

June 24, 2002

VIA HAND DELIVERY



Mr. Dale Hardy Roberts
Secretary/Chief Regulatory Law Judge
Missouri Public Service Commission
200 Madison Street, Suite 100
Jefferson City, MO 65101

Re: MPSC Case No. EC-2002-1

Dear Mr. Roberts:

Enclosed for filing on behalf of Union Electric Company, d/b/a AmerenUE, in the above matter, please find an original and eight (8) copies of its **Motion To Exclude The Testimony Of Staff Witness Ronald L. Bible.**

Very truly yours,

James J. Cook / sh

James J. Cook
Managing Associate General Counsel

JJC/vww

Enclosures

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

The Staff of the Missouri Public)	
Service Commission,)	
)	
Complainant,)	
)	
v.)	Case No. EC-2002-1
)	
Union Electric Company, d/b/a)	
AmerenUE,)	
)	
Respondent.)	

**MOTION TO EXCLUDE
THE TESTIMONY OF STAFF WITNESS RONALD L. BIBLE**

AmerenUE ("UE" or the "Company") respectfully moves, pursuant to the Notice Regarding Hearing Schedule, and Objections to Depositions and Testimony, Case No. EC-2002-1 (June 18, 2002), to exclude the testimony of Ronald L. Bible, to be offered by the Staff of the Missouri Public Service Commission (the "Staff") concerning the rate of return to be ordered in this case. The basis for this Motion, explained in more detail below, is that the testimony of Mr. Bible is legally incompetent and inadmissible pursuant to § 490.065(3) RSMo., and would not otherwise serve the interests of justice, because the facts and methodology on which Mr. Bible relies to propose a rate of return for UE are not "of a type reasonably relied upon by experts in the field in forming opinions or inferences" and are not "otherwise reasonably reliable."

PRELIMINARY STATEMENT

Under American law in general, and Missouri law in particular, there are essentially two types of witnesses: fact witnesses and opinion witnesses. A fact witness, as the name obviously implies, testifies to a fact he or she claims is true, whether because

the witness saw it, someone else saw it and reported it to the witness, or based on any number of ways in which someone can perceive fact. Regardless of how a witness claims to know a fact, it is the *objective* quality of a fact that makes such a witness' testimony reliable enough to be admissible in a legal proceeding. The witness' testimony can be tested by other evidence regarding the same fact – the testimony of other witnesses who were at the scene, other physical evidence that bears on the alleged fact, and so on. In this way, our basic notions of finding the truth through fair, or “due,” process are met.

The testimony of an opinion witness on the other hand does not have those “real world” safeguards that make the testimony of a fact witness admissible. An opinion witness by definition is offering inherently *subjective* testimony – his or her opinion or conclusion – that cannot commonly be tested by the tribunal or by other parties by reference to evidence of objective facts. The most common opinion witness, and the type that concerns us here, is the “expert” opinion witness, though in certain circumstances the law allows a lay person to offer an opinion, too. Mr. Bible, and indeed most, if not all, the Staff's witnesses, are offering opinion testimony as experts.

The safeguards the law has created to allow certain opinion testimony by experts really have two elements, clearly reflected in Missouri law. First, if technical or specialized knowledge will assist the tribunal, a person properly qualified as an expert in the particular field by training, education, and so on, is potentially competent to offer opinion evidence.¹ The testimony of such a witness is only *potentially* competent to be

¹ See 490.065(1) RSMo:

In any civil action, if scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise.

offered because the law imposes a further condition on the admissibility of the *particular* opinion to be offered in a case:

The facts or data in a particular case upon which an expert bases an opinion or inference may be those perceived or made known to him at or before the hearing and *must be of a type reasonably relied upon by experts in the field in forming opinions or inferences upon the subject and must be otherwise reasonably reliable.*

490.065(3) RSMo (emphases added).

Here, we contend that Mr. Bible's opinion testimony rests on data and methodology that is not "of a type reasonably relied upon by experts in the field," and is not "otherwise reasonably reliable." As Professor Roger A. Morin, author of several treatises on regulatory finance, and expressly recognized as an authority in this field by Mr. Bible and the Staff,² summarized the fatal flaws in Mr. Bible's testimony:

Specifically, though Mr. Bible uses the names of well-known methodologies in describing how he estimates a future rate of return on equity ("ROE") for AmerenUE, he in fact applies these methodologies in ways that are so unique, and ultimately so unreliable, that they cannot be said to be generally accepted, and are far removed from the methodologies for estimating ROE that are reasonably relied upon, by experts in the field. Moreover, Mr. Bible's version of these methodologies has not been tested or subjected to peer review to determine their potential rate of error or overall ability to provide this Commission with reliable information by which to adjudicate the Staff's rate complaint. Indeed, a most striking feature of Mr. Bible's unique treatment of the data to produce his estimate is that it is, as he freely admits, simply a function of his own "judgment," which he apparently feels free to change at any time, and does not originate from industry knowledge or any generally accepted approach by experts in the field.³

We have concluded that it was important to make this Motion because the issue here is far more than some arcane point of financial accounting or a "battle of the

² See November 2002 Deposition of Ronald L. Bible, at 23:16 – 24:6 (November 12, 2001) (Tab D) (Bible Nov. Dep."); Staff Responses to Union Electric Company's First Set of Interrogatories, Nos. 82-83 (Tab K- excerpts).

³ May 2002 Rebuttal Testimony of Roger A. Morin. at 3:7 – 4:2 (Tab I) ("Morin").

experts” kind of matter that simply goes to the weight of the evidence. Indeed, it is the fact that rate of return testimony is so commonly just that -- a debate over highly technical points involving mathematical calculations, tables of unending numbers, and the like – than one can lose sight of the fundamental conceptual and methodological flaws in the opinion Mr. Bible offers in his testimony that render it utterly unreliable. Moreover, of course, the practical impact on UE’s revenue of this Commission’s decision on the proper rate of return is enormous.⁴

It is true that Missouri law gives the Commission a certain discretion regarding rules of evidence,⁵ but that discretion is not unlimited. *See State ex. rel. Fischer v. Pub. Serv. Comm’n*, 645 S.W.2d 39 (Mo. App. 1982)(“[The statute] does not...give [the Commission] unlimited discretion to conduct its hearings in any possible manner...it gives the Commission flexibility...as long as its proceedings satisfy all other statutory requirements.”). Indeed, “[t]he only purpose of Section 386.410-1 was to serve the convenience of the Commission and the parties before it and to expedite proceedings.” *State ex rel. Southwestern Bell Telephone Co. v. Public service Comm’n*, 645 S.W.2d 44, 50-51 (Mo. App. 1982). The Commission has recognized, “Substantial evidence is evidence that if true has probative force upon the issues[.] Competent evidence is that which is relevant and admissible evidence which is capable of establishing the fact in issue.” *GS Technology Operating Co., Inc. v. Kansas City Power & Light Co.*, Case No.

⁴ For example, Staff’s own accounting schedules in this case show that a 1 percentage point (*i.e.*, 100 “basis point”) difference in the allowed return on equity (“ROE”) affects UE’s revenue requirement by approximately \$40 million. The difference between Mr. Bible’s mid-point recommendation (9.41%) and the average ROE that other state regulatory commission have allowed in rate orders during the test year and update period for this case (11.27%) has a more than \$70 million impact on UE’s revenue requirement. The difference between the upper end of Mr. Bible’s recommended range (9.91% ROE) and the upper end of what other state commissions have allowed during that same period (12.9%) is almost \$120 million in terms of revenues.

EC-99-553, 2000 Mo. PSC LEXIS 1009 at *32 (July 13, 2000). As a result, the Commission has concluded that “because the courts have held that a Commission decision must be supported by evidence of record that is both competent and substantial, the technical rules of evidence are indeed very much applicable to Commission proceedings.” *Id.* at *33.

At bottom, then, we believe that Mr. Bible’s testimony does not offer substantial and competent evidence on the issue of the rate of return and is inadmissible. This testimony should therefore be excluded from these proceedings.

BACKGROUND

Mr. Bible first filed testimony in this case on July 2, 2001.⁶ On November 1, 2001, Mr. Bible filed a revision of his July Testimony.⁷ He was deposed on that testimony on November 12, 2001.⁸ After the Commission’s rulings on the test year issue, Mr. Bible filed new testimony on March 1, 2002.⁹ Later that month he filed revisions to that testimony.¹⁰ Mr. Bible was deposed for a second time on April 16, 2002.¹¹

Mr. Bible recommends a return on equity (“ROE”) for UE in the range of 8.91% to 9.91% with a midpoint of 9.41%.¹² In determining AmerenUE’s cost of common equity capital, Mr. Bible applies the constant growth discounted cash flow (“DCF”)

⁵ See 386.410(1) RSMo (“And in all investigation, inquiries or hearings the commission or commissioner shall not be bound by the technical rules of evidence.”).

⁶ See July 2001 Direct Testimony of Ronald L. Bible (July 2, 2001)(Tab A)(“July Testimony”).

⁷ See July 2001 Replacement Pages to Direct Testimony (redlined version) of Ronald L. Bible (Nov. 1, 2001)(Tab B)(“Redlined Testimony”); July 2001 Revised Direct Testimony of Ronald L. Bible (Nov. 1, 2001)(Tab C)(“Revised July Testimony”).

⁸ See Bible Nov. Dep. (Tab D).

⁹ See March 2002 Direct Testimony of Ronald L. Bible (March 1, 2002)(Tab E)(“March Testimony”).

¹⁰ See March 2002 Direct Testimony of Ronald L. Bible (redlined version) (March 29, 2002)(Tab F); March 2002 Direct Testimony of Ronald L. Bible (corrected pages) (March 29, 2002)(Tab G).

¹¹ See Bible April Dep. (Tab H).

¹² See March Testimony at 2:19-20 (Tab E).

method to Ameren Corporation (“Ameren”), and, as separate “checks” on the results of his DCF analysis (which he applied only to this one-company sample), he applies the same DCF analysis, separately, to a set of three electric utilities, and also performs Risk Premium and Capital Asset Pricing Model (“CAPM”) analyses for Ameren and his set of three utilities.¹³

ARGUMENT

Though there are many issues with Mr. Bible’s testimony that undermine the weight that should be given to it, the flaws in Mr. Bible’s testimony that undermine its admissibility can be grouped into three categories.

I. MR. BIBLE FAILS TO APPLY INFORMED JUDGMENT IN ESTIMATING ROE.

Fundamentally, the undertaking to estimate a rate of return is a prospective task. A proposed rate of return does not measure the returns that investors have achieved, nor does it simply reflect the returns of the past. Rather, it attempts to *predict* the returns investors require in the future. Obviously, such an undertaking cannot be reduced to a simple mathematical exercise. As Mr. David Parcell, an expert who has testified on cost of capital issues before this Commission on behalf of the Office of Public Counsel (“OPC”) in the past, (and an individual whose expertise has been recognized by Mr. Bible¹⁴) put it:

Neither the courts nor economic/financial theory have developed exact and mechanical procedures for precisely determining the cost of capital. This is the case since the cost of capital is an opportunity cost and is prospective looking, which indicates it must be estimated.¹⁵

¹³ See *id.* at 19:5 – 30:4 (Tab E).

¹⁴ See Bible Nov. Dep. at 23:21 – 24:6 (Tab D).

¹⁵ David C. Parcell, Direct Testimony on Behalf of Missouri Public Counsel, Case No. GR-97-393, p. 9, lines 12-15.

Not only is DCF, or any method for estimating a rate of return, not a mathematical “black box” that can reliably crank out the “right” rate of return, but the very predictive nature of the rate of return estimate requires broad consideration of economic conditions, not only in shaping the end result, but in evaluating what data to use in the DCF or other analyses. For example, as OPC’s rate of return witness in this case, Mr. Mark Burdette, explained in his recent deposition, “[h]istorical growth rates can provide an indication of how the company has done in the past, but they are relevant to a forward-looking cost of capital analysis only to the extent that future economic conditions will mimic historical conditions.”¹⁶ Mr. Burdette went on to explain that “future economic conditions” “could encompass everything from the business cycle to interest rates, general economic outlook.”¹⁷ Particularly important, according to Mr. Burdette, are changes in economic conditions.¹⁸ Indeed, Mr. Burdette explained that his judgment concerning the use of a particular growth rate was a function of his understanding of economic conditions.¹⁹ As Prof. Morin put it in his widely used treatise, “The DCF model is one of many tools to be employed in conjunction with other methods to estimate the cost of equity. It is not a superior methodology that supplants other financial theory and market evidence.”²⁰

In addition, the legal standard for a fair return echoes this need to examine broader economic conditions because that standard ultimately rests on an appreciation of the opportunity cost associated with the funds that capital suppliers provide a public

¹⁶ Deposition of Mark Burdette, at 41:10-14 (June 20, 2002)(“Burdette Dep.”)(Tab O).

¹⁷ *Id.* at 41:20-22.

¹⁸ *Id.* at 43:1-19.

¹⁹ *Id.* at 73:7-12(“[P]otentially I could find a 16 percent growth rate that was extremely applicable or absolutely applicable to that company, based on economic conditions, but a growth rate going forward for a regulated utility based on a 25 percent return on equity I don’t believe is reasonable.”).

utility. That cost is the expected return foregone by not investing in other enterprises of corresponding risks.²¹ As the classic formulation from *Bluefield Water Works & Improvement Co. v. Public Service Comm'n*, 262 U.S. 679, 692-93 (1923) put it:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties.

Accordingly, a competent rate of return estimate, as understood by the mainstream of experts in this field, cannot be arrived at simply by a manipulation of numbers, but must include the application of broader knowledge, knowledge of the company, its operations, its needs, and the industry in which it operates, along with an appreciation for the wider economic and regulatory situation in areas surrounding the state in which the company operates. After all, investors are not limited by state lines. These investment dollars can be attracted to other companies, even if they are located in another state, if a rate of return set for a particular utility is not competitive.

At bottom, then,

[t]he DCF method cannot be applied in a robotic, mechanistic manner. Mechanical approaches designed simply to insert numbers into an algebraic equation without regard to the reasonableness of such inputs in a regulatory setting must be avoided. For example, the determination of expected growth is judgmental, since expected growth lies buried in the minds of investors, unobservable. Any inconsistency between historically-based growth estimates, analysts' forecasts, and sustainable growth estimates should be explainable by objective common-sense economic reasoning.²²

²⁰ Roger A. Morin, REGULATORY FINANCE: UTILITIES' COST OF CAPITAL, 234 (1994) ("UTILITIES' COST OF CAPITAL").

²¹ See Richard A. Brealey & Stewart C. Myers, PRINCIPLES OF CORPORATE FINANCE, 228 (2000) ("CORPORATE FINANCE").

²² *Id.* at 244. See also *id.* at 232 ("[DCF] is not a superior methodology that supplants other financial theory and market evidence.").

Mr. Bible's testimony is utterly devoid of any broader understanding or analysis of economic conditions, or, as Mr. Burdette emphasized, of changes in economic conditions. For example, uncannily reflecting Mr. Burdette's observation, Mr. Bible simply acknowledges that he has "no way of knowing" whether future growth rates will "track" historical growth rates,²³ even though, as we will discuss below, his calculations significantly rely on historical growth rates.

To be sure, Mr. Bible's continued reliance on historical data, notwithstanding his admission that he has absolutely no idea whether the future will mirror that history, is not based on any judgment on his part that the economic conditions of the past have been constant and will remain unchanged. Indeed, he is unfamiliar with some of the key developments that have produced a revolution in the electric power industry, including the Energy Policy Act of 1992,²⁴ FERC Order 888,²⁵ and FERC Order 2000,²⁶ though he is "generally" familiar with PURPA, while not knowing whether that statute had any impact on the introduction of competition into the industry.²⁷

In terms of economic conditions, Mr. Bible has not made any judgment concerning whether the country is in a recession,²⁸ or whether we are heading into one.²⁹ He has done no analysis of the movement of stock prices over the last ten years.³⁰ Closer to home, Mr. Bible has done no analysis of the Missouri economy.³¹ He has no

²³ Bible Nov. Dep. at 105:19 – 106:13 (Tab D).

²⁴ *Id.* at 107:13-16.

²⁵ *Id.* at 107:17-18.

²⁶ *Id.* at 107:19-20.

²⁷ *Id.* at 106:19 – 107:12.

²⁸ *Id.* at 113:11-13; Bible April Dep. at 38:4-8 (Tab H).

²⁹ Bible Nov. Dep. at 113: 14-16 (Tab D).

³⁰ *Id.* at 85: 22-24.

³¹ Bible April Dep. at 38: 16-18 (Tab H).

idea of whether the economy of Missouri is slowing or growing.³² Mr. Bible does not know whether the population of Missouri is growing, though admits that looking into it “might be a good idea.”³³ He does not know what the unemployment rate in Missouri is.³⁴ And he does not know how the price of electricity in St. Louis compares to the price of electricity in other major metropolitan areas in the United States.³⁵ When asked whether he had done any analysis of trends in natural gas prices or in wholesale electric power prices, he answered that he had not,³⁶ and sarcastically dismissed this line of questioning by adding that “I haven’t been to the moon, either.”³⁷

Focusing on UE, he is unfamiliar with UE’s transmission infrastructure needs over the next five years.³⁸ Similarly, he has done no analysis of UE’s generation capacity needs over the same time period.³⁹ He concedes that he has “read” that “UE is one of the lowest cost producers of electricity in the Midwest,”⁴⁰ but does not know whether he “agrees” with that or not.⁴¹ He has no opinion as to whether UE is well-managed.⁴² In fact, Mr. Bible explained that he did not consider management efficiency or inefficiency in proposing a “fair” rate of return,⁴³ though he did acknowledge that “an investor’s judgment about whether a company is well-managed” can “ultimately affect the cost of

³² *Id.* at 38: 19-21.

³³ *Id.* at 38: 22-25.

³⁴ *Id.* at 39: 1-3.

³⁵ *Id.* at 39: 4-7.

³⁶ *Id.* at 40: 13-18.

³⁷ *Id.* at 40: 20.

³⁸ *Id.* at 39: 8-11. Mr. Bible is likewise unfamiliar with UE’s past investment in infrastructure. *See* Bible Nov. Dep. at 69: 2-10 (Tab D) (Mr. Bible does not know how many natural gas-fired turbines UE has built in the last ten years, or how big an investment such turbines are.).

³⁹ Bible April Dep. at 39: 12-14 (Tab H).

⁴⁰ *Id.* at 39: 20-22.

⁴¹ *Id.* at 39: 23-25.

⁴² Bible Nov. Dep. at 91: 4-6 (Tab D).

⁴³ *Id.* at 51: 20 – 52:3.

equity.”⁴⁴ Dr. James Bonbright (one of the leading scholars in the field whose work greatly shaped contemporary ratemaking) and Mr. Parcell both note that the criteria of a fair return include: “(1) attracting capital, (2) encouraging efficient managerial practice, (3) promoting consumer rationing, (4) ensuring fairness to investors, and (5) providing a reasonably stable and predictable rate level to ratepayers.”⁴⁵ Even the Staff’s own

TRAINING MANUAL provides:

In determining a fair rate of return consideration should be given to several factors, including: ability to attract capital, economic risk, quality of service provided, comparable earnings, and cost of capital. ... A just and reasonable rate can only be developed by weighing all circumstances impartially. ...

Reliance on **Other factors** in the determination of the return on equity provides a method to consider the unique circumstances of an individual utility. However, consideration of factors like quality of service and management efficiency are not subject to statistical validation but rely largely on the judgment of the proponent.⁴⁶

Given his ignorance of UE and the economy in which it operates, it is perhaps not surprising that Mr. Bible cannot say whether the rate of return the Commission sets would greatly affect a company’s access to capital.⁴⁷ Nor does he know how much his rate of return proposal would lower UE’s current rate of return,⁴⁸ or ultimately affect UE’s revenues.⁴⁹ Logically, then, he does not know how the ROE he is proposing compares to the ROE UE has actually achieved.⁵⁰

⁴⁴ *Id.* at 54: 21-23.

⁴⁵ James C. Bonbright et al., *PRINCIPLES OF PUBLIC UTILITY RATES*, 203 (1988); David C. Parcell, *THE COST OF CAPITAL – A PRACTITIONER’S GUIDE*, at 2-12, 2-13 (1997).

⁴⁶ Missouri Public Service Commission, *TRAINING MANUAL*, Module 4, Section G: Rate of Return, at 4G-1, 4G-6 (provided in response to Data Request JJC-61).

⁴⁷ *Id.* at 29:25 – 30:3.

⁴⁸ *Id.* at 91: 10-12.

⁴⁹ Bible April Dep. at 21:11-14 (Tab H). Mr. Bible does not know how each percentage point in his rate of return proposal translates into dollars of rates. *Id.* at 22: 3-6.

⁵⁰ *Id.* at 55: 9-17.

But the issue here is not simply Mr. Bible's ignorance, bad as that may be. Rather, the record now shows that Mr. Bible in fact does view his task in proposing a rate of return for UE as a formulaic application of his DCF model. Thus, when asked, in his second deposition what the changes were between his first and second testimonies, he spoke in terms of his model's "inputs."⁵¹ How constrained those "inputs" are based on the theory of the particular model he favors is illustrated by the fact that interest rates, which he acknowledges can affect the cost of equity,⁵² are not an input in his DCF model.⁵³ He went on to underscore his rigid adherence to the terms of his model, "[e]ven if the interest rates doubled, I'm not going to automatically go back and change my DCF model just because of that."⁵⁴ Indeed, a change in interest rates has *never* caused Mr. Bible to reassess the results from his DCF model.⁵⁵

Consistent with his overall approach, a comparison of UE's ROE to the ROEs of other utilities is "not an input into [his] DCF model," and so is not included in his analysis.⁵⁶ Logically, again, if UE's ROE was significantly below the average for electric utilities in this region, it would not affect his judgment concerning an appropriate range for an estimated return for UE.⁵⁷ It is quite striking, then, how Mr. Bible responded when, after repeatedly testifying that some step he did or did not take was simply a matter of his "judgment," he was asked how anyone could possibly evaluate his judgment.⁵⁸ He replied, "I think in a broader context of where my recommendation falls in comparison to

⁵¹ *Id.* at 7: 14-24.

⁵² *Id.* at 11: 10-14.

⁵³ *Id.* at 9: 14-18. Mr. Bible claims they "indirectly" affect his proposal because interest rates are part of other models he uses as a "crosscheck on the DCF model," *id.* at 9: 19-24, but he later admits those crosschecks have little or no significance for his DCF result. *See, e.g., id.* at 27: 2-15, 37: 16-20.

⁵⁴ *Id.* at 10: 13-15.

⁵⁵ *Id.* at 10: 20-22.

⁵⁶ *Id.* at 14:20 – 15:14.

⁵⁷ *Id.* at 16: 7-13.

weighted returns on equity and rates of returns that other Commissions are authorizing. That's how I think my judgment should be evaluated.”⁵⁹

What Mr. Bible offered in that reply was a fairly common-sense standard, and one that, unfortunately for Mr. Bible, inherently embodies the principles of mainstream analysts for whom consideration of the broader economic conditions is an essential part of estimating the rate of return.⁶⁰ Not unexpectedly, Mr. Bible's opinion does not pass muster. Prof. Morin puts it quite succinctly, “Mr. Bible's recommended 9.41% cost of equity for AmerenUE lies completely outside the zone of reasonableness and well outside the zone of currently authorized rates of return for electric utilities in the United States, and, as such, is difficult to take seriously.”⁶¹ Illustrating this point quite clearly is Schedule 17 (Comparison of Allowed Returns on Equity) to the Rebuttal Testimony of Kathleen C. McShane (appended at Tab J), which shows that, during the test year and update period for this case, other states have allowed returns on equity ranging from 10.50% to 12.90%, for an average of 11.27%. Prof. Morin's reaction is understandable:

Mr. Bible's draconian cost of equity recommendation of only 9.41%, if ever adopted, would result in the lowest rate of return award for an electric utility in the country, and by a wide margin. I hesitate to think of its adverse consequences on investors and ratepayers.⁶²

⁵⁸ *Id.* at 46:16-19.

⁵⁹ *Id.* at 46:25 – 47:4.

⁶⁰ Though this comparison may have great practical utility in evaluating the bottom-line of Mr. Bible's proposal, this bottom line is not the sole basis, under Missouri law, for evaluating whether particular rates are just and reasonable. As Ms. Suedeen Kelly explains in her testimony, Missouri law does not completely follow federal ratemaking principles, which approve a rate if it is not arbitrary. “Rather, in Missouri, it is not enough that the rate ‘produces no arbitrary result.’ In Missouri, the rate must also be arrived at through a process that includes ‘all ... facts that have a material bearing on the establishment of just and reasonable rates as contemplated by [Missouri] statutes and decisions.’” Rebuttal Testimony of Suedeen G. Kelly, at 13:11-14 (quoting *State ex rel. Missouri Water Co. v. PSC*, 308 S.W.2d 704 (Mo. 1957) (Tab L).

⁶¹ Morin at 5:14-17 (Tab I).

⁶² *Id.* at 5:17-20. Indeed, Prof. Morin was quite shocked at Mr. Bible's proposal: “[M]y initial reaction was that his recommended ROE of 9.41% was so radical and far-fetched that it constituted a typographical error.” *Id.* at 4: 18-20.

Mr. Bible's narrow, formulaic handling of his DCF model to produce the proposal for a rate of return he makes to this Commission is clearly an approach that is outside the mainstream of financial theory and diverges significantly from the practices of investment analysts, corporate analysts, and other finance experts and professionals. As Drs. Richard Brealey and Stewart Myers, in their widely used and cited text have emphasized:

The simple constant-growth DCF formula is an extremely useful rule of thumb, but no more than that. Naïve trust in the formula has led many financial analysts to silly conclusions.⁶³

Mr. Bible's testimony is, as a result, inadmissible and should be excluded from this case.

II. MR. BIBLE RELIES ON ONLY ONE METHOD, APPLIED TO ONLY ONE COMPANY, TO ESTIMATE ROE SUBJECT TO ABSOLUTELY NO OBJECTIVE CHECK.

There are at least four broad generic methodologies available to measure the cost of equity: DCF, Risk Premium analysis, and the Capital Asset Pricing Model ("CAPM"), which are market-oriented; and Comparable Earnings, which is accounting-oriented, all of which in turn have several variants. As Prof. Morin explains:

Each model possesses its own way of examining investor behavior, its own premises, and its own set of simplifications of reality. Each model proceeds from different fundamental premises which cannot be validated empirically. Investors do not subscribe to any one method, nor does the stock price reflect the application of any one single method by the price-setting investor.⁶⁴

In their testimonies, Prof. Morin⁶⁵ and UE's rate of return witness, Ms. Kathleen McShane,⁶⁶ show conclusively that the authoritative financial literature strongly supports

⁶³ CORPORATE FINANCE, at 69.

⁶⁴ Morin, at 15: 17-21.

⁶⁵ See *id.* at 16: 8 – 18: 33.

⁶⁶ Rebuttal Testimony of Kathleen C. McShane, at 21: 10 – 22: 4 ("McShane"). As a convenience to the Commission, we have included most the material to which we have referred in an Appendix submitted with

the use of more than one of these methods. The common sense of the matter is put well by Prof. Myers:

Use more than one model when you can. Because estimating the opportunity cost of capital is difficult, only a fool throws away useful information. That means you should not use any one model or measure mechanically and exclusively. Beta is helpful as one tool in a kit, to be used in parallel with DCF models or other techniques for interpreting capital market data.⁶⁷

An important part of the need to avoid relying solely on DCF in estimating a rate of return rests on the fact many of the theoretical assumptions on which the DCF model rests, such as market equilibrium, a constant payout ratio, constant growth in cash dividends, stability in interest rates over time, and so on,⁶⁸ simply do not exist in today's electric power marketplace.⁶⁹

A related principle governing the rate of return analysis done by mainstream finance experts and professionals is that a DCF result should not be calculated for a single company. Ms. McShane points out:

In principle, the cost of equity for firms of similar risk in the same industry should be quite similar. The fact that individual company cost of capital model results differ widely is a strong indication that such calculations for any individual company are not a reliable estimate of that company's capital cost. Consequently, it is imperative to rely on a sample of companies as a proxy for a specific company.⁷⁰

Professors Brealey and Myers echo this point, stressing, in the context of using the DCF model to set gas and electricity prices, that

this Motion, even if the material has already been filed, such as witness testimonies. Unfortunately, due to the press of the deadline to file this Motion, we were unable to include the testimony of Ms. McShane in the Appendix. Since her testimony is already on file with the Commission, we hope this logistical problem does not inconvenience the Commission.

⁶⁷ S. C. Myers, "On the Use of Modern Portfolio Theory in Public Utility Rate Cases: Comment," FINANCIAL MANAGEMENT, at 67 (1978).

⁶⁸ See March Testimony, at 20:19 – 21:5 (setting out the DCF assumptions) (Tab E).

⁶⁹ See C.F. Phillips, THE REGULATION OF PUBLIC UTILITIES: THEORY AND PRACTICE, 376-77 (1988), quoted in Morin, at 18: 1-27.

any estimate of [the cost of equity] for a single common stock is noisy and subject to error. Good practice does not put too much weight on single-company cost-of-equity estimates. It collects samples of similar companies, estimates [the cost of equity] for each, and takes an average. The average gives a more reliable benchmark for decision making.⁷¹

Prof. Morin's treatise sets out the key rationale why a sample of one firm should not be the basis of a cost of capital determination:

(1) Consistency with the notions of fair and reasonable return promulgated in the *Hope* and *Bluefield* cases. The basic premise in determining a fair return is that the allowed return on equity should be commensurate with returns on investments in other firms with comparable risk, hence the need to extend the sample to firms of comparable risk. Moreover, the equity costs of other firms represent economic opportunity costs that have a direct impact on the cost of equity for the utility being studied.

(2) Added reliability. Confidence in the reliability of the estimate of equity cost can be enhanced by estimating the cost of equity capital for a variety of risk-equivalent companies. Such group comparisons not only act as a useful check on the magnitude of the cost of equity estimate obtained from a single company, but also mitigate any distortion introduced by measurement errors in the two components of equity return, namely dividend yield and growth. Utilizing a portfolio of similar companies along with the company-specific DCF acts to reduce the chance of either overestimating or underestimating the cost of equity for an individual company. By relying solely on a single-company DCF estimate or for that matter on a single methodology, a regulatory commission limits its flexibility and increases the risk of authorizing unreasonable rates of return. For example, in a large group of companies, positive and negative deviations from the expected growth will tend to cancel out owing to the law of large numbers, provided that the errors are independent. The average growth rate of several comparable firms is less likely to diverge from expected growth than is the estimate of growth for a single firm. More generally, the assumptions of the DCF model are more likely to be fulfilled for a group of companies than for any single firm.

(3) Abnormal conditions. When there is reason to believe that the standard DCF model is inapplicable to a particular utility, or when a utility is experiencing extraordinary circumstances, the use of a benchmark group of companies is the only viable alternative to measure equity costs through the DCF method. Appropriate risk adjustments must, of course, be

⁷⁰ McShane, at 42: 18-22.

⁷¹ CORPORATE FINANCE, at 69.

rendered. Such extraordinary circumstances would include a corporate restructuring, a major plant cancellation, or situations such as those of General Public Utilities following the Three Mile Island accident or of Washington Power Public Service following the default on its bonds.

(4) Circularity problem. Stock price, hence cost of equity capital, depends on investors' growth expectations, which in turn depend partially on investors' perception of the regulatory process. The net result is that the cost of equity depends in part on anticipated regulatory action, since both components of equity return – yield and growth – are influenced by the regulatory process. Carried to its extreme, this implies that regulation would in effect deliver whatever equity return investors expect.⁷²

This problem is resolved by “collect[ing] samples of similar companies, estimat[ing] [the cost of equity] for each, and tak[ing] an average. The average gives a more reliable benchmark for decision making.”⁷³

Nevertheless, Mr. Bible bases his rate of return estimate on a DCF result for a single company, Ameren, which is quite clear from his testimony.⁷⁴ Despite the fact that he claims to determine the reasonableness of his estimate with other methodologies and results for comparable companies, he in fact employs no other method, and focuses only that single DCF result for Ameren, in recommending a rate of return to this Commission. Mr. Bible willingly admitted this during his April 16, 2002 deposition, where he stated “as I said before, I do not use these [cost of equity estimates for comparable companies] to directly determine return on equity and rate of return for Ameren.”⁷⁵

This is because, quite simply, Mr. Bible will only question his recommendation if his results from other methods or results from comparable companies were “twice as

⁷² UTILITIES' COST OF CAPITAL, at 201-02.

⁷³ CORPORATE FINANCE, at 69.

⁷⁴ March Testimony, at 2:19-20, 23:11-15 (Tab E).

⁷⁵ Bible April Dep. at 37:17-19 (Tab H)

much”⁷⁶ as his solitary DCF calculation for Ameren alone. As Mr. Bible explained when questioned about this approach:

- Q. You did look at comparables, you explained in your testimony, and I wonder if you could just explain how all of the other calculations in addition to your DCF calculation confirmed in your view the DCF calculation for UE.
- A. The results weren't so different to cause me to question any of the inputs that I used to the DCF model.
- Q. What do you mean by "so different"?
- A. They weren't so far removed from the results of the DCF model.
- Q. How far is too far removed?
- A. Far enough that would cause me to question the results of the DCF model.
- Q. Tell me what difference in basis points would make the results too different in your view.
- A. If it was twice as much, it would cause me to go back and take a look at the inputs to my DCF model and reevaluate whether I correctly did the calculations.⁷⁷

Mr. Bible is quite emphatic in his application of this standard, as his second deposition testimony shows:

- Q. In your deposition testimony last time around I believe you said that those crosschecks would not cause you to change or reconsider your DCF estimate unless they were double your DCF estimate.
- Is that pretty much how, then, interest rates might affect your DCF estimate?
- A. No. I said that – what I actually said in the previous deposition was, unless they doubled, it wouldn't cause me to go back and rethink or even look at the DCF. I mean, even if interest rates

⁷⁶ See Bible Nov. Dep. at 131:22 - 132:1 (Tab D).

⁷⁷ *Id.* at 131:9 – 132:1.

doubled, I'm not going to go back and change my DCF model just because of that.⁷⁸

This "double" standard of Mr. Bible's is purely a creature of his own making. It cannot be found in financial theory or practice anywhere, even among his colleagues on the Staff, as this exchange demonstrates:

Q. In that judgment that we're talking about in terms of when you believe that the comparable calculations are too far removed, your judgment of twice the DCF results, is that your perspective or is that a practice that is followed by other members of the Staff?

A. That's my perspective.

Q. Do you know how other Staff members approach that same question?

A. Not offhand I don't, no.

Q. Have you ever talked to them about it?

A. Yes.

Q. And do you have any kind of recollection of how other Staff members approach that?

A. As far as a specific number? No.⁷⁹

It does not take much insight to appreciate that, under this standard, the calculations using other methods undertaken by Mr. Bible will almost never have any impact on an ROE estimate, or serve to support the accuracy of the DCF calculation in any way. The fact that Mr. Bible's "crosschecks" are meaningless was revealed quite explicitly by him under questioning. For example, when Mr. Bible was forced to admit that he has no real knowledge of the comparable companies he used in his calculations, he pointed out:

⁷⁸ Bible April Dep. at 10:4 – 15 (Tab H).

⁷⁹ Bible November Deposition, p. 136:14 to 137:2 (Tab D).

And, again, your line of questioning is insignificant because I don't use this to determine directly the return on equity and rate of return for the Company.⁸⁰

Mr. Bible went on, quite candidly, to explain that, in his “double” standard world, his “crosschecks” had absolutely no impact on his rate of return recommendation:

Q. So the results from any of your other – as you've made very clear, the results from your other methods didn't inform that the historical growth rates or the projected growth rates, those ranges didn't shape your judgment at all about this?

A. No. Like I said, the CAPM, the risk premium, the comparable company analysis, those don't factor directly into the calculations that I do for return on equity and rate of return for AmerenUE.⁸¹

Thus, due to his “double” standard, Mr. Bible effectively used only one method applied to one company, his rigidly formulaic DCF model applied to Ameren, to produce the rate of return proposal he makes here. By itself, this approach is simply not acceptable to any credible financial expert or professional, and it puts Mr. Bible's testimony far out of the mainstream of experts in this field, the mainstream by which the admissibility of this testimony must be evaluated. But Mr. Bible's “double” standard, with its utter arbitrariness, in addition makes this testimony “otherwise” unreliable within the meaning 490.065(3) RSMo. Consider this response, when Mr. Bible was pressed in his deposition as to why he bothered to make a change in his rate of return calculation using a method other than DCF if it did not matter.⁸² Mr. Bible said, “It's my preference as far as my analysis. It can matter to me if I want it to matter to me.”⁸³ A more stark

⁸⁰ Bible April Dep. at 28:25 - 29:3 (Tab H).

⁸¹ *Id.* at 53:10 - 18.

⁸² This change in Mr. Bible's calculations was one of several examples, we believe, showing Mr. Bible's manipulation of figures to simply achieve as low a rate of return estimate as possible. Because, as this example shows, when confronted with these maneuvers Mr. Bible testified that they did not matter anyway (because of his double standard), we have not set them out here.

⁸³ Bible April Dep. at 38: 1-2 (Tab H).

statement of uncheckable personal opinion – exactly what the law of evidence seeks to prevent from tainting legal proceedings – could not be found.

This arbitrary “double” standard has dramatic practical implications for Mr. Bible’s rate of return proposal. After all, his recommendation to this Commission is that a reasonable range for a rate of return for UE is ± 50 basis points (or 0.5%) around his midpoint of 9.41%. Normally, the width of a range set by a financial professional would be drawn from the range of results from different methodologies, the application of various methodologies to comparable companies, or the variation in projected growth rates used in the DCF calculation. If Mr. Bible used the same range here he used to “crosscheck” his own work, he would be proposing a range for UE’s ROE as wide as twice his midpoint recommendation around his midpoint of 9.41%, which, instead of a range of ± 50 basis points ($\pm 0.5\%$), represents a swing of ± 941 basis points ($\pm 9.41\%$). Of course, if that were the range of reasonable ROE’s, UE’s current ROE would fit comfortably within it.

Here again, Mr. Bible had no explanation for ± 50 basis points range of reasonableness, particularly in light of his “double” standard:

Q. Well, is there anything other than your own thinking that you refer to, whether it's a treatise or any other scholar or a policy of the staff to determine that plus or minus .5 percent is a reasonable range?

A. No, there is no specific reference. From my experience and my judgment, that's an adequate number to use around a midpoint to develop a range.⁸⁴

Again we find the observation of Prof. Morin on target:

⁸⁴ *Id.* at 52:5-12.

Such bald, unsupported claims simply cannot pass muster as professional, competent analysis in the eyes of mainstream investment analysts, corporate analysts, and other finance professionals, and should not be treated as such by this Commission. Indeed, such subjective, personal opinion testimony as to a proper ROE for AmerenUE can only lead the Commission into the most arbitrary and capricious rate-setting.⁸⁵

III. MR. BIBLE RELIES UPON AND DOUBLE-COUNTS HISTORICAL DATA THAT IS INHERENTLY UNRELIABLE AND AT ODDS WITH THE PREDICTIVE EXERCISE OF ESTIMATING ROE.

In the constant growth DCF model, the component of expected future growth is an important factor in the calculation.⁸⁶ Mr. Bible derives a number for that expected growth factor by averaging together historic growth rates and analysts' projected (or forecast) growth rates.⁸⁷ Yet the whole point of the DCF exercise is to estimate investors' *prospective* cost of equity. Reliance on historical growth rates in DCF calculations, as Mr. Bible does, produces highly unreliable (and, here, highly downward biased) results, as fundamental changes in the economy, the electric utility industry, and the companies Mr. Bible analyzes have occurred that make it unrealistic to assume that past growth will simply trend forward into the future. As Prof. Morin warns:

[I]t is perilous to apply historical growth when a utility is in transition between growth paths. When payout ratios, equity return, and market-to-book ratios are changing, reliance on historical growth is hazardous.⁸⁸

In his testimony, Prof. Morin again summarizes the authoritative academic literature to point out that analysts' growth forecasts already include consideration of historical growth rates,⁸⁹ a fact of which Mr. Bible, surprisingly, was unaware,⁹⁰ so that

⁸⁵ Morin, at 14: 6-10 (Tab I).

⁸⁶ See McShane, at 91: 5-19.

⁸⁷ March Testimony, at 22: 3-7.

⁸⁸ Morin, at 153 (Tab I).

⁸⁹ *Id.* at 32: 13-15.

averaging in the purely historical data, as does Mr. Bible, serves only to give past growth figures a disproportionate impact on the DCF calculation, a quite ironic result given the point of the DCF analysis to estimate what investors will expect *in the future*. Moreover, the vast majority weight of empirical studies confirm that analysts' forecasts more closely approximate investors' expectations.⁹¹ Here again, Mr. Burdette of OPC agrees, pointing out in his deposition, "Historical growth rates can provide an indication of how the company has done in the past, but they are relevant to a forward-looking cost of capital analysis only to the extent that future economic conditions mimic historical conditions."⁹²

Mr. Burdette went on to explain

Technically, the DCF is a forward-looking model. We're setting rates at a forward-looking perspective. We've already discussed potential changes in economic conditions in the industry for utilities.

So I have come to the conclusion as an analyst that, not a particular single projected growth rate, but that just keeping with the theory of the DCF as well as the fact that we're setting rates going forward, that projected growth rates are what I believe I felt more comfortable making analysis or recommendations based on projected growth rates.⁹³

Amplifying the impact of Mr. Bible's inappropriate reliance on historical data are problems with the particular data Mr. Bible uses, which covers the time period during which UE merged with CIPS to create Ameren. Thus, Mr. Bible's source for the data he uses to calculate his historical growth rates, Value Line, explicitly stresses that "[p]remerger data are for Union Electric only and are not comparable to Ameren data."⁹⁴ The same is true for the data for two of the three companies Mr. Bible uses as

⁹⁰ See Bible Nov. Dep. at 110: 2-5 (Tab D).

⁹¹ See McShane, at 29: 9 – 30:4; Morin, at 32: 6 – 33: 2 (Tab I).

⁹² Burdette Dep. at 8: 27 – 9:2 (Tab O).

⁹³ *Id.* at 70: 3-13.

⁹⁴ Value Line Sheets from Ronald L. Bible Workpapers, Value Line Investment Survey, January 4, 2002 (Tab N, at N-1).

comparables in his current testimony, Cinergy and Alliant,⁹⁵ and the data for one company that Mr. Bible used as a comparable in his first testimony, Alliant.⁹⁶

When asked why he relied on data that Value Line warned was not comparable, Mr. Bible replied, in a peculiar *non sequitur*, that he “assumed” Value Line took that into account.⁹⁷ The logic of that answer is not apparent. In contrast, Mr. Burdette of OPC, for one, seemed to understand Value Line’s warning and took it at face value:

Q. Now, what do the words “not comparable” mean in this context?

A. It means that you would have to take into consideration the changes and that you would not necessarily be able to make one-to-one comparisons.

...

A. . . . If I’ve got historical information that is questionable or if I’m not sure of the validity or the applicability, then I would tend to focus on projected growth rates rather than historical.⁹⁸

In sum, once again, Mr. Bible arbitrarily departed from the mainstream finance theory and practice to produce a rate of return result that is profoundly unreliable and, we submit, cannot be admitted in this case.

CONCLUSION

For the foregoing reasons, we respectfully request that the testimony of Staff witness Ronald L. Bible be excluded from the record of this case.

⁹⁵ *Id.* (Tab N, at N-2, N-10).

⁹⁶ *Id.* (Tab N, at N-8).

⁹⁷ Bible Nov. Dep. at 147: 12-21 (Tab D).

⁹⁸ Burdette Dep. at 80: 5-9, 80:24 – 81:3 (Tab O).

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Respectfully submitted,

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