Witness OCS – 2D Brevitz

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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In the Matter of Carbon/Emery Telcom,	)	**Docket No. 15-2302-01**
Inc.'s Application for an	)	
Increase in Utah Universal Service	)	**Direct Testimony**
Fund Support	)	**of David Brevitz**
	)	**For the Office of**
	)	**Consumer Services**
	)	

NON-CONFIDENTIAL – REDACTED VERSION

August 21, 2015

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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 2D-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 Carbon/Emery Telcom's ("Carbon/Emery") Application for additional funding from the Utah Universal Service Fund (UUSF). In particular I focused on the areas of Carbon/Emery's proposed rate of return and appropriate cost allocations associated with Carbon/Emery's deployment of Fiber to the Home (FTTH) for deregulated services.

CARBON/EMERY'S PROPOSED RATE OF RETURN

Q. WHAT OVERALL RATE OF RETURN IS PROPOSED BY CARBON/EMERY IN THIS CASE?

A. As stated in the Application at page 3, Carbon/Emery proposes the use of an overall rate of return of 10.50%, using a "theoretical capital structure of 65% equity and 35% debt (calculated on a basis of a state return on equity of 12.13% and a return on debt of 5.636%)." For the interstate return, Carbon/Emery 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, the capital structure and cost of debt and equity above yield a state return of 9.86%. Mr. Woolsey's testimony on behalf of Carbon/Emery states it computes the overall rate of return using the state/interstate weighting process set out in R746-360-8(A)(1), which using the state and interstate costs above yields a proposed overall rate of return of 10.50%. Further information on the computation of the proposed rate of return is contained in Mr. Woolsey's Exhibit 3, which entire exhibit is claimed confidential by Carbon/Emery.

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?

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[1] Redacted Direct Testimony of Darren Woolsey, at line 176. ("Woolsey Direct")

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.

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

A. No. Carbon/Emery'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. Carbon/Emery's calculation of the proposed rate of return is flawed in a number of respects, and must be adjusted to provide for a balanced rate of return. In particular, the proposed rate of return does not reflect an optimal "least cost" weighted cost of capital based on reasonable debt leverage that a firm in a competitive marketplace would be required to employ to remain competitive. 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 [**BEGIN CONFIDENTIAL**][redacted][**END CONFIDENTIAL**] 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]

[redacted]

[redacted]

[END CONFIDENTIAL]

Q. SHOULD THE COMMISSION ADJUST THE STATE/INTERSTATE WEIGHTING FACTORS PROPOSED BY CARBON/EMERY TO ACCOMPLISH THE WEIGHTED AVERAGING OF STATE AND INTERSTATE RETURNS ACCORDING TO R746-360-8(A)(1)?

A. No, the state/interstate weighting factors proposed by Carbon/Emery appear to be reasonable for use in this case.

Q. HAS CARBON/EMERY PROPOSED TO USE A REASONABLE COST OF DEBT?

A. Yes. Carbon/Emery presently has no long term debt, but proposes to use a cost of debt "that existed with CoBank during the 2013 base year. The debt with CoBank carried a stated rate of 5.64% and was paid off in January 2014."[2] Under those circumstances, I consider Carbon/Emery's proposed cost of debt for use in computing the overall rate of return in this case to be reasonable.

Q. SHOULD THE COMMISSION ACCEPT CARBON/EMERY'S PROPOSED HYPOTHETICAL CAPITAL STRUCTURE OF 65% EQUITY AND 35% DEBT?

A. No. The excessive reliance upon more costly equity financing in the hypothetical capital structure is imbalanced in favor of Carbon/Emery, and against the statewide base of consumers that pays in to support the UUSF. Competitive firms seek to optimize capital structure to provide the <u>lowest overall</u> weighted cost of capital. Equity is more costly than debt, so cheaper debt financing is used by competitive firms to reduce the overall weighted cost of capital. This is done within the constraint that at some point greater debt levels lead to greater risk of the firm's inability to meet the fixed debt service requirements (default on payment of interest and principle) and financial covenants (i.e., failure to meet interest coverage ratios and debt leverage ratios as periodically calculated), which in turn leads to higher interest rates to recognize that higher risk. Accordingly there are limits to the amount of debt that can be used in a capital

[2] Redacted Direct Testimony of Darren Woolsey at line 173.

structure before the interest rate associated with that debt rises to reflect the increased risk of default. A further factor which affects the ability to incur debt under reasonable rates and conditions is the variability in revenues and cash flows. As a public utility Carbon/Emery has substantial and stable revenues and cash flows. This stability of revenues and cash flows reduces the risk of failure to meet fixed debt service requirements and financial covenants, and therefore supports the ability to borrow more at lower interest rates reflecting the lower risk. The higher the variability in revenues and cash flows, the higher the risk of failing to meet fixed debt service requirements and financial covenants, which in turn is reflected in higher interest rates on debt. However, Carbon/Emery's revenues and cash flows are stable, and thus it has ample room to leverage its capital structure and reduce its overall required rate of return. As a public utility, Carbon/Emery is able to borrow at low cost from entities such as CoBank. Assuming only 35% debt in the capital structure unreasonably and artificially raises the overall rate of return requested by Carbon/Emery.

Q. HAS THE COMMISSION ENDORSED THE USE OF A HYPOTHETICAL CAPITAL STRUCTURE INCLUDING AN ASSUMPTION OF 65% EQUITY?

A. No. The Commission squarely rejected a proposed rule to use this hypothetical capital structure by letter dated October 27, 2008. The Commission questioned the need for the proposed rule, and its "potential impact in ratemaking settings". This case is a perfect example of why using such a rule, or 65% equity assumption has an impact in ratemaking settings that are contrary to the public interest.

Q. WHAT LEVERAGE RATIOS EXIST AMONG TELEPHONE COMPANIES THAT ARE CONSIDERED COMPARABLE FOR COST OF CAPITAL ANALYSIS IN RATEMAKING PROCEEDINGS?

A. The following debt ratios for companies often and regularly used as "comparable companies" for purposes of rate of return analysis for rural telephone companies in state universal service fund proceedings are drawn from Value-Line and company SEC Form 10-K reports. The debt ratios are more than double the 35% debt ratio proposed to be used by Carbon/Emery.

% Long Term Debt to total Capital

	2013	2014
Alaska Communications (ALSK)	76.80%	75.60%
CenturyLink (CTL)	54.00%	57.30%
Consolidated Communications (CNSL)	89.00%	81.00%
Frontier Communications (FTR)	66.00%	72.17%
Shenandoah Telecom (SHEN)	48.91%	43.79%
Windstream (WIN)	91.10%	97.25%
Average	70.97%	71.19%

Q. WHAT HYPOTHENTICAL CAPITAL STRUCTURE DO YOU RECOMMEND THAT THE COMMISSION USE IN THIS PROCEEDING?

A. I recommend that a 50% equity and 50% debt capital structure be utilized in this proceeding, and that capital structure is included in my recommendation on rate of return. While the debt ratios of comparable companies would justify use of a 70% debt ratio, to be more conservative I recommend 50%.

Q. DOES USE OF A HYPOTHETICAL CAPITAL STRUCTURE FOR DETERMINATION OF A REASONABLE RATE OF RETURN OBLIGE CARBON/EMERY TO INCUR NEW DEBT?

A. No. Presently Carbon/Emery has no debt, so its actual capital structure cannot be used to determine a reasonable rate of return. Just as Carbon/Emery's proposed use of a hypothetical capital structure including 35% debt financing does not oblige the company to incur debt, neither does the hypothetical capital structure I recommend oblige Carbon/Emery to incur debt. The decision of whether or not Carbon/Emery should incur debt remains the decision of its Board and management.

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

A. No. Carbon/Emery 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".[3] Carbon/Emery provided this Form 492 in response to OCS 2.4, and labeled it as "confidential", but has since indicated this labeling was "inadvertent".[4] The document itself contains no claim of confidentiality from NECA, who files it at the FCC on behalf of the NECA pool participants, and the form is a public record at the FCC. Therefore, I will refer to the document

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[3] Redacted Direct Testimony of Darren Woolsey, at line 176.
[4] This document is attached as OCS Exhibit 2D-2.

directly. Review of NECA's Rate of Return Report on FCC Form 492 indicates there are several calculated rates of return, and that Carbon/Emery 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 Carbon/Emery 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". Carbon/Emery also has Switched Traffic Sensitive and Special Access services in the interstate jurisdiction.

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 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. 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. Carbon/Emery does not have different costs of capital in the marketplace depending on the state or interstate service jurisdiction. Carbon/Emery 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 interstate return proposed by Carbon/Emery in this case under the rule – 10.50% -- versus applying the state rate of return of 7.82% as a total company rate of return, yields a dollar difference of approximately $289,127 versus Carbon/Emery's request of $816,909. Fully 35% of Carbon/Emery's UUSF request can be attributed to use of an unreasonably high rate of return derived from weighting state and interstate, and using 11.45% as the interstate return assumption.

Q. SHOULD THE COMMISSION USE AND ACCEPT CARBON/EMERY'S PROPOSED 12.13% INTRASTATE RETURN ON EQUITY?

A. No. Carbon/Emery's only support for this requested return on equity is in footnote 2 of the Woolsey Direct, which states "Carbon/Emery's requested cost of equity mirrors the cost of equity used and approved by the Commission in other recent UUSF cases." This vague and non-specific assertion leaves out all details including which cases, and how long ago did those cases occur. Carbon/Emery does not state or claim whether these returns on equity were specifically approved by the Commission in a contested proceeding against other alternatives, or if these were requested returns on equity that were not specifically addressed or contested but the case was subject to an overall settlement. Return on equity by its nature changes over time, and the more dated the cases in which this 12.13% return on equity was purportedly determined, the less likely it is to be an appropriate rate of return for use in the current case.

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[5] 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[6] shows that the KCC staff-recommended return on equity, and rate of return was utilized in computing the final authorized KUSF draw:

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

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 Carbon/Emery’s draw from the Utah Universal Service Fund. Carbon/Emery 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. Carbon/Emery 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 Carbon/Emery points. Carbon/Emery's recommended return on equity of 12.13% 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%, as of the 4^{th} quarter of 2014.

Q. DID CARBON/EMERY INCLUDE A "SMALL COMPANY PREMIUM" IN ITS REQUESTED RETURN ON EQUITY?

A. The sparse two lines of support for Carbon/Emery's requested 12.13% return on equity does not indicate inclusion of any "small company premium". In any event, 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 rural telephone companies.

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.[7] This Report calculates "a zone of reasonable WACC estimates ranging from 7.39 percent to 8.72 percent". My recommended 8.45% rate of return is toward the upper end of the FCC zone of reasonableness.

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

A. Yes.

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[7] "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.

<u>CARBON/EMERY'S DEPLOYMENT OF FIBER TO THE HOME FOR DEREGULATED SERVICES</u>

Q. HAS CARBON/EMERY UNDERTAKEN A PROGRAM TO DEPLOY FIBER TO THE HOME (FTTH), AND REFLECTED THOSE COSTS IN THIS APPLICATION?

A. Yes. As explained by Mr. Ostrander in his Direct Testimony beginning at page 17, a significant amount of fiber optic cable costs are being recorded on Carbon/Emery's books.

Q. HOW IS CARBON/EMERY FUNDING THE FTTH CONSTRUCTION PROGRAM?

A. Carbon/Emery appears to be funding the FTTH construction program through internally generated funds, which include the rates it charges for all services – regulated and nonregulated, as well as UUSF disbursements.

Q. WHAT IS YOUR UNDERSTANDING OF THE DEFINITION AND IMPORTANCE OF THE TERM "BASIC SERVICE" IN UTAH?

A. Similar if not identical to other states, in Utah "Basic Telephone Service" is equivalent to local exchange service which "means the provision of telephone lines to customers with the associated transmission of two-way interactive, switched voice communication" as defined in Utah Code Annotated Section 54-8b-2 (10). Based on universal service policy considerations, basic service is supported by the Utah Universal Service Fund in order to maintain affordability of this service to "all" consumers. The UUSF is designed to "promote equitable cost recovery of basic telephone through the imposition of just and reasonable rates for telecommunications access and usage" per Utah Code Annotated Section 54-8b-15 (6) (a). The Commission's rules state the purpose of the fund is "to promote equitable cost recovery and universal service by ensuring that customers have access to basic telecommunications service at just, reasonable and affordable rates".

Q. DOES FTTH DEPLOYMENT SUPPORT PROVISION OF ADDITIONAL SERVICES BEYOND BASIC VOICE TELEPHONE SERVICE, FUNDING OF WHICH IS THE SUBJECT OF THIS PROCEEDING?

A. Yes. FTTH provides a vast broadband capacity which supports multiple services. In contrast to copper plant, FTTH local distribution facilities supports multiple services, at least two of which are nonregulated services. Copper local distribution plant was generally designed and placed to support provision of voice services, and as it later developed, this plant could also support dial up internet access via modem. The copper plant was later modified and investment was added to it (splitters and DSLAMs) to permit the provision of DSL (or Digital Subscriber Line) over copper facilities, within certain distance limitations. FTTH is designed to support Internet Protocol (IP) networking and service applications including basic voice, IPTV, and broadband internet access. FTTH by its nature enables major new service applications beyond voice services to ride the network, as compared to previous copper based, circuit switched telephone networks. Under Carbon/Emery's current organization, Carbon/Emery provides basic voice services, and its affiliates – Carbon/Emery Telecom Video, LLC and Carbon/Emery Telecommunications & Video, Inc. – provide cable TV/internet and broadband internet access offerings (respectively) on a nonregulated basis using Carbon/Emery's FTTH network. Thus the FTTH network is jointly used by regulated and nonregulated services and perhaps more importantly, by regulated and nonregulated entities. As described in more detail below, Utah statutes and PSC rules limit the use of UUSF funds to the support of basic voice service.[8] Therefore, only the basic voice portion of the FTTH network may be supported by Carbon/Emery's regulated rates and its draw from the Utah Universal Service Fund. Thus some allocation or appropriate division of FTTH facilities between regulated basic telephone service and nonregulated services and entities is required.

[8] Where I refer to Utah statutes and Commission rules in this testimony, it is based on my understanding from a plain reading of the words of the statutes and Commission rules, and it does not constitute a legal opinion, which I am not qualified to render.

Q. ARE THERE ALTERNATIVES TO ACHIEVE AN APPROPRIATE DIVISION OF FTTH FACILITIES BETWEEN REGULATED AND NONREGULATED SERVICES AND ENTITIES?

A. Yes. In general, costs and investments can be allocated from Carbon/Emery to the appropriate affiliates using the FTTH network to provide their services, or revenues from charges to those affiliates can be shown on Carbon/Emery's books. An equivalent result can be achieved using either method. For example under a cost allocation approach, there should be a reasonable allocation of capital costs and operating expenses from Carbon/Emery to the affiliates (or Carbon/Emery should be reimbursed for these amounts by affiliates through a revenue approach. Consistent with the FCC's Affiliate Transaction Rules and CAM requirements as explained by Mr. Ostrander, revenue responsibility for the FTTH assets is therefore divided among the entities which use and benefit from placement of the FTTH assets, and no more than a reasonable share of the facilities costs is recovered from the UUSF for basic voice service. In the alternative rate base and expenses can be explicitly allocated out of revenue requirements used for determination of UUSF funding.

Q. WHAT DO YOU MEAN BY THE USE OF THE TERM "AFFILIATE" ABOVE?

A. Throughout this testimony I use the term "affiliate" to refer to any of the several entities (Carbon/Emery Telcom HC; Carbon/Carbon/Emery Telcom; Hanksville Telcom; Carbon/Emery Telecommunications & Video; Carbon/Emery Telcom

Long Distance; and Carbon/Emery Telcom Video LLC) which are related to Carbon/Emery Telecom, as indicated in Carbon/Emery's audited financials at page 9. There does not appear to be any meaningful separation or independence regarding planning decisions, such as FTTH, between these affiliates. There can be no doubt that the FTTH project was planned and undertaken by Carbon/Emery with full knowledge of its benefit for Carbon/Emery's affiliates, or perhaps even planned with these affiliates as the primary intended beneficiaries. Please see Mr. Ostrander's testimony for further discussion on the term "affiliate".

Q. WHAT ARE THE THEORETICAL ALLOCATION ALTERNATIVES TO ADDRESS DIVISION OF JOINT FTTH COSTS BETWEEN REGULATED AND DEREGULATED ENTITIES AND SERVICES?

A. If markets for all the services were competitive, then the joint costs would be allocated by market forces. The services with the greatest demand elasticity would bear relatively little of the joint costs, while services with the least demand elasticity would bear relatively more of the joint costs. But since there are not many buyers and many sellers of FTTH capacity and downstream services facilitated by FTTH, the Commission cannot rely upon market forces to accomplish a reasonable allocation of joint FTTH costs between basic voice services and the other nonregulated services.

One alternative is to allocate based on the relative capacity use of the fiber by the three services enabled by FTTH – basic voice, broadband internet access, and cable TV. In theory, this would be most appropriate since the allocation of the costs should follow the capacity use of the FTTH facilities. Basic voice service uses a very minimal portion of the vast capacity of the FTTH facilities, on the order of 3-5%. So in theory, it would be appropriate for the Commission to allocate 95% of the cost of the FTTH distribution network to nonregulated services, and only 5% of the costs to basic service and the UUSF.

Another alternative is the "alternative cost avoidance" approach. The aim of constructing jointly used facilities to provide multiple purposes is to achieve the economies of joint costs. "Since the aim in combining multiple purposes in a series of structures is the savings to be achieved, it is also possible to use the ratio in which these higher expenditures are avoided by joint action as a basis for allocating joint costs."[9] Construction of the system of dams and power production facilities by the Tennessee Valley Authority required just such a cost allocation. "Congress directed that the TVA set down on its books what appeared to the Board to be the proper proportions of the total investment attributable severally to power, to navigation, and to flood control. Of the total

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[9] "Those Joint TVA Costs"; by Martin G. Glaeser; Public Utilities Fortnightly, August 31, 1939, at page 267.

flood control, navigation and power investment, approximately 68 per cent has been allocated to power, 15 per cent to navigation, and 17 per cent to flood control."[10] The amount of investment allocated to power had obvious consequences for rates charged for electricity by TVA, so this allocation determination was of no small consequence to TVA and the consumers who obtain their electricity from TVA. Similarly, the amount of FTTH investment allocated to basic voice service, and hence the UUSF is of no small consequence to consumers who pay to fund the UUSF. The "alternative cost avoidance" approach would be applied in this instance by estimating the lowest alternative cost by which "substantially the same quantity and quality of service for each separate function [basic voice, broadband internet access, and cable TV] can be obtained."[11] Since the fiber optic loop plant is the largest portion of local exchange plant investment, and would be used for each of the services, the allocation of joint FTTH costs would approximate one third to basic voice service (in the instance of three services being analyzed), or one half to basic voice service in the instance of broadband internet access and cable TV being analyzed in combination. The allocation of joint FTTH costs would be at least somewhat different if the lowest alternative cost means of providing basic voice service at

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[10] TVA – Democracy on the March; by David E. Lilienthal, Harper & Brothers, 1953, at page 46.

[11] "Those Joint TVA Costs"; *Id*.

"the same quantity and quality of service" was using existing copper loop plant, or perhaps a fixed wireless approach.

Mr. Ostrander has used an allocation of 50% based on the concept of "alternative cost avoidance" explained above.

Q. DOES SUBSTANTIAL ALLOCATION OF FTTH COSTS TO CARBON/EMERY AFFILIATES INDICATE A CHALLENGE TO CARBON/EMERY'S BUSINESS DECISION TO DEPLOY AN FTTH NETWORK?

A. Absolutely not. I do not take issue with Carbon/Emery's decision to pursue FTTH deployment. However, Carbon/Emery's Application in this case assumes recovery of essentially all of the cost of the FTTH network from the UUSF and basic voice services. This is clearly an inappropriate division of costs between regulated and nonregulated services and entities, and one which the Commission should not accept.

Q. IS IT PERMISSIBLE FOR A REGULATED ENTITY TO PAY COSTS ON BEHALF OF AN NONREGULATED ENTITY?

A. No. This would be "cross-subsidization" where costs of a nonregulated line of business are improperly assigned to regulated services. For valid policy reasons, such cross subsidization is prohibited by Utah Code Annotated Section 54-8b-6, "Prohibition on subsidization of telecommunications services", which states

> A telecommunications corporation providing intrastate public telecommunications services may not subsidize its intrastate telecommunications services which are exempted from regulation or offered pursuant to a price list or competitive contract under authority of this chapter with proceeds from its other intrastate telecommunications services not so exempted or made subject to a price list or competitive contract.

Part 47, Section 254(k) of the US Code requires that "the States, with respect to intrastate services, shall establish any necessary cost allocation rules, accounting safeguards, and guidelines to ensure that service included in the definition of universal service bear no more than a reasonable share of the joint and common costs of facilities used to provide those services."

Q. DOES SECTION 254(k) OF THE FEDERAL TELECOMMUNICATIONS ACT SUPPORT ALLOCATION OF COST RESPONSIBILITY FOR FTTH FACILITIES BETWEEEN REGULATED AND DEREGULATED SERVICES (BASIC SERVICE AND NON-REGULATED SERVICES SUCH AS BROADBAND INTERNET ACCESS AND CABLE TV), AND REGULATED AND DEREGULATED ENTITIES?

A. Yes. Failing to allocate cost responsibility in this fashion would leave basic voice services bearing "more than a reasonable share of the joint and common costs of facilities used to provide those services". This is not a legal opinion as I am not an attorney, but is based on a plain reading of the words of Section 254(k) of the Federal Telecommunications Act as contained in the U.S. Code.

Q. DOES THIS COMPLETE YOUR PREFILED DIRECT TESTIMONY?

A. Yes.