Exhibit No.__THC(HJR-5T)HC
Docket No. UT-081393
Witness: Henry J. Roth

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

VERIZON SELECT SERVICES, INC.; MCIMETRO ACCESS TRANSMISSION SERVICES, LLC; MCI COMMUNICATIONS SERVICES, INC.; TELECONNECT LONG DISTANCE SERVICES AND SYSTEMS CO. d/b/a TELECOM USA; AND TTI NATIONAL, INC., Complainants, v. UNITED TELEPHONE COMPANY OF THE NORTHWEST, d/b/a EMBARQ Respondent.	**DOCKET NO. UT-081393**

SURREBUTTAL TESTIMONY OF HENRY J. ROTH

ON BEHALF OF UNITED TELEPHONE COMPANY OF THE NORTHWEST, D/B/A EMBARQ

June 30, 2009

REDACTED –PUBLIC VERSION

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I. INTRODUCTION AND PURPOSE

Q. Please state your name and on whose behalf you are testifying.

A. My name is Henry (Hank) Roth. I am testifying on behalf of United Telephone Company of Northwest d/b/a Embarq ("United").

Q. Are you the same Hank Roth that filed responsive testimony in this docket?

A. Yes.

Q. What is purpose of your surrebuttal testimony in this proceeding?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimonies submitted by Kent Currie and Lawrence J. Bax on behalf of AT&T Communications of the Pacific Northwest, Inc., TCG Oregon, Inc. and TCG Seattle, Inc. ("AT&T") and Paul B. Vasington on behalf of Verizon Select Services, Inc.; MCIMetro Access Transmission Services, LLC; MCI Communications Services Inc.; Teleconnect Long Distance Services and Systems Co., d/b/a Telecom USA; and TTI National Inc. ("Verizon"). Additionally I will respond to the testimonies submitted by Glenn Blackmon, Tim Zawislak, and Rick Applegate on behalf of the staff of Washington Utilities and Transportation Commission. I have organized my surrebuttal testimony to address the following specific areas noted by the other parties:

- I will address why United's cost study is an accurate and applicable presentation of Total Service Long Run Incremental Costs (TSLRIC) in this proceeding. I will also address why United has demonstrated that the switch processor and software is traffic-sensitive and should be included in the

minute of use (MOU) element of cost calculation. The cost study results[1] demonstrate the current rates for intrastate switched access including the universal service fund rate are not only just and reasonable but necessary for United to continue to serve its customers in Washington.

- I will discuss why United's cost model inputs, including switching equipment investment, depreciation, cost of capital, common costs, and cable investment are correct and reflect costs that are specific to United's Washington operations today. In contrast, input changes proposed by other parties do not represent United's real costs.
- I will explain why United's cost study provides solid evidence of United's cost for switched access and specifically intrastate switched access while demonstrating how expensive it is for United to serve Washington. AT&T's calls to reject the cost study are an improper attempt to divert attention away from the facts and toward surrogate metrics.

II. PRELIMINARY OBSERVATIONS

Q. Do you have some preliminary observations?

A. Yes. The focus in this proceeding is whether United's intrastate switched access rates should be reduced and the policy implications of doing so. United's position is summarized by Mr. John Felz in his responsive testimony:

> United asks the Commission to maintain the company's current level of intrastate access charge rates and structure, including the universal service fund rate element. United has a long history of providing a reliable telephone network in

1 Roth responsive testimony, Exhibit No.__HC(HJR-2HC) – Summaries, Exhibit No.__HC(HJR-4HC) – Cost Study

> Washington and providing quality service at affordable rates. As other United witnesses explain, the company's ability to fulfill its carrier of last resort obligations, especially in rural, high-cost areas, is dependent on support for basic local service currently contained in intrastate switched access rates, especially the universal service fund rate.[2]

The Washington State Terminating Access Charges Rule (WAC 480-120-540) is clear:

> (1) (b) If a local exchange company is authorized by the commission to recover any cost for support of universal access to basic telecommunication service through access charges, it shall recover such costs as an additional, explicit universal service rate element applied to terminating access service….
>
> (3) The cost of the terminating access must be determined based on the total service long-run incremental costs of terminating access service plus a reasonable contribution to common or overhead costs. Local loop costs are considered "shared" or "joint" costs and must not be included in the cost of terminating access. However, nothing in this rule prohibits recovery of local loop costs through originating access charges (including switched, special, and dedicated as defined in subsection (4)(a) of this section)."

United has multiple billing rates or rate elements for intrastate switched access today. The TSLRIC study I presented in my responsive testimony have corresponding costs for each of those rate elements enabling this Commission to understand the facts supporting my conclusion that United's current rates should be maintained. Nothing in the rebuttal testimony of the other parties changes my position. The TSLRIC results for access services were produced and then a contribution to common costs has been added. Additionally, United has presented the cost of the Interexchange Carriers' (IXCs') use of the local loop and has applied their specific usage to determine the cost for the universal

2 Felz responsive testimony, page 16

service fund rate element. The cost study Exhibit No__HC (HJR-4HC) submitted with my responsive testimony continues to support United's position stated above. All parties to this proceeding have proposed various untenable methods to reduce United's costs. None of the manipulations or changes discussed by Verizon, AT&T or Staff are correct or applicable for United's TSLRIC study. The cost study illustrates the need to maintain each and every one of United's current intrastate access rates, including the universal service fund rate element.

III. UNITED'S SWITCHED ACCESS COST STUDY

Q. Please summarize the issues you will address in this section.

A. United has provided parties with a fully documented TSLRIC study in this proceeding. In addition to the presentation of overall intrastate regulated retail service results, United has developed MOU results specific to the intrastate switched access service it provides in Washington. Parties to this proceeding have attempted to improperly distort the application of a TSLRIC study and have argued that United's study is flawed and inaccurate. Additionally, AT&T spent many pages arguing that the switching equipment is volume-insensitive and would exclude the costs from a MOU cost calculation. In this section I will refute AT&T's definition of TSLRIC and its volume-insensitive arguments.

Q. What is the most important concept the Commission should understand when considering the review of the TSLRIC study methodology?

A. The most important concept relative to the Commission's review of TSLRIC in this proceeding is how it helps answer the critical question of whether United's prices for

intrastate switched access service are at levels that allow for cost recovery. The Commission should not be confused by the concepts of "volume-sensitive", "volume insensitive"[3] as described by AT&T's economist, Dr. Currie and "incremental", "common" and "joint or shared" costs[4] as described by Staff's economist, Dr. Blackmon. A TSLRIC study, such as that recommended by AT&T and Staff, does not answer this fundamental question. Rather the stance taken by AT&T is the Commission should only be concerned if the rates are above a price floor for a subset of demand. Staff asserts United should *not* serve high cost customers. Declaring that United should not be offering service to high cost customers who exist today, and will continue to exist, is not reality. Customers in high cost areas *do* exist and United continues to maintain their infrastructure and deliver a quality service. United has properly presented the total intrastate cost to serve all of its existing retail customers in the state of Washington. Assuming otherwise, as suggested by Staff, would unreasonably distort the cost study by generating a false level of costs. Mr. Felz rebuts this claim in his surrebuttal testimony.[5] Additionally, I have brought forth the total intrastate revenues associated with those retail services. Those total revenues include access revenues and all revenues from the current universal service fund rate. The bottom line is that total costs exceed total revenues. Any reduction in revenues will even more unreasonably expand the gap that exists of costs over revenues**.**

United's TSLRIC Study is Appropriate

Q. Do you agree with AT&T's definition of TSLRIC?

3 Currie rebuttal testimony, page 11

4 Blackmon testimony, page 21

5 Felz surrebuttal, page 3

A. No, Dr. Currie incorrectly believes that no shared or common costs should be included in a TSLRIC study.[6] In contrast, United followed the FCC definition in developing TSLRIC for switching and transport services. The FCC definition from The First Report and Order is:

> The term "long run," in the context of "long run incremental cost," refers to a period long enough so that all of a firm's costs become variable or avoidable.[1682] The term "total service," in the context of TSLRIC, indicates that the relevant increment is the entire quantity of the service that a firm produces, rather than just a marginal increment over and above a given level of production. Depending on what services are the subject of a study, TSLRIC may be for a single service or a class of similar services. TSLRIC includes the incremental costs of dedicated facilities and operations that are used by only the service in question. TSLRIC also includes the incremental costs of shared facilities and operations that are used by that service as well as other services.[7]

Q. As a result of not utilizing what the FCC has prescribed, how is AT&T's study flawed?

A. AT&T's TSLRIC definition takes a narrow, results-driven view for determining a price floor which is essentially a "LRIC" application that is used by economists to test for cross subsidization in a multi-product firm. This definition is too narrow because it focuses on a micro view, or subset view, of the switched access service that is not appropriate in the context of this proceeding because it fails to recognize that switched access service allow customers to connect to neighbors, neighboring communities and the rest of the world.[8]

6 In response to EQ-AT&T data response 79 (Exhibit No_(HJR-5), Dr. Currie responds: "... Hence, the development of prices using the TELRIC methodology requires allocations of shared and common costs, whereas no allocations of shared and common costs are appropriate when developing TSLRICs."

7 Paragraph 677, In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and Interconnection between Local Exchange Carriers & Commercial Mobile Radio Service Providers, FCC 96-325, CC Docket Nos. 96-98 & 95-185, First Report and Order, August 8, 1996

8 Switched Access Service as defined by United for this proceeding is all switching services including transport (e.g. local, intrastate, interstate). United's Cost Model addresses total switching services. United's cost study results are specifically focused on "intrastate switched access service", a subset of total switched access services.

As a result, Dr. Currie's application of TSLRIC for switched access service excludes functions (e.g., processor and software) that allow the customer's service to work. In contrast, United's FCC-based TSLRIC definition encompasses all the functions required to make the service work in the manner the customer expects even if one were to "re-categorize" certain costs as shared. United's TSLRIC study is a resource for this Commission to *fully* understand United's cost for switching services and specifically intrastate switched access.

United's Cost Study is Accurate and Applicable

Q. AT&T characterized United's TSLRIC study as flawed and stated that its results could be reasonably discarded.[9] Please comment.

A. The cost study that was appended to my responsive testimony at Exhibit No.HC (HJR-4HC) was a fully documented TSLRIC cost study that included inputs that are specific to United and its operating territory in Washington. AT&T's suggestion is outlandish. AT&T's objective is to drive intrastate access rates it pays to United, down to virtually zero using a top down approach of invalid adjustments. Unfortunately the Washington Staff's position is that local rates should increase so that intrastate access rates can decrease in the name of increased competition. However, the end result will be the enrichment of AT&T and Verizon shareholders at the expense of Washington constituents.

9 Currie rebuttal testimony, page 20, page 45

Traffic Sensitive Switching Costs

Q. AT&T claims that United improperly assigns non-traffic sensitive costs of switch processor and switch software to its calculation of traffic sensitive switch cost.[10] Do you agree?

A. No. United's minute-of-use (MOU) cost for switched access accurately includes the properly sized, volume-sensitive cost of the switch processor and the switch software.

Q. Is a switch processor installed with the initial construction of a switching complex?

A. Yes. The switch processor, along with other equipment, must be placed at the initial construction to meet the total demand for switched access service. Switch processors are no different from a cost causation principle than all the equipment that United must initially engineer, purchase, install, and maintain to meet a demand level for switched access services. For a TSLRIC study, the appropriate question is: "What investment is necessary to meet the total demand?" The switch processor size is selected based upon the anticipated demand. The switch processor is absolutely required in the setup of a call which results in the minutes of use being switched through United's wire centers. Switch processors can and do exhaust requiring replacement.

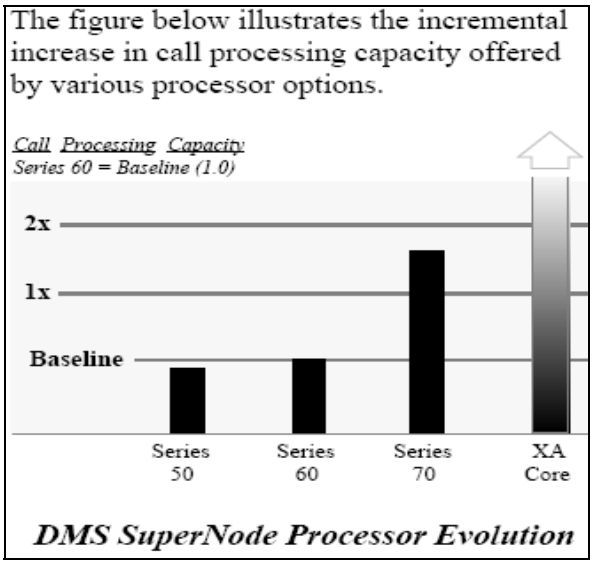
Q. Do vendors offer switch processors of differing sizes?

A. Yes, because switch processors are volume sensitive. Vendors offer many processor options to handle differing usage sensitive call volumes. Capacity is measured by the processor's throughput capacity and capability to handle discrete volumes of Busy Hour

10 Currie rebuttal testimony, page 31

Call Attempts (BHCA). Vendors have designed switches to meet a specific usage sensitive engineering demand load and call processing capability; as illustrated below in Nortel's documentation identifying several switch models in their DMS SuperNode processor line.

Nortel's DMS 100/200 Hardware Planning Guide[11]:



Q. Is AT&T's volume insensitive argument rational?

A. No. The operational application that extends from AT&T's view would be irresponsible for a company that not only must meet Commission determined service level requirements but also meet customer expectations. United monitors the volume of minutes and calls at each switch to ensure uninterrupted operation. Exceeding the maximum busy hour capacity of the switch will cause possible blocked calls, incomplete calls and potential processor shutdown. If the processor was indeed volume insensitive, then United would have no need to monitor the volume of minutes and calls at each

11 Nortel DMS 100/200 Hardware Planning Guide, 50041.08/06-97, page 13

switch. Line decreases at the switch do not automatically translate to minute decreases. It would be foolish to install all the necessary switch processors and then fail to monitor the volume at each location, due to the volume sensitive nature of the processor. Simply waiting for customers to call and complain of blocked calls, incomplete calls or service outages is not the proper method of monitoring switch exhaust.

Q. Does AT&T take a firm stance on the volume sensitivity of the switch processor?

A. No, not at all. AT&T's testimony appears to waffle from the position on the usage sensitivity of switch processor and software. In fact Dr. Currie back pedaled twice by stating:

> **"Q. ARE YOU CLAIMING THAT PROCESSOR COSTS CAN NEVER BE USAGE-SENSITIVE?**
>
> A. No.
>
> **Q. ARE YOU SAYING THAT SWITCH PROCESSOR COSTS CAN NEVER BE VOLUME-SENSITIVE COSTS?**
>
> A. No, I am not. What I am saying is that it is unreasonable to assume switch processor costs are volume sensitive without performing an analysis that justifies this assumption."[12]

The bottom line of AT&T's position is a shift of the cost away from AT&T which allows AT&T to use the processor and software for free.

Q. Has there ever been a ruling in favor of categorizing the switch processor as traffic sensitive?

12 Currie rebuttal testimony, page 33, page 35

A. Yes, the Pennsylvania PUC ruled as follows in its "Generic Investigation Re: Verizon Pennsylvania Inc.'s Unbundled Network Element Rates, R-00016683"[13]

> "…we find that Verizon has presented substantial evidence that usage can and does lead to exhaustion of non-port resources and such considerations are impacted by anticipated usage. (VZ Exc., p. 48 citing R.D., p. 56). "

Q. Does the long distance service that AT&T and all IXCs sell to their customers require the use of United's switch processor and switch software?

A. Absolutely. AT&T and all IXCs would not be able to sell their long distance service (for which they receive the revenue) if United had not engineered, installed, and maintained these critical pieces of equipment. The fact that they do not want to pay for their usage of that equipment is where United differs from their position.

Q. Please explain how AT&T and the other Interexchange Carriers pay for their use of the switch processor and switch software today?

A. United's intrastate switched access rate structure today bills a per-MOU rate to recover the cost of the switching equipment. Therefore, when AT&T excludes switching equipment costs from the MOU cost development, AT&T would not be paying for usage of the switch processor and software. AT&T is simply attempting to avoid compensating United for its needed use of United's processor and software.

Q. Are the switch processor costs allocated solely to intrastate switched access services?

13 PA Public Utility Commission, Generic Investigation Re Verizon Pennsylvania, Inc.'s Unbundled Network Element Rates R-00016683, November 4, 2002 & Compliance Order, July 16, 2004.

A. No, not at all. In fact the largest portion, greater than **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** of United's switching costs are allocated to other services.

Q. Do essentially the same arguments exist for switching software?

A. Yes. United's cost per MOU includes the switch software engineering, installation, and maintenance. In fact, the two separate explicit investments could be aggregated into a single amount since one will not function without the other; meaning the software has no purpose without the processor. Therefore, United appropriately includes the software as well as the processor.

Q. AT&T asserts that there is no difference in cost between a switched access minute of use for intrastate switching as opposed to interstate switching.[14] Please comment.

A. It is true that a switch does not physically distinguish between intrastate and interstate traffic. However the weighting of intrastate versus interstate switched demand does matter when determining statewide weighted average intrastate switched access costs per MOU. The cost of intrastate versus interstate switching is clearly different after weighting by traffic type. The need for this is simple; there are differences in calling patterns by wire center between intrastate and interstate switched traffic, and the total cost of the switching equipment will vary by wire center.

Q. Are there other recovery methods for the switched processor/software cost besides a MOU rate that is billed to IXCs today?

14 Currie rebuttal testimony, page 6

A. Absolutely and some state Commissions (i.e. Virginia and New Jersey) have chosen a fixed rate just for that particular tariff intrastate switched access rate element. It may still mean that the assessment is on a MOU basis but the amount billed is dependent upon a fixed amount. If this Commission determines that the switch processor and switch software should be billed on a volume insensitive basis, United has the system capability to do so. However, it is United's position that no change is necessary and the costs should continue to be included in determining the MOU rates.

Q. AT&T states that because United has not included packet switches in its modeling, United has not demonstrated that its cost study uses the "best" switching technology.[15] Is this a relevant consideration in Washington?

A. No. United does not have any packet switches in Washington. United has modeled existing wire center switch locations using forward-looking circuit technology; the same technology currently being utilized in Washington. United's Washington territories are among the most rural within the company. The cost study has modeled **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** lines per wire center. In contrast, Embarq's nationwide average is **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** lines per wire center. Additionally, no engineering triggers have been met that would suggest the need for a conversion to packet technology is appropriate. Circuit switching is a current and efficient technology and is perfectly acceptable in a modeled forward-looking network design. United's forward-looking

15 Currie rebuttal testimony, page 17

model reflects United's use of currently available technology and United has no plans to change to packet switches in Washington.

Q. Staff expressed concerns that the cost model results do not accurately reflect actual investments.[16] Is this a relevant concern?

A. No. A forward-looking cost model may not produce results that match actual booked cost of telephone plant in service on the balance sheet. Over time, changes in technology, cost of materials, labor, etc. all will affect the total investment calculated in a current cost model when compared to actual investment in service today. It should be noted that United's low rate-of-return on investment in Washington limits the amount of new investment in Washington. United's business case analysis and ranking of capital investment opportunities results in fewer capital dollars spent in Washington due to these low returns**.** Mr. Felz's surrebuttal testimony demonstrates how the Staff proposed access revenue reductions would drive United's intrastate results to a negative rate of return.

IV. UNITED'S COST STUDY INPUTS

Q. Please summarize your response to the parties' testimony on cost inputs.

A. United has provided parties with a fully documented TSLRIC study in this proceeding. United has developed MOU results specific to the intrastate switched access service it provides in Washington. These inputs and the results are specific to the network, traffic, demand and operations experienced in Washington. Parties to this proceeding,

16 Blackmon testimony, page 23

specifically AT&T, Verizon and Staff have presented arguments for why they believe United's cost of intrastate switched access should be reduced. Other parties' inputs are not appropriate for United, and no substantiation has been provided for the various input changes proposed by other parties. In this section I will refute one by one irrelevant inputs proposed for switching equipment investment, depreciation, cost of capital, common costs, and copper cable investment. Additionally, I will refute the suggested accuracy errors of the model that were presented by Staff and AT&T.

United's Cost Model Inputs Are Correct

Q. In my responsive testimony I stated that I did not expect United's cost to decline due to historical facts of ongoing increases in the costs of labor (including health care), commodities, and energy.[17] AT&T stated that my expectations are far too general.[18] Please comment.

A. United's cost model uses current United labor rates, current vendor pricing for all materials, and current contractor rates, all specific to the state of Washington. United's cost model does not forecast any increases or decreases to the current rates utilized. Dr. Currie attempts to make adjustments to United's documented inputs with no support for his proposed values. United's cost model inputs are based on facts. Dr. Currie would suggest that United's benefit costs *may* change due to the new Obama administration; that electricity *might* decrease due to proposed hydroelectric power generation in Washington; and that United's copper inputs should somehow be tied to a monthly copper commodity index. Dr. Currie's suggestions are speculative at best, convoluted at

17 Roth Responsive Testimony, page 14

18 Currie rebuttal testimony, page 18

worst. Dr. Currie himself states speculative inputs are not appropriate for a TSLRIC study.[19] For the input rates not to be speculative, Dr. Currie implies that United should inefficiently complete a TSLRIC study on a monthly basis to reflect the most current monthly copper spot prices at COMEX. United's cost model inputs are fact-based with no subjective manipulations. AT&T may have the resources for a dog-chasing-its-tail approach to cost study development but United efficiently analyzes inputs at a point in time for all inputs thus synchronizing to that point in time.

Switching Equipment Prices

Q. AT&T recommended a 21.1% decrease in switching equipment pricing.[20] Do you agree?

A. No. Dr. Currie references a Byrne-Corrado paper that reported price decreases for switching equipment between the years 2000 to 2005. However, Dr. Currie's has selectively chosen a paper which illustrates a time period when prices have declined. Without any supporting information, Dr. Currie has then forecasted continuously declining prices. United's cost model uses United's current costs for switching equipment; in other words, United models what it currently pays to purchase the equipment. Any speculative price increases or decreases are not included in United's costs. However, to assist in understanding the direction of prices for switching equipment since 2005, I have included a chart of digital electronic switching price index using a Telephone Plant Index (TPI)[21]. This index does show a general price decrease

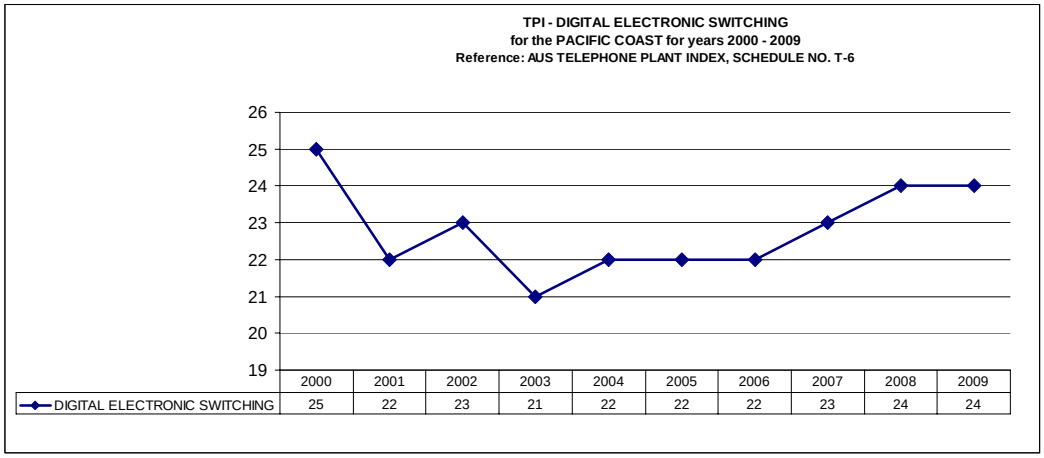
19 Currie rebuttal testimony, page 64

20 Currie rebuttal testimony, page 52

21 Associated Utilities Services (AUS) Telephone Plant Index (TPI) previously known as CA Turner Telephone Plant Index, BULLETIN NO. 39

from 2000 to 2003; however, note that the index demonstrates an increase since 2003. Clearly, a forecasted decrease in pricing is incorrect.

Table 1



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
DIGITAL ELECTRONIC SWITCHING	25	22	23	21	22	22	22	23	24	24

AT&T recommends input values that will lower United's intrastate switched access rates to rates that are below forward-looking cost and below the costs United actually experiences for input values today. The cost results I have filed with my responsive testimony using United's actual cost inputs demonstrate modeled switching investment that is 41% less than what United actually experiences.

Economic Lives Values

Q. Have the parties provided any support or substantiation for their proposed values for United inputs pertaining to economic lives and salvage values?

A. Once again, no. Staff argues that United has used inappropriate economic lives and offers as its alternative the depreciation rates adopted in a 1999 Docket No. UT-980311

as more appropriate.[22] Docket No. UT-980311 actually ordered US West to use depreciation lives from a previous Docket No. (UT-951425), and GTE to use depreciation lives from Docket No. UT-940926. From this same docket, United (then part of Sprint) was ordered to use HAI 5.0a model default values because the most recent Commission-authorized United depreciation rates were dated pre-1984. Verizon contends the depreciation rates are inflated just because they appear to be higher than those approved by the Commission in the past.[23] Neither party provides any additional support or basis to substantiate that their proposed economic lives would be appropriate for the forward-looking investment modeled in United's Washington territory. Economic lives determined over 10 years ago based on vintage embedded equipment are patently outdated given the changes in today's technology and equipment.

The economic lives that United utilized in its cost study reflect the lives of forward-looking plant placed in the Washington network based on United's engineering standards and are appropriate for the mix of forward-looking technology that United has modeled for Washington.

Cost of Capital

Q. Have the other parties provided any support or substantiation for their proposed values for United inputs for cost of capital?

A. No. Two components comprise the cost of capital: the cost of debt and the cost of equity. The final cost of capital is determined based on the weighting of each component in the

22 Blackmon testimony, page 26

23 Vasington rebuttal testimony, page 15

calculation. United has developed a cost of debt reflective of the cost of debt as available in the market today, much the same as its cost of equity was developed based on current financial data. United provided details for every component of the cost of capital calculation. AT&T gives no reasoning for its choice of lower debt and equity costs.[24] Verizon contends the cost of capital must be wrong simply because the cost of debt is higher than the assumed cost of equity.[25] It would be inconsistent to change the cost of debt in isolation without considering the other cost of capital components. Staff disagrees with United's percent of debt financing and the cost of debt.[26] Staff suggests United change its forward-looking cost of debt to its embedded cost of debt, but does not provide any support as to why the embedded cost of debt would be reflective of United's forward-looking cost of debt. Current market conditions do not reflect normal times and certainly do not mirror United's embedded cost of capital. United developed a complete cost of capital based on existing market conditions.

Common Cost

Q. AT&T claims that United improperly includes common (or overhead) costs in its cost study.[27] Do you agree?

A. No. Common costs are appropriately included in addition to the TSLRIC cost of intrastate switched access as developed in United's cost study. The FCC in the First Report and Order stated "We conclude that forward-looking common costs shall be

24 Currie rebuttal testimony, page 50

25 Vasington rebuttal testimony, page 16

26 Applegate testimony, page 5

27 Currie rebuttal testimony, page 47

allocated among elements and services in a reasonable manner, consistent with the pro-competitive goals of the 1996 Act."[28]

Dr. Currie in fact confirms that United identified appropriate common costs on page 47, lines 22-24 of his rebuttal testimony:

> In an attempt to distinguish between costs that include common costs and those that do not, Embarq does present its results under the headings of "excluding Common" and "with Common".

United has made it very clear that common costs are not part of TSLRIC but are included as an overlay to present the total cost of service.

Copper Cable Costs

Q. Do you agree with AT&T's proposed 34.9% discount for United's copper cable prices?

A. No. AT&T has illogically translated the spot market price of raw copper into a total installed price of copper cable. The copper cable material price alone ranges from **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** to **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** of the total installed cost. By making the price adjustment to the total installed cost, AT&T has erroneously reduced both the material price and the installation and structure costs. The material cost portion of United's inputs for copper cable were developed using United's current vendor prices for purchasing cable and adding Washington-specific sales tax due on those purchases. United's vendor prices reflect the national scale purchasing power of Embarq's 18 state operations.

28 First Report and Order, paragraph 696.

Therefore, reducing United's installed copper cable inputs based upon raw copper price changes is wrong and misguided.

Q. What are the primary factors that affect the unit costs in the United's Washington territory for providing basic local service?

A. As I explained in my responsive testimony, the primary factors that impact United's per unit costs are density, distance and economies of scale. Additionally, United's Washington territory is one of the most difficult terrain areas of all its territories with large amounts of terrain in rocky and mountainous zones. United utilizes a national terrain database[29] for modeling purposes to map unique terrain attributes including slope, surface texture, bedrock depth, and rock hardness. United's Washington territory has more than 36% of its area classified as "hard rock". (See Table 2 below) The installation cost of cable and plant structure is multiples in hard rock compared to normal terrain.

Q. How does United's Washington territory compare to areas served by other ILECs in the state including Qwest and Verizon Northwest?

A. United serves a total area that is less than half the size of Qwest, but has more total square miles of area classified as "Hard Rock" than Qwest or Verizon Northwest. United's territory is not at all the same as Qwest or Verizon Northwest's area. Just as the terrain is unique, so are the costs unique to each provider. These costs for each carrier will vary across the state due to the nature of each provider's territory (e.g., customer

29 U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) State Soil Geographic (STATSGO) database

density, distance, and terrain). United would be penalized for serving customers in difficult terrain if United was forced to mirror Qwest rates.

Table 2
Washington territory classified as "Hard Rock" (area sq. miles)

Company	Total Area	Hard Rock Area	% Hard Rock
United	6,268	2,279	36%
Qwest	13,901	1,785	13%
Verizon NW	11,175	1,636	15%
CenturyTel	15,338	4,351	28%
Others	19,868	6,758	34%
Total	66,549	16,810	25%

Source: U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) State Soil Geographic (STATSGO) database

Fill Factors

Q. AT&T recommended changing United's fill factors. Do you agree?[30]

A. No I do not. United used the following factors to develop fill factor percentages that are less than 100%:

1. Anticipation of future needs: When engineering and constructing telecommunications facilities, United attempt to anticipate future needs. For example, it is more cost-effective to dig a trench once and install facilities necessary to meet additional forecasted demand than to re-dig the trench and install new facilities every time a new loop is required.
2. Capacity Acquired in "Blocks": Telecommunications plant capacity is acquired in large blocks. For example, towards the high end, copper cable is only available in large step increments from one size to the next larger size (1800, 2100, 2400). Therefore, while a specific modeled cable route might only require 1900 cables, in reality it is only possible to buy a 2100 cable block in order to meet the demand for 1900. This unused capacity is sometimes referred to as "lumpy investment."

30 Currie rebuttal testimony, page 62

Therefore, an inventory of installed plant will exist while demand grows into the available capacity.

3. Construction Time: An engineering interval (the period of time necessary to plan and construct facilities) is required when replacing or expanding capacity. Therefore, some level of installed plant inventory is necessary to account for the time delay in designing and engineering additional capacity.

Efficient deployment of cable balances the cost-benefit relationship of unused capacity and the cost of installation. Inadequate capacity results in the inability of United to meet its customers' expectations for new service installation intervals. The current levels of cable fill allow United to meet the quality of service measurements established by the Commission.

Model Accuracy

Q. AT&T claims that the "ECM does not appear to work properly with Excel 2007™".[31] Could you please respond?

A. The ECM is a working model using Excel 2007™ software using compatibility mode. When Excel's security settings are properly configured[32] and the Compatibility Checker is disabled there is no impact on the ECM process. The only inconsistency is how the toolbars are rendered by Excel's new Ribbon user interface.[33]

31 Currie rebuttal testimony, page 47

32 See ECM 2.0 User Manual.pdf filed as part of United's Economic Cost Model.

33 Ribbon (computing). (2009, June 10). In Wikipedia, The Free Encyclopedia. Retrieved 09:19, June 10, 2009, from http://en.wikipedia.org/w/index.php?title=Ribbon_(computing)&oldid=295546981

Q. AT&T implies that the Geographic Module (GM) is part of the Loop Module (LM).[34] Is this true?

A. No. The geographic module is a standalone process with results that feed as inputs to the Loop Module.

Q. Staff expressed concerns about the accuracy of United's model results.[35] Are these concerns valid?

A. No. Dr. Blackmon chose to focus on a very specific selection of 10 out of approximately 17,000 terminal locations produced by United's Loop Module rather than a random sample. These 10 outliers have an insignificant effect on the cost as calculated in the universal service fund rate element (Exhibit No_HC(HJR-2HC)). As with any cost model that generates an efficient greenfield[36] network design, assumptions must be made when input locations are so remote that national address databases are not able to pinpoint those locations on a map. The Geographic Module (GM) designs the network between the central office and all service locations through the use of geocoding. A geographic network optimization process produces results that feed as inputs to the Loop Module. The entire forward-looking redesign of the loop plant network begins with the knowledge of where, what and how many services must be provided to each customer location. The GM process begins with inputs from United's internal data sources for actual quantity of customer demand by service address, United's actual digitized wire

34 Currie rebuttal testimony, page 21

35 Blackmon testimony, page 25

36 A brand new installation of equipment without the requirement of integrating existing systems.

center boundaries, and Washington's actual road networks. The GM is a state-of-the-art modeling tool that determines customer locations using a geocoding process. Geocoding is a process of converting postal address information into longitudes and latitudes. Customer locations that cannot be geocoded default to a second process which ignores the bad street address and places customers based upon the phone number and 5-digit zip code. The GM, using MapInfo Pro™ software, designs the wire line network to follow actual roads to each customer location. The GM uses algorithms for building the local network utilizing Minimum Spanning Road Tree ("MSRT") logic that builds routes along roads in the shortest distance possible. The GM performs an iterative process to optimize the network architecture because minimizing distances minimizes cost. Therefore, United's modeled network is a forward-looking, least-cost design.

Q. Staff states "there is a significant difference between the actual location and the location used to calculate cost."[37] Please explain the relevance, or lack thereof, of these differences?

A. Distance comparisons between a non-geocodable location and its ultimate surrogate location are irrelevant, as its "actual location" is unknown to the geocoding software.[38] If a customer location cannot be found, then a surrogate location must be created. The model algorithm may see a shortfall of customers in a particular census block based on demographic information. If the model has a lack of actual customers in a particular area,[39] then the model will place one of the non-geocodable customers in the area with

37 Blackmon testimony, page 26

38 MapMarker Plus v13.2 and StreetPro v10.3 (January 2008). Result code must be Zip+4 accuracy (S3) or greater.

39 If placement of surrogate locations were limited to buffered areas near existing plant; there would be little impact on total investment.

the shortfall. The model accounts for the fact there are real locations in the area due to demographic data; and it also has some unknown customer locations; it simply matches those places with the unknown locations and creates "surrogate" customer locations. The surrogate locations will have no correlation with the original non-geocodable address. Admittedly, Dr. Blackmon states that he "has not determined which locations are surrogates and which are verified customer locations".[40]

Q. Dr. Blackmon responded[41] that he used Google Maps to analyze the accuracy of the placement of terminals in the LoopDesign database. Is Google Maps an appropriate tool for locating a customer's location?

A. No. Google Maps does not provide the user with a measure of the accuracy of the location that was entered, nor does it provide the vintage of the street data used. Google Maps makes assumptions on street direction prefixes and zip code which, while seemingly provide accurate results, can actually be quite inaccurate. Again, the end-user does not receive an indication of how accurate the location is geocoded. All professional geocoding software not only returns an address location in the form of a latitude and longitude, it also returns a result on the accuracy of the placement.

Q. How has the Geographic Module process resulted in forward-looking network design efficiencies in Washington?

A. The efficiency of the GM process is seen when comparing modeled cable sheath feet of **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** to United's

40 Exhibit No.__(HJR-6) – Staff's response to United data request DR 19, subpart a).

41 Exhibit No.__(HJR-6) – Staff's response to United data request DR 19, subpart b).

Washington embedded cable sheath feet of **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]**. This reduction of over **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** in cable sheath feet is the result of modeling to existing customers along minimum routes to the central office. United's embedded cable footage has been built over many years of forecasts of locations and customer demand for services. In contrast to this reality, the modeled network reconstructs the entire network as a single construction job with perfect knowledge of actual customer location and service demand at each location.

V. UNITED'S INTRASTATE REGULATED RETAIL SERVICES

Q. Please summarize the issues you will address in this section.

A. United has provided parties with a fully documented TSLRIC cost study in this proceeding. In addition to the intrastate switched access service MOU results, United presented the overall intrastate regulated retail service results. These results are specific to the network, traffic, demand and operations experienced in Washington. Exhibit No_HC(HJR-2HC) attached to my responsive testimony included a complete cost and revenue summary analysis detailing United's TSLRIC plus common costs to provide intrastate regulated retail services and the revenues generated by those services. This attachment clearly illustrated that United's composite TSLRIC costs exceed their revenues.

Parties have argued that United's costs are too high and have suggested cost study input changes to reduce the costs (see discussion in Section IV above), all in an attempt to refute the results United has presented. All parties argue for exclusion of a loop

allocation in analyzing the intrastate switched access structure as it exists today. AT&T argues United has failed to consider potential merger synergies of the pending Embarq / CenturyTel merger. Staff has stated that Carrier of Last Resort (COLR) obligations should not affect investments. AT&T and staff have proposed using surrogate rates for United's costs. The key point to note is that United's costs exceed its revenues in Washington for providing intrastate regulated retail services including intrastate switched access service. Since the revenue includes intrastate switched access revenue at the rates charged today, lowering those rates will exacerbate the loss United experiences serving Washington retail customers. The parties seem fixed on an end result and have ignored facts presented by United in this proceeding. I will address each of the parties' flawed arguments below.

Switched Access Rates Must Consider United's Total Cost of Providing Switched Access

Q. AT&T, Verizon and Staff all claim that United improperly includes the cost of the local loop in determining its cost of providing switched access service.[42] Do you agree?

A. No. As I stated previously in my responsive testimony[43], the IXCs cannot sell their long distance service without the use of United's loop plant network. United is unable to fully recover the cost for the local network from its local end-user customers. Therefore, it is just and reasonable to add the cost of using United's local loop network in the switched access structure for IXCs. Specifically, the study shows that United's cost of intrastate

42 Currie rebuttal testimony, page 23; Vasington rebuttal testimony, page 7; Blackmon testimony, page 19

43 Roth responsive testimony, page 9

switched access service plus a local loop access cost component is still greater than the revenue generated by intrastate switched access services.

Loop Costs Identified For Intrastate Switched Access Usage

Q. Staff stated that the loop investment is a shared cost.[44] Do you agree that the loop is a shared cost?

A. No. United's position is the local loop is a direct cost of local service. Although Staff asserts that the loop is a shared cost, it seem to forget that position when it advocates for the IXCs to use the local loop but not share in the very cost associated with that use. After all, the IXCs use the local loop to deliver their service.

Q. Is the local loop a cost caused by switched access services?

A. Absolutely not, and nowhere in my testimony do I say that the loop cost is caused by switched access services. I simply recognize the following:

- There are existing rate elements in United's Washington intrastate switched access rate structure for support towards the local loop. In order for the Commission to determine if United's intrastate switched access rates are just and reasonable, we provided in aggregate the costs for these rate elements that provide support for local loop recovery. It is obvious that these costs are not a direct part of the cost of switching services which is why they are labeled and presented separately.

44 Blackmon testimony, page 22

- United cannot recover the total cost of the residential loop from end-users as the other parties insist should happen.
- Switched access rates that exist today include a subsidy for the local loop.
- IXCs need a functioning local loop to provision the service they sell. They need a customer purchasing local service to have a service to sell. Therefore it is logical and reasonable to conclude that a contribution from the IXCs to narrow the local service revenue shortfall is appropriate.
- United has brought forward an allocation methodology for the Commission to understand the local network usage by the IXCs and the related loop cost allocation.

Q. Are there other states that have decided not to remove the Carrier Common Line Charge (CCLC) component for support of the local loop?

A. Yes, Virginia in a recent ruling determined that Embarq would retain its CCLC recovery mechanism.[45] The ruling does change Embarq's recovery of the CCLC from a flat amount to a per minute recovery, but retained Embarq's ability to recover a portion of the cost of its local loop through intrastate access. Virginia, like Washington, has no explicit state universal service fund. United's cost study has provided the cost for local loop support rate elements which matches the current rate structure currently in effect for switched access services in Washington.

45 Order on Intrastate Access Charges, Case No. PUC-2007-00108, Commonwealth of Virginia State Corporation Commission

Q. Is there currently a Carrier Common Line Charge in United's Washington switched access tariffs?

A. Yes. United has over 20 pages in its tariff for intrastate switched access which describe the underlying service and the rates for such. I have presented to the Commission a methodology that helps to explain how an allocation of loop costs to interexchange carriers for their use of United's loop can be developed. Intrastate switched access minutes arrive at United's switches because the inter-exchange carrier has sold a service that requires the use of United's local network. For the interstate minutes, United receives recovery for the interstate switched access usage of the local network through the complete interstate recovery structure. The interexchange carriers and Staff ask the Commission to ignore the local loop cost component and would result in United not receiving recovery for the cost of the loop portion of the local network.

Merger Synergies

Q. AT&T states that United failed to consider synergies of Embarq's the pending merger with CenturyTel. Can you respond?

A. Yes. AT&T states that United did not reflect any synergy savings in its cost model. However, AT&T goes on to state that "an examination of cost synergies does not need to be pursued here". [46] This Commission is well aware of the potential synergies, and in fact has ordered the combined companies to track and report annually to the Commission the synergy savings on both a company-wide and Washington state specific basis.[47] As of the date of United's cost study, the merger had not closed, nor have any synergies been

46 Currie rebuttal testimony, page 64

47 Docket UT-082119, Order 05, In the Matter of the Joint Application of Embarq Corporation and CenturyTel, Inc. For Approval of Transfer of Control of United Telephone Company of the Northwest d/b/a Embarq and Embarq Communications. Inc.

realized. In addition, the synergy estimate cited by AT&T is an estimate of synergy savings for the combined companies (not just United) and is on a national level, not specific to any particular operating company. Just as United has not explicitly incorporated synergy savings, neither has it included any anticipated merger integration expenses, inflation increases, anticipated contract renewal increases, or unrealized efficiency savings. United operates at a high level of efficiency today to support the underlying network. That efficiency is incorporated into the cost study and is reflected in the resulting MOU costs for intrastate switched access. United has developed an efficient forward-looking network design reflective of its operations in Washington.

COLR Requirements and Investment Responsibilities

Q. Staff argues that carrier of last resort (COLR) requirements should not affect United's investment.[48] Do you agree?

A. No. United modeled a network designed to serve all existing customer locations. I agree that current state policy in Washington would provide cost relief with customer reimbursements when new customers request service in un-served and high cost remote locations in certain circumstances. However, United's model does not forecast or build to potential future customers. United has real customers already being served in high cost areas. These are real customers that United has an obligation to continue to serve. These customers are served using existing network that must be maintained and serviced. United's COLR obligation includes continued deliver of service to these existing customer in remote locations. Staff's Exhibit__(GB-4HC) demonstrates good examples

48 Blackmon testimony, page 27

of my point. Three of the identified locations of actual customer locations have a distance greater than 100,000 feet from the central office, regardless of which method you choose to use for measurements. Those customers are real, and when their service is disrupted, United is obligated to repair and restore service for those existing customers. United is obligated to answer service calls, monitor the network and meet service quality standards. For a new customer requesting service today, then yes, we could recoup some of the new installation costs, but existing customers in high cost service areas continue to be part of United's COLR obligation.

Surrogate Rates and Comparisons

Q. Staff proposes that United's originating access rates be reduced to the level currently charged by Verizon Northwest.[49] Please respond.

A. Surrogate metrics such as Verizon Northwest rates are inapplicable for determining United's intrastate switched access rates. United's cost study produces hard facts based upon United-specific cost characteristics in the state of Washington. Verizon Northwest serves more than 9 times the number of customers as United and has an average density of 40 loops per square mile, while United's sparsely populated area averages 9 loops per square mile. United is not Verizon Northwest. The position of Staff should be rejected.

[49] Blackmon testimony, page. 3

Q. AT&T's position is that United's intrastate rates should be reduced to mirror interstate rates.[50] Please comment.

A. Recommendations to move to interstate rates fail to properly consider all elements of the interstate pricing scheme such as the SLC and IAS which provide support for the local loop. Current intrastate rates do not produce enough revenue to cover intrastate costs. Reducing United's rates to surrogate interstate rates would worsen this deficient. The position of AT&T should be rejected.

Q. Ten years ago the Commission in Docket No. UT-980311[51] established costs for United. If you assume that costs have not changed, how would current revenues compare to the prior approved costs?

A. First, it is unrealistic to assume that costs have not changed. But even if you did, the subsidy need that led this Commission to conclude and execute the universal service fund rate still exists today using these unrealistically lower costs. My responsive testimony included Exhibit No_HC(HJR-2HC) Page 3 which I have recreated below. Using costs from 10 years ago and then illogically assuming that absolutely no costs have changed in the last 10 years, the result is still the same. United's costs are still greater than the total retail regulated revenues, including existing access and universal service fund rate revenues.

50 Currie rebuttal testimony, page 7

51 51 Docket UT-980311 In the Matter of Determining Costs for Universal Service

[Begin Highly Confidential]

Table 3

Intrastate Regulated Retail Services

Monthly Recurring Wire Center Cost and Revenue

A	B	C	D	E	F	G	H
7		Residential Data			Single-Line Business Data		
8							
9	Wire Center	Total Intrastate Revenue Per Line	1998 Costs Docket 980311	Difference	Total Intrastate Revenue Per Line	1998 Costs Docket 980311	Difference
10	Bickleton, Wa	[redacted]					
11	Brinnon, Wa						
12	Columbia, Wa						
13	Center, Wa						
14	Dallesport, Wa						
15	Grandview, Wa						
16	Goldendale						
17	Glenwood						
18	Granger						
19	Gardiner						
20	Harrah						
21	Klickitat						
22	Lyle						
23	Mabton						
24	Mattawa						
25	Paterson						
26	Poulsbo						
27	Prosser						
28	Quilcene, Wa						
29	Roosevelt						
30	Sunnyside						
31	Stevenson						
32	Toppenish						
33	Trout Lake						
34	White Salmon						
35	White Swan						
36	Whitstran						
37	Willard						
38	Wapato						
39	Wishram, Wa						
40	Zillah						
41	State-wide						

[End Highly Confidential]

Considering the weighted average from the table above shows a [**Begin Highly Confidential**] loss of [redacted] [**END Highly Confidential]** per line, the conclusion is simple: disregarding all parties' proposals of model input manipulations and contortions, even with no cost changes in 10 years (costs have definitely increa Highly Confidential per Protective Order in UTC Docket UT-081393 exceed revenues. Using the sound analysis found in JMF-7HC, the weighted average increase

potential revenue per month per line would only be [**Begin Highly Confidential**] [redacted] [**END Highly Confidential]** and therefore costs still exceed the revenues. As a result, the Commission should maintain United's current level of intrastate access charge rates and structure, including the universal service fund rate element or provide it with an alternative mechanism to recovery those costs without delay.

Q. Please explain why is it appropriate to separate the residential service from the business service?[52]

A. The answer is simple; the cost characteristics for a residential customer are different than for a business customer. Also, the rates charged for each service are different. So, for the very same economic efficiency arguments of Dr. Currie[53], Dr. Blackmon[54] and Mr. Dippon[55], comparing the revenue and cost at this level of de-averaging is quite important. Therefore, I used the results of my current cost model to determine the cost differences between residential and business since the results from 1998 did not produce a residential / business differentiation.

Q. Staff argues that the forward-looking model must be inaccurate because the modeled investment is greater than the embedded investment.[56] Do you agree?

A. No, not at all. As a point of reference, I again used the model results from UT-980311. First, I compared the forward-looking investment produced 10 years ago to the embedded

52 Bax rebuttal testimony, page 15

53 Currie rebuttal testimony, page 77

54 Blackmon testimony, page 22

55 Dippon responsive testimony, page 11

56 Blackmon testimony, page 25

investment today and validated the results – the prediction of forward-looking investment from 10 years ago very closely match where United's investment is today. Next, I applied industry specific Telephone Plant Index (TPI)[57] factors to the 10 year-old results and found they validated the cost model results found in the attachment to my responsive testimony. Lastly, I took the monthly recurring cost from the indexed results and found that, once again, revenues are insufficient to cover costs. Staff can attempt to ignore the high-cost, rural characteristics of United's territory but reality demonstrates they are wrong. Staff can carelessly dismiss costs in the name of line extension charges but again reality demonstrates the inaccuracy of this misguided approach. Staff's data responses are troubling in this area.

Q. Staff argued that the forward-looking model did not "accurately reflect state policy" due to the inclusion of loops that would qualify for relief under line extension rules[58]. Can you quantify the effect of line extension charges on the loop cost?

A. Yes. United determined single locations within the model with over 1,000 ft. of dedicated facilities then modified the actual distance in the LoopDesign database to a limit of just 1,000 ft. The end result was a drop in total voice grade investment of **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** which translates to a **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** drop in the average monthly cost of 2-wire loops. Dr. Blackmon's analysis incorrectly removed 100% of the investment related to the customers he examined to arrive at the overstated **[Begin Highly Confidential]** [redacted] **[End Highly Confidential]** quoted in his testimony.

57 Associated Utilities Services (AUS) Telephone Plant Index (TPI) previously known as CA Turner Telephone Plant Index, BULLETIN NO. 39

58 Blackmon testimony, page 27

Q. Why do you find Staff's data responses to be troubling?

A. I have demonstrated the cost to serve United's customers is very high, in particular residential customers, yet Staff still argues that the universal service fund rate should be eliminated. Dr. Blackmon responds at DR 2:

> A company should use a universal service mechanism only as necessary to maintain affordable and reasonably comparable rates. Dr. Blackmon's testimony explains how United has failed to place primarily responsibility on its own customers for the cost of their services. [59]

Dr. Blackmon appears to support rates possibly over $100 to some residential customers by eliminating the universal service fund rate for these customers and stating the residential customers should bear the burden of the cost of their service.

Q. Do you agree with AT&T's suggestion that because United's revenue requirement per loop from the NECA 2008 Universal Service Fund Data Submission is the lowest of any rural carrier that somehow this suggests that United does not serve high cost areas?[60]

A. No. The argument carries no weight. Mr. Bax suggests that because United does not receive high cost loop support, and because neither Qwest nor Verizon Northwest receives high cost loop support, that somehow makes the three ca

Highly Confidential per Protective Order in UTC Docket UT-081393

note that three of the six largest *rural* carriers in Washington do not receive high cost loop support. United is more like its rural carrier counterparts than Qwest or Verizon

59 Exhibit No.__(HJR-7) – Staff's response to United data request DR 2

60 Bax rebuttal testimony, page 5

Northwest. As discussed in my responsive testimony, it is a company's territory characteristics including density, distance and economies of scale that determine its costs. The Universal Service Fund revenue requirement calculation is a better gauge of a companies operating efficiency. The revenue requirement itself incorporates a return on net embedded investment for cable and wire, central office equipment, subscriber line plant factors, and selected expenses associated with subscriber line usage including depreciation. It stands to reason that United's cost per line would be lower than the other rural Washington ILECs, as it is one of the largest rural LECs. There is only one rural ILEC larger than United. The outlier in the NECA calculations is the Verizon Northwest Study Area 522416, the one to which Mr. Bax references in his testimony. One need only do a comparison of this Verizon Study Area from the NECA 2001 submission to the 2008 submission as presented by Mr. Bax to see the reasons why. See Table 4 below for a recap of this data for both Verizon and Qwest. Verizon's total loops declined 34% over this time period, but its total unseparated revenue requirement grew by 10%. (The cost per loop is simply calculated by taking the revenue requirement divided by the total loops.) Qwest in contrast had a total loop decline of 31% and its unseparated revenue requirement declined by 25%. Qwest's USF cost per loop from the 2001 submission was $250.07 per loop, and $270.17 per loop in the 2008 submission. Verizon on the other hand, had a 2001 reported loop cost of $221.52, and now a 2008 reported loop cost of $367.43 that is simply a function of the math. The 10% increase in Verizon's unseparated revenue requirement was driven by an overall 12% *increase* in expenses (highlighted by an over **200%** increase in Corporate Operations expenses), a 30%

increase in depreciation expense and a 16% decrease in the return component of the calculation.

The NECA data highlights that United is the most efficient of the rural carriers. Verizon results, reflecting *increasing* costs during a period of greatly decreasing demand, have created a true outlier.

Table 4

	Verizon Northwest (Study Area 522416)		
	2001	2008	Change
Unseparated Revenue Requirement	$ 190,303,679	$ 209,522,353	10%
Total Loops	859,087	570,235	-34%
Cost Per Loop	$ 221.52	$ 367.43	

	Qwest		
	2001	2008	Change
Unseparated Revenue Requirement	$ 669,981,407	$ 502,075,454	-25%
Total Loops	2,679,207	1,858,377	-31%
Cost Per Loop	$ 250.07	$ 270.17	

Source: 2001 - FCC, NECA & USAC Data, Universal Service Fund Data: NECA Study Results, 2001 Report. http://www.fcc.gov/wcb/iatd/neca.html
Source: 2008 - NECA, USF Study Results Current Year 2008, Data Files: USF 2008 Cost Data.
https://www.neca.org/portal/server.pt/gateway/PTARGS_0_0_307_206_0_43/https%3B/prodnet.www.neca.org/source/NECA_Tools_4788.asp

Q. Staff expressed concerns that the cost study produces loop costs that are greater than rates for unbundled network elements (UNEs).[61] Could you please explain the differences?

A. Yes. United's cost study is accurate using current data. UNE pricing will be updated with these current rates. Interconnection agreements are contract bound and will be subject to changes as each contract renews.

61 Blackmon testimony, page. 24

Q. Do you have other evidence of the cost differences between Quest, Verizon Northwest and United?

A. Yes. Again, I turn to Docket 980311[62] where this Commission found the cost per line for the three carriers as:

GTE	$27.38
SPRINT	$44.17
US WEST	$21.07

United (then Sprint) is over two times greater than Quest (then US West) and near two times greater than Verizon Northwest (then GTE).

VI. SUMMARY

Q. Please summarize your surrebuttal testimony.

A. United's cost results soundly support maintaining the current rates. Staff's recommendation to eliminate United's universal service fund rate is reckless as it puts United in a position of negative return as shown on Mr. Felz's surrebuttal Exhibit No. __JMF-8HC. AT&T's Herculean effort to convince this Commission they should be allowed the privilege to use United's local network and not pay should be seen for what it is, shifting dollars from United's customers to AT&T shareholders. TSLRIC was applied correctly by United in this proceeding but even using other cost data points, the underlying issue of revenues insufficient to recover costs remains. AT&T's diversionary discussion on the application of TSLRIC was erroneous. United presented a cost study that remains accurate and applicable. United has demonstrated that the switch processor

62 Docket UT-980311 In the Matter of Determining Costs for Universal Service

and software is traffic-sensitive and should be included in the MOU element of cost calculation. Excluding the switch processor and software from the MOU element simply allows IXCs to use the switch free of charge and shift the cost to local users.

The switching equipment pricing inputs United used in the cost study are correct and accurate. The inputs are United specific for United's territory in Washington. Input changes proposed by other parties are speculative at best, and are not justified or representative of United's costs.

The depreciation lives as United utilized in its cost study reflect the lives that are appropriate today for the mix of forward-looking technology United modeled. The other parties in this proceeding proffered projection lives versus economic lives that were designed to recover assets placed in service years ago, are retrospective in nature, and do not reflect the plant being placed in service today and going forward.

United developed a complete cost of capital based on existing market conditions. It is inappropriate to use embedded historical cost of capital inputs or to change the cost of debt/equity in isolation as suggested by other parties.

Common costs are included in the model and were added to the TSLRIC costs, as appropriate, to provide for the recovery of these costs.

Other proposed input changes including copper cable costs and fill factors do not reflect the cost United experiences in Washington.

United's cost study accurately and properly demonstrates the cost to provide switching services in high-cost areas of Washington. United's cost study also remains responsive to the claims and allegations made by the other parties' testimony in this proceeding.

United's intrastate switched access rates should not be reduced. Based upon the cost study results, the Commission should maintain United's current level of intrastate access charge rates and structure, including the universal service fund rate element.

Q. Does this conclude your surrebuttal testimony?

A. Yes.