BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the tariff filing of The Empire District Electric Company to implement a general rate increase for retail electric service provided to customers in its Missouri service area.	)))))	Case No. ER-2004-0570

INITIAL BRIEF
OF THE EMPIRE DISTRICT ELECTRIC COMPANY

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COMES NOW The Empire District Electric Company ("Empire" or "Company"), by counsel, and submits this initial brief in support of its pending rate increase request, Case No. ER-2004-0570.

I. Introduction

On April 30, 2004, Empire filed revised tariff sheets with the Missouri Public Service Commission (the "Commission") designed to increase the Company's gross annual electric revenues by approximately $38,282,494, exclusive of applicable fees and taxes. The tariff sheets were suspended by the Commission, and, after notice and interventions, a procedural schedule was established. Pursuant to that schedule, an evidentiary hearing was held with respect to the contested issues in this case, and Empire now submits this initial brief in support of its position on each contested issue and its rate increase request.

II. Issues

A Nonunanimous Stipulation and Agreement Regarding Rate Design was entered into on December 16, 2004, by and between the Company, the Office of Public Counsel ("Public Counsel"), the Staff of the Commission ("Staff"), and intervenors Praxair, Inc., and Explorer Pipeline Company. A Stipulation and Agreement as to Certain Issues was entered into on December 22, 2004, by and between the Company, Public Counsel, Staff, and intervenors the Missouri Department of Natural Resources-Energy Center, Praxair, Inc., and Explorer Pipeline Company. Intervenors Union Electric Company and Aquila, Inc. did not join in the December 22 agreement, but do not oppose said agreement. Neither stipulation and agreement has been approved by the Commission.

As a result of the stipulations and agreements, and assuming approval by the Commission of the same, three primary issues remain in dispute: (A) the appropriate cost of capital/rate of return for Empire; (B) the proper calculation of depreciation; and (C) the appropriate level of total Company on-system fuel and purchased power expense, including the appropriate cost recovery method with regard to fuel and purchased power (i.e., base rates and/or an interim energy charge ("IEC")).

A. Cost of Capital/Rate of Return

1. Introduction

The issue of Empire's cost of capital and its need to earn an adequate rate of return is one of the driving forces behind the Company's request to increase its annual electric revenues. In fact, the Company is at a critical financial juncture. Over the last eleven years, Empire has paid out essentially all of its earnings as dividends in order to maintain its investment standing and has issued new equity to maintain its financial integrity. According to Empire's expert witness, Dr. Donald A. Murry, the Company's expected return on common equity for 2004 is 5.5 percent.[1] The solution to this dilemma is apparent: **Empire's common stock earnings must be increased to levels consistent with electric utility industry norms**.

Moreover, in order to make necessary capital investments and to continue to provide reliable, high-quality electric service to its customers, Empire is required to go to the capital markets in the near future and, in the interest of all stakeholders, must have access to those markets at the lowest possible cost. Bill Gipson, Empire's President and Chief Executive Officer, responded to a question

[1] The Company will release its 2004 financial information to the public on February 3, 2005.

from Commissioner Clayton concerning the Company's need for additional capacity and related access to the capital markets.

> Q. Does Empire have any - - what impediments would stand in the way of Empire?
>
> A. Well, certainly one of the impediments that stands in the way is the financial health of the company and really bringing about stability in the financial health of the company with respect to earnings. And I think that's one of the important issues that the Commission will decide in this case. . . .

(Tr. 1229)

Empire's expert witness, Dr. Donald A. Murry, testified that the cost of capital issue in this case is especially important for the Company. (Murry Direct, Exh. 11, p. 8) **"The cost of capital in this case is far more important than most. Empire's financial circumstances are sufficiently precarious that accurate measurement of the cost of capital in this case is critical."** (*Id.*)

In considering the cost of capital issues, the Commission should bear in mind the overall legal principles applicable to these questions. As the Commission is aware, the United States Supreme Court has held that the return authorized a utility by a regulatory body should be **"commensurate with returns on investments in other enterprises having corresponding risks."** In addition, the return should be **"sufficient to assure confidence in the financial integrity of the enterprises, so as to maintain its credit and to attract capital."** *See, Federal Power Commission v. Hope Natural Gas Company*, 320 US 591, 603 (1944); *see also, Bluefield Waterworks v. Public Service Commission,* 262 US 679 (1923), where the Court, at page 693 said, **"the return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties."**

Empire's return on equity ("ROE") recommendation of 11.65 percent, if adopted by the Commission, will be a step toward satisfaction of these standards. Unfortunately, however, neither the Staff nor Public Counsel cost of capital witnesses have made any serious effort to comply with the law through an application of the *Hope* and *Bluefield* standards. Instead these witnesses have simply relied on a "mechanistic" discounted cash flow ("DCF") analysis, without any effort to judge each of the DCF steps along the way in light of the Court mandates. There is absolutely no evidence to demonstrate how their extremely low ROE recommendations comport with the Supreme Court cases. There is no explanation as to why their ROE recommendations are significantly lower than the equity returns being authorized for other electric utilities. Clearly, as explained by Empire's expert witness, Dr. Donald A. Murry, the Staff and Public Counsel recommendations fail to meet the financial integrity test. ". . . **Mr. Murray is recommending a return that will not support an investment grade bond rating, and this could be an explanation of why S&P would identify the Staff return recommendation as a problem in CreditWatch.**" (Murry Rebuttal, Exh. 12, p. 4) "**Mr. Allen's recommended return on common equity also will produce a return that would not earn Empire an investment grade credit rating by these S&P standards.**" (Murry Rebuttal, Exh. 12, p. 16)

Cost of capital issues in a rate case generally involve three areas of contention, i.e., the proper capital structure, the cost of the debt component of the capital structure, and the cost of the common equity component of the capital structure. While all three issues are present in this case, in terms of revenue requirement and the overall financial integrity of Empire, the third issue, the cost of common equity, is most important. The Staff suggests a ROE range of 8.29 percent to 9.29 percent. The Public Counsel recommends a range of 8.96 percent to 9.41 percent. Empire's evidence, based on

the testimony of two experts, Dr. Donald A. Murry and Dr. James H. Vander Weide, supports a 11.65 percent ROE. These ROE differences translate into in a revenue requirement dispute in this case of approximately $11.6 million.

Again, it cannot be overemphasized that the Commission's decision on the ROE issue will have a significant impact on Empire's financial integrity, its ability to compete in the capital markets, its ability to make necessary capital investments, and its ability to continue providing high-quality electric service to its Missouri customers.

2. Cost of Common Equity (What return on common equity recommendation is appropriate in estimating Empire's cost of common equity?)

Donald A. Murry, Ph.D, and James H. Vander Weide, Ph.D., testified on behalf of Empire on this issue. Empire encourages the Commission to compare and contrast the testimony and positions of these expert witnesses with the testimony and positions presented by the witnesses for Staff and Public Counsel. Of particular significance is the fact that the Staff and Public Counsel witnesses have not changed their approaches to this subject since the ROE issue was last litigated in Case No. GR-2004-0209, *In the Matter of Missouri Gas Energy's Tariffs to Implement a General Rate Increase for Natural Gas Service*. The shortcomings present in the work of those individuals which were recognized by the Commission in that case continue.

For example, the Staff and Public Counsel witnesses continue to ignore the law established in the *Hope* and *Bluefield* cases and continue to rely upon a mechanistic, "vending machine" type DCF analysis with a complete and total disregard for what is going on in other jurisdictions with other electric utilities. Neither witness has produced what can fairly be characterized as the true cost of capital of Empire.

a. Expert Qualifications

In *State Board of Registration for the Healing Arts v. McDonagh*, 123 S.W.3d 146 (Mo. banc 2003), the Missouri Supreme Court, reaffirming its decision in *Lasky v. Union Electric Co.*, 963 S.W.2d 797 (Mo. banc 1997), clearly stated that the standard for the admission of expert testimony in civil cases is that set forth in section 490.065, RSMo. The Court also stated that the same standard should be applied in administrative cases such as the instant Empire rate proceeding. Pursuant to the statute, if "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. Empire's witnesses, Dr. Vander Weide and Dr. Murry, clearly satisfy these statutory requirements.

Empire witness Dr. Vander Weide holds a Ph.D. in Finance and is a Research Professor of Finance and Economics at the Fuqua School of Business of Duke University. (Vander Weide Direct, Exh. 14, p. 2) He has extensive teaching experience, is a member in various professional associations, and has been published numerous times. (*Id.* at 3-4) Additionally, Dr. Vander Weide, as an expert on financial and economic theory, has testified in the areas of cost of capital, competition, risk, incentive regulation, forward-looking economic cost, economic pricing guidelines, depreciation, accounting, valuation, and other financial and economic issues in approximately 350 proceedings. (*Id.* at 4-5)

Empire witness Dr. Murry holds a M.A. and a Ph.D. in Economics, is an economist with C.H. Guernsey & Company, and is a Professor Emeritus of Economics at the University of Oklahoma. (Murry Direct, Exh. 11, p. 2) Like Dr. Vander Weide, Dr. Murry has extensive teaching, research, and consulting experience and has been published numerous times. (*Id.* at 2-3) Dr. Murry's first

regulatory experience was when he was hired as a consultant for this Commission, and Dr. Murry first provided testimony before this Commission in 1966. (Tr. 1083) Since that time, Dr. Murry has testified numerous times as an expert witness in proceedings before regulatory bodies in approximately 40 states, not only on behalf of utilities, but also on behalf of intervenors, consumer advocates, and regulatory bodies. (Murry Direct, Exh. 11, pp. 3-4; Tr. 1085-1086)

As will be discussed below, and as was asserted in Empire's Motions to Exclude filed herein, but subsequently overruled by Judge Thompson, Staff witness Murray and Public Counsel witness Allen do not possess the requisite education or expertise necessary in order to qualify as "experts" in this proceeding. Consequently, reliance on Allen's or Murray's testimony on cost of capital issues will thwart the Commission's ability to award Empire the opportunity to earn a fair and reasonable rate of return. Once again, Empire encourages this Commission to look to the lack of experience and training on the part of these witnesses when determining how much credibility, if any, to attach to their testimony. Under the requirements of RSMo. §490.065, Allen's and Murray's opinion testimony should be excluded from the record of this proceeding or given little or no weight by this Commission.

b. The Importance of a Fair and Reasonable Return on Equity

Empire's allowed ROE is of extreme importance. As indicated, the Company is at a critical financial juncture. Empire's earnings must increase, and the Company must have the ability to compete in the financial markets to meet its service requirements. Whatever ROE the Commission authorizes in this case will send a message to the investment community and impact the relationship of Empire with that community. As the Commission is well aware, the law requires that this Commission establish a rate of return for Empire's equity investors that is commensurate with the

returns those investors could expect to achieve in investments in other enterprises having corresponding risks. (Murry Surrebuttal, Exh. 13, p. 9) The average allowed ROE for electric utilities in the first quarter of 2004 was 11 percent. Empire's expected return for 2004 is 5.5 percent.

Once again, the United States Supreme Court standards cannot be overemphasized. The return must be **"commensurate with returns on investments in other enterprises having corresponding risks" and "should be sufficient to assure confidence in the financial integrity of the [utility] enterprise, so as to maintain its credit and to attract capital."** *Federal Power Commission v. Hope Natural Gas Co.,* 320 U.S. 591, 603 (1944).

Empire's expert witness Dr. Vander Weide explained that through its rulings in *Hope* and *Bluefield*, the United States Supreme Court clearly recognizes that:

> (1) a regulated firm cannot remain financially sound unless the return it is allowed to earn on the value of its property is at least equal to the cost of capital (the principle relating to the demand for capital); and (2) a regulated firm will not be able to attract capital if it does not offer investors an opportunity to earn a return on their investment equal to the return they expect to earn on other investments of the same risk (the principle relating to the supply of capital).

(Vander Weide Direct, Exh. 14, pp. 11, 26)

While Empire's ROE recommendation moves toward meeting these constitutional tests, the recommendations of both the Public Counsel and Staff clearly do not.

c. Empire's Recommendation

Empire recommends that this Commission use an ROE of 11.65 percent in its calculation of an appropriate overall rate of return for Empire. The 11.65 percent recommendation is the average of the recommendations of Empire's two cost of capital witnesses, Dr. Vander Weide (11.3 percent) and Dr. Murry (12.0 percent).

Dr. Vander Weide estimated Empire's cost of equity in two steps. (Vander Weide Direct, Exh. 14, p. 5) He applied several standard cost of equity methods to market data for a proxy group of comparable companies. (*Id.*) Second, he adjusted the average cost of equity for his proxy group for the difference between the average capital structure of his proxy group and Empire's capital structure. (*Id.* at 5-6) In order to reduce the uncertainty of the estimate of the cost of equity for Empire, Dr. Vander Weide used a reasonably large sample of proxy companies, instead of applying cost of equity methods solely to Empire. (*Id.* at 6) Dr. Vander Weide's selected proxy group satisfies the standards of *Hope* and *Bluefield* in that the proxy group companies are similar in risk to Empire and serve as a "conservative proxy." (*Id.* at 33)

Dr. Vander Weide, using the quarterly DCF model, the ex ante risk premium method, and the ex post risk premium method, found the average cost of equity for his proxy companies to be 10.7 percent. (*Id.* at 7, 23, 48-49) Because financial leverage – or the use of debt financing – increases the risk of investing, the cost of equity should be higher for a capital structure containing more leverage. (*Id.* at 49) Consequently, because Empire's recommended capital structure contains significantly more leverage than the average capital structures of Dr. Vander Weide's proxy companies, Dr. Vander Weide explained that the cost of equity would have to be adjusted upward in order to allow Empire's investors an opportunity to earn a commensurate return on their investment. (*Id.* at 7) Reflecting the cost of equity of his proxy companies and Empire's more highly-leveraged capital structure, Dr. Vander Weide recommends that Empire be allowed a rate of return on equity equal to 11.3 percent. (*Id.* at 8, 52)

Dr. Murry estimated the cost of common equity for Empire using alternative methodologies and then compared those results to results from similar calculations for a group of comparable

companies. (Murry Direct, Exh. 11, p. 7) Dr. Murry's comparable companies were selected on the basis of being financially healthy electric utilities with financial and business risk similar to those of Empire. (*Id.* at 9) Dr. Murry put all of his calculations in the perspective of current market conditions and the financial circumstances of Empire. (*Id.* at 7-8)

In developing his recommended return for Empire's common stock, Dr. Murry relied primarily on the results of his DCF analyses using forecasted earnings per share information and current marker prices. (*Id.* at 29-30) He then utilized the Capital Asset Pricing Model ("CAPM") as a verification of his DCF analysis and as a longer-term view of the market relationships. (*Id.* at 29-30; Tr. 974) Because of the high risk associated with Empire and the marginal-cost nature of the DCF method, Dr. Murry then looked to the high end of his calculated ROE range. (Murry Direct, Exh. 11, p. 29) Ultimately, Dr. Murry recommended an allowed return on common stock equity of 12.0 percent.

d. Staff's Recommendation and Lack of Expertise

Staff witness Murray proposes a ROE range of 8.29 to 9.29 percent, with a midpoint of 8.79 percent. Murray's opinions in this regard, however, are only admissible if and to the extent he is deemed to be an expert in utility finance and his "expert" testimony is found to comply with RSMo. §490.065.

Staff witness Murray holds no professional licenses or certificates, belongs to no professional organizations, has never taught any college courses, classes, or seminars, has never written or co-written any books, treatises, or other works on the subject of regulatory finance, nor written or co-written any articles – on any subject. (Exhibit 122) Murray has attained only a Bachelor of Science degree in Business Administration and a Masters in Business Administration. (*Id.*) Working for the

Commission since June of 2000 is the extent of Murray's work experience in the field of regulatory finance. (*Id.*)

It is true that a witness is not required by RSMo. §490.065 or applicable case law to possess any *specific* education level or experience in order to qualify as an expert. However, at the heart of RSMo. §490.065 is the use of the word "expert." According to the Merriam-Webster dictionary, an expert is one with special skill or knowledge representing mastery of a particular subject. Staff witness Murray falls short of mastering the field of utility finance and rate of return analysis – both in terms of education and practical experience – and Staff witness Murray's testimony is this regard should be given little or no weight by this Commission.

e. Errors in Staff's Analysis

To arrive at his ROE recommendation, Staff witness Murray used a "company specific" DCF approach to determine the cost of common equity for Empire. (Murray Direct, Exh. 62, p. 26) A "company specific" DCF approach is one in which only the facts involving the subject company, in this case Empire, are plugged into the DCF formula. No real consideration is given to other companies with corresponding risks. Returns being awarded to other companies with similar risks are not specifically considered. (Tr. 1289-1290) No financial integrity test is performed. No judgment is exercised. It is simply a mechanical "vending machine" approach.

Empire's expert, Dr. Murry, testified that the result of a company specific DCF analysis cannot be relied upon.

> Q. So would the result of that mechanical process always be what an investor must have in the way of a return in order to make an investment?
>
> A. Not the mechanical calculation. That's simply a tool.

> Q. Can the Commission in this case rely on a company-specific DCF analysis as the true cost of capital for Empire District?
>
> A. In my judgment, it cannot exclusively.
>
> Q. And why is that?
>
> A. Because I think it's just a mechanical calculation. I think it's - - I think it's useful information, I think it's important information, and I think it can be used in making judgment as to what the allowed return should be, **but it's not an answer in and of itself.**

(Tr. 1132-1133) (emphasis added)

Dr. Vander Weide also found fault with the general thrust of Staff witness Murray's "company-specific" DCF approach. (Vander Weide Surrebuttal, Exh. 16, p. 2) Dr. Vander Weide noted four reasons why the results of applying the DCF model to the company whose rates are regulated should not be the focus, including that "Mr. Murray's opinion fails to recognize the basic circularity that arises when the DCF model is applied to the regulated company whose rates are being set." (*Id.* at 2-3) Dr. Vander Weide continued by explaining:

> The DCF model depends on dividend yield and growth expectations that reflect investor's views of the results of the regulatory process. But the purpose of the regulatory process, as it relates to the cost of equity, is to reflect the views of investors. Thus, we have a situation where investors' expectations depend on the results of the regulatory process, and the regulatory process depends on investors' expectations – an obvious circularity.

(*Id.* at 8-9) According to Dr. Vander Weide, this is why experts generally apply the DCF and other cost of equity models to a reasonably large group of proxy companies – rather than just to the company being reviewed. (*Id.* at 9)

Staff witness Murray admitted some awareness on his part of the problems in relying on his "company specific" DCF approach.

Q. So your answer is yes, that Empire violates the fundamental assumptions of the DCF model?

A. Yes.

Q. Doesn't that suggest extreme care in applying the DCF model to Empire in this case?

A. Very extreme care you're correct.

(Tr. 1281-1282)

Staff witness Murray made other mistakes as well. Murray improperly used an annual DCF model and did not even apply that model correctly. (Vander Weide Rebuttal, Exh. 15, p. 3) Murray's application of the annual DCF model produced results that are biased downwards, equaling approximately 17 basis points. (*Id.* at 3)

Staff witness Murray also made an error with the chosen price component of his DCF model. Murray used the average of the monthly high and low stock prices over the six-month period of February to July, 2004, while Empire's stock price declined from an average of $22.39 in the three-month period of February to April to an average of $20.13 in the three-month period of May to July, with a corresponding dividend yield increase of 64 basis points. (*Id.* at 4) This error resulted in a "mismatch of data sets," that is, Staff witness Murray used stock prices for a different time period than this growth rates. (*Id.*)

Dr. Vander Weide also noted errors with the growth component of Staff witness Murray's DCF analysis. Dr. Vander Weide, in discussing Murray's partial use of historical growth rates to estimate investors' expectations, stated:

> historical growth rates are inherently inferior to analysts' forecasts because analysts' forecasts already incorporate all relevant information regarding historical growth rates

> and also incorporate the analysts' knowledge about current conditions and expectation regarding the future.

(*Id.* at 5) In the application of his DCF model, Murray should have used a growth rate of at least 4 percent. (*Id.* at 6) That growth rate, when used with a quarterly DCF model and three-month average prices for the period of May through July, 2004, would have resulted in a DCF estimate of Empire's cost of equity at 10.9 percent. (*Id.*) That result would have been even higher if Murray had derived his Value Line forecast from data for the period 2004-2008, instead of using a growth forecast for the period 2001-2003 to the period 2007-2009. (*Id.*)

Dr. Murry also noted Staff witness Murray's improper use of historical growth rates. (Murry Rebuttal, Exh. 12, p. 9) Pointing to Murray's failure to compensate for rising interest rates, Dr. Murry stated that Staff witness Murray ignored that "cost of equity is a function of expectations and that rates will increase during the period that [Mr. Murray's] recommended rates will be in effect." (*Id.* at 9-10)

To the extent he looked at what is going on with other utilities, Staff witness Murray's selection of so-called comparable companies is highly suspect as it includes companies with a below investment grade rating. Commissioner Murray, in her questions to Company witness Dr. Murry, touched on this subject.

> Q. In your opinion, is it appropriate to use a below investment grade company as a comparable in determining what a viable utility should be earning?
>
> A. No, absolutely not for a - - as a comparable company. You should be looking at a healthy company so that we can use them as a benchmark for analysis.
>
> Q. Do you have any idea - - I mean, have you ever seen a below investment grade company used in comparables before?

> A. I don't think I have, and I don't think I've ever seen it used intentionally, knowingly.

(Tr. 1081-1082)

In general, Dr. Murry found fault with Staff witness Murray's "inordinately low" recommended return. (Murry Rebuttal, Exh. 12, p. 1) Dr. Murry testified that Murray's recommendation is "so inadequate" that it contributed to Empire being placed on Standard and Poor's CreditWatch. (*Id.*) Adoption of Murray's recommended return will result in financial ratios below S&P's published guidelines and medians, leading to a lowering of Empire's financial rating. (*Id*. at 2) Such a downgrade could in turn increase Empire's cost of debt and cost of equity and weaken Empire's ability to attract capital at a reasonable cost. (*Id.*)

Staff witness Murray's approach to calculating a rate of return for Empire is mechanistic and demonstrates a lack of understanding of the methodologies being applied. According to Dr. Murry, Staff witness Murray's "analysis has a number of analytical and methodological problems that appear to have led to his unsubstantiated conclusions and flawed recommendations" and his testimony is "similar to testimony he has presented to this Commission over the last several years in other cases." (*Id.*) Dr. Murry explained that Staff witness Murray's "lengthy presentation of stale economic data is irrelevant and ignores the fact that the cost of capital is a function of expectations." (*Id.*)

When asked about Staff witness Murray's "mechanical calculations," Dr. Murry testified:

> Throughout his analysis Mr. Murray averaged averages, rendering his results useless for determining the investors' evaluation of capital costs. This substitutes a mechanical set of calculations and averages for a real analysis of the market data and masks the essence of the DCF analysis. . . . Consequently, his formulistic calculations were reduced to rather meaningless data manipulations.

(*Id.* at 10) Dr. Murry observed that Staff witness Murray's DCF analysis is similar to a vending machine – "You put the numbers in, you pull the lever, and a number comes out and you call that the answer." (Tr. 992-993)

One of the more striking faults with Staff witness Murray's testimony was his statement regarding Value Line's concern that an unfavorable order in this proceeding could lead to a reduction in Empire's dividend. (Murry Rebuttal, Exh. 12, p. 6) Staff witness Murray apparently disputes this and testified that it is his opinion that Empire's dividend policy is causing Empire to have a higher cost of capital. (Murray Direct, Exh. 11, p. 22)

In response, Dr. Murry explained that Staff witness Murray appears to believe that lower dividends, and thus lower payout ratios, will lower a utility's cost of capital. (Murry Surrebuttal, Exh. 13, p. 2) Dr. Murry testified that Staff witness Murray's statement "shows a dangerous lack of understanding of the relationship between dividends, the cost of capital, and regulatory allowed returns." (Murry Rebuttal, Exh. 12, p. 7) "All other things being equal, a dividend reduction will result in a decrease in the stock price because returns will be received by investors later rather than sooner. . . . Furthermore, a dividend reduction and the associated drop in the price of the stock could be extremely deleterious for certain investors." (*Id.* at 8)

When asked about Empire's current dividend situation, Dr. Murry testified:

> Over the period 1993-2004, Empire has paid out virtually all its earning as dividends in an effort to maintain its investment standing and has issued new equity to maintain its financial integrity. Empire's expected return on common equity for 2004 is 5.5 percent. Contrary to Mr. Murray's assertion, the solution to Empire's dilemma is not to reduce dividends, which will decrease the market price and raise the cost of acquiring capital. The solution, as recognized by various market research services, it to increase common stock earnings to levels consistent with electric utility industry norms.

(*Id.* at 8-9)

f. Public Counsel's Recommendation and Lack of Expertise

Public Counsel witness Allen recommends a return on equity in the range of 8.96 to 9.41 percent. He is of the opinion that any decision which falls within the range of 9 to 9.4 percent will accurately reflect the risk for Empire and will fairly allow the Company to attract capital in the future. Public Counsel's recommended ROE, however, is insufficient to assure financial confidence in Empire, and Allen's opinions in this regard are only admissible if and to the extent he is deemed to be an expert in utility finance and his "expert" testimony is found to comply with RSMo. §490.065.

Allen holds no professional licenses or certificates, is not a member of any professional organization, and has little specialized training in the field of regulatory finance. (Exhibit 123) Allen has not taught any college level courses, has not taught any courses in the field of regulatory finance, has not taught any cost of capital or rate of return courses, has not written any textbooks, and has not written or co-written any books, treatises, or other works on the subject of regulatory finance, rate of return and/or cost of capital. (*Id.*)

Allen, who has a Bachelor of Science Degree and Master of Science Degree in Business Economics and Finance, was able to point to only one case in which he previously provided "expert" testimony, and Allen first filed "expert" testimony on April 15, 2004. (*Id.*) Allen falls well short of mastering the field of utility finance and rate of return analysis – both in terms of education and practical experience. Simply put, Allen does not possess the "specialized knowledge" to assist this Commission, and Allen is not "qualified as an expert by knowledge, skill, experience, training, or education." As such, Allen's testimony should be given little or no weight by this Commission.

g. Errors in Public Counsel's Analysis

To arrive at his ROE recommendation, Allen performed a DCF analysis and a CAPM analysis on Empire and a "comparable" group of publicly traded electric utility companies. (Allen Direct, Exh. 81, p. 4) To arrive at the growth component of his DCF model, Allen relied on the "br + sv" input. (Vander Weide Rebuttal, Exh. 15, p. 20) Empire's expert Dr. Vander Weide explained that the "br + sv" method estimates future growth by examining growth in two components, internal growth and external growth, with "b" equal to the company's retention rate, "r" equal to the company's expected rate of return on equity, "v" equal to the fraction of new common stock sold that accrues to the current shareholder, and "s" equal to the funds raised from the sale of stock as a fraction of existing equity. (*Id.*) Dr. Vander Weide noted that this method is widely used for non-utility companies, but problems arise when it is applied to rate-regulated companies such as Empire. (*Id.* at 21)

Dr. Vander Weide also testified that use of the "br + sv" component in the DCF model is circular:

> . . . the expected rate of return on equity is one of the key inputs in calculating internal growth. Yet the growth rate that is being calculated using the "br + sv" method will be used to estimate the cost of equity for a rate-regulated company, which, in turn, determines the company's allowed rate of return on equity. Since the company is generally expected to earn its allowed rate of return on equity, the "br + sv" method requires knowledge of the allowed rate or return before the allowed rate of return can be calculated, a logical impossibility.

(*Id.*) As Dr. Murry explained, "Simply put, the method requires an estimate of the return on equity before an analyst can even calculate the growth rate used to estimate the return on equity." (Murry Rebuttal, Exh. 13, p. 18) Dr. Vander Weide also explained Allen's error in using historical growth rates to estimate future growth in the DCF model (*Id.* at 21-22), and explained the faulty nature of Allen's selection of proxy companies. (*Id.* at 22-23)

Allen's criticism of Dr. Murry's use of a 6 percent growth rate for Empire is not well founded. As Dr. Murry testified, Allen appears to be substituting his personal opinion regarding Empire's growth rate for the opinion of investors. (Murry Surrebuttal, Exh. 13, p. 10) Dr. Murry used the earnings per share growth estimates, because "the opinion of investors is the one that counts, not Mr. Allen's. Value Line is a widely available service followed by many investors, and it undoubtedly influences investor opinions." (*Id.*)

Dr. Murry testified that Allen's recommended ROE is "insufficient to assure the financial integrity of Empire." (Murry Rebuttal, Exh. 12, p. 15) Like Dr. Vander Weide, Dr. Murry found fault with Allen's choice of "comparable" companies and pointed to Allen's "dubious methodology" in applying the DCF model. (*Id.*) Allen's recommended return is "out of line with the allowed returns for utilities that appear to be lower risk and in a stronger financial position than Empire." (Murry Surrebuttal, Exh. 13, p. 9) Again, according to the Regulatory Research Associates, the average allowed return for electric utilities during the first quarter of 2004 was 11 percent. (*Id.*)

3. Capital Structure (What capital structure is appropriate for Empire?)

a. Empire's Recommendation

Dr. Murry testified that the appropriate capital structure for Empire for purposes of this proceeding is the Company's pro forma capital structure as of December 31, 2003, consisting of long-term debt of $336,496,611 or 43.89 percent; trust preferred securities of $48,292,848 or 6.3 percent; and common stock equity of $381,935,258 or 49.81 percent of total capital. (Murry Direct, Exh. 11, pp. 6-7)

b. Staff's Recommendation

Staff urges the use of Empire's June 30, 2004 consolidated capital structure, consisting of 49.14 percent common stock equity, 6.32 percent trust preferred stock, and 44.53 percent long-term debt. (Murray Direct, Exh. 62, p. 24)

c. Public Counsel's Recommendation

Public Counsel agrees generally with the Company's approach. The only difference between the Company's approach and Public Counsel's approach is that Public Counsel uses a capital structure as of June 30, 2004, while Empire uses a capital structure as of December 31, 2003.

4. Cost of Debt (What embedded cost of debt is appropriate for Empire?)

a. Empire's Recommendation

Empire's embedded cost of long-term debt is 7.25 percent, with a cost of trust-preferred securities of 8.93 percent. (Murry Direct, Exh. 11, p. 7)

b. Staff's Recommendation

Staff asserts that the embedded cost of long-term debt for Empire was 7.22 percent as of June 30, 2004, and the embedded cost of trust preferred stock for Empire, as of June 30, 2004, was 8.92 percent. (Murray Direct, Exh. 62, p. 25)

c. Public Counsel's Recommendation

Allen testified that the appropriate embedded cost rate for Empire's long-term debt as of June 30, 2004, was 7.23 percent, with an embedded cost rate for Empire's preferred stock at 8.83 percent. (Allen Direct, Exh. 81, p. 6)

5. Conclusion

In summary, Empire encourages the Commission to apply the standards set by the Supreme Court in *Hope* and *Bluefield*, allow Empire to compete in the capital markets, make necessary capital investments, and continue providing high-quality electric service, and allow Empire the opportunity to earn an overall rate of return of 9.54 percent, as illustrated below.

	Ratio	Cost	Weighted Cost
Long Term Debt	43.89%	7.25%	3.18%
Trust Preferred Securities	6.30%	8.93%	0.56%
Common Equity	49.81%	11.65%	5.80%
Total	100.00%		
COST OF CAPITAL/RATE OF RETURN			9.54%

B. Depreciation Issues

1. Introduction

In 1982, the Commission, in its Case No. TO-82-3, discussed the purpose of depreciation accounting and stated as follows:

> Depreciation accounting is generally conceded to be a system of accounting which aims to distribute costs or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit, or group of assets, in a systematic and rational manner. It is a process of allocation, not of valuation.
>
> A secondary goal of depreciation is to match capital recovery with capital consumption. For years it has been recognized that this goal is difficult to attain, therefore, the emphasis is upon a systematic and rational allocation of the expense of capital consumption. The accounting does not purport to follow the actual rate of consumption of property during individual accounting periods. Therefore, it is equitable and sound as a matter of practical accounting to spread the depreciation expense in equal annual charges over the useful life of the property, but the actual rate of consumption may be different.

25 Mo.P.S.C. (N.S.) 331 at 334-335. More recently, the Commission reinforced that statement when it stated:

> The Commission finds that the fundamental goal of depreciation accounting is to allocate the full cost of an asset, including its net salvage costs, over its economic or service life so that utility customers will be charged for the cost of the asset in proportion to the benefit they receive from its consumption. (Third Report & Order, Opinion p. 9, issued Jan. 11, 2004)

In the Matter of Laclede Gas Company's Tariff to Revise Natural Gas Rate Schedules, Case No. GR-99-315 (hereinafter, the "*Laclede case*").

In the instant case, there is general disagreement between the parties as to: 1) the service lives over which the costs of the assets should be depreciated, and 2) the inclusion of an allowance for future net salvage (i.e., salvage less cost of removal) in the development of the depreciation rate.

There was a great deal of concern expressed during the hearing regarding Empire's proposal to shorten service lives for various depreciable accounts, as well as to include in its proposed depreciation rates an accrual for future net salvage costs. Public Counsel witness Majoros on more than one occasion criticized Empire's proposed depreciation rates as "excessive." (Majoros Direct, Exh. 89, pp. 3, 10, 12) Staff and Public Counsel speculate that Empire will recover its investment in plant prior to actually retiring the plant and that it will recover net salvage costs that are in excess of those actually incurred. The fact of the matter is that there is absolutely no evidence in this record that Empire has over-recovered (or will over-recover) its depreciation expense or future net salvage costs. In fact, recent history reveals the concern should be just the opposite (i.e., that utilities will not be allowed to recover the full investment in their plant or their actual costs of removal). Consider the following case study:

In 1997, Missouri-American Water Company ("MAWC") filed for an increase in its water rates. One of the disputed issues in that case was a proposal by Staff to recover the anticipated, undepreciated investment in MAWC's existing water treatment plant in St. Joseph, Missouri (the "Old Plant"). MAWC had sought and obtained approval from the Commission to construct a new water treatment plant which was intended to be completed in 2001 (the "New Plant"). Existing depreciation rates for the Old Plant would not have recovered all of its original cost until the year 2028. Accordingly, Staff proposed a ten year amortization to address the anticipated unrecovered investment in the Old Plant. Public Counsel, among others, objected to the proposed amortization on the grounds that it was not known and measurable, as the construction of the New Plant had not begun and there was no assurance that the project would be completed in time to retire the Old Plant in 2001. The Commission agreed with Public Counsel, finding that the 2001 retirement date was

somewhat speculative and institution of the proposed amortization would be premature. *Re Missouri-American Water Company*, Case Nos. WR-97-237, SR-97-238 and WO-97-249, decided November 6, 1997, 6 MoPSC 3rd 549 at 544-545.

In 2000, MAWC filed for another rate increase and an issue in that case was the "Premature Retirement" of the Old Plant. As anticipated, MAWC had completed, and brought on-line, its New Plant and had taken its Old Plant out of service in the Spring of 2000 (i.e., ahead of schedule). MAWC and Staff proposed that the undepreciated original cost of the Old Plant (which was now a reality) be deducted from both plant-in-service and accumulated depreciation in order to preserve the Old Plant's undepreciated value of $2,832,906, until a proper depreciation study could be performed. Additionally, MAWC and Staff proposed that the cost of removal, estimated at $500,000, also be deducted from the accumulated depreciation, thereby preserving a total of $3,332,906. Public Counsel opposed the treatment proposed by MAWC and Staff, essentially arguing that recovery of the undepreciated value of the Old Plant and the estimated retirement costs should be "written-off," because they relate to plant that is no longer in service. A majority of the Commission agreed and directed MAWC to write-off the undepreciated original costs of its investment of $2,832,906, as well as any amount expended to retire the Old Plant. *In Re: Missouri-American Water Company,* Case No. WR-2000-281, decided August 31, 2000, 9 MoPSC 3rd 254 at 286 through 287.[2]

It is against this very real case study that the Commission needs to evaluate the positions of Empire, Staff, and Public Counsel in this case. **This actual case study reveals that the real concern of the Commission should be for the full recovery of a utility's investment in its plant, as well**

[2] This decision was later reversed and remanded by the Cole County Circuit Court. *State ex rel. Missouri-American Water Company v. Public Service Commission*, Case No. 00CV325014, et al. (May 25, 2001). (If no recovery of undepreciated plant is provided for, Company will suffer a taking or confiscation in violation of constitutional authority.)

as its cost of removal, rather than the hypothetical and unfounded concern that ratepayers may pay "too much." Here, as in the MAWC case, Public Counsel (and now Staff), argue that the retirement dates for Empire's various power production plants are speculative and that its anticipated costs of removal are not known and measurable. As a result, Public Counsel and Staff argue for longer lives and no recovery of future net salvage costs. If Public Counsel and Staff are wrong, Empire's investors will be left holding the bag, as were MAWC's investors. If, on the other hand, Empire is wrong, customers will have paid for the plant and associated cost of removal prior to its retirement but at least they will have received compensation for their payments through an offsetting adjustment to depreciation reserve and rate base, upon which they are required to pay a return.

Finally, as part of its assessment of the parties' positions in this case, the Commission should consider how Empire's existing rates compare with other electric utilities' depreciation rates. In that regard, Mr. Roff compared Empire's existing depreciation rates to those of other electric utility companies. Schedule DSR-4 attached to his direct testimony (Exh. 18) presents the average composite depreciation rate for Empire and a group of electric utility companies that either surround Joplin and Missouri or are of the same general size. This comparison shows that Empire's existing composite depreciation rate of 2.27% is significantly below the industry average of 2.99%. While Mr. Roff readily admits that his comparison was not meant to provide a precise comparison of depreciation parameters and methodologies, it does nevertheless provides a "sanity check" as to the reasonableness of Empire's existing rates. In that regard, this comparison clearly reveals just how far out of the mainstream that Empire's current (and Staff's and Public Counsel's proposed) depreciation rates are. (Roff Surrebuttal, Exh. 20, p. 8) In this case, Empire's proposal to increase depreciation rates and expense by approximately $10.2 million will result in a composite depreciation

rate of 3.3%. (Tr. 1771) This comparative analysis therefore refutes any assertion that Empire's proposed depreciation rates are excessive.

2. Summary of Empire's Proposed Depreciation Rates

Empire retained the services of Donald S. Roff, a director with the Public Accounting Firm of Deloitte & Touche LLP, to perform a study of Empire's depreciable property. Mr. Roff is a registered Professional Engineer in Pennsylvania, a member of the Society of Depreciation Professionals, and a Certified Depreciation Professional. He is a Technical Associate of the American Gas Association ("A.G.A.") Depreciation Committee, and he currently serves as the lead instructor for the A.G.A.'s Principles of Depreciation course. Mr. Roff has over thirty years of experience in the conduct and preparation of depreciation studies for electric, gas, water, and steam heat utilities, pipelines, railroad, and telecommunications companies in over thirty states, several Canadian provinces, and Puerto Rico. (Roff Direct, Exh. 18, Exh. DSR-1)

Mr. Roff's Depreciation Study, which was based on plant as of December 31, 2003, recommended an increase in annual depreciation expense of approximately $25.6 million. (Roff Direct, Exh. 18, p. 4) However, for purposes of its filing, Empire believed that an annual increase in depreciation expense of $25 million would be too much to ask its customers to bear, and therefore it reduced its request for additional depreciation expense by approximately $14.1 million. (Gipson Direct, Exh. 1, p. 5; Tr. 1777) Accordingly, Empire now only seeks an increase in annual depreciation expense accruals of approximately $10.2 million.

In his Depreciation Study, Mr. Roff developed his recommended depreciation rates using a remaining life technique (as opposed to a whole life technique); developed average service lives for mass property accounts based on mortality data, and for production plant accounts using a life span

analysis; and included an allowance for future net salvage based on the "traditional" method of accruing for net salvage (i.e., using a ratio of net salvage costs as a percentage of the original cost of retirements). (Tr. 1728-1730)

Mr. Roff's alternative proposal, and the one which Empire is pursuing for purposes of this case: (1) developed recommended depreciation rates using a whole life technique; (2) developed average service lives for mass property accounts based on mortality data and for production plant accounts using the life span method, but changed the anticipated retirement date for the Asbury Plant from 2014 to 2020; and (3) incorporated an accrual for net salvage using the traditional method, but capped the net salvage percent at 100% for those accounts where negative net salvage factors exceeded 100%. (Roff Rebuttal, Exh. 19, pp. 35-37; Tr. 1765-1766) As a result, the only issues remaining between the Company, on the one hand, and Staff and Public Counsel, on the other hand, are: (1) the average service lives for mass property accounts; (2) the use of the life span analysis for determining average service lives for production plant; and (3) the accrual of net salvage as part of the depreciation rate. Empire, Staff and Public Counsel have quantified their differences as follows:[3]

	Staff	Public Counsel
Mass Property – Difference in Average Service Lives	415,792	0
Production Plant – Average Service Lives vs. Life Span	(3,030,808)	(3,004,210)
Production Plant – Terminal Net Salvage	(700,259)	(700,259)
Production Plant – Interim Net Salvage	450,682	450,682
Mass Property – Net Salvage	(5,170,565)	(5,043,961)

[3] Since the depreciation and other issues are interrelated, exact values cannot be determined. A final revised set of accounting schedules will be required to determine the revenue requirement associated with the Commission's decisions.

3. Average Service Lives

a. Mass Property Accounts (i.e., Transmission, Distribution, and General Plant)

Empire and Staff disagree over the appropriate average service lives for mass property accounts. For purposes of this discussion, mass property accounts include assets in the transmission, distribution and general plant accounts. (Tr. 1734) Generally speaking, Empire witness Roff has developed longer average service lives for the mass property accounts than Staff. If accepted, Mr. Roff's proposed rates for Empire will decrease annual depreciation expense and revenue requirement by $415,792 annually. Not surprisingly, Public Counsel witness Majoros has accepted Mr. Roff's proposed average service lives for mass property accounts (although Mr. Majoros also states that he could accept the Staff's average service life recommendations). (Majoros Direct, Exh. 89, p. 5; Rebuttal, Exh. 90, p. 33)

Both Empire and Staff have developed their recommended average service lives for mass property accounts by performing a life analysis of Empire's plant. Essentially, life analysis measures the history (i.e., mortality data) and results in a determination of an estimate of average service life for each asset category. (Roff Direct, Exh. 18, p. 22) In this case, Mr. Roff collected and analyzed retirement experience from inception through 2003, and updated the historical data files used for the prior depreciation study. These data were arrayed into a format suitable for life analysis. Life tables were then developed and Iowa Curves were fitted to the historical summaries. (Roff Direct, Exh. 18, p. 22) A single average service life and Iowa Curve was selected for each asset category reflecting the combination of the historical results and the additional information obtained from Empire's engineering, accounting, and operations personnel. This process is part of an evaluation phase

undertaken by the depreciation analyst in the conduct of a depreciation study. (Roff Direct, Exh. 18, p. 27) This evaluation phase combines the results of historical analyses with information regarding the age of property retired, the age of property surviving, knowledge of the types of assets surviving and being retired, and company experience and expectations, all coupled with the knowledge, experience, and judgment of the depreciation analyst. The goal is to give recognition to these factors and their influence upon historical indications and the applicability of such historical indications to plant surviving into the future. Both Mr. Roff and Empire personnel participated in this evaluation process, and they thoroughly discussed the specific types of equipment being retired and added, the relative age of property surviving and retiring, and Company plans and expectations regarding the property being evaluated. (Roff Direct, Exh. 18, pp. 27-28)

Staff, in developing their average service life for mass property accounts, also engaged an analysis of historical or mortality data and the "fitting" of Iowa Curves. However, there is no indication that Staff engaged in any "evaluation" of the raw historical data or the results produced by the mechanical fitting of the Iowa Curves. In fact, it appears that Staff witness Macias relied solely upon historical analysis results with little or no interpretation of results, consideration of asset mix, or evaluation of Company plans and expectations. (Roff Rebuttal, Exh. 19, pp. 3-4) While Mr. Macias did perform an on-site review of some of Empire's production plant facilities, his interaction with Empire personnel was limited and the information he received from Empire personnel was consistent with that provided by Mr. Roff in his study. (Tr. 1809-1810) It is therefore unclear what, if any, independent judgment Mr. Macias brought to bear on the fitting of Iowa Curves. Moreover, given his lack of expertise and experience, any judgment which Mr. Macias may have brought to bear on the results of his analysis should be carefully weighed. For example, Staff witness Macias has only

been working in the area of depreciation since 2001. (Tr. 1790) This is only the second depreciation study that he has performed and his first study of an electric company. (Tr. 1791, 1806) Mr. Macias has taken no courses at the university level regarding the subject of depreciation, and the NARUC ratemaking course which he attended contained no specific programs on the issue of depreciation. (Tr. 1792) Mr. Macias has no experience in the design, construction or operation of an electric utility. He is neither a member of the Society of Depreciation Professionals nor is he a Certified Depreciation Professional. (Tr. 1806)

It is clear that the analysis performed by Mr. Roff in this case is significantly more thorough and thoughtful and, as a result, the average service lives which he recommends should be adopted by the Commission.

b. Production Plant Accounts

The Parties also disagree over the appropriate service lives for the production plant accounts. In this case, however, the Company has taken a different approach to estimating the appropriate service lives for its production plant accounts than that taken by both Staff and Public Counsel. As a result, the Company has generally proposed shorter lives for its production plant accounts than Staff and Public Counsel and, if accepted, would increase the annual depreciation expense and revenue requirement by $3,030,808 over Staff's proposal and $3,004,210 over Public Counsel's proposal.

For purposes of determining the appropriate service lives for production plant accounts, Mr. Roff performed two separate life analyses. The first was based upon historical accounting activity, and the second was based upon a forecast of projected investment activity. (Roff Direct, Exh. 18, p. 16) The historical analysis performed for production plant consisted of the development of a worksheet of additions, retirements and plant balances for each plant site (e.g., Riverton) and primary

account (e.g., Account 312-Boiler Plant Equipment). Original additions were identified separately from interim additions, and interim retirements were identified separately from terminal retirements. "Original additions" refer to the initial construction cost of a plant or unit. "Interim additions" refer to replacement of initial equipment or the addition of new equipment. "Interim retirements" refer to retirements of components throughout the life of a plant or unit. "Terminal retirements" refer to the final retirement of a plant or unit. (Roff Direct, Exh. 18, p. 16)

Utility companies' production plant facilities are unique in that all assets tend to retire at one point in time, in this case, the estimated retirement date. Empire's engineers provided an estimated retirement date for each production unit.[4] These estimated retirement dates effectively define the period over which depreciation is to be accomplished. These estimated retirement dates assume normal maintenance and routine capital replacements, but do not include major investments that may be required for environmental regulations. For each primary account, a forecast worksheet was prepared showing the existing investment and accumulated depreciation, and a projection of interim retirements, as well as the terminal retirement amount. These amounts were utilized in the development of a depreciation rate that provides for full recovery of these surviving and retiring amounts over the life of the facility. (Roff Direct, Exh. 18, p. 18)

Both Staff and Public Counsel performed a life analysis of production plant similar to that utilized in determining average service lives for mass property accounts previously described. However, these life analyses and, more importantly, the data on which they are based are much more limited and therefore not reliable. While it is true that Empire has the aged property accounting data

[4] The retirement dates for each plant used by Mr. Roff in his study are contained in Schedule 5 to Schedule DSR-1. (Exh. 18)

from which to construct actuarial life tables, it does not follow that such data produces reliable and predictive life analysis indications. For example, the number of surviving units contained in the life analysis performed by Public Counsel of the steam production function is no more than five. In other words, there are only five generating units contained in the actuarial population. This is truly a limited sample and makes reliance on the output results tenuous at best. Staff's analysis suffers from the same "limited" data constraints and is likewise unreliable. (Roff Rebuttal, Exh. 18, pp. 5-6) While Staff and Public Counsel life analyses for production plant may reflect what little history has occurred, they are simply not conclusive or predictive for estimating service lives to be used for calculating future depreciation rates. In fact, on several of his workpapers, Mr. Majoros has included notes saying, "not enough data for actuarial analysis" or "insufficient retirements/exposures." (Roff Rebuttal, Exh. 19, p. 7) Mr. Roff therefore utilized a life span forecast approach because such a methodology best matches what happens in real life to generation facilities. What happens to generation facilities in real life is that they die (retire) at one point in time, and Mr. Roff's approach is designed to recognize this eventuality. (Roff Rebuttal, Exh. 19, p. 7)

The life span approach employed by Mr. Roff properly reflects the survival relationship of these assets groups and, in turn, develops more appropriate depreciation rates than those developed by Staff and Public Counsel based on an actuarial analysis. For example, Mr. Majoros has recommended an average service life of 93 years for Account 311 – Steam-Structures and Improvements -- based solely on history. This indicates a final retirement for this asset group at age 172 years! Similarly, over 54% of the original asset base will attain an age of 93 years prior to retirement. Such a result is illogical and the associated life is excessive for the determination of appropriate depreciation rates. Under Mr. Majoros' analysis, the investments in Account 311 for the

Iatan Plant, installed in 1980, will not become fully depreciated until the year 2152, and will only become 50% depreciated some 34 years from today. Staff's average service life recommendation for Account 311 is even longer than Mr. Majoros' selection. By comparison, the life span procedure utilized by Mr. Roff results in the Iatan plant being fully depreciated in the year 2020. Taking the production plant accounts as a whole, the composite average service life developed by Staff in this proceeding is over 49 years. This is exceeded by the composite average service life of over 52 years developed by the Public Counsel. By comparison, the Company's composite average service life is just under 36 years. (Roff Rebuttal, Exh. 19, pp. 6-7)

Mr. Roff's life span analysis was criticized because such an approach had been rejected by the Commission in Empire's 2001 rate case (Case No. ER-2001-299). However, a review of the Commission's decision in that case indicates that the Commission did not reject the life span analysis but simply found that the retirement dates sponsored by Empire's depreciation witness were not credible. In this case, Mr. Roff's retirement dates are predicated upon "lengthy and thoughtful" discussions with Company personnel. Retirement dates were provided to him based upon consideration of economic and operating factors in force today and represent Empire's best estimate of a life span for cost allocation purposes for depreciation expense determination recognizing routine maintenance and normal capital expenditures. The types of factors influencing the lives of Empire's facilities include fuel supply, the cost of fuel, the age of the plant, the operation of the facility, environmental requirements, and capital requirements. Thus, these retirement dates represent Empire's particular experience and planning. (Roff Rebuttal, Exh. 19, p. 8; Tr. 1595-1596; 1735-1736) Moreover, Mr. Roff did not simply accept Empire's proposed retirement dates at face value. Mr. Roff also compared these life spans to other facilities with which he has been involved during his

career and determined that Empire's proposed retirement dates produce reasonable life spans. (Tr. 1595)

Finally, the Commission should consider the consequences of adopting service lives based on Empire's life span approach versus lives determined by Staff's and Public Counsel's actuarial approach. If Empire's life spans are incorrect and the units remain in service longer than anticipated, ratepayers may have paid for the plant too quickly, but they will not have paid any more than they were required to pay because once an asset is fully depreciated, even though it is not retired, depreciation expense stops. (Tr. 1739, 1755) Secondly, the customer receives compensation for the depreciation expense they pay to the Company through an accrual to the reserve which is then deducted from rate base, thereby reducing the amount of return the customer is otherwise required to pay. (Tr. 1742-1743) On the other hand, if Staff and Public Counsel average service lives are incorrect, and the plant is retired sooner than their recommended service life, there will be an undepreciated and unrecovered amount of original cost associated with that plant for which the Company has not been compensated. And, given the recent experience in the MAWC rate case, it is not clear that the Company's investors will ever receive the full amount of their investment in plant given that scenario.

In light of the foregoing, the Commission should adopt the average service lives for production plant proposed by the Company and supported by its life span approach.

4. Net Salvage

a. Description of the Issue

When plant is removed from service, typically there is a cost to remove the plant and, in some instances, there is a salvage value associated with the retired plant. It is the difference between these two (i.e., salvage less cost of removal) that has generally been referred to as net salvage cost for

purposes of this issue. In many instances, costs of removal will exceed salvage and "negative" net salvage factors will be calculated. Net salvage costs can be broken down further into net salvage costs associated with the retirement of mass property and net salvage costs associated with the retirement of production plant. Further net salvage for production plant occurs in two forms: interim net salvage and terminal net salvage. Interim net salvage refers to the salvage and removal costs associated with interim retirements. Terminal net salvage refers to the ultimate dismantlement of plant facilities, which includes both salvage and removal costs. (Roff Direct, Exh. 18, p. 20) If Empire's proposal to accrue net salvage as part of its depreciation rates is accepted, Empire's depreciation expense and revenue requirement will increase by $700,259 for terminal net salvage and by $5,170,565 for mass property accounts over Staff's and Public Counsel's proposals. If accepted, Empire's proposal for net salvage for interim retirements will actually decrease expense and revenue requirement by $450,682 compared to Staff's and Public Counsel's proposal.

b. Empire's Proposal to Accrue Net Salvage

In this case, Empire has proposed to accrue for future net salvage costs by calculating a net salvage factor from the historical records of the Company and including it in the development of its proposed depreciation rate. Staff and Public Counsel, on the other hand, have proposed to account for net salvage on a current or cash basis essentially by looking at the net salvage cost experienced by the Company in the last five years and developing an average expense based on that historical information. In Staff's case, the average historical expense is then included in the cost of service as a separate, line-item expense amount. In Public Counsel's case, the historical average cost is included as part of the depreciation expense.

This issue is not new. In Empire's 2001 rate case (Case No. ER-2001-299), Company and Staff essentially took the same positions that they are taking in this case. In the 2001 rate case, the Commission decided 3-1 (with Commissioner Murray dissenting) to adopt Staff's position on the issue. However, the Commission also stated that its "conclusion in this case should not be taken as a final endorsement of Staff approach. Both the approach adopted by Staff and by the Company have merit, and the Commission will use the one that fits the particular circumstances." *In re The Empire District Electric Company*, 10 MoPSC 3d. 463, at 479 (decided Sept. 10, 2001).

On January 11, 2005, the Commission issued its decision in a 1999 Laclede Gas Company rate case (which had been remanded by the Missouri Court of Appeals) that now appears to resolve many of the policy issues regarding the proper approach to net salvage costs. *In the Matter of Laclede Gas Company's Tariff to Revise Natural Gas Rate Schedules*, MoPSC Case No. GR-99-315. The Third Report and Order in the *Laclede case* is a decision in a rate case and not a decision in a generic or rulemaking context; nevertheless, a number of the Commission findings and conclusions in that case are equally applicable to the case at hand as will be discussed hereinafter.

There are a number of reasons why Empire's proposal to include future net salvage costs as a component of its depreciation rates is appropriate. First, Empire is properly entitled to recovery of these costs. Second, including net salvage as a component of the depreciation rate is required by regulatory and accounting rules. Third, such an accounting treatment appropriately allocates all components of cost over the useful life in a consistent manner. Fourth, treating net salvage cost as a component of depreciation rates results in intergenerational equity, such that no generation of customers is improperly charged. Fifth, such treatment is consistent with the way in which depreciation rates and depreciation expense are handled in the vast majority of jurisdictions. Finally,

including future net salvage costs as a component of depreciation rates and expense increases cash flow and improves certain financial ratios upon which credit ratings are based, thus enabling the Company to better meet its infrastructure and other public service obligations. (Roff Direct, Exh. 18, pp. 26-27; Knapp Rebuttal; Exh. 28, pp. 3-5, GAK-Exhibit 1)

The Company and its investors are entitled to recovery of both prudently incurred costs in the installation of plant as well as costs incurred in removing plant from service. No Party has disputed this concept (Public Counsel's position in the 2001 MAWC case notwithstanding). Moreover, recovery of future net salvage costs is consistent with industry standard and accepted definitions of depreciation. For example, NARUC defines depreciation as

> . . . the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes that are known to be in current operation, against which the company is not protected by insurance, and the effect of which can be forecast with reasonable accuracy. Among the causes to be considered are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and the requirement of public authorities. (Roff Direct, Exh. DSR-1, App. B, p. 30)

"Service value" is then defined as "(t)he original cost of an asset less its estimated net salvage." (Roff Direct, Exh. DSR-1, App. B, p. 36) These regulatory definitions clearly include net salvage as a component of depreciation. Indeed, this Commission has now found, in the *Laclede case*, that "the fundamental goal of depreciation accounting is to allocate the full costs of an asset, <u>including its net salvage cost</u>, over its economic or service life so that utility customers will be charged for the cost of the asset in proportion to the benefit they receive from its consumption." (Third Report & Order, p. 9, emphasis added) Clearly, Empire and its investors are entitled to recovery of future net salvage costs as a component of depreciation rates.

The accrual for net salvage as part of the depreciation rate is also required by the rules of this Commission. 4 CSR 240-20.030(1) requires that ". . . every electrical corporation subject to the Commission's jurisdiction shall keep all accounts in conformity with the Uniform System of Accounts prescribed for public utilities and licensees subject to the provisions of the Federal Power Act, as prescribed by the Federal Energy Regulatory Commission (FERC) . . ." Further, Commission Rule 4 CSR 240-20.030(3)(H) specifically states that when implementing the FERC Uniform System of Accounts, "each electrical corporation subject to the Commission's jurisdiction shall . . . charge original costs less net salvage to Account 108, when implementing the provisions of Part 101 Electric Plant Instructions 10.F. and Paragraph 15.060.10.F." (Emphasis added) In other words, the Commission's own rules unequivocally indicate that net salvage will be part of the depreciation calculation.

The Commission's power to establish depreciation accounts and rates is found in Section 393.240 RSMo 2000, which states, in relevant part:

> That the commission shall have the power, after hearing, to require . . . electrical corporations . . . to carry a proper and adequate depreciation account in accordance with such rules, regulations and forms of accounts as the commission may prescribe. (Emphasis supplied)

Thus, Section 393.240 RSMo 2000 provides that the Commission only has authority to require such depreciation rates as are consistent with its own rules. The Company's proposal to accrue net salvage as a component of its depreciation rates is consistent with the Commission rules, and the Staff's proposal to treat it as a line-item expense is not. Again, the Commission seems to have put this issue to rest in its recent *Third Report and Order* in the *Laclede case* by finding that the accrual method "is consistent with the requirements of the Uniform System of Accounts that this Commission has

adopted, and depreciation practices recognized and followed in all but a few regulatory jurisdictions in the United States." (Third Report & Order, p. 9)

Accruing for future net salvage costs as part of the depreciation rate promotes intergenerational equity. Net salvage is an appropriate component of depreciation and inclusion into the development of an appropriate depreciation rate results in a fair and equitable allocation of these costs. From a ratemaking perspective, inclusion of net salvage and depreciation expense fulfills the regulatory precept of having customers pay their fair share of costs over the life of the property devoted to their service. By properly including net salvage in the development of a depreciation rate, the potential for intergenerational cross subsidy is eliminated.

As a matter of sound public policy, there is no reason to impose the cost of net salvage on future electric customers. This produces an economically inefficient allocation of resources across time to the detriment of all customers. (Roff Direct, Exh. 18, p. 11) In the recent *Laclede case,* Staff acknowledged that to address any intergenerational problem, customers benefitting from the use of an asset should pay for its costs of removal during the service life of the asset, not after it is retired from service. (Third Report & Order, p. 12) Accordingly, the Commission found that "the accrual method comes closer to matching the costs to the benefits derived, . . . [and] intergenerational equity will be promoted by the continued use of the accrual method." (Third Report & Order, pp 12-13)

The accrual method also enjoys the support of the vast majority of regulatory jurisdictions. Mr. Roff was aware of only two other jurisdictions that have approved an approach similar to that taken by Staff and Public Counsel in this case. (Roff Rebuttal, Exh. 19, p. 30) Both Staff and Public Counsel witnesses were unable to name more than two jurisdictions, other than Missouri, that have approved their approach (Tr. 1816, 1945) and Public Counsel witness Majoros candidly admitted that

his approach had recently been rejected by the Indiana and Kentucky Utilities Commissions. (Tr. 1934, 1936) The record in this case is consistent with the Commission's finding in the recent *Laclede case:*

> It is undisputed that using the accrual method for this purpose is supported by the overwhelming weight of authority on such matters. In both evidentiary hearings, Laclede and AmerenUE provided evidence showing the widespread support among depreciation professionals and authoritative texts for the traditional, or accrual, method of treating net salvage. (Third Report & Order, p. 8)

Finally, the inclusion of net salvage in development of a depreciation rate improves cash flow, and all other things being equal, improves certain financial ratios upon which a utility's credit rating is based and therefore reduces its cost of capital. Empire's business model is straight-forward: Cash to run the business is either provided by the customers through rates or the cash is obtained in the capital markets. When this model is working properly, customers pay for the cost of providing utility service, including an appropriate depreciation allowance, plus the opportunity for the owners of the business to earn a fair return on their investment. When out of balance and customers are not fully paying the cost of service, the Company is required to borrow more money to finance infrastructure requirements. This is the situation in which Empire finds itself. Annual capital expenditures (excluding new generation additions) have been in the $40-45 million range in the last several years. This is a level of capital expenditures commonly referred to by the rating agencies as a "maintenance level" of expenditures, meaning this is the year-in/year-out level to fund the usual utility needs of providing safe and reliable service to customers. Contrast this maintenance level of expenditures to the annual depreciation allowance of around $28 million, and it is easy to see that Empire is not even close to funding normal wear and tear replacements and new services without repeatedly going to the financial markets. (Knapp Rebuttal, Exh. 28, pp. 3-4)

A utility, such as Empire, suffering from a less than full recovery of cost will be assessed a higher cost of borrowing in the financial markets. This was very apparent when Standard & Poor's ("S&P"), in July of 2002, it lowered its credit rating for Empire to BBB from A-. S&P specifically cited Missouri's "low plant depreciation allowances" as one of three factors in the downgrade. (Knapp Rebuttal, Exh. 28, p. 4; GAK-Exh. 1) It is obvious that the credit rating agencies hold a negative view of Staff's and Public Counsel's depreciation methodologies. Staff's and Public Counsel's approach leads to depreciation rates that are significantly lower than levels allowed in other states.[5] The unfortunate result of Staff's and Public Counsel's proposals is that infrastructure additions now, and in the future, will cost Empire more to finance than might have been the case. This is because the unreasonable deferral to some future period of net salvage costs of assets being consumed today increases the risk of recovery for the utility and certainly increases the costs of future customers. To the extent credit ratings are damaged, costs will be even higher. (Knapp Rebuttal, Exh. 28, pp. 5-6) Again, a majority of this Commission concurred with Empire's assessment of the impact of Staff's and Public Counsel's proposal on credit ratings when it stated in the *Laclede case:*

> The Commission also finds that Staff's method significantly decreases the cash flows available to the utilities to meet their infrastructure and other public service obligations. This, in turn, has a negative financial impact on both the utility and its customers by requiring that such obligations be met with more expensive sources of external financings and by driving up the cost generally of obtaining money in the capital markets. (Third Report & Order, p. 14)

[5] See Mr. Roff's comparative analysis attached to his Direct Testimony (Exh. 18) as Schedule DSR-4 and discussed previously.

c. The Reliability of Empire's Net Salvage Estimates

The only criticism that is leveled by Staff and Public Counsel against the Company's proposal to accrue for net salvage as part of the depreciation rate is the fact that the costs of future net salvage are speculative and therefore not known and measurable. However, neither Staff nor Public Counsel deny that Mr. Roff developed his net salvage factors in a manner that is consistent with industry practice and authoritative treatises. Specifically, for purposes of mass plant accounts, Mr. Roff examined historical retirement, salvage, and cost of removal activity for the period 1989 through 2003 for each asset category. Both salvage and cost of removal were divided by retirements on an annual basis to develop salvage and cost of removal percentages. A single net salvage percentage was developed for each asset category reflecting the history, trends, and Company expectations. (Roff Direct. Exh. 18, p. 28)

For purposes of production plant accounts, Mr. Roff determined net salvage for interim and terminal retirements. Interim net salvage factors were determined similar to the way in which net salvage factors for mass property accounts were developed. In essence, the interim net salvage factor was calculated by subtracting cost of removal from salvage and dividing by retirements. (Roff Direct, Exh. 18, p. 20) Because the Company has limited experience with the dismantlement of power plants, Mr. Roff determined his terminal net salvage factors by relying on the dismantlement estimates of other utilities. These estimates are contained in approximately 70 to 80 studies covering over 200 units throughout the United States. (Tr. 1602-1603) Recognition was given to the type of facility and its relative capacity. Mr. Roff has a collection of dismantlement estimates of other utilities. This information contains the company, plant/unit, capacity, study date, cost estimate, and dismantlement cost per unit of capacity ($/kW). In general, the larger the facility, the lower the unit cost to

dismantle. A figure of $50/kW was utilized to estimate the dismantlement cost for Empire's steam production units. A figure of $13/kW was used for the other production units, with the exception of the State Line combined cycle unit. A figure of $20/kW was utilized for the State Line unit. (Roff Direct, Exh. 18, pp. 20-21)

As a general matter, Mr. Roff has observed from his historical analysis that salvage is declining and cost of removal is increasing. He believes that there are two reasons for this occurrence. First, both salvage and cost of removal are a function of the age of property retired. Younger property is more valuable as it can be reused. In general, he has seen longer lives for most of the mass assets contained in the transmission and distribution plant functions. Older property retirements have less salvage value and cost more to remove relative to their original costs due to cost escalation over time. The second reason is that there are just more environmental requirements that impact the level of cost of removal. This creates an additional cost not reflected in the existing depreciation rates. (Roff Direct, Exh. 18, pp. 29-30)

Public Counsel witness Majoros claims that the results of Mr. Roff's salvage and cost of removal analyses are "so astronomical as to defy reason." (Majoros Direct, Exh. 89, p. 22) In fact, Mr. Roff's salvage factors are determined in a manner consistent with standard industry practices.[6] Net salvage is defined by the National Association of Regulatory Utility Commissioners (NARUC) in its text, "*Public Utility Depreciation Practices*" (1996 edition) at page 18:

> "Net salvage is expressed as a percentage of plant retired by dividing the dollars of net salvage by the dollars of original cost of plant retired."

[6] Moreover, to the extent net salvage percentages exceeded 100%, Mr. Roff, for purposes of mitigating his recommendation in this case, has capped those percentages as 100%.

This is the exact way in which Mr. Roff has performed his net salvage analysis for every asset category in his study. The fact that the result of these calculations is a large ratio or percentage is no reason to dismiss the validity of the result. (Roff Rebuttal, Exh. 19, pp. 28-29) Moreover, this is the same type of analysis that Staff witness Gilbert performed prior to 1999 when Staff included net salvage as a component in the development of its proposed depreciation rates. (Tr. 1834, 1837-1838, 1858)[7] Even Mr. Majoros admitted that Mr. Roff's net salvage study has been "traditionally used" and that Mr. Majoros has himself, in the past, performed this type of analysis. (Tr. 1946-1947)

Again, this Commission has had the opportunity to review this very issue and Staff and Public Counsel's contentions in the context of its recently issued *Third Report and Order* in the *Laclede case*. In that case, the Commission found that the net salvage percentage is "determined by dividing the net salvage experience for a period of time by the original cost of the property retired during that same period of time." (Third Report & Order, p. 8) This is exactly the same way in which Mr. Roff has calculated his net salvage percentages for purposes of his depreciation study. In the *Laclede case*, the Commission dismissed Staff's and Public Counsel's contention that such factors are not sufficiently reliable as they are estimates of future expenses to be incurred well in the future:

> The Commission finds that no evidence or satisfactory explanation exists as to why it is inappropriate or unreasonable to use estimates for purposes of determining net salvage costs, but is appropriate to use them for deriving equity returns, allowances for pension costs, decommissioning costs, and the service lives used to allocate the recovery of up-front capital expenditures over many years. Given these considerations, the Commission finds that Laclede's net salvage estimates as derived under the accrual method are reasonable. (Third Report & Order, p. 12)

Such reasoning is equally applicable here and the record clearly reflects that Empire's net salvage estimates as derived under the accrual method are reasonable. In fact, to the extent Mr. Roff has

[7] In that case, Mr. Gilbert calculated negative net salvage percentages as high as 410%. (Tr. 1863-1864)

voluntarily capped negative net salvage percentages at 100%, this further demonstrates the reasonableness of his estimates.

d. Safeguards in the Accrual Method

Finally, there are inherent safeguards in the depreciation process such that if current estimates of service lives and net salvage factors deviate from actual experience, those changes can be taken into consideration so that ratepayers and investors are not harmed and can be made whole. First, there is the fact that depreciation studies are periodically prepared and submitted to the Commission by the Company, usually in the context of a rate case or earnings investigation. In fact, Commission rules requires that, at a minimum, depreciation studies be performed no less frequently than every five years. (4 CSR 240-3.175(1)(B)2) (Tr. 1675; 1814) Second, through the ratemaking process, as a utility accrues depreciation expense, the depreciation reserve is credited accordingly. Therefore, if a utility company accrues more in depreciation expense than it actually incurs, the rate base is reduced and the customer receives the benefit of a lower rate base upon which it is required to pay a return. Conversely, if the accruals are less than actual costs, the reserve is less, rate base is increased and the company's investors earn a return on that increased rate base. (Tr. 1676; 1743)

By comparison, the expensing method advocated by Staff provides no way to track over- or under-accruals and account for such in future ratemaking cases. (Tr. 1744) These safeguards were also discussed by the Commission in the *Laclede case*.

> Laclede's evidence shows that because the accrual method incorporates net salvage costs as a part of the depreciation rate, any difference between actual and estimated net salvage cost will be reflected in adjustments to the depreciation reserve. The depreciation reserve, in turn, acts as a kind of balancing account that tracks over- and under- accruals of net salvage costs. In this way, the depreciation rates can be subsequently adjusted to insure that the utility will not over- or under-collect such costs and that the ratepayer will not over- or under- pay for such costs. The

> Commission's rule requiring the submission of depreciation studies no less frequently than every five years provides a mechanism for monitoring the depreciation reserve so that this balancing can occur . . .
>
> The evidence also showed that any temporary difference between estimated and actual net salvage cost is reflected in the depreciation reserve that, in turn, is deducted from the utility's rate base pursuant to standard Commission practice. As a result, ratepayers are compensated at the utility's overall rate of return for the "use" of their money during those time when the utility's outlays for net salvage are less than what has been included in depreciation rates. In contrast, in the Staff's expense method, any difference between its estimates of net salvage costs and actual net salvage costs are either absorbed by the utility or borne by the customer. (Third Report & Order, pp. 13-14)

In the *Laclede case*, the Commission adopted a further safeguard and required Laclede to track and account for net salvage amounts received in rates separately from other components of depreciation expense. (Third Report & Order, p. 16) While this issue was not discussed during the instant hearing, Empire has no objection to this additional safeguard if the Commission believes it is appropriate for purposes of this case as well.

5. Conclusion

Empire has provided credible and complete evidence in this proceeding in support of its depreciation request. The requested depreciation expense level is fair and reasonable and is based upon sound and nearly universally accepted techniques. As such, Empire's request relative to depreciation expense in this proceeding should be granted.

C. Fuel and Purchased Power Expense / Interim Energy Charge ("IEC")

1. What is the appropriate level of total Company on-system fuel and purchased power expense, and what cost recovery method should be used in this case?

It is a basic tenet of utility ratemaking that a utility company is entitled to recover its prudently[8] incurred expenses. *See, State ex rel. Associated Natural Gas Company v. Public Service Commission*, 954 S.W.2d 520, 528 (Mo. App. 1997) ("If a utility's costs satisfy the prudence standard, the utility is entitled to recover those costs from its customers."). It is also well-established that the Commission's decisions must be based upon competent and substantial evidence upon the record. *Friendship Village of South County v. Public Service Commission*, 907 S.W.2d 339 (Mo. App. 1995); Mo. Const. Art. V, § 18 (1945)

Based on the foregoing, there is only one figure which the Commission can choose as the appropriate level of total Company on-system fuel and purchased power expense for Empire in this case -- $137,548,710 for 5,092,000 MWh or, more precisely, 27.01 $/MWh, as supported by the testimony of Empire witness Bradley P. Beecher. (Beecher Surrebuttal, Exh. 7NP, p. 5) This is because this is the only total Company on-system fuel and purchased power expense figure proposed for use under the traditional (*i.e.*, non-IEC) method of setting rates which is supported by competent and substantial evidence in this case. (Beecher Surrebuttal, Exh. 7NP, p. 5 and Sch. BPB-8)

The only parties, other than Empire, who presented witnesses or filed testimony addressing the issue of fuel and purchased power expense were Staff, intervenors Praxair/Explorer Pipeline, and

[8] In this case, no party has raised any issues regarding the prudence of Empire's fuel expenses or its fuel purchasing practices; in fact, Staff witness Cassidy stated his belief that Empire has "done a very good job in hedging for natural gas" and that Empire's natural gas hedging policy "has benefitted Empire's customers." (Tr. 631) Empire's hedging policy, or Risk Management Policy, is described in detail in the Direct Testimony of Brad Beecher, Exhibit 5, at pages 8-9.

Public Counsel. However, none of them have provided the Commission competent and substantial evidence supporting a total Company on-system fuel and purchased power expense figure, expressed in terms of dollars per megawatt hour or kilowatt hour, for setting Empire's rates. Rather than take a position regarding the appropriate level of total Company on-system fuel and purchased power expense to be included in Empire's permanent rates under the traditional method of setting rates, Staff "punted." (Tr. 628) Somewhat similarly, the witness for intervenors Praxair/Explorer Pipeline stated at the hearing that he was no longer "advocating the specific level of fuel and purchased power cost recovery numbers that were included in my original September 20th testimony, but instead, my testimony should be read for the procedures and the concepts that go behind IEC structure and class cost recovery" (Tr. 900) and that he was "not advocating for a particular number" for fuel and purchased power cost. (Tr. 905)

Public Counsel witness Busch supported using the traditional (non-IEC) method to set Empire's rates but only recommended a gas price number in his prefiled testimony. As discussed below, a gas price figure by itself is insufficient for purposes of setting Empire's rates under the traditional method. However, the Commission should also recognize that the weighted average gas price of $4.68 supported by Mr. Busch is unreasonably low. At the hearing Mr. Beecher testified that Empire's average hedged price for 2005 was $4.78. (Tr. 570) Therefore, Mr. Busch's recommended weighted average gas price is even lower than Empire's current hedged gas; at current prices it would simply not be possible for Empire to bring its 2005 gas price down to the level recommended by Mr. Busch. (Tr. 711) The methodology used by Mr. Busch is seriously flawed, in that he developed the price for the unhedged portion of Empire's gas needs by using an average of four years, two of which were historical. (*See*, Beecher Rebuttal, Exh. 6NP, pp. 11-12) He then blended the resulting average

with Empire's average hedged gas position at the time to arrive at his recommended weighted average gas price (*Id.*), thus resulting in an extreme over-reliance on historical gas prices to predict the future, when all parties appear to agree that we are currently in a period of very volatile gas prices. Although Mr. Busch claims confidence that gas prices will fall, he was also confident in the 2003 Aquila rate case that prices would fall to the $3.50 --$4.50 range today (Tr. 713-714), so his prognosticating ability is certainly subject to question. Mr. Busch's gas price recommendation is simply too low to be considered reasonable.

In deciding this issue, the Commission should determine the appropriate level of total Company on-system fuel and purchased power expense for Empire expressed on a dollars per megawatt hour ($/MWh) or kilowatt hour basis. (Tr. 545-546) However, Public Counsel did not file a total Company on-system fuel and purchased power expense figure or a dollars per megawatt hour or kilowatt hour figure in its prefiled testimony; instead, the Public Counsel witness merely filed a gas price number (as discussed above). At the hearing, for the first time in this case, Public Counsel witness Mr. Busch claimed to support a fuel and purchased power figure of slightly over $126,000,000 based on a fuel run prepared for him by Staff. (Tr. 755) However, Mr. Busch admitted that he did not review the inputs used in the fuel run (Tr. 756), did not even know certain of the inputs used in the fuel run (Tr. 779-780), and that he did not provide the fuel run to Empire or conduct a reconciliation of the fuel run with Empire's fuel runs (Tr. 757). In fact, Mr. Busch stated that he is "not supporting" the fuel run which supposedly provides the basis for the total Company on-system fuel and purchased power expense figure which he is supporting. (Tr. 758)

The Staff witness who apparently ran the fuel run upon which Mr. Busch purported to rely testified that he had not even read Public Counsel's testimony to make sure that it matched his fuel

run (Tr. 790); he further admitted that if the gas price used in the fuel model is changed (as was done when he ran the fuel model with Mr. Busch's gas price) the dispatch order of Empire's generators will change, the amount generated from each generator will change, the amount and cost of non-contract purchased power developed by the model will change, and the projected number of MMBtu's burned will change. (Tr. 795-796) Furthermore, he testified that neither he nor Staff is supporting Public Counsel's gas price generated from Staff's model. (Tr. 797) Finally, unlike Mr. Beecher who filed a fuel run summary supporting his total Company on-system fuel and purchased power expense figure of 27.01 $/MWh (Sch. BPB-8 to Beecher Surrebuttal, Exh. 7NP), Mr. Busch filed no such run summary – which should not be surprising since he didn't even file a total Company on-system fuel and purchased power expense figure or dollars per MWh figure. (Tr. 755) Based on all of the above, Public Counsel's position cannot be said to be based upon competent and substantial evidence upon the record, leaving the total Company on-system fuel and purchased power expense figure on a dollars per megawatt hour basis of 27.01 $/MWh, as supported by Empire, as the only total Company on-system fuel and purchased power expense figure proposed for use under the traditional (*i.e.,* non-IEC) method of setting rates which is supported by competent and substantial evidence in this case. (Beecher Surrebuttal, Exh. 7NP, p. 5 and Sch. BPB-8)

With regard to the question of what cost recovery method should be used in this case, as the Commission is aware, Empire originally supported an Interim Energy Charge ("IEC") as a means of addressing the current volatility in the natural gas and wholesale electricity markets. (*See, e.g.,* Beecher Direct, Exh. 5, pp. 3-6) However, Public Counsel, intervenors Praxair/Explorer Pipeline, and Department of Natural Resources ("DNR") have taken the position that an IEC is unlawful (at least absent a unanimous stipulation and agreement authorizing an IEC) (Tr. 461, 470, 475). In fact,

Public Counsel and Praxair/Explorer Pipeline weren't even willing to waive their right to seek judicial review of a Commission order authorizing an IEC under the parameters set forth in their "joint recommendations." (Tr. 834, 855-856) When Commissioner Clayton was asking questions of Mr. Coffman, the Public Counsel, regarding one of the series of "joint recommendations," the following exchange took place:

> Commissioner Clayton: [Your position is] We think it's illegal, but if [the Commission's] going to do it, do it this way and we're still going to take it up on appeal and try to get it thrown out?
>
> Mr. Coffman: Possibly, yes.

(Tr. 834)

Although supportive of the concept of an IEC, Empire cannot support an IEC under this threat of litigation. Even though Empire believes the IEC to be lawful, as discussed below, if an IEC is adopted under the threat of litigation Empire is concerned about the possibility that some other party might succeed in getting a court order requiring that all or a portion of rates collected pursuant to an IEC tariff be paid into court or placed into escrow or under bond pending judicial resolution of the litigation. During such time, Empire would be deprived of the use of such money for both cash flow and financial reporting purposes, which would place Empire in an untenable position regardless of the ultimate outcome of the litigation. As Mr. Beecher testified, if an IEC is adopted, litigation itself regarding the IEC will cause uncertainty in the financial markets, and collecting the IEC revenues under bond or paying them into a court ordered escrow will cause Empire cash problems on its interest coverage ratios. (Tr. 597)

Empire continues to believe that ultimately the most accurate and appropriate means by which to deal with fuel and purchased power from a policy perspective is the use of a fuel and purchased

power adjustment mechanism or clause (*i.e.*, a fuel adjustment clause, or "FAC"). (Beecher Direct, Exh. 5, pp. 3-6) However, legislation likely cannot be enacted regarding same prior to the Commission's decision in this case.

Apart from the FAC, Empire believes an IEC mechanism is the most effective and currently lawful means by which to balance the interests of consumers and shareholders in this case. (*Id.*) However, as mentioned above, other parties dispute the lawfulness of the IEC. Therefore, to put the issue to rest, Empire supports, and believes that the Commission should also support, legislation to clarify that the IEC is lawful. To that end, Senate Bill 124 was introduced in the Missouri Senate. Empire believes that such legislation can be enacted and made effective prior to the Commission's decision in this case, if the Commission supports the same. In that event, and only in that event (absent a stipulation and agreement among the parties), Empire could support adoption of an IEC as described under section (4) below. If such legislation is not enacted and in effect prior to the Commission's decision in this case, the Commission should set Empire's rates under the traditional (non-IEC) method based upon the only fuel and purchased power expense figure proposed for use under the traditional method and supported by competent and substantial evidence in this case – namely, 27.01 $/MWh. (Beecher Surrebuttal, Exh. 7NP, p. 5)

2. What natural gas price should be used in determining permanent rates?

This "issue," taken from the list of issues filed by Staff, is not worded entirely properly. The proper question is what gas price should be used as a component of determining total Company on-system fuel and purchased power expense quantified as a rate per megawatt hour or kilowatt hour through a fuel run. (Tr. 545-546) In this case a forecast price should be used and combined with Empire's hedged gas position to arrive at a combined price to use in the fuel run. This is precisely

what Empire did in this case. As shown in Mr. Beecher's surrebuttal testimony, on November 17, 2004 (the date surrebuttal testimony was being prepared), the NYMEX futures price for the period when rates from this case will be in effect was 6.79 $/MMBtu; this price was combined with Empire's 2005 hedged gas position, resulting in a combined price (hedged and unhedged) of 5.69 $/MMBtu. (Beecher Surrebuttal, Exh. 7NP, p. 5) This price was then used in the fuel run which supports Empire's total Company on-system fuel and purchased power expense of 27.01 $/MWh. (Beecher Surrebuttal, Exh. 7NP, Sch. BPB-8) Forecast prices, rather than historical prices, should be used in this case because reliance on historical prices in a period of such volatility in natural gas prices could have disastrous results for Empire. (Beecher Rebuttal, Exh. 6NP, p. 12) The NYMEX futures price is the most appropriate to use for this purpose since, unlike the EIA which is not a market to buy or sell gas (Tr. 613), NYMEX provides a standard contract by which to hedge natural gas commodity risk and is commonly considered the most liquid price transparent pricing point for natural gas in the U.S. (Beecher Direct, Exh. 5, p. 9)

3. May the Commission lawfully order an IEC absent a unanimous stipulation and agreement?

As stated earlier in the July 27, 2004 On-The-Record-Presentation (Tr. 257-263), and again in opening statements on December 7, 2004 (Tr. 452-454), Empire believes that the Commission lawfully can order a properly crafted IEC and the lawfulness of such an IEC is not dependent on the consent or assent of the Public Counsel or the other intervenors in the case. Leaving aside for the moment the very real and practical financial risks that threatened litigation creates for Empire should an IEC be ordered without these parties' consent, three court cases are on point and when read together support Empire's position.

In chronological order, the first is *Hotel Continental v. Burton*, 334 S.W.2d 75 (Mo. 1960) (*Hotel Continental*). In that case, the Missouri Supreme Court held that a tax adjustment clause, which allowed the utility to automatically adjust and pass along to ratepayers a varying municipal tax surcharge in addition to its regular tariffed rates, was lawful. The Court held that the use of this type of surcharge did not constitute an abdication of the PSC's supervisory duties over the utility's rates because the base rates charged by the utility and the rates of return for the utility stayed the same; it was only the amount which went to the taxing authorities which periodically changed and those costs were outside the control of the utility.

The second case is *State ex rel. Utility Consumers Council of Missouri, Inc. v. Public Service Commission*, 585 S.W.2d 41 (Mo. 1979) (*UCCM*). In that case, the Missouri Supreme Court distinguished the facts of *Hotel Continental* and found that a Commission-approved fuel adjustment clause ("FAC") was illegal. The FAC at issue in that case permitted electric utilities to automatically pass on to ratepayers *any increase or decrease* in fuel-related costs. This was accomplished by way of a rate formula "stuck into the utilities' rate schedules" under which the utilities could substitute new numbers in the formula and begin charging them without further PSC oversight or approval, including past charges which were not previously collected by the utility. The Court found that the FAC at issue in that case was unlawful because it: 1) abdicated the PSC's ratemaking authority to the utilities; 2) violated the filed rate doctrine; 3) constituted improper single-issue ratemaking; and 4) constituted improper retroactive ratemaking.

The third case is *State ex rel. Midwest Gas Users Association v. Public Service Commission*, 976 S.W. 2d 470 (Mo. App. 1998) (*Midwest Gas*). This was an unsuccessful appeal brought by the Public Counsel and the Midwest Gas Users Association, who alleged that the Commission's long-

standing purchased gas adjustment/actual cost adjustment ("PGA/ACA") procedure, as well as the Commission's approval of a rather complex experimental "incentive" PGA/ACA mechanism for Missouri Gas Energy, were unlawful based on the rationale and reasons forth by the Missouri Supreme Court in *UCCM*. The Western District Court of Appeals disagreed and held both the traditional PGA/ACA procedure, and Missouri Gas Energy's three-year experimental "incentive" PGA/ACA mechanism, were lawful. It is this most recent court case which attempts to harmonize the seemingly disparate results reached in the *Hotel Continental* and *UCCM* cases and which provides guidance as to when a particular, perhaps more non-traditional, regulatory rate mechanism might run afoul of the *UCCM* standards.

In this case once again the Public Counsel and certain intervenors are arguing for a very broad reading of *UCCM* to prohibit the type of IEC mechanism proposed by Empire and by the Staff in this case. Empire suggests, however, that for purposes of this proceeding *UCCM* must be read in light of the reasoning and holdings set forth by the Western District Court of Appeals in *Midwest Gas*.

First, the IEC in this case, if approved, does not abdicate to Empire the Commission's regulatory responsibility over Empire's ongoing fuel and purchased power costs. The IEC only permits Empire to charge its customers one maximum rate (the base rate plus the IEC per-kilowatt hour additive). That rate necessarily first must be approved by the Commission and is very similar if not identical to standard Commission practice relating to Commission-approved surcharges generally. The total rate charged will not change, up or down, during the duration of the IEC. The only change that can be made is a possible ratepayer refund of a portion of the amount collected, and then only after an audit and review. In no event can Empire charge above the maximum rate set by the Commission. Because the only "change" to the rate that can occur is the possibility of a ratepayer

refund, this IEC mechanism clearly has more ratepayer benefit than either the traditional PGA/ACA or even Missouri Gas Energy's much more complex "incentive" experimental PGA/ACA mechanism, both of which have been declared perfectly legal and which could be adjusted upward or downward.

Second, Empire's IEC mechanism does not in any way violate what the Western District Court of Appeals refers to as the "filed rate doctrine". The ultimate *rate* being charged to the ratepayer does not fluctuate up or down during the term of the IEC; it only allows for the possibility of a refund. Ratepayers can go to Empire's tariffs and find what they will pay per kilowatt hour for a base rate as well as see the IEC additive during the entire term of the IEC. There is no complicated formula with changing, unstated variables as was the case for the FAC in *UCCM*. In fact, the IEC should be much more understandable than the ratepayer's gas bill which includes PGA/ACA factors and which can fluctuate both upward and downward more than once a year.

Third, coming as it does at the completion of the Staff's comprehensive audit and the conclusion of the general rate case where the Commission and the parties have had the opportunity to review all relevant factors as to Empire's costs and earnings, Empire's proposed IEC does not constitute prohibited single issue ratemaking. Even under the IEC, Empire will not be allowed to pass through any fuel and purchased power costs above the IEC ceiling set by the Commission, and in fact, will be required to pay out refunds if its actual costs fall below the ceiling.

Finally, Empire's proposed IEC does not constitute the type of retroactive ratemaking prohibited by *UCCM*. The IEC mechanism does not allow Empire to collect any "under-collected" costs from ratepayers after-the-fact. Instead, it simply allows ratepayers to benefit if Empire's actual costs were below the amounts originally collected and a refund is ordered by the Commission. For

all these reasons, Empire submits that its proposed IEC is lawful under the reasoning and holding of *Midwest Gas*.

4. If yes to (3) above, should an IEC for Empire be implemented in this proceeding? If so, at what floor and ceiling levels? How should the IEC be structured? How should the charge be designed?[9]

As set forth above, Empire believes an IEC mechanism is the most effective and currently lawful means by which to balance the interests of consumers and shareholders in this case, given the volatility of the natural gas and wholesale electricity markets. (Beecher Direct, Exh. 5, pp. 3-6) However, as mentioned above, other parties dispute the lawfulness of the IEC. Therefore, to put the issue to rest, Empire supports, and believes that the Commission should also support, legislation to clarify that the IEC is lawful. To that end, Senate Bill 124 was introduced in the Missouri Senate. Empire believes that such legislation can be enacted and made effective prior to the Commission's decision in this case, if the Commission supports the same. Given the litigation risk discussed above, only in the event that such legislation is enacted and effective prior to the Commission's decision in this case (absent a stipulation and agreement among the parties) should an IEC be implemented for Empire in this proceeding. If such legislation is not enacted and in effect prior to the Commission's decision in this case, the Commission should set Empire's rates under the traditional (non-IEC) method as discussed in detail above.

In the event that an IEC is implemented under the above conditions, Empire would support an IEC in the $20 million range with a term of 5 years (which is the amount and term originally indicated in Empire's direct case and tariffs which were filed to initiate this proceeding). (Beecher Surrebuttal, Exh. 7NP, p. 6) Although Empire believes a term of 5 years would be the most

[9] IEC rate design will be addressed below under the Rate Design for the IEC section.

appropriate, it could accept a 3 year term; however, anything shorter than 3 years would not be acceptable given that such a short term would affect stability for Empire's customers, shareholders and credit rating agencies. (*Id.*) As for Public Counsel's suggestion that Empire should have rate cases every two years, having rate cases every two years causes uncertainty in the marketplace. (Tr. 599) As Mr. Beecher testified, Empire is in business for the long run and needs to be able to plan for safe and reliable service for its customers, and part of that takes longer than a two-year planning cycle. (Tr. 599-600) Furthermore, requiring Empire to have a rate case every two years would not be the ideal use of resources, especially given the cost of a rate case to all parties, not just Empire. (Tr. 600) If an IEC is constructed with a 2 year term, Empire would need to file another rate case in only 13 months; if constructed with a 1 year term, Empire would need to file another case immediately upon issuance of the Commission's order. (Beecher Surrebuttal, Exh. 7NP, p. 6) Such a result would simply be unreasonable.

As for the floor and ceiling levels for the IEC, Empire would support a $20 million IEC in the range of $120 million to $140 million for 5,092,000 MWh. (*Id.*) This represents natural gas prices in the range of approximately 4.00 to 6.00 $/MMBtu; the $140 million ceiling for 5,092,000 MWh with 6.00 $/MMBtu gas is consistent with where natural gas futures and Empire's hedged position were as of the time Empire's rebuttal testimony was prepared for this case. (*Id.*)

Staff is currently the only other party with testimony supportive of specific IEC floor and ceiling levels. However, Staff's proposed IEC floor is unrealistically low, because Staff's methodology utilizes an historical average representing prices since Empire started its hedging program rather than representing the current market. (Beecher Rebuttal, Exh. 6NP, p. 8) Furthermore, as reflected in Mr. Beecher's rebuttal testimony, at the time rebuttal testimony was

prepared in order for Empire to achieve Staff's IEC floor (base rate) gas price, it would have been necessary for Empire to purchase gas for its unhedged 2005 needs in the range of 0.24 $/MMBtu to 1.50 $/MMBtu and for its unhedged 2006 needs in the range of 2.50 $/MMBtu to 2.69 $/MMBtu. (Beecher Rebuttal, Exh. 6NP, p. 9) At the hearing Staff's witness, Mr. Cassidy, did not dispute this. (Tr. 616) Although it would be nice if gas prices were to fall to such levels, clearly it is unrealistic to expect gas prices to fall so dramatically and would be unreasonable to set an IEC floor based on such expectation. Therefore, if an IEC is implemented in this case, it should be in the range of $120 million to $140 million for 5,092,000 MWh as proposed by Empire rather than Staff's unrealistically low floor and ceiling.

D. Rate Design for the IEC

1. What is the appropriate basis for determining the IEC charge for each customer class?

With respect to IEC rate design, the testimony of Empire's witness, Dr. Overcast, supports a flat charge of $0.004 per kWh applicable to all customer classes; however, Empire would be willing to accept adjusting the per kWh charge for losses. (Tr. 869, 878- 879) This is due to the fact, as testified by Dr. Overcast, that the IEC is allocating energy costs and the only difference in energy costs between groups of customers is the adjustment for losses. (Tr. 874-875) A flat charge (adjusted for losses by customer class) is consistent with the allocation of fuel and purchased power costs in the underlying rates of Empire. Given the differences in average losses, Empire elected to file the charge as a flat rate charge. Dr. Overcast demonstrated that the differences in the losses were small, about five percent from the lowest loss class to the highest loss class; this difference amounts to $0.0002 per kWh from the charge for the lowest to the highest loss class of service. (Tr. 875)

III. Conclusion

For all of the foregoing reasons, Empire respectfully requests that the Commission adopt its position on each of the contested issues in this proceeding.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing was served upon all attorneys of record for each of the parties to this action on the 21st day of January, 2005, by First Class United States Mail, postage prepaid, by hand-delivery, and/or by electronic transmission.

/s/ Diana C. Carter