Docket Nos. 01-0465/01-0530/01-0637
(Consolidated)
ICC Staff Exhibit 15.0

REBUTTAL TESTIMONY

OF

Michael McNally
Financial Analyst

FINANCE DEPARTMENT
FINANCIAL ANALYSIS DIVISION
ILLINOIS COMMERCE COMMISSION

Approval of Delivery Services Tariffs
and Delivery Services Implementation Plans

Central Illinois Light Company

Docket Nos. 01-0465/01-0530/01-0637
(Consolidated)

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Witness Identification

Q. Please state your name and business address.

A. My name is Michael McNally. My business address is 527 East Capitol Avenue, Springfield, Illinois 62701.

Q. Are you the same Michael McNally who previously testified in this proceeding?

A. Yes, I am.

Q. Please state the purpose of your rebuttal testimony in this proceeding.

A. The purpose of my rebuttal testimony is to respond to the rebuttal testimony of Central Illinois Light Company ("CILCO" or "Company") witness Roger A. Morin (CILCO Rebuttal Exhibit 8.1).

Response to Dr. Morin

Q. Please evaluate Dr. Morin's rebuttal testimony.

A. Dr. Morin's rebuttal testimony contains nothing to change my opinion of the Company's cost of common equity. In my judgment, the investor required rate of return on common equity for CILCO is 11.09%.

Responsiveness

Q. Dr. Morin suggests that his provision of two of the source documents he used in his analysis is satisfactory. Please comment.

A. Unfortunately, the Company did not provide all of the source documents containing the information Dr. Morin used in his analysis, nor did it provide any of Dr. Morin's work papers. Moreover, the documents provided were not made available to Staff in a timely manner. Contrary to Dr. Morin's presumption, Staff does not subscribe to the IBES International Web service. As explained in my direct testimony, my source for the April 2001 IBES growth rate estimates contains slightly different values than those presented in Dr. Morin's direct testimony. Thus, either my source document is not identical to Dr. Morin's or Dr. Morin incorrectly transcribed the data from his source document to his testimony. I also do not have a copy of Moody's Public Utility Manual from December 1999, the source document for much of the data presented in Company Exhibits RAM-2 and RAM-3. Without all of Dr. Morin's source documents, there is no way of verifying the data used in his various analyses and, thus, no way of verifying the accuracy, reliability, and validity of the estimates those analyses produced.

Q. Dr. Morin suggests that his provision of the source document used for his Allowed Risk Premium analysis is satisfactory. Please comment.

A. The purpose of providing source documents is to verify the accuracy, reliability, and validity of the estimates they produce. For example, it permits verification of the accuracy of the data transcribed to schedules, work papers, data request responses, etc. However, even if the source documents support the accuracy of the transcription process, if the source documents do not provide enough detail to verify the reliability and validity of the resulting estimate, the manner in which that data is presented is irrelevant. Such is the case with the source document from which Dr. Morin developed his Allowed Risk Premium estimate. Dr. Morin's Allowed Risk Premium analysis estimates the return on equity ("ROE") from the average ROE allowed each year by various regulatory agencies in hundreds of ROE decisions from 1987-2000.[1] Unfortunately, the source document Dr. Morin relied upon does not disclose such crucial information as which companies were involved in those proceedings, what methodologies were used to determine those ROEs, or what regulatory agencies were responsible for those ROE decisions. Since a company's required rate of return is a function of its risk level, we clearly cannot verify that the average ROEs allowed in those proceedings reflect the ROE CILCO should receive in the instant docket if we do not even know which companies were involved in those proceedings. Likewise, without knowledge of the regulatory agencies responsible for those ROE decisions or the methodologies used in those analyses, one cannot know if the Commission would have agreed with those ROE decisions. Since the source document does

[1] CILCO Exhibit 8.0, pp. 25 and 27.

not reveal this crucial information, even Dr. Morin, the sponsor of the testimony that utilizes that data, cannot know its basis. Thus, he has failed to demonstrate the reasonableness of his estimate.

Sample Groups

Q. Please evaluate Dr. Morin's defense of his sample groups.

A. Dr. Morin has still failed to demonstrate that the risk of his samples is representative of that of CILCO's electric delivery services operations. In response to my critique of his samples, Dr. Morin states "[Mr. McNally's] criticism of the use of natural gas proxies his [sic] that much more puzzling in that he bases his entire ROE recommendation on the Gas Sample DCF and CAPM results."[2] However, Dr. Morin mischaracterizes my critique of his samples. I did not criticize the use of natural gas companies as proxies for electric delivery service operations in general. Rather, I pointed out that Dr. Morin failed to demonstrate that the risk of his particular samples is representative of that of CILCO's electric delivery service operations. His continued emphasis on the similarities in risk between the natural gas and electric industries misses the point entirely. Ultimately, the critical issue is not whether the electric and natural gas industries are similar in risk overall, but rather whether the risk level of his particular samples is representative of that of CILCO's electric delivery service operations. As explained in my direct testimony, simply because a company is from an industry with economic characteristics similar to those of the overall

[2] CILCO Rebuttal Exhibit 8.1, p. 21.

electric utility industry does not necessarily make that company comparable in risk to a particular electric company. Likewise, just because a sample is made up of companies from an industry with economic characteristics similar to those of the overall electric utility industry does not make that sample comparable in risk to any particular electric company. Even within the same industry, the risk level of any two companies can differ significantly. Thus, even a sample composed entirely of electric utilities is not necessarily similar in risk to CILCO. Without any quantitative demonstration that Dr. Morin's samples are reasonable proxies for CILCO's electric delivery services operations in terms of risk, one cannot be confident his cost of equity recommendation is representative of the return on equity expected from CILCO's electric delivery services operations.

In defense of his sample, Dr. Morin also notes that both he and I used samples drawn from the electric and natural gas industries, and that most of the companies in my samples also appear in his samples. Unfortunately, Dr. Morin failed to note a critical difference between our analyses: that I compared the risk of my samples to the risk of CILCO's electric delivery service operations and he did not. Dr. Morin's emphasis on the companies common to both of our samples again misses the point. Since our cost of equity estimates were based on samples, the critical issue is whether those samples as a whole are similar in risk to CILCO's electric delivery service operations. The validity of Dr. Morin's samples remains unknown.

Moreover, our samples are not as similar as Dr. Morin suggests. Dr. Morin employed multiple samples in his various analyses including a sample of

dividend-paying widely-traded natural gas companies ("gas sample"), Moody's Electric Utility Index, Moody's Natural Gas Distribution Index, an unspecified sample of regulated electric companies involved "in hundreds of electric ROE decisions", an unspecified sample of regulated natural gas distribution companies involved "in hundreds of natural gas ROE decisions", and a sample of "generation divested" electric companies.[3] Although nine of the twelve companies in my samples do appear in at least some of Dr. Morin's samples, so do numerous other companies. In fact, most of the companies in Dr. Morin's samples are unique to his analysis. Simply because some of the companies in my samples are among the many companies in his samples does not make our samples as a whole equivalent in risk. Nevertheless, if Dr. Morin is confident that our samples are equivalent in risk, then for the purpose of limiting issues in this proceeding, he should have adopted my samples for his analysis. The fact remains, that while I compared the risks of my samples to that of CILCO's electric delivery services operations, Dr. Morin has not done so for his samples.

Q. Please comment on Dr. Morin's criticisms of your Electric Sample.

A. Dr. Morin's criticisms seem disingenuous since he enlists my Electric Sample in his attempt to support his electric sample. Nevertheless, Dr. Morin is correct in stating that my Electric Sample "is flawed to the extent that it contains vertically integrated electric utilities with generation activities." However, I would be more precise than his conclusion that it "thus represents a poor proxy for electric delivery services."[4] Rather, I would characterize my Electric Sample as an

[3] CILCO Exhibit 8.0, pp. 18, 23, 24, 25, 27, and 31.
[4] CILCO Rebuttal Exhibit 8.1, p. 22.

upwardly-biased proxy for CILCO's electric delivery services operations. As explained in my direct testimony, there is a direct, positive correlation between risk and return; thus, under ideal circumstances the proxy used to estimate the cost of equity of CILCO's electric delivery services operations would reflect only the risk associated with the provision of those services.[5] Presumably, this would best be accomplished with a sample of pure delivery services companies. However, determining the risk level of CILCO's delivery services operations on a stand-alone basis is problematic; and no direct proxies for electric delivery services companies are available. Thus, I selected an electric utility sample to reflect the business profile of an electric delivery services company with CILCO's credit rating.[6] Clearly, however, the cost of equity for CILCO's electric delivery service operations is lower than the cost of equity for my vertically integrated Electric Sample.

Dr. Morin suggests that his "generation divested" electric utility sample is somehow superior to mine. This is a strange implication on the part of Dr. Morin since, as noted in my direct testimony, his sample of "generation divested" electric utilities is not actually generation divested. That is, Dr. Morin's sample is no more immune to the higher risk associated with generation assets than my sample. In fact, contrary to Dr. Morin's assertion, I did not chastise his electric utility sample for including integrated electric companies per se, but merely noted that calling his electric utility sample "generation divested" was misleading since that sample is not truly generation divested. Unfortunately, Dr. Morin did not

[5] ICC Staff Exhibit 5.0, pp. 3 and 11.

[6] It should be noted that a cost of equity estimate based on a proxy which reflects the credit rating of CILCO's overall operations, which include riskier electricity generation, may *overstate* the cost of equity for CILCO's delivery services operations.

demonstrate that his electric utility sample is comparable in risk to CILCO, let alone CILCO's electric delivery services operations. Thus, the validity of his electric utility sample as a proxy for CILCO's electric delivery services operations remains unproven.

Q. Dr. Morin claims that the historical betas of the electric industry do not reflect the current and future trends in the electric industry as well as the natural gas industry betas do. Please comment.

A. Dr. Morin made the same argument in CILCO's last delivery services tariffs ("DST") proceeding, Docket Nos. 99-0119/99-0131 Consol.[7] The Commission Order in that proceeding rejected his cost of equity recommendation in favor of Staff's recommendation.[8] In addition, Dr. James Vander Weide made a very similar argument on behalf of MidAmerican Energy Company in its last DST proceeding, Docket Nos. 99-0122/99-0130, Consol.[9] The Commission Order in that proceeding rejected Dr. Vander Weide's cost of equity recommendations in favor of Staff's recommendation as well.[10] My methodology is consistent with Staff's methodology in both of those proceedings.

The Commission's previous decisions notwithstanding, Dr. Morin's argument is flawed. First, his argument is speculative. Dr. Morin refers to the current "true" beta as though it is observable. He even went so far as to graph it. However, in his response to Staff data request MGM 2.01 he acknowledged that the true beta

[7] CILCO Exhibit 10.0, pp. 19-20 and CILCO Surrebuttal Exhibit 10.0, p. 12.
[8] Order, Docket Nos. 99-0119/99-0131 Consolidated, August 25, 1999, p. 41.
[9] MidAmerican Exhibit 10.0, p.23.
[10] Order, Docket Nos. 99-0122/99-0130 Consol., August 25, 1999, p. 10.

of a security is not observable. Second, before the risks associated with retail competition in the electric supply market began to increase, investors were confronted with the risks associated with excess capacity. While the former risk might be increasing, the latter has declined. Therefore, the assumption that integrated electric utility risks, let alone those of the less risky delivery services component, have risen is questionable. Finally, even if one accepts for the sake of argument that the risk of investing in electric utility common stocks is increasing due to retail competition in the electric supply market, the purpose of this proceeding is to set rates for that portion of electric service that will remain rate regulated. Dr. Morin recognizes the difference between electric delivery services and integrated electric service in his rationale for his use of a gas distribution utility sample and his criterion for selecting the composition of his electric utility sample.[11] If the Commission were to reflect the risk associated with deregulated electric supply service in electric delivery services rates, then customers would be unfairly burdened with paying for that risk twice: once in the price they pay for electric energy and once in the price they pay for its delivery.

Q. Dr. Morin criticizes your Gas Sample for its inclusion of two companies with small market capitalizations. Do you agree with his assessment?

A. No. Dr. Morin claims that my beta estimates for Laclede Gas and Northwest Natural Gas are unreliable because "betas of small companies are subject to the well-known thin trading downward bias."[12] As Dr. Morin described, if a company's stock does not trade at regular intervals, the company's return in any given

[11]CILCO Exhibit 8.0, pp. 18 and 34.
[12]CILCO Rebuttal Exhibit 8.1, p. 17.

period may reflect stale information rather than the current information reflected in the overall market return. Thus, the company's beta estimate, which is a measure of the relationship between the company's periodic returns and the concurrent returns on the overall market, may be unreliable. Unfortunately, Dr. Morin did not provide evidence specific to those two companies to verify that their common stock prices suffer from a thin trading bias, but rather relied on generalized assumptions regarding small companies. Fortunately, the effect of thin trading on the reliability of a given company's beta estimate can be tested by comparing the periodic returns for that company against the prior-period returns for the market. Such a comparison produces what is often referred to as a lag beta. The lag beta detects any lag between the occurrence of events that impact the market and the impact of those events on the values of the thinly traded stock. If thin trading downwardly biases betas to a significant degree, the lag beta would be significantly greater than zero. I performed a lag beta analysis on the companies in my Gas Sample. The results of my analysis using market returns from both one week prior and four weeks prior, presented in Schedule 15.1, revealed no significant positive thin trading effect.[13] In addition, I also performed a lag beta analysis using market returns from one, two, three, and four weeks prior simultaneously, which produced similar results. That is, comparing the periodic returns for the companies in my Gas Sample against the prior-period returns for the market revealed that the relationship between the two is insignificant. Thus, the beta estimates for those three companies do not suffer from a thin trading bias. It is interesting to note that despite Dr. Morin's criticism, Northwest Natural Gas also appears in his sample of natural gas distribution

[13] The only statistically significant (at the 5% level) lag beta was negative, suggesting that thin trading may have upwardly biased the beta estimate for WGL Holdings.

utilities. This is particularly peculiar, since he cites the companies common to both of our samples to defend his sample.

Risk-Free Rate

Q. Please evaluate Dr. Morin's criticism of your consideration of Treasury bills as a measure of the risk-free rate.

A. I will only briefly address this issue, since ultimately Dr. Morin and I agree that currently the U.S. Treasury bond yield is the better estimate of the risk-free rate. As fully explained in my direct testimony, neither the U.S. Treasury bill yield nor the U.S. Treasury bond yield is a perfect proxy for the risk-free rate. Each has advantages which, depending on the prevailing economic conditions, could make it superior to the other. Thus, I would be remiss if, as Dr. Morin suggests, I were to blindly employ the U.S. Treasury bond yield without careful consideration of both the U.S. Treasury bond and U.S. Treasury bill yields. Moreover, the methodology used to determine my risk-free rate estimate is the same methodology used by Staff and accepted by the Commission in numerous prior rate proceedings.[14]

[14] For example, see Staff Ex. CIL-AP.RevDir, pp. 11-15 and Order, Docket Nos. 99-0119/99-0131, Consol., August 25, 1999, p. 41; Order, Docket No. 99-0534, July 11, 2000, pp. 24 and 32; and Order, Docket No. 00-0340, February 15, 2001, pp. 11 and 24.

Empirical CAPM Methodology

Q. Dr. Morin asserts that an adjustment to beta and an adjustment to the Capital Asset Pricing Model ("CAPM") are discrete, unrelated adjustments. Please comment.

A. Dr. Morin contends that the difference between an adjustment to beta and an adjustment to the CAPM is that the beta adjustment is a risk (X-axis) adjustment while the Empirical CAPM ("ECAPM") represents a required return (Y-axis) adjustment.[15] However, since the slope of the Security Market Line ("SML")[16] is a ratio of required return to risk, the mathematical effect of either increasing the required return or decreasing the risk is identical. As such, any adjustment to beta along the X-axis results in a corresponding change to the return along the Y-axis. Thus, the beta adjustment does correct for the alleged flatness in the linear relationship between risk and return.

As demonstrated in my direct testimony, the use of adjusted betas in an empirical CAPM increases the estimate of the cost of common equity for companies with betas of less than one.[17] To revisit, CAPM theory posits that the Y-axis intercept of the SML is the risk-free rate, R_f, and the slope is the market risk premium (R_M - R_f). Dr. Morin's empirical evidence suggests the following adjustment to the CAPM:

[15] CILCO Rebuttal Exhibit 8.1, pp. 18-19.
[16] The Security Market Line is the graphical representation of the CAPM showing the linear relationship between the required rate of return on a security (R_j, on the vertical Y-axis) and beta (on the horizontal X-axis).
[17] ICC Staff Exhibit 5.0, pp 35-37.

$$R_j = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta_j \times (R_m - R_f)$$

This adjustment results in a higher intercept (i.e., [$R_f + 0.25 \times (R_m - R_f)$]) and a flatter slope (i.e., [$0.75 \times (R_m - R_f)$]). The Value Line beta adjustment also increases the intercept and flattens the slope of the SML, only moreso:[18]

$$R_j = R_f + (0.35 + 0.67 \times \beta_j) \times (R_m - R_f)$$

The equation above, which incorporates the Value Line beta adjustment into the traditional CAPM formula, increases the intercept of the SML from R_f to [$R_f + 0.35 \times (R_m - R_f)$] and reduces the slope from ($R_m - R_f$) to [$0.67 \times (R_m - R_f)$]. Combining the Value Line beta adjustment with the adjusted, empirical CAPM formula would further increase the intercept of the SML to [$R_f + 0.51 \times (R_m - R_f)$] and further reduce the slope to [$0.50 \times (R_m - R_f)$]. This differs significantly from Dr. Morin's empirical findings, which, as noted above, suggest an intercept of [$R_f + 0.25 \times (R_m - R_f)$] and a slope of [$0.75 \times (R_m - R_f)$]. Thus, a second adjustment is neither necessary nor warranted.

Furthermore, the Litzenberger study, which Dr. Morin cites as part of the "extensive literature" supporting his ECAPM,[19, 20] indicates that the beta and model adjustment are not independent. Litzenberger does indicate that the observed SML is flatter than theory predicts. However, as a solution,

[18] Value Line adjusts its beta estimates with the following equation: $\beta_{adjusted} = 0.35 + 0.67 \times \beta_j$.

[19] Morin, Roger A., Regulatory Finance, Public Utilities Reports, Inc., Arlington, VA, 1994, p. 334.

[20] Despite Dr. Morin's implication, I did not claim that the Litzenberger study was the sole basis for his ECAPM. Nevertheless, it *is* one of the studies he relies upon. Those studies compare beta estimates to the returns they predict. And, according to the Company response to Staff Data request MGM 2.02, "To the best of Dr. Morin's knowledge, most of [those] studies utilize raw betas."

Litzenberger proceeds to discuss various ways of altering the CAPM or beta to bring the resulting predicted return more in line with actual results. That Litzenberger never combines adjusted betas with alternative versions of the CAPM is significant. Next, Litzenberger describes how the unadjusted (i.e., raw or historical) betas may be used to predict risk premiums.[21] This procedure involves adjusting historical betas using the following equation:

$$\beta_{adjusted} = \omega \times \beta_{historical} + (1 - \omega) \times 1$$

The above adjustment, which Value Line applies to its historical beta estimates,[22] is known as the global adjustment approach. Litzenberger observes that if ω were constant, then the cost of equity estimates using the resulting adjusted betas would be identical to those using unadjusted betas in an empirically-derived CAPM.[23]

Moreover, Dr. Morin's application of Value Line adjusted betas in his ECAPM is inconsistent with the studies upon which his ECAPM is based, which compare raw beta estimates to the returns they predict. As explained in my direct testimony, any adjustment made based purely on empirical evidence rather than financial theory should be applied in a manner that is consistent with the conditions under which it was developed. Specifically, the measure of risk used within the Empirical CAPM must be consistent with that used in the empirical

[21] Litzenberger, Ramaswamy and Sosin, "On the CAPM Approach to the Estimation of A Public Utility's Cost of Equity Capital," *Journal of Finance*, May 1980, p. 376.

[22] For Value Line's adjustment, ω = 0.67.

[23] Litzenberger, Ramaswamy and Sosin, "On the CAPM Approach to the Estimation of A Public Utility's Cost of Equity Capital," *Journal of Finance*, May 1980, pp. 376 and 380.

studies from which the model was developed. Dr. Morin states that his application of the ECAPM is consistent with the studies upon which it was based, claiming that "[his] own empirical investigation of the relationship between return and Value Line adjusted betas is quite consistent with the general findings" of the studies he cited that used unadjusted betas.[24] Unfortunately, Dr. Morin does not provide any explanation of his investigation nor any of the source data, except for a graph in the Company response to Staff Data request MGM 2.02 that purportedly demonstrates that the observed relationship between DCF returns calculated using Value Line growth rate estimates and Value Line adjusted betas is much flatter than that predicted by the traditional CAPM. It is difficult to see how his graph demonstrates that an adjusted beta is appropriate for use in an empirical CAPM. And because Dr. Morin failed to supply the underlying data, I cannot reproduce it. First, the graph suggests that the data is from a single date, January 2000, which is insufficient for verifying the validity of Dr. Morin's ECAPM. I, too, would expect a flatter line using current betas and DCF estimates since my DCF estimates are higher than my CAPM estimates. However, in Docket Nos. 99-0119/99-0131 Consol., CILCO's last DST case, the reverse was true, suggesting that the CAPM overstated the cost of common equity. Second, Dr. Morin's "investigation" is a joint test of the validity of Value Line growth rate estimates and Value Line betas. If Value Line growth rate estimates are poor proxies for investor expectations, then his test is invalid.

Moreover, Dr. Morin's own words refute his claim of consistency. According to the Company response to Staff Data request MGM 2.02, to the best of Dr.

[24] CILCO Rebuttal Exhibit 8.1, p. 20.

Morin's knowledge, most of the studies he cites to support his claim for a need to adjust the standard CAPM utilized raw betas. In fact, raw betas were used to derive Dr. Morin's ECAPM.[25] Using raw betas, Dr. Morin measured the relationship between realized returns and beta as: $R_j = .0829 + .0520 \times \beta_j$.[26]

Dr. Morin then used that risk-return relationship to derive his ECAPM. However, rather than consistently use raw betas, as he did in formulating his ECAPM, Dr. Morin switched to adjusted betas in his application of his ECAPM. As explained above, it is imperative that the application of any model adjusted to reflect empirical evidence be consistent with the conditions under which that adjustment was developed, or the results of the model will differ from the results the empirical evidence suggests. For example, substituting $\beta_{adjusted}$ for β_{raw}, would necessitate the following adjustment to the formula above:[27]

$$R_j = 0.0557 + 0.0776 \times \beta_j$$

It is significant that the 5.57% and 7.76% are very similar to the historical risk-free rate and historical risk premium, respectively, cited by Dr. Morin.[28] Thus, he would have had to conclude that the ECAPM is unnecessary when Value Line betas are used because, consistent with Litzenberger's observation, any ECAPM derived from the latter equation would be very close to the standard CAPM

[25] Rebuttal Testimony of Dr. Roger A. Morin, US West Corporation, Arizona Corporation Commission, March 1989.
[26] Id.
[27] See Schedule 15.2.
[28] Morin, Roger A., Regulatory Finance, Public Utilities Reports, Inc., Arlington, VA, 1994, p. 335.

model. Thus, when adjusted betas are used, an empirical CAPM is neither necessary nor warranted.

Q. Dr. Morin claims that his empirical approximation to the CAPM "is consistent with both theory and with a huge body of empirical evidence…."[29] Please comment.

A. Dr. Morin's claim is unsound. First, no model can be consistent with both theory and empirical evidence unless the empirical evidence matches the theoretical predictions. The entire basis for Dr. Morin's ECAPM is that the empirical evidence does not match the results CAPM theory predicts. Thus, Dr. Morin's use of an ECAPM is not consistent with theory. Second, although Dr. Morin's ECAPM formula may be consistent with empirical evidence, his application of his ECAPM was not. As I demonstrated above, the application of adjusted betas to an ECAPM results in overstated estimates of the cost of common equity for companies with betas of less than one. Moreover, I also demonstrated that if one were to derive an ECAPM model using adjusted beta estimates, the resulting ECAPM would certainly differ from Dr. Morin's ECAPM. In fact, it would be almost identical to the CAPM. Thus, contrary to the Company's claims, Dr. Morin's use of adjusted beta estimates in his ECAPM was not consistent with either theory or empirical evidence, and resulted in an overstated cost of equity estimate.

[29] CILCO Rebuttal Exhibit 8.1, pp. 19-20.

Q. Please comment on Dr. Morin's claim that your CAPM estimate understates CILCO's cost of equity.

A. This is a strange argument on the part of Dr. Morin, considering he used the CAPM in his own analysis and did not discard it as being flawed. Nevertheless, as demonstrated above, it is not appropriate to apply an adjusted beta to an empirical version of the CAPM because such an application results in an over-adjustment relative to what the empirical evidence suggests. Such an over-adjustment results in overstated cost of equity estimates for companies with betas less than one. All of the companies in Dr. Morin's samples have betas well below one. Thus, my CAPM estimate is not understated, but rather, Dr. Morin's ECAPM estimate is overstated.

Flotation Cost Adjustment

Q. Dr. Morin states that it is difficult to tell what your position is on the subject of flotation cost recovery. Do you agree?

A. No. As explained in my direct testimony, the Commission has traditionally approved flotation cost adjustments only when the utility can demonstrate that it will be issuing stock or when it can demonstrate that previously incurred costs have not yet been recovered through rates. Dr. Morin misconstrued my argument to mean that "flotation costs are real and should be recognized, but only at the time when the expenses are incurred," and that "the flotation cost

allowance should not continue indefinitely."[30] I did not advocate expensing flotation costs in the period incurred. To reiterate, my position is that the Commission should allow a return on, but not a recovery of, the issuance costs the Company has incurred but has not yet recovered. A return should also be allowed on the issuance costs associated with demonstrably known future stock issuances. A return on those issuance costs should continue in perpetuity, or until such time as those costs are allowed to be recovered. As noted in my direct testimony, CILCO Exhibit 11.5 indicates that the Company has incurred $2,273,429 in common equity issuance costs that remain unrecovered and anticipates no new equity issuances. Inserting that amount into the flotation cost formula on page 23 of my direct testimony produces a flotation cost adjustment of seven basis points. In contrast, Dr. Morin's flotation cost adjustment recommendation is not based on actual unrecovered costs and, thus, should be rejected. In fact, a seven basis point issuance cost allowance would be perfectly consistent with the Commission's decision in CILCO's last DST case, in which the Commission rejected Dr. Morin's generalized flotation cost adjustment in favor of Staff's Company-specific seven basis point issuance cost adjustment recommendation.[31]

Q. Please respond to Dr. Morin's claim that his flotation cost adjustment methodology permits the recovery of issuance costs by amortizing those costs over an infinite period.

[30] CILCO Rebuttal Exhibit 8.1, p. 8.
[31] Order, Docket Nos. 99-0119/99-0131, Consol., August 25, 1999, p. 41.

A. As discussed on page 24 of my direct testimony, any attempt to recover a cost requires the establishment of a finite amortization period. His approach in no way permits the recovery of issuance costs, since dividing by infinity results in zero. Rather, his approach, like my approach, allows a return on expenses, which is not equivalent to expensing issuance costs in each period when a stock issue occurs. The principal difference between our approaches is that Dr. Morin's flotation cost adjustment recommendation is based on empirical studies of an assortment of utility stock offerings in the U.S., whereas my recommendation is based upon the issuance expenses that have been demonstrably incurred but not recovered. Generalized flotation cost adjustments, such as Dr. Morin's, have been rejected by the Commission, whereas my methodology is consistent with previous Commission decisions.[32]

Q. Dr. Morin disagrees with your position regarding market pressure.[33] Please comment.

A. Dr. Morin confuses market pressure and issuance costs by combining them as flotation costs, as though they are interchangeable. However, there is a critical difference between the two. Issuance costs are expenses that accrue to third parties when a company issues additional shares of stock (e.g., underwriting fees). That is, issuance costs represent the difference between the amount of money investors pay for a stock issuance and the net proceeds the company receives, reducing the amount of money available to the company for the purchase of rate base assets. In contrast, market pressure is merely a

[32] ICC Staff Exhibit 5.0, pp. 37-38.
[33] CILCO Rebuttal Exhibit 8.1, pp. 9-12.

temporary reduction in stock price allegedly[34] caused by the issuance of additional shares of stock. Market pressure does not cause any of the money invested by shareholders to be diverted to third parties. Thus, assuming no issuance costs, all money invested by shareholders is available to the company to spend on rate base assets, regardless of market pressure. Consequently, CILCO's allowed return on equity should not compensate for market pressure.

It is interesting that Dr. Morin should claim that I "missed the point" regarding market pressure, since the examples he presents in his rebuttal testimony have nothing to do with market pressure. Rather, they merely demonstrate that issuance costs need to be compensated, a premise with which I have already agreed. Both of his examples refer to situations in which the shareholders invest more money than the company receives, which indicates that issuance costs must be accruing to third parties, as explained above. To illustrate, the price investors pay for the new issue in Dr. Morin's second flotation cost example is $5.00.[35] If there had been market pressure, investors would have paid less than the initial $5.00 price. While the stock price remains at $5.00 after the stock issuance, the proceeds to the Company from the stock issue are only $4.75. Thus, the flotation costs in the example must be entirely issuance costs accrued to third parties. While Dr. Morin's examples demonstrate that issuance costs need to be compensated, they do not address the issue of market pressure.

[34]The market pressure component of Dr. Morin's flotation cost adjustment is alleged because no evidence specific to CILCO has been presented to demonstrate that the Company has incurred any permanent costs due to the market pressure effects from issuing new equity capital.

[35]CILCO Rebuttal Exhibit 8.1, pp. 10-11 and CILCO Exhibit RAMREB-1, pp. 1-3.

Final Recommendations

Q. Dr. Morin states that he is surprised that you would criticize his use of the midpoint of his range of estimates for his final recommendation given your own use of midpoint estimates in past testimony, which, he argues, is "in sharp contrast" with your use of a simple average to determine your final recommendation in the instant docket.[36] Please comment.

A. Dr. Morin's implication that my use of midpoint estimates in past testimony is comparable to his use of a midpoint estimate in the instant docket is inaccurate. His argument is simply a matter of semantics. The midpoint of two estimates is equivalent to the simple average of those two estimates. Since the calculations of my final recommendations in both MidAmerican Energy Company's concurrent DST proceeding (Docket No. 01-0444) and the instant docket are each based on only two estimates, both could be described equally well as either midpoints or simple averages. Thus, my use of a midpoint estimate in Docket No. 01-0444 is not "in sharp contrast" with my use of a simple average in the instant docket; rather, the two are quite consistent. In contrast, the midpoint of the range of more than two estimates is generally not equivalent to the simple average of the highest and lowest of those estimates. Dr. Morin used the midpoint between the highest and lowest of *nine* estimates to derive his final recommendation. That is equivalent to disregarding seven of the nine estimates and averaging only the remaining two. As explained in my direct testimony, seven of the nine individual estimates Dr. Morin allegedly included in his final cost of equity recommendation

[36] CILCO Rebuttal Exhibit 8.1, pp. 24-25.

fall below his 12.0% recommendation. The simple average of the nine individual estimates produces an estimate of 11.68%. Thus, Dr. Morin's final recommendation does not reflect the central tendency of all nine of his estimates.

Q. Dr. Morin suggests that your cost of equity recommendation in the instant docket would have been higher had you followed the same methodology as you did in the MidAmerican DST docket, and states that you did not explain why you switched methodologies.[37] Please comment.

A. I used the same methodology in both Docket No. 01-0444 and the instant docket. However, my conclusion regarding the weighting to assign my sample groups in each of those dockets differed due to differing circumstances. I assigned 50% weighting to each of my samples in Docket No. 01-0444. My reason for doing so was clearly explained in my direct testimony in that proceeding. I assigned 100% weighting to my Gas Sample in the instant docket. My reason for doing so was clearly explained in my direct testimony in this proceeding. Of course, my cost of equity recommendation in the instant docket would have been higher had I drawn the same conclusion as I did in Docket No. 01-0444 regarding the weighting to assign to my sample groups; but as explained in my direct testimony in each of those proceedings, different conclusions were warranted.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

[37] CILCO Rebuttal Exhibit 8.1, p. 25.

Docket Nos. 01-0465/01-0530/01-0637
(Consolidated)
ICC Staff Exhibit 15.0
Schedule 15.1

CENTRAL ILLINOIS LIGHT COMPANY

1-Week Lag Beta Results

Company	Beta	Lag Beta	Lag Beta t-Statistic
Laclede Gas Co.	**0.336103**	**-0.111131**	**-1.56030**
NICOR, Inc.	0.369505	-0.109092	-1.70764
Northwest Natural Gas	**0.282172**	**0.116781**	**1.34002**
Peoples Energy Corp.	0.520112	-0.075216	-1.02648
Piedmont Natural Gas Co.	0.400853	-0.044678	-0.53975
WGL Holdings, Inc.	0.408057	-0.175603	-2.53867

4-Week Lag Beta Results

Company	Beta	Lag Beta	Lag Beta t-Statistic
Laclede Gas Co.	**0.347049**	**-0.120714**	**-1.71648**
NICOR, Inc.	0.387828	0.003574	0.05629
Northwest Natural Gas	**0.264818**	**0.032577**	**0.37700**
Peoples Energy Corp.	0.530154	-0.039275	-0.54150
Piedmont Natural Gas Co.	0.404920	-0.053908	-0.65911
WGL Holdings, Inc.	0.438394	0.019359	0.27972

CENTRAL ILLINOIS LIGHT COMPANY

Dr. Morin used the following equation to derive his ECAPM:

$$R_j = .0829 + .0520 \times \beta_j \qquad (1)$$

where R_j ≡ the required rate of return for security *j*, and
β_j ≡ the raw measure of systematic risk for security *j*.

However, Dr. Morin substituted adjusted betas into his ECAPM. Value Line adjusts its beta estimates using the following formula:

$$\beta_{adjusted} = 0.35 + 0.67 \times \beta_j$$

That formula can be restated as follows:

$$\beta_j = (\beta_{adjusted} - 0.35) / 0.67 \qquad (2)$$

Thus, if one were to substitute an adjusted beta into formula (1) above, he would have to reverse the Value Line beta adjustment by substituting the right-hand side of equation (2) for β_j. That would produce the following alternative to equation (1):

$$R_j = .0829 + .0520 \times [(\beta_{adjusted} - 0.35) / 0.67]$$

$$R_j = .0829 + .0520 \times (\beta_{adjusted} / 0.67) - .0520 \times (0.35 / 0.67)$$

$$R_j = .0829 + .0776 \times \beta_{adjusted} - .0520 \times 0.52$$

$$R_j = .0829 + .0776 \times \beta_{adjusted} - .0272$$

$$R_j = .0557 + .0776 \times \beta_{adjusted}$$