

**ILLINOIS COMMERCE COMMISSION**

**DOCKET Nos. 09-0306 - 09-0311 (Cons.)**

**SURREBUTTAL TESTIMONY**

**OF**

**KATHLEEN C. McSHANE**

**SUBMITTED ON BEHALF OF**

**CENTRAL ILLINOIS LIGHT COMPANY  
d/b/a AmerenCILCO**

**CENTRAL ILLINOIS PUBLIC SERVICE COMPANY  
d/b/a AmerenCIPS**

**ILLINOIS POWER COMPANY  
d/b/a AmerenIP**

**(The Ameren Illinois Utilities)**

**DECEMBER 2, 2009**

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7 **The Ameren Illinois Utilities**

8 **I. INTRODUCTION**

9 **Q. Please state your name and business address.**

10 A. My name is Kathleen C. McShane. My business address is 4550 Montgomery  
11 Avenue, Suite 350N, Bethesda, Maryland 20814.

12 **Q. Are you the same Kathleen C. McShane who previously filed direct and**  
13 **rebuttal testimonies in this proceeding?**

14 A. Yes, I am.

15 **Q. To assist the Illinois Commerce Commission in following your surrebuttal**  
16 **testimony, would you please summarize the conclusions reached in your rebuttal**  
17 **testimony?**

18 A. In my rebuttal testimony, I concluded that:

- 19 1. The fair returns on equity for each of the Ameren Illinois Utilities  
20 (“AIUs”) were, based on the updated the results of my cost of equity tests,  
21 as follows:

22

**Table 1**

	<b>Gas</b>	<b>Electric</b>
CILCO	11.2%	11.7%
CIPS	10.8%	11.3%
IP	11.2%	11.7%

23

2. Ms. Freetly's recommended ROEs, which ranged from 8.7% CILCO Gas to 10.1% for IP Electric, were too low and suffer from the following deficiencies:

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25

26

- a. The failure to consider the results of the constant growth DCF model applied using analysts' growth forecasts;

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28

- b. Reliance on spot rather than forecast interest rates in the application of the CAPM;

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30

- c. Reliance on forward Treasury yields rather than direct estimates of GDP growth in her application of the multi-stage DCF model;

31

32

- d. Using an average of weekly and monthly betas in the application of the CAPM rather than solely weekly betas; and

33

34

- e. Making unwarranted reductions to the costs of equity estimated for the proxy samples of companies for a combination of financial strength, rate design and the proposed uncollectibles riders.

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3. With my proposed revisions to Ms. Freetly's cost of equity tests, and excluding the downward adjustments to the proxy samples' cost of equity, Ms. Freetly's resulting ROEs would have been 10.35% for the gas utility operations and 10.95% for the electric utility operations.

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4. Mr. Gorman's proposed ROE of 10.0% was too low due to:

- 42 a. The failure to consider the results of the constant growth DCF  
43 model using analysts' growth forecasts;
- 44 b. The failure to include a factor for external growth in the  
45 application of the sustainable growth version of the DCF model;
- 46 c. An underestimate of the market risk premium in the CAPM; and
- 47 d. Failure to take into account the difference in financial risk between  
48 the Ameren Utilities and the proxy utilities inherent in the  
49 difference between the formers' ratemaking and the latter's market  
50 value capital structures.
- 51 5. Mr. Thomas' proposed ROEs of 8.76% and 7.97% for the electric and gas  
52 utility operations, respectively, of the Ameren Utilities were:
- 53 a. Outside the range of reasonableness;
- 54 b. Based on flawed inputs to his multi-stage DCF model; and
- 55 c. Allegedly supported by a CAPM analysis which relied on  
56 unreasonably low betas and market equity risk premium estimates.

57 **II. PURPOSE OF TESTIMONY**

58 **Q. What is the purpose of your surrebuttal testimony?**

59 A. The purpose of my surrebuttal testimony is to address the key issues related to  
60 cost of equity raised in the rebuttal testimony of Illinois Commerce Commission Staff  
61 ("Staff") witness Ms. Janice Freetly; Illinois Industrial Energy Consumers ("IIEC")  
62 witness Mr. Michael Gorman; and Citizens Utility Board ("CUB") witness Mr.  
63 Christopher Thomas.

64 **Q. Are you sponsoring any exhibits with your surrebuttal testimony?**

65 A. Yes, I am sponsoring Ameren Exhibit 52.0 Attachment A and Schedules 1 – 3.

66 **III. SUMMARY OF SURREBUTTAL TESTIMONY**

67 **Q. With that background, please summarize your surrebuttal testimony.**

68 A. With respect to Staff witness Ms. Freetly’s rebuttal testimony, my surrebuttal  
69 testimony concludes that:

- 70 1. Despite Ms. Freetly’s arguments to the contrary, it is reasonable to give  
71 weight to both the constant growth and multi-stage DCF models;
- 72 2. Ms. Freetly’s rationale for rejecting direct estimates of long-term  
73 economic growth in favor of forward Treasury bond yields as a proxy for  
74 long-term economic growth expectations in the multi-stage DCF model is  
75 unpersuasive;
- 76 3. The use of “spot” interest rates in Ms. Freetly’s application of the CAPM  
77 understates the cost of equity because it fails to recognize the high  
78 probability that interest rates will increase;
- 79 4. Ms. Freetly has not made a convincing case for reliance on an average of  
80 weekly and monthly betas in the application of the CAPM;
- 81 5. The adjustments that Ms. Freetly makes to the proxy samples’ cost of  
82 equity for the relative financial strength, rate design and proposed  
83 uncollectibles riders for the Ameren Utilities are unjustifiable;
- 84 6. Ms. Freetly has failed to refute the merit of recognizing in the cost of  
85 equity the differences in financial risk between the proxy companies and  
86 the Ameren Utilities inherent in the market value capital structures of the  
87 former and the ratemaking capital structures of the latter.

88 With respect to Mr. Gorman,

- 89 1. As with respect to Ms. Freetly, I have not changed my position that it is  
90 reasonable to give weight to both the constant growth and multi-stage  
91 DCF models;
- 92 2. I demonstrate that his proposed adjustment to the sustainable growth DCF  
93 model for external growth is incorrect and thus understates the cost of  
94 equity;
- 95 3. I conclude that his market risk premium for purposes of the CAPM is  
96 understated; and
- 97 4. He should have used forecast interest rates in his risk premium test (as he  
98 did in the CAPM) given the high probability that interest rates will rise.

99 With regards to Mr. Thomas, I:

- 100 1. Reject his characterization of my position on the inadequacy of his initial  
101 recommended returns on equity for the Ameren Utilities as “alarmist” and  
102 point out that his recommendations would be even lower given his  
103 position that Ms. Freetly’s downward adjustments for the uncollectibles  
104 riders are conservative;
- 105 2. Reject his contention that analysts’ forecast growth rates should not be  
106 relied upon in the application of the DCF model due to their optimism;
- 107 3. Establish that his rationale for using real rates of growth in the economy  
108 rather than nominal growth rates as the expected long-term rate of growth  
109 in the DCF model is flawed;

- 110 4. Show that the use of adjusted betas in the application of the CAPM is  
111 appropriate, in contrast to Ms. Thomas' claim to the contrary; and  
112 5. Demonstrate that history bears out the conclusion that his estimated  
113 market risk premium of 5% is unreasonably low.

114 **IV. RESPONSE TO STAFF WITNESS FREETLY**

115 **Q. Please summarize briefly the key issues that you will address with respect to**  
116 **the rebuttal testimony of Ms. Freetly.**

117 A. Ms. Freetly:

- 118 1. Disagrees that it is appropriate to apply both a constant growth and multi-  
119 stage Discounted Cash Flow (DCF) model, on the grounds that, in her  
120 opinion, the growth rates forecast by analysts are not sustainable.
- 121 2. Does not accept that, in the application of the multi-stage DCF model, a  
122 direct estimate of economic growth is a better measure of longer-term  
123 growth expectations rather than forward Treasury bond yields.
- 124 3. Disagrees that, in the application of the Capital Asset Pricing Model,  
125 forecast interest rates are a better representation of investor expectations  
126 than "spot" interest rates.
- 127 4. Disagrees with my conclusion that weekly betas for the proxy samples as  
128 provided by *Value Line* are to be preferred over betas calculated using  
129 monthly interval data.
- 130 5. Rejects my conclusions regarding the need to adjust the market rate of  
131 return on equity to recognize the difference in financial risk between

132 market value capital structures and the ratemaking capital structure to  
133 which the cost of equity is applied.

134 **Q. With respect to the application of the DCF test, Ms. Freetly rejects reliance**  
135 **on a constant growth model because, in her opinion, it is unlikely that the analysts’**  
136 **growth forecasts she uses for the proxy samples of gas and electric utilities are**  
137 **sustainable in the long-run. Do you disagree with her opinion that the analysts’**  
138 **growth rates are unsustainable?**

139 A. No, but it is not my opinion or her opinion which sets market prices. Analysts’  
140 forecasts are the most objective measure of investor expectations that are embedded in  
141 the stock prices and dividend yields used to estimate the DCF cost of equity. We can  
142 only surmise if or when investors expect the analysts’ forecast growth rates to decline (or  
143 increase) to levels that more closely track the growth in the economy. Underestimating  
144 the period over which the analysts’ forecast growth rates are expected to prevail will  
145 understate the cost of equity when the forecast growth rates exceed the expected long-  
146 term equilibrium growth rate and overstate the cost of equity when the converse is the  
147 case.

148 Further, the multi-stage model (in this case a three-stage model) can create  
149 inconsistencies in the DCF cost estimates for the individual companies. For example,  
150 New Jersey Resources and Wisconsin Energy have among the highest forecast analysts’  
151 earnings growth rates and the lowest dividend yields, the latter being consistent with their  
152 higher than their respective sample average forecast earnings growth rates. These  
153 companies should, all other things equal, be expected to have higher costs of equity than  
154 their respective sample averages because there is greater risk associated with higher

155 expected growth rates. However, when the three-stage model is applied, because these  
156 companies have relatively low dividend yields, their three-stage DCF costs of equity are  
157 lower than their respective sample averages. (Ameren Exhibit 36.0, Ameren Exhibit  
158 12.0G.6 Updated and 12 E.6 Updated).

159         These outcomes make no logical sense. They arise because of the inconsistency  
160 between the relatively low dividend yield and the assumption in the three-stage model  
161 that investors expect a much lower growth rate (the long-term GDP growth rate) than the  
162 company-specific forecast earnings growth rate to “kick in”, albeit with a transitional  
163 period.

164         The use of the average of the constant growth and the three-stage DCF models,  
165 rather than the results of the three-stage model alone, recognizes the imprecision of the  
166 period during which investors might expect analysts’ forecast growth rates to persist and  
167 avoids results that are potentially internally inconsistent. As a result, a reasonable  
168 approach is to give equal weight to the results of both the constant growth and multi-  
169 stage models.

170 **Q. Do you accept Ms. Freetly’s arguments in support of the use of the forward**  
171 **yield on the 20-year Treasury bond as a proxy for long-term GDP growth in the**  
172 **final stage of her three-stage DCF model rather than a consensus forecast of GDP**  
173 **growth?**

174 A. No. Ms. Freetly makes two points in support of the use of forward yields on the  
175 20-year Treasury bond rather than a direct forecast of GDP growth rates. First, she states  
176 that the consensus GDP forecasts as produced by Blue Chip *Economic Indicators* are for  
177 a ten-year period which does not overlap with the period represented by the “long-term”

178 in the three-stage DCF test. Second, she states that the GDP growth forecasts have been  
179 static (that is, they have not changed materially over time), while the forward 20-year  
180 Treasury yields reflect changing investor expectations. Related to the second point, she  
181 states that the GDP forecasts are sometimes only updated infrequently, which might  
182 explain their alleged stability.

183 Ms. Freetly is correct that the Blue Chip long-term consensus forecast of GDP  
184 growth only extends 10 years. She is also correct that some long-term GDP forecasts are  
185 only updated infrequently, e.g., annually. Neither of these points supports using forward  
186 interest rates as a proxy for long-term GDP growth. Barring a material structural shift in  
187 inflationary pressures or output potential in the underlying economy, forecasters (and  
188 investors) would reasonably anticipate that, while there will always be cyclical deviations  
189 from the trend rate of growth, nominal economic growth over the longer-term will revert  
190 to trend. In this context, there is no basis for concluding that investors would not rely on  
191 forecasts of GDP over the next ten years as the best available estimate for the very long  
192 term growth estimates required in a multi-stage DCF model.

193 While Ms. Freetly speculates that the stability of the 10-year consensus forecasts  
194 of GDP growth issued by Blue Chip may be due to infrequent updating, it is more likely  
195 that their stability represents the expected reversion of growth to trend levels. If investors  
196 required more frequently updated long-term growth estimates because they were  
197 constantly changing, such estimates would be provided. The observation that forecast  
198 long-term growth rates are not updated more frequently is basically a rebuttable  
199 presumption that the long-term, steady state growth expectations do not change very  
200 frequently.

201 As I indicated in my rebuttal evidence (page 4), Ms. Freetly's proposition that in  
202 the long-run the long-term risk-free rate of interest and GDP growth should be  
203 approximately similar is theoretically correct, there are simply too many influences on  
204 interest rates at any given time to conclude that the forward 20-year Treasury yield is a  
205 good proxy for investor expectations of the long-term growth in the U.S. economy –  
206 especially in a period marked by extensive monetary intervention by governments.  
207 Furthermore, an additional key factor has been high global demand for U.S. securities  
208 because they are viewed as default-free, they are highly liquid, and the U.S. dollar  
209 remains the world's reserve currency. Foreign investors currently own approximately  
210 30% of the outstanding federal debt.<sup>1</sup> When those factors are combined with what has  
211 been described as a global savings glut, downward pressure has been maintained on U.S.  
212 Treasury bond yields. With the extent of global influences on U.S. Treasury bond yields,  
213 forward yields are an unreliable proxy for investors' expectations of long-term growth in  
214 the U.S. economy at this time and thus for the long-term growth rate to be used in a  
215 multi-stage DCF model.

216 **Q. Ms. Freetly takes issue with your conclusion that forecast interest rates**  
217 **rather than “spot” interest rates should be used in the application of the Capital**  
218 **Asset Pricing Model. She states that if investors viewed forecasts as valuable, the**  
219 **forecasts would be reflected in current market interest rates. She recommends that**  
220 **the Commission continue to use current interest rates rather than forecast interest**  
221 **rates. Please respond.**

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<sup>1</sup> Foreign investors are not subject to U.S. taxation, which in isolation, would place downward pressure on Treasury yields relative to where they would be if only U.S. investors held Treasury bonds.

222 A. “Spot” Treasury yields remain at relatively low levels as a result of a confluence  
223 of factors, including (1) the commitment of the Federal Reserve to interest rates at low  
224 levels by maintaining the target Fed Funds rate in a range of 0 to ¼ percent; (2) the  
225 expected purchase by the Federal Reserve of over a \$1 trillion dollars of agency  
226 mortgage-backed securities and \$175 billion of agency debt; (3) the global demand for  
227 U.S. Treasury debt and (4) relatively weak economic conditions. A number of market  
228 participants have referred to the prevailing conditions as the “Treasury bubble”, that is,  
229 Treasury bond yields are abnormally low. With the U.S. federal budget deficit for 2009  
230 topping \$1.4 trillion, the most likely trajectory for U.S. Treasury bond yields as the U.S.  
231 and global economies strengthen is an upward one, as is reflected in the consensus of  
232 economists’ forecasts. The application of the CAPM, which in principle is a forward-  
233 looking estimate of the cost of equity, should recognize the high probability that U.S  
234 Treasury yields will increase.

235 **Q. Ms. Freetly disagrees with your conclusion that the weekly *Value Line* betas**  
236 **are superior to monthly betas (which include Staff’s regression betas). Please**  
237 **describe Ms. Freetly’s concerns .**

238 A. Ms. Freetly recommends equal weighting of weekly and monthly betas in  
239 determining a cost of common equity with the CAPM because neither is superior to the  
240 other. She acknowledges that weekly betas have a lower standard error and are “usually  
241 more reliable...than monthly betas”. However, she justifies the inclusion of monthly  
242 betas in the determination of the estimated beta because:

243 a. Monthly betas are less susceptible to non-synchronous trading than  
244 weekly betas; and

245           b.       Monthly returns have lower coefficients of variation than weekly betas  
246                     indicating that the variation of weekly returns to the sample mean is  
247                     subject to increased random error.

248 **Q.     Ms. Freetly comments that your regression analysis is flawed due to**  
249 **problems with the data. Please respond.**

250 A.       Ms. Freetly notes that the gas utility prices do not always match the prices on the  
251 Yahoo website and the NYSE index prices data do not match the data on the nyse.com  
252 website. With respect to the former, the weekly beta analysis was conducted using the  
253 adjusted close prices reported by Yahoo.com.<sup>2</sup> With respect to the latter, the monthly  
254 beta analysis for the gas utilities inadvertently relied on the monthly high prices, rather  
255 than the closing prices. Schedule 1 attached revises the weekly analysis to utilize the  
256 close prices for the gas utilities in place of the adjusted close prices and the monthly  
257 analysis to utilize the close prices of the NYSE index. The revised analysis does not  
258 change the conclusions, namely that much greater confidence can be placed in the weekly  
259 betas.

260 **Q.     Ms. Freetly claims that the difference in the beta estimates as between weekly**  
261 **and monthly calculations may be due to the effect of non-synchronous trading. Do**  
262 **you agree?**

263 A.       No. The non-synchronous trading effect arises when stock prices respond with a  
264 lag to economic events. As a result, the returns on a stock at a particular point in time are  
265 not “in synch” with those of the market. This effect is of particular concern when

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<sup>2</sup> The historic adjusted prices are adjusted both for stock splits and dividend payments.

266 analyzing daily data collected on thinly traded stocks, i.e., stocks that are not traded daily  
267 or very heavily. The companies in the gas distribution sample are not thinly traded, but  
268 rather trade on a consistent basis. Yahoo.com reports significant daily trading volume for  
269 each of the companies in the gas and electric utility samples, typically in the hundreds of  
270 thousands of shares.

271 **Q. Doesn't Ms. Freetly conduct an analysis which shows that there is a**  
272 **statistically significant negative relationship between the lagged returns on the gas**  
273 **utilities and the returns on the equity market composite, which she attributes to**  
274 **non-synchronous trading?**

275 A. Yes, using returns generated during the financial crisis. However, the same  
276 analysis conducted for periods ending 2005 and 2006, i.e., periods not incorporating the  
277 financial crisis, produces different results. The coefficients on 1, 2 and 3 week lags in  
278 regressions for the periods ending 2005 and 2006 are insignificant.<sup>3</sup> The differing results  
279 suggest that Ms. Freetly's analysis may relate to the market conditions during the  
280 financial crisis rather than to non-synchronous trading issues.

281 **Q. Ms. Freetly calculates the coefficient of variation for the monthly and weekly**  
282 **series of returns and concludes that, as it is higher for the weekly series than for the**  
283 **monthly series, there is increased random error in the weekly series relative to the**  
284 **monthly series. Does this provide evidence in support of using the monthly betas?**

285 A. No. The coefficient of variation is the ratio of the standard deviation of returns to  
286 the average return. It measures the unit of risk per unit of return. The higher the

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<sup>3</sup> Analysis provided in workpapers.

287 coefficient of variation, the greater is the risk. The higher coefficients of variation  
288 associated with the weekly betas are consistent with the higher weekly (than monthly)  
289 betas.

290 **Q. Ms. Freetly argues that reference to the superiority of the statistics associated**  
291 **with the weekly regressions as compared to those of the monthly regressions does**  
292 **not support the conclusion that weekly betas are to be preferred to monthly betas.**  
293 **Please respond.**

294 A. Ms. Freetly focuses on my reporting of the  $R^2$  and t-statistic and downplays the  
295 comments made with respect to the standard error. As was stated in my Rebuttal  
296 testimony at lines 162 to 183 and in the AIUs' response to Staff data request JF 6.03  
297 (Ameren Exhibit 52.1), the quality of the regression is measured by the  $R^2$  while the  
298 statistical reliability is measured by the standard error. As stated in Brealey, Myers and  
299 Allen, *Principles of Corporate Finance*, Eighth Edition, page 221, "The noise in the  
300 returns can obscure the true beta. Therefore, statisticians calculate the *standard error of*  
301 *the estimated beta to show the extent of possible mis-measurement. Then they set up a*  
302 *confidence interval of the estimated value plus or minus two standard errors...*" The  
303 standard error is a measure of the precision of the estimated beta. The smaller the  
304 standard error, the smaller is the confidence interval and the greater is the confidence that  
305 can be placed in the result. As shown in Ameren Exhibit 52.0 Schedule 1 attached, the  
306 standard errors are consistently lower and the confidence intervals are consistently  
307 narrower for the weekly betas than the monthly betas. Using weekly betas which have  
308 260 observations over a five-year horizon relative to a monthly betas with 60  
309 observations lowers the chance that random fluctuations in the calculated beta will arise

310 as one observation is dropped and one added.<sup>4</sup> Obtaining dependable estimates of beta is  
311 the objective of the analysis; the estimates of the betas derived from weekly data are  
312 more precise and more dependable.

313 **Q. Ms. Freetly also claims that your analysis of the relationship between utility**  
314 **betas and returns is flawed because it assumes that the systematic risk of both the**  
315 **gas distributors and electric utilities have not changed over the periods of analysis.**  
316 **Please comment.**

317 A. In Staff Data Request 6.04 (attached), I was asked if I was aware of any academic  
318 studies that addressed whether weekly betas are more accurate predictors of utility returns  
319 than monthly betas. I responded that I was not aware of any such studies. I did point out  
320 that the actual returns for both gas distributors and electric utilities have been higher, on  
321 average, over time than the *Value Line* weekly betas would have predicted.

322 Ms. Freetly responded in her Rebuttal testimony that the implicit assumption  
323 underlying my response was that the systematic risk of the gas distributors and electric  
324 utilities had not changed over time. She indicated that the calculated beta may decrease  
325 (increase) when “true” systematic risk is rising (falling). I don’t disagree with this  
326 proposition. Indeed, this issue can make the application of the CAPM problematic,  
327 because if this were happening, using the most recent calculated betas would tend to  
328 understate the cost of equity when systematic risk is rising and vice versa.

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<sup>4</sup> Phillip Daves, Michael Ehrhardt and Robert Kunkel, “Estimating Systematic Risk: The Choice of Return Interval and Estimation Period”, *Journal of Financial and Strategic Decisions*, Volume 13, Number 1, Spring 2000, note that most current empirical research is done using daily prices and recommend that the financial manager should always select daily returns “because daily returns result in the smallest standard error of beta or greatest precision of the beta estimate.”

329           It was precisely for this reason that I did not simply compare the most recent betas  
330 to the most recently achieved returns for the two samples of utilities. Instead, I compared  
331 a series of calculated betas for both the gas distributors and electric utilities to the average  
332 returns to assess whether, over time, the actual returns were in line with what the betas  
333 would have predicted in arriving at my conclusion that the adjusted weekly *Value Line*  
334 betas underestimated the actual returns for both the gas distributors and electric utilities.

335 **Q.     Ms. Freetly contends that there is no merit to the adjustment to the market-**  
336 **derived cost of equity for the different levels of financial risk between the Ameren**  
337 **Utilities' capital structures and the capital structures measured in the capital**  
338 **markets for the proxy companies. Do you accept her conclusions?**

339 A.     No. Ms. Freetly states that it is appropriate to use a market-based cost of equity  
340 for regulatory rate setting. I accept that a market-based cost of equity is appropriate. Ms.  
341 Freetly also states that it is necessary to use a book value rate base for regulatory rate  
342 setting. I also accept that is the applicable regulatory construct.

343           Ms. Freetly also states that the application of the market return to the book value  
344 simply takes the return investors demand to earn from a dollar invested in the common  
345 equity of a company, given the amount of risk in the common equity of that company and  
346 the current price of risk, and applies it to the number of common equity dollars invested  
347 in the rate base of the Company.

348           The market return is the return that investors demand to earn on the market value  
349 of the equity as Ms. Freetly explains at lines 719 to 723 of her Rebuttal testimony. That  
350 return is measured using proxy companies which are deemed to be of similar risk to the  
351 specific company for which the allowed return is to be determined. The current price of

352 risk (both business and financial) is reflected in the market values of the proxy  
353 companies. Assuming that the business risk of the proxy companies is similar to the  
354 business risk of the specific company, it must be determined whether there are  
355 differences in financial risk.

356         There does not appear to be any disagreement between Ms. Freetly and myself  
357 that (1) differences in financial risk need to be accounted for in the cost of equity; and (2)  
358 higher or lower financial risk than the proxy companies, given similar business risk,  
359 requires an adjustment to the proxy companies' cost of equity. The disagreement appears  
360 to be how to measure the difference in financial risk.

361         Ms. Freetly refers to my adjustment for financial risk as a market-to-book  
362 adjustment. However, the need to make an adjustment for differences in financial risk is  
363 *independent of the market-to-book ratio*. Presumably Ms. Freetly would not disagree  
364 with the proposition that, if the market-to-book ratio of the proxy firms were 1.0, and  
365 their market and book value common equity ratios were both 40 percent, then an  
366 adjustment to the proxy firms' cost of equity would be required if the common equity  
367 ratio to which the market-based cost of equity is to be applied were 50 percent; i.e., the  
368 utility has a higher equity ratio than the average for the proxy group – so the utility has  
369 lower financial risk. Therefore, the issue is not whether an adjustment for differences in  
370 financial risk is required, but how to measure the differences in financial risk.

371         The price of financial risk is determined in the capital markets and reflected in the  
372 market value capital structures of the proxy companies. It is the market value capital  
373 structures which determine the amount of financial risk that is reflected in both the DCF  
374 cost of equity and the betas which underpin the Capital Asset Pricing Model. When the

375 capital structure to which the return on equity is to be applied differs from the market  
 376 value capital structure associated with the cost of equity (assuming similar business risk),  
 377 an adjustment to that cost of equity is required.

378 **Q. In her direct and rebuttal testimony, Ms. Freetly makes adjustments to the**  
 379 **sample utilities' cost of equity for what she claims is the financial strength of the**  
 380 **individual Ameren Utilities relative to the sample companies, the impact of the rate**  
 381 **design adopted for the gas utilities in Order 07-0585 et. al. (Cons), and the impact of**  
 382 **the proposed uncollectibles riders. In her rebuttal testimony, she continues to**  
 383 **contend that these adjustments are warranted. Has she made convincing**  
 384 **arguments?**

385 A. No. In her Rebuttal testimony, Ms. Freetly makes downward adjustments to the  
 386 cost of equity for the electric and gas proxy samples as follows:

387 **Table 2**

<b>Ameren Utility</b>	<b>Sample Cost of Equity</b>	<b>Adjustment for Financial Strength</b>	<b>Adjustment for Rate Design</b>	<b>Adjustment for Uncollectibles Riders</b>	<b>Total Adjustment to ROE</b>	<b>Recommended ROE</b>
CILCO-Gas	9.63%	+0.105%	-0.10%	-0.875%	-0.87%	8.76%
CIPS-Gas	9.63%	-0.15%	-0.10%	-0.795%	-1.05%	8.58%
IP-Gas	9.63%	+0.105%	-0.10%	-0.605%	-0.60%	9.03%
CILCO-Electric	10.44%	-0.06%	--	-0.63%	-0.69%	9.75%
CIPS-Electric	10.44%	-0.30%	--	-0.645%	-0.945%	9.50%
IP Electric	10.44%	--	--	-0.34%	-0.34%	10.10%

388 The total adjustments to Ms. Freetly's estimated cost of equity for the proxy  
 389 samples effectively represent the extent to which Ms. Freetly believes each of the  
 390 Ameren Utilities is less risky on a net basis compared to her proxy sample utilities due to

391 (1) staff's recommended revenue requirements, (2) the rate design of the gas utilities and  
392 (3) the adoption of riders for uncollectibles.

393 With respect to the adjustments for financial risk, Ms. Freetly claims that Staff's  
394 revenue requirement recommendations, including her cost of common equity  
395 recommendations, indicate credit metrics that are commensurate with debt ratings that are  
396 higher or lower than the implied debt ratings suggested by the credit metrics of her proxy  
397 utility samples. She claims that her

398 "analysis of the implied level of financial strength of the gas and electric utility  
399 operations of each of the AIUs is not an attempt to predict the rating outcome of  
400 Staff's position in these rate proceedings. I did not attempt to determine my own  
401 credit ratings for the AIUs nor am I suggesting that simply because the  
402 Companies' metrics fall within the guideline ranges that the implied ratings will  
403 result. Rather, I performed the ratio analysis in order to compare the financial  
404 strength of the Companies, based on the FFO to interest coverage, FFO to total  
405 debt, RCF to total debt coverage and debt to capitalization, to those of my Gas  
406 and Electric samples. I translated the resulting ratios into implied credit ratings  
407 only to have a metric on which to base an adjustment to the cost of equity."

408 Ms. Freetly is comparing apples and oranges. She is comparing the credit metrics  
409 that her utility samples have **actually** achieved over the period 2006-2008 with credit  
410 metrics that could be achieved if the Ameren Utilities were able to earn the returns on  
411 equity that they are allowed. Recent history demonstrates that the Ameren Utilities have  
412 significantly under earned their allowed returns on equity and thus have not achieved the  
413 levels of financial strength that are implied by Ms. Freetly's financial risk adjustments.  
414 The average actual 2006-2008 returns on equity for the combined gas and electric  
415 operations of CILCO, CIPS and IP as reported in the year-end surveillance reports filed  
416 with the Commission were 8.45%, 4.22% and 0.92% for CILCO, CIPS and IP  
417 respectively. In its most recent credit rating reports for CIPS and IP (August 2009),  
418 Moody's explicitly referred to the fact that the companies earn significantly less than

419 their allowed rate of return. By comparing the potential financial performance and credit  
420 metrics of the Ameren Utilities (rather than the observed performance) to the actual  
421 financial performance and credit metrics of the proxy utilities, Ms. Freetly has  
422 understated the Ameren Utilities' financial risk relative to the proxy utilities.

423         With respect to the adjustments for the uncollectible riders, in her Rebuttal  
424 testimony, Ms. Freetly did not respond to my critiques of the methodologies she  
425 employed to support downward adjustments to the cost of equity of her gas and electric  
426 utility samples. In my Rebuttal testimony, I noted that Moody's conclusion that the  
427 entire political and regulatory climate in Illinois had improved (which included the  
428 legislation providing the Illinois utilities with a bad debt rider) had only resulted in a  
429 single notch debt rating upgrade for the Ameren Utilities and that the adoption of the  
430 single rider itself was unlikely to produce a full credit rating category improvement in  
431 both regulatory framework and sustainable profitability. In her Rebuttal evidence, as a  
432 result of the new Moody's rating methodology, Ms. Freetly speculates that the adoption  
433 of the uncollectibles riders would improve the utilities' credit rating on Moody's "Ability  
434 to Recover Costs and Earn Returns" factor by one full credit rating (equivalent to another  
435 single notch debt rating upgrade). She provided no empirical evidence, either by  
436 reference to credit rating actions taken for the Ameren Utilities or any other utilities, that  
437 the adoption of the uncollectibles riders would improve the credit rating on that factor by  
438 a full credit rating category.

439         Further, Ms. Freetly's downward adjustments for the uncollectible riders are  
440 effectively premised on the assumption that the Ameren Utilities were of similar business  
441 risk to the proxy utilities before the adoption of the riders. There is no recognition of

442 factors that would point to higher business risk for the Ameren Utilities than for the  
443 proxy companies, e.g., regulatory lag and rising operating costs and capital expenditures,  
444 both of which were referenced by Moody's in its most recent credit reports. The implied  
445 ratings for Regulatory Framework and Ability to Recover Costs and Earn Returns  
446 assigned to the Ameren Utilities, to which Moody's gives 50% weight in total in  
447 assigning ratings, are Ba and Baa respectively. The corresponding median ratings for the  
448 21 U.S. utilities (gas and electric) reviewed in Moody's August 2009 *Rating*  
449 *Methodology: Regulated Electric and Gas Utilities* are Baa and A respectively. While  
450 the utilities for which Moody's reports the ratings include some which are in Ms.  
451 Freetly's proxy samples and some which are not, the fact is that a relatively broad sample  
452 of gas and electric utilities has higher implied credit ratings on these two factors than the  
453 Ameren Utilities, i.e., of lower business risk. That evidence strongly suggests that Ms.  
454 Freetly's implicit point of departure (similar business risk) for making her downward  
455 adjustments is incorrect and thus the downward adjustments she proposes for the  
456 uncollectibles riders based on credit ratings are not supportable.

457       Moreover, Ms. Freetly provided no response to my critiques of the "operating  
458 income" methodology from which she estimated downward adjustments to the proxy  
459 samples' cost of equity by 106 to 160 basis points for the Ameren gas utilities and 48 to  
460 119 basis points for the Ameren electric utilities. As I discussed in my Rebuttal  
461 testimony (page 19), the "operating income" approach constitutes a reduction to the cost  
462 of equity for a risk for which the Ameren Utilities have never been compensated and for  
463 which there is no theoretical or empirical support.

464 V. **RESPONSE TO IIEC WITNESS GORMAN**

465 Q. **Please summarize briefly the issues raised in Mr. Gorman's Rebuttal**

466 **testimony that you will address.**

467 A. Mr. Gorman:

- 468 1. Disagrees with my conclusion that weight should be placed on both the  
469 constant growth and non-constant growth DCF models;
- 470 2. Agrees in principle that, in the application of the sustainable growth DCF  
471 model, it is appropriate to include an external growth component, but  
472 disagrees with my conclusion that its exclusion resulted in an  
473 underestimate of the cost of equity;
- 474 3. Disagrees with my critiques of his estimate of the market risk premium in  
475 his application of the CAPM; and
- 476 4. Disagrees with my conclusion that forecast interest rates should be relied  
477 upon not only in the application of the CAPM, but also in the application  
478 of the risk premium test.

479 Q. **At pages 6 and 7 of his Rebuttal testimony, Mr. Gorman states that your**  
480 **conclusion that dividend yields are not abnormally high is inaccurate. Please**  
481 **respond.**

482 A. At page 25 of his Direct testimony, Mr. Gorman rejected putting weight on the  
483 constant growth DCF model using analysts' forecasts because utility dividend yields are  
484 abnormally high in relation to the forecasts of earnings growth rates. In arriving at his  
485 conclusion regarding the level of dividend yields, Mr. Gorman compared the recent  
486 yields to the average yield over the prior five years. In my Rebuttal testimony (page 20),

487 I showed that recent dividend yields for electric utilities were representative of their  
488 longer-term historical average levels (1991-2009). Mr. Gorman responded that recent  
489 Treasury and utility bond yields are more aligned with levels over the past five years and  
490 that utility dividend yields are typically higher when utility bond yields are higher. While  
491 Mr. Gorman is correct that this is generally the case, the relationship between utility bond  
492 yields and utility dividend yields varies considerably.

493 As indicated on Ameren Exhibit 52.0, Schedule 2, the ratio of long-term Baa rated  
494 utility bond yields to the dividend yields on the proxy sample of electric utilities ranged  
495 between 1.25 times and 1.80 times between 1991 and 2008. The dividend yield on the  
496 electric utility proxy sample over the 13-week period utilized by Mr. Gorman in his  
497 updated DCF analysis was 5.0%, compared to a corresponding average long-term Baa  
498 rated utility bond yield of 6.2%, equal to a ratio of 1.23 times. That ratio is not materially  
499 different than the 1.25 times ratio observed in 2003. Further, with the expectation that  
500 the Bush Administration's dividend tax cuts introduced in 2001 will be allowed to expire  
501 in 2011, it is reasonable to expect that, all other things equal, utility dividend yields  
502 would rise relative to bond yields. With an increase in the tax rate on dividends, the  
503 stock price would need to fall (and the dividend yield increase) in order for the taxable  
504 investor to earn the same relative (to bonds) after-tax return on utility shares as with the  
505 benefit of the Bush dividend tax cuts.

506 With respect to the Mr. Gorman's conclusion at page 7 of IIEC Exhibit 6.0 that  
507 the analysts' forecast growth rates are too high to be reasonable estimates of sustainable  
508 growth, I have already addressed this issue in my response to Ms. Freetly.

509 I would add, however, that in Mr. Gorman's testimony in Docket 01-0432  
510 September 2001 for Illinois Power referenced on page 22 of my Rebuttal testimony,  
511 while I accept his comment at page 8 that he did not recommend a return on equity based  
512 on the constant growth DCF model based on analysts' earnings forecasts, in that  
513 testimony, he concluded that a reasonable range for the return on common equity for  
514 AmerenIP included the result from his constant growth DCF model. That conclusion  
515 should be no less valid today.

516 **Q. In his updated sustainable growth model, based on your comments in your**  
517 **Rebuttal testimony, Mr. Gorman added a component for growth from external**  
518 **financing, as discussed at pages 8 to 9 of IIEC Exhibit 6.0. Did Mr. Gorman**  
519 **estimate this component correctly?**

520 A. No. The external growth component of the sustainable growth model represents  
521 the growth that investors expect to achieve through the issuance of additional shares of  
522 equity and invested in projects that are accretive to earnings. The external growth  
523 component ("sv") represents the impact on earnings and dividends of issuing additional  
524 shares of stock at a price above or below book value. If a utility is able to issue  
525 additional shares at a price above book value, the resulting increase in book value per  
526 share will accrue to existing shareholders, leading to higher expected earnings and  
527 dividends. The formula for the "sv" component is equal to the expected growth rate in  
528 shares outstanding ("s") multiplied by 1 minus the book/market value ratio ("v"). The  
529 latter measures the extent to which additional shares are expected to be issued above or  
530 below book value.

531 Mr. Gorman estimates the “v” component by utilizing the *Value Line*’s 3 to 5 year  
532 forward estimated book value per share in conjunction with a current share price. The  
533 underlying assumption of Mr. Gorman’s analysis is that book values per share will  
534 increase, but stock prices will stay the same. In contrast to Mr. Gorman’s assumption,  
535 *Value Line* projects that stock prices will also increase. It makes logical sense that share  
536 prices would be expected to increase as book values per share increase as earnings are  
537 retained. Mr. Gorman’s assumption that stock prices will remain constant despite  
538 increases in book value per share implies a significant decline in the utilities’  
539 market/book ratios, an outcome for which there is no basis. This unsupportable  
540 assumption then leads to Mr. Gorman’s erroneous conclusion that the external growth  
541 component of the sustainable growth model is negative for the electric utility sample and  
542 minimal for the gas utility sample.

543 Ameren Exhibit 52.0, Schedule 3 corrects Mr. Gorman’s sustainable growth  
544 model results using the *Value Line* forecast stock prices that corresponds to its forecast  
545 book values per share to estimate the external growth component. The resulting average  
546 DCF costs of equity are 10.90% and 10.34% for the electric and gas samples  
547 respectively, compared to Mr. Gorman’s reported average costs of 10.23% and 9.81%.  
548 Replacing the sustainable growth rates in Mr. Gorman’s Table 2 of IIEC Exhibit 6.0 with  
549 the revised values produces the following:

550

<b><u>Mr. Gorman's Table 2 Revised</u></b>		
<b><u>Description</u></b>	<b><u>Electric</u></b>	<b><u>Gas</u></b>
Constant Growth (Analyst)	11.84%	10.31%
Sustainable Growth	10.90%	10.34%
Multi-Stage Growth	10.73%	9.46%
<b>Average</b>	<b>11.16%</b>	<b>10.04%</b>

551 **Q. Mr. Gorman did not accept your Rebuttal testimony regarding the estimate**  
552 **of the market risk premium from historic data, specifically your conclusions**  
553 **regarding the use of income returns rather than total returns to measure historic**  
554 **risk premium and your critique of his estimated risk premium using the historic**  
555 **average of real equity markets plus an estimate of inflation. Do you have any**  
556 **further comments?**

557 A. Yes. Mr. Gorman says that my market risk premium estimated from historic data  
558 is overstated because it relies on income returns rather than total returns on Treasury  
559 bonds. Mr. Gorman is correct that the estimated risk premium using income returns on  
560 Treasury bonds is higher than it would be if it were measured using total returns. The  
561 income return represents the return investors would have received if they had held the  
562 Treasury bond to maturity. The total return represents the return that investors would  
563 have received if they had bought and sold Treasury bonds each year throughout the  
564 historic period. The total returns on bonds, which include annual gains and losses from  
565 buying and selling (and thus incorporate the impacts of interest rate risk), are not a  
566 measure of the risk-free rate. As I indicated in my Rebuttal testimony (page 26), the  
567 application of the CAPM requires a risk-free rate. The income return is the best  
568 representation of the true long-term historical risk free rate.

569 **Q. Mr. Gorman takes issue with your criticism of his risk premium method**  
570 **which estimates the market return by adding an estimate of the long-term rate of**  
571 **inflation to the historic average real return. He disputes your claim that it is**  
572 **necessary to demonstrate that the real return is correlated with historical stock**  
573 **returns. Please respond.**

574 A. My rebuttal evidence demonstrated (Ameren Exhibit 36.0, Table 9, page 24) that  
575 the real return was higher when inflation was lower. Inflation is expected to be lower  
576 going forward (approximately 2%) than it was historically (approximately 3%). The  
577 experienced real returns were higher when inflation was in the 0-3% range than when  
578 inflation exceeded 3%. The higher experienced real returns at lower rates of inflation  
579 suggest that simply using a long-term average real return to estimate the future market  
580 risk premium will understate a reasonable estimate of the future equity market return and  
581 underestimate the equity market risk premium.

582 **Q. Do you have any further comments regarding Mr. Gorman's rebuttal**  
583 **evidence on the market risk premium?**

584 A. Yes. I would point out that the historic measured risk premiums through 2008  
585 were negatively impacted by the significant sell-off in the equity market in 2008.  
586 Although a continuation of the market recovery through the end of 2009 is not assured,  
587 the upswing in the equity market during 2009 (through the end of October) points to a  
588 higher measured equity market risk premium than values calculated through the end of  
589 2008 indicate.

590 **Q. What do you conclude then regarding Mr. Gorman's estimate of the market**  
591 **risk premium and his resulting CAPM costs of equity?**

592 A. They are too low. A conservative estimate of the market risk premium is 6.5%  
593 and the resulting CAPM costs of equity, using his updated betas (IIEC Exhibit 6.6),  
594 should be 9.8% and 9.4% for the electric and gas utilities respectively.

595 **Q. What would be Mr. Gorman's costs of equity for the electric and gas utilities**  
596 **based on both his Table 2 Revised and your corrections to his CAPM test?**

597 A. The cost of equity is 10.5% for the electric utilities and 9.7% for the gas utilities  
598 before taking into account the higher financial risk of the Ameren Utilities inherent in the  
599 ratemaking capital structures relative to the financial risk of the sample companies as  
600 reflected in their market value capital structures.

601 **Q. Mr. Gorman disagrees with your conclusion that he should have used**  
602 **forecast interest rates in both his CAPM and risk premium studies. He states that**  
603 **current yields are as likely to be an accurate forecast of future interest rates as**  
604 **economists' forecasts. Please respond.**

605 A. The high probability that Treasury bond yields will increase was addressed above  
606 in response to Ms. Freetly. Utility bond yields, which Mr. Gorman uses in his risk  
607 premium test (to which he gives no weight), should also be expected to follow an upward  
608 trajectory. Mr. Gorman's risk premium test should incorporate the high probability that  
609 interest rate rates will rise, similar to his application of the CAPM.

610 **VI. RESPONSE TO CUB WITNESS THOMAS**

611 **Q. Please summarize briefly the issues raised in Mr. Thomas's rebuttal**  
612 **testimony that you will address.**

613 A. Mr. Thomas:

- 614 1. Takes issue with my comments regarding the inadequacy of his  
615 recommended returns;
- 616 2. Rejects the use of analysts' growth rates in applying the DCF model due  
617 to alleged optimism;
- 618 3. Claims that his use of real GDP growth as the estimate of investors'  
619 expectations of long-term growth in the multi-stage DCF model is  
620 supported by research;
- 621 4. Rejects the use of adjusted betas in the application of the CAPM absent  
622 empirical support that they result in more accurate betas; and
- 623 5. Disagrees with my conclusion that his estimate of the market risk  
624 premium in the application of the CAPM is too low.

625 **Q. Mr. Thomas states that you compare his recommendations to the allowed**  
626 **returns that have been granted by other regulators and that there is little useful**  
627 **information in that comparison. Please comment.**

628 A. It goes without saying that the estimation of the cost of equity and a fair return  
629 should be independent of what other regulators allow and that the allowed ROE should  
630 not blindly mirror the national average. Nevertheless, the national average allowed ROE  
631 can be interpreted as a consensus assessment of the expert testimony that has been  
632 proffered by a wide range of stakeholders. It is also a relevant indicator of the capital  
633 markets in which the Ameren Utilities will have to compete for capital.

634 **Q. Mr. Thomas suggested that your comments regarding the adequacy of the**  
635 **returns he recommended were "alarmist". Do you agree?**

636 A. No. They are simply underscoring the importance of a fair return. Taking  
637 account of Mr. Thomas' conclusions in his Rebuttal testimony that Ms. Freetly's  
638 methodology for estimating adjustments to the ROEs for the AIUs for the proposed  
639 uncollectible riders is reasonable but that her results are conservative (although he  
640 presents no supporting analysis), effectively his recommended returns would be even  
641 lower than the 7.97% and 8.76% returns on equity he proposed for the AIUs' gas  
642 distribution and electric utility operations respectively. Following the logic of his  
643 discussion of Ms. Freetly's proposed adjustments for the proposed uncollectibles riders,  
644 Mr. Thomas would have the Commission set the allowed ROEs for the AIUs no higher  
645 than a range of 7.02% to 7.23% for the gas distribution operations and 8.09% to 8.47%  
646 for the electric utility operations.<sup>5</sup> Returns at this level are significantly below any  
647 reasonable indicator of the returns investors expect to receive on investments of  
648 comparable risk.

649 **Q. With respect to the DCF test, Mr. Thomas claims (page 6) that analysts tend**  
650 **to be optimistic about future growth rates and that analysts' growth rates cannot be**  
651 **relied upon. Please respond.**

652 A. Mr. Thomas pointed to a number of studies in his Direct testimony which deal  
653 with growth forecasts generally (i.e., growth forecasts for companies in all industries),  
654 not growth forecasts for utilities specifically. A study entitled "The Level and  
655 Persistence of Growth Rates", *Journal of Finance*, Vol. LVIII, No. 2, 2003 by Louis C.  
656 Chan, Jason Karceski and Josef Lakonishok, which divided all U.S. stocks with available

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<sup>5</sup> Equal to Mr. Thomas' recommended ROEs of 7.97% for the gas distribution operations and 8.76% for the electric utility operations less the adjustments for the individual Ameren Utilities shown in Mr. Thomas' Table 4 of CUB Exhibit 2.0.

657 I/B/E/S long-term growth rates into value-weighted portfolios, found that the portfolios  
658 of companies with the highest forecast growth rates achieved growth rates lower than  
659 those which had been forecast five years previously, but the lowest growth portfolio  
660 (where utilities would fall) did not exhibit the same tendency.<sup>6</sup> This outcome would not  
661 be unexpected, as the operating environment and business model for utilities are more  
662 transparent and predictable than that of many other industries, for example, high tech  
663 firms.

664 **Q. Mr. Thomas performs a multi-stage DCF test using a forecast of real**  
665 **economic growth in the final stage, rather than nominal growth. He claims that**  
666 **research supports using real growth rather than nominal growth as the estimate of**  
667 **investors' expectations of long-term growth. Has he accurately characterized the**  
668 **research?**

669 A. No. As I stated in my Rebuttal testimony (page 33), using a real rate of growth  
670 rather than a nominal rate of rate of growth as the estimate of long-term growth rate fails  
671 to consider that investors require both a real return as well as compensation for inflation.  
672 Mr. Thomas points to a citation from the same Chan, Karceski and Lakonishok article  
673 referenced above, which states, "With dividends taken out, the median estimate is the  
674 same magnitude as the growth rate of gross domestic product over this period, between 3  
675 and 3.5 percent in real terms."

676 What Mr. Thomas fails to appreciate is that the authors of the study are analyzing  
677 actual and forecast growth rates over an extended period of time that reflects varying  
678 levels of inflation rates. The authors are not suggesting that the actual nominal rate of

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<sup>6</sup> Ms. Freetly makes the same point in her Rebuttal testimony (Staff Exhibit 20.0, pages 37-38).

679 long-term growth has been equal to the real rate of growth in the economy, or that the  
680 expected nominal rates of long-term growth should be equal to the real rate of growth in  
681 the economy. Rather, when they adjust actual rates of growth across various inflationary  
682 environments for inflation, the authors find they have been approximately equal to the  
683 real rate of growth in the economy or GDP. That conclusion in no way supports using a  
684 real rate of GDP growth as a proxy for investors' expected long-term growth.

685 **Q. In regard to the CAPM, Mr. Thomas concludes that, absent supporting**  
686 **empirical evidence that the adjustments improve the accuracy of beta estimates, the**  
687 **adjustments made by *Value Line* which move the beta toward the market mean beta**  
688 **of 1.0 should be excluded. Please comment on Mr. Thomas' recommendation.**

689 A. As stated in my Rebuttal testimony, the purpose of applying the CAPM is to  
690 estimate the return that investors require or expect. The beta that is used in the  
691 application of the CAPM should be a reasonable predictor of the return that investors  
692 expect. There is significant empirical evidence that the application of the CAPM using  
693 "raw" or unadjusted betas underestimates the returns of low beta stocks (less than 1.0)  
694 and overestimates returns of high beta stocks (greater than 1.0). The adjustment to "raw"  
695 beta corrects for the empirically observed relationships between betas and returns. As  
696 indicated above in my discussion of the merits of weekly versus monthly betas, the  
697 implied betas of both gas and electric utilities (based on the ratio of their achieved risk  
698 premiums to the achieved risk premiums of the equity market as a whole) are higher than  
699 the adjusted *Value Line* betas. Based on that evidence, the adjusted betas as published by  
700 *Value Line* are better predictors of utility returns than the "raw" or unadjusted betas that  
701 upon which Mr. Thomas would have the Commission rely.

702 **Q. Mr. Thomas takes issue with your criticism that his market risk premium is**  
703 **too low and provides a list of estimates that suggest the market risk premium may**  
704 **be lower than his 5%. Please respond.**

705 A. I grant that there are estimates of the future market risk premium that are lower  
706 than 5%. However, as I stated in my Rebuttal testimony (page 41), a review of the  
707 historic evidence does not suggest that there has been any upward or downward trend in  
708 the U.S. equity market returns over the long-term. Based on historical trends, there is no  
709 reason to conclude that equity market returns will be lower in the future than they were in  
710 the past. The average equity market returns since before the Great Depression (1926-  
711 2008) averaged 11.7% and 12.2% over the post World War II period (1947-2008) (and  
712 slightly higher in both cases when the returns to date in 2009 are included); see  
713 AmerenCILCO Exhibit 12G.7.1. The long-term forecast of Treasury bond yields, as  
714 indicated in Ameren Exhibit 36.0, page 37, is approximately 5.5%, which suggests a  
715 future equity market risk premium in the range of 6.2% to 6.7% (11.7% to 12.2% minus  
716 5.5%), and slightly higher if the returns to date in 2009 are taken into account. The  
717 results support an equity risk premium equal to or slightly higher than 6.5% rather than a  
718 premium of 5% or lower.

719 **VII. CONCLUSION**

720 **Q. Does this conclude your surrebuttal testimony?**

721 A. Yes, it does.