Before the

State of Washington
The Washington Utilities and Transportation Commission

In the Matter of the Review of: Unbundled Loop and Switching Rates; the Deaveraged Zone Rate Structure; and Unbundled Network Elements, Transport, and Termination (Recurring Costs)	**Docket No. UT-023003**

Responsive Testimony

of

SCOTT C. LUNDQUIST

on behalf of

AT&T COMMUNICATIONS OF THE PACIFIC NORTHWEST, INC.

April 20, 2004

PUBLIC VERSION

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INTRODUCTION

Qualifications

Q. Please state your name, position and business address.

A. My name is Scott C. Lundquist. I am a Vice President of Economics and Technology, Inc. ("ETI"), Two Center Plaza, Boston, Massachusetts 02108. Economics and Technology, Inc. is a research and consulting firm specializing in telecommunications economics, regulation, management and public policy.

Q. Please summarize your educational background and previous experience in the field of telecommunications regulation and policy.

A. I have prepared a Statement of Qualifications, which is attached hereto as Attachment 1.

Q. Have you previously testified as an expert in telecommunications regulatory proceedings?

A. Yes. I have appeared as an expert witness on telecommunications matters before state public utility commissions ("PUCs") on over thirty prior occasions, including appearances in Alabama, California, Connecticut, Hawaii, Illinois, Minnesota, Nevada, New Jersey, Ohio, Texas, Wisconsin, and Washington state, among others. Many of these cases have required that I analyze the costs for incumbent local exchange carriers' ("ILECs'") networks and

services, relative to such issues as the restructuring of access service tariffs, the development of cost-based rates for unbundled network rate elements (UNEs), and the arbitration of interconnection agreements.

Q. Have you previously testified before the Washington Utilities and Transportation Commission?

A. Yes, on three occasions. In July 1993, I offered testimony in WUTC Dockets U-89-2698-F and U-89-3245-P regarding essential modifications to US West's alternative form of regulation ("AFOR"). That testimony was presented on behalf of the Telecommunications Ratepayers Association for Cost-based and Equitable Rates ("TRACER"). In June 1995, I offered testimony on behalf of the Commission Staff in WUTC Docket UT-941464 et al, regarding the appropriate rates, terms and conditions for US West's Expanded Interconnection services and US West's proposed increase in the Local Switching charge. In August 1995, I presented testimony in US West's general rate case, WUTC Docket No. 950200 on behalf of Staff, which addressed the company's proposed switched access rates and tariffing of unbundled network elements ("UNEs").

In addition to these hearings appearances, I have participated in several other WUTC telecommunications proceedings as part of ETI project teams. In 1989, I assisted in the preparation of ETI testimony on behalf of TRACER, Public Counsel, and the Department of Information Services in Docket U-89-3031-P regarding GTE-Northwest's proposal for alternative regulation. In 1998 and in 2000, I was the team leader for ETI's engagements by

Staff in two cases involving US West's/Qwest's yellow pages directory operations, WUTC Docket No. UT-980948 (US West petition for an Accounting Order) and UT-021120 (Qwest Dex sale).

Q. On whose behalf is this testimony being presented?

A. This testimony is being offered on behalf of AT&T Communications of the Pacific Northwest, Inc. ("AT&T").

Assignment

Q. What was your assignment in this proceeding?

A. ETI was engaged by AT&T to contribute to its analysis of and response to Verizon's TELRIC cost study filing and supporting testimony and exhibits, focusing particularly on Verizon's claimed expenses, including capital cost inputs, and their economic support. My testimony analyzes and responds to Verizon's development of expense factors and related Panel Testimony,[1] and depreciation inputs.[2] Dr. Lee Selwyn, President of ETI, is presenting additional testimony responding to Verizon's proposed cost of capital as recommended by Dr. Vander Weide.

1. Panel Testimony of Verizon Northwest Inc. on Recurring Costs, June 26, 2003 ("Panel Testimony").

2. Direct Testimony of Allen E. Sovereign on Behalf of Verizon Northwest Inc. -- Depreciation, June 26, 2003 ("Sovereign Direct Testimony").

Summary of Testimony

Q. Please summarize the testimony that you are presenting at this time.

A. My testimony addresses Verizon's development of its claimed expenses and depreciation assumptions in its UNE cost studies. I conclude that several adjustments should be applied to its expense factor development in order to bring it in closer conformity to TELRIC principles, including:

- Elimination of the "Forward-Looking Conversion" ("FLC") factor;
- Adjustment to the Marketing E/E factor;
- Application of more appropriate indices for inflation and productivity;
- Revision of Verizon's proposed Uncollectibles factor in the Gross Revenue Loading ("GRL").

In addition, I recommend replacement of Verizon's "GAAP" life assumptions with the Commission's most recently-authorized depreciation parameters (from Docket UT-992009) in the Company's UNE cost studies. These adjustments are explained in detail in my testimony.

VERIZON'S PROPOSED EXPENSE FACTORS

Verizon's proposed "Forward-Looking to Current Conversion" factor ("FLC") is inappropriate and produces inflated estimates of Verizon's forward-looking expenses.

Q. How does Verizon account for forward-looking expenses in its cost model?

A. The Verizon model calculates expenses[3] using an expense to investment ratio based upon expenses and investment in the current network. For the relevant Uniform System of Accounts ("USoA") expense accounts, Verizon develops Annual Cost Factors ("ACFs") based on the ratio of its embedded level of expense (from its year-end 2001 financial statement), subject to certain adjustments, divided by its 2001 booked investments (also adjusted). For example, the starting point for Verizon's ACF applied to Digital Switching (Account 6212) is the ratio of its (adjusted) total Digital Switching expense divided by (adjusted) total Digital Switching investment. Verizon then multiplies the claimed forward-looking investment figure generated by the model by this ACF to derive the forward-looking expenses.

Q. What are the adjustments that Verizon makes to the expenses in the ACF calculation you've just explained?

3. By "expenses," I am referring to the recurring costs of activities such as network maintenance and repair, engineering, administration, etc. (booked to the 6000 series of USoA accounts), as opposed to the recurring costs of investments determined by applying capital cost ACS to investments.

A. Verizon's "forward-looking" expense amounts are its booked 2001 expense amounts that it claims have been adjusted for productivity changes, inflation effects, and certain one-time and non-network related costs.[4] Verizon describes the expense amounts resulting from those adjustments as "forward-looking" expenses.[5]

Q. Are these adjustments sufficient to make Verizon's embedded expenses "forward-looking" to the degree necessary for a valid TELRIC analysis?

A. No, not by any means. As I shall explain later in my testimony, several of Verizon's specific expense adjustments are flawed. However, even if those adjustments were presumed to be valid, they only serve to represent the costs of maintaining the *current* network on a forward-looking basis. This is a very different exercise than determining the expenses associated with a network that has been redesigned (for UNE costing purposes) from the ground up to be least cost in a forward-looking manner, as TELRIC requires. An efficient forward-looking network under the TELRIC analysis replaces the embedded network's mix of technologies and equipment deployed at different times, with a network based on the most efficient technologies and practices currently available.

In general, the modeling of network investments that occurs under a TELRIC analysis will lead to a different mix of plant than exists in the Company's embedded network, because the

4. See Verizon Exhibit RP-15 at 8-10 and Verizon's Washington 2001 Expense Factors and Loadings, revised January 2004, Workpaper 1.

5. Panel Testimony, at 151.

forward-looking analysis will choose the least-cost provisioning options with the most efficient technologies available today, rather than simply replicating the embedded network facilities. Some of the ways in which the plant mix can be expected to change include:

- Some feeder routes that are served today by copper feeder will be modeled as served by fiber-fed DLC systems;

- The modeled mix of cable placements (i.e., aerial, buried, underground) may vary from the embedded mix;

- Multiple, smaller-sized cables in the embedded network may be replaced by fewer, larger-sized cables.

Because of these types of changes in plant mix between the embedded network and a TELRIC analysis, Verizon's development of "forward-looking" expenses that essentially reflect the expense levels associated with its current, embedded network is fundamentally flawed, and has the effect of producing overstated levels of expense in comparison to those produced using a valid TELRIC methodology.

Q. In the case of metallic cable maintenance costs, doesn't Verizon make an adjustment to change its expense levels from reflecting the Verizon embedded network to a forward-looking network?

A. Verizon makes a five percent (5%) adjustment to the cost of metallic cable for "lower copper maintenance costs to account for the replacement of old copper with new copper."[6] While this adjustment is an implicit admission that a TELRIC analysis should consider an "as-new" network without any embedded plant, it does not account for the types of network redesigns under that assumption that I discussed earlier in my testimony. While slightly lowering the per-unit cost of maintenance for the metallic cable generated by Verizon's investment model, because Verizon's expense factor development is not linked to a TELRIC-compliant network redesign, its resulting metallic cable expense essentially would still assume the same amount and distribution of metallic cable as exists in its embedded network.

Q. What adjustments does Verizon make to the investments figures used in the expense factor calculation?

A. As explained earlier, the ACF is the ratio of expenses to associated investment. However, rather than using the embedded investment figures, Verizon applies a Forward-looking Calibration Factor, or FLC, to embedded investment to develop an "adjusted investment" figures for accounts. The FLC is the ratio of forward-looking investments (resulting from the Verizon VCOST model) to booked network investments. Since the FLC is multiplied by the embedded investment used in the denominator of the expense factor calculation,[7] the

6. Development of Cost Factors and Loading Documentation, Exhibit RP-15, at 10.

7. See Verizon's Washington 2001 Expense Factors and Loadings, revised January 2004, (continued...)

lower the FLC, the lower the denominator in the expense factor, resulting in a higher expense factor and higher forward-looking network expenses. By applying a FLC of 0.85, Verizon is raising the affected expense factors by about eighteen percent.[8]

Q. What rationale does Verizon give for proposing to apply its Forward-Looking Calibration Factor?

A. Verizon contends that, without the FLC, applying the expense factor to TELRIC investment levels falls short of "True Forward-looking Expense."[9] In addition to changing network architecture, as discussed above, TELRIC analysis reprices components currently in the network to reflect the changing component costs. The problem that the FLC is intended to solve is the concern that the ACFs are calculated relative to an embedded investment base that is different from the model-generated investment base to which they will be applied, which would generally cause them to understate the expense of maintaining the efficient network components already in the embedded network. Verizon contends that it has "already identified the expense adjustments that would be appropriate and likely in a forward-looking TELRIC network"[10] and claims that, when it applies an ACF calculated with this forward-looking expense level and embedded investment to TELRIC investments,

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7. (...continued)
Workpapers 3 and 7.

8. That is , 1 ÷ 0.85 = 1.176, an increase of 17.6%.

9. Panel Testimony, at Table A.

10. Panel Testimony, at 151.

it faces "Unrecovered Additional True Forward-Looking Expense." Verizon contends that applying the FLC simply ensures that those otherwise unrecovered expenses will be included in its UNE costs and rates.

Q. Is that what the FLC adjustment actually does?

A. No. By applying the FLC, Verizon adjusts the investment figures used in the ACF calculations so that the result of an ACF multiplied by the associated investment equals the figure that Verizon has *already* identified as its "True Forward-looking Expense."[11] This means that the real effect of the FLC is *to divorce entirely Verizon's calculation of expense factors from the calculation of network investments taking place in the investment portion of Verizon's cost model.* When the FLC is applied, Verizon's expense factors will not reflect any of the least-cost network redesign process that is so fundamental to the TELRIC costing methodology, and thus will produce inflated levels of expenses.

Q. Verizon notes that three states have applied a FLC previously – should the Commission follow the lead of those states?

A. No. As I have explained, the FLC adjustment is inappropriate and inflates Verizon's expenses. While Verizon notes that New York, Pennsylvania and Massachusetts have

11. This circularity is clearly illustrated in Table B of the Panel Testimony (page 155), in which the purpose of lines 2-8 is to ensure that line 1 equals line 9.

accepted the FLC,[12] it fails to acknowledge that the PUCs in Maryland, Delaware, and the District of Columbia have rejected Verizon's proposed use of the FLC.[13] Moreover, the FCC's Wireline Competition Bureau's ("WCB's") landmark decision in the Verizon's Virginia UNE arbitration rejected Verizon's FLC methodology.[14] The WCB determined that Verizon's ACF calculation was fundamentally circular, finding that:

> The purpose of the ACFs is to calculate forward-looking expenses by multiplying an expense-to-investment ratio by forward-looking investment. Although Verizon purports to do this, in fact it estimates forward-looking expenses based on past expenses, adjusted for productivity and inflation as described above. Then, with the FLC factor, Verizon develops its ACFs, which it then uses to "calculate" the same forward-looking expense figure with which it started. As

12. Panel Testimony, at 153.

13. *Investigation into Rates for Unbundled Network Elements Pursuant to the Telecommunication Act of 1996*, MD PSC Case No. 8879, 2003 Md. PSC LEXIS 25 at 43-46, June 30, 2003; Application of Verizon Delaware Inc. (F/K/A/ Bell Atlantic-Delaware, Inc.), for Approval of its Statement of Terms and Conditions Under Section 252(f) of the Telecommunications Act of 1996 (Filed December 16, 1996), DE PSC Docket No. 96-324 Phase II, 2002 Del. PSC LEXIS 103 at 18-19, June 4, 2002 (referring to the FLC applied to Common Overhead factors); Implementation of the District of Columbia Telecommunications Competition Action of 1996 and Implementation of the Telecommunications Act of 1996, DC PSC Formal Case No. 962, 2002 D.C. PUC LEXIS 421 at 196-201, December 6, 2002.

14. *Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration*, CC Docket No. 00-218, *Petition of AT&T Communications of Virginia Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc.*, CC Docket No. 00-251, *Memorandum Opinion and Order*, DA 03-2738, August 29, 2003, ("*Virginia Arbitration Order*") at paras. 139-140.

> AT&T/WorldCom note correctly, the approach taken by Verizon is circular because it starts with forward-looking expenses, which is supposed to be the end result of the ACF calculation.[15]

In rejecting the FLC, the WCB concluded that "Verizon's FLC adjustment does not produce a meaningful estimate of forward-looking expenses, and is therefore inconsistent with the Commission's TELRIC pricing rules..."[16]

Q. What is your recommendation to the Commission relative to Verizon's proposed FLC adjustments?

A. Verizon's proposed FLC adjustment should be rejected by the Commission. Instead, current cost to book cost ("CC/BC") ratios can be applied to particular investment accounts when calculating ACFs as a means to ensure that changes in unit prices over time do not cause the ACFs to underestimate forward-looking expense levels. The WCB adopted this approach in the *Virginia Arbitration Order*,[17] and it is reasonable to apply in the instant case.

Q. Have you made this adjustment in Verizon's cost model?

A. Yes. I have replaced Verizon's 0.85 FLC factor with the account-specific CC/BC ratios

15. *Id.*, at para. 139.

16. *Id.*, at para. 140.

17. *Id.*, at para. 140.

supplied in Verizon's Workpaper 3.1.[18] The revised UNE costs and rates presented by AT&T witness Steven Turner reflect this adjustment to Verizon's model.

Verizon's marketing expense factor needs to be adjusted to eliminate retail-related expenses that should not be recovered from Verizon's competitors.

Q. How does Verizon account for marketing-related expenses in its TELRIC study?

A. Verizon applies a factor approach to include marketing-related expenses in its TELRIC study. Specifically, Verizon has developed a "Marketing E/E Loading" factor, that it multiplies against the sum of other forward-looking expenses for a given UNE in order to derive the total marketing-related costs to be recovered from that UNE. The Marketing E/E Loading factor is approximately BEGIN PROPRIETARY<< >>END PROPRIETARY[19] According to Verizon, this factor represents the costs of product management, sales, customer services, and product advertising.[20] When that factor is applied in the case of Verizon's claimed expenses for a two-wire basic unbundled loop, it produces a total recurring marketing cost of BEGIN PROPRIETARY<< >>END

18. These adjustments were made in the Expense Factor run source file called "WA 2001 Investment Calibration .85 1-12-04.csv."

19. Verizon workpaper "WA.023003 Whsl Rev.01082004.pdf," at Subsection 3.2, Annual Cost Factor Loading Results Report, page 3. This workpaper was provided on CD #2 of Verizon's January 23, 2004 supplemental filing.

20. Verizon Exhibit RP-15, at page 6.

PROPRIETARY per month.[21] This number is about BEGIN PROPRIETARY << >> END PROPRIETARY than the per-line customer service expense level assumed in the HAI Model.[22]

Q. Does Verizon develop this factor starting with expense data that only reflects the costs of providing UNEs?

A. No. As for the other expense factors, Verizon's starting point is its booked 2001 expenses, which includes the costs of *all* of the Company's lines of business, including its provision of retail services. This is fundamentally different from an analysis that would start from "the ground up," i.e., by identifying the product management, sales, customer service, and product advertising activities specifically performed in order to provide UNEs and quantifying those activities' forward-looking economic costs. One key consequence of Verizon's use of this embedded (booked) data as its starting point is that all of Verizon's retailing costs – e.g., the costs of managing Verizon's retail products, its customer service and sales interactions with retail customers, and its advertising of retail products – are included at the out-

21. Verizon workpaper "WA.023003 Whsl Rev.01082004.pdf," at Subsection 5.1,Cost Detail Report, page 1 (showing an annual Marketing expense of BEGIN PROPRIETARY << >>END PROPRIETARY). This workpaper was provided on CD #2 of Verizon's January 23, 2004 supplemental filing.

22. The HAI Model applies a Carrier-Carrier Customer Service expense per line of $1.03 annually, or $0.0858 per month. See AT&T Exhibit RAM-5 (HAI Model Release 5.3 Inputs Portfolio), at 144.

set, and thus will flow into the cost-based rates for UNEs unless they are explicitly accounted for and removed.

Q. Does Verizon's Marketing E/E Loading factor reflect any adjustments to remove the costs of Verizon's own retailing operations?

A. Yes, Verizon has made some adjustments to remove retail-related expenses from its marketing expense factor, but not enough to remove all such expenses. In fact, as I will explain in more detail later in my testimony, Verizon has failed to make *any* such adjustment to its advertising expenses to remove the costs of advertising its retail services.

Conceptually, Verizon's adjustments are implemented by multiplying its booked 2001 marketing expenses in each relevant account (net of certain other adjustments to remove costs of nonrecurring activities, collocation, etc.)[23] by a factor that equals 1.0 minus an avoided retail cost percentage. For example, Verizon claims that BEGIN PROPRIETARY << >> END PROPRIETARY of its Sales expense (account 6612) is avoided retail, so its adjustment is to multiply the net Sales expense by BEGIN PROPRIETARY << >> END PROPRIETARY, thereby removing BEGIN PROPRIETARY << >> END PROPRIETARY and passing through the remaining BEGIN PROPRIETARY << >> END PROPRIETARY In effect, Verizon is assuming that BEGIN PROPRIETARY << >> END PROPRIETARY of its annual Sales expense

23. Those adjustments are described in Verizon Exhibit RP-15 at 8-10 and shown in Verizon's Washington 2001 Expense Factors and Loadings, revised January 2004, Workpaper 1.

(net of those other adjustments I mentioned earlier) has been related to the provision of UNEs.

Q. Did Verizon apply the avoided retail cost percentages that the Commission has adopted for pricing of the Company's resold services?

A. No. The Commission adopted avoided retail cost percentages for Verizon (then GTE) in an order released May 11, 1998.[24] The avoided retail cost percentages that Verizon is using in its TELRIC study are considerably lower than those adopted by the Commission at that time, as shown in the table below.[25]

Table 1

Comparison of Avoided Retail Cost Percentages

Account	**WUTC Adopted**	**Verizon Factor (Proprietary)**
6611 Product Management	28%	<< >>
6612 Sales	71.62%	<< >>
6613 Product Advertising	98.29%	<< >>
6623 Customer Service	51.15%	<< >>

24. WUTC Docket Nos. UT-960369, UT-960370, UT-960371, Eighth Supplemental Order; Interim Order Establishing Costs for Determining Prices in Phase II; and Notice of Prehearing Conference, May 11, 1998, at 74.

25. Verizon's avoided cost percentages are shown in Washington 2001, Revised Expense Factors and Loadings, January 2004, at Workpaper 1.4 and Workpaper 1, Column G.

Q. Do you recommend using the Commission-adopted values shown above in Verizon's TELRIC study?

A. No. While applying those values would remove more retailing costs from Verizon's TELRIC study than the Company's proposed values, they are based on data and analysis that are now several years old (before the GTE-Verizon merger, for example) and may not be representative of Verizon's current operations.

Q. How does Verizon characterize its proposed avoided retail cost factors?

A. Verizon's witness panel states that the Company applies avoided retail cost factors that were designed to conform with the Eight Circuit Court's interpretation of retailing costs that "will be avoided" in its July 2000 opinion.[26]

Q. Is Verizon's reliance on the Eighth Circuit opinion for determining the treatment of retailing costs in its UNE studies justified as a legal matter?

A. While I am not an attorney and am not rendering a legal opinion, my understanding is that AT&T takes the position that Verizon's reliance on the Eighth Circuit opinion is misplaced, and that AT&T will address this issue in its brief.

26. Panel Testimony, at pages 147-148 (citing to Iowa Utilities Board, et. al., v. FCC, et.al., 219 F.3d 744, July 18, 2000).

Q. Do the FCC's TELRIC rules include a specific prohibition against consideration of retailing costs in the calculation of TELRIC costs?

A. Yes, FCC rule 47 C.F.R. § 51.505(d) prohibits inclusion of retailing costs in a TELRIC calculation.

Q. Was that prohibition recognized in the FCC Wireline Competition Bureau's *Virginia Arbitration Order*?

A. Yes, it was. The WCB reiterated that prohibition in the *Virginia Arbitration Order*, which states that:

> Embedded costs (including those in the incumbent LEC's book of accounts), *retail costs*, opportunity costs, and revenues used to subsidize other services may not be considered when determining the forward-looking economic cost of a UNE.[27]

The WCB went on to completely remove Verizon's claimed advertising and marketing expenses from its TELRIC cost model in Virginia, after concluding that "retail-related expenses, which these are, should not be included in the calculation of ACFs."[28]

Q. As an economic matter, would the use of avoided retailing cost percentages developed to

27. *Virginia Arbitration Order*, at para. 37 (footnote omitted, emphasis supplied).

28. *Virginia Arbitration Order*, at para. 145.

comply with the Eighth Circuit's resale pricing standard ensure that no retailing costs will be reflected in the TELRIC costs for UNEs?

A. No. Whether or not the Eighth Circuit's interpretation of avoided retail costs is appropriate for pricing resale services, as an economic matter it will not lead to the exclusion of all retailing costs required under a TELRIC analysis, because it is not asking the right question. Under the Eighth Circuit's interpretation, the question at issue is, which of the ILEC's costs that are presently incurred in its provision of retail services, will be avoided as a result of providing services for resale? For a TELRIC analysis, however, the basic question is, must the cost under examination be incurred in order to provide a UNE? If not, the cost should be excluded. Before the Eighth Circuit's ruling, the FCC's interpretation of the avoided cost standard as encompassing all retail costs that "reasonably can be avoided" when providing service for resale could lead to avoided retail cost analyses that essentially eliminated all retail costs, thus converging on the result required under a TELRIC analysis.[29] Under the Eighth Circuit's definition, however, this will not occur. In particular, the costs of retailing activities that are not sensitive to changes in the volume of retail services supplied will not be considered as avoided retail costs under the Eighth Circuit's definition, even if they clearly are not necessary for the provision of UNEs. In other words, applying the Eighth Circuit's definition of "avoided retail costs" in the context of a UNE cost study virtually

29. The Eighth Circuit noted this as well, stating that "However, under the FCC's definition of 'avoided retail costs,' the petitioners argue the FCC requires them to exclude all retailing costs rather than only those costs that an ILEC actually avoids." Iowa Utilities Board, et. al., v. FCC, et.al., 219 F.3d, 753.

guarantees that the UNE cost results will become inflated by improper inclusion of retailing costs.

Q. Can you give an example?

A. Yes. Consider the costs of television advertisements specifically promoting Verizon's retail services. These costs are not directly affected by changes in the volume of Verizon's retail services, but instead are driven by the rates television stations will charge for advertising spots and the number of ads Verizon decides to run. Under the Eighth Circuit definition, those costs would not be considered "avoided" retail costs, and thus under Verizon's expense factor methodology, they would be flowed through its TELRIC study and reflected in its ("cost-based") UNE rates. Of course, in reality they are retail advertising costs that have nothing to do with Verizon's provision of UNEs, and would have to be entirely excluded under the FCC's rule prohibiting inclusion of retailing costs in a TELRIC analysis.

Q. Does this problem actually occur in Verizon's proposed Marketing E/E Loading Factor that is supposed to be recovering the marketing expense for UNEs?

A. Yes, it does. In fact, Verizon admits that it has developed its avoided retail cost factors in precisely this manner. Verizon has applied an avoided retail percentage for Product Advertising expense (6613) of zero, meaning that none of its booked advertising expenses

are identified as retail-related and removed from its TELRIC study.[30] In response to discovery asking for an explanation of its assumption that none of its Product Advertising (6613) expenses are avoided retail, Verizon states that:

> ***Account 6613 – Product Advertising***
> This account includes costs incurred in developing and implementing promotional strategies to stimulate the purchase of products and services. Product Advertising functions have been identified as not reasonably avoided because advertising is not sensitive to product volume or changes in the customer base.[31]

Consequently, while Verizon is indeed treating advertising expense in the manner called for by the Eighth Circuit in the context of pricing resale services, that treatment violates the TELRIC methodology and inflates Verizon's proposed UNE costs by improperly including retail-related advertising expenses.

Q. How should advertising expense be treated in Verizon's UNE cost studies?

A. Unless Verizon can identify advertising expenses that were specifically incurred in the course of "developing and implementing promotional strategies to stimulate the purchase of" UNEs, its UNE cost studies should not include any advertising expense.

30. See Washington 2001, Revised Expense Factors and Loadings, January 2004, at Workpaper 1, at column G (Retail Avoided Cost) for Account 6613 (Advertising). The zero value indicates that no adjustment has been made to remove retail-related costs.

31. Verizon Response to AT&T/XO Data Request Nos. 4-004.

Q. Have you adjusted Verizon's cost model to correct this problem?

A. Yes. I have changed Verizon's avoided retail cost value in the model for Account 6613 from zero (i.e., no avoided costs) to 1.0 (i.e., 100% avoided retail costs), so that all advertising expenses are removed) .[32] The revised UNE costs and rates presented by AT&T witness Steven Turner reflect this adjustment to Verizon's model.

Q. Do the avoided retail cost percentages that Verizon assumed for the other expense accounts that are reflected in its Marketing E/E Loading Factor similarly cause retail-related expenses to be improperly included in its UNE cost studies?

A. Yes, given that Verizon has also developed them to comply with the Eighth Circuit's avoided cost definition, its avoided retail cost percentages for accounts 6611, 6612, and 6623 suffer from the same deficiency. Moreover, Verizon's claimed avoided retail cost percentages are based on an analysis which is far too old and outdated to reliably estimate avoided retail costs (by either definition) for a forward-looking view.

Q. Please explain.

32. The adjustment was made in the Expense Factor run source file called "WA 2001 Expense Adjust Wholesale Access 06-04-03.csv."

A. Verizon has providing supporting documents for its avoided retail cost study in response to AT&T discovery requests.[33] As described therein, BEGIN PROPRIETARY << [redacted] >>END PROPRIETARY The questionnaire elicited avoided cost percentages on a workcenter basis, which Verizon has directly applied in its avoided cost study.[37] Consequently, Verizon's avoided retail cost assumptions in its TELRIC study reflect the state of its operations *seven years ago*, well before the GTE-Verizon merger and only one year after the *Telecommunications Act* was passed. Verizon has not provided any evidence to demonstrate that the 1997

33. Verizon Response to AT&T/XO Data Request 4-003(a)-(d).

34. Verizon indicates that BEGIN PROPRIETARY << [redacted] >> END PROPRIETARY *Id.*, at Attachment 2, page 1.

35. *Id.*, at Attachment 2, pages 5-6.

36. *Id.*, at Attachment 2, page 6.

37. For example, BEGIN PROPRIETARY << [redacted] .>> END PROPRIETARY

snapshot that it relied upon is an accurate representation of the relationship between its retail and wholesale product management and customer service activities today.

Q. Are the specific avoided cost determinations made in the 1997 analysis flawed?

A. Yes, some certainly are, particularly for the purpose of removing retail costs from a TELRIC study. For example, the Consumer Programs workcenter that I just referred to is described as follows:

> BEGIN PROPRIETARY << [redacted] .>> END PROPRIETARY[38]

However, when provided as a UNE, those functionalities should not be subject to separate prices, but instead simply rolled into the unbundled local switching rate. By treating this workcenter as 0% avoided retail for purposes of developing UNE costs, the costs associated with developing Verizon's retail pricing for those services would be borne by the purchasers of Verizon's UNEs.

38. *Id.*, at Attachment 2, at Bates stamped page WA-018139.

Additional examples are that the 1997 analysis concludes that BEGIN PROPRIETARY << [redacted] >> END PROPRIETARY Because these values similarly flow directly into Verizon's avoided retail cost analysis and TELRIC study, this means that once again purchasers of UNEs would be saddled with retail costs that should have been removed, in this case, the costs of billing Verizon's end user customers.

Q. Have you attempted to identify and adjust all such flaws in Verizon's 1997 analysis?

A. No, given the staleness of Verizon's analysis that did not appear to be a useful exercise.

Q. Have you made alternative adjustments to Verizon's cost model to correctly remove retailing costs?

A. Yes. Verizon has relied on a 2001 Land and Building Cost Study to develop its forward-looking costs for land and building support expenses. In that study, Verizon allocates the

39. *Id.*, at Attachment 1, page 3 and Attachment 2, Bates stamped pages WA-018214 through WA-018227.

40. *Id.*, at Attachment 2, Bates stamped pages WA-018214 thru WA-018218.

portion of land and building costs assigned to Customer Operations activities to five cost pools, that include the line of business cost pools of Consumer, Business, and Carrier, as well as Operator Services and Marketing Other. Verizon performs that allocation on the basis of the number of administrative employees in each cost pool as determined by its Administrative Headcount analysis. The same headcount-based allocation can be used in the present case, since what is required is to determine the share of expenses that should be attributed to the wholesale line of business cost pool, "Carrier" (which is referred to as "Carrier/CLEC" elsewhere in Verizon's cost study documentation)[41] as opposed to its retail line of business cost pools, Consumer and Business.[42] The resulting allocation percentages are BEGIN PROPRIETARY << >> END PROPRIETARY, meaning that BEGIN PROPRIETARY << >> END PROPRIETARY of Verizon's marketing expenses should be considered as retail expenses to be removed from its TELRIC study. Based on this analysis, I have adjusted Verizon's avoided retail cost value in the model for Account 6611, 6612, and 6623 from the values presented earlier in my testimony (see Table 1), to BEGIN PROPRIETARY << >> END PROPRIETARY.[43] The revised UNE costs and rates presented by AT&T witness Steven Turner reflect this adjustment to Verizon's model.

41. See Verizon Exhibit RP-15, at 5.

42. Since Verizon's study already performs assignments of marketing expenses to Operator Services and Marketing Other, the headcount-based allocation percentages were re-based to exclude those two categories.

43. These adjustments were made in the Expense Factor run source file called "WA 2001 Expense Adjust Wholesale Access 06-04-03.csv."

Verizon's proposed adjustments for productivity and inflation are flawed and fail to fully recognize the cost-reducing impacts of continued productivity gains by ILECs such as Verizon.

Q. What adjustments has Verizon made in its expense factor calculations in order to take into account changes in inflation and productivity over time?

A. While Verizon's Panel Testimony supplies only a cursory description of the Company's treatment of inflation and productivity in its expense factor development (see *id.* at page 145), more detail is provided in Verizon's Workpaper 1 (as revised 1-12-04) and in response to AT&T discovery requests. Verizon's general approach is to calculate two factors applying to each of the USoA 6000 series expense accounts.[44] The first factor reflects the combined effects of inflation and productivity cumulatively from the base year of the starting point booked data (2001) to the "current" year (2003). The second factor reflects the cumulative effects of inflation and productivity from the current year to the planning period assumed in the study. Verizon has assumed a planning period encompassing 2004-2006, and calculates a levelized factor for that three-year period, based on its assumed cost of money (using 15.98%).[45]

44. An exception is the Access Expense account, 6540, for which Verizon has correctly refrained from applying any inflation or productivity adjustment (by setting the factors equal to 1.0). See Workpaper 1 at page 2.

45. See Verizon Response to AT&T/XO Data Request No. 4-005, file "ATT_4_4,5.xls."

For nearly all of its expense accounts, Verizon treats them as primarily driven by changes in labor costs, applying a "Labor Rate Inflation Trend Factor" to reflect inflation in labor compensation, and a "BLS Productivity" factor to reflect productivity. The Bureau of Labor Statistics ("BLS") of the U.S. Department of Labor develops and publishes a large number of labor-related statistics for the U.S. economy that are widely used by economists, and Verizon's Panel Testimony indicates that its inflation and productivity values are "based on" BLS data.[46] The data series for Verizon's "Labor Rate Inflation Trend Factor" is sufficiently similar to the most suitable measure of labor compensation inflation published by the BLS[47] that substitution of the latter would have a *de minimis* impact and thus is not worth disputing. However, as I shall explain later in my testimony, Verizon has erred in its selection of a productivity series and thereby grossly understates the impacts of labor productivity on its forward-looking expense levels.

46. Panel Testimony, at page 145. It should be noted that the Panel Testimony implies that Verizon obtained its inflation and productivity values directly from BLS, including forecasted values for future years. As stated therein (*id.*, at lines 11-13), "The productivity increase that Verizon NW postulates is based on Bureau of Labor Statistics Data for non-farm business output through 2005." However, the BLS generally does not publish forecasts of inflation or productivity, and discovery on Verizon has clarified that "Both the historical and forecasted data used to calculate the productivity factors was obtained from Economy.com, a major forecasting and consulting firm." See Verizon Response to ATT 8-056(a)-(b). While Economy.com no doubt obtained the historical series from BLS, it appears to have developed the forecasted values used for years 2003-2006, rather than BLS.

47. This is the Employment Cost Index ("ECI") series for Private Industry, Total Compensation (all workers), series ID ECU10002A. Source: http://data.bls.gov/cgi-bin/surveymost (Accessed 4/6/04).

Verizon treats five expense accounts as if they are not primarily driven by labor cost changes. For those accounts,[48] Verizon applies a general Consumer Price Index ("CPI") series as the inflation measure, together with the same productivity series used for the labor-driven accounts.[49] Use of the CPI in this context is also inappropriate and should be corrected.

Q. Taking the CPI issue first, can you explain why Verizon has erred in its choice of inflation and productivity series for adjustment of its expenses to be forward-looking?

A. Yes. As its name indicates, the Consumer Price Index is intended to measure changes in the price levels confronted by *consumers* over time. The BLS calculates the CPI[50] as the weighted average of a representative basket of goods and services purchased by consumers, including such categories as food, clothing, transportation, and medical care.[51] Because the CPI focuses on price changes for consumer-oriented goods and services purchased at retail, it is not suitable for measuring the inflation experienced by a firm such as Verizon in its

48. These accounts are: 6113 Aircraft, 6124 General Purpose Computers, 6531 Power, 6613 Advertising, and 6724 Information Management. See Workpaper 1, columns (K) and (L).

49. See Verizon Response to AT&T/XO Data Request No. 4-005, file "ATT_4_4,5.xls."

50. In reality, the BLS publishes multiple CPI series. The main variants are the CPI for All Urban Consumers ("CPI-U") and for Urban Wage Earners and Clerical Workers ("CPI-W"), and these are developed on a regional as well as national basis. See the BLS webpage "Consumer Price Indexes – Frequently Asked Questions" at http://www.bls.gov/cpi/cpifaq.htm (accessed 4-8-04).

51. *Id.*

non-labor-driven expenses, such as electrical power, advertising placements, and non-capitalized materials, as Verizon is using it. A better measure of inflation for that purpose is the Gross Domestic Product-Price Index ("GDP-PI"), which is a broader measure of inflation for the general U.S. economy as a whole. In fact, for over a decade the FCC has been using the GDP-PI series as the measure of general price inflation faced by ILECs in the federal price caps plan for Tier 1 ILECs, and had specifically rejected use of the CPI for that purpose when it adopted the ILEC price caps plan and the earlier price caps plan for AT&T's interstate services.[52] The GDP-PI is calculated by the Bureau of Economic Analysis ("BEA") of the U.S. Department of Commerce, and is published on its website.[53]

Q. How does the GDP-PI compare to the CPI series?

A. For the past several years, the CPI has risen faster than the GDP-PI. For example, for the span 1996-2002, the cumulative increase in the CPI was 14.7%, as compared to the cumulative increase in the GDP-PI of 10.8%. Thus, by using the CPI series, Verizon would be overstating the effects of inflation on its expenses.

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52. See *In the Matter of Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, Second Report and Order, rel. October 4, 1990 (*"ILEC Price Caps Order"*), at paras. 50-52; and *In the Matter of Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, Report and Order and Second Further Notice of Proposed Rulemaking, rel. April 17, 1989 (*"AT&T Price Caps Order"*), at paras. 186-196. The FCC originally applied the Gross *National* Product-Price Index ("GNP-PI") in both price cap plans, and subsequently shifted to the GDP-PI , which is very similar, but reflects only output within the domestic U.S. (excluding offshore production by U.S. firms).

53. See http://www.bea.gov/bea/dn/nipaweb/index.asp.

Q. Have you adjusted Verizon's model to correct this problem?

A. Yes. I have located the CPI series for years 2002-2006 that Verizon has used in the relevant source file for the Expense Factor run, and replaced it with the corresponding GDP-PI values as published in the BEA's National Income and Product Accounts ("NIPA") Tables database.[54] The revised UNE costs and rates presented by AT&T witness Steven Turner reflect this adjustment to Verizon's model.

Q. Turning now to productivity, why does Verizon's choice of a productivity index understate the cost-reducing impacts of Verizon's anticipated productivity gains?

A. As I indicated earlier in my testimony, Verizon has applied a productivity adjustment to its expenses that is based on the BLS labor productivity series for Non-Farm Business output per hour.[55] As its name implies, this series is a broad measure of the productivity gains generally experienced by the business sector of the economy, excluding farms. In fact, however, wireline telecommunications carriers such as Verizon have been experiencing much greater labor productivity improvements over time than that series represents, due in part to continued technology-driven advances in task automation and process improvements.

54. Source: http://www.bea.gov/bea/dn/nipaweb/index.asp (accessed 4-09-04). The BEA has published actual GDP-PI values through 2003; for years 2004-2006, we used projected values equal to the average annual increase over the past five years (1.94%). The adjustment was made in the Expense Factor run source file called "WA_Inflation_Indices_4_10_03.csv."

55. Panel Testimony, at page 145.

Q. Please explain.

A. Spurred by the unbundling requirements of the *Telecommunications Act of 1996* and the promise of Section 271 approvals of interLATA services authority, the larger ILECs have invested millions of dollars in modernizing their operations support systems ("OSS") infrastructure, which has introduced greater automation into service ordering, installation, and repair and maintenance activities that have traditionally been labor-intensive. While somewhat less visible than the adoption of new network technologies, the cost savings and efficiency improvements from continued investments in OSS should be significant. For example, in other jurisdictions, Verizon has been replacing its long-used Service Order Processor ("SOP") and Customer Records Information System ("CRIS") with a new-generation integrated ordering and billing system known as expressTRAK.[56] Further technological advancement in telecommunications networks and the related OSS infrastructure are likely to continue to have a strong positive impact on the productivity of Verizon and other ILECs for the foreseeable future.

Q. Does BLS publish a productivity series that better reflects the impacts of those changes on Verizon's labor productivity?

56. See *In the Matter of Verizon Washington, DC Inc.'s Compliance with the Conditions Established in Section 271 of the Federal Telecommunications Act of 1996*, D.C. PSC Formal Case No. 1011, OSS Declaration on Behalf of Verizon Washington, DC Inc. July 3, 2002, at 10-11.

A. Yes, it does. BLS calculates and publishes a labor productivity series specifically for Wired Telecommunications Carriers,[57] which encompasses Verizon and other ILECs. Compared to the Non-Farm Business index, this series is much more representative of the labor productivity gains that Verizon has been and is likely to continue to experience. Over the period 1996-2001, for example, the cumulative labor productivity gains measured for Wired Telecommunications Carriers (27.5%) was roughly twice that measured for the Non-Farm Business sector (12.5%).

Q. Have you adjusted Verizon's model to correct its productivity assumptions?

A. Yes. I have located the Non-Farm Business labor productivity series for years 2002-2006 that Verizon has used in the relevant source file for the Expense Factor run, and replaced it with the corresponding values from the BLS labor productivity series (output per hour) for Wired Telecommunications Carriers.[58] The revised UNE costs and rates presented by AT&T witness Steven Turner also reflect this adjustment to Verizon's model.

57. See the BLS table "Annual percent change of industry productivity data", dated February 5, 2004 (downloaded from ftp://ftp.bls.gov/pub/special.requests/opt/dipts/oaehrt.txt, 4-9-04). The Wired Telecommunications Carriers category is number 5171 in the North American Industry Classification ("NAIC") system.

58. Source: http://www.bls.gov/lpc/home.htm#data, using the "Create Customized Tables" function to retrieve series for NAIC 5171 (accessed 4-09-04). The BLS has published actual values through 2001; for years 2002-2006, we used projected values equal to the average annual change over the last five years for which BLS published the series 1996-2001 (5.57%). The adjustment was made in the Expense Factor run source file called "WA_Inflation_Indices_4_10_03.csv."

Q. Did you find it necessary to make any other adjustments to the Verizon model's treatment of productivity and inflation to generate reasonable forward-looking expense factors?

A. Yes. To its credit, as I mentioned earlier in my testimony, Verizon treated certain expense accounts such as 6531 Power as if they were not driven primarily by labor-related expenses, as the majority are. However, it failed to identify all accounts for which such treatment is justified. Using the expense detail provided by Verizon in its workpaper Attachment B.1, in conjunction with the USoA account descriptions, I have re-analyzed its accounts and classified them as primarily labor-driven expenses or non-labor-driven expenses. For the labor-driven accounts, the GDP-PI inflation series and sector-specific labor productivity series were applies; for the non-labor-driven accounts, the GDP-PI inflation series was applied, without a productivity adjustment, since it would be unreasonable to assume that the prices Verizon faced for items such as electrical power, furniture, or office equipment (for example) would decline at the rate represented by the labor productivity series. These revisions were also made to the appropriate Expense Model run source file ("WA_Account_Inflation_4-10-03.csv") and are reflected in the UNE rates and costs presented by AT&T witness Steven Turner.

Verizon's treatment of uncollectibles expense is inconsistent with its other expense data and likely overstates the level of forward-looking uncollectibles for UNEs.

Q. How does Verizon account for uncollectibles expense in its TELRIC study?

A. Verizon accounts for uncollectibles expense[59] in its Gross Revenue Loading ("GRL") factor, which also recovers regulatory assessments.[60] Verizon's proposed GRL is BEGIN PROPRIETARY << >> END PROPRIETARY, of which BEGIN PROPRIETARY << >> END PROPRIETARY reflects the uncollectibles portion.[61] Verizon calculated that uncollectibles rate as the ratio of uncollectibles for UNE and resale services ("Wholesale TIS Uncollectibles") divided by total revenues for those services ("Wholesale TIS revenue").[62] The GRL is applied to total expenses using a gross-up formula, [GRL / (1 – GRL)], so that the total uncollectibles and regulatory assessments expenses are recovered and the net revenues retained by Verizon will equal its total expenses prior to those additional costs.[63]

Q. Did Verizon use data of the same vintage for its uncollectibles calculation as it used for its other expense calculations?

59. "Uncollectibles" refers to the fraction of revenues billed by the ILEC that go unpaid by its customers (e.g., due to bankruptcy) and are subsequently written off from its accounts receivable.

60. The GRL is also designed to account for gross receipts taxes if required, but they are not included in the TELRIC study. See Verizon Exhibit RP-15 at 7, and Washington 2001, Revised Expense Factors and Loadings, January 2004, at Workpaper 9, line 7.

61. Washington 2001, Revised Expense Factors and Loadings, January 2004, at Workpaper 9, lines 6 and 9.

62. *Id.*, and Verizon Panel Testimony, at 143.

63. Verizon Panel Testimony, at 144.

A. No. Verizon admits that it has used year 2002 data obtained from its Financial Planning and Analysis Group to calculate the uncollectibles rate, in contrast to its use of year 2001 data from its financial statements for all of its other expense calculations.[64] In discovery, Verizon has reported that its corresponding uncollectibles rate using year 2001 data is BEGIN PROPRIETARY << >> END PROPRIETARY.[65] Thus, Verizon's claimed uncollectibles rate is some BEGIN PROPRIETARY << >> END PROPRIETARY higher than it would be if it had been consistent and used year 2001 data.[66]

Q. Verizon claims that it was simply using the most up-to-date data available, since the year 2002 revenue data needed to calculate the uncollectibles rate was "fully analyzed" sooner than the expense data (Panel Testimony at 143-144). Is that sufficient reason to rely on the year 2002-based uncollectibles rate?

A. No, it is not. There was a remarkable surge in Verizon's uncollectibles rate in 2002, which was not repeated last year. This surge occurred not only for Verizon's UNE and resale services (as I just demonstrated), but also extended to other service categories as well. See the table below, which presents uncollectibles rates for the past five years derived from Verizon-Washington data in the FCC's ARMIS database.

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64. Verizon Panel Testimony, at 143.

65. Verizon Response to Staff Request No. 32 (with supporting calculations in attached file "GRL Washington 2001 UNE.xls").

66. That is, BEGIN PROPRIETARY << >> END PROPRIETARY.

Table 2

Verizon-WA Uncollectible Revenues

Uncollectible Rate by Category	1999	2000	2001	2002	2003
Total Revenues	1.12%	1.02%	1.42%	4.86%	-0.20%
Network Access Revenues	2.43%	2.07%	2.87%	9.08%	-0.41%
Basic Local Service Revenues	2.66%	2.30%	3.32%	11.46%	-0.41%

Source: Federal Communications Commission, ARMIS Report 43-04, Access Report: Table I, YE 1999-2003. Available at http://www.fcc.gov/wcb/eafs/ (accessed April 15, 2004).

As the table also demonstrates, the uncollectibles situation was very different in 2003, with Verizon experiencing *negative* rates of uncollectibles (i.e., revenues that had been deemed uncollectible were actually being recovered). Presumably, the unusual uncollectibles rates in 2002 and 2003 are associated with the general U.S. economic downturn and subsequent recovery , which affected CLECs and end user customers to varying degrees. In any event, their unusual swings means that neither year provides a satisfactory basis for estimating a forward-looking uncollectibles rate, nor does an average that incorporates them.

Q. What do you recommend the Commission should apply as the forward-looking uncollectibles rate?

A. I recommend that the apply an uncollectibles rate of BEGIN PROPRIETARY << >> END PROPRIETARY, based on Verizon's 2001 data (as discussed earlier in my testimony). This value avoids the problems associated with the 2002 and 2003 data, and has the advantage of being of the same vintage as the data used in Verizon's other expense calculations.

Q. Have you adjusted Verizon's model to correct this problem?

A. Yes. I have replaced Verizon's assumed uncollectibles rate with the year 2001-based rate in the Loading Factors table of the model. The revised UNE costs and rates presented by AT&T witness Steven Turner reflect this adjustment to Verizon's model.

VERIZON'S DEPRECIATION INPUTS

The Commission should affirm its prior determination that Verizon's UNE costs should be developed using Commission-prescribed ELG depreciation lives.

Q. Mr. Lundquist, what depreciation rates did the Commission determine should be applied in Verizon's cost studies for UNEs in the last WUTC proceeding that addressed this issue?

A. The issue of what depreciation rates should be applied in Verizon's cost studies for UNEs was last addressed by the Commission in its Generic Costing and Pricing Proceeding, Docket Nos. UT-960369 *et al*. In the Eighth Supplemental Order in that proceeding, the Commission determined that the depreciation rates that it had adopted for Verizon's (then GTE's) last depreciation represcription case, Docket No. UT-940926, should be applied in the Company's UNE studies.[67] The Commission also adopted the same approach for the UNE studies submitted by US West. As expressed in the order:

> For both GTE and U S West, we have used the average service lives and future net salvage values that were reported in those recent proceedings. The rates adopted in those proceedings reflect our understanding of the capital lives of the assets. We therefore conclude that the service lives are appropriate for a forward-looking economic model and adopt them for estimating the cost of unbundled network elements.[68]

67. WUTC Docket Nos. UT-960369 *et al*, *Eighth Supplemental Order; Interim Order Establishing Costs for Determining Prices in Phase II; and Notice of Prehearing Conference*, May 11, 1998, at 44.

68. *Id.*, at 44.

The asset life and future net salvage ("FNS") values adopted for Verizon are supplied in Attachment 2 to my testimony (see columns marked "ELG WUTC 940926").

Q. Subsequent to that Order, has the Commission undertaken a more recent depreciation represcription for the Company?

A. Yes, it has. The Commission subsequently reviewed the Company's depreciation parameters in Docket No. UT-992009, and prescribed new rates and lives in a decision issued June 16, 2000.[69] Those changes increased the Company's overall depreciation rate from 5.5% to 6.5%.[70] The Commission described the depreciation values adopted in that Order as the product of meetings between Staff and GTE representatives, and stated that "Staff and GTE are now in full agreement as to the future depreciation parameters and rates for GTE's Washington State plant and equipment."[71] Attachment 2 to my testimony presents those updated asset lives and FNS values as well(see columns marked "ELG WUTC 992009").

Q. Has Verizon applied those updated depreciation parameters in its UNE cost studies?

A. No. As described in the testimony of Verizon witness Allen Sovereign, the Company has applied the asset lives and FNS values that Verizon uses for financial reporting purposes,

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69. WUTC Docket No. UT-992009, *Order Authorizing Revised Depreciation Rates*, rel. June 16, 2000 ("*GTE Depreciation Order")*.

70. *Id.*, at 1.

71. *Id.*, at 1.

which it considers to be consistent with Generally Accepted Accounting Principles ("GAAP").[72] These values are presented in his Exhibit AES-2, and reproduced in Attachment 2 to my testimony (columns "VZ Lives" and "VZ FNS%"). Mr. Sovereign claims that "these lives take into account the current and expected state of competition and technological innovation, among other relevant factors."[73]

Q. How do Verizon's proposed lives and FNS values compare to the Commission-approved values from the Docket No. UT-992009 decision?

A. In general, Verizon's so-called "GAAP Lives" are considerably shorter than the Commission-approved values, as illustrated in Table 3 below (see my Attachment 2 for a full comparison). For example, Verizon proposes an asset life for buildings of 25 years, which is much shorter than the Commission's prescription of 43 years.

72. Sovereign Direct Testimony, at 7.

73. *Id.*, at 5.

Table 3 Comparisons of WUTC-Prescribed and Verizon "GAAP" Lives		
Account	**WUTC-Prescribed**	**Verizon's "GAAP" Life**
2121 Buildings	43 Years	25 Years
2212 Digital Switch	16 Years	12 Years
2411 Poles	28 Years	30 Years
2421 Aerial Cable (Metallic)	21 Years	16 Years
2421 Aerial Cable (Fiber)	25 Years	20 Years

Similarly, many of the Company's "GAAP" lives, including *all* of its proposed lives for the cable and wire accounts, are shorter than the low-end of the FCC's "safe harbor" range for depreciation lives (see Attachment 2 to my testimony).[74] All other things being equal, adopting Verizon's "GAAP" lives for the Company's UNE cost studies would have the effect of driving up the Company's claimed UNE costs relative to adoption of depreciation values consistent with the Commission's previously-authorized lives or the FCC's established range.

Q. Are Verizon's "GAAP" lives appropriate for the purpose of determining the costs of UNEs in a TELRIC analysis?

74. *In the Matter of 1998 Biennial Regulatory Review -- Review of Depreciation Requirement for Incumbent Local Exchange Carriers; United States Telephone Association's Petition for Forbearance from Depreciation Regulation of Price Cap Local Exchange Carriers,* CC Docket No. 98-137, ASD 98-91, FCC No. 99-397, Report and Order in Cc Docket No. 98-137, Memorandum Opinion and Order in ASD 98-91 (rel. December 30, 1999) ("1999 Depreciation Order"), Appendix B ("Summary of Current Prescription Life Ranges and Proposals").

A. No, they are not. A TELRIC analysis requires the application of economic depreciation lives and rates, which will correspond to the decline in the assets' economic value over time. However, the GAAP standards generally require firm's financial reporting to be conservative from the standpoint of protecting the interests of investors, which in the case of depreciation means that shorter asset lives may be applied in order to avoid potentially understating expenses and thus overstating net income. The FCC has long recognized this effect and previously determined that GAAP lives should not be applied for regulatory purposes. For example, in 1999, the FCC rejected a petition from the United States Telephone Association seeking regulatory forbearance that would have allowed ILECs to apply GAAP lives for regulatory purposes. The FCC rejected that petition, concluding as follows:

> Incumbent LECs also contend that, if we were to forbear, generally accepted accounting principles (GAAP) would prevent excessive depreciation expense and thereby ensure just and reasonable rates. We disagree. An incumbent LEC using GAAP would have substantial latitude to select different methods of depreciation, such as accelerated depreciation, that could significantly alter the depreciation expense that the LEC could claim. Additionally, the Commission has previously rejected the incumbent LECs' argument, stating that "GAAP is guided by the conservatism principle which holds, for example, that, when alternative expense amounts are acceptable, the alternative having the least favorable effect on net income should be used." The Commission concluded that, although conservatism is effective in protecting the interests of investors, it may not always serve the interests of ratepayers, and did not offer adequate protection for ratepayers in the case of depreciation accounting. We are not persuaded that the role of the conservatism principle in GAAP has changed or that we should change our previous decision. Incumbent LECs contend that the other principles of GAAP are sufficient to protect the interests of ratepayers. We believe that giving incumbent LECs the right to select, for regulatory purposes, any depreciation rate allowed by GAAP is inappropriate as long as incumbent LECs reserve the right to

make claims for regulatory relief based on the increased depreciation that would result from granting them that flexibility.[75]

Q. Did the FCC's Wireline Competition Bureau accept Verizon's "GAAP" lives for TELRIC purposes in Virginia?

A. No, it did not. The WCB rejected Verizon's proposal in the Virginia arbitration to apply "GAAP" lives and instead applied lives based on the low end of the FCC 'safe harbor' range.[76]

Q. Mr. Sovereign attempts to benchmark Verizon's proposed lives against those reported by major interexchange carriers and cable television companies. Does that benchmarking support the use of Verizon's "GAAP" lives in its TELRIC analysis?

A. No. Mr. Sovereign's benchmarking tests are fundamentally flawed because they do not measure Verizon's proposals against appropriate standards for TELRIC purposes. Mr. Sovereign compares Verizon's "GAAP" lives against the lives used by AT&T and

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75. *In the Matter of 1998 Biennial Review - Review of Depreciation Requirements for Incumbent Local Exchange Carriers*; *United States Telephone Association's Petition for Forbearance from Depreciation Regulation of Price Cap Local Exchange Carriers,* CC Docket No. 98-137, ASD 98-91, *Report and Order in CC Docket No. 98-137, Memorandum Opinion and Order in ASD 98-91,* FCC 99-397 (*"Biennial Review Depreciation Order"*), 15 FCC Rcd at 263, para. 48 (quoting *Simplification of the Depreciation Prescription Process*, CC Docket No. 92-296, *Report and Order*, 8 FCC Rcd 8025, 8044 (1993)). The FCC has solicited comment on these issues in its recent *Notice of Proposed Rulemaking* concerning the TELRIC rules.

76. *Virginia Arbitration Order,* at paras. 108 and 112.

WorldCom for financial reporting.[77] This is a fruitless exercise because the latter lives are also purported to conform to GAAP, and thus reflect the same conservatism principle. Mr. Sovereign next benchmarks Verizon's proposed lives to those lives prescribed by the FCC for cable television companies ("CATV"). Again, Mr. Sovereign has failed to provide a meaningful comparison because the CATV lives prescribed by the FCC are *explicitly* based on GAAP requirements,[78] and are therefore inappropriate for use in the TELRIC arena. The comparison to CATV lives is also faulty because, although there may be similarities between some cable and ILEC services from the consumer's standpoint, their underlying networks and facilities are distinctly different, so that the lives of CATV facilities do not provide an adequate standard against which to benchmark ILEC depreciation lives. The FCC considered these same types of benchmarks in its 1999 depreciation review and rejected them.[79]

Q. Does Mr. Sovereign's benchmarking against asset life projections by Technology Futures Inc. ("TFI") demonstrate that Verizon's "GAAP" lives are reasonable?

77. *Sovereign Direct Testimony,* at 11.

78. *In the Matter of Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992: Rate Regulation*, MM Docket No. 93-215; and *Adoption of A Uniform System of Accounting System for Provision of Regulated Cable Service*, CS Docket No. 94-28, *Second Report and Order, First Order on Reconsideration, and Further Notice of Proposed Rulemaking*, FCC No. 95-502, 11 FCC Rcd 2220 (1996) 2259, at para. 93.

79. *Biennial Review Depreciation Order*, at para. 18.

A. No, Mr. Sovereign's benchmarks against TFI's asset life forecasts are even less meaningful. TFI generally uses "substitution analysis" to predict the adoption of new, technologically superior telecommunications equipment. In predicting the adoption of new technology, TFI calculates the implied substitution away from older technologies, which TFI assumes would cause the older technologies to become technologically obsolete and thus subject to earlier retirements than might otherwise occur. Whether or not substitution analysis is valid in theory, in practice TFI's prior forecasts for ILEC telecommunications plant have proven to be very inaccurate. For example, in a 1995 forecast, TFI suggested that in 2003, more than 40% of access lines would be provided over fiber facilities.[80] In reality, fiber deployment and copper retirement has been much slower than TFI predicted, reflecting at best a 13% substitution.[81] Given TFI's poor track record in this regard, it would be imprudent to rely on the TFI forecasts as a benchmark.

Q. Has the Commission previously rejected asset lives based on TFI studies?

80. Lawrence K. Vanston, *Depreciation Lives for Telecommunications Equipment, Review and Update,* Technology Futures, Inc., (1995) at 21.

81. The FCC reports that fiber represents about 13% of deployed cable, no where near a 40%+ substitution. Industry Analysis and Technology Division, Federal Communications Commission, *Statistics of Communications Common Carriers,* 2002-2003 edition, at Table 2.2.

A. Yes, as the Commission's Order in Docket UT-92009 indicates, the Commission has rejected asset lives based on TFI studies on at least three prior occasions.[82] The FCC also found that TFI asset life projections were not credible in its 1999 depreciation review.[83]

Q. Mr. Sovereign suggests that the asset lives prescribed by regulatory commissions may bear little relationship to their actual economic lives. Do you agree with that claim?

A. No. While I agree that regulatory commissions used to look almost exclusively at historic mortality data when prescribing asset lives for regulatory purposes, that is no longer the case. For example, the FCC's 1999 represcription order states that the FCC takes into account "analysis of company plans, technological developments, and other future-oriented studies," and it clearly did so in the course of establishing its current depreciation prescription ranges.[84] Not only have regulatory lives been updated to reflect current circumstances, they have also been reaffirmed as being forward-looking and appropriate for TELRIC purposes.[85] Given this reaffirmation, it seems presumptuous to suggest that regulatory lives are inappropriate for use in a proceeding such as this one.

82. *GTE Depreciation Order*, at 1.

83. *Biennial Review Depreciation Order*, at para. 16.

84. *Id.,* at paras. 5, 13-19.

85. *Virginia Arbitration Order*, at para. 112.

Q. What depreciation lives and FNS values do you recommend the Commission adopt for the purposes of calculating Verizon's UNE costs and rates?

A. I recommend that the Commission adopt the depreciation lives and rates that it adopted for Verizon in its Docket UT-992009 decision, as discussed earlier in my testimony.

Q. Have you revised Verizon's depreciation inputs to its cost model?

A. Yes. I have replaced Verizon's depreciation inputs with the values that the Commission prescribed in Docket No. UT-992009. The revised UNE costs and rates presented by AT&T witness Steven Turner reflect this adjustment to Verizon's model.

Q. Does this conclude your testimony at this time?

A. Yes.

Attachment 1

Statement of Qualifications

SCOTT C. LUNDQUIST

Scott C. Lundquist is a Vice President at ETI, where he performs strategic and regulatory analysis, project management, and client support services for ETI's consulting projects in telecommunications regulation and economics. Since joining ETI in 1986, Mr. Lundquist has contributed to a broad range of telecommunications consulting projects, including work in the areas of costing and interconnection, implementation of competition policies, alternative regulation, network modernization and productivity, and rate design. Mr. Lundquist holds a B.A. from Harvard College in Psychology and Social Relations.

Mr. Lundquist has managed or participated in over seventy-five major projects concerning tariff and/or cost analysis, rate design, and regulatory policy development. His work has included direct consulting support to regulatory commissions in the U.S., Canada, China, and the Philippines, as well as service to state consumer advocates, telecommunications users groups and competitive suppliers. Over the past ten years, Mr. Lundquist has testified as an expert witness on telecommunications matters in Alabama, California, Connecticut, Delaware, Hawaii, Illinois, Maryland, Minnesota, Nevada, New Jersey, North Carolina, Ohio, Rhode Island, Texas, Vermont, Wisconsin, Washington state, and the District of Columbia.

Mr. Lundquist's recent work has focused on the implementation of local service competition policies and interconnection arrangements between incumbent local exchange carriers (ILECs) and new market entrants. In these assignments, Mr. Lundquist has offered expert testimony on behalf of consumer advocates and new entrants concerning ILEC cost studies for unbundled network elements (UNEs) in California, Hawaii, Maryland, Nevada, New Jersey, and Ohio (1997-2002); testified on behalf of new entrants in California arbitration proceedings concerning interconnection costs and pricing (1996, 1999, 2001, and 2002); and analyzed ILECs' proposed local number portability (LNP) costs and prices in the FCC's LNP investigation (1999). Mr. Lundquist also co-authored ETI's January 2003 study of ILEC total factor productivity (TFP) on behalf of the Public Service Commission of Wisconsin, and a February 2004 report on behalf of Western Wireless Corporation that examined inefficiencies in the universal service funding mechanisms supporting rural telephone companies.

Mr. Lundquist spent nine weeks in Beijing in 1994 working in close association with officials of the China Ministry of Posts and Telecommunications on a technical assistance project sponsored by the Asian Development Bank. Mr. Lundquist developed and conducted several seminars for senior MPT officials on interconnection, tariffing and rate design for non-basic services, and regulatory restructuring issues. Mr. Lundquist was also the Project Manager for ETI's 1993-1994 engagement by the National Telecommunications Commission of the Philippines. In the course of this assignment, Mr. Lundquist spent six months on-site in Manila conducting several institutional strengthening activities, including assistance in implementing new competition and interconnection policies and staff training in regulatory methods.

Mr. Lundquist has formerly served as Senior Consultant, Consultant, Senior Analyst, and Analyst at ETI. Prior to joining ETI, Mr. Lundquist performed computational and analytic work for research efforts in both the Division of Applied Science and Psychology Department at Harvard University.

Major reports and papers on telecommunications authored by Mr. Lundquist include:

"Lost in Translation: How Rate of Return Regulation Transformed the Universal Service Fund for Consumers into Corporate Welfare for the RLECs" (with Susan M. Gately), February 2004. Prepared for Western Wireless Corporation.

"A Study of Total Factor Productivity in the Wisconsin Local Exchange Carrier Industry" (with Lee L. Selwyn, Sarah C. Bosley), January 2003. Prepared for the Public Service Commission of Wisconsin.

"Efficient Inter-Carrier Compensation Mechanisms for the Emerging Competitive Environment" (with Lee L. Selwyn), August 2001. Prepared for Pac-West Telecomm, Inc., Focal Communications Corp., and US LEC Corp.

"Price Cap Plan for USWC: Establishing Appropriate Price and Service Quality Incentives in Utah" (with Patricia D. Kravtin and Susan M. Baldwin). Prepared for the Utah Division of Public Utilities, March 2000.

"Bringing Broadband to Rural America: Investment and Innovation in the Wake of the Telecom Act" (with Lee L. Selwyn and Scott A. Coleman). Prepared for AT&T, September 1999.

"Promises and Realities: An Examination of the Post-Merger Performance of the SBC/Pacific Telesis and Bell Atlantic/NYNEX Companies" (with Scott A. Coleman). Prepared for the AARP Public Policy Institute, July 1999.

"Manual of Procedures for the Rates Regulation Division" (with Paul S. Keller). Prepared for the Philippines National Telecommunications Commission, August 1994.

"Review of Annual Reporting Requirements for Telecommunications Common Carriers." Prepared for the Philippines National Telecommunications Commission, October 1993.

"The Infrastructure Dilemma: Matching Market Realities and Policy Goals" (with W.P. Montgomery). Prepared for the International Communications Association, January 1993.

"A Roadmap to the Information Age: Defining a Rational Telecommunications Plan for Connecticut" (with Susan M. Baldwin et al). Prepared for the Connecticut Office of Consumer Counsel, October 1992.

"New Connections for the 1990s: Managing the Changing Relationship Between Corporate Telecommunications Needs and the Local Telephone Company" (with W. Page Montgomery). Prepared for the International Communications Association, April 1990.

"Adapting Telecom Regulation to Industry Change" (with Dr. Lee L. Selwyn). Prepared for the International Communications Association and published in *IEEE Communications Magazine*, January 1989.

"A Study of Rate of Return Regulation and Alternatives - An Examination of Applicability to regulation of Telephone Companies by the Canadian Radio-Television and Telecommunications Commission" (with W. Page Montgomery and Lee L. Selwyn). Prepared for the Canadian Radio-Television and Telecommunications Commission, March 1989.

"Telecommunications Competition in Michigan and Regulatory Alternatives: Market Structure and Competition in the Michigan Telecommunications Industry" (with Lee L. Selwyn, David N. Townsend, Patricia D. Kravtin). Prepared for the Michigan Divestiture Research Fund Board, April 1988.

Attachment 2

Comparison of WUTC-Prescribed, Verizon Proposed and FCC Safe Harbor Depreciation Values

Comparison of WUTC-Prescribed, Verizon Proposed and FCC Safe Harbor Depreciation Values

Account	Description	VZ Proposed	FCC lower Life	ELG WUTC 940926 Lives	ELG WUTC 992009 Lives		VZ FNS %	FCC Lower FNS %	ELG WUTC 992009 FNS%
2112	Motor Vehicles	8	7.5	9.3	12		15	10	20
2112	Aircraft	8	7.0				50	30	
2114	Spec. Purpose Vehicles	12	12.0				0	0	
2115	Garage Work Equip		12.0	18	12			0	0
2116	Other work equipment		12.0	15	12			0	0
2121	Buildings	25	46.3	43	43		0		0
2121	2122 (161C) Furniture	15	15.0	20	15		0	0	5
2123	Office equipment	8	10.0	15	10		0	0	0
2123.2	Company communications eq	8	7.0	8	8			(5)	0
2124	General purpose computer	5	6.0	8	8		0	0	0
2212	Digital switch	12	12.0	16.5	16		0	0	0
2220	Operator systems	10	8.0	12	10		0	0	0
2231	Radio microwave	5	9.0	14	10		0	(5)	0
2232	Digital data systems	9	11.0	12	11.4		2	(5)	5
2351	Public telephone equipment	8	7.0	8			0	0	
2362	Channel term equipment	8	5.0	10	7		0	(5)	0
2411	Poles	30	25.0	28	28		(110)	(75)	(75)
2421	Aerial cable - metallic	16	20.0	21	21		(15)	(35)	(17)
2421	Aerial cable non-metallic	20	25.0	30	25		(5)	(25)	0
2422	Underground cable metallic	17	25.0	26	25		(15)		(22)
2422	Underground cable non-metallic	20	25.0	30	25		(5)	(20)	0
2423	Buried cable metallic	18	20.0	23	23		(3)	(10)	(7)
2423	Buried cable non-metallic	20	25.0	30	25		(3)	(10)	0
2424	Submarine cable meallic	17	25.0	22	22		(5)	(5)	(10)
2424	Submarine Cable non-metallic	20	25.0	22			(5)	(5)	
2426	Intra-building cable metallic	17	20.0	20	20		(5)	(30)	(10)
2426	Intra-building cable non-metallic	20	25.0				(5)	(15)	
2441	Conduit	50	50.0	50	50		(10)	(10)	(10)

Note: Blanks Indicate values not reported.
Sources:
Sovereign Testimony 6-26-03 Figure AES 2
FCC Order 94-174, released June 28, 1994, Appendix B ("Accounts and Ranges for Phase One Implementation")
FCC Order 95-181, released May 4, 1995, Appendix B ("Accounts and Ranges")
FCC Order 99-397, rel. December 30, 1999 Appendix B ("Summary of Current Prescription Life Ranges and Proposals")
WUTC Order UT-992009, released 6-26-2000 Attachment 1