Revised

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF CARBON/EMERY TELCOM, INC. APPLICATION FOR AN INCREASE IN UTAH UNIVERSAL SERVICE FUND SUPPORT	))))	DOCKET NO. 15-2302-01

REVISED REBUTTAL TESTIMONY OF DOUGLAS DUNCAN MEREDITH

ON BEHALF OF

CARBON/EMERY TELCOM, INC.

September 4, 2015

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Introduction

Q: Please state your full name, place of employment and position.

A: My full name is Douglas Duncan Meredith. I am employed by John Staurulakis, Inc. ("JSI") as Director – Economics and Policy. JSI is a telecommunications consulting firm headquartered in Greenbelt, Maryland. My office is located at 547 Oakview Lane, Bountiful, Utah 84010. JSI has provided telecommunications consulting services to local exchange carriers since 1963.

Q: Please describe your professional experience and educational background.

A: As the Director of Economics and Policy at JSI, I assist clients with the development of policy pertaining to economics, pricing and regulatory affairs. I have been employed by JSI since 1995. Prior to my work at JSI, I was an independent research economist in the District of Columbia and a graduate student at the University of Maryland – College Park.

In my employment at JSI, I have participated in numerous proceedings for rural and non-rural telephone companies. These activities include, but are not limited to, the creation of forward-looking economic cost studies, the development of policy related to the application of the rural safeguards for qualified local exchange carriers, the determination of Eligible Telecommunications Carriers, the sustainability and application of universal service policy for telecommunications carriers, as well as supporting incumbent local exchange carriers in arbitration proceedings and rural exemption and suspension and/or modification proceedings.

In addition to assisting telecommunications carrier clients, I have served as the economic advisor for the Telecommunications Regulatory Board of Puerto Rico since 1997. In this capacity, I provide economic and policy advice to the Board Commissioners on all telecommunications issues that have either a financial or economic impact on carriers or end-users. I have participated in a number of arbitration panels established by the Board

to arbitrate interconnection issues under Section 252 of the Telecommunications Act of 1996.

I am participating or have participated in numerous national incumbent local exchange carrier and telecommunications groups, including those headed by NTCA, USTelecom, and the Rural Policy Research Institute. My participation in these groups focuses on the development of policy recommendations for advancing universal service and telecommunications capabilities in rural communities and other policy matters.

I have a Bachelor of Arts degree in economics from the University of Utah, and a Masters degree in Economics from the University of Maryland – College Park. While attending the University of Maryland – College Park, I was also a Ph.D. candidate in Economics, having completed all coursework, comprehensive and field examinations for a Doctorate of Economics.

Q: Have you testified previously in federal and state regulatory proceedings on telecommunications issues?

A: Yes. I have testified live or in pre-filed regulatory testimony in various states including Utah, Maine, Vermont, New Hampshire, New York, Michigan, Wisconsin, North Dakota, South Dakota, Texas, South Carolina, Tennessee, and Kentucky. I have also participated in regulatory proceedings in many other states that did not require formal testimony, including Florida, Louisiana, Mississippi, Puerto Rico and Virginia. In addition to participation in state regulatory proceedings, I have participated in federal regulatory proceedings through filing of formal comments in various proceedings and submission of economic reports in an enforcement proceeding.

Q: On whose behalf are you testifying in this proceeding?

A: I am testifying on behalf of Carbon/Emery Telcom, Inc. ("Carbon/Emery").

Q: What is the purpose of your testimony?

A. The purpose of my testimony is to address the various issues discussed in Direct Testimonies offered by the Office of Consumer Services and the Division of Public Utilities. In their testimonies, these parties propose modifications to Carbon/Emery's Application for Increase in Utah Universal Service Fund ("Utah USF") support. In this testimony, I recommend that the Commission reject or modify many of these proposed modifications. Specifically, I will address the testimony of:

- Casey Coleman, Division of Public Utilities;
- David Brevitz, Office of Consumer Services;
- Joseph Hellewell, Division of Public Utilities.

Q. Have you reviewed the testimony of the individuals you have identified above?

A. Yes. I have reviewed all of the testimony filed in this docket.

Rate of Return

Q: In his testimony on behalf of the Utah Office of Consumer Services (Office), Mr. Brevitz argues that the Utah Public Service Commission should take guidance from a bevy of cases in Kansas regarding the appropriate rate of return to be used by Carbon/Emery. Do you agree that the Kansas information is helpful in informing the Commission on this issue?

A: Not at all. While Mr. Brevitz alludes that his Kansas cases were fully vetted, his testimony actually indicates that only one case (LaHarpe 2012) was fully reviewed and litigated. In all other cases, the cases ended with a stipulation. Furthermore, we have no information from Mr. Brevitz that the LaHarpe case thoroughly reviewed the various standard methods to determine return on equity. So I discount these citations and urge the Commission to give them little if any weight. We simply don't have any information suggesting that the rate used for the return on equity was fully examined in the cited Kansas cases, especially absent is any reference or citation from the Commission about its evaluation and determination of the rate of equity in the LaHarpe case.

Q: Please describe what a small company premium is and how it is used.

A: A small company premium is an adjustment to the calculated rate of equity and is designed to account for the fact that access to equity is more constrained as companies get smaller. Thus, due to various factors, access to capital requires a premium over a return on equity for much larger companies.

Q: Did Carbon/Emery propose a small company premium in this proceeding?

A: No. Carbon/Emery did not propose a small company premium in this proceeding because it used an overall rate of return that was proposed by the Division last year and was used in Emery's Utah USF request finalized earlier this year. Carbon/Emery assumed that since the Division was comfortable with its proposed rate of return in January for an affiliate, the same rate of return should be used in this proceeding that was filed a few months later.

Q: What was the Division's overall rate of return used earlier this year?

A: The overall rate of return used earlier this year was 10.50 percent. This accounts for the cost of debt and the return on equity weighted by a debt and equity capital structure to develop an overall rate of return.

Q: Mr. Brevitz argues that a small company adjustment is not necessary or appropriate in this proceeding. What is your opinion of the use of small company adjustments when using a peer group whose members are much larger than the target company?

A: I disagree with Mr. Brevitz on the application of small company adjustments. A small company adjustment or more specifically a size adjustment is a common adjustment that is used when examining small companies. The outright rejection of this adjustment by Mr. Brevitz appears strident and unreasonably designed to simply produce a low rate of return for Carbon/Emery.

The Morningstar/Ibbotson Annual Yearbook routinely reports an adjustment that would be applied to a company based on market capitalization. Depending on the size of the company, the size premium ranges from a negative adjustment of 38 basis points for very

large companies to a positive adjustment of 6.10 percent for the smallest of companies. In a presentation entitled "Telcom Cost of Capital Issues: January 1, 2012", Dr. Hal. B. Heaton (BYU Professor, Stanford Ph.D.) describes a size premium as a "minimum adjustment" to be used when applying the standard Capital Asset Pricing Model (CAPM). (Rebuttal Testimony of D Meredith Exhibit 1- PDF page 18)

Furthermore, in 2013 Dr. Billingsley (Virginia Polytechnic Institute & State University Associate Professor, Texas A&M Ph.D.) examined a Federal Communications Staff report on rate of return that was proposed for rate-of-return carriers. (This is a report cited by Mr. Brevitz in supporting his position.) Dr. Billingsley recommends using the Duff & Phelps, another established and well respected company specializing in valuation and corporate finance, small company adjustment. This process yielded a 5.32 percent increase for mid-sized carriers and a 7.11 percent increase for smaller rate-of-return carriers. Dr. Billingsley summarizes the impact of ignoring the size effect as follows:

> "Using the CAPM, the Staff Report estimates that the average cost of equity for its entire 16-company sample is 7.18 percent, 6.70 percent for the RHC subsample, 7.75 percent for the mid-sized carrier subsample, and 6.90 percent for the RoR subsample of companies. In contrast, the approach to applying the firm size-adjusted CAPM recommended by Duff & Phelps produces an average cost of equity for the entire Staff Report company sample of 12.74 percent, 9.13 percent for the RHC subsample, 13.07 percent for the mid-sized carrier subsample, and 14.01 percent for the RoR [Rate of Return] subsample of companies.
>
> Consistent with the empirical evidence on the size effect, the [FCC's] Staff Report underestimates the equity costs of the smallest firms the most, which are the RoR firms that are the most comparable subsample to the average RLEC. The data used to generate the Duff & Phelps estimates are available by subscription and are relied on by investment professionals. Duff & Phelps consequently provide objective evidence that the Staff Report's failure to adjust for the small firm effect provides significantly understated RLEC equity costs and, by implication, an understated

average RLEC WACC." (Rebuttal Testimony of D Meredith Exhibit 2 - PDF page 55-56).

Also included as Rebuttal Testimony of D Meredith Exhibit 3 is the Federal Communications Commission Staff Report that is the subject of this critique. A small company adjustment or premium should be an adjustment adopted by the Commission to evaluate the rate of equity for a small rural carrier in Utah.

Q: Is it your testimony that the 10.50 percent rate of return should be used in this proceeding?

A: Now that the issue is fully open and witnesses for the Division and Office have argued against the rate of return used last year, it is my recommendation that the Commission take notice that the rate of return for Carbon/Emery should be higher than the proposed 10.50 percent. There is more than enough evidence to support the 10.50 percent rate of return based on the information in this proceeding and filed at the Federal Communications Commission.

Q: Please explain the information you reviewed in reaching your recommendation that 10.50 percent is a minimum rate of return that will ensure that equity freely flows to Carbon/Emery for its long-term infrastructure projects.

A: First is the volume of information filed at the FCC and the FCC's actions in a docket to examine the interstate rate of return. As I mentioned earlier, in 2013 the FCC examined whether it should change its prescribed rate of return used for investments assigned to the interstate jurisdiction. Currently the authorized rate of return used by the FCC is 11.25 percent. The FCC staff issued a report (Rebuttal Testimony of D Meredith Exhibit 3) whose conclusion was cited by Mr. Brevitz. In this staff report, the recommended range for a rate of return was 7.39 percent to 8.72 percent. What should inform the Commission in this proceeding is the fact that the FCC did not accept the conclusions of the staff report. The rebuttals of the staff report provided by NTCA, et al. (Rebuttal Testimony of D Meredith Exhibit 2) and the Rural Broadband Alliance (Rebuttal Testimony of D Meredith

Exhibit 4) leveled a broadside against the staff findings to the extent that the FCC has let the issue remain dormant for two years and no action has been taken.

The NTCA report showed various errors in the staff report and also recommended an alternative to the DCF method that uses small company data to calculate a rate of return—these data are from purchases of small carriers across the country. The NTCA report demonstrates that the 11.25 percent rate of return is in fact too low. (Using other methods, the Rural Broadband Alliance examination demonstrates the same and applies a 6 percent small company adjustment on pages 18-23). So, from the FCC's docket we have one staff report that was thoroughly rebutted. The findings of the two industry rebuttals demonstrate that the 11.25 percent rate of return is low for small rural carriers and if any change were to be made, this rate of return should increase. In light of the evidence, the FCC has let the issue remain idle and the authorized prescribed interstate rate of return for rural carriers remains set at 11.25 percent.

Q: What should the Commission take from the FCC's proceeding examining the same issue raised by the Division and the Office?

A: First, the Commission should recognize that the FCC's docket has a wealth of information about the procedures and pitfalls in determining a rate of return. (The exhibits I have supplied provide the details needed to adjust CAPM for size and liquidity and in producing a levered beta, etc.)

Second, the Commission should conclude that it should take no action to change the interstate authorized prescribed rate of return after an exhaustive review demonstrates that the 11.25 percent rate of return provides a reasonable incentive for equity to freely flow to carriers, like Carbon/Emery, whose aim is to invest in long-term infrastructure projects in the provision of telecommunications service regulated by the state. The FCC as an expert agency in regulating telecommunications carriers has examined the issues, pro and con, and has deferred from taking actions to lower its prescribed rate of return. This fact should inform the Commission and provide sufficient support for retaining Carbon/Emery's 10.50 percent rate of return in this proceeding.

Finally, the rebuttals to the FCC's staff report show that calculating a rate of return for carriers that are not publicly traded a stock market challenges the standard financial models, especially when there are so few companies with public information. Traditional methods of calculating a rate of equity for small companies has a tendency to understate the lack of access to equity markets and the corresponding return that is necessary to attract equity to remote locations in Utah.

Based on this information alone, the Commission can reach the conclusion that a 10.50 percent rate of return is reasonable and properly balanced.

Q: Mr. Coleman provides his update to one traditional method, the Capital Asset Pricing Model (CAPM). What observations have you made concerning Mr. Coleman's application of the CAPM?

A: First, the CAPM is very sensitive to the selected peer group of publicly traded companies. The CAPM methodology assigns a risk premium based on this peer group to calculate a return on equity. So, the selection of similarly situated companies to be used for comparison is very important. Mr. Coleman uses 13 companies in his peer group. Examining this peer group shows serious problems that should give the Commission reservations in using his peer group.

1. HickoryTech was purchased by Consolidated Communications on October 16, 2014 so this company cannot be in the peer group.
2. Alteva isn't a reasonable peer since the majority of its revenues is generated from its VoIP operations and wireless partnership (which was sold in 2014), and not its small ILEC operations.
3. Atlantic Tele Network does not have ILEC operations and its primary wireline operations are in Guyana. It also has a good portion of revenues generated from wireless operations.
4. Earthlink is not a good fit since it doesn't have ILEC operations.
5. IDT is not a good fit since it doesn't have ILEC operations.

Moreover, the size of these companies dwarfs Carbon/Emery and without adjustment the CAPM results cannot be reasonably applied to Carbon/Emery. In Table 1 I show the access line counts for the biggest set of operationally similar companies that can create a peer group. Table 1 includes more companies than what Mr. Coleman used. I presume Mr. Coleman didn't think that Verizon or AT&T are peers to Carbon/Emery and he excluded these from his analysis. I include them due to their operations as the largest ILECs in the nation.

Table 1

Company	Exchange	Ticker	Access Lines 6/30/2015
Verizon	NYSE	VZ	19,079,000
AT&T	NYSE	T	18,116,000
CenturyLink	NYSE	CTL	12,100,000
Frontier Communications	NYSE	FTR	3,476,000
Windstream	NSDQ	WIN	1,828,900
Fairpoint Communications	NSDQ	FRP	768,222
Telephone & Data Systems	NYSE	TDS	510,800
Consolidated Communications	NSDQ	CNSL	493,540
Cincinnati Bell	NYSE	CBB	389,000
Alaska Communications	NSDQ	ALSK	119,432
Lumos Networks	NSDQ	LMOS	105,298
Otelco	NSDQ	OTEL	59,506
New Ulm Telecom	OTCBB	NULM	26,570
Shenandoah Telecommunications	NSDQ	SHEN	21,615

Source: JSI Capital Advisors

Also, as noted by Dr. Billingsley, some of these companies are distressed or are in bankruptcy, thereby affecting their beta value. FTR, WIN. ALSK, OTEL and NULM all report negative beta values using September 4, 2015 Yahoo Finance reports (the same source use by Mr. Coleman). These companies should be removed from the peer group.

Mr. Coleman is lukewarm endorsing the CAPM for this proceeding assigning it to a "comfortable" status given that the Division found no other suitable alternative. Without

adjusting the CAPM, I recommend the Commission reject the CAPM as unable to "produce credible results" and that the CAPM "must adjust for unusual economic circumstances" such as size and a highly irregular interest rate market. (Rebuttal Testimony of D Meredith Exhibit 1, PDF page 21, observation of Dr. Heaton on using the CAPM).

Another set of pitfalls I see in the update provided by Mr. Coleman is that he uses spot rates for the inputs used in his CAPM. A generally accepted practice is to trend these over a period of time to smooth out normal and expected fluctuations in the market. Data from the U.S Department of Treasury reports that the trend for the three-month T-Bill from 1990-today is 3.04 percent, and the trend for the twenty-year T-Bond is 5.009 percent. These trends are based on all the data available online at the Department of Treasury and correspond generally to other data analysis I have examined and include in my testimony.

In Graph 1, I illustrate the 20-year yield over time and in this graph, the abnormally low yield since 2009 is clearly illustrated. I propose the Commission use the Department of Treasury 20-year T-Bond rate of 5.009 percent that was generated over 1990-today. This corresponds to the recommendation of using an historic 4 to 5 percent value to represent a more "normal" 20-year yield. Dr. Billingsley suggests this in his review as does Dr. Heaton.

Graph 1

Source: Federal Reserve of St. Louis - Federal Reserve Economic Data (FRED) website.

Mr. Coleman fails to adjust his results with a small company adjustment, perhaps because he excluded the two largest carriers in the nation in his peer group. It should be obvious that a small company such as Carbon/Emery is challenged in the equity markets when compared with much larger companies in the marketplace. The fact that there are only 14 publicly traded ILEC peers in the nation and only two whose line counts are comparable to small company line counts—there are 1,101 small company study areas in the nation—demonstrates that small companies do not have easy access to the equity markets.

Another adjustment to CAPM is the recognition of a liquidity premium. This is discussed in some detail by Dr. Heaton and his conclusion is that CAPM "must adjust for differences" between securities [size] and illiquid property." (Rebuttal Testimony of D Meredith Exhibit 1, PDF page 21)

Lastly, adjusting for the leverage of a company, by adjusting the beta to account for leverage, is another standard tool when using CAPM. The levered beta equals the product of the unlevered beta and the expression (1+ (1-effective tax rate)x(Debt%/Equity%)).

Q: Have you been able to adjust the Division's CAPM analysis to account for these adjustments?

A: Yes, except for the liquidity premium. I have used the meaningful peers because some of the peers have negative betas. I have gathered today's spot beta, effective tax rate and debt and equity values that are needed to produce a levered beta. I have also used a mid-point value of 3 percent for the company premium. I also am using the historic T-Bill and T-Bond rates. The following table reports the results of a cost of equity of 16.83 percent. The calculation is presented in Table 2. A 16.83 percent intrastate cost of equity yields an adjusted weighted average cost of capital of 12.34 percent—exceeding the 10.50 percent value proposed by Carbon Emery in its filing.

Table 2

Company	Access Lines 6/30/2015	Today's Spot Beta	CAPM unadjusted	Tax	Debt %/Equity %	Levered Beta	Levered CAPM
Verizon	19,079,000	0.5628	6%	22%	8.9881	4.5234	25.70%
AT&T	18,116,000	0.5521	6%	35%	0.8801	0.8700	7.40%
CenturyLink	12,100,000	1.0013	8%	30%	1.3393	1.9340	12.72%
Fairpoint Communications	768,222	0.5808	6%	0%	1.7500	1.5971	11.04%
Telephone & Data Systems	510,800	0.5557	6%	0%	0.5078	0.8379	7.23%
Consolidated Communications	493,540	0.8226	7%	46%	4.1933	2.6705	16.41%
Cincinnati Bell	389,000	1.4934	11%	43%	1.0000	2.3467	14.79%
Lumos Networks	105,298	0.9233	8%	40%	3.9032	3.0870	18.50%
Shenandoah Telecommunications	21,615	0.9945	8%	39%	0.8682	1.5211	10.66%
Average							13.83%
					Small company (size) premium		3.00%
T-Bill Rate (1990-today)	3.04%						
T-Bond Rate (1990-today)	5.01%					Adjusted CAPM	16.83%

I recommend the Commission accept these adjustments to the CAPM when examining the cost of equity for small companies in Utah.

Q: If the Commission were to use a small company premium to account for increased risk and constrained access to equity, or adjust for liquidity constraints, or leverage, would it be reasonable to conclude the 10.50 percent rate of return is a minimum rate of equity for any of these adjustments?

A: Yes. There are a number of adjustments or premiums that are used to assess value and return. I have used only two. Graph 2 shows the various premia required to calculate returns across financial instruments.

Graph 2

Stocks	Bonds	Cash	Real Estate	Small Stocks	Foreign Stocks	Foreign Bonds
				Small-stock premium	Foreign stock premium	
Equity risk premium				Equity risk premium	Equity risk premium	Foreign bond premium
Bond horizon premium	Bond horizon premium			Bond horizon premium	Bond horizon premium	Bond horizon premium
Real riskless rate	Real riskless rate	Real riskless rate	Real return on real estate	Real riskless rate	Real riskless rate	Real riskless rate
Inflation	Inflation	Inflation	Inflation	Inflation	Inflation	Inflation

Source: Ibbotson and Siegel (1988).

(Ibbotson, Roger G., and Laurence B. Siegel. 1988. "How to Forecast Long-Run Asset Returns." Investment Management Review (September/October).)

It is claimed that "the liquidity premium is perhaps as important as any of the risk premiums." In a paper entitled The Demand for Capital Market Returns: A New Equilibrium Theory (1984), Roger Ibbotson, *et al.* proposed that the three security characteristics that investors most wish to avoid and, therefore, need to be most compensated for in the long run are (1) risk, (2) lack of liquidity, and (3) taxation. (Ibbotson, Roger G., Jeffrey J. Diermeier, and Laurence B. Siegel. 1984. "The Demand for Capital Market Returns: A New Equilibrium Theory." Financial Analysts Journal, vol. 40, no. 1 (January/ February):22–33.) In 2011, Ibbotson extended his research on liquidity and the impact of this risk on small companies. he quantified the liquidity risk associated with small companies. In Table 3 I report these findings.

Table 3

	Liquidity			
Size	1 (lowest)	2	3	4 (highest)
1 (smallest)	18.17%	17.46%	13.51%	6.16%
2	16.87	15.15	11.68	6.52
3	15.15	14.36	12.87	9.56
4 (largest)	12.49	11.48	11.55	9.87

Source: Ibbotson, Chen, and Hu (2011).

Ibbotson, Roger G., Zhiwu Chen, and Wendy Y. Hu. 2011. "Liquidity as an Investment Style." Working paper, Yale University (April).

While I have accounted for a conservative size premium in my analysis, I haven't assessed a liquidity premium because without further analysis I cannot separate the liquidity premium from the small company premium. Nevertheless, these data reveal that adjustments are necessary to determine the appropriate return for a small company and that a standard/textbook CAPM approach should be rejected.

I cannot address in detail the results of Mr. Brevitz because I believe he has failed to indicate the method used to calculate the returns on equity proposed by the staff in Kansas. But since he argues strongly against a size adjustment, I suppose that the CAPM without adjustment was used. My discussion about adjusting the CAPM applies equally to his testimony.

Q: Do you agree that with Mr. Coleman that there is no other practicable way to calculate a rate of equity for rural carriers?

A: No. There are other approaches in the financial literature that attempt to resolve the knotty issues raised by CAPM and its failure as a predictive tool. NTCA proposes a method that uses actual rate-of-return transactions to calculate a Free Cash Flow rate. This method is a variant of the DCF method and is explained by NTCA (Rebuttal Testimony of D Meredith Exhibit 2 — Appendix B PDF page 81). Using this method, the weighted average cost of capital equals Free Cash Flow divided by Value. NECA calculated the rate of return for rural carriers and the median value was at least 11.75 percent. This alternative method informs the Commission that the 10.50 percent rate of return proposed by Carbon/Emery

is reasonable and should be adopted. I have attached the ILEC Transaction Roster that shows small carrier activity up to 2015. There have not been many closed transactions since NTCA's analysis, so the conclusions in the NTCA submission to the FCC appear to remain valid. (Rebuttal Testimony of D Meredith Exhibit 5).

Q: Let me ask you about the debt/equity structure of Carbon/Emery. Mr. Brevitz argues that a 50/50 ratio should be used. Please explain how the debt/equity sliding scale is used in Utah.

A: As discussed by Mr. Coleman, the standard practice in Utah stems from a lengthy series of workshops and technical conferences. To account for and balance the various interests, a sliding scale has been used by the Division for many years and was recommended as a rule but the Commission declined to establish this policy as a rule. Notwithstanding the Commission's reluctance to adopt the sliding scale as a rule, it is a very good approach to balance the state's interest. The sliding scale has endpoints at 35 percent and 65 percent. If a carrier has a debt percentage above 35 percent but below 65 percent, then the actual rate structure is used. Otherwise, if debt is 35 percent or lower a hypothetical 35 percent debt structure is used and similar treatment is on the other side of the scale. In this proceeding both Carbon/Emery and the Division recommend the Commission use the sliding scale approach with a hypothetical 35 percent debt structure. These percentages are then used to weight the costs of capital and debt which results in an overall rate of return. Mr. Brevitz takes exception to this long-standing practice and argues for a hypothetical 50 percent debt. I have reviewed his testimony and I find nothing new in Mr. Brevitz's testimony that wasn't thoroughly discussed when the sliding scale was developed. His comparison of large companies is unconvincing. Only SHEN is relatively "close" to the size of Carbon/Emery and it has 43 percent debt. Without considering the specific circumstances of SHEN, Mr. Brevitz's own evidence shows that the Division's sliding scale approach is reasonable and since 43 percent is relatively close to the 35 percent the Division and Carbon/Emery use, the Commission should continue to apply the Division's sliding scale method to adjust for capital structure.

Q: What is the appropriate interstate rate of return to be used for interstate services?

A: The appropriate interstate rate of return is 11.45 percent. Mr. Brevitz is incorrect in proposing another rate. The development of the interstate rate has been defined by Commission rule. Mr. Brevitz argues that even his incorrect rate of 9.40 percent is too high despite the fact that the Commission has established the method of how to apply the interstate rate in Utah.

Mr. Coleman also proposes that the Commission apply 9.40 percent in this proceeding. Mr. Coleman is also incorrect in this recommendation. As explained by Mr. Woolsey, Carbon/Emery participates in the NECA Common Line pool in conjunction with Emery Telecom. For purposes of NECA, only Emery Telecom is listed, but Carbon/Emery and Hanksville are included in the Emery Telecom submissions to NECA. The appropriate interstate rate of return, per Commission rule, is 11.45 percent.

Depreciation Method

Q: Have you reviewed the testimony of Mr. Joseph Hellewell offering testimony on behalf of the Division of Public Utilities?

A: Yes.

Q: What is deprecation?

A: Deprecation can be defined many ways, perhaps the most important definition is how accountants define the term:

> "Depreciation accounting is a system of accounting which aims to distribute cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It a process of allocation, not of valuation." (American Institute of Certified Public Accountants)

A good description of depreciation can be found in a book entitled "Telephone Economy," written by AT&T in 1952. AT&T states:

> "[t]he cost of telephone plant is charged to an asset account at the time the plant is installed. Then, each year of the plant's service life, a portion of its cost is charged against that year's revenues. This charge, called *depreciation*, is designed to provide for the recovery of capital invested in plant as that plant is used up."
>
> "In theory, depreciation accruals could actually be repaid to the investors, and in some ventures this is done. However, in a business which requires substantial amounts of money each year for construction, there would be no point in repaying the investors an amount equal to the depreciation accrual and then going to the capital market for that much more in new funds. Instead, depreciation accruals are reinvested in the business, and these accruals provide funds for the purchase of new plant. … In a sense, the reinvestment of deprecation represents a recycling of capital." (Telephone Economy, pp 72-73)

Carbon/Emery's deprecation expense is reinvested into infrastructure that is necessary due to plant that has reached its useful life, plant that has become obsolete due to technological change—including where vendors discontinue support of vital equipment that is required to operate 24x7, or for new plant where demand has exceeded the existing plant or where demand occurs due to economic activity in the area.

Q: What core issue with regards to depreciation is raised by Mr. Hellewell?

A: The Division disagrees with the use of a standard and industry-accepted method of depreciation called group asset depreciation. Currently Carbon/Emery uses the group asset straight-line depreciation method to calculate allowable depreciation expense for infrastructure it puts into service for the provision of regulated telecommunications services.

Q: Does Carbon/Emery use group asset depreciation in the interstate jurisdiction as approved by the FCC?

A: Yes. Carbon/Emery has used group asset depreciation since the transfer of ownership in 2001. It uses the FCC approved group asset depreciation method for cost recovery in both the interstate jurisdiction and state jurisdiction. Using two methods of depreciation in the two jurisdictions would be administratively burdensome and would pose intractable problems.

Q: Does the Division describe the "questionable results" it believes occur with the group asset depreciation method used by Carbon/Emery?

A: Not fully. Mr. Hellewell correctly states that group asset depreciation effectively accelerates the allowed depreciation expense for an asset. The degree of the acceleration depends on the total amount of investments in the particular group. However, Mr. Hellewell incorrectly concludes that this has the effect of inflating the depreciation expense leading to an increase in Utah USF support.

The facts are quite the opposite. The use of group asset depreciation accelerates the recovery of allowed depreciation expense and over the life of the asset REDUCES the amount of Utah USF support that would be generated by this asset. This is because the acceleration of depreciation expense reduces the rate base for which an authorized rate of return is applied. Ultimately, Carbon/Emery will recover 100 percent of the investment of the asset through depreciation expense, but with group asset depreciation the asset is not earning a rate of return for as long as if Carbon/Emery were using a single asset straight-line depreciation method. This fact is missed by the Division and consequently leads the Division to incorrectly assume that group asset depreciation yields a "questionable result."

Q: Could one reason for the Division's unease over group asset depreciation be the possibility that Carbon/Emery would view the acceleration of depreciation to the level of complete depreciation as a reason to replace prematurely plant or equipment that has remaining economic life?

A: Mr. Hellewell does not describe this hypothetical possibility. However, to the extent the Division's proposal is based in part on this hypothetical, the Division has not identified in the testimony any instances that Carbon/Emery has replaced prematurely plant or

equipment. Given the extensive review of Carbon/Emery in this proceeding, if there were an example of this type of activity, I am certain that the Division would have identified it in testimony. The absence of any instances of premature retirement suggests the hypothetical is a canard.

Moreover, the decision of whether or not to replace plant is not based on past activity. "The decision of whether or not to replace plant must be based on a comparison of future expenditures, and it should not be influenced by the extent depreciation accruals have been realized on the existing plant." (Telephone Economy, p. 162)

If the Division is attempting to guard against this type of behavior, it doesn't have any basis to claim that Carbon/Emery is making retirement decisions that are in any way untoward. Moreover, if an asset has value after retirement the standard method of calculating net salvage accounts for this value and appropriate adjustments to the accounts are made.

Q: The Division admits that there are benefits to the group asset depreciation method but argues that everyone needs to be on the same method to assist in reviewing company reports. Do you agree?

A: I agree there are recognized benefits to group asset depreciation method. However, I disagree that there needs to be a standardized method across all carriers. Having a standard across all companies provides little or no benefit. Contrary to the Division's claim, the regulated companies in Utah do not compete with one another for regulated services, so there is no need to be concerned about competitive issue in this context.

Also, the Division has shown it is capable of examining various systems of accounts, so standardization doesn't improve administrative efficiency. On the contrary, if the Commission were to mandate using single asset depreciation for carriers that are currently using group asset depreciation, there are a host of administrative issues related to keeping track of interstate group asset accounting and whether the asset is correctly accounted for between the interstate and intrastate jurisdictions. Since the allocation of cost between jurisdictions (interstate and intrastate) changes annually, there will always be a gap

between the state's single asset method and the interstate group asset method. I cannot think of how the accounting would be able to resolve easily this discrepancy.

Furthermore, if the Commission were to require single asset depreciation for state USF, the annual reports for each company would be less transparent since depreciation expense would need a separate reconciliation schedule. While this added administrative effort can be ordered, I ask to what purpose? It seems that the Division's proposal is based on a misguided belief that something strange is happening and the single-asset method of depreciation will solve the problem. In reality, there is nothing fishy going on and the single-asset method will create more administrative problems than it will solve. Again, a reconciliation could not easily deal with the gap between the state's single asset method and the interstate group asset method.

I also note that if the Division wanted to standardize the depreciation method for all carriers—for some unspecified state purpose, doing so in Utah USF disbursement requests is a strange way to go about establishing a new state policy. To achieve full compliance with its policy, the Division's only hope is that all carriers will eventually request a USF disbursement. And even then, the only effect is an extraordinary adjustment to the Utah USF. No carrier would be mandated to move to a single asset depreciation method unless the Commission sets a statewide policy. To set this policy the Commission will have to be convinced that moving from an acceptable group asset method, used for and approved by the FCC, will further the state's interests and hopefully reduce the administrative burden of rural carriers in Utah. We have nothing in this proceeding that supports such a monumental change of policy by the Commission.

Q: If the Commission wanted to move to a single asset depreciation method, how would you recommend it implement this policy change?

A: If single asset depreciation were adopted as a policy, I recommend the Commission adopt the policy on a prospective basis for new assets that are purchased and placed into service. The Commission should allow purchases of past plant assets to remain in their group for purposes of the group asset method until the group account has no more depreciation

expense to realize. Since the Commission has allowed the use of the group asset deprecation method, the retirement of this method should be orderly and should allow the current depreciation method to be used for existing plant infrastructure.

The primary reason for this recommendation is to prevent Carbon/Emery from experiencing a sudden and dramatic decline in depreciation expense—funds that are used to reinvest in plant infrastructure. In a well managed company, my experience is that aside from growth or technological change that requires additional investment, the deprecation expense and the additions to replace existing infrastructure generally trend together. The disruption caused by a sudden change to single asset from group asset accounting for existing assets will result in a cash-flow squeeze and should be minimized. Mandating a change on a prospective basis will help minimize this cash flow disruption and allow Carbon/Emery to continue to invest in infrastructure as identified in its planned capital budget.

Q: Is Carbon/Emery's test year depreciation expense representative of what it will experience in the next five years?

A: Yes. As explained by Mr. Woolsey, Carbon/Emery has a capital plan filed with the FCC. Based on the method I described above, the level of depreciation expense in the test year is representative for the single asset straight-line depreciation of planed investment combined with group asset depreciation for prior investments over the next five years. While the data show that the test year expense is higher than the resulting depreciation expense for planned investment, there will be uncertainties leading to the need to replace infrastructure in the future that Carbon/Emery cannot quantify, so a cushion of an additional 4.3 percent in depreciation expense is reasonable. The depreciation expense in the test year is reasonable estimate of what Carbon/Emery is expected to experience in the next five years.

Q: Does Carbon/Emery manipulate Commission approved depreciation rates?

A: No. Carbon/Emery uses the approved Commission depreciation rates for each asset classification. The only difference between group asset and single asset methods is the

calculation of authorized depreciation expense for a given year. Both methods use straight-line depreciation, but under the group asset method, the group account investment balance is multiplied by the approved depreciation rate and this amount becomes the maximum depreciation expense for the group of assets. If there is a sufficient remaining net investment balance, the depreciation expense will equal the maximum depreciation expense. Otherwise, only the remaining portion of undepreciated plant will be depreciated. Consider for example the following: the initial group account investment balance is $1,000,000, the accumulated depreciation for this group is $750,000, the new investment is $200,000 and the depreciation rate is 10 percent. Under group asset method, the allowable deprecation for the group (undepreciated plant and new investment) is 10% x $1,200,000 = $120,000. Under single asset depreciation the allowable depreciation for the group of assets is 10% x ($500,000+$200,000) = $70,000, (assuming that half of the assets are fully depreciated). If the rate of return were 11.25 percent. The group asset method would reduce return by $13,500, while the single asset method would reduce return on rate base by $5,062.50. This example is simplified since no mid-year convention was used. So over time, which method is preferred? If the goal is to minimize total Utah USF over time, the group asset method will reduce return on rate base since the rate base is being reduced at an accelerated rate. The calculation of group asset accounting and the corresponding continuing property records held by Carbon/Emery allow for absolute transparency using the group asset method of depreciation.

There is no manipulation of Commission approved depreciation rates. When the Commission set Carbon/Emery's specific depreciation rates in 2006, Carbon/Emery was using (and has continuously used) group asset depreciation. Historically, neither the Division, nor the Commission have had any concern or issue with group asset depreciation. In fact, they have tacitly approved it's use since the rates were approved with the knowledge that group asset depreciation was being used.

The use of group asset depreciation certainly allows for accelerated depreciation expense recovery, but on its flip-side, it reduces the rate base at an accelerated rate and saves the Utah USF money in the long run.

Q: What is your response to the various other methods the Division proposes?

A: I find it ironic that in on one hand the Division argues for standardization across all carriers and on the other hand says that five other methods would be perfectly acceptable. Such inconsistency in its advocacy of policy should cast serious doubt on the thoughtfulness of the Division's proposal. Further, there is no suggestion that these alternative methods improve or advance the state's interests.

Q: Please summarize your testimony on depreciation methods.

A: Emery uses a standard and industry approved depreciation method. This method has the effect of accelerating depreciation but also accelerates the decline of the rate base used for ratemaking purposes. The accounting and reporting hazards of using two different methods—one for interstate purposes and the other for state USF purposes has been ignored by the Division. Carbon/Emery's method is transparent and widely, but not universally used. The Division's position is a change in policy based on unidentified concerns. If one of these concerns is to guard against the disposal and replacement of plant infrastructure that has a remaining economic life, there is no evidence supporting this concern. Furthermore, Carbon/Emery does not dispose of and replace its plant infrastructure and assets until the asset is no longer useful. Group asset depreciation minimizes the need for state USF disbursements over the life of the asset since it is removed from the rate base at a faster rate. If a change were to be made, single asset straight-line depreciation method should be adopted on a prospective basis. The deprecation expense in the Carbon/Emery test year is representative of plans for future years and changing all assets to single asset method would cause a significant reduction in deprecation expense recovery that will be used for future investment. For these reasons, I recommend the Commission allow Carbon/Emery to continue to use group asset depreciation in calculating its need for Utah USF support.

Q. Does this conclude your testimony?

A. Yes.