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Issues:	Cost Justification
Witness:	Adam McKinnie
Sponsoring Party:	MO PSC Staff
Type of Exhibit:	Rebuttal Testimony
Case No.:	TT-2006-0474
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

REBUTTAL TESTIMONY

OF

ADAM MCKINNIE

MCLEODUSA TELECOMMUNICATIONS SERVICES, INC.

CASE NO. TT-2006-0474

Jefferson City, Missouri
September 2006

****Denotes Highly Confidential Information****

Denotes Proprietary Information

NP

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of McLeodUSA Telecommunications Services, Inc.'s Tariff Filing to Increase its Missouri Intrastate Access Rates.	))))	Case No. TT-2006-0474

AFFIDAVIT OF ADAM MCKINNIE

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Adam McKinnie, of lawful age, on his oath states: that he has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of 28 pages of Rebuttal Testimony to be presented in the above case, that the answers in the following Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

Adam McKinnie

Subscribed and sworn to before me this 25 day of September, 2006.

Notary Public

ASHLEY M. HARRISON
My Commission Expires
August 31, 2010
Cole County
Commission #06899978

My commission expires _____

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I. Introduction

Q. Please state your name and business address.

A. My name is Adam McKinnie. My business address is 200 Madison Street, Jefferson City, MO 65102-0360.

Q. By whom are you employed?

A. I am employed by the Missouri Public Service Commission (MoPSC or Commission) as a regulatory economist for the Telecommunications Department Staff (Staff) of the Commission.

Q. What is your educational background?

A. I hold a Bachelor of Arts degree in English and Economics that I received from Northeast Missouri State University (now called Truman State University) in May 1997. I also hold a Master of Science degree in Economics (with electives in Labor, Tax, and Industrial Organization) that I received from the University of Illinois in May 2000.

Q. What are your current responsibilities at the Commission?

A. I review, analyze, and prepare recommendations on controversial tariff filings for both competitive and non-competitive companies, interconnection agreements, certificate applications and merger agreements. I also analyze cost studies and models related to cost

structures of companies for various contentious tariff filings. I have also conducted research and worked on special projects related to telecommunications and economics.

Q. Have you testified in any previous cases before this Commission?

A. Yes, I have. A list of the cases I have filed testimony in is attached as Schedule ACM-1

II. Executive Summary

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to respond to the Direct Testimony of McLeodUSA Telecommunications Services, Inc. (McLeod), a competitive local exchange carrier (CLEC), witness Balke, the tariff filings suspended in this case[1], and the McLeod provided cost study entitled "Network Usage Cost Assessment" (NUCA or cost study). My testimony will explain Staff's concerns with the NUCA and the lack of proper cost justification for the proposed rate increases.

Q. Is any other Staff member filing testimony?

A. Yes. William Voight, the supervisor of the Rate and Tariff section of the Telecommunications Department, is filing testimony responding to policy issues contained within the Direct Testimony of McLeod witness Spocogee and addressing related reasons to reject the instant tariff filing.

III. Standard for Review

Q. Are there any Commission guidelines regarding the pricing of McLeod's intrastate switched access rates?

A. There are three relevant cases that provide guidelines for the pricing of McLeod's intrastate switched access rates:

[1] Tariff Tracking Nos. JC-2006-0788 and -0789

First, in Case No. TA-98-288, *In the matter of the Application of McLeodUSA Communications Services, Inc., for authority to provide basic local and local exchange telecommunications services*, the Commission approved a stipulation between the parties to the case, as the Commission described in its "Order Granting Certificate of Service Authority":

> McLeodUSA has agreed that, unless otherwise ordered by the Commission, its originating and terminating access rates will be no greater than the lowest Commission-approved corresponding access rates in effect at the date of certification for the large incumbent LECs within those service areas in which McLeodUSA seeks to operate. The parties have agreed that the grant of service authority and competitive classification to McLeodUSA shall be expressly conditioned on the continued applicability of Section 392.200, RSMo Supp. 1996, and on the requirement that any increases in switched access services rates above the maximum switched access service rates set forth in the agreement must be cost-justified pursuant to Sections 392.220, RSMo Supp. 1996, and 392.230, rather than Sections 392.500 and 392.510.

Second, in Case No. TO-99-596, *In the Matter of the Access Rates to be Charged by Competitive Local Exchange Telecommunications Companies in the State of Missouri*, the Commission concluded in its Report and Order:

> Consequently, the Commission concludes that the public interest would be best served by capping CLEC exchange access rates at the level of the access rates of the directly competing ILEC.

Later in the same Report and Order, the Commission concluded:

> The parties also raised questions concerning the possibility that a CLEC might propose access rates higher than those of the directly competing ILEC. While all of the parties agreed that a CLEC may petition the Commission for authority to set rates in excess of the cap, they did not agree on the standard by which such petitions should be determined. Some of the parties argued that such rates must be cost-justified, while others suggested a more flexible, case-by-case analysis. The Commission concludes that Chapter 392, RSMo, requires that any such petitions be determined on a case-by-case basis. While costs are one important factor to be considered, that chapter mandates the consideration of other factors as well. *See* Section 392.185, RSMo Supp. 1999.

Third, in Case TR-2001-65, *In the Matter of an Investigation of the Actual Costs Incurred in Providing Exchange Access Service and the Access Rates to be Charged by Competitive Local Exchange Telecommunications Companies in the State of Missouri*, (TR-2001-65) the Commission wrote in its Report and Order:

> Having considered the evidence and the arguments of the parties, the Commission will make the interim cap permanent. The cost studies received in this case show that the interim cap is, if anything, high in comparison to costs. That is only fair, in view of the fact that the evidence is persuasive that access rates are high in comparison to costs for all of the LECs. In any event, the Commission finds the lack of active participation by Missouri CLECs to constitute eloquent testimony that they are satisfied, by and large, with the current situation.
>
> The Commission will adopt the suggestion that a CLEC may petition the Commission for access rates above the cap upon a showing that the same are cost-justified.

Q. Can you summarize the portions of these three cases applicable to your review of McLeod's intrastate switched access costs?

A. In order for McLeod to raise its intrastate switched access rates above those of AT&T Missouri (AT&T), McLeod must provide cost justification. In other words, McLeod's intrastate switched access rates must be the same or lower than AT&T unless cost justified. I have reviewed the relevant portions of these orders and the NUCA and determined that McLeod has not provided sufficient cost justification to support its revised tariff rates.

IV: NUCA – General Discussion

Q. Has McLeod attempted to provide any "cost justification" for the rates in its instant proposed access tariff?

A. Yes. McLeod has provided to Staff a copy of the NUCA. NUCA is a series of Excel files which support McLeod's network usage cost assessment, or cost study. NUCA

was submitted by McLeod in an attempt to provide cost justification for its intrastate switched access rates in the suspended proposed access tariff.

Q. Please generally describe your understanding of the structure of the NUCA.

A. The NUCA contains a series of "modules" for various aspects of McLeod's switching and transport network, such as Fiber Transport, SS7 signaling, and Transport. There is a module that estimates the number of minutes requiring switching functionality. There is also a module that estimates the financial needs of the company (in terms of cost of equity, cost of debt, etc.) All these modules feed into a results file containing the purported costs for 19 separate states.

The NUCA is structured in such a manner that it is possible to change any one input and have the cost model instantly produce new costs for the Missouri jurisdiction. As explained in more detail later, certain inputs raised concerns. Staff made changes to those inputs to determine the impact on the overall costs purportedly supporting the rate proposals.

V. Total Service Long Run Incremental Cost

Q. How does McLeod witness Balke describe the purpose of his testimony as it relates to the NUCA?

Beginning on page 3, line 61 of his Direct Testimony, McLeod witness Balke wrote:

> **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**
> A. I will describe the Network Usage Cost Analysis ("NUCA") used by McLeodUSA *to measure costs it incurs in providing the switched access services included in the tariff at issue in this proceeding*. My testimony will describe the NUCA model and the results supporting McLeodUSA's proposed switched access rates. (emphasis added)

Q. Do you agree with this assessment?

A. While I do not dispute Mr. Balke's characterization of the NUCA, I have concerns with the implication that NUCA measures costs related to providing intrastate switched access

services. As Mr. Balke states, the NUCA is "jurisdictionally blind". As will be explained throughout my testimony, by estimating the cost of "switching" in general versus estimating the cost of intrastate switched access, NUCA assumes inputs and factors that may require adjustment.

Q. How does NUCA measure the cost of switched access?

A. On page 5 of his Direct Testimony, beginning on line 92, McLeod witness Balke describes the cost study as follows:

> NUCA is designed to generate Total Service Long Run Incremental Costs ("TSLRIC"). As the FCC recognized in its *Local Competition Order*, "economists generally agree that prices based on forward looking long run incremental costs ("LRIC") give appropriate signals to producers and consumers and ensure efficient entry and utilization of the telecommunications infrastructure." Because the unit of output relevant to McLeodUSA's switched access product are "services," NUCA relies upon a "Total Service" ("TS") LRIC approach. (footnote omitted)

Q. Can you briefly summarize TSLRIC?

A. In Case No. TR-2001-65, beginning on page 8, line 15, Staff witness Dr. Ben Johnson provided guidance that I find useful and applicable to this case. Dr. Johnson described TSLRIC thusly:

> The **total service long run incremental cost** (TSLRIC) of a service (or group of services) is equal to the firm's total cost of producing all its services including the service (or group of services) in question, minus the firm's total cost of producing all its services except the service (or group of services) in question. Thus, it is a particular form of long run incremental cost (LRIC), in which the specified increment is the entire volume of output of a particular service, while all other services remain unchanged. (emphasis in original)

Q. How did Dr. Johnson characterize the results of TSLRIC studies for intrastate switched access service?

A. Dr. Johnson, in his Direct Testimony in Case No. TR-2001-65, beginning on page 117, line 11, wrote:

> Finally, the TSLRIC results are very low, because this study only considers the amount by which the carrier's costs would decline if switched access service were not provided. Thus, it excludes loop costs, the minimum, fixed costs of switching and other costs which are needed in order to provide intrastate switched access service, but which would be incurred even if this service not provided by the carrier.

Q. In your opinion, is NUCA a TSLRIC cost model for intrastate switched access service?

A. No, it is not, nor does it purport to be. As Mr. Balke clearly states, the NUCA is a cost model for ***all switching services***, regardless of jurisdiction.

For the purposes of examining intrastate switched access service, if one takes the costs of services that are not directly related to providing intrastate switched access (such as minutes of local switching and minutes of interstate switched access service) and allocates those costs to the service in question (in this case intrastate switched access), one does not end up with a TSLRIC cost study.

Q. Are you saying that NUCA is not a TSLRIC cost model?

A. Not entirely. If the service whose cost is being estimated is *all minutes of switching*, the NUCA appears, on examination, to be a TSLRIC study. However, if the service whose costs are being estimated is *intrastate switched access service*, it appears the NUCA is not a TSLRIC cost study.

In brief, the NUCA recovers a greater share of the common costs of the network than a TSLRIC cost study for intrastate switched access service would recover, as it assumes costs are allocated over the entire service of "switching" instead of just the service of "intrastate switched access".

A TSLRIC cost study estimates what it would cost to produce the new total service (in this case intrastate switched access service) in addition to the cost of the services the firm is

already producing (in this case interstate access and local service). A TSLRIC cost study for intrastate switched access would include very little common costs since a large portion of the common costs would occur and be attributable to the other services the firm was providing. Therefore, a large portion of common costs would not be included in the TSLRIC cost study for intrastate switched access service.

Q. Has the Commission ever concluded what is the proper method of conducting a cost study for intrastate switched access service?

A. No, it has not. In its Report and Order in TR-2001-65, the Commission concluded:

> The Commission will not address the issues relating to what sort of costing methodology should be used, whether the same method should be applied to all carriers, whether loop costs should be included in reckoning access costs, and if so, to what extent, or what specific values and assumptions should be used as inputs.

Q. Does Staff object to McLeod's choice of a TSLRIC as the methodology to determine the cost of intrastate switched access service?

A. No, Staff does not. Staff's objection is with the manner in which McLeod has conducted its study. McLeod estimates the cost of intrastate switched access service by defining "total service" as "all switching". In Staff's opinion "total service" for the purpose of providing cost justification for intrastate switched access service should be intrastate switched access service. In other words, the "total service" in Total Service Long Run Incremental Cost should be intrastate switched access service.

VI. NUCA - Functionality

VI.A. Calculating the cost of each portion of the network

Q. Please generally describe your understanding of the functionality of the NUCA.

A. Generally, the NUCA is designed to capture McLeod's cost of switching a minute of a telephone call regardless of the jurisdiction of the telephone call. Thus, the cost study is purported to capture the cost of switching a local telephone call, an intrastate interexchange telephone call, and an interstate interexchange telephone call.

In order to perform this cost analysis, McLeod analyzed its switching and transport network. McLeod attempted to determine the cost of each portion of its network by determining the most efficient size of each portion of the network for the expected call volume. McLeod also analyzed its network to determine which portions are necessary to provide the switching and transport functions for each type of telephone call (local, intrastate or interstate).

In order to calculate a per minute cost of using each applicable portion of the switching and transport network, the NUCA divides the total cost of the purported efficiently sized network by the number of minutes of telephone calls that utilize that portion of the network.

VI.A.1 – Sample calculations

For instance, suppose the cost model determined there were only three parts of the network needed for the switching and transport of a telephone call: Part A, Part B, and Part C. For this example:

- Part A costs $100

- Part B costs $150
- Part C costs $250.

The total cost of the network needed for switching and transport would be $100 + $150 + $250 = $500.

Furthermore, suppose there will be three types of telephone calls: Call Type 1, Call Type 2, and Call Type 3. For this example, we estimate there will be:

- 1250 minutes of Call Type 1
- 2000 minutes of Call Type 2
- 1750 minutes of Call Type 3

In total, we expect there will be 1250 + 2000 + 1750 = 5000 minutes of telephone calls.

To estimate the per minute cost of the switching and transport network using these assumptions, we would take the total cost of the switching and transport network and divide by the total number of minutes we expect to switch:

$$\frac{\text{Total Cost of the Network}}{\text{Estimated Number of Minutes}} = \frac{\$500}{5000} = \$.10 \text{ per minute}$$

IV.A.2 – Sample analogy

Q. Can you provide an analogy to further explain your understanding of McLeod's cost study?

A. Yes. Let's use an analogy of selling fruit. For our analogy:

- All fruit = all switching service
- Apples = intrastate switched access service
- Pears = interstate switched access service

- Oranges = local switching

Instead of trying to estimate the cost of a minute of switching telephone calls, envision trying to estimate the cost of selling fruit. In order to perform that cost study, the first thing we would do is look at all the equipment and labor necessary to sell a piece of fruit. For the sake of simplicity, let's assume for a moment that in terms of equipment we would only need a truck to haul the fruit and different stands to sell each type of fruit (a pear stand, an apple stand, etc.).

In order to get a cost of each piece of equipment per piece of fruit we sell, we would look at what specific equipment is needed to sell a particular type of fruit. To figure out the per fruit cost of a particular piece of equipment (in this case, just the truck), we would take the cost of that piece of equipment (for example, a truck) divided by all the pieces of fruit (all apples, all pears, and all oranges) hauled in the truck.

Q. In your description of McLeod's NUCA, you mention the NUCA attempts to determine "the most efficient size of each portion of the network for the expected call volume". Can you use your analogy to further explain this statement?

A. Suppose when we started our fruit business we expected to sell 50,000 pieces of fruit per day. Thus, we bought a truck that would haul 50,000 pieces of fruit at a time.

However, suppose we expect a hard freeze so we only expect to sell 25,000 pieces of fruit a day in the future. The most efficient sized truck would be one that would be able to haul only 25,000 pieces of fruit since that is representative of the most efficient forward looking use of the truck. Under this cost model structure, even though we have already bought and paid for a truck that can haul 50,000 pieces of fruit, we would only include the cost of a truck that can haul 25,000 pieces of fruit when developing our cost study.

For this example, we assume a truck that hauls 50,000 pieces of fruit costs $75,000 and a truck that hauls 25,000 pieces of fruit costs $50,000. Although we've already sunk $75,000 into buying the truck that can haul 50,000 pieces of fruit, in the cost study, we would estimate costs as if we bought the truck that can haul only 25,000 pieces of fruit.

Thus, in order to figure out the per fruit cost of the truck in this cost model, we would divide the cost of a truck that can haul 25,000 pieces of fruit ($50,000) by the estimated pieces of fruit we would expect to sell per day (25,000):

$$\frac{\text{Price of most efficient truck}}{\text{Estimated Amount of Fruit}} =$$

$$\frac{\$50{,}000}{\text{25,000 pieces of fruit}} =$$

$2 per piece of fruit

Q. Can you discuss what a TSLRIC cost study is using your fruit analogy?

A. Yes. Using the fruit analogy, each apple would be comparable to a minute of intrastate switched access service. To estimate the per apple cost of the apple stand, we would take the cost of the apple stand divided by the total number of apples sold. We would not include any pears in that calculation, as the apple stand is not used to sell pears. We would also not include the full cost of the truck in our cost estimate, because the truck would still be used to haul pears and oranges even if we didn't sell apples.

VI.B. Estimating the expected number of switching minutes

Q. You've stated that McLeod has estimated the expected number of switching minutes in its cost model. What is your understanding of how the estimation performed?

A. McLeod calculated the minutes of twenty-six different types of telephone calls that originated and terminated on its network between July 1, 2004 and June 30, 2005. These calls included interexchange calls, calls dialed using 8YY (such as 1-800 numbers) and local calls. McLeod used this calculation to project the number of minutes for each of the different telephone call types that would take place on its network between July 1, 2005 and June 30, 2006.

Q. Why does the NUCA include twenty-six different types of telephone calls?

A. In the NUCA, there is a network design schematic that demonstrates which portions of the switching and transport network are utilized by each different type of call. In this manner, McLeod attempts to estimate precisely how many times each portion of the switching and transport networks will be utilized in the coming year, resulting in twenty-six different call patterns.

Q. Based on your review of the NUCA, how accurate was McLeod in estimating its minute usage for that time period?

A. Staff has issued Data Request 29 to attempt to learn the answer to this question. On August 15, 2006 McLeod submitted this response:

> A special traffic study was required to respond to this request. That study has been initiated but has not yet been completed. When the relevant information is available, McLeodUSA will supplement its response to this request.

Staff reserves the right to supplement this answer upon receipt of the response.

VII. Financial Inputs

Q. List the financial inputs in the McLeod cost study.

A. The NUCA contains the following financial inputs:

Cost of debt: ** _____ **

NP

Cost of Common Equity: ** ____ **

Ratio of debt / equity: ** _____ **

Q. Has the Commission reviewed these financial inputs in a recent case involving telephone companies?

A. Yes. In Case No. TO-2005-0037, *In the matter of the Determination of Prices, Terms, and Conditions of Certain Unbundled Network Elements - Consideration upon Remand from United States District Court of one issue originally decided in Case No. TO-2001-438*, (438 Remand) the Commission directed SBC Missouri (now AT&T Missouri) to rerun its cost studies using the following financial inputs:

Cost of debt: 7.18%

Cost of equity: 13%

Ratio of debt / equity: 30 / 70

These inputs will be compared to McLeod's financial inputs in more detail below.

VII.A. Cost of Equity

Q. What is "cost of equity" or "cost of common equity"?

A. As used in cost studies, the "cost of equity" is the estimated amount that shareholders expect to receive as a return on their investment. Generally speaking, the more risk involved in an investment (i.e., the chance of a company not meeting its objectives), the greater the cost of equity. A higher cost of equity in a cost model generally results in a higher cost estimate.

Q. Has the Commission previously reviewed or ordered appropriate cost of equity factors?

NP

A. Yes it has. In Case No. TR-2001-65, in Direct Testimony dated July 1, 2002, Staff witness Dr. Ben Johnson wrote, beginning on page 67, line 6:

> For the smaller LECs [smaller incumbent local exchange carriers and the typical competitive carrier] we used a weighted cost of capital of 10.75%. This reflects an 8.0% cost of debt weighted 45% and ***a cost of equity of 13.0%*** weighted 55%. I arrived at the 10.75% weighted cost of capital based upon my general knowledge and experience, as well as my routine monitoring of capital market conditions. The somewhat higher cost of debt and equity I have used with the other LECs reflects the fact that these smaller carriers do not have as ready access to capital markets, and they face greater risks because they serve smaller, less diversified service areas. By allowing a .5% higher cost of debt and a 1% higher cost of equity, I have reflected the somewhat higher capital costs which are incurred by smaller incumbent local exchange carriers and the typical competitive carrier. (emphasis added)

However, the Commission did not address cost of equity in its Report and Order in this case.

Similarly, in the "Order Approving Compliance Rates" for the 438 Remand issued December 28, 2004 , the Commission ordered cost studies for SBC Missouri (now doing business as AT&T Missouri) to be run with a 13 percent cost of equity.

Q. How does McLeod's estimated cost of equity compare to costs of equity in these other cases involving telecommunications carriers?

A. McLeod's cost of equity of ** ____ ** is ** _____ ** when compared to the costs of equity listed for the prior Commission cases.

Q. Does McLeod provide information for how the cost of equity in the NUCA was determined?

A. Yes, it does.

In response to Data Request No. 8 regarding the cost of equity, McLeod stated:

* _____
_____
_____

NP

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_____ *

(Proprietary Data Request No. 8 is attached in its entirety as Schedule ACM-2)

Q. To your knowledge, has McLeod made adjustments to its cost of equity in any of the other 19 states listed in the NUCA?

A. Yes it has. Staff has discussed McLeod's inputs with staff of the Colorado Public Utilities Commission. The Colorado staff person indicated that, after discussions with the Colorado staff, McLeod lowered its cost of equity a substantial amount.

VII.B. Debt / Equity Ratio

Q. What is debt-to-equity ratio, and why is it important in a cost study?

A. A debt-to-equity ratio is used to determine a weighted cost of capital, which ultimately determines a firm's cost of attracting investment. The percentage of debt is multiplied by the cost of debt, while the percentage of equity is multiplied by the cost of equity. These two figures are summed together to determine the weighted cost of capital.

Q. What are some debt-to-equity ratios that have been submitted or ordered in recent telecommunications cases?

A. As stated in the above excerpt from Staff witness Ben Johnson's Direct Testimony in Case No. TR-2001-65, for smaller LECs (local exchange carriers), which included competitive carriers, Dr. Johnson utilized a ratio of 45% debt, 55% equity.

In the 438 Remand, the Commission ordered the SBC cost studies to be run with a ratio of 30% debt, 70% equity.

NP

Q. How does the NUCA's estimated ratio of debt-to-equity compare to costs of equity in these other cases involving telecommunications carriers?

A. The NUCA's ratio of ** _____ ** includes ** _____ _____ ** when compared to the estimates for competitive carriers in TR-2001-65 and ** _____ ** than in the 438 Remand case.

Q. Does McLeod provide information for how the ratio of debt-to-equity was determined?

A. Yes, it does.

In response to Data Request No. 7, McLeod stated:

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(Proprietary Data Request No. 7 is attached in its entirety as Schedule ACM-3)

Q. What impact does a change in the debt-to-equity ratio have on the costs of the final rate elements when adjusted using McLeod's * _____ * debt-to-equity ratio?

NP

A. If the debt-to-equity ratio in the NUCA is changed to reflect ** _____ _____ **, the weighted cost of capital is changed as explained below.

VII.C. Weighted cost of capital

Q. What is cost of capital?

A. As stated above, the weighted cost of capital is determined by the debt-to-equity ratio. The cost of capital ultimately determines a firm's cost of attracting investment.

Q. Please explain the difference between the NUCA weighted cost of capital and the cost of capital after making ** _____ ** adjustments to the NUCA.

A. The originally weighted cost of capital was calculated ** _____ _____

_____

_____ **

By adjusting the weighted cost of capital calculation using ** _____ _____

_____

_____ **

When the weighted cost of capital is ** _____ **, the cost of each of the rate elements is ** _____. ** In other words, the current cost of the rate element 3, Local Switching, in the NUCA is $. 0.020333743. The adjusted cost of that rate element with the revised weighted cost of capital is ** _____ **. Note that both of the numbers are computed using the Arizona tax rate.

Q. Is this consistent with your knowledge of cost studies?

NP

A. No, it is not. Staff is unsure how ** _____ ** in the weighted cost of capital would lead to a ** _____** in the costs faced by McLeod.

VII.D. Tax rates

Q. Are there any other financial inputs that need to be adjusted in order to more properly estimate McLeod's costs?

A. Yes. In McLeod's cost study, as provided to Staff, the state of Arizona is chosen for the tax rates. The result is a sales tax rate of ** _____ **. If Missouri is properly chosen, this sales tax figure changes to ** _____ **. In an unexpected development, this causes the final estimated cost of the each of the rate elements to increase by ** _____ **. Staff is unsure how a decrease in the faced sales tax rate would result in an increase of costs faced by McLeod.

VII.E. Additional cost study modifications

Q. Have you tried running the cost study with different financial inputs to see how the final cost of the rate elements would change?

A. Yes, I have. In addition to the changes I have already discussed, I also made the following modifications to determine the impact to the cost of the rate elements.

Whenever the cost of debt is decreased within the cost model, the final estimated cost of the rate elements increases. This is puzzling, because as the cost of taking out loans decreases, it is cheaper for the firm to borrow money (i.e., lower interest payments), and thus overall costs should decrease. However, by itself, reconfiguring the cost of debt does not lead to significantly different estimated final costs for the rate elements. For example, when the cost of debt is decreased from ** _____ ** to ** ___ **, the resulting change in the final cost of rate elements is only an increase of .1198%.

NP

Whenever the cost of common equity is increased within the cost model, the final estimated cost of the rate elements decreases. This is also puzzling, because as a firm has to create a higher expected rate of return for its stockholders, overall costs should increase. Again, by itself, reconfiguring the cost of common equity does not lead to significantly different estimated final costs for the rate elements. For example, when the cost of common equity is increased from ** ____ ** to ** ____ **, the resulting change in the final cost of rate elements is only a decrease of 1.1145%.

VII.F. Recommendation on financial factors

Q. What is your recommendation with regard to McLeod's financial factors?

A. I recommend the Commission consider these inputs, especially the cost of equity and the incorrect state tax rate, as reasons not to accept the NUCA as "cost justification" for the rate elements in McLeod suspended access tariff.

VIII. Other Cost Study Aspects

Q. Please discuss some other aspects of the cost study that deserve comment.

A. There are a few things that deserve comment:

First, the amount of land and other common inputs that the NUCA states as the most efficient forward looking amounts are mostly theoretical and are entirely based upon the cost of the items in the present. That is, all items costing the same amount of money are determined to need the same amount of land and other common / joint resources.

Q. Why is this a concern?

A. For many items it makes perfect sense to size the cost of an item with the amount of land it will take to properly support that item. For example, if I was purchasing drywall and needed to figure out how much space I needed to store the accumulated resource,

it would make perfect sense to assume that as the amount of money I spent on drywall increased, the amount of room I would need to store it would increase at the same rate. In other words, since I am spending more money, it is appropriate to assume I am buying more sheets of drywall.

However, when it comes to electronics and computers, it is often the case that a more expensive device with greater functionality often comes in a comparable size as a device with less functionality that costs less. In situations where an IP switch can be upgraded simply by purchasing an electronic card and inserting it into an existing electronic device, it is easy to see that the amount of money spent and the amount of land needed are not directly correlated and that the land factor need not increase

Q. Please describe another cost study concern.

A. The common cost percentage used in the NUCA calculations seems higher than it typical for a TSLRIC cost study. It is difficult at best to estimate the percentage of common costs to allocate to any given product that a firm produces. In terms of the fruit analogy, the question would be similar to estimating what portion of the fruit truck driver's salary should be allocated to apples versus pears. In this case, it is difficult to determine how much of the common cost items such as executive salary, land needed for headquarters, and other common costs are needed for intrastate switched access service versus interstate or even local telecommunications services.

In a TSLRIC study for all switching (which is what the NUCA is purported to calculate), the amount of common costs allocated would be only those that would be necessary if the firm provided a switching service versus the firm not providing any switching (as the "total service" involved in the NUCA is ***all switching***, regardless of jurisdiction). As

it would be difficult for McLeod to provide any telephony service without any switching, it is probably not reasonable to assume McLeod would not provide any switching at all. To produce a TSLRIC cost study for a total service increment of "all switching" may be as rational as producing a TSLRIC cost study for the total service increment of "all telephone services". Therefore, for a TSLRIC study, the appropriate service should be intrastate switched access.

Q. Please define the term common cost.

A. Dr. Ben Johnson wrote in his Direct Testimony in Case No. TR-2001-65, beginning on page 7, line 44:

> In addition to costs which vary directly with network investments, carriers also incur corporate overheads and other miscellaneous costs. These remaining, miscellaneous costs can fairly be described as "common costs." Common costs arise because carriers produce multiple outputs using many of the same resources and production processes. Some of these costs are common to the entire output of the firm, while others are common to various subsets of these outputs (e.g. retail services). Typical examples of costs that tend to be common to the entire firm include salaries and other costs of the firm's upper level executives, legal expenses, and audit expenses.

Q. What does McLeod witness Balke write about the common cost allocation in the NUCA?

A. Starting on page 9, line 270 of his Direct Testimony, McLeod witness Balke writes:

> **Q. DOES NUCA CAPTURE BOTH DIRECT AND COMMON COSTS?**
> A. Yes, it does. Direct TSLRIC costs are those costs that are directly incremental to the production of a given service. For example, because a telecommunications switch is required to connect two trunks necessary to complete a call in a simple switched access scenario (i.e., "switching origination or termination"), the switch is considered a direct cost of that particular service. However, there are also relevant economic costs attributable to that same service, even though they may not be directly incremental to the underlying production of that service, e.g., the time of McLeodUSA's Chief Executive and McLeodUSA's planning and strategy groups (or accounting or

> any other number of back-office support organizations). While those costs are not directly attributable to the production of switched access services, they are "common" to switched access services along with other services provided by the firm. *Likewise, some of those costs are "shared" between switched access services and other services. As such, those costs must be captured and attributed to all of McLeodUSA's products as a whole (including switched access and other usage based services).* NUCA captures and attributes these costs via a "common cost" factor. The common cost factor (found in the "Factor Module" described in more detail below), ensures that all of McLeodUSA's products share in the recovery of these common costs equally, by attributing those costs amongst the entirety of McLeodUSA's product catalog. In this way, NUCA ensures that both direct and common costs are captured relative to the service being studied (in this case, switched access services). (emphasis added)

Q. You seem to make a distinction between "all switching" and "intrastate switched access service". Please explain.

A. McLeod witness Balke describes the NUCA as "jurisdictionally blind and customer indifferent", recognizing that in terms of switching cost, "a minute is a minute is a minute" (Balke Direct, page 7, beginning on line 178). Since the NUCA is being provided as cost justification for intrastate switched access service, this distinction may be important. A TSLRIC study for only intrastate switched access service would assume a larger percentage of common costs would be allocated to other "switching" services such as basic local service. As stated in the excerpt above, costs that are "shared between switched access services and other services" are included in the NUCA. If this was a TSLRIC study for intrastate switched access service only, it would be assumed that minimal, if any, of the common costs would be attributable to intrastate switched access service since these costs would be necessary even if intrastate switched access service was not being provided. For example, many network facilities would be needed in order to provide these "others services", even if intrastate switched access is not provided. Therefore, the "shared" or "common" costs are typically largely excluded from a TSLRIC study that is focused on a particular service, such as

intrastate switched access, as opposed to a category of service, such as switching in general. If the common cost factor is lowered or removed, the cost of the final rate elements would decrease, as fewer common costs would be allocated to this service.

Q. What is your recommendation regarding the concerns you raise on other aspects of the cost study?

A. I recommend the Commission consider these inputs, concerns, and cost study structure concerns as additional reasons not to accept the NUCA as cost justification for the rate elements in McLeod's suspends proposed access tariff.

IX. NUCA results compared to rates in previous commission cases

Q. How do the NUCA purported costs for switching compare to earlier Staff cost studies involving the cost of intrastate switched access service?

A. The NUCA purported costs are ** _____ ** when compared to the TSLRIC costs listed for local exchange carriers (LECs) as presented in Dr. Johnson's cost studies that were produced for Case No. TR-2001-65. Dr. Johnson describes the results of his TSLRIC cost studies for total intrastate switched access service for all LECs in his Direct Testimony for TR-2001-65 on page 122, beginning on line 19:

> The pattern for the other carriers is somewhat similar, in that costs computed on a pure TSLRIC basis are extremely low for all carriers, regardless of their circumstances. In fact, when averaging the individual carriers together, the Large ILECs, the Small ILECs and the CLECs all have costs that total around one half cent per minute.

These total switched access costs include the cost of carrier common line, end office switching, and local transport. While Dr. Johnson's studies for CLECs were not fully developed using CLEC-specific costs due to the limited CLEC participation in the case, they

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are worth noting when analyzing the appropriateness of the NUCA's calculation of switching costs versus a calculation of intrastate switched access costs.

Q. You spend quite a bit of time explaining the difference between a cost study analyzing switching and a cost study analyzing intrastate switched access service. Is the NUCA an appropriate costing methodology for analyzing the cost of switching, especially for intrastate switched access service?

A. Even though the cost study is for the cost of all switching in general, the relevant instant proposed access tariff cites rates specifically for intrastate switched access service. This apparent conflict is seen as a strength by McLeod witness Balke, as he touts the NUCA as "jurisdictionally blind".

However, as has been demonstrated through references to Dr. Johnson's testimony in Case No. TR-2001-65, it would be possible and perhaps more prudent to construct a cost study for intrastate switched access service only. The only costs that would be relevant to switched access service would be per minute or "usage" based costs incurred by the company to provide the additional "increment" of switched access service in addition to the local service. For instance, under an intrastate switched access only structure, it would be assumed that the switch would be necessary for local service, and thus the bulk of the cost of the switch would not be included in the study. Typically, as demonstrated by Dr. Johnson, under this scenario, TSLRIC switched access costs are very low.

X. Carrier Common Line Charge

Q. You mention the inclusion of the CCL in McLeod's revenue amounts, but this rate element is not previously mentioned in your discussions. Is the CCL cost justified within NUCA?

A. No. The Carrier Common Line (CCL) charge, a switched access charge traditionally designed to recover a portion of the loop, is contained on Original Sheet No. 68 within the instant proposed access tariff, yet is listed as "N/A" in terms of cost calculations estimated by NUCA.

Q. How do the originating and terminating CCL rates in the proposed instant access tariff compare with the currently effective McLeod originating and terminating CCL rates?

A. The chart below lists the current and proposed originating and terminating CCL rates for McLeod, as well as AT&T's current CCL originating and terminating rates:

Company / Rate	Originating CCL	Terminating CCL
AT&T Missouri	$.0094626	$.0171586
Current McLeod	$.0100000	$.0181330
Proposed McLeod	$.0181300	$.0181330

Q. Does McLeod provide any sort of analysis or cost justification regarding the change in the CCL rate?

A. Yes. In Supplemental Response 0037, McLeod states:

> It should be noted that while there are no usage sensitive, TSLRIC based costs associated with CCL elements (and hence NUCA does not capture costs associated with those elements), those elements have traditionally been used to capture a portion of the non-traffic sensitive costs associated with local loop facilities. While those loop costs are not necessarily usage sensitive, they do exist and recovery is required.

(the full Data Request 0037 and response is included as Schedule ACM-4)

Q. In your opinion, does this DR Response meet the criteria of the new rate being "cost justified"?

A. No, it does not. Even though McLeod states the NUCA does not capture costs associated with the loop, the Commission has previously determined that access rates above

AT&T's rates must be cost justified. The fact that loop costs "do exist and recovery is required" does not provide sufficient rationale for McLeod's originating or CCL terminating rate to be above AT&T Missouri's originating and terminating CCL rates (the CLEC intrastate switched access rate cap).

Q. As there is no cost study provided supporting carrier common line costs that would make up the CCL rate, can you provide you some guidance on common line costs?

A. As Dr. Johnson explains in Case No. TR-2001-65, on page 119 of his Direct Testimony, starting on line 10:

> Under the TSLRIC methodology, the common line costs are close to zero for all of the carriers. The only reason the last column isn't zero is that it includes a minuscule amount of common overhead costs. One can plausibly argue that on an incremental basis no costs would be incurred in the common line category, since the loop and port are needed in order to provide interstate switched access, local exchange and other services even if intrastate switched access were not provided. However, the methodology we have adopted for purposes of this study places a small amount of common costs in each category, in recognition of the fact that common overhead costs do vary somewhat with the size and complexity of a carrier's operations. As the number of services increases, executive salaries, accounting costs, tariff development and maintenance costs, billing and collection costs, marketing costs, and other miscellaneous overhead costs tend to increase somewhat–even if no additional facilities are needed in order to provide the additional service in question. Hence, our estimate of the TSLRIC costs is very small, but not zero.

XI. Conclusion:

Q. What is your ultimate analysis with respect to McLeod's NUCA?

A. In Staff's opinion, the NUCA does not provide cost justification for the proposed rate increases for the following reasons.

1. There is no cost justification for the proposed CCL rates.
2. The NUCA contains the wrong tax rate for the Missouri jurisdiction.

3. There are several other general concerns with the cost study, such as the common cost factors, the debt/equity ratio and the cost of capital.

4. The study is not a TSLRIC study for intrastate switched access minutes.

Adam McKinnie – Testimony history

- TO-2003-0531, *In the Matter of the Application of Missouri RSA No. 7 Limited Partnership, d/b/a Mid-Missouri Cellular, for Designation as a Telecommunications Company Carrier Eligible for Federal Universal Service Support Pursuant to Section 254 of the Telecommunications Act of 1996*
- TO-2005-0384, *Application of USCOC of Greater Missouri, LLC For Designation As An Eligible Telecommunications Carrier Pursuant To The Telecommunications Act Of 1996*
- TO-2004-0527, *In the Matter of the Application of WWC License, LLC, d/b/a CellularOne(R), for Designation as an Eligible Telecommunications Carrier, and Petition for Redefinition of Rural Telephone Company Service Areas*
- TO-2005-0325, *In the Matter of the Third Application of Missouri RSA No. 7 Limited Partnership d/b/a Mid-Missouri Cellular for Designation as a Telecommunications Company Carrier Eligible for Federal Universal Service Support pursuant to § 254 of the Telecommunications Act of 1996*
- TO-2006-0172, *In the Matter of the Application of Missouri RSA No. 5 Partnership for Designation as a Telecommunications Company Carrier Eligible for Federal Universal Service Support Pursuant to § 254 of the Telecommunications Act of 1996*
- TO-2005-0466, *In the Matter of the Application of Northwest Missouri Cellular Limited Partnership for Designation as a Telecommunications Company Carrier Eligible for Federal Universal Service Support Pursuant to § 254 of the Telecommunications Act of 1996*
- IO-2003-0281 *In the Matter of the Investigation of the State of Competition in the Exchanges of Sprint Missouri, Inc.*
- TO-2005-0035, *In the Matter of the Second Investigation into the State of Competition in the Exchanges of Southwestern Bell Telephone, L.P., d/b/a SBC Missouri*
- IO-2006-0316, *In the Matter of CenturyTel of Missouri, LLC`s Request for Competitive Classification Pursuant to Section 392.245.5, RSMo. (2005)*
- IO-2006-0317, *In the Matter of Spectra Communications Group, LLC d/b/a CenturyTel`s Request for Competitive Classification Pursuant to Section 392.245.5, RSMo. (2005)*
- TO-2005-0423, *In the Matter of the Application of Chariton Valley Telecom Corporation for Designation as a Telecommunications Carrier Eligible for Federal Universal Service Support Pursuant to 254 of the Telecommunications Act of 1996*

Data Request No. 0008

Please provide justification and any supporting documentation for the assumption that the cost of equity for McLeod is * ____ *, as stated in the provided NUCA.

McLeodUSA Response 0008: PROPRIETARY RESPONSE

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Data Request No. 0007

Please provide justification and any supporting documentation for the assumption that McLeod's debt / equity ratio is * _____ *, as stated in the provided NUCA.

McLeodUSA Response 0007: PROPRIETARY RESPONSE

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37. Please state what the total switched access cost was for McLeod in Missouri for Q1 2006.

McleodUSA Response 0037

As indicated in previous responses, the term "cost" without further definition (e.g. TSLRIC, accounting-cost, etc.) is difficult to interpret with precision. As such, McLeodUSA responds as follows:

(a) McLeodUSA's accounting systems do not track accounting costs (i.e., booked costs) by service-type, but instead, by facility-type and cost-center organization (i.e., engineering, billing, customer service, etc.). As such, no information exists as to the accounting costs relevant for switched access services provided in any given timeframe (the same would be true with respect to other services as well).

(b) TSLRIC costs, as calculated by NUCA, are developed on a "per unit" basis (in this case, costs per-minute-of-use, by rate element). Those costs (which include common costs and a return on equity), comprise the rates proposed by McLeodUSA. Because McLeodUSA's proposed rates are higher than rates actually assessed in the first quarter of 2006 (in Missouri), the revenues would be lower than the resultant TSLRIC (total TSLRIC costs would be calculated by multiplying the unitized TSLRIC costs by the number of units sold relative to each rate element). Likewise, in situations wherein the new rates are assessed, revenues would equal McLeodUSA's TSLRIC costs.

McLeodUSA HIGHLY CONFIDENTIAL SUPPLEMENTAL Response 0037

See McLeodUSA Highly Confidential Supplemental Response 0036. The usage sensitive TSLRIC costs associated with providing the switched access services identified in the table provided therein would be equal to the total revenue generated (because the rates are based strictly on NUCA, cost-based rates), minus the amount assessed for CCL elements, i.e., ** _____ ** minus ** _____ ** equals ** _____ **.

It should be noted that while there are no usage sensitive, TSLRIC based costs associated with CCL elements (and hence NUCA does not capture costs associated with those elements), those elements have traditionally been used to capture a portion of the non-traffic sensitive costs associated with local loop facilities. While those loop costs are not necessarily usage sensitive, they do exist and recovery is required.

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