-term debt amounts, respectively.¹⁰ Although somewhat complex,
138 Schedule 10.1 replicates the steps used to arrive at the imputed capital
139 structures contained in Ms. Phipps’ direct and rebuttal testimonies, respectively.

140 **Q. Do you have any preliminary observations regarding Ms. Phipps’ revised**
141 **imputed capital structure?**

142 A. Yes, I do. As discussed in more detail below, it is unclear that the data Ms.
143 Phipps relies on to develop her proposed ROE adjustment is directly comparable
144 to the data she uses to develop her beginning capital structure estimate. The
145 imputed capital structure that Ms. Phipps creates in her rebuttal testimony is
146 premised on her assumption that the prevailing equity ratio for BBB-rated gas
147 utilities is 43.51 percent. As noted earlier, Ms. Phipps’ assumed 43.51 percent
148 equity ratio is based on two assumptions: (1) the prevailing equity ratio for A-

⁷ See Staff Exhibit 3.0, Schedule 3.03.

⁸ Direct Testimony of Rochelle M. Phipps, at 6.

⁹ Rebuttal Testimony of Rochelle M. Phipps, at 3 – 4.

¹⁰ *Ibid.*

149 rated utilities is 49.91 percent; and (2) the difference in equity ratios of A and
150 BBB-rated utilities equals two-thirds of the difference in the mid-point equity ratio
151 benchmarks for A and Baa-rated companies (as defined by Moody's). According
152 to Ms. Phipps, the latter assumption represents a difference of 6.40 percentage
153 points. As I shall discuss, Ms. Phipps' approach and assumptions are suspect.

154 In essence, Ms. Phipps relies on reported capital structure data to
155 establish the baseline equity ratio for A-rated utilities on the one hand, and rating
156 agency guidelines to calculate the 6.40 percentage point decrement associated
157 with BBB-rated utilities on the other. An important question, then, is whether the
158 two are sufficiently comparable that differences in rating agency guidelines can
159 be applied to accounting data for the purpose of creating a reasonable
160 hypothetical capital structure. As a point of reference, Schedule 10.3
161 demonstrates that the average authorized equity ratio since January 2013 for
162 BBB-rated natural gas utilities was 50.07 percent, or 4.48 percentage points
163 above Ms. Phipps' 45.59 percent imputed equity.

164 **Q. Is there reason to believe that reported capital structure data may differ**
165 **from rating agency benchmarks?**

166 A. Yes, there is. Moody's, the source on which Ms. Phipps relies for her 6.40
167 percentage point adjustment, has noted it makes a series of adjustments to the
168 ratio of debt to capitalization:

169 This ratio is a traditional measure of balance sheet leverage.
170 The numerator is total debt and the denominator is total
171 capitalization. All of our ratios are calculated in accordance with
172 Moody's standard adjustments, but we note that our definition of
173 total capitalization includes deferred taxes in addition to total
174 debt, preferred stock, other hybrid securities, and common

175 equity.¹¹

176 It is therefore quite possible that Moody's definition of "total capitalization"
177 may differ from the data gathered by Ms. Phipps. As to its "standard
178 adjustments", Moody's considers several categories, including:

- 179 • Underfunded and unfunded defined benefit pensions
- 180 • Operating leases
- 181 • Off-balance sheet finance leases
- 182 • Capitalized interest
- 183 • Capitalized development costs
- 184 • Interest expense related to discounted long-term liabilities other than
185 debt
- 186 • Hybrid securities
- 187 • Securitizations
- 188 • Inventory on a LIFO cost basis
- 189 • Different measures of working capital under IFRS
- 190 • Unusual and non-recurring items¹²

191 Although it is unclear whether or to what extent those adjustments would
192 be made to the accounting data on which Ms. Phipps relies, the simple fact that
193 Moody's tends to apply such adjustments calls into question the premise of Ms.
194 Phipps' calculation.

195 One perspective on the potential differences between the accounting data
196 and rating agency guidelines is the midpoint of the Moody's guidelines for A-

¹¹ Moody's Investors Service, *Rating Methodology: Regulated Electric and Gas Utilities*, December 23, 2013, at 23.

¹² Moody's Investors Service, *Rating Implementation Guideline: Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations*, December 21, 2010, at 4 – 5.

197 rated companies. Moody's presents guidelines for both its "Standard Grid" and
198 its "Low Business Risk Grid"; it is unclear whether or how Ms. Phipps relied on
199 one or both of those "Grids" in developing her 6.40 percentage point adjustment.
200 As Table 1 (below) demonstrates, assuming the midpoint of the ranges (as Ms.
201 Phipps had done) indicates that the Moody's guidelines imply equity ratios for A-
202 rated companies in the range of 55.00 percent to 60.00 percent. The midpoint of
203 that range, 57.50 percent, is 7.59 percentage points above the 49.91 percent
204 equity ratio that forms the basis of Ms. Phipps' analysis. Applying her 6.40
205 percentage point adjustment to the 57.50 percent midpoint produces an adjusted
206 equity ratio of 51.10 percent, which itself is 5.51 percentage points above Ms.
207 Phipps' 45.59 percent hypothetical equity ratio.

208

Table 1: Moody's Capitalization Benchmarks (A-rated)¹³

<i>Debt/Capitalization</i>		
Standard Grid	35.00%	45.00%
Midpoint	40.00%	
Low Business Risk Grid	40.00%	50.00%
Midpoint	45.00%	
Average of Midpoints	42.50%	
<i>Equity/Capitalization</i>		
Standard Grid	65.00%	55.00%
Midpoint	60.00%	
Low Business Risk Grid	60.00%	50.00%
Midpoint	55.00%	
Average of Midpoints	57.50%	

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The implications of those findings are straightforward: Since the beginning point of Ms. Phipps' analysis is disconnected from the rating agency benchmarks on which she relies for her adjustment, her proposed common equity ratio should be viewed with caution. That is the case even considering Ms. Phipps' revised calculation and capital structure recommendation.

¹³ Moody's Investors Service, *Rating Methodology: Regulated Electric and Gas Utilities*, December 23, 2013, at 24.

215 **Q. Turning to the implications of Ms. Phipps' proposed capital structure, has**
216 **Moody's also commented on the implications of a highly leveraged capital**
217 **structure?**

218 A. Yes, it has. In particular, Moody's noted that:

219 High debt levels in comparison to capitalization can indicate
220 higher interest obligations, can limit the ability of a utility to raise
221 additional financing if needed, and can lead to leverage
222 covenant violations in bank credit facilities or other financing
223 agreements. A high ratio may result from a regulatory
224 framework that does not permit a robust cushion of equity in the
225 capital structure, or from a material write-off of an asset, which
226 may not have impacted current period cash flows but could
227 affect future period cash flows relative to debt.¹⁴

228 I recognize that Moody's considerations are reflected in LUC's current
229 rating. At issue, however, is whether Ms. Phipps' recommendations would
230 support the Company's ability to strengthen its credit profile and, therefore,
231 improve its access to and cost of capital. As discussed below, I do not believe
232 that is the case.

233 **Q. Regarding the issue of short-term debt, what is your response to Ms.**
234 **Phipps' suggestion that you have argued that "short-term debt is not**
235 **financial leverage"?**¹⁵

236 A. Ms. Phipps appears to have misinterpreted my testimony. In my Rebuttal
237 Testimony I noted that the working capital needs funded by short-term debt have
238 a seasonal pattern, and pointed to statements by Algonquin Power & Utilities

¹⁴ Moody's Investors Service, *Rating Methodology: Regulated Electric and Gas Utilities*, December 23, 2013, at 28.

¹⁵ Rebuttal Testimony of Rochelle M. Phipps, at 7.

239 Corporation, Atmos Energy Corporation, and Laclede Gas to that effect.¹⁶ I do
240 not disagree that portions of working capital are included in the Company's rate
241 base, nor do I disagree that permanent net working capital should be financed
242 with long-term securities.¹⁷ My point simply is that there is an element of short-
243 term debt that is seasonal in nature and therefore not associated with permanent
244 assets. That position is consistent with S&P, which noted that:

245 Due to distortions in leverage measures from the substantial
246 seasonal working-capital requirements of natural gas
247 distribution utilities, we adjust inventory and debt balances by
248 netting the value of inventory against outstanding short-term
249 borrowings. This adjustment provides an accurate view of the
250 company's balance sheet by reducing seasonal debt balances
251 when we see a very high certainty of near-term cost recovery.¹⁸

252 In any event, I recognize that Ms. Phipps' hypothetical capital structure
253 includes only 0.46 percent short-term debt, which I do not believe is
254 unreasonable, and which the Company has accepted. As discussed above,
255 although I appreciate that Ms. Phipps has adjusted her imputed common equity
256 ratio by reference to short-term debt, I continue to believe that her recommended
257 capital structure is too highly leveraged and that her proposed 9.23 percent ROE
258 does not fully reflect the risks associated with that degree of leverage.

259 **Q. Please summarize Ms. Phipps' assessment of the effect of her**
260 **recommendations on the Company's pro forma credit metrics.**

261 **A.** On page 15 of her rebuttal testimony, Ms. Phipps pointed to the 3.48x pro forma

¹⁶ See Rebuttal Testimony of Robert B. Hevert, at 22 – 23.

¹⁷ See Rebuttal Testimony of Rochelle M. Phipps at 8; ICC Staff Ex. 6.0, at 15.

¹⁸ Standard & Poor's Ratings Service, *Key Credit Factors For The Regulated Utilities Industry*, November 19, 2013, at 13.

262 pre-tax coverage ratio (based on the recommendations contained in her direct
263 testimony) included in my Rebuttal Testimony, and made two observations.
264 First, Ms. Phipps suggested that the result was obvious in that lower-rated
265 companies would have lower coverage ratios. Second, Ms. Phipps suggested
266 that the 3.48x ratio falls within the benchmark for Baa-rated utilities, as stated by
267 Moody's. On page 30 of her rebuttal testimony, Ms. Phipps points to a series of
268 pro forma calculations that she produced, and concludes that her
269 recommendations "should not have any negative effect on the financial strength
270 of LUC."

271 **Q. Turning first to the points made on page 15 of her rebuttal testimony, what**
272 **is your response to Ms. Phipps?**

273 A. Ms. Phipps' suggestion that the lower pro forma coverage ratio should be
274 expected is misplaced. As shown on Schedule 7.15 of my Rebuttal Testimony,
275 the implied 3.48x coverage ratio is below any of the proxy companies' ratios.
276 The relevant issue is not whether that ratio is appropriate in the context of the
277 Company's credit rating. Rather it is whether Ms. Phipps' recommendations are
278 supportive, or not, of the Company's financial profile. Because it would only
279 perpetuate the Company's relatively low level of pre-tax interest coverage, I do
280 not believe Ms. Phipps' recommendations are supportive.

281 In addition, Ms. Phipps seems to have misinterpreted my analysis. As
282 noted in Schedule 7.15 of my Rebuttal Testimony, the source of the proxy
283 companies' coverage ratios was their SEC Form 10-K filings; it was not Moody's,

284 as Ms. Phipps suggests.¹⁹ That distinction is important because Moody's
285 coverage ratios are based on Funds From Operations, not Pre-Tax Income.
286 Consequently, Ms. Phipps' comparison of the pro forma coverage ratios
287 contained in my Schedule 7.15 to Moody's coverage ratios is in error.

288 **Q. Regarding the issue of pro forma coverage ratios, what is your response to**
289 **Ms. Phipps' assessment of her recommendations relative to Standard &**
290 **Poor's benchmarks?**²⁰

291 A. Although I do not disagree with Ms. Phipps' calculations, I do disagree with the
292 conclusions she draws from those calculations. Ms. Phipps suggests that her
293 recommendations produce a "significant" risk profile which, when combined with
294 the Company's "Strong" business profile, corresponds to an implied S&P rating of
295 BBB.²¹ As shown in Schedule 10.2, the same would hold true assuming an ROE
296 of 10.00 percent (that is, the bottom of my recommended range), and an equity
297 ratio of 51.10 percent (based on the calculations noted earlier). If the objective is
298 to maintain the Company's current BBB rating, both sets of recommendations
299 would apply. As a practical matter, however, the Company must continue to
300 compete for capital; that will be the case should the capital markets undergo a
301 future credit contraction. On balance, therefore, recommendations (such as Ms.
302 Phipps') that put incremental pressure on credit metrics should be viewed with
303 caution.

19 See Rebuttal Testimony of Rochelle M. Phipps, at 15 – 16.

20 *Ibid.*, at 30.

21 *Ibid.*

304 **Q. What concerns does Ms. Phipps express with respect to the Hamada**
305 **equation, which you used to estimate the effect of Ms. Phipps' proposed**
306 **equity ratio adjustment on Liberty's ROE?**

307 A. Ms. Phipps suggests that the Hamada equation "wrongly assumes the cost of
308 debt equals the risk-free rate" and that my application of the Hamada equation
309 oversimplified the effect of the capital structure on the cost of capital because the
310 Hamada equation "fails to recognize that the cost of debt is also directly related
311 to changes in financial leverage."²²

312 **Q. Do you share Ms. Phipps concerns about the Hamada equation and its**
313 **application in your Rebuttal Testimony?**

314 A. No, I do not. All cost of capital models rely on simplifying assumptions. The
315 Hamada equation, however, is relied on by both investors and industry
316 practitioners. For example, Morningstar's 2013 Valuation Yearbook notes the
317 levered Beta coefficient "is a helpful tool in examining the effects of changes in
318 financing or leverage on a company's Cost of Equity" and provides a
319 methodology for calculating unlevered and levered Beta coefficients using the
320 Hamada equation.²³ Dr. Morin also provides the Hamada equation in New
321 Regulatory Finance as a means of estimating the effect of a change in capital
322 structure on the Beta coefficient and, therefore, reflecting the increased Cost of
323 Equity associated with additional financial leverage.²⁴

324 I also note that in addressing my analyses, Ms. Phipps relies on methods

²² See Rebuttal Testimony of Rochelle M. Phipps, at 14.

²³ Morningstar, SBBI 2013 Valuation Yearbook at 82-83.

²⁴ See Roger A. Morin, New Regulatory Finance, Public Utility Reports, Inc., 2006, at 221-222.

325 and theories, which themselves are subject to assumptions. Regarding the
326 interaction between the capital structure and the cost of capital, Ms. Phipps
327 states that "...in the absence of taxes and financial distress, capital structure
328 theory holds that the weighted average cost of capital does not change with
329 capital structure."²⁵ That theory, however, assumes that the debt held by firms
330 and individuals is riskless such that the cost of debt is the risk-free rate.²⁶ That is
331 the same assumption that Ms. Phipps found to be disagreeable in the context of
332 the Hamada equation. Moreover, although Ms. Phipps is correct that her theory
333 assumes no financial distress, it is the prospect of financial distress that causes
334 equity holders to require higher returns as financial leverage increases. That is,
335 increased financial leverage concentrates business risks on shareholders. My
336 concern with Ms. Phipps' recommendations continues to be that her
337 recommendation does not adequately compensate shareholders for that
338 additional concentration of risk.

339 **Q. What is your response to Ms. Phipps' observation that facts and**
340 **circumstances that may be relevant to the use of authorized equity ratios**
341 **were not provided in your Direct Testimony?**

342 A. First, I note that Ms. Phipps simply provides additional emphasis to a point that I
343 made in my testimony. As I mentioned at page 14 of my Rebuttal Testimony, "I
344 recognize that there may be differences across regulatory jurisdictions in the
345 calculation of equity ratios, and that viewing one company relative to another

²⁵ Rebuttal Testimony of Rochelle M. Phipps, at 10.

²⁶ Eugene F. Brigham, Louis C. Gapenski, Financial Management, Theory and Practice, 7th ed., the Dryden Press, 1994, at 532.

346 may not always be an apt comparison.” As I also pointed out, however, Ms.
347 Phipps’ recommendation was sufficiently removed from recently authorized
348 capital structures that it was difficult to reconcile the difference. Although I
349 appreciate that Ms. Phipps has somewhat revised her recommendation, her
350 revised equity ratio still represents a significant departure from those authorized
351 in other jurisdictions.

352 In response to Ms. Phipps’ observation, I calculated the average
353 authorized equity ratios for all natural gas companies reported by Regulatory
354 Research Associates and within that group, calculated the average authorized
355 equity ratio for A and BBB-rated natural gas utilities, respectively.²⁷ As shown in
356 Schedule 10.3, the average authorized equity ratio for BBB-rated natural gas
357 utilities was 50.07 percent, or 4.48 percentage points above Ms. Phipps’ revised
358 recommendation; the average equity ratio for A-rated companies was 52.02
359 percent. Although there may remain differences across companies and
360 jurisdictions, authorized equity ratios do provide a relevant metric to assess
361 hypothetical capital structures, such as that proposed by Ms. Phipps. In my view,
362 therefore, the overall average authorized equity ratio of 51.48 percent, and the
363 50.07 percent average ratio for BBB-rated utilities are meaningful benchmarks
364 that may inform the Commission’s decision.

365 Lastly, Ms. Phipps suggests that if the Company’s actual capital structure
366 is adjusted for goodwill, the resulting equity ratio would fall below her
367 recommendation. I understand, however, that the Liberty Midstates acquisition

²⁷ Includes all three notches within each letter grade.

368 was financed with both debt and equity. To the extent that goodwill is removed
369 from the capital structure in the proportions in which it was financed (rather than
370 entirely from equity), the adjustment to the common equity ratio would be less
371 than Ms. Phipps has indicated.

372 **Q. Please now summarize your conclusions regarding the issues surrounding**
373 **the Company's capital structure.**

374 A. I continue to believe that the Company's actual capital structure is appropriate. I
375 also believe that because the beginning point of Ms. Phipps' analysis is
376 disconnected from the rating agency benchmarks on which she relies for her
377 imputed capital structure, her recommendation should be viewed with caution.
378 At the same time, I recognize that the Commission may look to other
379 benchmarks as measures of industry practice and, therefore, as measures of a
380 reasonable imputed capital structure and for confirmation that Ms. Phipps'
381 recommended capital structure is over-leveraged. In my view, the 50.07 percent
382 average authorized equity ratio for BBB-rated companies noted in Schedule 10.3,
383 the 51.48 percent average authorized equity ratio (also noted in Schedule 10.3),
384 and the 56.40 percent proxy group average equity ratio noted in Schedule 4.14 to
385 my Direct Testimony all are appropriate for that purpose. Although the average
386 of those data points is 52.65 percent, the middle of the three observations noted
387 above (i.e., 51.48 percent) also would be a reasonable basis for an imputed

388 equity ratio.²⁸

389 ***Application of the Multi-Stage DCF Analysis***

390 **Q. What are the most significant areas of disagreement between you and Ms.**
391 **Phipps regarding the Multi-Stage DCF model?**

392 A. Ms. Phipps relies on the Multi-Stage DCF methodology and data presented in my
393 Rebuttal Testimony, but adjusts certain input assumptions including: (1)
394 removing the “SV” component of the sustainable growth formula; (2) assuming
395 the long-term payout ratio will remain constant after Value Line’s 2017-2019
396 projection period; and (3) assuming a 4.67 percent long-term growth rate.²⁹ After
397 applying her adjustments, Ms. Phipps calculates a Cost of Equity of 8.00 percent
398 using the Multi-Stage DCF model.³⁰ While I discussed my disagreement with all
399 three of Ms. Phipps’ adjustments to the application of the Multi-Stage DCF model
400 in my Rebuttal Testimony, in her rebuttal testimony Ms. Phipps only responds to
401 my discussion of the latter two adjustments.

²⁸ For example, because the Company has agreed to Ms. Phipps’ 0.46 percent short-term debt ratio, if the Commission were to select 51.48 percent as the equity ratio, the implied long-term debt ratio would be 48.06 percent.

²⁹ See Direct Testimony of Rochelle M. Phipps, at 2.

³⁰ *Ibid.*

402 **Q. Your Rebuttal Testimony noted Ms. Phipps' exclusion of the "SV"**
403 **component of the sustainable growth formula was based on the faulty**
404 **assumption that Value Line did not projected an increase in shares**
405 **outstanding for the Proxy group companies. Did Ms. Phipps respond to**
406 **that point?**

407 A. No, she did not. However, Ms. Phipps continues to exclude the "SV" component
408 of the sustainable growth formula.

409 **Q. What is your response to Ms. Phipps' concern regarding the use of the**
410 **industry average historical payout ratio as the long-term expected payout**
411 **ratio in the Multi-Stage DCF model?**

412 A. Ms. Phipps notes that "[h]istorical data may reflect conditions that may not
413 continue in the future" and further expresses concern that "even if payout ratios
414 were mean reverting, there is no method for determining the true value of that
415 mean let alone the length of time over which the mean reversion will occur."³¹ To
416 support the use of a constant payout ratio, Ms. Phipps reasons that investors are
417 indifferent as to whether their returns come from dividends or capital
418 appreciation.³²

419 However, it is important to recognize that, as noted in my Direct and
420 Rebuttal testimonies,³³ companies adjust their payout ratios to reflect changing
421 capital investment cycles. By relying on Value Line's forecasted payout ratios for
422 the 2017-2019 period, Ms. Phipps' has essentially picked a point in the proxy

³¹ See Rebuttal Testimony of Rochelle M. Phipps, at 16 - 17.

³² *Ibid.*, at 17.

³³ Direct Testimony of Robert B Hevert, at 18-19; Rebuttal Testimony of Robert B. Hevert, at 28.

423 companies' capital investment cycles and has assumed it represents the long-
424 term (that is, in perpetuity) expected financing practices of those companies. I
425 believe it would have been more reasonable for Ms. Phipps to consider historical
426 data, as I have, that covers a range of capital market conditions and individual
427 utility capital investment levels rather than apply a short-term forecast as a long-
428 term estimate.

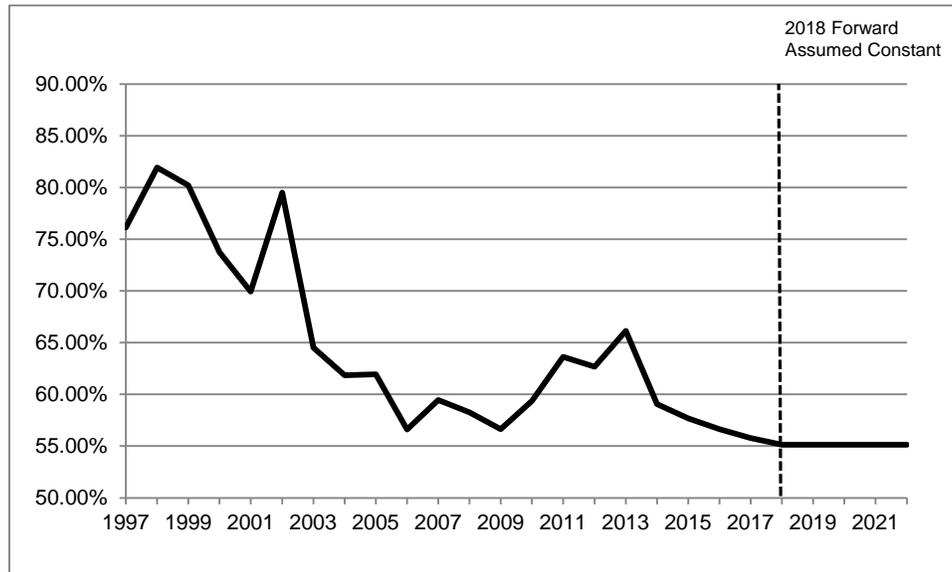
429 In essence, to the extent a process is mean reverting, the long-term mean
430 would be the appropriate measure. In my view, the calculation included in my
431 model represents a reasonably long period and is an appropriate estimate of the
432 expected payout ratio. If Ms. Phipps' concern is that the mean should be
433 calculated over a different time period, she has not suggested an alternative, nor
434 has she demonstrated that my analysis is inappropriate.

435 **Q. What is your concern with Ms. Phipps' assertion that it is not problematic**
436 **to assume a constant payout ratio as of Value Line's 2017-2019 projection**
437 **period?**

438 A. As demonstrated in Chart 1 (below), payout ratios for gas utility companies
439 currently are at the low end of observed historical levels.

440

Chart 1: Proxy Group Average Payout Ratio Over Time³⁴



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Further, Value Line forecasts the proxy group's mean payout ratio will decline from approximately 59.00 percent in 2014 to 55.00 percent during its 2017-2019 projection period.³⁵ I believe it is reasonable to assume the currently low payout ratios are related to the elevated level of capital expenditures the industry is facing in the near term and therefore can be expected to increase over time.³⁶ Ms. Phipps, on the other hand, provides no empirical support for her implicit assumption that there has been a permanent, structural downward shift in natural gas utility company payout ratios. Consequently, it remains reasonable to assume that over the long-term, dividend payout ratios for gas utility companies will converge to their long-term historical median of 68.85 percent.

³⁴ Source: Value Line.

³⁵ See Chart 1.

³⁶ SNL Energy, Financial Focus, Capital Expenditure Update, May 31, 2013, at 1.

452 **Q. Has Ms. Phipps updated her estimate of long-term GDP growth?**

453 A. Yes, she has. Ms. Phipps updated her estimate of long-term GDP growth to 4.67
454 percent (from the 4.57 percent reported in her direct testimony).³⁷

455 **Q. What are the primary differences between Ms. Phipps' long-term growth
456 estimate and yours?**

457 A. Ms. Phipps and I generally agree on the methodology for calculating the long-
458 term GDP growth rate. As explained in her direct testimony, Ms. Phipps
459 calculates nominal long-term GDP growth by combining an estimate of real GDP
460 growth and an estimate of long-term inflation.³⁸ Also, as noted in my Rebuttal
461 Testimony, our methods of calculating inflation are similar and rely on the
462 compound annual difference in the forward yields on U.S. Treasury bonds and
463 U.S. Treasury Inflation Protected Securities.³⁹ However, Ms. Phipps relies on
464 projected real GDP growth estimates from both the Energy Information
465 Administration ("EIA") and Global Insight that end from approximately 26 to 30
466 years from now, while I have considered the long-term average real GDP growth
467 rate over the 1929 to 2013 period.

³⁷ Direct Testimony of Rochelle M. Phipps, at 19; Rebuttal Testimony of Rochelle M. Phipps, at 2.

³⁸ Direct Testimony of Rochelle M. Phipps, at 17.

³⁹ Rebuttal Testimony of Robert B. Hevert, at 29.

468 **Q. What is Ms. Phipps' response to the data presented in Chart 4 of your**
469 **Rebuttal Testimony, which shows Gross Domestic Product ("GDP") growth**
470 **since the post-World War II era has been cyclical but maintained a mean**
471 **reversion level close to the long-term historical average of 3.27 percent?⁴⁰**

472 A. Ms. Phipps suggests the data is somehow irrelevant because it is historical in
473 nature.⁴¹ Ms. Phipps also notes that calculating average long-term growth over
474 more recent periods results in a lower average historical growth rate.⁴²

475 It is unclear, however, why Ms. Phipps is concerned with the use of
476 historical data in the calculation of the long-term expected GDP growth rate when
477 she uses historical data for the calculation of her Beta coefficients. It is important
478 to note that the Energy Information Administration's ("EIA") *Annual Energy*
479 *Outlook 2014* (one source of Ms. Phipps' real GDP growth rate forecasts) also
480 reports long-term historical real GDP growth. Updating their calculation of
481 historical growth to reflect recent Bureau of Economic Analysis revisions and
482 updates to the National Income and Product Accounts ("NIPA"), EIA estimates a
483 long-term historical average real GDP growth rate very similar to mine:

484 Although the 2013 comprehensive NIPA revision did not lead to
485 changes in broad economic trends or in the general patterns of
486 past business cycles, it did increase gross domestic product
487 (GDP) in every year back to 1929. The average annual growth
488 rate of real GDP from 1929 to 2012 was revised upward to
489 3.3%, as compared with the previous estimate of 3.2%.⁴³

490 It is not surprising that Ms. Phipps' calculation of average historical growth

40 Rebuttal Testimony of Robert B. Hevert, at 33.

41 Rebuttal Testimony of Rochelle M. Phipps, at 17 – 18.

42 *Ibid.*, at 18.

43 U.S. Energy Information Administration, *Annual Energy Outlook 2014*, April 2014, at IF-29.

491 over more near-term periods is lower than the long-term historical average
492 growth rate, given the greater effect the recent low GDP growth associated with
493 the “great recession” has on averages calculated using fewer observations.
494 Calculating historical average growth over a longer period of time, such as the
495 1929 to 2013 period used in my analysis (which takes into account economic
496 growth during numerous business cycles and capital market conditions), avoids
497 the potential skewed result of an estimate based on a sample period that
498 includes abnormal market conditions.

499 **Q. Do you have any concerns with Ms. Phipps’ reliance on EIA and Global**
500 **Insight’s forecasts of real GDP growth?**

501 A. Yes, I do. In addition to the fact that, as discussed in my Rebuttal Testimony,⁴⁴
502 the resulting nominal growth rate is unreasonably low in context of historical
503 growth rates, I note Ms. Phipps’ reliance on these sources is inconsistent with
504 her stated concern regarding the distinction between economic forecasts and
505 investor expectations.⁴⁵

506 **Q. Is there industry literature that indicates investors expect companies to**
507 **grow at the historical average rates?**

508 A. Yes, there is. For example, Baron Fund’s recent quarterly report included an
509 introduction from the CEO and Chief Investment Officer, Ron Baron, discussing
510 his general expectation for future long-term stock growth.⁴⁶

⁴⁴ Rebuttal Testimony of Robert B. Hevert, at 31 – 32.

⁴⁵ Rebuttal Testimony of Rochelle M. Phipps, at 21 – 22.

⁴⁶ Baron Funds, founded in 1982, provides a range of different mutual funds for retail and institutional investors. See <http://www.baronfunds.com/>.

511 Although we believe it is not possible to predict markets in the
512 short term, we think long-term prospects for publicly owned
513 businesses are quite favorable. This is since we think they will
514 continue to double their earnings and their value from present
515 levels about every ten years. That represents a 7%
516 compounded annual growth rate.⁴⁷

517 In addition, Morningstar, a source Ms. Phipps cites,⁴⁸ provides an
518 approach for calculating the long-term growth estimate that is similar to that
519 which is included in my model.⁴⁹ As with my approach, Morningstar's method
520 combines the historical average real GDP growth rate with a measure of inflation
521 calculated using the TIPS spread. Morningstar notes "[g]rowth in real GDP (with
522 only a few exceptions) has been reasonably stable over time; therefore, its
523 historical performance is a good estimate of expected long-term (future)
524 performance."⁵⁰ In fact, Morningstar's long-term estimate of real GDP growth
525 (3.22 percent) is only five basis points different than the 3.27 percent growth rate
526 assumed in my analyses.

527 Finally, as noted in my Rebuttal Testimony, in Financial Management:
528 Theory and Practice Eugene F. Brigham and Michael C. Ehrhardt explain:⁵¹

529 Expected growth rates vary somewhat among companies, but
530 dividend growth for most mature firms is generally expected to
531 continue in the future at about the same rate as nominal gross
532 domestic product (real GDP plus inflation). On that basis, one
533 might expect the dividends of an average, or "normal," company

47 Baron Funds, Quarterly Report, June 30, 2014 at 3.

48 Phipps Direct at 29; Phipps Rebuttal at 19 and 25.

49 See, *Ibbotson SBBI 2013 Valuation Yearbook*, Morningstar, Inc., at 50 – 52.

50 Rebuttal Testimony of Rochelle M. Phipps, at 52.

51 See Rebuttal Testimony of Robert B. Hevert, at 32.

534 to growth at a rate of 5% to 8% a year.⁵²

535 **Q. Is Ms. Phipps' updated 4.67 percent long-term growth rate consistent with**
536 **the growth rate implied by recently authorized ROEs?**

537 A. No, it is not. The average authorized ROE over the past twelve months (i.e.,
538 October 2013 through September 2014; see Schedule 10.3) for natural gas
539 utilities was 9.70 percent.⁵³ In the context of the Constant Growth DCF model,
540 that return includes income from dividends (i.e., the dividend yield) and expected
541 growth (i.e., capital appreciation). Assuming Value Line's average reported
542 dividend yield for the proxy group of 3.53 percent as the average industry
543 dividend yield, the average reported authorized ROE of 9.70 percent provided in
544 Schedule 10.3 implies an expected long-term growth rate of 6.17 percent.⁵⁴ That
545 estimate is consistent with, although somewhat higher than, the long-term growth
546 estimate of 5.71 percent used in my Multi-Stage DCF analysis.⁵⁵

547 **Q. What is your response to Ms. Phipps' suggestion that the 5.71 percent**
548 **long-term growth rate used in your Multi-Stage DCF model implies the**
549 **proxy group companies will average an 18.72 percent return on common**
550 **equity?**⁵⁶

551 A. As Ms. Phipps notes, my Multi-Stage DCF analyses rely on the Gordon Growth

⁵² Eugene Brigham and Michael Ehrhardt, Financial Management: Theory and Practice, 12th Ed. (Mason, OH: South-Western Cengage Learning, 2008), at 291.

⁵³ SNL Financial.

⁵⁴ 9.70 percent – 3.53 percent = 6.17 percent.

⁵⁵ As noted in my Direct Testimony, the Commission recently recognized the average of recently authorized ROEs for natural gas utilities as general market data that provides "relevant comparative information as we assess the parties' various ROE provisions." See Illinois Commerce Commission, Docket No. 12-0511/12-0512, Order, June 18, 2013, at 205.

⁵⁶ Rebuttal Testimony of Rochelle M. Phipps, at 20 – 21.

552 model, which is premised on the simplifying assumption of static growth and
553 earnings payout ratios going forward, to calculate a terminal value. Over the
554 long-term, however, it is likely that certain financial characteristics that could
555 affect potential growth rates (such as authorized ROEs, capital structure ratios,
556 tax laws, or regulatory mechanisms) will vary. For example, Ms. Phipps' criticism
557 does not account for the potential that an increase in the average authorized
558 ROE would increase the proxy companies' earnings and simultaneously lower
559 the average payout ratio, which would have a compound effect on the
560 sustainable growth calculation.

561 I also note the simple "b times r" sustainable growth formula does not
562 appear to have been a limiting factor for gas utilities' historical growth. In that
563 regard, as of September 5, 2014 Value Line reports South Jersey Industries' ten-
564 year average growth in earnings was 9.00 percent while that company
565 maintained an average 50.25 percent payout ratio. By Ms. Phipps' logic, South
566 Jersey Industries would have needed to earn an 18.09 percent ROE over that
567 ten-year period to achieve that level of growth.⁵⁷ Over the same period, Value
568 Line reports Piedmont Natural Gas had ten-year average growth in earnings of
569 5.00 percent while maintaining a 69.49 percent average payout ratio (which
570 would imply a 16.39 percent earned ROE using Ms. Phipps' logic). Similarly,
571 Value Line reports Southwest Gas Corporation had ten-year average earnings
572 growth rate of 9.50 percent while maintaining a 47.84 percent average payout
573 ratio (which would imply an 18.21 percent earned ROE using Ms. Phipps' logic).

⁵⁷ $9.5\% / (1 - 51\%) = 19.33\%$

574 Lastly, from a practical perspective, as discussed in my Direct Testimony,
575 the Multi-Stage DCF model allows the analyst to assess the reasonableness of
576 the inputs and results by checking certain internal ratios and metrics against
577 comparative benchmarks.⁵⁸ In that regard, I note the terminal values in the Multi-
578 Stage DCF model imply a contraction in P/E ratios from current levels. For
579 example, the average terminal P/E ratio for the 30-day mean growth rate
580 scenario of the Multi-Stage DCF model presented in my Rebuttal Testimony is
581 18.91, which is below the current 19.46 P/E ratio (see Schedule 7.1).⁵⁹
582 Therefore, Ms. Phipps' concerns about the reasonableness of the terminal stage
583 of the model are misplaced.

584 ***Application of the Capital Asset Pricing Model***

585 **Q. What are the remaining areas of disagreement between you and Ms. Phipps**
586 **regarding the application of the CAPM?**

587 A. The areas of disagreement between Ms. Phipps and me in the application of the
588 CAPM continue to be: (1) the selection of the risk-free rate component of the
589 model; (2) the appropriate Beta coefficients; and (3) the calculation of the
590 expected return on the overall market, which is used to determine the *ex-ante*
591 Market Risk Premium ("MRP").

⁵⁸ Direct Testimony of Robert B. Hevert, at 19.

⁵⁹ Source: Schedule 7.1. Current P/E ratio calculated as the 30-day average stock price as of July 31, 2014 divided by the average of the 2013 and 2014 earnings.

592 **Q. What is your response to Ms. Phipps' suggestion that it is not appropriate**
593 **to consider expectations of rising interest rates in the CAPM?**⁶⁰

594 A. It is important to remember that the Cost of Equity is a forward-looking concept.
595 Since the purpose of this proceeding is to establish the Cost of Equity for Liberty
596 Utilities' gas utility operations on a forward-looking basis, it is necessary to
597 develop a CAPM analysis that reflects investor expectations concerning the risk-
598 free rate.

599 Regarding Ms. Phipps' observation that her 4.27 percent implied forward
600 20-year U.S. Treasury yield is not expected to occur for another ten years, it is
601 important to note I did not suggest the use of that rate as a proxy for the risk-free
602 rate.⁶¹ Rather, I simply noted Ms. Phipps' own data and analysis also indicated
603 interest rates are expected to increase. I believe it would be inappropriate to
604 ignore observable indications that investors may expect increases in the risk-free
605 rate, as Ms. Phipps has done.⁶² Consequently, I considered both the 30-day
606 average 30-year Treasury yield and Blue Chip's near-term projected 30-year
607 Treasury yields in my CAPM analyses.

⁶⁰ Rebuttal Testimony of Rochelle M. Phipps, at 21 - 22.

⁶¹ Note, Ms. Phipps and I both rely on the 30-year Treasury yield, which may be materially different than the 20-year Treasury.

⁶² See Schedule 7.5. For example, as shown on Schedule 7.5, Blue Chip forecasts interest rates to increase from their current levels.

608 **Q. Ms. Phipps observes that Staff’s Beta coefficients calculated over ten years**
609 **would be lower than those calculated over five years.⁶³ Does that**
610 **observation diminish the importance of considering Beta coefficients**
611 **calculated over shorter periods?**

612 A. No, it does not. Ms. Phipps’ observation simply illustrates the point that utilities’
613 systematic risk can change over time, and that it therefore is important to
614 consider more recent data (such as the 18-month regression Beta coefficients
615 included in my alternative CAPM analyses) to assess investors’ return
616 requirements. As noted in my Rebuttal Testimony, investors are aware that
617 systematic risk can vary over time, and that data services such as Bloomberg
618 provide the ability to calculate Beta coefficients over shorter periods than the five
619 years relied upon by Ms. Phipps.⁶⁴

620 **Q. What is your response to Ms. Phipps’ suggestion that you have confused**
621 **the “true beta” with Beta coefficient estimates realized from security**
622 **returns.**

623 A. As Ms. Phipps notes, analysts calculate Beta coefficients from realized security
624 returns in order to estimate investors’ perception of systematic risk.⁶⁵ This is
625 precisely the reason that it is important to consider current market conditions
626 when calculating Beta coefficients rather than assuming that a pre-determined,
627 approach (such as a five year calculation period) accurately reflects investors’
628 expectations under all market circumstances. The fact that services such as

⁶³ Rebuttal Testimony of Rochelle M. Phipps, at 22.

⁶⁴ Rebuttal Testimony of Robert B. Hevert, at 39 – 40.

⁶⁵ Rebuttal Testimony of Rochelle M. Phipps, at 22.

629 Bloomberg provide investors the ability to calculate Beta coefficients over varying
630 time periods, using varying return periods and with respect to varying indices
631 demonstrates that no single method applies to all investors. That is why I have
632 used two services (Value Line and Bloomberg) as sources of Beta coefficients.

633 Although they differ in some respects, Value Line and Bloomberg both
634 calculate Beta coefficients using regression analysis; Ms. Phipps likewise relied
635 on regression analysis to estimate Beta coefficients.⁶⁶ Regression coefficients
636 are, by definition, estimates of an unobservable parameter. Nonetheless, Beta
637 coefficients are used in practice by investors and, therefore, should be reflected
638 in ROE estimates. Moreover, although Ms. Phipps suggests that changes in
639 systematic risk (that is, the portion of a security's risk that cannot be eliminated
640 by diversification) may move inversely to Beta coefficients, she fails to provide
641 any measure of the degree or source of such "bias".⁶⁷ Rather, Ms. Phipps simply
642 dismisses the suggestion that her position should be supported by an analysis of
643 how the two principal components of Beta coefficients (i.e. relative risk, and
644 return correlations) would move in directions contrary to the model's premise.⁶⁸

⁶⁶ See, Direct Testimony of Rochelle M. Phipps, Schedule 3.06

⁶⁷ *Ibid*, at 28.

⁶⁸ Rebuttal Testimony of Rochelle M. Phipps, at 22 – 23.

645 **Q. Ms. Phipps states that you “assert” that the t-statistics for your Beta**
646 **coefficients are statistically significant and that you “imply” that your Beta**
647 **estimates are accurate.⁶⁹ Ms. Phipps goes on to state that any such**
648 **implication is incorrect. What is your response to Ms. Phipps on those**
649 **points?**

650 A. I simply stated a fact: The regression coefficients reveal a statistically significant
651 relationship.⁷⁰ If Ms. Phipps sees that statement as somehow implying a degree
652 of accuracy, she is mistaken. Statistical significance speaks to the probability
653 that a given parameter is different than zero; my statement said nothing different.

654 **Q. What is your response to Ms. Phipps’ claim that you were incorrect**
655 **regarding the increased risk of utility companies as interest rates rose in**
656 **the second half of 2013?⁷¹**

657 A. The discussion referenced by Ms. Phipps was in relation to the Beta coefficient
658 component of the CAPM. Ms. Phipps’ observation regarding the proxy
659 companies’ average Value Line Safety rank, however, does not address the
660 question of potential shifts in the proxy companies’ systematic risk. To determine
661 whether the proxy companies’ systematic risk increased over the second half of
662 2013, I calculated Beta coefficients using five years of monthly returns for each
663 day from January 1, 2013 to September 30, 2014. As shown in Chart 2 (below),
664 the proxy companies’ average Beta coefficient increased over the second half of
665 2013. Ms. Phipps’ assertion, therefore, is misplaced.

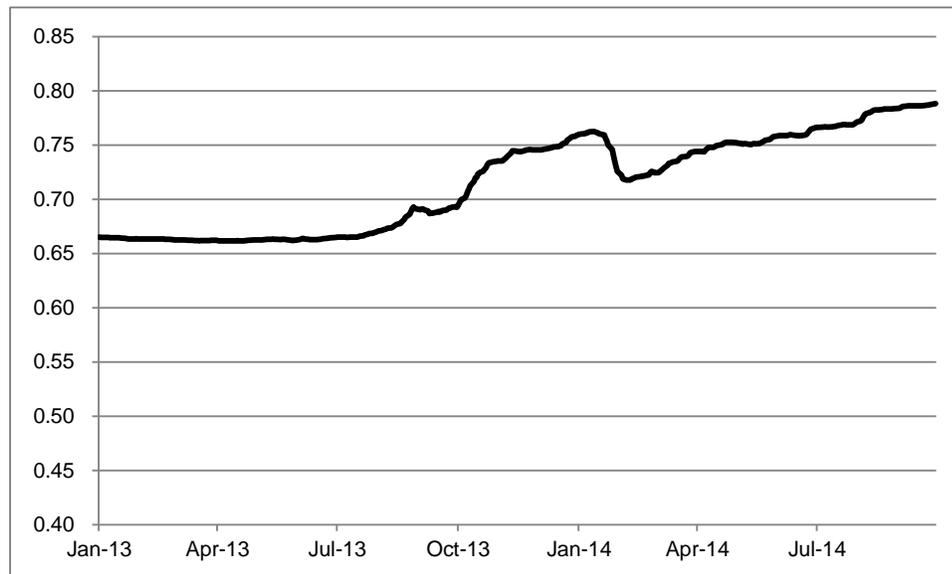
⁶⁹ Rebuttal Testimony of Rochelle M. Phipps, at 23.

⁷⁰ See Rebuttal Testimony of Robert B. Hevert, at 43.

⁷¹ Rebuttal Testimony of Rochelle M. Phipps, at 23 – 24.

666

Chart 2: 5-year Beta Coefficients: January 1, 2013 – September 30, 2014⁷²



667

668 **Q. What is your response to Ms. Phipps regarding the reasonableness of your**
669 **MRP estimates in relation to Morningstar's historical MRP calculation?**

670 A. As noted in my Rebuttal Testimony, the MRP estimates in my CAPM analyses
671 are quite reasonable relative to observed MRPs from 1926 to 2013.⁷³ In
672 particular, 40 of the 88 observed MRPs were above the highest of my MRP
673 estimates (10.32 percent).⁷⁴

674 Citing the mean and median historical MRPs of approximately 7.00
675 percent and 8.00 percent, Ms. Phipps suggests my MRP estimates are too
676 high.⁷⁵ However, Ms. Phipps' position fails to recognize that the mean and
677 median long-term Treasury yields over the same period were substantially higher

⁷² Source: Value Line. Adjusted, five-year Beta coefficients based on monthly returns.

⁷³ Rebuttal Testimony of Robert B. Hevert, at 46 – 48.

⁷⁴ The MRPs in my Direct Testimony ranged from 8.54 percent to 10.32 percent. See Schedules 4.3 and 4.6.

⁷⁵ Rebuttal Testimony of Rochelle M. Phipps, at 24 - 25.

678 (5.09 percent and 4.26 percent, respectively). Given that the MRP is calculated
679 as the expected market return less the yield on long-term government bonds, it is
680 quite reasonable for the current MRP to be moderately above the long-term
681 average.

682 Moreover, taking into consideration the volatility of historical MRPs, even
683 the highest of my MRP estimates is statistically indistinguishable from the
684 historical mean at a 95.00 percent confidence interval.⁷⁶ Therefore, I continue to
685 believe the *ex-ante* market-DCF derived MRPs used in my CAPM analyses are
686 reasonable.

687 **Q. Do you agree with Ms. Phipps' conclusion that your MRP calculation is**
688 **"overstated" because your DCF analysis of the S&P 500 includes one or**
689 **more companies with earnings growth estimates over 40.00 percent?**

690 A. No, I do not. Ms. Phipps and I both calculate the forward-looking market risk
691 premia using DCF analyses of S&P 500 companies to estimate expected market
692 returns.⁷⁷ Industries, and individual companies within those industries, face
693 constantly evolving business and financial opportunities (and risks). As such, it is
694 entirely reasonable for a broad market index such as the S&P 500 to contain
695 companies with relatively high and relatively low growth rates at any given time.
696 In that regard, it is important to note that although the calculation of the required
697 return for the S&P 500 Index involves the calculation of individual component

⁷⁶ Assuming a 10.32 percent mean MRP estimate, 88 MRP observations, the 6.95 percent mean MRP, and the 20.29 percent historical standard deviation.

⁷⁷ Direct Testimony of Rochelle M. Phipps, at 24. Note, Ms. Phipps also relies on the S&P 500 Index but excludes non-dividend paying companies from her market return estimate.

698 company returns, the end result is the market capitalization-weighted return on
699 the index. Certainly, given the 500 component companies of the S&P 500 Index,
700 it is possible to select individual company growth estimates that appear
701 unreasonable. For example, as shown in Schedules 7.3 and 7.6 of my Rebuttal
702 Testimony, the calculations using Value Line data included as many as ten
703 companies with perpetual growth rates below 0.00 percent; as many as 19
704 companies had earnings growth rates below the 2.37 percent inflation rate
705 assumed in the long-term growth estimate included in my DCF analyses.

706 In addition, I note the work paper supporting Ms. Phipps' calculation of the
707 expected market return included in her direct testimony also reflects a substantial
708 level of variability on a company-by-company basis (*i.e.*, growth rates range from
709 negative 24.70 percent to 41.08 percent).⁷⁸ That is not surprising, given that my
710 primary market return analyses incorporates the same companies as Ms. Phipps'
711 analysis and the end results are relatively similar.⁷⁹

712 **Q. What is your response to Ms. Phipps' observation that Bloomberg and**
713 **Value Line report different market capitalization and dividend yields for the**
714 **S&P 500 companies in the MRP calculation?**

715 A. Bloomberg uses intraday prices in calculating the reported market capitalization,

⁷⁸ Phipps excel work paper titled "Market ROR 2013-4".

⁷⁹ The 12.96% (Bloomberg) and (12.35%) Value Line market returns shown in Schedule 4.3 from my Direct Testimony are quite similar to the 12.15% market return reported in Ms. Phipps' Schedule 3.06 for the same time period. Note, the market return calculations used in my primary CAPM analyses are limited to dividend paying companies within the S&P 500, similar to Ms. Phipps' approach, while the market return calculation for my alternate CAPM results includes the non-dividend paying companies.

716 while Value Line uses previous day's closing prices.⁸⁰ Bloomberg's reported
717 dividend yield is based on analysts' consensus estimate of the current calendar
718 year dividend amount, while Value Line's reported dividend yield is based on the
719 dividends paid over a trailing twelve-month period. Consequently, there will be
720 some difference between the values reported by Bloomberg and Value Line
721 within a given day. However, both information providers are well-established
722 sources of financial data and provide reasonable measures of the assumptions
723 used by equity investors.

724 ***Relevance and Application of Bond Yield Plus Risk Premium Approach***

725 **Q. Please summarize Ms. Phipps' concerns regarding your alternative Bond**
726 **Yield Plus Risk Premium analysis.**

727 A. The alternative Bond Yield Plus Risk Premium presented in my Rebuttal
728 Testimony estimated the Equity Risk Premium as a function of bond yields and
729 credit spreads using data from January 2011 through July 31, 2014.⁸¹ Ms.
730 Phipps notes that there is an inflection point in the model (which is non-linear)
731 where the Cost of Equity is negatively related to the 30-year U.S. Treasury bond
732 yield.⁸²

⁸⁰ The work paper supporting the market return estimate used in Ms. Phipps' direct testimony did not provide the market capitalization data used to estimate companies' index weights, so it unclear what method her data source relies on (no work paper was provided in her rebuttal testimony).

⁸¹ See Rebuttal Testimony of Robert B. Hevert, at 48.

⁸² Rebuttal Testimony of Rochelle M. Phipps, at 26.

733 **Q. Is it the case that your Risk Premium models indicate that the Cost of**
734 **Equity moves inversely with changes in the 30-year Treasury yield?**

735 A. No. My analyses, including the alternative Risk Premium model presented in my
736 Rebuttal Testimony, are based on the relationship between the Equity Risk
737 Premium and interest rates, not the Cost of Equity and interest rates. As such,
738 over the range of most observations, the Cost of Equity increases or decreases
739 with changes in Treasury yields, they just do not move in lock-step. As explained
740 in my Direct Testimony, the finding that the Equity Risk Premium moves inversely
741 with interest rates is well-documented, and supported by existing financial
742 literature.⁸³ As explained below, the semi-log form of the model reflects changes
743 in trading dynamics at the extreme ends of Treasury yields, and is a reasonable
744 approach to quantifying the effect of highly unusual market conditions on both
745 Treasury yields and the Cost of Equity.

746 **Q. Please respond to Ms. Phipps' concern regarding an inflection point in the**
747 **non-linear version of your Bond Yield Plus Risk Premium analysis.**

748 A. As discussed in both my Direct and Rebuttal Testimonies, there is an inverse
749 relationship between Treasury yields and the Equity Risk Premium.⁸⁴ For
750 example, low levels of Treasury yields observed during the financial crisis were
751 due, in large measure, to the tendency of investors to seek the safety of Treasury
752 securities as a means of avoiding equity risk. As a result of that aversion and the
753 resulting increased demand for Treasury securities, investors would require a

⁸³ See Direct Testimony of Robert B. Hevert, at 33 – 34.

⁸⁴ See Direct Testimony of Robert B. Hevert, at 33 – 34; Rebuttal Testimony of Robert B. Hevert, at 48 – 49.

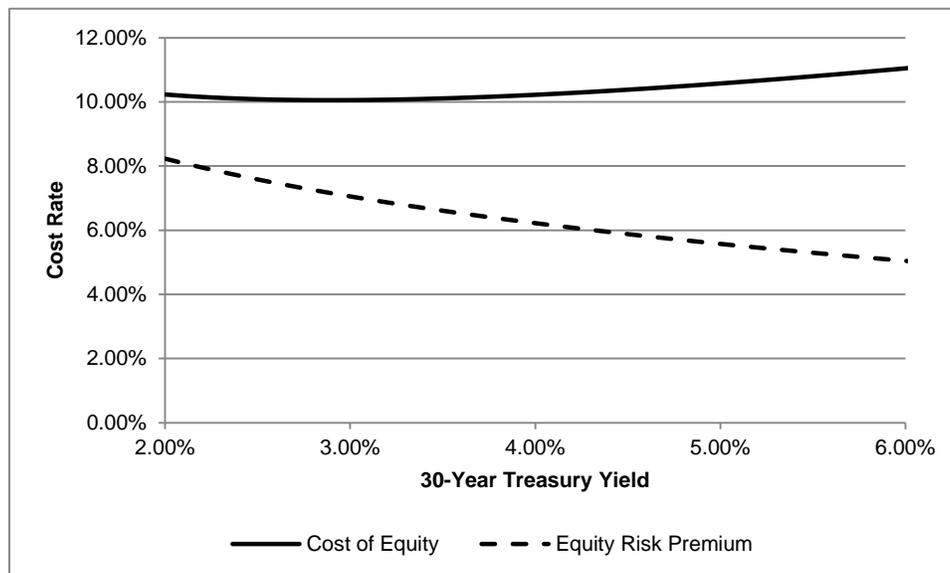
754 lower yield on Treasury securities (that is, they would bid up the price, thereby
755 bidding down the yield), while at the same time increasing the return required to
756 take on the risks associated with equity ownership. As a further result, the Equity
757 Risk Premium (which is the difference between the required return on equity and
758 Treasury yields) increases.

759 The inflection point noted by Ms. Phipps is the point at which the decrease
760 in Treasury yields is more than offset by an increase in the Equity Risk Premium,
761 such that the overall Cost of Equity rises while Treasury bond yields decrease.
762 That relationship is both empirically and theoretically reasonable. During periods
763 of extreme instability, investors are willing to accept very low yields on Treasury
764 securities in order to avoid the risk of capital losses from equity investments,
765 while increasing the return that they require to take on the risk of equity
766 ownership. As demonstrated in Chart 1 of my Direct Testimony, an increasingly
767 elevated level of Equity Risk Premium is observed at the lower end of the
768 historical range of Treasury yields. It is important to note, however, that even
769 during more stable economic conditions, equity investments provide a stronger
770 hedge against inflation than do debt investments, resulting in the Equity Risk
771 Premium's tendency to move inversely with changes in interest rates.⁸⁵ Chart 3
772 (below) demonstrates the more than offsetting effect of an elevated Equity Risk

⁸⁵ As noted by Brigham, Shome and Vinson, "... when inflationary fears rise, the perceived riskiness of bonds rises, helping to push up interest rates. However, since investors are today less concerned about inflation's impact on utility stocks than on bonds, the utilities' Cost of Equity does not rise as much as that of debt, so the observed risk premium tends to fall." See Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management, Spring, 1985, at 44.

773 Premium at low levels of Treasury yields.

774 **Chart 3: Relationship Between Treasury Yields, MRP, and Cost of Equity⁸⁶**



775

776 **Updated Analyses**

777 **Q. Have you updated the analyses presented in your Rebuttal Testimony?**

778 A. No, I have not. Certain data, such as analyst growth rate estimates, have not
779 materially changed from the values included in my Rebuttal Testimony analyses.
780 In light of Staff's concerns with updated analyses in this proceeding, I have not
781 updated the ROE analyses in my Surrebuttal Testimony.

782 **V. CONCLUSIONS AND RECOMMENDATION**

783 **Q. What is your conclusion regarding the Company's cost of capital and**
784 **capital structure?**

785 A. Based on the analyses discussed throughout my Surrebuttal Testimony, I

⁸⁶ Chart is derived from the relationship demonstrated in the Bond Yield Plus Risk Premium analysis. See Schedule 7.9.

786 conclude that the reasonable range of ROE estimates is from 10.00 percent to
787 10.50 percent, and within that range, 10.50 percent is a reasonable and
788 appropriate estimate of the Company's Cost of Equity.

789 I also find the Company's proposed capital structure of 60.10 percent
790 common equity, 0.46 percent short-term debt, and 39.44 percent long-term debt
791 is consistent with industry practice and reflects the nature of assets financed by
792 natural gas utilities such as Liberty Utilities. On that basis, I conclude that the
793 proposed capital structure is reasonable and appropriate.

794 **Q. Does this conclude your Surrebuttal Testimony?**

795 A. Yes, it does.

Replication of Staff's Capital Structure Calculations

STAFF DIRECT TESTIMONY

1	Proxy Group Average Common Equity Ratio	49.91%
2	Credit Notch Adjustment	6.40%
3	Adjusted Common Equity Ratio	<u>43.51%</u>
4	LUC Net Short-Term Debt Ratio	0.46%
5	Long-term Debt Ratio	<u>56.03%</u>
6	Total Capitalization	100.00%

STAFF REBUTTAL TESTIMONY

7	Adjusted Common Equity Ratio	43.51%	L3
8	LUC Gross Short-Term Debt Ratio	4.99%	
9	Debt Ratio for Short-Term Debt Allocation	<u>51.50%</u>	(1 - L7 + L8)
10	Equity Ratio	43.51%	L3
11	Long-Term Debt Allocation Ratio	54.20%	L9/[L9+L10]
12	Common Equity Allocation Ratio	45.80%	L10/[L9+L10]
13	LUC Gross Short-Term Debt Ratio	4.99%	L8
14	LUC Net Short-Term Debt Ratio	0.46%	L4
15	Short-Term Debt Ratio to be Allocated	4.53%	L13-L14
16	Short-Term Debt Allocated to Common Equity	2.07%	L12 x L15
17	Adjusted Common Equity Ratio	45.58%	L3 + L16
18	Short-Term Debt Allocated to Long-Term Debt	2.46%	L11 x L15
19	Adjusted Long-Term Debt Ratio	53.96%	L9 + L18
20	Adjusted Common Equity	45.58%	L17
21	Adjusted Long-Term Debt	53.96%	L19
22	Net Short-Term Debt	<u>0.46%</u>	L4
23	Total Capitalization	100.00%	

Notes:

Differences due to rounding

Pro Forma Credit Metric Calculations - Phipps Assumptions

LINE	DESCRIPTION	AMOUNT	NOTES / SOURCES
1	Short Term Debt Percent of Total	0.46%	ICC Staff Schedule 8.01
2	Short Term Debt Cost Rate	1.41%	ICC Staff Schedule 8.01
3	Long Term Debt Percent of Total	53.95%	ICC Staff Schedule 8.01
4	Long Term Debt Cost Rate	4.81%	ICC Staff Schedule 8.01
5	Common Equity Percent of Total	45.59%	ICC Staff Schedule 8.01
6	Common Equity Cost Rate	9.23%	ICC Staff Schedule 8.01
7			
8	Wgt'd Cost of Debt	2.60%	(L1 x L2) + (L3 x L4)
9	Wgt'd Return on Equity	4.21%	L5 x L6
10			
11	Rate Base	\$ 39,418,167	Staff Schedule 6.03 page 1
12	Total Debt	\$ 21,447,425	(L1 + L3) x L11
13			
14	Effective Tax Rate	39.43%	1 - (1 / L15)
15		1.6509	Phipps Direct Testimony, Sched. 3.01
16	Net Income	\$ 1,658,700	L9 x L11
17	Income Taxes	\$ 1,079,648	(L15-1) x L16
18	Interest Expense	\$ 1,025,456	L8 x L11
19	Earnings Before Interest and Taxes ("EBIT")	\$ 3,763,803	L16 + L17 + L18
20	Depreciation and Amortization	\$ 3,025,598	Staff Schedule 6.01 page 1
21	Funds from Operations	\$ 4,684,298	L16 + L20
22	Earnings Before Interest Taxes Depreciation and Amortization ("EBITDA")	\$ 6,789,401	L19 + L20
23	EBIT/Interest	3.67	L19 / L18
24	Debt/Capitalization	54.41%	L1 + L3
25	Debt/EBITDA	3.16	L12 / L22
26	FFO/Debt	21.84%	L21 / L12
27			
28			
29	Debt/Capitalization	Aggressive	
30	Debt/EBITDA	Significant	
31	FFO/Debt	Significant	

Pro Forma Credit Metric Calculations - Assuming 10.00% ROE and 51.10% Equity Ratio

LINE	DESCRIPTION	AMOUNT	NOTES / SOURCES
1	Short Term Debt Percent of Total	0.00%	
2	Short Term Debt Cost Rate	1.41%	
3	Long Term Debt Percent of Total	48.90%	1 - L5 - L1
4	Long Term Debt Cost Rate	4.81%	ICC Staff Schedule 8.01
5	Common Equity Percent of Total	51.10%	Derived from Phipps' rating adjustment applied to Moody's capital structure ranges
6	Common Equity Cost Rate	10.00%	Assumed
7			
8	Wgtd Cost of Debt	2.35%	(L1 x L2) + (L3 x L4)
9	Wgtd Return on Equity	5.11%	L5 x L6
10			
11	Rate Base	\$ 39,418,167	Staff Schedule 6.03 page 1
12	Total Debt	\$ 19,275,484	(L1 + L3) x L11
13			
14	Effective Tax Rate	39.43%	1 - (1 / L15)
15		1.6509	Phipps Direct Testimony, Sched. 3.01
16	Net Income	\$ 2,014,268	L9 x L11
17	Income Taxes	\$ 1,311,087	(L15-1) x L16
18	Interest Expense	\$ 927,151	L8 x L11
19	Earnings Before Interest and Taxes ("EBIT")	\$ 4,252,506	L16 + L17 + L18
20	Depreciation and Amortization	\$ 3,025,598	Staff Schedule 6.01 page 1
21	Funds from Operations	\$ 5,039,866	L16 + L20
22	Earnings Before Interest Taxes Depreciation and Amortization ("EBITDA")	\$ 7,278,104	L19 + L20
23	EBIT/Interest	4.59	L19 / L18
24	Debt/Capitalization	48.90%	L1 + L3
25	Debt/EBITDA	2.65	L12 / L22
26	FFO/Debt	26.15%	L21 / L12
27			
28			
29	Debt/Capitalization	Significant	
30	Debt/EBITDA	Intermediate	
31	FFO/Debt	Significant	

2013-2014 Reported Authorized Returns on Equity, Natural Gas Utility Rate Cases

[2]

State	Utility	Parent Company Ticker	Case Identification	Date Authorized	Authorized ROE	Authorized Equity Ratio	S&P Rating	
MD	Baltimore Gas and Electric Co.	EXC	C-9299 (gas)	2/22/2013	9.60	48.40	BBB+	
NY	Niagara Mohawk Power Corp.	-	D-12-G-0202	3/14/2013	9.30	48.00	A-	
ID	Avista Corp.	AVA	C-AVU-G-12-07	3/27/2013	9.80	50.00	BBB	
MT	NorthWestern Corp.	NWE	D-D2012.9.94	4/23/2013	9.80	NA	BBB	
D.C.	Washington Gas Light Co.	WGL	FC-1093	5/10/2013	9.25	59.30	A+	
NY	Brooklyn Union Gas Co.	-	C-12-G-0544	6/13/2013	9.40	48.00	A	
IL	North Shore Gas Co.	TEG	D-12-0511	6/18/2013	9.28	50.32	A-	
IL	Peoples Gas Light & Coke Co.	TEG	D-12-0512	6/18/2013	9.28	50.43	A-	
WA	Puget Sound Energy Inc.	-	D-UG-130138	6/25/2013	9.80	48.00	BBB-	
MD	Columbia Gas of Maryland Inc	NI	C-9316	9/23/2013	9.60	53.84	NR	
WI	Wisconsin Public Service Corp.	TEG	D-6690-UR-122 (Gas)	11/6/2013	10.20	50.14	A-	
OH	Duke Energy Ohio Inc.	DUK	C-12-1685-GA-AIR	11/13/2013	9.84	53.30	BBB+	
MI	Michigan Gas Utilities Corp	TEG	C-U-17273	11/14/2013	10.25	48.62	[1] NA	
MD	Washington Gas Light Co.	WGL	C-9322	11/22/2013	9.50	53.02	A+	
WI	Northern States Power Co - WI	XEL	D-4220-UR-119 (Gas)	12/5/2013	10.20	52.54	A-	
MD	Baltimore Gas and Electric Co.	EXC	C-9326 (gas)	12/13/2013	9.60	51.05	A-	
NV	Sierra Pacific Power Co.	BRK.A	D-13-06003	12/16/2013	9.73	46.94	BBB-	
NC	Piedmont Natural Gas Co.	PNY	D-G-9, Sub 631	12/17/2013	10.00	50.66	A	
IL	Ameren Illinois	AEE	D-13-0192	12/18/2013	9.08	51.68	BBB+	
CO	Public Service Co. of CO	XEL	D-12AL-1268G	12/23/2013	9.72	56.06	A-	
ND	MDU Resources Group Inc.	MDU	C-PU-13-803	12/30/2013	10.00	50.27	BBB+	
OR	Avista Corp.	AVA	D-UG-246	1/21/2014	9.65	48.00	BBB	
CT	CT Natural Gas Corp.	UIL	D-13-06-08	1/22/2014	9.18	52.52	BBB	
NY	Consolidated Edison Co. of NY	ED	C-13-G-0031	2/20/2014	9.30	48.00	A-	
UT	Questar Gas Co.	STR	D-13-057-05	2/21/2014	9.85	52.07	A	
MA	Bay State Gas Company	NI	DPU 13-75	2/28/2014	9.55	53.68	BBB-	
CO	Atmos Energy Corp.	ATO	D-13AL-0496G	3/16/2014	9.72	52.57	A-	
NH	Northern Utilities Inc.	UTL	D-DG-13-086	4/21/2014	9.50	51.76	NA	
KY	Atmos Energy Corp.	ATO	C-2013-00148	4/22/2014	9.80	49.16	A-	
NY	National Fuel Gas Dist Corp.	NFG	C-13-G-0136	5/8/2014	9.10	48.00	BBB	
MN	CenterPoint Energy Resources	CNP	D-G-008/GR-13-316	5/8/2014	9.59	52.60	A-	
WI	Wisconsin Power and Light Co	LNT	D-6680-UR-119 (Gas)	6/6/2014	10.40	50.46	A	
CA	Southwest Gas Corp.	SWX	A-12-12-024 (SoCal)	6/12/2014	10.10	55.00	A-	
CA	Southwest Gas Corp.	SWX	A-12-12-024 (NoCal)	6/12/2014	10.10	55.00	A-	
CA	Southwest Gas Corp.	SWX	A-12-12-024 (LkTah)	6/12/2014	10.10	55.00	A-	
AR	SourceGas Arkansas Inc	-	D-13-079-U	7/7/2014	9.30	50.00	[1] NR	
AR	Arkansas Oklahoma Gas Corp.	-	D-13-078-U	7/25/2014	9.30	55.00	[1] NR	
WY	Cheyenne Light Fuel Power Co.	BKH	D-30005-182-GR-13	7/31/2014	9.90	54.00	NR	
KS	Atmos Energy Corp.	ATO	D-14-ATMG-320-RTS	9/4/2014	9.10	53.00	A-	
MN	Minnesota Energy Resources	TEG	D-G-011/GR-13-617	9/24/2014	9.35	NA	NR	
					Average	9.65	51.48	
					Median	9.63	51.37	
					Average A-rated	9.70	52.02	
					Average BBB-rated	9.59	50.07	
					October 1, 2013 - September 30, 2014 average	9.70	51.73	

Source: SNL Financial

[1] Equity ratio as authorized (pre-SNL adjustment). Note, SNL adjusted equity ratios reflected certain zero-cost non-investor-supplied capital sources such as deferred taxes in the regulatory capital structure.

[2] Credit ratings are Long-Term Issuer ratings as of rate case authorization