Witness OCS – 3D Brevitz

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

	)	
In the Matter of UBTA-UBET	)	**Docket No. 15-053-01**
Communications, Inc.'s	)	
(DBA Strata Networks)	)	**Direct Testimony**
Application for an Increase in	)	**of David Brevitz**
Utah Universal Service Fund Support	)	**For the Office of**
	)	**Consumer Services**

NON-CONFIDENTIAL VERSION - REDACTED

September 25, 2015

INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A. My name is David Brevitz. My business address is Brevitz Consulting Services, 3623 SW Woodvalley Terrace, Topeka, KS, 66614.

Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?

A. I am an independent regulatory consultant serving state regulatory commissions, Attorney's General offices, and consumer organizations. In this proceeding, I am testifying on behalf of the Utah Office of Consumer Services (OCS).

Q. PLEASE STATE YOUR EXPERIENCE AND PROFESSIONAL QUALIFICATIONS.

A. I have thirty-four years of experience in telecommunications and telecommunications regulatory issues and practices including finance, economics and accounting for utilities generally and telecommunications providers specifically, and the evolution of telecommunications markets, technologies and providers. I earned an undergraduate degree in Justice, Morality and Constitutional Democracy from James Madison College (a residential college at Michigan State University) and a Master's degree in Business Administration with an emphasis in Finance, from the School of Business at Michigan State University. I served first as an Economist, and then as Chief of the Telecommunications Division at the Kansas Corporation

Commission. While serving in the latter position, I was responsible for all telecommunications matters before the Commission, including addressing matters subsequent to AT&T Divestiture such as implementation of access charges, certification proceedings for new entrants, supervision of numerous telecommunications company rate cases addressing rate of return, rate design and revenue requirements, addressing industry issues on a generic basis, and oversight of quality of service standards and issues. I then served as Director of Regulatory Affairs for a group of 20 or more independent telephone companies in Kansas, working on the many industry issues at that time. In February 1994 I began work as an independent consultant in telecommunications, serving state utility commissions and consumer counsels, as well as international regulatory bodies. As an independent consultant I have addressed numerous cases and issues including competition and deregulation, substitute services and intermodal competition, quality of service, bundled services, access charges, price floors and imputation, jurisdictional cost allocations including direct assignments, and requirements of the Telecommunications Act of 1996 including competition, interconnection requirements, resale, unbundled elements, TELRIC/cost studies, wholesale quality of service standards, price cap/alternative regulation plans and Section 271 applications. As a result of these assignments, I have current expertise regarding state and federal universal service funds, telephone company rate of return and revenue requirements, and evolving telecommunications markets. A complete description of my background, work in prior telecommunications cases and experience in telecommunications and utility regulation is provided as Exhibit OCS 3D-1.

Q. DO YOU HAVE OTHER RELEVANT QUALIFICATIONS?

A. Yes. In 1984 I was designated as a Chartered Financial Analyst by the Institute of Chartered Financial Analysts ("ICFA"), which later became the CFA Institute. The CFA Institute is the organization which has defined and organized a body of knowledge important for all investment professionals. The general areas of knowledge are ethical and professional standards, accounting, statistics and analysis, economics, fixed income securities, equity securities, and portfolio management.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to convey the results of my review and analysis of Strata Network's ("Strata") Application for additional funding from the Utah Universal Service Fund (UUSF). In particular I focused on Strata's proposed rate of return. I also support Mr. Ostrander's adjustment to remove plant used primarily by Non-regulated operations, based on my tour of these facilities during the site visit. Mr. Ostrander's adjustment is consistent with and based on what I observed on this tour of Strata facilities.

SUPPORT FOR ADJUSTMENT BCO-7

Q. MR. OSTRANDER INDICATES THAT YOU TOURED THE BUILDINGS AND PROPERTIES IDENTIFIED IN ADJUSTMENT BCO-7 AND THAT HE IS RELYING ON YOUR OBSERVATIONS AS SUPPORT FOR HIS ADJUSTMENT. PLEASE DESCRIBE WHAT YOU OBSERVED DURING YOUR PHYSICAL REVIEW.

A. Strata has numerous buildings and properties on its books. Strata management provided OCS and DPU personnel with a tour of these buildings and properties during our site visit. This tour was necessary to assess and determine whether Strata's cost allocation process between and among affiliates is adequate and properly assigns property to the appropriate affiliate, or provides for current and accurate rental payments from the deregulated affiliates. This verification is very important due to the size and number of deregulated affiliates under the Strata umbrella. My tour of properties and facilities demonstrated to me that many of them had little if anything to do with provision of regulated basic telephone service, and in fact the primary use appeared to be for deregulated operations – yet as determined by Mr. Ostrander the costs of these buildings and properties have been included by Strata in proposed UUSF revenue requirements without demonstrable current and offsetting rent revenues. Mr. Ostrander's adjustment BCO-7 properly removes costs associated with three properties whose acquisition and remodeling is clearly for the purpose of supporting Strata's deregulated affiliates.

STRATA'S PROPOSED RATE OF RETURN

Q. WHAT OVERALL RATE OF RETURN IS PROPOSED BY STRATA IN THIS CASE?

A. Mr. Searle's testimony on behalf of the company states at line 89 that Strata seeks the use of an overall rate of return of 9.50%, "which represents the weighted average of an interstate rate of return of 11.45 percent and a state rate of return of 8.17 percent", using "Strata's actual capital structure (approximately 50 percent equity and 50% debt". For the interstate return, Strata uses a rate of 11.45%, "derived from NECA's Form 492 filing with the FCC on September 30, 2014 for calendar year 2013 pool participants".[1] For the proposed state return, use of Strata's actual capital structure and proposed cost of debt and equity yield a state overall rate of return of 8.17%. Mr. Searle's testimony on behalf of Strata states it computes the overall rate of return using the state/interstate weighting process as set out in R746-360-8(A)(1). Further information on the computation of the proposed rate of return is contained in Mr. Searle's Exhibit 2.3, which is claimed confidential by Strata.

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[1] Direct Testimony of Karl Searle, at line 100. ("Searle Direct")

Q. DO THE COMMISSION'S RULES SET OUT ANY PRINCIPLES OR STANDARDS FOR WHAT CONSTITUTES A REASONABLE RATE OF RETURN FOR PURPOSES OF THE UUSF?

A. No. However, a reasonable rate of return for UUSF purposes should balance the interests of Utah's consumers that pay into the UUSF with the interests of investors in the specific company that is requesting UUSF funding. A reasonable rate of return should fairly compensate existing investors, maintain the utility's financial integrity, and permit it to attract capital if needed on reasonable terms related to the utility's risk. In particular in this case, it should be noted that Strata is a cooperative in which its "investors" are members who are required to subscribe to basic local service at the minimum and earn "capital credits" in proportion to basic and other services purchased.

Q. IS THE RATE OF RETURN PROPOSED BY STRATA FOR COMPUTATION OF ADDITIONAL FUNDS REQUESTED FROM THE UNIVERSAL SERVICE FUND PROPERLY BALANCED?

A. No. Strata's proposed rate of return is imbalanced between the interests of the company and the consumers statewide that pay in to the UUSF to support funding such as this. Strata's calculation of the proposed rate of return is flawed in a certain respects, and must be adjusted to provide for a balanced rate of return. I recommend on behalf of the Office of Consumer Services that the Commission use an overall rate of return applied to rate base which is no greater than 7.50% to compute any universal service fund payment in this case. The computation of this proposed overall rate of return is show in the tables below, with following analysis and support.

[**BEGIN CONFIDENTIAL**]

Intrastate ROR	Capital Structure	Cost	Weighted Cost
Debt	[redacted]	2.57%	[redacted]
Equity	[redacted]	10.00%	[redacted]
Total Intrastate			[redacted]

Total ROR	Separation Factor		Weighted Cost
Intrastate	[redacted]	6.21%	[redacted]
Interstate	[redacted]	9.40%	[redacted]
Recommended Rate of Return			[redacted]

[**END CONFIDENTIAL**]

Q. WHY IS YOUR RATE OF RETURN TABLE ABOVE INDICATED TO BE "CONFIDENTIAL"?

A. It is indicated to be confidential because I am following Strata's claim of confidentiality, for the initial filing of this Direct Testimony. The concern is that disclosure of some elements of the calculation permit one to "back in to" other elements that may be claimed confidential, such as the separations factor. It may be that ultimately Strata would not claim the information in my table is confidential. However, if Strata were to maintain a confidentiality claim I do not believe the Commission should accept such a claim for rate of return calculation. In fact, Strata has already essentially disclosed the information. Mr. Searle's testimony at lines 88 – 94 provides sufficient information that the unknown (purportedly confidential) items can be derived algebraically using an iteration or two of interpolation, as shown here:

	Capital Structure	Cost		Weighted Cost
Intrastate ROR				
Debt	51.00%	2.57%		1.31%
Equity	49.00%	14.01%		6.86%
Total Intrastate			8.17%	8.18%
Total ROR	Separation Factor			
Intrastate	60.00%	8.18%		4.91%
Interstate	40.00%	11.45%		4.58%
Total ROR			9.50%	9.49%

Specifically, the “unknowns” of the Capital Structure and Separation Factor can be solved for using algebra and a little interpolation, given the information disclosed in Mr. Searle’s testimony. Regardless, Strata has not demonstrated any competitive harm at all that would arise from disclosure of the capital structure and separations factor. I cannot conceive of anything a competitor could do with this data that would harm Strata competitively. Furthermore, confidentiality of rate of return calculations is imbalanced in favor of the individual company versus the statewide Utah consumer base that pays into and funds the UUSF. On balance it should be transparent what rate of return is being requested from Utah consumers statewide, and how that rate of return is derived.

Q. SHOULD THE COMMISSION ADJUST THE STATE/INTERSTATE WEIGHTING FACTORS PROPOSED BY STRATA TO ACCOMPLISH THE

WEIGHTED AVERAGING OF STATE AND INTERSTATE RETURNS ACCORDING TO R746-360-8(A)(1)?

A. No, the state/interstate weighting factors as calculated and proposed by Strata appear from my review to be reasonable for use in this case.

Q. HAS STRATA PROPOSED TO USE A REASONABLE COST OF DEBT?

A. Yes. Strata proposed to use the stated rate of interest on its debt which is 2.57 percent. Since it is a reasonable and actual cost of debt, I consider Strata's proposed cost of debt to be reasonable for use in computing the overall rate of return in this case.

Q. SHOULD THE COMMISSION ACCEPT STRATA'S PROPOSED CAPITAL STRUCTURE OF APPROXIMATELY 50% EQUITY AND 50% DEBT?

A. Yes. Per Mr. Searle's testimony at line 91, it is a reasonable capital structure based on Strata's actual capital structure.

Q. SHOULD THE COMMISSION ACCEPT AND USE STRATA'S PROPOSED 11.45% INTERSTATE RATE OF RETURN?

A. No. Strata states this interstate rate of return is "derived from NECA's Form 492 filing with the FCC on September 30, 2014 for calendar year 2013 pool participants".[2] Strata provided this Form 492 in response to OCS 2.5(a).[3] Review of NECA's Rate of Return Report on FCC Form 492 indicates there are

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[2] Direct Testimony of Karl Searle, at line 100.
[3] This document is attached as Exhibit OCS 3D-2.

several calculated rates of return, and that Strata has selected the highest rate of return depicted on the Report. The Form contains rate of return for Switched Traffic Sensitive, Special Access, Common Line, and Interstate Access which is a total of Special Access, Common Line and Switched Traffic Sensitive, as displayed in the following table:

	Rate of Return
Switched Traffic Sensitive	10.12%
Special Access	6.05%
Common Line	11.45%
Interstate Access	9.40%

The appropriate rate of return to use is the Interstate Access return – 9.40%, which is the rate of return for all interstate access. This is the full interstate return for all elements, not just one selected rate element (Common Line). The full interstate access rate of return is the appropriate rate of return to use for the interstate jurisdictional component of the weighted rate of return calculation under the Commission's rules. It is the rate of return I have used in my computation of overall rate of return. The Commission should not permit Strata to select the highest rate of return that appears on the Form 492, which is for only one subset of the interstate jurisdiction – "Common Line".

Q. HOW IS THE USE OF THE RATE OF RETURN FOR ONLY THE INTERSTATE NECA COMMON LINE POOL CONTRARY TO THE COMMISSION'S RULES?

A. The Commission's rules at Utah Admin. Code § R746-360-8 (A) (1) clearly require calculation of "a weighted average rate of return on capital of the intrastate and interstate jurisdiction" (emphasis added). The 11.45% rate of return for the Common Line pool proposed by Strata comprises only a portion of the interstate jurisdictional services. Use of only the Common Line portion of the interstate jurisdiction fails to account for the other interstate jurisdictional services in the interstate rate of return recommendation – which include the categories of switched and special access.

Q. DOES STRATA IN FACT HAVE INTERSTATE SWITCHED AND SPECIAL ACCESS SERVICES, AND CAPITAL DEVOTED TO THOSE SERVICES?

A. Yes, Strata like all incumbent local exchange companies provides these services. In fact these other services (unrecognized in the common line rate of return) are the preponderant part of Strata's interstate jurisdictional rate base according to Strata's cost separations study, as shown by the following calculation drawn from Strata's Part 36 and 69 distribution of its interstate rate base in its 2013 cost study (provided in response to DPU 1.11 (a) and (b), respectively).

[**BEGIN CONFIDENTIAL**]

Rate Base	Amount	Source
Interstate Message Toll	[redacted]	2013 Part 36, S-1, LN 1
Interstate Special Access	[redacted]	2013 Part 36, S-1, LN 1
Total Interstate Rate Base	[redacted]	
Less: Part 69 Special Access	[redacted]	2013 Part 69, A-1, LN 1

Less: Part 69 DSL	[redacted]	2013 Part 69, A-1, LN 1
Less: Part 69 Traffic Sensitive	[redacted]	2013 Part 69, A-1, LN 1
Total Non-Common Line Rate Base	[redacted]	
Common Line Rate Base	[redacted]	Calculated
Common Line % of IS Rate Base	[redacted]	calculated
Switched and Special % of IS Rate Base	[redacted]	calculated

[**END CONFIDENTIAL**]

Strata's proposed 11.45% drawn from the rate of return for only the common line pool is applicable to only [**BEGIN CONFIDENTIAL**] [redacted] [**END CONFIDENTIAL**] of Strata's interstate jurisdictional rate base, and thus does not meet the Commission's rule, which requires "weighted average rate of return on capital of the intrastate and interstate jurisdiction". Fully [**BEGIN CONFIDENTIAL**] [redacted] [**END CONFIDENTIAL**] of capital (or rate base) for interstate jurisdictional services is unaccounted for by use of the 11.45% rate of return for <u>only</u> the common line portion of the interstate business. It is for this reason, to be consistent with the Commission's rules, which are stated to be on a "Total Company" basis, that I recommended use of the full interstate jurisdictional rate of return as shown on the Form 492 – 9.40%.

Q. IS THE USE OF THE COMMON LINE ONLY RATE OF RETURN INCONSISTENT WITH THE COMPANY'S PROPOSED

STATE/INTERSTATE SEPARATION FACTOR CONTAINED IN MR. SEARLE'S EXHIBIT 2.3?

A. Yes. The separation factor divides rate base for Strata between interstate and intrastate under FCC separations rules. The company's proposed state/interstate separations factors total to 100% as they should, yet the 11.45% common line rate of return is applicable to only a relatively small fraction of that interstate rate base as shown above, leaving the difference identified above unaccounted for under the Commission's rules.

Q. IF IN FACT STRATA ONLY PARTICIPATED IN NECA'S COMMON LINE POOL, AND NOT IN NECA'S TRAFFIC SENSITIVE AND SPECIAL ACCESS POOLS, DOES THAT JUSTIFY USE OF THE COMMON LINE POOL RETURN RATHER THAN A TOTAL INTERSTATE RATE OF RETURN?

A. No. Doing so would leave unrecognized very significant "capital" or rate base deployed in the interstate jurisdiction for which no rate of return is provided. In my opinion based on a plain reading as a non-attorney, the Commission's rules require a rate of return be ascribed to <u>all</u> capital in both the state and interstate jurisdiction. Use of the total interstate rate of return displayed on the NECA rate of return report is the best way to achieve this result.

Q. IS EVEN THIS INTERSTATE RATE OF RETURN TOO HIGH FOR USE IN DETERMINATION OF UUSF FUNDING?

A. Yes. Even the overall interstate access rate of return of 9.40% is unreasonably high, as compared to the computation of the state portion of the weighted rate of return. However, it use appears to be required by the Commission's rules. An overall rate of return at the level indicated by the state rate of return computation would be appropriate on a total company basis. In fact the separate development of state and interstate rates of return is inconsistent with the "Total Company" requirement of the Commission's rules.

Q. WHAT WOULD BE A MORE CONSISTENT APPROACH UNDER A "TOTAL COMPANY" VIEW?

A. A consistent approach would be to take total company operations – state and interstate – and apply a total company rate of return developed to apply on an overall basis. Strata does not have different costs of capital in the marketplace depending on the state or interstate service jurisdiction. Strata has a single cost of capital that exists for its combined total company operations. The weighted state/interstate rate of return serves to artificially increase the rate of return for UUSF funding. Calculating the impact of the use of the unreasonably high rate of return proposed by Strata in this case under the rule – 9.50% -- versus applying the state rate of return of 6.21% as a total company rate of return, yields a reduction of approximately $1,290,616 from Strata's UUSF request of $3,422,053 to a revised UUSF amount of $2,131,437. Fully 38% of Strata's UUSF request can be attributed to use of the rate of return derived from weighting state and interstate (using 11.45% as the interstate return assumption), versus use of a properly determined total company rate of return.

Q. SHOULD THE COMMISSION USE AND ACCEPT STRATA'S PROPOSED 14.01% INTRASTATE RETURN ON EQUITY?

A. No. Strata's only support for this requested return on equity is in footnote 2 of the Searle Direct Testimony, which states "The cost of equity is based on a <u>recent</u> study" (<u>emphasis added</u>) and refers to the statement of Dr. Billingsley attached to comments filed before the FCC by "the National Exchange Carrier Association, Inc., NTCA—The Rural Broadband Association, USTELCOM, Eastern Rural Telecom Association, and Western Telecommunications Alliance" on July 25, 2013. Review of Dr. Billingsley's statement as provided in response to OCS 2.4(b) indicates that the requested return on equity is not specifically supported in the statement, and the reference is misleading in a number of respects. First, while according to Mr. Searle's footnote, the Comments are dated July 25, 2013, Dr. Billingsley's statement is dated January 18, 2012. This cannot be claimed to be a "recent study". Return on equity by its nature changes over time, and the more dated the analysis the less likely it is to be an appropriate rate of return for use in the current case. With the passage of almost four years since Dr. Billingsley's statement was produced (from which claims to have drawn its proposed 14.01% return of equity), the Commission should find that the proffered return on equity estimation contained in the statement is not a "recent study" should be given little or no weight. Required rates of return have declined substantially since that time, as the Commission can verify by observing trends in its own rate of return awards over that same period. Furthermore, word search of the Billingsley statement indicates that "14.01"percent is not present <u>anywhere</u> in the Billingsley statement, let alone at page 10 as indicated in the footnoted citation. Nor is "14.01" percent present anywhere in the association comments cited in footnote 2 and provided in response to OCS 2.4(a). Thus there is no support whatsoever for Strata's requested return on equity. Put in the light most favorable to Strata, Dr. Billingsley's statement at page 7 (which is page 10 of the pdf document) does state "the average of the DCF and CAPM cost of capital estimates is 13.35%". However, as noted above, this estimate is almost 4 years old, and includes "an additional risk premium" for "small capitalization firms".[4]

Q. SHOULD THE COMMISSION ACCEPT USE OF A "SMALL COMPANY PREMIUM" OR "SMALL COMPANY SIZE ADJUSTMENT" AS AN ADDITIVE FACTOR FOR RETURN ON EQUITY DETERMINATIONS?

A. No. The Commission should not accept or include a "small company premium" on top of an appropriately determined return on equity. There is no basis for such a premium as is sometimes sought to be applied to rate of return regulated

[4] Statement of Dr. Randall Billingsley, Response to OCS 2.4(b), at page 7.

rural telephone companies, and has been sought here through Strata's reference to Dr. Billingsley's statement.

Q. PLEASE EXPLAIN IN MORE DETAIL WHY USE OF A SMALL COMPANY PREMIUM IS NOT APPROPRIATE OR NECESSARY.

A. State utility commissions typically rely on two methods for estimating the required return on equity: the Discounted Cash Flow (DCF) and Capital Asset Pricing Model (CAPM) methods. DCF is universally used in state rate case proceedings, and is the standard tool for rate of return on equity estimation and valuation of assets of all types. CAPM is also often used in regulatory cases and is a standard tool in modern portfolio theory for risk/return evaluation. The DCF estimates the investor's required rate of return using dividend yield of comparable companies and the growth rate in earnings and dividends expected by investors. Dividend yield is based on public market data of dividends divided by the market price of the common stock. The market price of the common stock incorporates the market's assessment of the risks facing the enterprise. The higher the perceived risk, the lower the market price (all else equal), and the greater the dividend yield to compensate investors for the higher perceived risk. By definition, the market assessment of risk incorporated in the dividend yield is comprehensive, and includes and accommodates <u>all risk factors</u>.

Addition of a further amount as a purportedly necessary "small company adjustment" on top of this already comprehensive estimation based on market assessment of risk is double-counting, and serves only to provide additional and unwarranted funds to the particular company, taken from Utah consumers statewide.

Similarly, CAPM expresses the relationship between risk and rate of return required by investors – the higher the risk, the higher the required rate of return. CAPM is also based on market data: the return on the "risk free" security or "Rf" (often Treasury Bonds are used as a proxy for this); the expected future return of the stock market or "Rm"; and "beta" which is a statistic that relates the volatility of the stock's return to the volatility in the market's return. By definition, the market assessment of risks is included and incorporated in these measures. Again, addition of a further amount as a purportedly necessary "small company adjustment" on top of this already comprehensive estimation based on market assessment of risk is double-counting, and serves only to provide additional and unwarranted funds to the particular company, taken from Utah consumers statewide.

Q. IN CONCERT WITH THIS FUNDAMENTAL PROBLEM OF DOUBLE COUNTING OF RISK, IS IT REASONABLE NOT TO ACCOUNT FOR, RECOGNIZE OR SUBTRACT <u>REWARDS</u> THAT ARE ASSOCIATED WITH A COMPANY'S POSITION?

A. No. It is fundamentally unfair and unreasonable to provide an "adder" for purported unrecognized risk without also recognizing offsetting benefits of a company's position. A partial listing of these offsetting benefits would include advantages of incumbency in a defined service area which go back to the company's formation; access to low cost subsidized debt financing through the RUS and cooperatively-owned banks such as CoBank which also provide low cost subsidized debt financing; access through these relationships to debt financing without further loan application, with just a phone call; access to federal and state universal service funds which many larger companies do not have; access to equity via accumulation of profits as capital credits which are retained by the company; ability to recover increased costs through increased rates as a regulated utility (which a firm in an unregulated industry cannot do); and advantages of access to businesses and profits of related entities.

The Commission should not consider granting a "small company premium" for purported risks, without offsetting for the substantial small company benefits that accrue. Ultimately, the market estimations of risk incorporated in the DCF and CAPM methods addresses all risks and benefits, and it is therefore a fruitless, duplicative and unnecessary exercise to seek to account for risks and offsetting benefits.

Q. WHAT IS THE EVIDENCE IN THE FINANCE FIELD WHICH DISPUTES THE EXISTENCE OF A "SMALL COMPANY PREMIUM"?

A. The proposition that a "small company premium" exists depends on a belief that markets are inefficient rather than efficient. The existence of efficient markets is a key component of both the DCF and CAPM methods, as well as modern portfolio theory. Both methods use market data from efficient markets to estimate required return on equity on a risk adjusted basis. Proponents of a "small company premium" are in essence stating that financial markets are not efficient, and do not properly adjust prices to reflect risks, and that therefore a premium must be added to required rates of return estimated using market data. Efficient markets are created by the rapid and continuous flow of new information by which any momentary market imperfections are rapidly arbitraged away to an efficient market price, and there is no profit to be made based on trading on a price which is "wrong". Inefficient markets suggest in contrast that the market price is "wrong" and traders can profit and capitalize on the existence of prices which are "wrong". The existence of a "small company premium" implies that investors can craft a trading strategy that capitalizes on this market imperfection, and make pure profit over and above that which is indicated by the risk (excess risk adjusted rates of return). An article by Professor Burton Malkiel (author of <u>A Random Walk Down Wall Street</u>) describes the experience of a portfolio manager that has tried to capitalize on these purported market imperfections – prices which are "wrong" – the portfolio manager "failed to make a nickel". This leads to the conclusion that if professional investors cannot replicate or exploit market imperfections for profit, the market imperfection likely does not exist. As stated by Professor Malkiel:

> Many of the predictable patterns that have been discovered may simply be the result of data mining. The case of experimenting with financial databanks of almost every conceivable dimension makes it quite likely that investigators will find some seemingly significant but wholly spurious correlation between financial variables or among financial and nonfinancial data sets. Given enough time and massaging of data series, it is possible to tease almost any pattern out of most data sets. Moreover, the published literature is likely to be biased in favor of reporting such results. Significant effects are likely to be published in professional journals while negative results, or boring confirmations of previous findings, are relegated to the file drawer or discarded. Data-mining problems are unique to non-experimental sciences, such as economics, which rely on statistical analysis for their insights and cannot test hypotheses by running repeated controlled experiments.
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> An exchange at a symposium about a decade ago between Robert Shiller, an economist who is sympathetic to the argument that stock prices are partially predictable and skeptical about market efficiency, and Richard Roll, an academic financial economist who also is a portfolio manager, is quite revealing (Roll and Shiller, I 992). After Shiller stressed the importance of inefficiencies in the pricing of stocks, Roll responded as follows:
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>> I have personally tried to invest money, my client's money and my own, in every single anomaly and predictive device that academics have dreamed up …. I have attempted to exploit the so-called year-end anomalies and a whole variety of strategies supposedly documented by academic research. And I have yet to make a nickel on any of these supposed market inefficiencies … a true market inefficiency ought to be an exploitable opportunity. If there's nothing investors can exploit in a systematic way, time in and time out, then it's very hard to say that information is not being properly incorporated into stock prices.[5]

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[5] *The Efficient Market Hypothesis and Its Critics*; Burton G. Malkiel; Journal of Economic Perspectives; Volume 17, Number 1, Winter 2003; pp 59-82. The Journal of Economic

Academic research has found that the data upon which the "small company premium" rests does not accurately measure past returns of NASDAQ (small capitalization) stocks, and it is questionable whether such "small company premium" ever existed.[6] In essence the negative impact of delisting a stock has been under-included in the reported returns for the small-cap companies. Delisting of a stock occurs much more often with smaller capitalization companies than larger capitalization companies, therefore the delisting bias would inflate the apparent historic returns of the small capitalization companies. Further, researchers have found that the high returns of the small capitalization group of stocks are driven by a very small fraction of that population.[7] Large companies perform better than all but a very few small capitalization companies that earned very high returns. This would also inappropriately bias upward or even suggest the bare existence of any purported "small company premium".

Q. DOES THE CAPITAL ASSET PRICING MODEL (CAPM) AND MODERN PORTFOLIO THEORY SUPPORT USE OF A "SMALL COMPANY PREMIUM"?

Perspectives is provided and supported by the American Economic Association, and publishes invited contributions.

[6] *The Delisting Bias in CRSP's NASDAQ data and Its Implications for the Size Effect*; Tyler Shumway and Vincent Warther; The Journal of Finance, vol. LIV, No. 6; December 1999, pp 2361 – 2379. The Journal of Finance is a refereed journal.

[7] *On the Robustness of Size and Book-to-Market in Cross-Sectional Regressions*; Peter J. Knez and Mark J. Ready; The Journal of Finance; vol. LII, No. 4, September 1997; pp 1355 – 1382. The Journal of Finance is a refereed journal.

A. No, the use of a "small company premium" clearly conflicts with CAPM and modern portfolio theory. Application of the "small company premium" at best represents an attempt to be compensated for "unsystematic risk" which has very specific meaning in capital markets theory. The market only compensates for "systematic risk" because "unsystematic risk" is diversified away by the prudent investor. The difference and importance of distinguishing between systematic and unsystematic risks is described as follows:

> The total risk involved in holding a stock is comprised of two parts: the systematic component and the unsystematic component. The first is due to overall market risk and cannot be diversified away. The second risk component, however, is unique to the particular company, being independent of economic, political and other factors that affect securities in a systematic manner. By diversification, this risk can be reduced and even eliminated if diversification is efficient. Therefore, not all of the risk involved in holding a stock is relevant; part of it can be diversified away. …. Efficient diversification reduces the total risk of the portfolio to the point where only systematic risk remains. …. the important risk of a security is the responsiveness of its return to changes in the return on the market portfolio, as denoted by its beta. …. For the individual security, then, the relevant risk is not the standard deviation of the security itself (total risk), but the marginal effect the security has on the standard deviation of an efficiently diversified portfolio (systematic risk). As a result, <u>a security's expected return should be related to its degree of systematic risk, not to its degree of total risk</u>.[8]

Q. WOULD COMMISSION ACCEPTANCE OF THE USE OF A "SIZE PREMIUM" OR "SMALL COMPANY ADJUSTMENT" IN THIS CASE ENCOURAGE OTHER JURISDICTIONAL UTILITIES SUCH AS GAS AND

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[8] Financial Management and Policy, James C. Van Horne, Fourth Edition, Prentice-Hall, Inc., 1977, pp.61 – 63 (<u>emphasis added</u>).

ELECTRIC COMPANIES TO ADVOCATE ITS USE TO INCREASE THEIR AUTHORIZED RETURN ON EQUITY?

A. Yes, I believe it could. For example, in spite of the fact that the Kansas Corporation Commission has not accepted use of a "small company premium" each time it has been advocated by local exchange companies in KUSF audit proceedings, the largest electric utility in Kansas – Westar Energy – has a rate increase request pending where it has referenced the necessity of adjusting the DCF and CAPM results for "small" company size.[9] If the Utah Commission accepts Strata's request to employ a "small company" or "size" adjustment to the CAPM results, I believe it would be likely that other jurisdictional utilities in Utah would also request additional premiums on top of the cost of equity results indicated by DCF and CAPM. I believe this would be an egregious error because (as discussed above) by definition the CAPM methodology is designed to capture and compensate for market-based systematic risk of equity investments. By definition the CAPM estimation is risk adjusted, and it would be inappropriate double-recovery to include additional premium on top of that estimation. The DCF method is also based on market data and estimations designed to capture and recognize all risks.

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[9] In the Matter of the Application of Westar Energy, Inc. and Kansas Gas and Electric Company to Make Certain Changes in Their Charges for Electric Service; Docket No. 15 – WSEE – 115 – RTS; Direct Testimony of Tony Somma on behalf of Westar Energy, at page 27. This Direct Testimony is publicly available on the KCC website at www.kcc.state.ks.us

Q. ARE MORE CURRENT RETURN ON EQUITY ESTIMATIONS AVAILABLE FOR RURAL TELEPHONE COMPANIES IN STATE UNIVERSAL SERVICE FUND PROCEEDINGS?

A. Yes. The Kansas Corporation Commission has undertaken regular cost of service audits for the rural telephone companies which draw funds from the Kansas Universal Service Fund, under the statutory mandate that such support be "cost based". The Commission has undertaken these audits since 1997, and the most recent complete list of returns on equity recommended in staff rate of return testimony[10] is:

Testimony Date	Company	Docket	Staff ROE
10/18/2012	Gorham Telephone Co.	12-GRHT-633-KSF	10.50%
12/19/2012	LaHarpe Telephone Co.	12-LHPT-875-AUD	10.00%
3/13/2013	Craw-Kan Telephone Coop	13-CRKT-268-KSF	10.00%
5/17/2013	Zenda Telephone Co.	13-ZENT-065-AUD	10.00%
5/23/2013	JBN Telephone Co.	13-JBNT-437-KSF	9.75%
9/24/2013	Peoples Telecommunications	13-PLTT-678-KSF	9.75%
2/5/2014	Wamego Telecommunications	14-WTCT-142-KSF	9.60%
9/30/2014	S&T Telephone Coop	14-S&TT-525-KSF	9.75%
1/20/2015	Moundridge Telephone Co.	15-MRGT-097-AUD	9.75%

Two of the cases were fully litigated, and in each case the Commission adopted the staff-recommended return on equity, and rate of return. Remaining cases were settled by stipulation, however comparison of the staff recommended KUSF draw versus the stipulated and Commission-ordered KUSF draw[11] shows

[10] Each of these testimonies is public record at http://www.kcc.state.ks.us/
[11] Each of the Commission decisions is public record at http://www.kcc.state.ks.us/

that the KCC staff-recommended return on equity, and rate of return was utilized in computing the final authorized KUSF draw:

Company	Company Requested KUSF	Staff Recommended KUSF	Commission Granted KUSF	Litigated or Stipulated?
Gorham Telephone Co.	$1,073,777	$543,215	$565,000	Stipulated
LaHarpe Telephone Co.	$525,162	$0	$19,293	Litigated
Craw-Kan Telephone Coop	$2,486,822	$1,714,075	$1,714,075	Stipulated
Zenda Telephone Co.	$459,850	$193,148	$311,715	Stipulated
JBN Telephone Co.	$864,942	$559,332	$559,332	Stipulated
Peoples Telecommunications	$806,538	$374,945	$374,945	Stipulated
Wamego Telecommunications	$4,126,619	$1,869,326	$1,869,326	Stipulated
S&T Telephone Coop	$1,620,205	$746,959	$835,923	Stipulated
Moundridge Telephone Co.	$725,818	$0	$0	Litigated, ROE stipulated

Based on this extensive and direct detailed experience with determining rate of return for rural local exchange companies, the KCC has determined returns on equity of approximately 10% are currently appropriate for its state universal service funding draws. In so doing, arguments in favor of artificially increasing the return on equity above that indicated by traditional application of discounted cash flow (DCF) and Capital Asset Pricing Model (CAPM) methods, such as application of “small company premiums” have been considered and rejected. The Commission should use this recent, robust and rigorously determined series of returns on equity to support use of a 10% return on equity for computation of Strata’s draw from the Utah Universal Service Fund. Strata is similarly situated with the rural local exchange companies in Kansas. Rural local exchange companies generally serve rural areas with low population densities, benefit from low cost borrowing through CoBank and RUS, are organized with multiple deregulated affiliates which also provide broadband internet access and cable TV programming, and are deploying Fiber to the Home to support this array of services. Strata and the rural local exchange companies in Kansas are in the same businesses and face the same types of risks. It is therefore reasonable for the Commission to utilize a 10% return on equity based on direct and complete analysis that is current – much more so than the dated determinations to which Strata points. Strata's recommended return on equity of 14.01% first of all has no foundation, but also is clearly not current or justified.

Q. IS A 10% RETURN ON EQUITY CONSISTENT WITH RECENT COMMISSION DETERMINATIONS IN OTHER RECENT UTILITY CASES?

A. Yes. Returns on equity authorized by the Commission have declined somewhat over recent utility cases, from 10% granted to Rocky Mountain Power in Docket No. 10-035-124, and 9.80% in Docket No. 13-035-184, to 9.85% granted to Questar Gas Company in Docket No. 13-057-05. Also, a 10% return on equity is consistent with "Rate Case Summary" information published by the Edison Electric Institute, which indicates average awarded returns on equity have trended downward to below 10%, to 9.78% as of the 4th quarter of 2014.[12]

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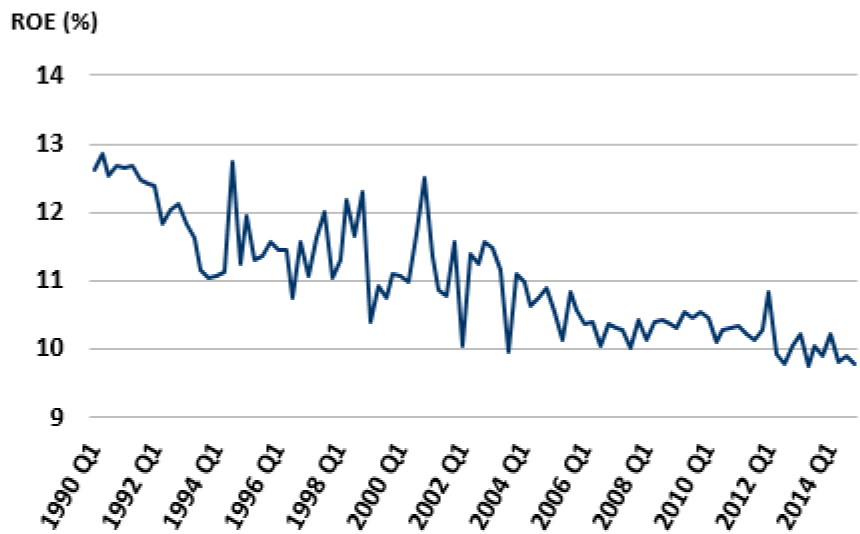
[12]http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/QtrlyFinancialUpdates/Pages/default.aspx



Q. IS YOUR RATE OF RETURN RECOMMENDATION CONSISTENT WITH THE MOST RECENT FINDINGS AND ANALYSIS OF THE FEDERAL COMMUNICATIONS COMMISSION STAFF?

A. Yes. The FCC staff recently produced a comprehensive analysis of appropriate rates of return for local exchange carriers.[13] This Report calculates “a zone of reasonable WACC estimates ranging from 7.39 percent to 8.72 percent”. My recommended 7.50% rate of return is within the FCC zone of reasonableness.

Q. IN YOUR OPINION DOES THIS RECOMMENDED RATE OF RETURN MAINTAIN STRATA’S FINANCIAL INTEGRITY AND OTHERWISE PROVIDE A REASONABLE RETURN WHICH APPROPRIATELY BALANCES COMPANY CONSIDERATIONS AND CONSUMER INTERESTS?

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[13] “Prescribing the Authorized Rate of Return: Analysis of Methods for Establishing Just and Reasonable Rates for Local Exchange Carriers”; Wireline Competition Bureau Staff Report; WC Docket No. 10-90; May 16, 2013.

A. Yes.

Q. DOES THIS COMPLETE YOUR PREFILED DIRECT TESTIMONY?

A. Yes.