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BEFORE THE ARIZONA CORPORATION COMMISSION

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MARC SPITZER, Chairman
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JEFF HATCH-MILLER
MIKE GLEASON
KRISTIN K. MAYES

IN THE MATTER OF QWEST CORPORATION'S FILING OF RENEWED PRICE REGULATION PLAN	Docket No. T-01051B-03-0454
IN THE MATTER OF THE INVESTIGATION OF THE COST OF TELECOMMUNICATIONS ACCESS	Docket No. T-00000D-00-0672 **NOTICE OF FILING DIRECT TESTIMONY**

Staff hereby provides Notice of Filing its Direct Testimony in this docket. An original and fifteen copies are submitted of the Direct Testimony of Elijah Abinah, Matthew Rowell, Armando Fimbres, Joel Reiker, Alejandro Ramirez, Del Smith, Michael L. Brosch, Steven C. Carver, William Dunkel and Thomas Reagan.

Copies of the confidential and/or highly confidential versions of the Direct Testimony of Matthew Rowell, Armando Fimbres, Michael L. Brosch, Steven C. Carver, William Dunkel and Thomas Regan are being provided to the Commissioners and their aides, the presiding Administrative Law Judge and those parties who have executed and docketed Exhibits A and/or B to the Protective Order in this proceeding.

RESPECTFULLY SUBMITTED this 18th day of November 2004.

Maureen A. Scott

Christopher C. Kempley, Chief Counsel
Maureen A. Scott, Attorney
Timothy J. Sabo
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007
(602) 542-3402

Original and 15 copies of the foregoing filed this 18th day of November , 2004 with:

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, AZ 85007

Copy of the foregoing hand-delivered or mailed this 18th day of November, 2004 to:

Jane L. Rodda
Administrative Law Judge
400 West Congress Street
Tucson, AZ 85701

Timothy Berg
Theresa Dwyer
Darcy R. Renfro
Fennemore Craig, P.C.
3003 N. Central, Suite 2600
Phoenix, AZ 85012-2913
Attorneys for Qwest Corporation

Todd Lundy
Qwest Law Department
1801 California Street
Denver, CO 80202

Scott S. Wakefield
Chief Counsel
RUCO
1110 W. Washington, Suite 220
Phoenix, AZ 85007

Michael W. Patten
Roshka Heyman & DeWulf, PLC
400 E. Van Buren Street, Suite 800
Phoenix, AZ 85004
Attorneys for Cox Arizona Telcom and Xspedius

Mark A. DiNunzio
Cox Arizona Telcom, LLC
MS: DV3-16, Bldg. C
1550 West Deer Valley Road
Phoenix, AZ 85027

Thomas F. Dixon
MCI
707 17th Street, 39th Floor
Denver, CO 80202

Thomas H. Campbell
Michael T. Hallam
Lewis and Roca
40 North Central Avenue
Phoenix, AZ 85004
Attorneys for MCI
and Time Warner

Peter Q. Nyce, Jr.
Regulatory Law Office
U.S. Army Litigation Center
901 N. Stuart Street, Suite 713
Arlington, VA 22203-1644

Walter W. Meek
AUIA
2100 N. Central, Suite 210
Phoenix, AZ 85004

Albert Sterman
Arizona Consumers Council
2849 East Eighth Street
Tucson, AZ 85716

Richard Lee
Snavely King Majoros O'Connor & Lee, Inc.
1220 L Street, N.W., Suite 410
Washington, D.C. 20005

Martin A. Aronson, Esq.
Morrill & Aronson, PLC
One E. Camelback, Suite 340
Phoenix, AZ 85012-1648
Attorneys for Arizona Dialtone, Inc.

Jeffrey W. Crockett
Snell & Wilmer
One Arizona Center
400 East Van Buren
Phoenix, AZ 85004-2202
Attorneys for ALECA

DIRECT
TESTIMONY

OF

ELIJAH O. ABINAH
MATTHEW ROWELL
ARMANDO FIMBRES
DEL SMITH
JOEL M. REIKER
ALEJANDRO RAMIREZ

DOCKET NOS. T-01051B-03-0454
T-00000D-00-0672

IN THE MATTER OF QWEST CORPORATION'S FILING OF RENEWED PRICE REGULATION PLAN AND THE INVESTIGATION OF THE COST OF TELECOMMUNICATIONS ACCESS

NOVEMBER 18, 2004

ABINAH

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF QWEST CORPORATION'S FILING AMENDED RENEWED PRICE REGULATION PLAN	)))	DOCKET NO. T-01051B-03-0454
IN THE MATTER OF THE INVESTIGATION OF THE COST OF TELECOMMUNICATIONS ACCESS	)))	DOCKET NO. T-00000D-00-0672

PREFILED TESTIMONY OF

ELIJAH O. ABINAH

FOR THE

ARIZONA CORPORATION COMMISSION

UTILITIES DIVISION

November 18, 2004

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EXECUTIVE SUMMARY

Staff is recommending continuation of the current Price Cap Plan with the modifications discussed in Mr. Rowell's testimony. In its filing to renew its Price Cap Plan, Qwest proposed substantial modifications to the Plan's terms and conditions. Staff is not opposed to many of the proposed modifications, as long as additional safeguards are adopted and put in place by the Commission.

Staff also believes it is appropriate for the Plan to recognize the changing competitive conditions in Qwest's service territory, and where warranted, to allow Qwest additional pricing flexibility. More specifically, while Staff can not recommend approval of Qwest's Competitive Zone proposal as set forth in the Qwest's testimony, Staff is not opposed to the use of Competitive Zones as long as the designation is made pursuant to R14-2-1108 and some added safeguards are in place.

Staff is requesting that the designation of competitive zones be done in a separate proceeding for primarily three reasons. First, Staff believes that in order to make this designation under R14-2-1108 additional market share information and determinations are necessary. Second, there are problems with the existing data which need to be resolved. Third, Qwest does not want to assume carrier of last result obligation ("COLR") in competitive zones and Staff believes this is a critical issue which must be resolved before competitive zones are established. Qwest supports addressing COLR in a separate proceeding.

Staff Witness' Brosch and Carvers' review of Qwest's R14-2-103 filing indicates that the Company's revenue deficiency is approximately $3.5 million. Staff recommends that the

revenue caps be adjusted to recognize this deficiency as well as Staff's proposed reduction to access charges.

An analysis of Qwest's service quality reports indicates that Qwest's performance has improved significantly in some areas throughout the initial term of the Price Cap Plan. Thus the Price Cap Plan has not acted as a disincentive to Qwest to take measures to improve service quality.

Finally, Qwest has not met the criteria in the Commission's rules for Arizona Universal Service Fund ("AUSF") support and a cost/revenue analysis of providing local exchange service does not support Qwest's request for funding from the AUSF at this time.

INTRODUCTION

Q. Please state your name and business address.

A. My name is Elijah O. Abinah. My business address is 1200 West Washington Phoenix Arizona, 85007.

Q. Where are you employed and in what capacity?

A. I am employed by the Utilities Division ("Staff") of the Arizona Corporation Commission ("ACC" or "Commission") as the Assistant Director.

Q. How long have you been employed with the Utilities Division?

A. I have been employed with the Utilities Division since January 2003.

Q. Please describe your educational background and experience.

A. I received a Bachelor of Science degree in Accounting from the University of Central Oklahoma in Edmond, Oklahoma. I also received a Master of Management degree from Southern Nazarene University in Bethany, Oklahoma. Prior to my employment with the ACC, I was employed by the Oklahoma Corporation Commission for approximately eight and a half years in various capacities in the Telecommunications Division.

Q. What are your current Responsibilities?

A. As the Assistant Director, I review submissions that are filed with the Commission and make policy recommendations to the Director regarding those filings.

PURPOSE

Q. What is the purpose of your testimony in the current Docket Nos. T-01051B-03-0454 and T-00000D-00-0672, the Application of Qwest Corporation ("Qwest" or "Company") for a renewed Price Cap Plan and the investigation into Qwest's Access Charges.

A. The purpose of my testimony is to provide the Commission with an overview and explanation of Staff's position in this case including Staff's review of Qwest's application for its renewed Price Cap Plan ("Plan"), Staff's review of Qwest's R14-2-103 filing as ordered by the Commission including its proposal with respect to access charges and Staff's recommendations regarding Qwest's request.

Q. Please begin by providing the names of the Staff witnesses and the subject of their testimony.

A. Please see the chart below:

Witness	Staff/Consultant	Topic
Elijah Abinah	Staff	Overview and Explanation of the Staff Position
Matthew Rowell	Staff	Recommended Changes To The Current Price Regulation Plan
Armando Fimbres	Staff	The Competitive Situation In Qwest's Service Area
Del Smith	Staff	Qwest's Service Quality
Joel Reiker	Staff	Cost of Equity
Alejandro Ramirez	Staff	Capital Structure, Cost of Debt and Overall Rate of Return
Steven Carver	Utilitech	Review and Evaluation of Elements of Rate Base and Operating Income Included in the Overall Revenue Requirement
Michael Brosch	Utilitech	Accounting Adjustments To Qwest's R14-2-103 Filing
William Dunkel	William Dunkel & Associates	Depreciation Rates, Digital Subscriber Line Service Construction Charges, and Reproduction Cost New Less Depreciation
Thomas Regan	William Dunkel & Associates	Access Charges and Arizona Universal Service Fund

BACKGROUND

Q. Please provide a brief background of this case.

A. Yes: Pursuant to Commission Decision No. 63487, Qwest filed a renewed Price

Regulation Plan. By Procedural Order dated November 17, 2003, the ALJ ordered that the Access Charge Proceeding be bifurcated into two phases, with Phase 1 addressing Qwest's Access charges in conjunction with the review of its current Price Cap Plan in Docket No. T -01051B -03-0454.

On November 7, 2003, Qwest filed a motion to clarify, or on the alternative, to terminate the Price Cap Plan. On Page 2, lines 1-6, of its filing, Qwest asked that in the absence of a Commission Order adopting Qwest's interpretation of the Price Cap Plan the Commission enter an Order declaring that the Price Cap Plan terminate as of March 30, 2004. Entry of such an Order, according to Qwest, would return Qwest to the traditional rate of return regulation that applied to it prior to the adoption of the Plan, and continue Qwest's rates at the levels existing at the termination of the Plan.

On February 10, 2004, in Decision No. 66772, as clarified by Decision No. 67047, dated June18, 2004, the Commission denied Qwest's request as inconsistent with the express terms of the Plan and required Qwest to provide the information required under A.A.C.R14-2-103.

On May 20, 2004, Qwest made its R14-2-103 filing with the Commission.

Q. Can you briefly summarize the current Price Cap Plan?

A. Yes. In Decision No. 63487, issued on March 30, 2001, the Commission approved an alternative form of regulation ("AFOR") plan for Qwest. The Plan classified Qwest's services into three Baskets:

- Basket 1: Basic/Essential Non-Competitive Services
- Basket 2: Wholesale Services
- Basket 3: Flexibly-Priced Competitive Services

Basket 1

The weighted average price level ("Price Index") of all services contained in Basket 1 is capped using an annual inflation/productivity adjustment factor (described in detail below.) On an annual basis Qwest was required to adjust prices in Basket 1 to account for the effect of the inflation/productivity adjustment. Prices for many services could be adjusted up or down with 30 days notice (but increases were capped at 25% per year.) Certain basic services in Basket 1 have "hard caps," that is, their prices can not increase (but they can decrease.) Individual service prices must exceed Total Service Long Run Incremental Cost ("TSLRIC") and comply with the imputation requirements of A.A.C. R14-2-1310(C).

Basket 2

Basket 2 contains wholesale services such as access charges, PAL lines, and Unbundled Network Elements ("UNEs.") Many of these services are governed by their own specific pricing rules and those rules continued during the term of the Plan. Intrastate switched access rates decreased by $5 million per year during the initial term of the plan.

Basket 3

Basket 3 includes services that have been accorded pricing flexibility or have been determined to be competitive under A.A.C. R14-2-1108. The Basket 3 price cap index was set at the existing revenue level for Basket 3 services plus 13.4% increased by $5 million a year to account for the access charge reductions. New services could be placed in Basket 3, however, the Commission could require a different classification if its review of the filing warranted this treatment. New services are filed as tariff filings. Packages of services from Basket 1 and Basket 3 need to be filed for review by Staff, pursuant to A.A.C. R14-2-1108.

The price of a Basket 3 service or service package must exceed the TSLRIC of the service or package and comply with the imputation requirements of A.A.C. R14-2-1310(C).

QWEST'S PROPOSED MODIFICATIONS

Q. Can you please briefly summarize Qwest's proposed modifications to the Price Cap Plan?

A. Yes. Qwest is requesting continuation of the Plan that was approved by the Commission in Decision No. 63487, with the following major modifications:

1) Elimination of the productivity/inflation adjustment mechanism;
2) Replacement of an indexed basket cap on the Basic/Essential Service basket with newly determined revenue cap;
3) Introduction of a "Competitive Zone" test for moving services out of the Basic/Essential Services Basket on a geographic basis;
4) Ability to move wholesales services to a competitive sub-basket within Basket 2;
5) Elimination of the revenue cap on the Competitive Services basket;
6) Greater flexibility for services in the Competitive Services Basket comparable to that enjoyed by Qwest's competitors; and
7) Also Qwest requests the opportunity to earn a fair return on its investment, making appropriate prospective adjustment in light of results observed during the initial term of the price cap plan regulation.

Q. What additional relief did the Company request?

A. In Mr. Ziegler's testimony, Qwest also requested the following:

1) Elimination of distance sensitive zone charges in retail Zones 1 and 2;
2) Request to use the Arizona Universal Service Fund ("AUSF") as a mechanism to

increase competition in the less –densely populated portions of Qwest's service territory

3) Hold the issue of intrastate access charges in abeyance pending action by the FCC in its intercarrier compensation docket.

4) Elimination of the one free call allowance for directory assistance services.

In addition, in Mr. McIntyre's testimony, the Company is requesting that the Commission deregulate Billing and Collection services. Qwest has also renewed its request that Voice Mail be deregulated.

Q. What are Staff's recommendations?

A. Staff recommends that the Commission approve Qwest's request to renew its Price Cap Plan subject to the modifications discussed in Mr. Rowell's testimony. Staff also recommends adjustment of the revenue cap on Basket 3 of the Plan consistent with the findings of Staff Witnesses Brosch, Carver, Regan, Dunkel, and Rowell.

Q. Based on Staff's review of Qwest's Application, does Staff agree with all the modifications proposed by Qwest?

A. No. Staff is not opposed to some of Qwest's requests and Staff is recommending approval of those modifications. In other instances, Staff does not agree with Qwest's proposals as presented but is willing to support the proposed modifications requested by the Company, with changes. In several instances, the Staff does not support Qwest's proposals.

Basically, Staff's collective testimonies support the following modifications proposed by Qwest:

1. Elimination of the productivity/inflation factor;

2. Competitive Zone Designation as set forth in Mr. Rowell's testimony;
3. Deregulation of Voicemail and Billing and Collection services;
4. Use of a Revenue Cap on Basket 1 service;
5. Qwest's Proposal for Promotional Offering/Tariff Filings; and
6. Flexibility for Qwest to bundle and package services and their inclusion in Basket 3.

Staff does not support:

1. Elimination of the one Free Directory Assistance Call;
2. Qwest's Request for AUSF Support of $64 million;
3. An end user surcharge to recover lost revenue associated with any access charge reduction; and
4. Elimination of the Revenue Cap on Basket 3.

Q. Does Staff have any additional recommendations?

A. Yes. Staff recommends that the revenue cap on Basket 3 be adjusted as described in Mr. Rowell's testimony.

Q. Please compare and contrast Qwest's proposal to Staff's recommendation.

A. Please see the table below.

Qwest's Initial Proposals	Staff Recommendations
Elimination of the productivity/inflation adjustment mechanism	Staff agrees.
Replacement of an indexed basket cap on the Basic/Essential Service basket with newly determined revenue cap	Staff agrees.

Introduction of a "Competitive Zone" test for moving services out of the Basic/Essential Services Basket on a geographic basis	Staff agrees with the concept.
Ability to move wholesales services to a competitive sub-basket within Basket 2	This request does not appear in Qwest's revised filing. Staff has assumed that Qwest is no longer pursuing this proposal.
Elimination of the revenue cap on the Competitive Services basket	Staff disagrees
Opportunity to earn fair return on its investment, making appropriate prospective adjustment in light of results observed during the initial term of the price cap plan regulation	Staff agrees
Additional Qwest Proposals	Staff Recommendations
Elimination of distance sensitive zone charges in retail Zones 1 and 2	Staff disagrees.
Request to use the Arizona Universal Service Fund ("AUSF") as a mechanism to increase competition in the less –densely populated portions of Qwest's service territory	Staff disagrees.
Hold the issue of intrastate access charges in abeyance pending action by the FCC in its intercarrier compensation docket.	Staff disagrees.
Elimination of the one free call allowance for directory assistance services	Staff disagrees.
Qwest Deregulation Proposals	Staff Recommendations
Deregulation of Billing and Collection Services	Staff agrees.
Deregulation of Voice Mail Service	Staff agrees.

REVENUE DEFICIENCY AND NEED FOR R14-2-103 INFORMATION

Q. Why does Staff believe that a review of Section R14-2-103 information was appropriate?

A. Based on Qwest's pre-filed testimony and accompanying schedules that were filed in this Docket, Qwest contends that its revenue deficiency on its original cost rate base amounts to $318.5 million and $458.8 million on its fair value rate base. Staff believes that it was necessary to examine and verify the magnitude of the deficiency claimed by Qwest. The analysis performed by Staff was not only for the customer's benefit but for Qwest's as well. Staff's analysis allowed it to determine whether Qwest is earning a fair return and to ensure that Qwest's customers will be charged just and reasonable rates. Staff found as a result of its own independent examination that the Company has a revenue deficiency of $3.5 million.

Qwest was claiming a very large revenue deficiency and asked in its initial filing for an opportunity to earn a fair return on its investment. Qwest also made it clear, in its motion to clarify, its intention to revert back to traditional rate base/rate of return regulation if the Commission did not agree to the modifications it is requesting to the Plan. Therefore, in such circumstances, it was critical that the Commission have the benefit of an independent analysis performed by Staff before rendering its determination in this case.

Q. What is the relationship between the R14-2-103 filing and the changes proposed by Qwest?

A. A R14-2-103 filing is the equivalent of the traditional Rate Base/Rate of Return filing. Given the Arizona Constitution and current interpretations of its provisions by the Arizona Courts, it is necessary to consider this information in settling the revenue caps of the Plan. Under the Arizona Constitution, the Commission must ensure that Qwest's rates are just and

reasonable. A utility in Arizona is entitled to an opportunity to earn a fair return on the fair value if its properties devoted to the public use, no more and no less. To ensure this, the Price Cap's three Baskets are tied to the revenue requirement determined by traditional methods.

Q. On page 7 lines 2-3 of Mr. Ziegler's Direct Testimony, he asks about the relationship between R14-2-103 and Qwest's proposals in this Docket. Do you agree with Mr. Ziegler's response to that question?

A. No. Staff believes a Section R14-2-103 filing is directly related to Qwest's filing. It was agreed to by all the parties that access charges and rates may not be reduced or increased outside the context of a rate proceeding unless, at a minimum, a revenue neutral-mechanism is developed. Further, Qwest, as part of its filing, is asking for "the opportunity to earn a fair return on its investment, making appropriate prospective adjustment in light of the results observed during the initial term of the price regulation plan." Thus, unless Qwest's numbers were to be accepted at face value, it was necessary to obtain, review and analyze the information required under an R14-2-103 filing.

Q. On page 3 lines 17-19 of Mr. Ziegler's Testimony, he stated that "although the Rule 103 filing shows a revenue requirement deficiency of $322 million, Qwest does not propose rate increase to recover the revenue requirement". Does Staff agree with that statement?

A. No. Although Qwest may not be directly seeking to recover the revenue deficiency, Qwest is seeking to recover $64 million from the Arizona Universal Service Fund, which amounts to an indirect rate increase as well as miscellaneous increases of several million dollars. In addition, by according Qwest additional pricing flexibility and eliminating the cap on Basket

3 as requested by Qwest, Qwest would be at liberty to adjust its rates for different services at will.

Q. What did Staff's review of Qwest's R14-2-103 filing reveal?

A. According to Staff Witness Brosch's testimony, Qwest's actual revenue deficiency is only $3.5 million. In arriving at this amount, Staff attempted to be extremely fair to Qwest. Staff added several adjustments not proposed by Qwest which actually increased the revenue requirement. A large part of the reduction to Qwest's declared revenue deficiency relates to Staff's proposal to adjust Qwest's depreciation rates. As Staff Witness Dunkel explains, the depreciation rates for some of Qwest's largest technology accounts were set at accelerated levels in the last Qwest depreciation case based on Qwest's assertions that it was planning to undertake a significant modernization effort by replacing much of its copper facilities with fiber. This did not occur nor is it part of Qwest's construction plans for the foreseeable future. Consequently, an adjustment to these rates was appropriate. However, to be fair to Qwest, Staff is proposing use of the midpoint of the current FCC ranges, and has ensured that the new rates are consistent with the rates authorized for Qwest by other states in its 14 state region.

PRICE CAP PLAN

Q. Why is Staff not recommending that the Company revert back to traditional rate base rate of return regulation?

A. Based on the nature of the market, Staff believes that the most appropriate form of regulation of Qwest is for the Commission to renew the Plan that was approved in the 2001 settlement, with the modifications discussed in Staff Witness Rowell's testimony.

Q. What are the reasons for Staff's recommendation to continue the current Price Cap Plan with modifications?

A. Staff believes that in today's telecommunications market, an alternative form of regulation other than the traditional rate base rate of return regulation is appropriate. Staff Witness Rowell addresses the benefits of alternative regulation in his testimony.

Staff recognizes that in the telecommunications industry today, consumers have options available to them when it comes to the provision of telephone services. As stated in Mr. Rowell's testimony, alternative forms of regulation were implemented to increase the incentive for utilities to provide services more efficiently. Staff believes that by approving Qwest's request for renewal of the Plan with the modifications proposed by Staff will incent the Company to provide services in a more efficient manner that might lead to lower costs of service, which should lead to lower rate to its customers.

Q. Does Staff believe granting Qwest's request for renewal of the Plan with Staff's proposed modifications is in the public interest?

A. Yes. Staff believes that if the safeguards and added criteria recommended by Staff are put in place, then granting Qwest's request for Competitive Zones is in the public interest. As stated in Mr. Rowell's testimony, the prices for basic services in Basket one will be capped. Qwest can only lower its rates in that Basket. Staff also believes that, by granting Qwest's request for renewal of the Plan, Qwest will be able to respond in a timely manner to end users' needs and potentially have the ability to deploy new technology and innovative offering. Also, Staff believes that Staff's proposals will allow Qwest to earn a fair return on their investment. Staff's proposal at the same time ensures that customers' rates are just and reasonable.

Q. Based on your understanding of the Plan, are there any provisions that preclude the Commission or the Staff from reviewing other forms of regulation or additional changes to Qwest's Plan?

A. No. Section 6 (c) of the Plan, states "Nothing herein shall affect the Commission's jurisdiction or authority to determine the most appropriate form of regulation for Qwest at the end of the three year term of the Price Cap Plan, including termination of the Plan."

COMPETITIVE ZONE DESIGNATION

Q. Should the Commission adopt Qwest's Competitive Zone Proposal?

A. The Commission should only adopt Qwest's Competitive Zone Proposal if the modifications proposed by Staff Witness Rowell are adopted. As stated in Mr. Rowell's testimony, Staff is not opposed to the idea of Competitive Zone Designation, Staff's recommendation will be to utilize the zip code as the geographic areas for such designation. Staff also believes that the designation of specific competitive zones should be done in separate dockets.

Q. Have any other Commissions utilized zip codes as the geographic area of analysis?

A. It is my understanding that the FCC has utilized zip codes to review where broadband deployment has occurred.

Q. Why is Staff recommending a separate docket to address Qwest's request for Competitive Zone Designation?

A. Staff is recommending a separate docket to address Qwest's Request for Competitive Zone Designation because of the following reasons:

1) Staff believes the issue of carrier of last resort ("COLR") needs to be resolved prior to such designations.

2) Staff believes that R14-2-1108 at the minimum should be the criteria used for designation of Competitive Zones. Staff believes that the same criteria should apply whether the Commission is designating an area as competitive or declassifying an area as non-competitive.

3) R14-2-1108 lists market share as one criterion for competitive classification. However, a particular market share level that meets the criteria needs to be established.

AUSF

Q. What are staff's recommendations regarding Qwest's request for Arizona Universal Service Funds?

A. Staff cannot support Qwest's request.

Q. Please explain Qwest's request.

A. Qwest's proposal is to eliminate existing zone charges to consumers, by adopting the Commission's UNE zone de-averaging scheme. Qwest sought AUSF support to make up the difference between current and cost-based rates, in the higher cost areas so they will be relieved of covering the direct cost of providing services and the cost will be spread over all of those paying into AUSF.

Q. Should Qwest's request be considered a request to deploy DSL or broadband?

A. No. Based on the information provided by Qwest in their application, Qwest will not utilize the fund to deploy DSL or broadband. As a matter of fact, Staff believes this would simply be an additional revenue stream for the Company.

Q. Has Qwest demonstrated to Staff how it will address the rural subscribers issue, such as broadband deployment?

A. No. Qwest has made no commitment with respect to the rural areas in its service territory.

Q. What are the benefits to Competitive Zones?

A. Competitive Zone Designation would allow Qwest more pricing flexibility if the level of competition in the geographic area selected justified this designation. As discussed in Staff Witness Rowell's testimony, if a geographic area is designated as competitive, the services for which competitive designation are approved would move to Basket 3.

Q. Do competitive conditions within Qwest's service territory support this type of additional pricing flexibility for Qwest?

A. Based on Staff's findings, Qwest is still the dominant provider in the local exchange markets within its service territories.

Staff Witness Fimbres' testimony indicates that while the local market is still highly concentrated, competition has a foothold in some business markets. The degree of competition in residential markets is a more difficult determination given recent developments at the federal level. Mr. Rowell's testimony indicates that given developments at the federal level, the market for traditional residential wireline service is likely to be a duopoly with Cox Arizona Telecom, L.L.C. left as the only CLEC serving significant numbers of residential customers. Nonetheless, there is a trend as noted in Staff's testimonies of both access line decline and associated revenue decline, which must be attributed at least in part to competition. Thus, the additional flexibility afforded by the Price Cap Plan is appropriate to address increased competition where warranted. However,

because the R14-2-1108 criteria ere not all satisfied by Qwest, and problems with the underlying data exist as discussed by Mr. Fimbres, Staff is recommending separate Competitive Classification proceedings to determine which areas of Qwest's service territory warrant Competitive Zone classification in the future.

Q. How have recent actions at the federal level affected competition in Arizona?

A. Recent court decisions such as the United States Court of Appeals for the District of Columbia Circuit's ("D.C. Circuit") decision in *United States Telecom Association v. FCC*, 359 F.3d 554 (D.C. Cir. 2004) ("USTA II") and FCC decisions have reduced the ability of competitors to compete using Unbundled Network Element-Platform ("UNE-P") and the ability of Competitive Local Exchange Companies ("CLECs") to lease the wide band portion of the loop or fiber facilities.

Q How does Staff address these developments in its testimony?

A. First, Staff Witness Rowell points out that the residential market use of the Unbundled Network Element-Loop ("UNE-L") is almost nonexistent. The FCC found in its Triennial Review Order ("TRO") that Incumbent Local Exchange Companies "(ILECs") cannot handle the volume of UNE-L conversions necessary to serve the mass market. Therefore, Staff is recommending that Qwest be ordered as part of this case to revive the collaborative Batch Hot Cut Process.

Second, in recognition of federal decisions which no longer require the ILECs to lease or make available the wideband portion of the loop in many instances, the Commission could require Qwest to submit its plans for broadband deployment in rural areas on an annual basis including areas where it has determined that deployment would not be economically

feasible. One of the reasons for the FCC action was to encourage broadband deployment by ILECs. Thus, it is reasonable that the Commission examine the Company's Plans especially in rural areas, where the incentive to deploy advanced services may not be as great.

RATE DESIGN ISSUES

SWITCHED ACCESS CHARGES

Q. What is Qwest's position as it relates to switched access charges?

A. On page 14 lines 22-23 and page 15 lines 1-7 of Mr. McIntyre's testimony, he states that Qwest is not proposing any changes for switched access at this time because of the sweeping changes to the entire intercarrier compensation issue being considered at the FCC and the industry. The FCC has taken extensive comments and is likely to make its position known in the future. The result according to Qwest may well be a completely different structure for revenue collection that could change the state role in regulating this revenue.

Q. Does Staff agree with Qwest?

A. No. Staff believes that this Commission has jurisdiction over intrastate access charges and that the Commission should not delay until proceedings at the FCC are concluded. The proceedings at the FCC may take some time to resolve, thus, the Commission should proceed to address the issues at this time.

Q. What is Qwest's position as it relates to any access charge reduction by the Commission?

A. On page 15 lines 22-23 and page 16 lines 1-3 of Mr. McIntyre's testimony, he states "...in that case, Qwest will ask the Commission to provide a plan on how to recover the revenue currently provided by switched access. If for example, intrastate switched access rates are

reduced to the interstate level and the revenue recovery is shifted to residential rate payers, the impact will be a rate increase of about $1.00 per residential access line."

Q. What is Staff's recommendation regarding access charge reduction at this time?

A. Staff recommends the intrastate access charges be reduced by $8.9 million as proposed by Staff Witness Regan, for the reasons given in Mr. Regan's testimony.

Q. Is Staff opposed to Qwest recovering its access charge revenue loss?

A. No. Staff believes that Qwest should be able to recover the revenue loss due to any access charge reductions.

Q. Does Staff support use of an end-user surcharge to recover this revenue loss?

A. No. Staff believes that the current methodology utilized under the Plan is more appropriate. Today, Qwest is allowed to recover its access charge revenue reduction in the form of an increase to the Basket 3 Revenue Cap.

FREE CALL ALLOWANCE TO DIRECTORY ASSISTANCE

Q. What is Qwest's position as it relates to the free call allowance for directory assistance?

A. Qwest is proposing to eliminate the free call allowance for directory assistance.

Q. What is Staff's position?

A. Staff cannot support this request. Dex usually prints and issues, yellow pages or white pages once a year. The publication may occur when an end user is in the process of moving, thus sometimes an end user's name might not appear in the directory. Staff believes that this is a benefit to the end users.

CONSUMER BENEFITS

Q. What benefits does the consumer receive under the Plan as modified?

A. Staff is proposing hard caps on basic service rates whether they are contained in Basket 1 or Basket 3 at existing rate levels. Competitive Zone Designation may result in lower basic rates for some consumers where the degree of competition warrants this added flexibility. Staff has proposed several changes to Qwest's Service Quality Tariff to ensure continued improvement by Qwest in this area as well.

Q. What are Special Rural Construction Charges and when do these charges apply?

A. Section 4.2.2 of Qwest's Exchange and Network Services Price Cap Tariff describes when these charges apply and how they are determined. Generally, these charges apply to new establishments of service outside the exchange base rate area when the rural customer's pro rata share of the cost of constructing facilities exceeds $3,000.

Q. So the $3,000 represents that portion of the pro rata construction cost that the Company is responsible for?

A. Yes. The $3,000 allowance makes service more affordable for many rural customers and is intended to strike a reasonable balance in keeping rural construction charges as affordable as possible without over burdening the general body of rate payers with these costs.

Q. Did Staff collect any data regarding the amount of these types of charges collected from customers in its review of the Price Cap Plan?

A. Yes data was collected on the construction charges Qwest collected from customers in 2001, 2002 and 2003 in Staff Data Request WDA 04-023.

Q. Was Staff able to draw any conclusions from this data?

A. Only that the level of these contributions declined significantly in 2003. The data included contributions for other types of construction so no specific conclusions regarding Special Rural Construction could be made only that contributions in general had declined.

Q. Could the decline mean that less rural customers were able to get service in 2003?

A. If fewer rural customers can afford to pay the applicable construction charge, I would expect the level of contributions to decline.

Q. Have telephone plant construction costs increased significantly since the $3,000 allowance was established?

A. I understand that the $3,000 allowance was established in the late 70s early 80s time frame so I think it is safe to conclude that there has been a significant increase in these types of construction costs.

Q. In your opinion is it reasonable to conclude that a larger percentage of these construction costs are being assessed to the rural customer versus when the $3,000 allowance was established 20 years ago?

A. While Staff did not conduct any studies to compare rural construction costs 20 years ago with today's costs, I think we can assume that the rural customer is probably paying a higher percentage of these costs today than back when the allowance was first established.

Q. Does Staff have any recommendations to make regarding the $3,000 construction allowance?

A. Yes. Staff recommends that the $3,000 allowance be increased to $5,000.

Q. Why does staff believe that $5,000 is a reasonable allowance?

A. In response to Staff Data Request WDA 15-001 Qwest estimated that the annual revenue impact of this change would be $202,000, that is, contributions would be reduced by $202,000. Qwest should be allowed to recover the $202,000 in an appropriate manner. Qwest went on to estimate that 115 customers who would have exceeded the $3,000 allowance and incurred a construction charge would not exceed a $5,000 allowance. Staff's experience has been that many of the applicants who live in the more remote areas where the construction charges are greater can afford to pay little if any construction charge. Therefore, this could equate to 115 rural customers getting service who without the increased allowance couldn't afford telephone service. Staff believes its proposal strikes a reasonable balance that is fair to all Qwest customers.

SUMMARY OF STAFF'S RECOMMENDATIONS

Q. Please summarize Staff's recommendations.

A. Staff recommends the following:

(1) Continuation of the Price Cap Plan that was approved in 2001 with the modifications discussed in Staff's testimonies:

(2) Elimination of the productivity/inflation adjustment mechanism factor;

(3) Replacement of an indexed basket cap on the Basic/Essential Service basket with a newly determined revenue cap;

(4) Designation of Competitive Zones as long as the safeguards and criteria discussed by Staff Witness Rowell are incorporated;

(5) Deregulation of Voicemail and Billing and Collection service as requested by Qwest;

Staff does not recommend the following:

(1) Granting Qwest AUSF;

(2) Eliminating the one free call allowance for Directory Assistance;

(3) Imposing any end-user surcharge to recover lost revenues due to a reduction in access charges; and

(4) Eliminating the revenue cap in Basket 3 services.

Staff also recommends that the Commission adjust the revenue cap in Basket 3.

Q. Does this conclude you direct testimony?

A. Yes, it does. However, Staff reserves the right to supplement its testimony based upon subsequent filings in this docket.

ROWELL

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF QWEST CORPORATION'S FILING OF RENEWED PRICE REGULATION PLAN.	DOCKET NO. T-01051b-03-0454
IN THE MATTER OF THE INVESTIGATION OF THE COST OF TELECOMMUNICATIONS ACCESS.	DOCKET NO. T-00000D-00-0672

DIRECT

TESTIMONY

OF

MATTHEW ROWELL

CHIEF ECONOMIST

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

NOVEMBER 18, 2004

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Executive Summary

My testimony explains Staff's recommendations concerning the changes Qwest has proposed to its Price Regulation Plan.

Qwest has proposed elimination of the inflation/productivity factor as part of a revised plan. Staff supports the proposed elimination of the inflation/productivity factor. Qwest has proposed the elimination of the revenue cap on Basket 3 services. Staff does not support elimination of the Basket 3 revenue cap. Qwest has proposed that all packages be treated as Basket 3 services. Staff supports treating all Packages as Basket 3 services with certain restrictions. Qwest has proposed that all new services be treated as Basket 3 services automatically. Staff does not support treating all new services as Basket 3 services automatically.

Qwest has proposed the concept of Competitive Zones whereby Qwest will have significant pricing flexibility in certain geographic areas. Staff supports the concept of Competitive Zones but can not support the specific proposal that Qwest has offered. Staff offers an alternative Competitive Zone proposal.

Qwest has proposed that Voicemail services and Billing and Collection services be deregulated. Staff supports deregulation of these services. Qwest has proposed alterations to its Promotional tariffs that Staff also supports.

My Testimony addresses the competitive aspects of Qwest's proposal to receive AUSF support. (Staff Witness Thomas Regan presents Staff's primary recommendation on Qwest's AUSF proposal.

My Testimony also contains a discussion of the competitive situation in the Arizona telecommunications market and contains recommendations relevant to competition.

I. Introduction

Q. Please state your name and business address for the record.

A. My name is Matthew Rowell. My business address is: Arizona Corporation Commission, 1200 W. Washington St., Phoenix, Arizona 85007.

Q. What is your position at the commission?

A. I am the Chief of the Telecommunications and Energy section of the Commission's Utilities Division.

Q. Please describe your education and professional background.

A. I received a BS degree in economics from Florida State University in 1992. I spent the following four years doing graduate work in economics at Arizona State University where I received a MS degree and successfully completed all course work and exams necessary for a Ph.D. My specialized fields of study were Industrial Organization and Statistics. Prior to my Commission employment I was employed as a lecturer in economics at Arizona State University, as a statistical analyst for Hughes Technical Services, and as a consulting research analyst at the Arizona Department of Transportation. I was hired by the Commission in October of 1996 as an Economist II. I was promoted to the position of Senior Rate Analyst in November of 1997 and to Chief Economist in July of 2001. In my current position I am responsible for supervising nine professionals who work on a variety of telecommunications and energy matters.

Q. What is the purpose of your testimony?

A. My testimony will explain Staff's recommendations regarding Qwest Corporation's ("Qwest") filing for a renewed price regulation plan. Specifically my testimony will address the changes to Qwest's current price regulation plan that Staff recommends.

Q. Please summarize the provisions of Qwest's current price regulation plan.

A. In Decision No. 63487 (March 30, 2001) the Commission approved an alternative form of regulation ("AFOR") plan for Qwest. The AFOR divided Qwest services in to three baskets:

- Basket 1: Basic/Essential Non-Competitive Services
- Basket 2: Wholesale Services
- Basket 3: Flexibly-Priced Competitive Services

Basket 1

The weighted average price level ("Price Index") of all services contained in Basket 1 is capped using an annual inflation/productivity adjustment factor (described in detail below.) On an annual basis Qwest adjusted prices in Basket 1 to account for the effect of the inflation/productivity adjustment. Prices for many services could be adjusted up or down with 30 days notice (but increases were capped at 25% per year.) Certain basic services in Basket 1 have "hard caps," that is, their prices can not increase (but they can decrease.) Individual service prices must exceed Total Service Long Run Incremental Cost ("TSLRIC") and comply with the imputation requirements of A.A.C. R14-2-1310(C).

Basket 2

Basket 2 contains wholesale services such as access charges, PAL lines, and Unbundled Network Elements ("UNEs.") Many of these services are governed by their own specific pricing rules and those rules continued during the term of the AFOR. Intrastate switched access rates were to reduce by $5 million per year during the initial term of the plan.

Basket 3

Basket 3 includes services that have been accorded pricing flexibility or have been determined to be competitive under A.A.C. R14-2-1108. The Basket 3 price cap index was set at the then existing revenues from Basket 3 services plus 13.4% and was adjusted upwards by $5 million a year to account for the access charge reductions. New services could be placed in Basket 3, however, the Commission can require a different

classification. New services are filed as tariff filings. Packages of services from Basket 1 and Basket 3 need to be filed for review by Staff, pursuant to A.A.C. R14-2-1108. The price of a Basket 3 service or service package must exceed the TSLRIC of the service or package and comply with the imputation requirements of A.A.C. R14-2-1310(C).

Q. What changes has Qwest requested to its Price Regulation plan in its May 20, 2004 filing?

A. Qwest is proposing five basic changes to the AFOR.[1] First, Qwest proposes to eliminate the inflation/productivity adjustment factor for the cap on Basket 1.

Second, Qwest is proposing a slight downward adjustment in the Basket 1 Price Index Cap and elimination of the zone charges for basic service in retail Zones 1 ($1.00) and 2 ($2.00.)

Third, Qwest is proposing a Competitive Zone plan, whereby it would be allowed additional pricing flexibility within certain geographic areas that are determined to be competitive.

Fourth, Qwest proposes to eliminate the revenue cap[2] on Basket 3.

Fifth, Qwest proposes that any new services should automatically be considered Basket 3 services and that its promotional offerings be subject to the same conditions as its competitors.

---

[1] In its original filing Qwest had also proposed a sub-basket in Basket 2 for competitive wholesale services. However, that request does not appear in Qwest's revised filing so Staff is assuming the company is no longer pursuing it.

[2] Note that "revenue cap" and "price cap index" are synonymous.

II. The Inflation/Productivity Adjustment Factor and the Price Regulation Plan

1. Overview of the various types of alternative forms of regulation ("AFORs").

Q. Why have Federal and State Commissions implemented alternative forms of regulation ("AFORs")?

A. Some commissions have recognized that traditional rate base rate of return ("ROR") regulation created an environment that did not provide incentives for utility companies to operate in the most efficient manner. Because ROR provided the utility with its costs and a return on investment, some experts contend that it was possible that the utility would over-invest in plant and equipment in order to increase its earnings. Alternative forms of regulation were implemented to increase the incentive for utilities to provide their services more efficiently.

Q. What types of AFORs have been implemented for telecommunications companies?

A. AFORs that have been implemented include indexed price cap plans, price cap plans, rate freezes, price cap plans with earnings sharing, and price cap plans with revenue sharing.

Q. *What is a pure price cap plan?*

A. A pure price cap plan is one where there are no changes to the maximum rates that a company can charge during the term or the plan. Under this type of plan, any revenues and earnings are limited only by the company's ability to generate revenues and profits. Pure price cap plans are essentially the same as rate freezes.

Q. Did Commissions modify pure price cap plans when they were initially introduced?

A. Yes. Because price cap plans were untested, Commissions modified pure price cap plans in order to prevent unexpected results. The modifications most Commissions adopted were the implementation of earnings sharing and revenue sharing.

Q. Please describe an indexed price cap plan.

A. An indexed price cap plan is one where rates for individual services or groups of services may change by an amount that results from the application of a formula. The formula that is used may include such items as an adjustment to the cap that is based on changes in the rate of inflation, a measure of the expected productivity gain, and changes outside the utility's control. The current price cap plan for Basket 1 services in Arizona can be described as an indexed price cap plan.

Q. Please describe earnings sharing.

A. Under an earnings sharing regime, no change to a company's rates are made if the earnings fall between a range above and below the target rate of return (sometimes called the dead band). In some instances, returns above the upper limit of the dead band are returned to ratepayers in the form of payments or credits. In addition, a return level was generally specified beyond which all earnings are returned to ratepayers. Rate adjustments may have been included that allowed for increases in rates if earnings fell below certain levels. Since an earnings sharing plan requires that a company's earnings be periodically verified, such plans have been characterized as administratively burdensome.

Q. What is a revenue cap plan?

A. A revenue cap plan is similar to a price cap plan. The difference is that instead of capping prices for services or groups of services, revenues for service are limited. The cap may be adjusted to account for such things as customer growth, changes in inflation and productivity. Qwest's Basket 3 services in Arizona are essentially under a pure revenue cap.

Q. How is earnings sharing different from revenue sharing?

A. With earnings sharing, earnings above a certain level are returned, in whole or in part, to ratepayers. In a revenue sharing plan, revenues above a certain level are returned in whole or in part to ratepayers. The issues associated with verifying whether the company did or did not experience positive earnings levels are avoided with a revenue sharing approach.

Q. Do you have any information on the evolution of AFORs?

A. Yes. Table 1 is informative. It shows the number of states that adopted AFORs over the past two decades.

Table 1 Number of States with:

Year	Rate of return regulation	Rate case moratoria	Earnings sharing regulation	Price Cap Regulation	Other
1985	50	0	0	0	0
1986	45	5	0	0	0
1987	36	10	3	0	1
1988	35	10	4	0	1
1989	31	10	8	0	1
1990	25	9	14	1	1
1991	21	8	19	1	1
1992	20	6	20	3	1
1993	19	5	22	3	1
1994	22	2	19	6	1
1995	20	3	17	9	1
1996	15	4	5	25	1
1997	13	4	4	28	1
1998	14	3	2	30	1
1999	12	1	1	35	1
2000	8	1	1	39	1
2001	7	1	1	40	1
2002	8	1	1	38	2

Source: **Sappington, David E. M., "The Effects of Incentive Regulation of Retail Telephone Service Quality in the United States," Review of Network Economics, Vol. 2, Issue 4, December 2003, pp. 355 - 375.**

2. The inflation/productivity adjustment factor

Q. What was the purpose of the inflation/productivity factor?

A. The purpose of the inflation/productivity factor was to provide an incentive for Qwest to provide service more efficiently and at the same time to prevent Qwest from reaping excessive benefits had the AFOR not worked as expected.

Q. What is the current price cap formula for Basket 1 Services?

A. The current formula for the Price Cap Index for Basket 1 is:

$$1.00 + \%\Delta GDP\text{-}PI - X\text{-}Factor \geq [SUM\ [P_N * Q_b]] / [SUM\ [P_q * Q_b]]$$

The left side of the above formula is the inflation/productivity adjustment factor. Essentially, it is inflation minus productivity. The change in GDP-PI (Gross Domestic Product Price Index) is an accepted measure of inflation and the X-factor is an estimate of annual productivity increases. The right side of the formula is the Price Cap Index. The numerator of the Price Cap Index is the sum of the proposed/new prices multiplied by the "base year" quantities of demand. Where price changes have not occurred the base year prices are used. The denominator is the sum of the base year prices multiplied by the "base year" quantities of demand.

Q. What was the rationale for including each of the price cap formula components?

A. GDP-PI is included as a measure of inflation that is intended to allow for real prices of services to remain constant over the term of the plan. This factor allows Qwest to change prices so that it can at least keep up with inflation. The X-Factor is an estimate of the change in productivity that can be expected over the term of the plan. This component provides Qwest with an incentive to make productivity gains that are greater than the estimated "normal" gain. If Qwest is able to exceed the normal productivity gains, it is able to retain those earnings for itself.

Q. What value was assigned to the X-Factor in the Settlement agreement that was approved by the Commission?

A. The X-Factor in the Settlement Agreement is 4.2 percent.

Q. Who establishes the GDP-PI?

A. GDP-PI is produced by the U.S. Department of Commerce, Bureau of Economic Analysis.

Q. What were the effects of the productivity factor on Qwest's revenues during the term of the plan?

A. Table 2 shows the revenue effects of the productivity factor and how it was calculated:

Table 2

Date	%ΔGDP-PI	Productivity Offset %	Adjustment %	Revenue Effect

April 2002	2.348	- 4.2	- 1.852	-$14.391M
April 2003	0.764	- 4.2	- 3.4358	-$28.321M
April 2004	1.678	- 4.2	- 2.5222	-$18.318M

Q. Are there any limitations on how price adjustments can be made as a result of the application of the formula?

A. Yes. Certain of the Basket 1 services have been "hard capped" meaning that even if the application of the formula results in a net increase in revenues for Basket 1, the rates for these services will not increase. These services are flat rate residential; flat rate business; 2- & 4-party service; exchange zone increment charges; low use option service; service stations service; telephone assistance programs; individual PBX trunks, including features; toll blocking; 900/976 blocking and basic listing service. In addition, prices for the remainder of the services included in Basket 1 may not increase by more than 25 percent in any one plan year.

Q. How is this different from other price cap plans that have been implemented?

A. Most Price Cap Plans do not currently include a hard cap and a productivity offset for retail service rates.

Q. Have you reviewed any information on the use of price indices and productivity offsets in other states' Price cap plans?

A. Yes. I reviewed the Commission Orders for Utah, New Mexico, Washington and Oregon. In addition, I reviewed information provided by the National Regulatory Research Institute and the State Telephone Regulation Report.

Q. For states in Qwest's RBOC region, what is the current regulatory treatment for services equivalent to those included in Basket 1?

A. Table 3 provides information on the current regulatory treatment of Basket 1 services in other Qwest states:

Table 3

State	2003	2004
CO	NI PC	NI PC
ID	Dereg, NI PC or RoR	Dereg, NI PC or RoR
IA	I PC	I PC
MN	NI PC	NI PC
MT	RoR	RoR
NE	N R	N R
NM	NI PC	NI PC
ND	NI PC	NI PC
OR	R F	R F
SD	NI PC	Dereg
UT	I PC	I PC
WA	RoR	RoR
WY	NI PC	Dereg or N R

Where:
NI PC - Non-Indexed Price Cap
I PC - Indexed Price Cap
RoR - Rate of Return Regulation
N R - Rates not Reviewed
R F - Rate Freeze
Dereg - Deregulated

Q. What is the prevalence of the use of inflation/productivity adjustment factors in state price cap plans?

A In the Qwest states, only Iowa and Utah include a productivity offset in their price cap formulas. Iowa's productivity offset is 2.6% while Utah's is 4.95%. In total twelve of the fifty states employ inflation/productivity adjustment factors. Table 4 shows the states that have inflation/productivity adjustment factors and the value for the X-factor (or productivity offset) in each state:

Table 4

State	X-Factor
Utah	4.95%
Arizona	4.2%
Delaware	3%
Illinois	3%

Wisconsin	3%
Iowa	2.6%
Kansas	2.3%
Tennessee	2%[3]
Michigan	2%
North Carolina	2%
Florida	1%
Maryland	3 year average of CPI

Source: State Telephone Regulation Report, July 30, 2004; August 13, 2004; and August 27, 2004

Besides the states listed above there are several states that have an inflation adjustment factor without any productivity offset. That is, the price cap is indexed to the percent change in the GDP-PI (or some fraction of it) without any adjustment.

Q. Is Staff aware of any Arizona utility besides Qwest that is subject to an inflation/productivity adjustment factor?

A. No.

Q. What was the basis for the current inflation/productivity factor?

A. The current inflation/productivity factor was the result of settlement negotiations.

Q. What is Qwest's proposal with respect to the inflation/productivity adjustment factor?

A. Qwest proposes to eliminate the inflation/productivity adjustment factor.

Q. Are circumstances sufficiently different today such that Qwest's proposal regarding the elimination of the inflation/productivity adjustment factor is justifiable?

A. Yes. At the time that the initial price cap plan was implemented, Qwest had been operating in an environment where it had limited competition and little incentive to increase its efficiency in the provision of services. In addition, Qwest was not subject to competition in its core business to the extent that it is today. Staff's analysis of Qwest's financial and competitive information suggests that Qwest is losing lines and revenues as a

[3] Actual index formula for Tennessee is the lesser of one-half of GDP-PI or GDP-PI minus 2%.

result of that competition. Given the line and revenue losses that Qwest has experienced recently Staff does not believe a productivity adjustment is appropriate. In an environment where revenues are growing a productivity adjustment may be appropriate to provide incentives to the company to operate efficiently. However, in an environment where revenues are declining imposing such incentives should not be necessary.

Q. What did the Commission have to say about the inflation/productivity adjustment factor in the Decision that approved implementation of the price cap plan?

A. In Decision No. 63487, beginning page 10, line 27, the Commission indicated that if the Commission finds at the end of the initial three year term of the plan that Qwest has enjoyed greater productivity gains than it has in the past the productivity factor could be adjusted.

Q. What is your recommendation on Qwest's proposal to eliminate the productivity offset?

A. Staff recommends that the Commission not include a productivity offset in a renewed Price Regulation Plan for Qwest.

3. Revenue Cap on Basket 3

Q. What is Qwest's rational for eliminating the revenue cap on Basket 3?

A. Qwest argues that the prices in Basket 3 are effectively constrained by competition and therefore no revenue cap is necessary.[4]

Q. What is Staff's recommendation on eliminating the cap on Basket 3?

A. Staff does not support eliminating the revenue cap on Basket 3 due to fair value considerations. Since Qwest still has a mix of both competitive and noncompetitive service offerings, Staff believes the revenue cap serves an important purpose under existing case law. This issue will be addressed fully in Staff's legal briefs.

Q. What is Staff's recommendation regarding the revenue cap on Basket 3?

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[4] Ziegler p. 10, lines 21- 22.

A. Staff witness Mike Brosch testifies that Qwest is currently experiencing a revenue deficiency of $3.53 million. Also, Staff witness Thomas Regan testifies that the rate design changes recommended by Staff will result in a reduction in Qwest's revenue of $7,193,350. This reduction is mainly due to a reduction in Access Charges of $8.9 million.[5] In light of that, Staff believes it is appropriate to increase the revenue cap on Basket 3 by $10,723,350 ($3,530,000+ 7,193,350.) Additionally, the Basket 3 and Basket 1 revenue caps should also be adjusted to account for the services and service packages that are moved from Basket 1 to Basket 3. The final revenue caps on Baskets 1 and 3 should be determined during the compliance phase of this case when it will be know which Baskets will contain which services.

4. Qwest's Proposals Regarding New Services and Packages

Q. Please explain Qwest's proposals regarding new services and packages.

A. Qwest proposes that service packages that contain both Basket 1 and Basket 3 services be considered Basket 3 services without the A.C.C. R14-2-1108 review that is now required. Qwest also recommends that all new services be considered Basket 3 services.[6]

Q. What consumer harm may occur if Qwest is allowed to automatically package Basket 1 and Basket 3 services?

A. Since the prices of Basket 3 services are flexible, consumers may end up paying more for a package of services than they would if they purchased the services separately. In order to protect consumers from this eventuality Staff recommends that a hard cap be placed on any packages that contain Basket 1 services. The hard cap should equal the sum of all the ala carte prices of the individual services in the package.

Q. What other consumer protections does Staff recommend?

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[5] Other rate design changes recommended by Mr. Regan result in a combined increase in Qwest's revenue of $1,706, 650 which offsets the $8.9 million access charge reduction for a total impact of 7,193,350.
[6] Revised Price Cap Plan Attachment to Qwest's May 20, 2004 filing, Page 3.

A. Qwest's proposal includes the provision that any Basket 1 service that is included in a package will continue to be offered on a stand alone basis. Staff supports this provision.

Q. What is Staff's recommendation regarding Qwest's proposal to move all packages to Basket 3?

A. As long as the two recommendations regarding consumer protections discussed above are implemented, Staff is not opposed to moving all packages to Basket 3.

Q. How many new services has Qwest introduced over the initial term of the AFOR?

A. Staff's research indicates that sixteen new services have been introduced by Qwest during the term of the AFOR. Fourteen new services were placed into Basket 1 when introduced:

1. 4/3/2001 Intro Number Forwarding
2. 4/3/2001 Intro Four New Features
3. 4/23/2001 new DSS contracting option
4. 11/19/2001 Intro Qwest Business Line Plus
5. 12/31/2001 Intro ValueChoice
6. 2/19/2002 211, 311 & 511
7. 4/15/2002 Intro Popular Choice and CustomChoice Complete
8. 6/24/2002 Two Line CUSTOMCHOICE Complete
9. 1/13/2003 Intro Digit Manipulation
10. 9/22/2003 Intro Selective Call Waiting
11. 1/5/2004 Intro QWEST CHOICE Home and
12. QWEST CHOICE Home Two-Line
13. 3/2/2004 Business Line Volume Purchase Plan
14. 7/6/2004 Intro new residence packages

Two new services were placed into Basket 3 when introduced:

1. 4/3/2001 Anywhere Voice Mail
2. 9/30/2002 Intro Managed Long Distance

Staff notes that these last two services were placed into Basket 3 because they are substantially similar to services that were already in Basket 3.

Q. What does Staff recommend regarding the introduction of new services by Qwest?

A. Staff does not believe that a presumption that *all* new services are competitive is appropriate. Most new services are extensions of or add-ons to basic local service. That is, they are only available to (or useful to) customers who already take basic local service

from Qwest. Thus, it would be inappropriate to classify them as competitive on a state-wide basis when there are areas of the state where basic local service is not competitive. Therefore, Staff believes that the current process of evaluating new services through an R14-2-1108 filing should remain in place.

Q. What other recommendations does Staff have regarding service packages and new services?

A. Qwest's proposal provides that the price of all service packages and new services should exceed their TSLRIC and comply with the imputation requirements of A.A.C. R14-2-1310(c). Staff supports this provision.

Q. Has Staff prepared a proposed Revised Price Cap Plan?

A. Yes. A proposed Revised Price Cap Plan is provided as Exhibit 1 to my testimony.

III. Competitive Zones

Q. What is Staff's general recommendation regarding Qwest's Competitive Zone proposal?

A. In general, Staff supports additional pricing flexibility for Qwest where competition warrants it. While Qwest's proposal contains several aspects that concern us, Staff is not opposed to the general idea of Competitive Zones.

1. Qwest's Proposal

Q. Please describe Qwest's Competitive Zone proposal.

A. Qwest proposes that certain geographic areas should be deemed by the Commission to be "Competitive Zones." Initially, Qwest is proposing that the geographic areas to be considered should be the wire centers. If a wire center is deemed to be a Competitive Zone, *all* the services Qwest offers in that wire center will be considered to be Basket 3 services and will thus have flexible prices. Additionally, under Qwest's proposal, Qwest will be allowed to price its services differently in each Competitive Zone.

Q. What is a wire center?

A. Technically a wire center is the physical structure where an ILEC's local lines are terminated to a switch or switches, also known as a Central Office or end office.[7] When Qwest (and Staff) use the term wire center in the context of the Competitive Zone discussion, what we really mean is the wire center serving area, i.e., the geographic area that is served by a single wire center. I will follow Qwest's convention and refer to the wire center service area simply as a wire center. In densely populated urban areas wire centers can be quite small geographic areas. In rural areas wire centers can be quite large. In the Phoenix metropolitan statistical area (MSA) there are approximately 64 different wire centers. In the Tucson MSA there are approximately 22 wire centers. Whereas there are only approximately 47 wire centers in Qwest's service territory outside of the Phoenix and Tucson MSAs. In total there are approximately 133 Qwest wire centers.

Q. Are wire centers the only geographic area that Qwest is proposing be considered for Competitive Zone treatment?

A. Qwest has provided a list of wire centers that it believes should be classified as Competitive Zones in this proceeding (63 in the Phoenix MSA and 19 in the Tucson MSA.) However, Mr. Teitzel testifies that since CLECs often target smaller geographic areas such as business parks and housing developments, Qwest should have the flexibility to seek Competitive Zone treatment for these smaller areas in the future.[8]

Q. What pricing flexibility is Qwest seeking within Competitive Zones?

A. Qwest proposes that within Competitive Zones all services shall have a maximum rate and that as long as the actual price of a service does not exceed the maximum rate, price changes will go into effect immediately upon notice to the Commission by filing of a

[7] See Newton, Harry *Newton's Telecom Dictionary 20th Edition* CMP Books 2004
[8] Tietzel p.72 line 18 – p. 73 line 1

revised price list.[9] Qwest also wants the ability to set different actual rates for the same service in different Competitive Zones, i.e., in different wire centers.

Q. What criteria does Qwest propose be used to establish a Competitive Zone?

A. Qwest's proposed criteria are quite simple. Qwest proposes that a wire center be deemed a Competitive Zone if *any one* of the following criteria is met:

1. A competitor has facilities in place and is marketing or offering services in competition with Qwest; or,
2. A competitor is marketing or offering services through the provision of unbundled network elements provided by Qwest; or,
3. A competitor is marketing or offering services through the resale of Qwest's service.[10]

Q. How does Qwest propose the maximum rates for services in Competitive Zones be set?

A. It is not clear how the maximum rates for services provided within Competitive Zones will be set under Qwest's proposal. Nowhere in Qwest's testimonies is it explained how the level of the maximum rates would be determined; it is only stated that Qwest will file tariffs with maximum rates.[11] In response to Staff data request 15-2 which asked how Qwest proposed the maximum rates be established, Qwest stated that the maximum rates in Competitive Zones could be higher than current rates but offered no insight into how the level of maximum rates would be determined.

Q. Would Qwest's Competitive Zone proposal give Qwest the same pricing flexibility that CLECs in Arizona currently have?

A. No. Upon close examination it is apparent that Qwest's proposal would give Qwest *more* pricing flexibility than the CLECs now have. Both Mr. Shooshan and Mr. Teitzel testified that Qwest's Competitive Zone proposal would simply give Qwest the same pricing flexibility currently enjoyed by its CLEC competitors.[12] However, this is simply not the

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[9] Tietzel P. 73 lines 5-7.
[10] See the attachment to Qwest's May 20, 2004 filing: "Revised Price Cap Plan Terms, Conditions and Operation of the Revised Price Cap Plan."
[11] i.d.
[12] Tietzel p. 73 line 16 – page 74 line16 and Shooshan p. 15 lines 4-15

case. At page 74 lines 3-14 of his testimony Mr. Teitzel provides examples of CLECs who he claims have the same pricing flexibility that Qwest is seeking:

> "...several CLECs have identified specific wire centers in which they will provide service. For example, Sprint's tariff indicates its business Local Exchange Service is available in Qwest wire centers identified as UNE Zones 1 and 2. Section 5 of McLeodUSAs Arizona Tariff No. 3 lists the cities and wire centers where McLeod is offering service, either over its own switch or through the use of network elements. Cox initially rolled out cable telephony service to consumers in the Chandler area, eventually extended its facilities to the greater Phoenix area a few years later, and just recently began offering service in Tucson."

These examples demonstrate that these CLECs have flexibility in *where* they provide service. This is different from the *pricing* flexibility that Qwest is seeking. Staff is not aware of any CLEC that has tariffs on file that allow it to price its services differently in each wire center. For the most part, CLECs have statewide tariffs and must charge uniform rates wherever they are serving. There are some CLECs that have different prices in the different UNE rate zones (e.g., McLeodUSA) however that is quite different from the flexibility Qwest is seeking in this proceeding. If Qwest is granted zone based pricing flexibility, the CLECs could very well apply for the same type of flexibility.

Q. How would the pricing flexibility Qwest is proposing compare to that currently enjoyed by Qwest's principal competitor, Cox Communications[13]?

A. Qwest's proposal would give it much more pricing flexibility than Cox currently has. Currently Cox's tariffed rates apply to all of its customers in Arizona. Cox is not currently able to charge customers in different wire centers (or other geographic areas) different rates. Also, Cox's rates for basic residential and business service are capped at their current levels: $13 for residential and $30 for business. This contrasts with Qwest's

[13] Staff considers Cox to be Qwest's principal competitor because Cox is the only CLEC that uses its own facilities exclusively, it has far more residential customers than any other CLEC, and it has a substantial number of business customers.

proposal, which would allow Qwest to submit maximum rates for basic service that are above current levels.

Q. Has Qwest made a Competitive Zone proposal before?

A. Yes, in Qwest's last price cap proceeding Qwest made a proposal regarding Competitive Zones similar to the one it is making now. The Commission rejected the Competitive Zone proposal at that time but did state that the idea of Competitive Zones could be acceptable under certain circumstances. Specifically, Decision No. 63487 (at page 19 lines 16-27) states that: "In the future, the parties may be able to fashion a provision that allows Qwest to compete in areas where it truly faces established competition, but such provision must better describe the geographic areas and population served as well as promote specific and clear protections against anti-competitive behavior."

Q. Does Qwest's current Competitive Zone proposal conform to the requirements of Decision No. 63487 quoted above?

A. No. Staff is unable to discern any "specific and clear protections against anti-competitive behavior" in Qwest's current proposal. In response to Staff data request 15-1, which inquired about Qwest's opinion regarding the requirements of Decision No. 63487, Qwest states, "the provisions of R14-2-1108(H) give the ACC full authority to rescind Competitive Zone classification should such 'anticompetitive behavior' be shown to exist." Since rule R14-2-1108(H) existed at the time Decision No. 63487 was issued, it is unlikely that the Commission, at that time, believed the Rule was sufficient to address its concerns. In my testimony below, I propose several modifications to Qwest's proposal that should address concerns about anti-competitive behavior. Most importantly Staff believes that the criteria Qwest proposes for Competitive Zone classification are inadequate. Staff believes that these modifications along with the Commission's imputation rules (A.A.C. R14-2-1310(C)) should provide significant protections against anti-competitive behavior.

Q. Please state Staff's general opinion of Qwest's Competitive Zone proposal.

A. Staff is not opposed to the idea of Competitive Zones in general. Allowing Qwest to have the ability to respond to its competitors does seem on its face to be fair. However, the proposal that Qwest put forward contains very little detail. It is not clear to Staff how their proposal would be administered. Before any Competitive Zone proposal is adopted Qwest should be required to provide a detailed plan of administration to the Commission. Additionally, certain specific elements of the proposal made by Qwest are of concern to Staff. Staff cannot recommend adoption of Qwest's Competitive Zone proposal unless the following elements of that proposal are addressed:

- Provider of last resort obligation
- Consumer protections
- Geographic areas
- Consumer notice problem
- Potential for bait and switch
- Criteria for determining if a zone is competitive
- Specific wire centers identified by Qwest as competitive

2. Provider of last resort obligation

Q. What are Staff's concerns regarding how Qwest's Competitive Zone proposal would affect Qwest's provider of last resort obligations?

A. Qwest's testimonies do not address the provider of last resort obligation at all. However, in response to Staff data requests 17-1 and 28-1 Qwest indicated that under its proposal once a zone is declared competitive by the Commission, Qwest would no longer have any provider of last resort obligations in that area. Qwest also indicated that the Commission should open a generic docket to address the issue of provider of last resort obligations in Competitive Zones. Qwest indicated it was not willing to maintain its provider of last resort obligation while that generic docket is pending. This causes concern for Staff

because if Qwest's proposal is approved most of the state (on a population basis) would be without a provider of last resort.

Q. Why is the provider of last resort obligation important?

A. The provider of last resort obligation provides a guarantee that wire line telecommunications service will be available to any customer.

Q. What is Staff's recommendation regarding Qwest's provider of last resort obligation?

A. Qwest has provided no evidence that relinquishing their provider of last resort obligation is in the public interest. (In fact they did not even mention that it was a part of their Competitive Zone proposal until they were asked about it in Staff's discovery.) Currently there is no workable method of sharing the provider of last resort obligation among Qwest and the CLECs. Staff recommends that Qwest maintain its provider of last resort obligations over its entire service area regardless of whether particular areas are deemed to be Competitive Zones. Should the Commission follow Qwest's suggestion and open a generic docket to investigate this issue, Staff recommends that Qwest maintain its provider of last resort obligations at least until that generic docket is concluded.

3. Consumer Protections

Q. What consumer protections are included in Qwest's Competitive Zone proposal?

A. On its face, Qwest's Competitive Zone proposal contains no consumer protections yet it exposes consumers to significant risk.

Q. What are the risks that Qwest's proposal would impose on consumers?

A. Under Qwest's proposal consumers may be subject to significant price increases for basic services. In response to Staff data request 15-2 Qwest stated that under their proposal maximum rates for basic service could be set at levels in excess of their current prices. This would allow Qwest to raise the price for basic services in particular zones as it deems

appropriate. Staff does not believe that such "at will" price increases for basic services are appropriate.

Q. Would not competition constrain Qwest's ability to raise the prices of basic services?

A. If the market for telecommunications services were truly vibrantly competitive, then Qwest's ability to raise prices would be constrained. However the factual evidence (explained in Staff witness Armando Fimbres' testimony) is not conclusive. Exhibit AFF-7 indicates that there is only one CLEC that is a serious competitor for residential consumers (Cox.) Also, the only two other CLECs that have any significant presence in the residential market (AT&T and MCI) recently announced that they are withdrawing from the residential local exchange market. On the business side there are several CLECs competing but their combined market share is still dwarfed by Qwest's. Mr. Fimbres has also calculated several different Herfindahl-Hirschman Indexes ("HHI") in order to gauge the degree of concentration in the Arizona telecommunications market. The HHI measures both the number of firms and their relative degree of inequality. The HHI is the sum of the squares of each firm's market share. This is given by the formula:

$$HHI = \sum_{i=1}^{N} S_i^2$$

Where S_i is the market share of the ith firm and N is the total number of firms.[14] All else equal, the more concentrated a market is the more likely it is that sellers will be able to raise prices above competitive levels. The United Stated Department of Justice, when evaluating horizontal mergers, views market concentration as a problem when the HHI is 1800 or higher. Mr. Fimbres calculated HHIs for the Arizona wire line

[14] For example, a market consisting of four firms with market shares of 30 percent, 30 percent, 20 percent and 20 percent has an HHI of 2600 ($30^2 + 30^2 + 20^2 + 20^2 = 2600$). The HHI ranges from 10,000 (in the case of a pure monopoly) to a number approaching zero (in the case of a perfectly competitive market). Although it is desirable to include all firms in the calculation, lack of information about small firms is not critical because such firms do not affect the HHI significantly.

telecommunications market several different ways based on the different sources of data he used. All of the HHIs Mr. Fimbres calculated were well above the 1800 standard, even those that include wireless providers.

Staff does not interpret this factual evidence to mean that competition is insignificant or that there is no hope for competition in the future. However, Staff does not believe that the evidence supports the conclusion that the market is vibrantly competitive and that no consumer protections are needed.

Q. What recommendations does Staff have regarding consumer protections and Competitive Zones?

A. Staff recommends that the maximum rates for basic services in Competitive Zones should be set at their current levels. This will protect consumers against potentially unwarranted price increases. It will also allow Qwest the flexibility to compete. Qwest will be able to lower prices in areas where competition is particularly acute without having to lower prices across its whole territory. Qwest is claiming that it needs Competitive Zones in order to compete more effectively.[15] Companies generally do not compete by raising prices. Also, if the market is currently competitive enough to constrain the prices of basic services, this requirement will have no effect on Qwest because they would not be able to raise prices without losing a significant number of customers anyway.

Q. What are the basic services that Staff believes should be capped at their current levels?

A. Staff believes prices of the following services should be capped at their current levels: flat rate residential; flat rate business; exchange zone increment charges; low use option service; service stations service; telephone assistance programs; individual PBX Trunks,

[15] Ziegler p. 10 lines 7-10, Teitzel p. 72 line 20

including features; Caller ID block; toll blocking; 900/976 blocking; and basic listing service.

4. Geographic area

Q. What geographic area is Qwest proposing be used to define Competitive Zones?

A. Qwest is proposing that the wire center be the initial geographic area but believes smaller areas, such as particular developments, should be allowed for consideration in the future.

Q. What are Staff's concerns regarding use of wire centers to define Competitive Zones?

A. The wire center will have advantages and disadvantages if it is used for that purpose. The advantage of using the wire center is that information on UNE-L, UNE-P, and resold lines is readily available to Qwest at the wire center level. Thus, a detailed analysis of that type of information is possible for each wire center. The disadvantages of the wire center are that listing information is not available at the wire center level, information on CLECs who use their own network exclusively is not available at the wire center level (but Qwest has provided problematic estimates), information on wireless carriers and VOIP providers is not available at the wire center level and customers are not familiar with the concept of a wire center.

Staff believes that the decision of whether an area should be deemed competitive should be based on an analysis of the available facts. Certain facts are available at the wire center level. The number of competitors serving customers in a wire center through UNE-L, UNE-P, and resale is known to Qwest. Also the specific number of lines each such competitor is serving in a wire center is known to Qwest. However, Qwest may not know how many different customers each competitor is serving. This may be important to the Commission; one competitor serving one customer with 1,000 lines (e.g., a call center) is different from a competitor serving 1,000 customers each with one line. Listings

information can tell us how many customers each CLEC has but not how many lines. Listings information is broken down geographically by area-code boundaries which are much larger than wire centers. Another problem with analyzing competition at the wire center level is that pure facilities based competitors (such as Cox) do not use wire center boundaries and thus they are unable to tell us how many customers or lines they are serving in each (Qwest) wire center. Also, Qwest does not know how many customers facilities based CLECs are serving in each wire center. They have provided us with estimates based on Local Interconnection Service ("LIS") trunks but those estimates are problematic because several CLECs appear to have LIS trunks but are not using them to provide voice telecom service (or not using them at all.) These data problems are explained more fully in the testimony of Staff Witness Armando Fimbres.

Another problem with using the wire center is that it would not be competitively neutral. Staff believes that any Competitive Zone proposal should be competitively neutral. Since wire center boundaries are based on the locations of *Qwest's* central offices Qwest knows which addresses are in which wire centers. CLECs can map addresses into wire centers by using Qwest's data bases but that mapping process could be an administrative burden for them.

Aside from these problems, wire centers present a problem when it comes to communicating with consumers. People not familiar with the telecom industry do not know what a wire center is. Very few people know what wire center they live in.[16] Thus, if prices vary across wire centers it will be difficult to communicate to customers why it is that the prices available to them differ from those available to their neighbors.

[16] ILECs intentionally moved away from a related scheme used long ago when numbers began with the letters of the end-office, e.g., EM4-1212 or LA3-1212. Reacquainting customers with this concept seems anachronistic.

Q. What other options are there for the geographic areas that define Competitive Zones?

A. There are several options, each of which has its advantages and disadvantages. Other geographic areas that Staff considered are:

- Zip codes
- Area code boundaries
- Rate Centers
- Metropolitan Statistical Areas ("MSAs")
- Counties
- LATAs

Zip codes have the advantage of being readily understood by consumers; most people know what zip code they are in. However, it has been difficult to find information on competition specific to individual zip codes. Many carriers have been thus far unable to tell us how many customers or lines they are serving in each zip code. (This may seem counter intuitive since CLECs do send their bills through the mail but for many business customers the billing address is different from the service address.)

Area code boundaries have the advantage when it comes to data. Wire centers can be easily mapped into area code boundaries and listings information is available at the area code boundary level. However, using area code boundaries could result in wire centers that are not competitive being deemed competitive. Also, area code boundaries would not give Qwest the competitive flexibility it is seeking.

Rate Centers are similar to area code boundaries. The data availability issues are less dramatic since CLEC rate centers tend to be the same as Qwest rate centers but they are large enough that non-competitive wire centers may be lumped in with competitive wire centers and the pricing flexibility they afford Qwest is limited.

MSAs, counties, and LATAs are also so large that non-competitive wire centers may be lumped in with competitive wire centers and the pricing flexibility they afford Qwest is limited.

Q. What geographic area does Staff recommend be used as the basis for Competitive Zones?

A. As the above discussion lays out any geographic area that is considered will have pros and cons. While the data available at the zip code level has been limited, Staff believes this limitation can be overcome. Designating Competitive Zones at the zip code level will provide Qwest with a great deal of competitive flexibility and will allow for a comparison of all types of competition. Additionally, consumers are familiar with the concept of zip codes and this will help alleviate the customer notice problems discussed below.[17] For these reasons Staff believes that, should the Commission decide to adopt a Competitive Zone proposal for Qwest, the zip code should be the geographic area used as the basis of the Competitive Zones.

For larger zip codes, the Competitive Zone designation could be narrowed to only a portion of the zip code as competitive conditions warrant.

Q. Please provide general information about zip codes.

A. There are 74 different zip codes within the city limits of Phoenix, 186 zip codes within Maricopa County, and 215 zip codes within the Phoenix MSA. There are 51 zip codes within the city limits of Tucson and 65 zip codes within Pima County and the Tucson MSA. There is a zip code map attached to my testimony as Exhibit 2.

[17] Zip code compilations are also used by the FCC when examining broadband deployment levels.

Q. Qwest has stated that while they are asking for Competitive Zone treatment at the wire center level now, they should be free to apply for Competitive Zone treatment for smaller geographic areas like housing developments or office parks. What are Staff's recommendations regarding these smaller geographic areas?

A. Staff did try to analyze the competitive situations in particular developments identified by Qwest; however, Staff was unable to find any data at that level of granularity. Conceptually, Staff has no objection to using these smaller areas. However, should Qwest apply to the Commission for Competitive Zone treatment in these smaller areas it should be required to provide a factual basis for that determination. In order to gain approval for a smaller zone, Qwest must provide the Commission with the same level of detailed information as is available for zip codes.

Q. Would using zip codes as the basis for Competitive Zones be administratively burdensome to Qwest?

A. It would certainly be easier for Qwest to use the wire center as the basis for Competitive Zones. However, using zip codes should not be an unmanageable task for them. They should have zip code information on all of their customers and even if they don't, mapping street addresses into zip codes is certainly possible. More importantly, Staff believes that any Competitive Zone proposal should be *competitively neutral*, i.e., it should not favor the CLECs or Qwest. Qwest's proposal to use wire centers as the basis for Competitive Zones actually gives it an advantage over most CLECs. Most CLECs do not know the exact boundaries of Qwest's wire centers, especially those that use only their own facilities. Thus, under Qwest's proposal, it may be administratively burdensome for the CLECs to determine which of their customers are in Competitive Zones. It seems fair that the CLECs should know where the Competitive Zones are so that they can tailor their offerings accordingly. Using zip codes will put the same administrative burden on Qwest and the CLECs regarding keeping track of which customers are in Competitive Zones.

Using wire centers will put an administrative burden on the CLECs but not on Qwest. In summary, Staff believes that any Competitive Zone proposal should be competitively neutral and because the wire center is a vestige of the incumbent's legacy network, it can not be considered to be competitively neutral.

5. Consumer notice problem

Q. Please explain what Staff means by the consumer notice problem.

A. Qwest is obligated to maintain tariffs that list the prices for all of its tariffed services. Qwest has also agreed to publish a short list of basic services and their prices in the Qwest Dex directory. When Qwest Dex was sold, the publishing agreement between Qwest and the acquirers included provisions that all existing and new regulatory obligations would be adhered to. Thus, a short list of Qwest's basic rates has been included in the Qwest Dex Directory. If Qwest's Competitive Zone proposal is adopted by the Commission it may be difficult to continue the publication of basic rates in Qwest Dex and it may be difficult to maintain meaningful tariffs. Qwest is seeking Competitive Zone treatment in 82 different wire centers. That could mean 83 different rates for each service that would have to be listed in the tariff and in Qwest Dex (the 82 Competitive Zones plus the non-competitive area.) Qwest's responses to Staff data requests 12-8, 12-9, and 12-10 make it clear that Qwest intends to be able to price its services differently in each wire center. A tariff with 83 different rates for the same service could be unintelligible. Also, including 83 different rates for each basic service in Qwest Dex would be quite confusing for customers, especially given that most customers are unfamiliar with the concept of a wire center. This would defeat the whole purpose of including information on basic services in Dex.

Q. Is it really likely that there will be 83 different rates for a given service under Qwest's proposal?

A. While Qwest would have the ability to charge 83 different rates for a particular service, it is probably not likely to do so. It doesn't seem likely that such extreme price differentiation would be desirable to Qwest or manageable by Qwest. However, there is the potential for several different rates for a given service at any one time and thus there is still a customer notice concern.

Q. Are there other similar problems that would need to be addressed in order to adopt Qwest's proposal?

A. Yes. Qwest's proposal, which could include 83 different rates for services, would put a considerable administrative burden on the Commission. The Commission is required to maintain tariffs available for public inspection. The multitude of tariff filings that could result from Qwest's proposal would make this difficult.

Q. What does Staff recommend regarding this customer notice problem?

A. With respect to the basic services listed in the Dex directory, Staff recommends that Qwest continue to be required to have its rates for basic service published in the directory. In order to avoid customer confusion, only the maximum rates should be included in the directory. Further, as stated above, maximum rates for basic services should be capped at their current levels.

6. Potential for bait and switch

Q. What does Staff mean by the potential for bait and switch?

A. Under Qwest's Competitive Zone proposal Qwest could offer customers in certain areas discounted prices and then raise those prices back up to the maximums with minimal notice. Staff believes that there is the potential for customer harm as a result.

Q. What does Staff recommend regarding this potential problem?

A. Staff recommends that any discounts provided to a Competitive Zone remain in place for at least one year unless Qwest clearly notifies its customers that the discount is temporary and clearly explains what the duration of the discount will be. If Qwest wants to offer a

discount for a limited period of time it should be free to do so; however, both new and existing customers should be clearly notified of the limited duration of the discount. Absent such notification, any discounts provided to Competitive Zones should remain in effect for a minimum duration of one year.

Q. CLECs do not have such a requirement. Why should Qwest have this restriction and not the CLECs?

A. The evidence presented in my and Mr. Fimbres' testimonies indicates that the telecom market in Arizona is highly concentrated and that Qwest still retains the dominant position. Given Qwest's dominant position in the market it is reasonable to place restrictions on it that other carriers do not have.

7. Criteria for determining if a zone is competitive

Q. What criteria does Qwest propose be used to determine if an area should be deemed a Competitive Zone?

A. Qwest proposes that a wire center be deemed a Competitive Zone if *any one* of the following criteria is met:

1. A competitor has facilities in place and is marketing or offering services in competition with Qwest; or,
2. A competitor is marketing or offering services through the provision of unbundled network elements provided by Qwest; or,
3. A competitor is marketing or offering services through the resale of Qwest's service.[18]

Q. What are Staff's concerns with these criteria?

A. Staff believes these criteria are far too loose. These criteria would allow for the establishment of a Competitive Zone in an area where there is only one reseller operating. Staff does not believe that the existence of one reseller constitutes real competition.

[18] See the attachment to Qwest's May 20, 2004 filing: "Revised Price Cap Plan Terms, Conditions and Operation of the Revised Price Cap Plan."

Two concerns exist with Qwest's proposed criteria. One is the use of the lowest possible metric, such as "A competitor..." which Staff interprets to mean one competitor. The simple presence of one competitor gives no weight to important elements such as volume of competition, breadth of competition, or sustainability of competition. A second concern with the criteria offered by Qwest is the equal weight or relevance given to three factors which are in different stages of use and acceptance by CLECs. By the simple metrics offer by Qwest, all proposed wire centers could conceivably be classified as Competitive Zones with very little analysis, however, the broad availability of sustainable competitive alternatives in any geographic area remains a concern for Staff.

Q. Are there any current established criteria used for competitive determinations in Arizona?

A. Yes. The Arizona Administrative Code already has criteria laid out for determining that a telecommunications *service* is competitive. Specifically, rule R14-2-1108(B) provides that:

> The petition for competitive classification shall set forth the conditions within the relevant market that demonstrate that the telecommunications service is competitive, providing, at a minimum, the following information:
> 1. A description of the general economic conditions that exist which make the relevant market for the service one that is competitive;
> 2. The number of alternative providers of the service;
> 3. The estimated market share held by each alternative provider of the service;
> 4. The names and addresses of any alternative providers of the service that are also affiliates of the telecommunications company, as defined in R14-2-801;
> 5. The ability of alternative providers to make functionally equivalent or substitute services readily available at competitive rates, terms, and conditions; and
> 6. Other indicators of market power, which may include growth and shifts in market share, ease of entry and exit, and any affiliation between and among alternative providers of the services.

Q. The criteria established in rule 1108(B) were designed for the classification of a particular service as competitive not the establishment of Competitive Zones. Are the 1108(B) criteria appropriate for the purpose of establishing Competitive Zones?

A. Yes. The classification of a given company's services as competitive and the classification of geographic areas as competitive are conceptually similar. The information required by 1108(B) is as relevant to the classification of geographic areas as competitive as it is to the classification of particular services as competitive.

Q. Has Qwest explained why the criteria for establishing a Competitive Zone should differ from the criteria already established in 1108(B)?

A. No. Qwest has not explained why a deviation from the standard established in R14-2-1108(B) is appropriate or necessary. Interestingly, Qwest believes the 1108 rule is appropriate in the instance when competitive conditions change (e.g., all the competitors leave a Competitive Zone) and competitive classification of a zone needs to be reversed. In that instance Qwest believes that R14-2-1108(H) should apply.[19] R14-2-1108(H) states:

> Any telecommunications service classified by the Commission as competitive may subsequently be reclassified as noncompetitive if the Commission determines that reclassification would protect the public interest. Notice and hearing would be required prior to any reclassification. The burden of proof would be on the party seeking reclassification.

So Qwest believes that the 1108 rule is appropriate to declassify areas as Competitive Zones but Qwest does not believe R14-2-1108 is appropriate for classifying areas as competitive. Staff can not explain this apparent double standard in Qwest's recommended application of R14-2-1108 to its Competitive Zone proposal.

Q. Does Staff believe that a deviation from the standard established in rule 1108(B) is appropriate or necessary?

A. No. Rule 1108(B) allows the Commission to examine the relevant factual information needed to evaluate the competitive situation in a given area. R14-2-1108(B) also allows the Commission great flexibility in how it chooses to use that factual information.

[19] Teitzel p. 76 lines 1-4.

Qwest's proposed criteria would only allow the Commission to perform the most cursory factual review. Given Qwest's dominant position relative to the CLECs, Staff can not recommend that the criteria for establishing Qwest's services as competitive be less stringent than the criteria for establishing CLEC services as competitive. To the contrary, because Qwest is the entrenched dominant provider for local service throughout its service territory the criteria used to determine whether competitive classification is appropriate should be more stringent for Qwest. In other words, given Qwest's market dominance in most areas, Staff recommends that additional factors be considered for Qwest than those used in the past by Staff and the Commission.

7. Specific wire centers identified by Qwest as competitive

Q. Where is Qwest requesting Competitive Zones?

A. Qwest is requesting Competitive Zone classification for 63 wire centers in Phoenix metro and 19 wire centers in Tucson metro. This represents 60% of Qwest's 136 wire centers in Arizona. Of Qwest's total Arizona wire centers, 39 are UNE Zone 1, 33 are Zone 2 and 64 are Zone 3. Qwest is requesting competitive flexibility in the form of Competitive Zones in 37 of 39 UNE Zone 1 wire centers, 17 of 33 Zone 2 wire centers and 28 of 64 Zone 3 wire centers. Furthermore, the Competitive Zone requests consist of 29 UNE Zone 1, 11 Zone 2 and 23 Zone 3 wire centers in Phoenix metro. Similarly, 8 UNE Zone 1, 6 Zone 2 and 5 Zone 3 Competitive Zone wire centers are being requested for Tucson metro. (see Exhibit AFF-4) Qwest is requesting Competitive Zone classification for every wire center that can reasonably be considered in the Phoenix metro and Tucson metro, with the exception of Marana West. It is also worth noting that the wire centers for which Qwest is requesting Competitive Zone classification constitute about [redacted] lines or [redacted] of their total switched access lines in Arizona.

Q. What concerns does Staff have with the wire centers Qwest has identified as competitive?

A. Staff is concerned that some of the wire centers Qwest has identified as competitive actually have very little competitive activity. The inclusion of these wire centers is likely a result of the criteria that Qwest employed to identify competitive wire centers.

Q. How did Staff determine that some of the wire centers Qwest has identified as competitive actually have very little competitive activity?

A. Taking wire center data provided by Qwest, Staff developed an estimate of CLEC market share in each wire center. In response to RUCOs data request 2.28A through 2.28F, Qwest provided UNE-L, UNE-P, and resale numbers per wire center. In response to RUCO data request 2.38 Qwest provided its *estimate* of pure facilities based CLEC lines. Combining this information with data on Qwest's lines contained in Qwest Exhibit DLT-17 yields the following CLEC market shares per wire center in the Phoenix and Tucson areas:

Table 5 CLEC Market Share for Phoenix Wire Centers identified by Qwest as Competitive Zones[20]

Wire Center Name	Estimated CLEC Market Share
DUDLEYVILLE	**[redacted]**
WHITLOW	**[redacted]**
RIO VERDE	**[redacted]**
KEARNY	**[redacted]**
ORACLE	**[redacted]**
FLORENCE	**[redacted]**
WHITE TANKS	**[redacted]**
MAMMOTH	**[redacted]**

[20] The Phoenix MSA includes all of Maricopa and Pinal counties. Dudleyville, Kearney, Oracle, Mammoth, and San Manuel are not in the Phoenix LATA and not in the Phoenix local calling area but are in the Phoenix MSA. Florence, Superior, Coolidge, Eloy, Gila Bend, and Casa Grande are in the Phoenix LATA and MSA but not in the Phoenix local calling area.

SUPERIOR	[redacted]
CIRCLE CITY	[redacted]
STANFIELD	[redacted]
COOLIDGE	[redacted]
WICKENBURG	[redacted]
WINTERSBURG	[redacted]
MARICOPA	[redacted]
ELOY	[redacted]
GILA BEND	[redacted]
BUCKEYE	[redacted]
HGLY QUEEN CREEK	[redacted]
NEW RIVER	[redacted]
TOLLESON	[redacted]
PINNACLE PEAK	[redacted]
PHOENIX-LAVEEN	[redacted]
DEER VALLEY NORTH	[redacted]
PHOENIX-SUNNYSLOPE	[redacted]
THUNDERBIRD	[redacted]
CHANDLER-SOUTH	[redacted]
PHOENIX-NORTHEAST	[redacted]
SUPERSTITION-EAST	[redacted]
PHOENIX-EAST	[redacted]
SCOTTSDALE	[redacted]
CAVE CREEK	[redacted]
HIGLEY	[redacted]
CHANDLER-WEST	[redacted]
FORT MCDOWELL	[redacted]
PHOENIX-MID RIVERS	[redacted]
PHOENIX-SOUTHEAST	[redacted]
SUPERSTITION-MAIN	[redacted]
BEARDSLEY	[redacted]

SUPERSTITION-WEST	[redacted]
TEMPE-MAIN	[redacted]
MESA-MAIN	[redacted]
PHOENIX-GREENWAY	[redacted]
CHANDLER-MAIN	[redacted]
LITCHFIELD PARK	[redacted]
PHOENIX-WEST	[redacted]
SHEA	[redacted]
PHOENIX-SOUTH	[redacted]
GLENDALE-MAIN	[redacted]
PHOENIX-NORTH	[redacted]
GILBERT	[redacted]
PHOENIX-CACTUS	[redacted]
PHOENIX-FOOTHILLS	[redacted]
PHOENIX-NORTHWEST	[redacted]
TEMPE-MCCLINTOCK	[redacted]
PHOENIX-PEORIA	[redacted]
PHOENIX-MARYVALE	[redacted]
PHOENIX-PECOS	[redacted]
CASA GRANDE	[redacted]
COLDWATER	[redacted]
PHOENIX-BETHANY WEST	[redacted]
SAN MANUEL	[redacted]
PHOENIX-MAIN	[redacted]

Table 6 CLEC Market Share for Tucson Wire Centers identified by Qwest as Competitive Zones

Wire Center Name	Estimated CLEC Market Share
MARANA	**[redacted]**
MOUNT LEMMON	**[redacted]**
VAIL NORTH	**[redacted]**
TUCSON WEST	**[redacted]**
TUCSON SOUTHWEST	**[redacted]**
TUCSON-SOUTH	**[redacted]**
GREEN VALLEY	**[redacted]**
TUCSON-EAST	**[redacted]**
CRAYCROFT	**[redacted]**
VAIL SOUTH	**[redacted]**
RINCON	**[redacted]**
CATALINA	**[redacted]**
TUCSON-NORTH	**[redacted]**
CORONADO	**[redacted]**
CORTARO	**[redacted]**
TANQUE VERDE	**[redacted]**
TUCSON SE	**[redacted]**
FLOWING-WELLS	**[redacted]**
TUCSON-MAIN	**[redacted]**

Tables 5 and 6 list only the wire centers that Qwest has recommended be designated Competitive Zones, the tables do not include all wire centers. It needs to be stressed that the estimated CLEC market shares in Tables 5 and 6 are based in part on Qwest's *estimates* of pure facilities based CLEC lines. As is discussed above and in the testimony

of Staff witness Fimbres, Qwest's estimates of pure facilities based lines probably under estimates Cox's presence but overestimates the presence of other carriers.

Q. How do Tables 5 and 6 Illustrate Staff's concerns with the wire centers Qwest believes should be designated as Competitive Zones?

A. Staff believes that there should be actual confirmed competition in an area before it is designated as competitive. Staff is not persuaded that wire centers that have very little actual competition should be designated as competitive. Some of the wire centers listed in Tables 5 and 6 have very little confirmed CLEC activity. Many of the wire centers have CLEC penetration rates in the single digits (or less.) Additionally, the higher CLEC penetration rates shown for some wire centers are driven mainly by Qwest's *estimate* of pure facilities based competition. In fact, fully 69% of the CLEC presence in the Phoenix wire centers listed in Table 5 is attributable to Qwest's *estimate* of facilities based competitors presence. Similarly, 64% of the CLEC presence in the Tucson wire centers listed in Table 6 is attributable to Qwest's *estimate* of facilities based competitors presence. Given that so much of the available evidence regarding these Competitive Zones is driven by Qwest's estimates (which are problematic) Staff is uncomfortable with designating these specific wire centers as competitive.

8. Staff's recommendation regarding Competitive Zones

Q. Please summarize Staff's recommendations concerning Competitive Zones.

A. Conceptually Staff is not opposed to the idea of establishing Competitive Zones. As long as the consumer protections discussed above are in place, Staff does not believe that the general idea of Competitive Zones will be harmful to consumers. However, Staff finds it difficult to support the specific proposal laid out in Qwest's testimonies. Staff is concerned about the use of the wire center as the geographic basis for the Competitive Zones. Should the Commission decide to approve the concept of Competitive Zones,

Staff recommends that zip code boundaries be used as the geographic basis for the Competitive Zones. However, if the data submitted by Qwest and other carriers support Competitive Zone classification for only a portion of the zip code area; the Commission should have the option of narrowing the area to which the Competitive Zone designation would apply.

Q. Why does Staff believe that zip codes are preferable to wire centers?

A. Staff's main concern with the wire center is the potential for customer confusion. As discussed above, customers are unfamiliar with the concept of wire centers and thus communicating with them regarding their rates could be problematic. Customers are familiar with the zip code concept which could serve to mitigate some customer confusion.

Another concern is the measurement data needed for a competitive determination. At the wire center level, the only practical data available for evaluating the level of competition is contained within Qwest's interconnection databases. Wire centers are historical, wire line, local exchange designations used only by ILECs, such as Qwest. Many new telecommunications entrants do not define their service areas on the same terms. Analyzing competitive information on the basis of Qwest's wire centers is impractical for inclusion of the broad set of market participants.

Zip codes are geographic definitions provided by the US Postal Service and used by *all* telecommunications providers for service and billing operations. Using zip code based information would allow Competitive Zone consideration at the highest level – statewide - or the lowest level – the discrete zip code – with several possibilities in between, such as city and county levels. Without use of zip code information, for example, analytical consideration of Qwest's related proposal for Competitive Zones defined by geographies

other than wire centers, e.g., housing developments, is impractical. The use of zip code level information also lays the groundwork for the eventual inclusion of market information from competitive alternatives, such as wireless and VoIP.

Staff initiated actions to obtain zip code level information for this proceeding but has been unable to conclude its analysis based on such information. Therefore, Staff conducted its Competitive Zone analysis with traditional wire center information but is recommending that the Commission order continuing measurement and analysis be based on zip code information.

Q. How does Staff propose this analysis based on zip code information be conducted?

A. If the Commission endorses the idea of establishing Competitive Zones and adopts Staff's recommendation to base those zones on zip codes, Staff recommends that a separate proceeding be established to determine which zip codes should be treated as Competitive Zones. After the conclusion of the pending proceeding, Qwest could make a filing consistent with R14-2-1108 which would identify the zip codes Qwest believes should be treated as competitive. Qwest's filing should, at a minimum, contain all of the information required by R14-2-1108 broken down to the zip code level where possible. Specifically, Qwest should provide the number of UNE and resale lines broken down by CLEC in each zip code for which it is seeking competitive classification. Because Qwest can only estimate the number of pure facilities based CLEC lines it is better to get that information from the CLECs directly. All Arizona CLECs who have CC&N's allowing them to provide facilities based service should be required to provide the number of pure facilities based lines and customers they are serving in each zip code for which Qwest is seeking competitive classification. All of the above information should be broken down by business and residence customers. Any Arizona CLEC impacted by Qwest's

Competitive Zone proposal which desires to comment on Qwest's proposal should be allowed to participate in the proceeding.

Upon receipt of Qwest's filing, Staff will make its recommendation to the Commission within 120 days. Should Qwest's filing not comply with R14-2-1108 or any Commission requirements, Staff will issue a notice of deficiency within 14 days and the 120 day time clock will be suspended until Staff deems Qwest's filing as sufficient.

Q. Why does Staff believe that information on Competitive Zones should be broken down based on residential and business services?

A. Staff believes that the business and residential markets for telecommunications services are fundamentally different. Competitive conditions in these markets may be quite different. In some areas, competitive classification may be appropriate for business customers only.

Q. Why does Staff believe a sufficiency review of Qwest's R14-2-1108 filing is necessary when no such sufficiency review is conducted when CLECs make filings under R14-2-1108?

A. Because Qwest is the dominant provider of wire line telecommunications service in its service territory, Staff believes the analysis of its R14-2-1108 filing needs to be exceptionally thorough. Since individual CLECs typically have very few customers relative to the market as a whole and their level of investment in infrastructure is typically quite small relative to the market as a whole, it is very unlikely that they will have the ability to influence the market price for telecommunications service in any meaningful way. The same can not be said for Qwest. Additionally, with a standard R14-2-1108 case Staff is not bound by the 120 day time clock it is proposing here. Thus, deficiencies can be addressed through the discovery process. With a 120 day time clock Staff and the

interveners will need as much of the information as possible provided by Qwest with its filing in order to ensure timely processing.

Q. What advantages are there to determining which zip codes should be classified as Competitive Zones in a separate proceeding?

A. First, a second proceeding will allow Staff and the parties to sort out the data problems regarding pure facilities based providers mentioned above and discussed in detail in Staff witness Fimbres' testimony. Staff believes that an informed decision regarding which areas really are competitive should be based on accurate data. Second, a seperate proceeding will allow Staff and the parties to incorporate any feedback the Commission has to offer regarding the pending proceeding into their analysis and recommendations.

Q. If the Commission determines to use geographic areas other than zip codes, what recommendations does Staff have regarding such a determination?

A. Staff's primary recommendation is to base Competitive Zones on zip codes and to make those determinations in a separate proceeding. However, whether the Commission uses wire centers, zip codes or some other option as the geographic area the R14-2-1108 criteria should form the basis of any finding. Qwest did not use the R-14-2-1108 criteria in its identification of wire centers for Competitive Zone classification. Staff believes that Qwest's limited criteria produced many Competitive Zone designations that are not appropriate.

Q. Does Staff have any other recommendations regarding Competitive Zones?

A. Yes. In order to prevent Qwest from pricing services at unfairly low rates Staff recommends that all prices for services within Competitive Zones must exceed the TSLRIC of each service and Qwest must comply with the imputation requirements of

A.A.C. R14-2-1310(C) within Competitive Zones. In addition, the price floor for 1FR and 1FB service should exceed the highest existing applicable UNE-P rate.[21]

IV. Arizona Universal Service Fund Issues

Q. What is the purpose of your testimony on Arizona Universal Service Fund (AUSF) issues?

A. Staff witness Thomas Regan will address the revenue requirements aspect of Qwest's AUSF proposal. My testimony will address Qwest's contention that their AUSF proposal will enhance the prospects for competition in rural areas.[22]

Q. Does Staff believe that Qwest's AUSF proposal will result in increased competition in rural Arizona?

A. The Company has failed to conclusiovely demonstrate that their proposal will result in increased competitive options for consumers in rural areas therefore, Staff believes it is inappropriate to tax ratepayers based upon Qwest's speculations. Rule R14-2-1206(E) requires that AUSF funding be portable to an ILEC's competitors. That is, if an ILEC is receiving AUSF support in a particular area and it loses a customer to a CLEC, then the CLEC would receive the AUSF support attributable to that customer. Because the rural parts of Qwest's service territory tend to be in UNE zones 2 and 3, the UNE rates in Qwest's rural areas tend to be high. These high UNE rates have been cited as a barrier to competitive entry in rural areas. Thus, AUSF support for those areas would lower the costs for CLECs who wish to compete in rural areas. Theoretically, it makes sense that lower costs would be beneficial for CLECs in rural areas; however, Staff has been unable to find any factual evidence supporting the contention that providing AUSF support to

[21] If the UNE-P product, or a product substantially similar to UNE-P, should be offered under a different name this requirement should still be binding.
[22] Shooshan p. 18 lines 10-15 and Ziegler p. 13 lines 5-7

Qwest will enhance competition. Also, factors other than costs (e.g., potential revenue) likely influence a CLECs decision to provide service in a particular area.

Q. What investigation did Staff do regarding the likelihood that AUSF support in Qwest's rural areas would result in increased competition in those areas?

A. Staff sent a data request (STF 2-1) to all Arizona certificated CLECs asking whether they are receiving state universal service funding in any other state and if so they were asked to identify the relevant states. The vast majority of CLECs reported that they are not receiving any universal service funding of any kind. A small number of CLECs indicated that they are receiving state universal service funding in a few states. The states identified by these CLECs are Texas, Pennsylvania, Illinois, Wyoming, Nebraska, and Kansas.[23] Staff contacted each of these states' public utilities commissions and asked a series of questions regarding the states' universal service funds and rural competition. None of these states reported that their state universal service funds were intended to promote local competition. Nebraska reported that there is a substantial amount of UNE-P based competition in its rural areas. None of the other states reported significant amounts of rural competition.

Q. Did Qwest provide any factual evidence regarding the impact of AUSF on competition in rural areas?

A. No.

Q. What factors other than costs would effect a CLECs decision to compete in rural areas?

A. Revenues. The revenue opportunities in rural areas may be substantially different than those in urban areas.

Q. Do the Commission's rules place any restrictions on CLECs obtaining AUSF support that may be relevant?

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[23] MCI also identified Michigan but when Staff contacted the Michigan Commission we were informed that Michigan does not have a state universal service fund.

A. Yes. R14-2-1206(E) requires that a CLEC receiving AUSF support must be willing to serve "all customers in the specific AUSF support area." This provision of the rules would ensure that Qwest's proposal would offer no benefits to CLECs who specialize in serving certain type of customers only.

Q. Are the higher UNE rates in rural areas necessarily a barrier to competitive entry?

A. Higher UNE rates certainly do not help competition. However, it is interesting to note that (according to data supplied by Qwest) in the Phoenix and Tucson areas the number of lines served by pure facilities based CLECs is more than double that served by UNE-L, UNE-P and resale based CLECs.[24] Since UNE rates in these urban areas are not particularly high, this implies that factors other than UNE costs may be impeding UNE based competition.[25]

Q. What does Staff recommend regarding Qwest's AUSF proposal?

A. Staff witness Thomas Regan will sponsor Staff's primary recommendation regarding Qwest's AUSF proposal. The purpose of my testimony is to point out that the affect of Qwest's AUSF proposal on competition in rural areas is, at best, uncertain. Additionally, Staff recommends that any additional federal or state universal service funding received by Qwest during the term of the Revised Price Cap Plan be considered an adjustment to the price caps established under the plan.

V. Deregulation of Voicemail

Q. Has Qwest petitioned the Commission to deregulate Voice Messaging Service?

[24] Derived from Qwest response to RUCO data requests 2.28 a –f and 2.38.
[25] The current UNE rates were established in Decision No. 64922 on June 12, 2002. Prior to that Qwest's Arizona UNE rates were considerably higher.

A. Yes. Qwest has previously filed a petition to deregulate voice messaging service (Docket No. T-01051A-98-0575) and has reiterated this request in its amended application for renewed price regulation plan (Docket No. T-01051B-03-0454 and T-00000D-00-0672).

Q. What is the basis for Qwest's petition?

A. Qwest has petitioned the Commission to deregulate voice messaging pursuant to A.R.S. 40-281(E) which states: "When the commission determines after notice and hearing that any product or service of a telecommunications corporation is neither essential nor integral to the public service rendered by such corporation, it shall declare that such product or service is not subject to regulation by the commission."

Q. How does Qwest support its position?

A. According to Qwest, the voice messaging service it offers does not constitute "transmitting messages or furnishing public telegraph or telephone service", and is in fact "totally independent of basic telephone service."[26] Further, Qwest asserts that voice messaging service is not essential or integral to basic telephone service because "basic telephone service can be and is provided to residential and business customers irrespective of voice messaging."[27]

Q. What factors have you considered in evaluating Qwest's petition to deregulate voice messaging service?

A. Pursuant to *Mountain States Telephone and Telegraph Co. v. Arizona Corporation Commission*, 132 Ariz. 109, 644 P.2d 263 (App. 1982), when determining whether or not to deregulate voice messaging service, the Commission must determine if the service is essential and integral to the public service rendered by the provider.

Q. Are there any prior Commission decisions to help guide the Commission in this matter?

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[26] US West Communications, Inc.'s Petition for Deregulation of its Voice Messaging Service, September 25, 1998 – T-01051A-98-0575 at ¶ 3

[27] US West Communications, Inc.'s Petition for Deregulation of its Voice Messaging Service, September 25, 1998 – T-01051A-98-0575 at ¶ 4

A. Yes. In 1986, Mountain States Telephone and Telegraph filed an application for deregulation and withdrawal of filed tariffs relating to the mobile radio common carrier industry. In its order granting the company's petition to deregulate radio telephone services (Decision No. 55633), the Commission relied on several factors in rendering its decision.

Staff recommended that a service be considered essential and integral if it "is judged to be indispensable or is expected to be widely available."[28]

The Commission noted that mobile radio is very specialized in nature and "the network providing this service is discrete and separable from the public telecommunications network."[29]

In addition, the following findings of fact (among others) lead to the Commission's decision to grant Mountain Bell's application to deregulate mobile radio:

a. Mobile Radio is provided through a network that is discrete and separable from the public telecommunications network.

b. Mobile Radio has been successfully provided as a matter of private contract for very specialized needs.

c. Mobile radio common carriers are not providing a public service.[30]

Q: How does the Mountain States Telephone and Telegraph decision help to guide your analysis of the petition to deregulate voice messaging service?

A: Staff has utilized the test for the essential and integral nature of a service from the Mountain Bell decision as a basis to determine that voice messaging service is not essential and integral to the provision of the public service rendered by Qwest. Secondly, voice messaging service meets several of the criteria used by the Commission in rendering Decision No. 52633 in the Mountain States case. Voice messaging service is discrete and

[28] Decision No. 55633, Docket No. E-1051-86-016, July 2, 1987, page 4 line 18.
[29] Decision No. 55633, Docket No. E-1051-86-016, July 2, 1987, page 6 line 9.
[30] Docket No. E-1051-86-016, July 2, 1987, pages 8-9.

separable from the public telecommunications network. It has been successfully provided as a matter of private contract, and voice messaging businesses are not providing a public service.

Q: Please describe the factors that lead to this conclusion.

A: There are many examples of competitive providers offering voice messaging service in the marketplace. In its letter dated July 9, 2002, Qwest provided a supplemental list of alternate voice message providers listed in the DexOnline Yellow Pages that included more than fifty (50) companies. The majority of these companies are unregulated businesses that are not engaged in furnishing public telephone service.

Q: Does Staff find that Qwest's voice messaging service is indispensable?

A: No. Voice messaging service or close substitutes are expected to be, and are, widely available in the market. Along with the list of more than fifty competitive voice mail providers in Arizona, answering machines and answering services also serve as close substitutes for voice messaging service. Qwest has indicated that of its voice messaging service capable lines, approximately 25% of residential lines and 28% of business lines subscribe to the service. These numbers indicate that either voice messaging service is not indispensable to customers, or there are sufficient substitutes available to cover the messaging requirements of nearly three-quarters of Qwest's voice messaging capable phone lines.

Q: Did Staff perform an analysis to determine whether voice messaging service is a public service pursuant to Article 15 § 2 of the Arizona Constitution?

A: Yes. In determining whether Voice Messaging Service is a public service pursuant to Article 15 § 2, Staff has examined the relationship between voice messaging service and the public switched telephone network. While the provision of voice messaging service requires some elements of the public switched telephone network such as the call forwarding busy line/don't answer features on the customer's line and an interconnection

between the central office and voice response unit (considered by Qwest to be Customer Premise Equipment), the public telephone network can and does operate properly whether or not voice messaging service is being provided.

Q: Is it possible for a company to provide voice messaging service without owning any facilities that would be considered elements of the public switched telephone network?

A: Yes. Many non-regulated voice mail providers are able to offer the service using a combination of their own voice mail platform and tariffed network services from a facilities-based local exchange company. Some competitive local exchange carriers such as MCI, SBC, and AT&T outsource their voice mail platforms.

Q: In general, can you describe the manner in which non-regulated companies provide voice messaging service?

A: Qwest's list of alternative voice mail providers shows a multitude of non-regulated companies that offer voice messaging service. Several of these companies provided a description of the equipment and public switched telephone network facilities necessary for them to provide voice messaging service.

Competitive voice messaging providers typically own or sub-contract the voice mail platform, own or lease various network facilities, and purchase various tariffed services from a local exchange carrier. The voice mail platform or voice response unit handles the voice messaging transactions such as recording, storing, and playing messages, and notifying the customer of new messages. Calls are terminated to the voice mail platform. The competitive provider can own or lease varying degrees of equipment and facilities above and beyond the voice mail platform. This determines the network services it must purchase at standard tariffed rates from the local exchange carrier. However, certain basic service elements are required from the LEC such as the Multi Line Hunt Group feature,

Message Delivery Service, and the Message Waiting Indicator. In addition, the customer must have call forwarding features from its LEC to forward missed calls on to the voice mail platform via the public switched telephone network.

Q: Does the existence of these types of non-regulated providers help you to determine whether voice messaging service is a public service?

A: Yes. The abundance of non-regulated providers of voice messaging service is evidence that this feature is discrete and separable from the public switched telephone network. Voice messaging businesses are not providing a public service.

Q. Does the availability of answering machines affect the decision regarding voice mail deregulation?

A. Yes. Modern answering machines are close substitutes for voice mail service and are widely available and their prices are unregulated.

Q: What is your recommendation with respect to Qwest's petition to deregulate voice messaging service?

A: Based on the findings that voice messaging service is not essential and integral to basic telephone service, that it is discrete and separable from the public switched telephone network and that it is subject to private contracts; Staff recommends that the Commission grant Qwest's petition to deregulate voice messaging service. Staff also recommends that Qwest's pending application to deregulate voicemail (Docket No. T-01051A-98-0575) be closed. Pursuant to *Mountain States Telephone and Telegraph Co. v. Arizona Corporation Commission*, 132 Ariz. 109, 644 P.2d 263 (App. 1982), the Commission should reserve the right to ensure that voice messaging service is offered in a non-discriminatory fashion and that the service does not result in the evasion or frustration of the Commission's regulation of telephone service.

VI. Deregulation of Billing and Collection

Q. What has Qwest requested with respect to its Billing and Collection ("B&C") Services?

A. Qwest has requested that its B&C Services (referred to as "Information and Billing Services" in Qwest's Access Service Price Cap tariff) be deregulated.

Q. What is B&C Service?

A. B&C Service provides Access Service customers (IXCs) with billing, collection and information services. The services include the following:

- Recording – Records the information for calls that is necessary to bill customers for calls that have been made.
- Message Based Billing – Provides for the billing of customers for individual calls that they have completed. Services include usage sensitive toll services.
- Non-Message Based Billing - Provides for the billing of customers for services that they have received that are non-usage sensitive. Services include non-usage sensitive services such as private line services.
- Billing Analysis – Provides for the detection, investigation and deterrence of billing evasion activities.
  End User Account Activity – Provides for changes, adds or deletions to an end user's account information.
- Message Investigation – Provides for the investigation of calls that are disputed.
- Billing Information – Provides for the forwarding of end user records billing files and account data to the customer.
- Media Provisioning - Applies to the charges for the manner in which data is provided to the customer. Charges vary depending upon whether the medium used is magnetic tape, cartridges, data transmission, microfiche and the type of delivery methods requested.
- Ancillary Offerings – includes Market Messages, Screen Bill Fiche and Billing Name and address
- CARE/ISI – Provides for the ability to exchange information in the CARE/ISI format.
- Custom Request and Consulting – Services that are provided in response to a customer's special request.

Q. What is the current pricing regime for Qwest's B&C Service?

A. Currently, Qwest's B&C Service is provided as a flexibly priced service with maximum rates in Qwest's Access Service tariff. The current rates for services (other than ICB priced services) are contained in a price list.

Q. Describe the Billing and Collection service that Qwest proposes to deregulate.

A. Qwest proposes to deregulate all of the services currently contained in its Information and Billing Services tariff.

Q. Who are the alternative providers of B&C Service identified by Qwest?

A. In its response to Staff Data Request Nos. 30-14 and 30-15, Qwest indicated that carriers' own billing systems, major credit card companies, bill aggregators or other major direct billing providers are alternatives to Qwest-provided Billing and Collections, Market Message, End-User Inquiries, Custom Services and Consulting Services. Further, Qwest responded that IXCs' switches have the capability to record call detail information and that IXCs have the ability to take that call detail and determine the charges for their services.

Q. Has the Federal Communications Commission ("FCC") issued any decision on Billing and Collection Service?

A. Yes. In 1986, the FCC detariffed B&C Service.[31]

Q. What is the current regulatory status of Billing and Collection Service in the Qwest region?

A. In response to Staff Data Request No. 30-16, Qwest indicated that B&C has been deregulated in 8 of the 14 states in its region. Further, the service has been classified as competitive in 4 states with significant pricing flexibility, and that the service is "tariffed" in New Mexico.

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[31] See Detariffing of Billing and Collection Services, CC Docket No. 85-88, 102 FCC 2d 1150 (1986) (Billing and Collection Detariffing Order) recon. denied, 1 FCC Rcd 445 (1986).

Q. Who are the alternative providers of Billing and Collection Service that Qwest proposes to deregulate

A. In its response to Staff Data Request Nos. 30-12 and 30-13, Qwest indicated that the following companies currently provide alternatives to Qwest-provided B&C Services:

* * * Confidential * * *
[redacted][redacted][redacted][redacted][redacted][redacted][redacted][redacted][redacted][redacted][redacted][redacted][redacted][redacted][redacted][redacted][redacted]
* * * Confidential * * *

Q. Did you request information from IXCs and CLECs regarding B&C Service?

A. Yes.

Q. Were you able to reach any conclusions based on their responses to Staff's data requests?

A. Yes. The majority of the respondents to Staff's Data Request indicated that they do not subscribe to or use any of Qwest's B&C Services. Some of the respondents indicated that they use Qwest B&C Service for at least part of their B&C needs. These responses indicate that B&C is not a service that can only be provided by Qwest. IXCs and CLECs have various alternatives. They can use their own equipment entirely or use a combination of their networks and services provided by others or rely entirely on others for B&C services. Based on these factors B&C service is not essential and integral to the provision of telephone service.

Q. What is you recommendation with respect to Qwest's proposal to deregulate B&C Service?

A. I recommend that the Commission approve Qwest's proposal to deregulate B&C Service. Pursuant to *Mountain States Telephone and Telegraph Co. v. Arizona Corporation Commission*, 132 Ariz. 109, 644 P.2d 263 (App. 1982), the Commission should reserve

the right to ensure that voice messaging service is offered in a non-discriminatory fashion and that the service does not result in the evasion or frustration of the Commission's regulation of telephone service.

VII. Promotions

Q. Please describe Qwest's current Promotional Offering Tariff.

A. Qwest's current Promotional Tariff Offering allows the Company to engage in promotions from time to time. Under the terms of the tariff the promotions are designed to attract new customers or increase awareness of its offering. In addition the tariff states that the promotions will be designed to cover the marginal cost of the promotion. Qwest is required to provide 30 days notice to Staff if promotions are valued at greater than $25.00 per customer. Finally, Qwest must provide concurrent notification to Staff of promotions valued at less than $25.00 per customer and is required to report the results of the promotion to Commission Staff.

Q. What is Qwest's proposal regarding changes to its promotions tariff?

A. Qwest proposed to amend its Promotional Offering tariff such that it is not required to provide 30 days notice to Staff if promotions are valued at greater than $25.00 per customer. Additionally, Qwest proposes to eliminate the requirement that the promotional prices cover the marginal cost of the relevant services.

Q. Do any CLECs or IXCs have the sort of promotional offering flexibility the Qwest is requesting in this proceeding?

A. Yes. A number of CLECs and IXCs have general language in their tariffs that allow the companies to offer promotions that include, but are not limited to, rate discounts or waivers of non-recurring charges from time to time. This is the predominate approach.

Q. Do all CLECs and IXCs have the sort of promotional offering flexibility that Qwest is requesting in this proceeding?

A. No. Tariffs that apply to CLEC and IXC promotions vary depending on the language in their tariffs. Some file individual promotions that become effective on 30 days notice to the Commission because these promotions are filed as tariff revisions. Others include language in their tariff that requires them to file promotions with the Commission before they can become effective.

Q. What is Staff's recommendation on the proposal to grant Qwest additional flexibility regarding promotions?

A. Staff recommends that Qwest's proposal eliminating the requirement that Qwest's promotions be filed with the Commission 30 days prior to going into effect be approved. However, Qwest should be required to file promotions with the Commission concurrent with their effective dates. Also, Staff does not believe it is appropriate to end the requirement that promotional prices must cover marginal cost. The requirement that prices cover marginal cost is an important safeguard against anti-competitive behavior.[32]

VIII. Term of the Revised Price Cap Plan

Q. What term does Staff believe the Revised Price Cap Plan should have?

A. Staff believes a term of three years is appropriate. Nine months prior to the end of the three year period Qwest should file an application to renew, revise, or cancel the Revised Price Cap Plan. The Revised Price Cap Plan should remain in effect until the Commission issues an order that changes its terms. The three year period should begin upon Commission approval of the plan in this case.

Q. Should Qwest be precluded from making an application to revise or cancel the Revised Price Cap Plan during the three year term?

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[32] Staff clarifies that the marginal cost test for a promotion should cover the entire term of the promotion. For example, if Qwest offers a discounted rate for two months in exchange for a two year commitment to a particular service, the marginal cost test should take into account all costs and revenues over the two year period.

A. No. Because competitive conditions may change Staff believes it is appropriate to allow Qwest and the Commission to open a review of the Revised Price Cap Plan if competitive conditions warrant. This would allow both Qwest and the Commission the flexibility necessary to address unforeseen problems that may result from the Revised Price Cap Plan.

Q. What reporting requirements does Staff recommend be imposed on Qwest during the term of the plan?

A. Staff recommends that Qwest be required to file annual reports that document the price changes that have taken places over a given year and that verify that Qwest is complying with the revenue caps established in this proceeding. These reports should be filed by the end of April for each year the Revised Price Cap Plan is in effect. Also, Staff Witness Brosch describes additional recommended reporting requirements in his testimony.

IX. UNE-P Availability and Other Competitive Issues

Q. What is UNE-P?

A. UNE-P is a wholesale product that bundles all of the network elements necessary to provide end users with local service (including switching.) The UNE-P product is functionally similar to the Resale of local exchange service. One important difference between UNE-P and Resale is the treatment of access charges. When a CLEC enters into a Resale agreement with Qwest (or any other ILEC), the CLEC has no claim to the access charges associated with its end users' long distance traffic. With Resale the ILEC keeps the access charges. Conversely, when a CLEC leases the UNE-P product from Qwest, the CLEC receives the access revenues.

Q. What is the current status of UNE-P?

A. Currently Qwest is providing UNE-P to CLECs with an existing interconnection agreement under TELRIC rates approved by the Commission (at least until year end.) However, the future status of UNE-P has been called into question by the Federal

Communications Commission's ("FCC") *Interim Unbundling Order*.[33] In its Order, the FCC put in place an interim plan which applies to the transition period before it adopts final unbundling rules and issued a Notice of Proposed Rulemaking seeking comment on final rules. Staff believes that, based on the *Interim Unbundling Order,* it is likely that the final rules will do away with the requirement that UNE-P be provided at Commission approved TELRIC rates, at least in certain markets.

Qwest indicated to Staff that it has already stopped offering UNE-P at TELRIC rates to new CLECs based upon paragraph 22 of the *Interim Unbundling Order*. Qwest has also indicated that it is offering a new product that is functionally equivalent to UNE-P it calls Qwest Platform Plus. The price of Qwest Platform Plus is the same as that for UNE-P until the end of this year but will then ratchet up in January of 2005, in January of 2006, and again in January 2007.[34]

Q. Currently how many CLEC customers are served through UNE-P?

A. UNE-P currently makes up a significant but not overwhelming portion of total CLEC lines. The following table shows the composition of lines currently served by CLECs:

Table 8

Percent of Total CLEC Lines[35]	
UNE-L	**5%**
UNE-P	**27%**
Resale	**1%**
Private Line Resale	**0.02%**
UNE-L with EEL	**0.3%**
Full Bypass	**67%**

[33] *In the Matter of Unbundled Access to Network Elements and Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, WC Docket No. 04-313 and CC Docket No. 01-0338, Order and Notice of Proposed Rulemaking (Released August 20, 2004)("*Interim Unbundling Order*").
[34] Qwest response to Cox data request 2-18.
[35] Response to RUCO data requests 2.28A through 2.28F, and 2.38, Full bypass numbers based on Qwest's *estimate*.

Q. Is the elimination of Commission approved rates for UNE-P more likely to affect business or residential customers?

A. UNE-P has been used primarily to serve residential customers. With the exception of Cox, all CLECs with significant numbers of residential customers have primarily used UNE-P to serve those customers. With the elimination of economic rates for UNE-P, Cox is likely to be left as the only CLEC serving significant numbers of residential customers. The market for traditional residential wire line service is likely to be a duopoly in that event.

Q. What are the implications of this duopoly market structure?

A. A duopoly market structure (and more generally an oligopoly market structure) is of concern to economists because with a small number of firms the potential for collusion (either explicit or tacit) is enhanced. Such collusion could keep prices above competitive levels to the detriment of consumers. However, it is not known whether such collusion will actually take place. Staff is not aware of any indications at this time of any collusive activity. There are highly concentrated industries that are not characterized by collusion and supra competitive prices (e.g., Boeing and Airbus are the only two manufactures of large commercial aircraft in the world and that market is generally regarding as competitive.) The degree to which concentration affects competitiveness varies from industry to industry.

Q. How would the above comments on concentration in the residential market change if other forms of competition such as wireless and VOIP are taken into consideration?

A. If wireless were to become an acceptable substitute for wire line service for most residential consumers, then the residential market would look less concentrated. Currently, Staff does not believe that wireless is a true substitute for wire line service.

Staff believes it is too early to determine the ultimate effect of VOIP. While many commentators tout VOIP as a technology that could bring wide spread competition to the wire line market, it should be remembered that many commentators felt the same way about UNE based competition in the years shortly after the 1996 Act was passed. Also, VOIP is only available to customers who also purchase a broadband connection.

Q. How is the Arizona market for business wire line telecommunications service different from the residential market?

A. There are many more CLECs providing business service then there are providing residential service. However, the overwhelming majority of business customers are still being served by Qwest.

Elimination of Commission approved pricing for UNE-P will have much less of an impact on the business market then it will on the residential market. UNE-P is not heavily depended on by CLECs serving business customers.

While in the residential market use of the UNE Loop ("UNE-L") is almost non existent, CLECs serving business customers are much more likely to use UNE-L. However, the number of business customers served through UNE-L is still not impressive even now, almost nine years after the 96 Act was passed.

There are CLECs who provide pure facilities based service to businesses. However, their numbers are not large and, with the exception of Cox, they are unlikely to be able to offer pure facilities based service to the full spectrum of potential business customers.

Q. Is there a particular reason why UNE-L based competition has not become more prevalent?

A. In its Triennial Review Order ("TRO") the FCC found that ILECs cannot handle the volume of UNE-L conversions necessary to serve the mass market.[36] A UNE-L conversion is the process of lifting a loop from the ILECs switch and then connecting it to a CLEC's switch.[37] This is a labor-intensive process that involves skilled technicians working in what can be confined conditions. In order to comply with the requirements of the TRO Qwest was developing, through a collaborative process, a Batch Hot Cut process to facilitate high volumes of UNE-L conversions. However, that collaborative process was never completed. Before the collaborative process on Batch Hot Cuts was abandoned Qwest and the CLECs had reached agreement on many issues and their impasse issues had been referred to the state commissions for resolution.

Q. Why was the Batch Hot Cut Process never completed?

A. The Commission (and most, if not all, other state Commissions) suspended its TRO proceeding after the United States Court of Appeals, D.C. Circuit issued its March 2, 2004 decision that vacated substantial portions of the TRO.

Q. Does the fact that the D.C. Circuit vacated parts of the TRO affect the FCC's finding that an improved Batch Hot Cut process was necessary?

A. No. The D.C. Circuit's decision vacated certain requirements of the TRO; it did not eliminate any of the FCC's factual conclusions.

Q. Does Staff believe that completion of the collaborative Batch Hot Cut process would enhance the prospects of competition?

A. Yes. An effective Batch Hot Cut Process will make UNE-L based competition much more viable. Staff recommends that as a part of this case the Commission should order Qwest to revive the collaborative Batch Hot Cut process. Qwest should be required to reconvene the members of the collaborative to determine if the status of the agreed upon and impasse issues has changed. If the collaborative determines that the status of the

[36] TRO ¶ 459
[37] UNE-L conversions are also referred to as "hot cuts."

issues has changed additional meetings should be scheduled to come up with a revised list of resolved and impasse issues. Whether additional meetings are necessary or not all impasse issues should be submitted to the Commission for resolution.

In our testimony Staff has endorsed enhanced pricing flexibility for Qwest and elimination of the inflation/productivity factor. Both of those Staff recommendations were based on the existence of competition. In fact, the continuation of the Price Cap Plan in general is based, from Staff's perspective, on the existence of competition. Thus, Staff believes it is reasonable to include in this case conditions that will help to bolster the prospects for competition on an ongoing basis. The pro-competitive condition that Qwest implement a viable Batch Hot Cut process serves the purpose of bolstering the prospects for competition on an ongoing basis.

Q. Does this conclude your direct testimony?

A. Yes, it does.

Exhibit 1

Price Cap Plan

(1) Baskets
   a) Basket 1: Non-competitive Services
   b) Basket 2: Wholesale Services
   c) Basket 3: Flexibly-Priced Competitive Services

(2) Basket 1: Non-competitive Services
   a) A list of the individual services in Basket 1 is appended hereto as Attachment 1
   b) Cap on Basket 1

      i) The services in Attachment 1 are subject to a revenue cap specific for Basket 1 during the period of the Renewed Price Cap Plan. Revenue neutral filings for services within Basket 1 without individual caps are allowed with notice to the Commission through a tariff filing.

      ii) The formula for the Price Cap Index for Basket 1 is:

$$1 \geq [\text{SUM } [P_N * Q_b]\ ] / [\text{SUM } [P_b * Q_b]\ ]$$

The numerator of the Price Cap Index of Basket 1 is the sum of the proposed/new prices multiplied by the "base year" quantities of demand. The proposed/new prices will be calculated using weighted averages of the prices of Basket 1 services across the Competitive Zones (and non-competitive area) as described in Section 6 below. Where price changes have not occurred, the base year price of the service is used. The denominator is the sum of base year prices multiplied by the "base year"" quantities of demand. Section *(6)* below details the data that Qwest shall provide to enable calculation and monitoring of the cap.

   c) Service Pricing Flexibility
      i) Certain Basic Services are to be capped at their initial levels throughout the term of the Price Cap Plan. These service prices may be reduced but not raised above their current levels. These services are: flat rate residential; flat rate business; exchange zone increment charges; low use option service; service stations service; telephone assistance programs; individual PBX Trunks, including features; Caller ID block; toll blocking; 900/976 blocking; and basic listing service.
      ii) The remaining services in Basket 1 may increase or decrease within the band established by the Revenue Cap.
      iii) Individual service rate elements within Basket 1, other than those services listed in subpart i) above [services subject to the hard cap], may increase no more than 25 percent within a year.
      iv) Individual service prices must exceed the service's Total Service Long Run Incremental Cost ("TSLRIC"), unless a different cost standard applicable to all telecommunications service providers is determined appropriate by

the Commission. Individual service prices must also comply with the imputation requirements of A.A.C. R14-2-1310(C), as applicable.

v) Changes to Terms and Conditions of services in Basket 1 shall be submitted to the Commission for Staff review and approval. All services in Basket 1 shall be continued statewide at the tariffed rate, unless or until the Commission orders retail geographic rate de-averaging, or unless Qwest demonstrates a cost difference for a new service on which to base the price difference, or unless the Commission designates areas as Competitive Zones as discussed below. Nothing in this Price Cap Plan shall preclude the Commission from deaveraging wholesale rates on a cost basis.

vi) Price increases for services in this Basket require 30 day notice to the Commission by submission to Staff, and 30 days notice to consumers.

(3) Basket 2: Wholesale Services

a. The services included in Basket 2 at the Renewed Price Cap Plan's inception include: Intrastate Carrier Switched Access, Discounted Wholesale Offerings, Unbundled Network Element (UNE) Offerings, Wholesale services such as PAL lines, and all other wholesale offerings unless specifically listed in Attachments 1 and 3 as included in either Basket 1 or 3. A list of wholesale services, with the exception of UNEs included in Basket 2 at the Price Cap Plan's inception is contained in Attachment 2.

b) Basket 2 consists of wholesale services many of which are governed by their own specific pricing rules and will continue to be governed by such rules as interpreted by the Commission and the Courts, under this Price Cap Plan,
c) UNEs and discounted Wholesale Offerings are priced based on the provisions of the Telecommunications Act of 1996 (1996 Act), FCC implementing regulations and Commission rules.
d) Intrastate Switched Access Services are to be reduced by $8.9 million upon implementation of the Renewed Price Cap Plan.
e) Service prices are capped for the term of the Renewed Price Cap Plan, or until the specific pricing rules are changed or the Commission determines that other prices are appropriate.
f) New wholesale services are to be added to this Basket when those services are implemented.

(4) Basket 3: Flexibly-Priced Competitive Services

a) This Basket includes only those services that have been accorded pricing flexibility or have been determined by the Commission to be competitive under A.A.C. R14-2-1108, and new services and new service packages offered by Qwest. Any new services and new service packages offered by Qwest shall be subject to the prior review and approval of the Commission, as provided in subpart e) below. A list of services included in Basket 3 at the inception of this Price Cap Plan is appended hereto as Attachment 3.
b) The revenue cap for Basket 3 is the weighted average price level of all the services in the Basket as calculated by the formula set forth in subpart c) following, subject to annual updates in quantities. Notwithstanding, the additional revenue level for purposes of headroom in Basket 3, shall be capped.
c) The formula for calculating the Price Cap Index for Basket 3 is:

$$1.0 \geq [SUM (Pn * Qb)] / [SUM (1.XX * Pb * Qb)]$$

The numerator is the sum of the proposed or new prices multiplied by the "base year" demand. The proposed/new prices will be calculated using weighted averages of the prices of Basket 3 services across the Competitive Zones (and non-competitive area) as described in Section 6 below. Where price changes have not occurred, the base year price of the service is used. The denominator is the sum of one hundred XX percent of the base year prices multiplied by base year demand. Pb and Qb are the prices and quantities of services in the basket in the "base" year of the plan. For new services and the packages Pb and Qb are the prices and quantities for the first full year the service is offered. See 4(d) below for further explanation of the appropriate data to be used for new services and packages. The XX% increase allowed under the Price Cap Index for Basket 3 is for the term of the Price Cap Plan.

d) New services and service packages shall be added to the calculation of the price cap index, in both the numerator and denominator, at the end of the year in which they were introduced, to obtain actual experience with the service, so the

calculation is not based solely upon projections. Qwest shall provide notification to Staff of the new services/packages and their prices as provided in subpart (e) below. Once a full year's worth of actual demand is available for use in the Revised Price Cap Plan that demand should be the "base" year demand to be used,

e) Any services in Basket 1 may be the components of any new package that would be offered in Basket 3. Each Basket 1 service that is included in a package offered in Basket 3 shall continue to be offered in its current form in Basket 1 as of the commencement of the Price Cap Plan.

f) The price of all packages containing Basket 1 services shall be hard-capped at the sum of the ala-carte prices of the services contained in the package.

g) Any new services proposed to be included in Basket 3, shall be submitted at least thirty days in advance of the proposed effective date of the tariff of the new package or service and shall be subject to Commission consideration as provided in A.R.S. §40-250. The Commission retains the right to reject any proposed classification or filing. The price of the new package or service shall exceed the TSLRIC of the package or service and comply with the imputation requirements of A.A.C. R14-2-1310 (c).

   i) Qwest shall be required to inform consumers, through its marketing of such new packages, including through its bill inserts, educational materials and customer representative scripts, that the services in Basket 1 remain available and can continue to be purchased as separate offerings.

   ii) The mere repackaging of existing Basket 1 services does not create a "new service" or "new service package" for purposes of the Price Cap Plan.

h) Individual service and package prices must provide revenues in excess of the service's or package's TSLRIC subject to the provisions of subpart e) above, unless a different cost standard applicable to all telecommunications service providers is determined appropriate by the Commission. The individual service and package prices must also comply with the imputation requirements of A.A.C. R14-2-1310(c).

i) Existing services in Basket 3 shall continue to be offered to existing customers. Qwest must receive Commission approval for discontinuation or revision of services, terms and conditions.

   i) Basket 1 service may be moved to Basket 3 upon Qwest meeting the criteria of A.A.C. R14-2-1108. Staff will process such an Application as expeditiously and thoroughly as possible and, in any event, will complete such processing within a period of six months, unless another time period is agreed to by Qwest or the six month time period is waived by the Commission.

k) If a service is moved from Basket 1 to Basket 3 because it has met the criteria of R 4-2-1108, the Basket 3 price and quantities for the numerator and the denominator for that service shall be the prices and quantities for that service contained in the numerator of the Basket 1 PCI formula at the time that the service is moved, and the 1.XX factor will not be applied to these services for the remaining term of the plan. The Commission's existing rules (A.A.C. R14-2-1109) which prohibit cross-subsidization of competitive services (Basket 3)

by non-competitive services (Baskets 1 and 2) shall continue to apply to all services offered by the Company under this Price Cap Plan.

m) Price changes to flexibly priced and competitive services contained in Basket 3 shall comply with the requirements of A.A.C. R14-2-1109.

(5) Competitive Zones

a) Qwest can request Competitive Zone classification for selected zip codes[1]. An application for Competitive Zone treatment shall be processed in accordance with A.A.C. R14-2-1108 and shall contain at a minimum the following information:

i) All of the information required by R14-2-1108 broken down to the zip code level for each zip code for which it is seeking competitive classification.

ii) Specifically, Qwest shall provide the number of UNE and resale lines broken down by CLEC in each zip code for which it is seeking competitive classification.

iii) All of the above information should be broken down by business and residence customers.

iv) If Qwest is unable to provide the number of UNE and resale lines broken down by CLEC in each zip code for which it is seeking competitive classification, the Commission shall have the right to order all CLECs to provide such information.

b) Because Qwest can only estimate the number of pure facilities based CLEC lines that information must be obtained from the CLECs directly. All Arizona CLECs who have CC&Ns allowing them to provide facilities based service should be required to provide the number of pure facilities based lines and customers they are serving in each zip code for which Qwest is seeking competitive classification. All of the above information should be broken down by business and residence customers.

c) Qwest will file with Staff, in electronic form, an Excel spreadsheet that contains all relevant competitive information as described in 5.a and 5.b above.

c) Staff will determine the sufficiency of Qwest's Competitive Zone classification application within 14 days.

d) Staff will complete its analysis of Qwest's Competitive Zone classification application within 120 days from the date Qwest's application is deemed sufficient.

e) Any interested person or party may intervene in a proceeding brought by Qwest for Competitive Zone Classification. Any party may request a hearing on

[1] Unless otherwise specifically noted in this document or changed by Commission order, use of the term zip code should be understood to mean service address zip code, not billing address zip code.

Qwest's application within 60 days from the date the application is deemed sufficient.

f) The Commission may narrow the geographic area for which competitive classification is requested to cover only the portion of the area where competition warrants.

g) Nothing precludes Qwest from requesting competitive classification of areas or developments within a zip code, however, Qwest must still provide all of the information required under these rules for competitive classification.

h) Services in Competitive Zones can be priced differently than the same services outside of Competitive Zones and can be priced differently across the different Competitive Zones subject to the following conditions:
   i) Maximum Rates for all services in Competitive Zones must be included in Qwest's tariffs.
   ii) Increases in Maximum Rates need to be approved by the Commission pursuant to A.A.C. R14-2-1110.
   iii) The Maximum Rates for the services listed in 2(c)(i) above will be set at their current rate (i.e., their rates as of 2004) throughout the term of the Revised Price Cap Plan.
   iv) Revenue from Basket 1 services provided in Competitive Zones will count towards the revenue cap on Basket 1.
   v) Revenue from Basket 3 services provided in Competitive Zones will count towards the revenue cap on Basket 3.
   vi) The Price Cap Indexes for Baskets 1 and 3 will be calculated using weighted averages of the prices across the Competitive Zones (and non-competitive area) as described in Section 6 below.
   vii) Individual service prices in the Competitive Zones (and non-competitive area) must exceed the service's Total Service Long Run Incremental Cost ("TSLRIC"), unless a different cost standard applicable to all telecommunications service providers is determined appropriate by the Commission. Individual service prices must also comply with the imputation requirements of A.A.C. R14-2-1310(C), as applicable. In addition, the price floor for 1FR and 1FB service should exceed the highest existing applicable UNE-P rate.[2]

i) Any interested person or party may file an application for Competitive Zone declassification. Any application for Competitive Zone declassification should include all of the criteria contained in A.A.C. R14-2-1108.

(6) Annual Filing of Price Cap Data

[2] If the UNE-P product, or a product substantially similar to UNE-P, should be offered under a different name this requirement should still be binding.

a) Price Cap Database: For the first year of the Price Cap Plan, Qwest will file, in electronic form, an Excel spreadsheet that is a database of the prices and quantities of each service in Baskets 1 and 3. The spreadsheet will include the formula for calculating the index of Baskets 1 and 3. The spreadsheet format should enable the Staff to type in a price change and instantaneously observe the effect of the price change on the weighted average price level of the affected Basket. The data in the spreadsheet shall include the following columns for each Basket:

Basket X: Denominator or Numerator Price Index

Service Name	Tariff Section	Date of Most Recent Price Change	Price	Quantity Demanded	Revenue

The price shall be the weighted average of prices across the Competitive Zones (and non-competitive area.) Qwest will provide separate spreadsheets for each service that detail how the weighted average prices are calculated. Those spreadsheets for each service will contain at a minimum the following columns:

Service Name: Weighted Average Price Calculation

Competitive Zone identifier	Price in Zone	Quantity Demanded in Zone	Revenue in Zone

This data will be fixed for calculation of the Price Index denominator at each service's price at the beginning of the Price Cap year. A second set of this same data shall be included in the spreadsheet for each Basket and will be updated with each price change throughout the year, cumulatively, in order to calculate the Price Index numerator. The Index for the Basket is calculated as the ratio of the numerator data over the denominator data, as described above for each Basket. The calculated Price Index for each Basket shall remain below the Basket's assigned Price Cap in order for rate changes to be considered lawful upon filing. The spreadsheet shall be equipped with the formula that enables instantaneous verification that a price change by Qwest is within the prescribed cap.

b) The Price Cap Database shall be updated annually, reflecting end of year prices and quantities which represent existing prices and current quantities to be used in the next year of the plan.

c) As individual price changes are filed, the Staff shall examine their effect on the affected Baskets' Price Index, using the Price Cap Database. If a price change results in a Price Index above the Cap, the price change does not comply with the Plan and Staff may recommend rate reductions that should occur in order to meet the constraints of the Cap.

7) Annual Filings of Earnings Data

a) On April 1st of each year Qwest shall file a report which summarizes earnings and revenue requirements data for each calendar year. The filing shall present test period intrastate earnings and rate base results prepared

on a basis of accounting consistent with ratemaking principles established by the Commission inclusive of the Commission's resolution of the following adjustments:

i) Duplication of $72 million of directory revenue
ii) Calculation of Depreciation expense / reserves at Commission approved rates.
iii) Accrual basis accounting for OPEBs.
iv) Fixed cash working capital amount.
v) SOP 98-01 accounting for software.
vi) Pension assets in rate base
vii) Exclusion of or imputation of revenues for FCC nonregulated services

8) Renewal of the Revised Price Cap Plan

a) The Revised Price Cap Plan shall have a term of 3 years at the end of which Qwest may propose to either:
   i) Renew the Price Cap Plan under the current terms and conditions; or
   ii) Renew the Price Cap Plan with proposed revisions.

b) Qwest's proposal shall be filed along with other monitoring information requested at the end of the first quarter of the third year of the Price Cap Plan. If Qwest's proposed revisions are not revenue neutral, Qwest shall also file all information required under A.A.C. R14-2-103 if Staff or the Commission determines that this information is necessary for a complete evaluation of the Plan or of Qwest's proposed modifications to the Plan.

c) Whether and under what terms and conditions to renew the Price Cap Plan may be determined by negotiations among Staff, Qwest, and other parties subject to the Commission's approval. Contested hearings on renewal of the plan may or may not occur depending on the disposition of negotiations among parties. Nothing herein, however, shall preclude any party from requesting a hearing on the Company's proposal to renew the Price Cap Plan. Nothing herein shall affect the Commission's jurisdiction or authority to determine the most appropriate form of regulation for Qwest at the end of the 3 year term of the Price Cap Plan, including termination of the Plan.

9) Applicability of Commission Rules and Orders

a) Unless expressly provided herein, this Price Cap Plan is not intended to alter or eliminate the application of current Commission rules and orders to Qwest.

b) Nothing in this Price Cap Plan is intended to change or modify in any way the imputation requirements contained in A.A.C. R14-2-1310.

c) Nothing herein is intended to in any way restrict or modify the Commission's current authority or jurisdiction over Qwest as provided under Arizona law.

d) Decision No. 63487 including the Settlement Agreement between the parties shall remain in effect except to the extent modified by the Commission in this proceeding or as modified herein.

Attachment 1	Basket 1 Services	
E5.1.6	LOCAL SERVICE INCREMENTS BUS	
E5.2.2	LOW USE OPTION SERVICE	
E5.2.4	FLAT RATE SERVICE BUS	
E5.2.4	FLAT RATE SERVICE BUS ZONE INCREMENT SHIFT	
E5.2.4	FLAT RATE SERVICE RES	
E5.2.4	FLAT RATE SERVICE RES ZONE INCREMENT SHIFT	
E5.2.5.A	SERVICE STATIONS BUS	
E5.2.5.A	SERVICE STATIONS RES	
E5.2.8	HOME BUSINESS LINE (HBL) SERVICE (Individual Elements)	
E5.3.4	DIRECT-INWARD-DIALING (DID) SERVICE	
E5.4.3	CUSTOM CALLING SERVICES (Individual Elements)	
E5.4.5	BASIC EXCHANGE ENHANCEMENT	
E5.4.8	OPEN SWITCH INTERVAL PROTECTION (OSIP)	
E5.4.9	CALLER IDENTIFICATION - BULK	
E5.4.10	US WEST CUSTOM RINGING SERVICE	
E5.4.11	HUNTING SERVICE	
E5.7.1	LISTING SERVICES	
E5.7.7	U S WEST CUSTOM NUMBER SERVICE	
E5.2.6	TELEPHONE ASSISTANCE PROGRAMS	
E5.3.3	FLAT RATE TRUNKS	
E5.2.4	FLAT RATE RES - ADDITIONAL LINE	
E5.2.4	FLAT RATE RES - ADDITIONAL LINE ZONE INCREMENT SHIFT	
E5.2.4	FLAT RATE BUS - ADDITIONAL LINE	
E5.2.4	FLAT RATE BUS - ADDITIONAL LINE ZONE INCREMENT SHIFT	
E5.9.1	PACKAGES ASSOCIATED WITH BASIC EXCHANGE SERVICE (Individual Elements)	
E5.9.2	PACKAGES NOT ASSOCIATED WITH BASIC EXCHANGE SERVICE (individual Elements)	
E5.10	RESALE/SHARING OF COMPANY SERVICES	
E9.2.1	UNIVERSAL EMERGENCY NUMBER SERVICE-911	
E9.2.5	EMERGENCY TRANSPORT BACKUP (ETB)	
E10.3.2	CENTRAL OFFICE MAKE BUSY/STOP HUNT	
E10.4.1	CUSTOMNET SERVICE	
E10.4.3	BILLED NUMBER SCREENING (BNS)	
E10.10.1	MESSAGE DELIVERY SERVICE	
E10.10.2	MESSAGE WAITING INDICATION	
E10.10.8	DISASTER RECOVERY SERVICES	
E10.4.4	TOLL RESTRICTION	
E10.4.6	900 SERVICE ACCESS RESTRICTION	
E10.4.7	BLOCKING FOR 10XXX1+/10XXX011+	
E105.10	RESALE/SHARING OF COMPANY SERVICES	
E25.1	CUSTOMIZED SERVICES OF EQUIPMENT OR SERVICE ARRANGEME	
E105.10R	RESALE/SHARING OF COMPANY SERVICES	
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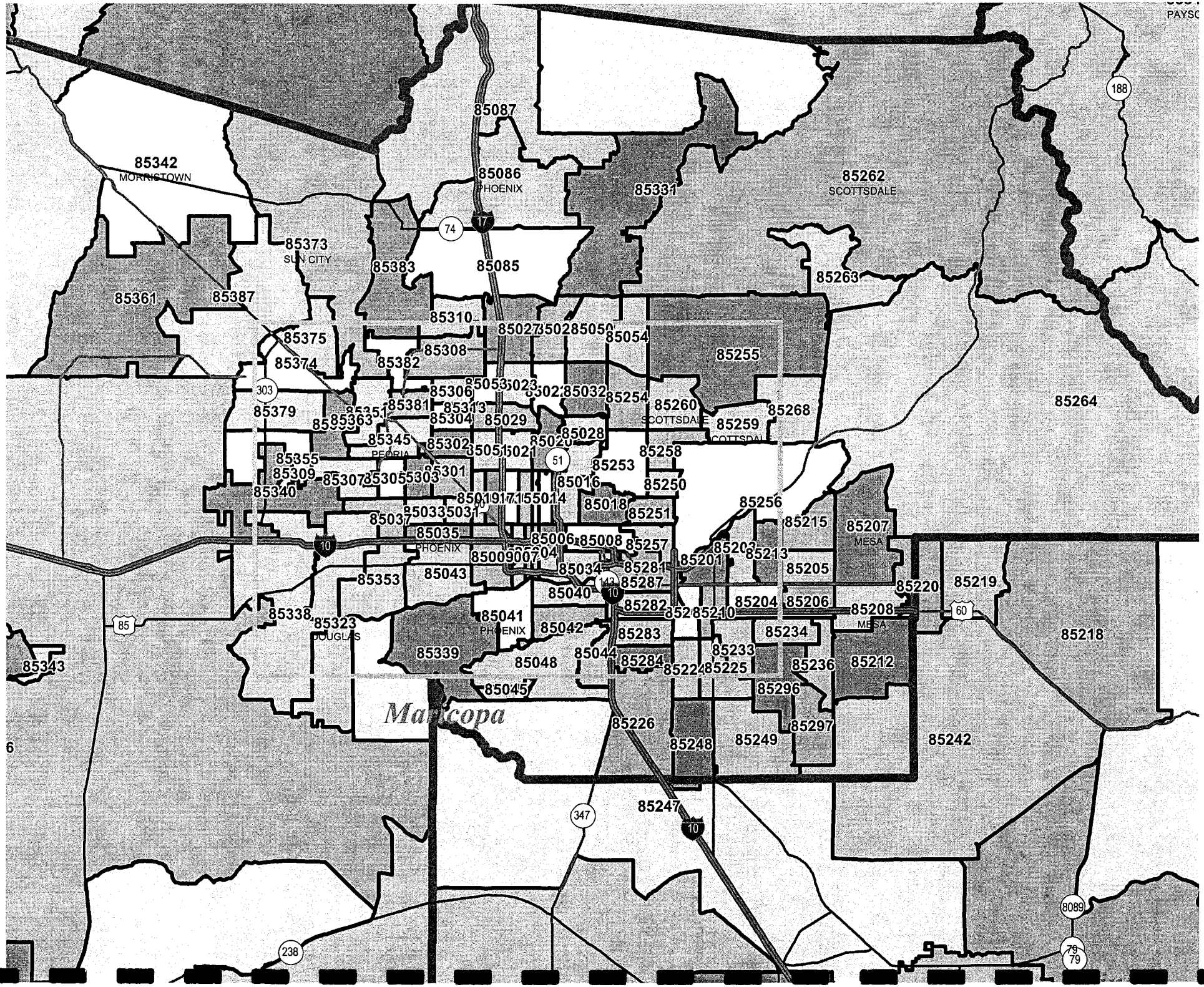
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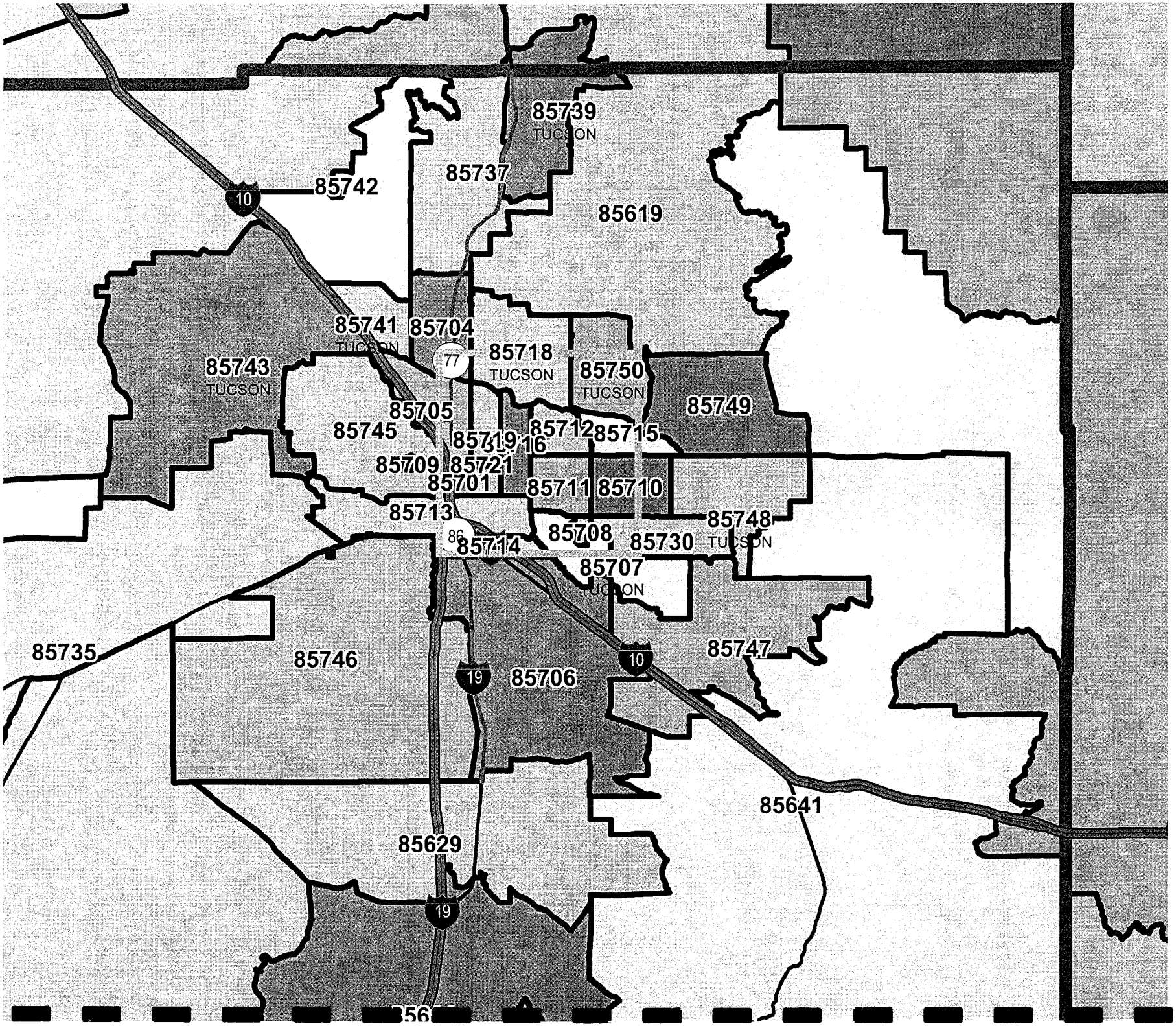
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FIMBRES

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF QWEST CORPORATION'S FILING OF RENEWED PRICE REGULATION PLAN	)	DOCKET NO. T-01051B-03-0454
IN THE MATTER OF THE INVESTIGATION OF THE COST OF TELECOMMUNICATIONS ACCESS	)	DOCKET NO. T-00000D-00-0672

DIRECT

TESTIMONY

OF

ARMANDO FIMBRES

PUBLIC UTILITIES ANALYST IV

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

NOVEMBER 18, 2004

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EXECUTIVE SUMMARY
QWEST CORPORATION
Docket Nos. T-01051B-03-0454 & T-00000D-00-0672

My testimony addresses the competitive situation for which Qwest submitted direct testimony in its May 20, 2004 Renewed Price Regulation filing.

Some of Qwest's ILEC service areas have several forms of competition (resale, UNE-L, UNE-P & facilities bypass) but the competitive gains in the nearly 9 year window since the 96 Telecom Act was passed highlight slow progress with little to support that acceleration is imminent.

The competitive evidence with which the Commission must make decisions concerning competitive zones is not conclusive in its current form. Resale and UNE competitive options may actually be in decline. Wireline facilities bypass is an option that has been chosen by relatively few competitors. The strongest indicator of change may be in the continuing advancement of Wireless and the potential for Voice over Internet Protocol ("VoIP") services, however, the available Wireless and VoIP evidence does not support a conclusion that these services have had significant displacement of local exchange services at this time.

VoIP services have received enthusiastic support from many advocates, including the FCC, however, they appear to be at an early-adopter stage that makes their impact not relevant or even measurable for this proceeding. Surveys consistently report that Wireless *will* displace wireline local exchange service in meaningful levels. The strongest argument, however, for the consideration of Wireless competition as a displacement for local exchange service is simply - is it possible that over 2.8 million phones could have been added to the Arizona telecommunications market without having a major impact on local exchange services? While the argument in its simple form is compelling, the available information continues to show that wireless has not yet had a major impact on the displacement of main lines, the core of local exchange services. Wireless may have had its greatest impact on the displacement of additional lines and wireline local exchange minutes of use ("MOUs") but the measurable displacement of local exchange main lines by wireless remains low.

My analysis also indicates that competitive zone decisions based on historical, ILEC wire center boundaries is not consistent with the underlying point put forward by Qwest in its application – the telecommunications landscape is changing rapidly. It may be true that if competition can be easily defined and characterized within ILEC wire center boundaries, then the competitive situation is by definition neither broad nor diverse. The confirmation of competition within ILEC wire centers boundaries may actually be a confirmation of the least impactful forms of competition rather than the most impactful. Much greater confidence and reliability could be added by moving from traditional ILEC geographic boundaries to a relatively simple measure used not only in telecommunications but in all industries – zip codes.

I recommend:
(1) Continuing analysis based on service address zip codes
(2) Annual reporting of local exchange information based on service address zip codes
(3) Continuing analysis based on listings information
(4) Continuing tracking and analysis based on MOU information

INTRODUCTION

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

A. My name is Armando Fimbres. I am a Public Utilities Analyst employed by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Briefly describe your responsibilities as a Public Utilities Analyst IV.

A. In my capacity as a Public Utilities Analyst, I provide information and analysis to the Staff on telecommunications tariff filings, emerging industry issues such as VoIP, and matters pertaining to major applications such as that filed by Qwest Corporation for Renewed Price Regulation on May 20, 2004.

Q. Please describe your educational background and professional experience.

A. I received a Bachelor of Science degree from the University of Arizona in 1972 and have taken business and management courses at Seattle University, Northwestern University and the University of Southern California. I was employed for nearly twenty-nine years in Bell System or Bell System-derived companies, such as Western Electric, Pacific Northwest Bell, U S WEST and Qwest. The last twenty years of my Bell System telecommunications experience were in operations planning, corporate planning, or strategic planning roles with a special emphasis from 1994 to 2000 on competitive and strategic analysis for the Consumer Services Marketing division of U S WEST and similarly from 2000 to 2001 for Qwest. I have been with the Arizona Corporation Commission Utilities Division since April 2004.

Q. What is the scope of your testimony in this case?

A. I will address the competitive situation for which Qwest submitted direct testimony in its May 20, 2004 Renewed Price Regulation filing. My testimony will be directed to the competitive situation on which Qwest is basing its application for Competitive Zones, and other changes, within its Renewed Price Regulation application and will reflect analysis of information requested from Qwest, Competitive Local Exchange Carriers ("CLECs"), Wireless services providers and Voice over Internet Protocol ("VoIP") providers.

BACKGROUND

Q. What is the purpose of your testimony?

A. My testimony addresses several aspects of analysis necessary to make a determination regarding the competitive situation presented by Qwest Corporation in its May 20, 2004 application for Renewed Price Regulation. The purpose of my testimony is to add appropriate context to the competitive situation and thereby facilitate the communication of Staff's position regarding the regulatory changes Qwest seeks in its application. Specifically, my testimony will address the following topics: General Competitive Situation, CLEC Competition, Wireless Competition, VoIP Competition and information that has bearing on the classification of Competitive Zones.

Q. Explain the primary information sources[1] used in your analysis?

A. I requested and used information from a wide set of industry participants - Qwest, CLECs, Incumbent Local Exchange Carriers ("ILECs"), Wireless service providers and VoIP providers. I also analyzed information that was provided by Qwest in response to Residential Utility Consumer Office ("RUCO") data requests. Two information elements that I requested from Qwest are the basis for many of my observations above the wire

[1] Highly Confidential information in this document is denoted by light background shading with black letters. Confidential information in this document is denoted by a dark background with white lettering.

center level – Listings Information and Local Exchange Routing Guide ("LERG") information. The Listings information is useful for analysis because it contains records for all Residence and Business main accounts without regard to listing options, such as privacy or premium listings, thereby allowing analysis based on essentially 100 percent of Residence and Business local exchange main accounts in Arizona. The Listings Information is contributed by all wireline providers and, in some cases, wireless providers of local exchange services for end-user customers and is refreshed often to serve end-user needs and therefore is highly accurate. The Listings Information is particularly useful in understanding the breadth of competition in contrast to access lines or revenues that are subject to decisions made at the main account, or main listing, as contained in the Listings Information. Said another way, ownership of the main account is critical for the competitive gain of additional lines and revenues beyond basic service. Competitive gains in additional lines and revenues are really downstream from competitive gains in main accounts or main listings and in that sense are lagging indicators of the downstream competitive end-state while main accounts are leading indicators.

The LERG information is a database that contains telecommunications information essential for interconnection and is managed by Telcordia. The LERG is also updated regularly and is highly accurate because of its interconnection importance. From the LERG information it is possible to determine WHO has switches, WHAT type of switches are installed, WHERE switches are located, WHEN switches are scheduled to become active, WHICH NPA-NXXs are assigned to specific switches and many related factors, such as number pooling. Even more insights can be gained by merging the Listings and LERG information. By doing so, for example, it is possible to distinguish between the listings owner (the company responsible for end-user service) and the switch owner (the company providing the end office to which the number was originally assigned). I will

make reference to the Listings and LERG information in many areas throughout my testimony.

GENERAL COMPETITIVE SITUATION

Q. What is the general competitive situation pertaining to Qwest's application?

A. The length, breadth and future of the competition claimed by Qwest requires additional context to properly evaluate the proposal for competitive zones contained in Qwest's application. For example, there is general acceptance that Wireless competition for local exchange services may be accelerating as Wireless becomes a more suitable substitute for local exchange service. Also, the rules and technology required to make VoIP service a suitable alternative for local exchange service are being resolved. While there is evidence to support some of the competitive assertions in Qwest's direct testimony, the evidence must be given careful scrutiny in light of recent developments in the industry.

Although wireless services are used by some customers as substitutes for local exchange services, whether customer acceptance is broad enough geographically and has enough market diversity to rationally place wireless services on a competitive par with local exchange services remains in doubt. A similar situation exists with VoIP services. While VoIP technology appears to be a suitable alternative for local exchange services and many forecasters, including the FCC, believe customer acceptance will be high, this alternative is not currently developed and accepted on a widespread basis such that it is now an alternative to traditional wireline service.

The situation pertaining to CLECs is subject to some uncertainty as well. My analysis shows that CLECs remain the principal, demonstrable competitors for the local exchange services offered by Qwest. In my testimony, I will place the level of competition faced by

Qwest in the context required for the Commission to more thoroughly assess Qwest's competitive zone proposal.

Q. What is CLEC competition?

A. CLECs provide alternatives to ILEC services by (1) reselling Qwest's services, (2) using unbundled network elements ("UNEs") supplied by Qwest, (3) deploying CLEC-owned facilities-based[2] wireline systems or (4) by mixing the options. Qwest's testimony specifically addresses the services of ten CLECs – (1) Cox, (2) AT&T, (3) Eschelon, (4) McLeodUSA, (5) MCI, (6) SBC, (7) Sprint, (8) XO, (9) Xspedius, (10) Z Tel – and points to 64 CLECs listed on the Arizona Corporation Commission's (ACC) website[3]. My analysis of the Listings information confirms the presence of these 10 competitors in some markets served by Qwest. My testimony, however, will clarify that while many CLECs are listed with the ACC, the number of substantial or active competitors is much smaller than the 64 referenced by Qwest.

Q. What is Wireless competition?

A. Wireless providers use communications systems with technology dependent on spectrum assignments from the FCC and were originally focused on serving the mobility needs of end-users. The systems of wireless providers operate differently than wireline providers and the instruments used by customers are visually and functionally different than those used by customers with wireline service. But, aside from mobility, the features, and service functionality delivered reasonably equate to those of local exchange services and can be used by customers as substitutes for wireline local exchange services. The three main deficiencies of wireless service from a consumer perspective are (1) the lack of E-911 comparable to local exchange service, (2) an undedicated loop that makes home

[2] Facilities-based in this testimony does not include UNE-P which is functionally similar to resale.
[3] As of November 5, 2004, 69 CLECs were listed at http://www.cc.state.az.us/utility/utility_list/CLEC_list.pdf

security service less feasible and (3) quality of service problems in some areas. While wireless networks and wireline networks are designed to interconnect, the end-user instruments are not transportable between networks. Qwest's testimony specifically references seven wireless providers - ALLTEL, AT&T Wireless, Verizon Wireless, Cricket Communications, Nextel Communications, Sprint and T-Mobile. My testimony will address the general competitive situation in which these providers participate.

Q. What is VoIP competition?

A. Voice over Internet Protocol, or VoIP as it is commonly known, is a broadband-based technology that has been gaining support for several years and may be on the verge of gathering measurable momentum. In its simplest form, VoIP looks to end-users like wireline local exchange service since the end-user instruments can be the same. With its unique technology, however, VoIP is able to utilize any broadband network based on wireline or wireless technology. VoIP has its greatest impact on the Public Switched Telephone Network ("PSTN") when Digital Subscriber Loop ("DSL") technology is used by ILECs and CLECs to originate and terminate traffic. In contrast, however, it is possible for a broadband network, such as a cable video network with cable modems, to parallel the PSTN using VoIP or interconnect with the PSTN in the same manner as wireless networks parallel or interconnect with the PSTN. Immediate cost benefits with VoIP, however, exist only for those end-users who *already have broadband* and add VoIP service incrementally. Without viewing VoIP service as incremental to broadband service, wireline local exchange service is clearly less costly. Qwest's testimony specifically references four VoIP providers – AT&T, Five Star Telecom, Vonage and Packet8.

CLEC COMPETITION

Q. What is the state of CLEC competition in Arizona?

A. My analysis indicates that 42[4] CLECs have one or more residence or business main listings. (see Exhibit AFF-1) CLECs hold 18.7 percent of Business Main Listings and 21.9 percent of Residence Main Listings statewide. The range of participation, however, appears to be quite broad. For example, of the 42 CLECs mentioned above, the top 10 CLECs hold business main listings that range from **[redacted]** to **[redacted]** or 92.4 percent of all CLEC business main listings. The other 32 CLECs hold only 7.6 percent of all CLEC business main listings.

Exhibit AFF-2
Listing Information
- June 18, 2004 -

	Business	Residence
Total State Main listings	**[redacted]**	**[redacted]**
# of CLECS	**[redacted]**	**[redacted]**
CLEC Listings	**[redacted]**	**[redacted]**
% CLEC Listings of Total State	**[redacted]**	**[redacted]**
Listings of Top 10 CLECs	**[redacted]**	**[redacted]**
% Top 10 CLEC Listings of Total CLECs	**[redacted]**	**[redacted]**

The top 10 CLECs hold residence main listings that range from **[redacted]** to **[redacted]** or 99.4 percent of all CLEC residence main listings. The other 32 CLECs hold only 0.6 percent of all CLEC residence main listings. Only 5 CLECs appear in both top 10 lists – AT&T, Arizona DialTone, Cox, MCI, and McLeodUSA. Two of the ten CLECs referenced in Qwest's testimony as major competitors – SBC & Xspedius – do not appear in either top ten list. SBC's totals suggest it is not a major competitor in Arizona. Xspedius's presence is apparent but below the top ten list for business main listings.

[4] Based on listings information from Qwest dated 06/18/04 in response to STF 3.20

Q. What does your analysis suggest about facilities-based CLEC competition?

A. My LERG[5] analysis discloses that 21 CLECs have 45 digital switches ("DSs"), those typically used by wireline providers for end-offices, with 279 assigned NPA-NXXs statewide. While switches can have considerable range in capacity, the 279 NPA-NXXs point to a maximum capacity of 2,790,000 numbers and corresponding switched access lines. The maximum capacity is reduced somewhat by number assignments made at the Thousands Group level to non-CLECs. Thousands Group level assignments are commonly known as number pooling. My analysis shows that of 1,824 assigned NPA-NXXs in Arizona, only 84 have thousand group assignments involving more than one provider. However, 87 NPA-NXXs assigned to CLEC DSs cannot be found in the Listings Information and, therefore, may be used for something other than end-user purposes or unused altogether.

Exhibit AFF-3

	Arizona Digital Switch Situation
# of CLEC DSs	[redacted]
# of CLECs with DSs	[redacted]
# of Qwest DSs	[redacted]

	NPA-NXXs In Arizona
State-Wide	[redacted]
Assigned to CLEC DSs	[redacted]

28 CLEC DSs can be seen serving at least one business main listing; 15 DSs have at least 100 business main listings. 19 CLEC DSs can be seen serving at least one residence main

[5] LERG data provided by Qwest 06/21/04 in response to STF 3.21

listing; 13 DSs have at least 100 residence main listings. 12 CLEC DSs have no listings at all and perhaps are unused for end-office purposes.

By joining the LERG information with the Listings Information, I found that 91 percent of CLEC business main listings and 76 percent of CLEC residence main listings are assigned to Qwest NPA-NXXs. This suggests that CLECs are competing for established customers, through the use of number portability in a much higher proportion than for new customers who would establish service with new numbers assigned directly to facility-based CLECs. This is further substantiated by the per cent of Cox business and residence main listings that are attributable to Qwest NPANXXs – **[redacted]** respectively.

Q. What does your analysis suggest about Resale or UNE-P competition in Arizona?

A. Staff offers the following observations about recent events and future trends:

1) - UNE-P competition has grown over the last three years, taking over as the preferred means of providing local service by CLECs without their own local networks. Key uncertainties, however, are now linked to recent USTA II rulings and expected FCC unbundling rules. Continued use of this option by CLECs is highly uncertain and, therefore, problematic as evidence of continuing CLEC competition. As Qwest CEO Richard Notebaert stated in early September[6], "...Qwest had seen a roughly 50 percent drop last month in new residential lines leased to competitors over the previous month..." While this statement was not specific to any state, its general significance must apply to Arizona, second in market size only to Washington State within Qwest's ILEC region.

2) - Announcements by two key competitors identified by Qwest – AT&T and MCI – are evidence that UNE-P competition should decline. In June, 2004, AT&T announced[7] it

[6] Reuters.com, September 9, 2004, "Baby Bells See Rivals Taking Fewer Phones"
[7] Associated Press, 6/23/04, "AT&T Stops Taking Residential Customers in 7 States"; Washington Post, 6/24/04, "AT&T pulling back in state"; Reuters, 6/29/04, "AT&T plans more cuts in consumer business"

would discontinue marketing to residential customers in several states due to UNE-P uncertainties and followed with a more comprehensive announcement in July[8]. MCI followed with a similar announcement in early August[9]. The existing local exchange residential base of both companies should decline through customer churn or migration strategies.

3) -- Resale, UNE-L and UNE-P are CLEC options that have broadened the competitive base for residence and business. Without CLEC use of these options, competition will depend on those with complete networks, such as Cox, or emerging technology alternatives, such as VoIP. As discussed earlier, the necessary switching capacity appears to be available but few CLECs have essential end-user loops and distribution networks. At least **[redacted]** of all CLEC residence main listings are held by Cox Communications, a facilities-based CLEC. This contrasts to **[redacted]** of all business main listings being held by the top CLEC known to be using facilities bypass service, but in concert with resale and UNE options. To equal the **[redacted]** residence figure for business requires inclusion of the top 5 CLECs, all of whom appear to be mixing resale, UNE-L and UNE-P options with facilities bypass. The recent FCC decision[10] to not require RBOCs to unbundle fiber optic broadband local networks will not help UNE based competition.

Q. Where are CLECS providing competitive local exchange service in Arizona?

A. Information provided by Qwest in response to RUCO's data requests[11] allows for additional resale and UNE analysis. At least one form of competition exists in **[redacted]** of the 136 wire centers listed on Qwest's SGAT[12] website information. (see Exhibit AFF-4) UNE-L competition exists in **[redacted]** wire centers, **[redacted]** of which are in UNE

[8] AT&T news release, 7/22/04
[9] The Washington Times, August 6, 2004, "MCI set to downsize residential service"
[10] FCC news release, October 14, 2004, "FCC Removes More Roadblocks To Broadband Deployment In Residential Neighborhoods"
[11] RUCO DR#2
[12] http://www.qwest.com/wholesale/clecs/sgatswireline.html

Rate Zone 1, **[redacted]** in Zone 2 *but only* **[redacted]** in Zone 3. (see Exhibit AFF-5) UNE-P competition exists in **[redacted]** wire centers, **[redacted]** of which are in Zone 1, **[redacted]** in Zone 2 and **[redacted]** in Zone 3. Residential resale competition exists in **[redacted]** wire centers, **[redacted]** of which are in Zone 1, **[redacted]** in Zone 2 and **[redacted]** in Zone 3. Business resale competition exists in **[redacted]** wire centers, **[redacted]** of which are in Zone 1, **[redacted]** in Zone 2 and **[redacted]** in Zone 3. Facilities bypass competition is *estimated* by Qwest in **[redacted]** wire centers, **[redacted]** of which are in Zone 1, **[redacted]** in Zone 2 and **[redacted]** in Zone 3.

Exhibit AFF-4

	Qwest Wire Centers
# StateWide	**[redacted]**
# with Competitive Presence	**[redacted]**
# with UNE-L	**[redacted]**
# with UNE-P	**[redacted]**
# with Res Resale	**[redacted]**
# with Bus Resale	**[redacted]**
# with Facilities Bypass	**[redacted]**

While some wire centers have all four forms of competition (resale, UNE-L, UNE-P & facilities bypass), the competitive gains in the nearly 9 year window since the 96 Telecom Act was passed highlight slow progress with little to support that acceleration is imminent. Qwest is requesting competitive flexibility in the form of Competitive Zones in 37 of 39 UNE Zone 1 wire centers, 17 of 33 Zone 2 wire centers and 28 of 64 Zone 3 wire centers so Staff has conducted additional analysis to determine the appropriateness of Qwest's request.

Exhibit AFF-5

	UNE			
Type of Competition	Zone-1	Zone-2	Zone-3	Total
UNE-L	[redacted]	[redacted]	[redacted]	[redacted]
UNE-P	[redacted]	[redacted]	[redacted]	[redacted]
Residence Resale	[redacted]	[redacted]	[redacted]	[redacted]
Business Resale	[redacted]	[redacted]	[redacted]	[redacted]
Facilities Bypass	[redacted]	[redacted]	[redacted]	[redacted]

Staff's comprehensive discussion of Qwest's request for competitive zone classification is addressed in the testimony of Staff Witness Matthew Rowell.

Q. What services are CLECs providing in Arizona?

A. Qwest submitted tariff and service information for ten CLECs - Cox, AT&T, Eschelon, McLeodUSA, MCI, SBC, Sprint, XO, Xspedius, and Z Tel. While the tariffs illustrate opportunities for broad residence and business local exchange service competition, the available evidence indicates that most of the 10 CLECs identified by Qwest are focused on providing business services. Only Cox appears to have a major emphasis on residence service. Only Cox appears to be committed to wide-spread, residential, facilities-based competition, the only form of local exchange service provisioning that allows for full local exchange service differentiation. Those using Resale or UNE-P are largely limited to differentiating with marketing approaches and service bundles enhanced by wireless, broadband or long distance elements. The levels of business and residence customer listings may also be indicative of very focused or selective marketing. A concept that is also generally obvious across the industry regards packaging and bundling, as illustrated by Qwest's own application. In an industry where long distance revenues have dropped considerably in recent years and access line growth[13] is, at best, flat, many companies are focusing on increased revenues per account through packages that provide more services.

[13] FCC, May 6, 2004, Trends in Telephone Service, Table 7.4

Q. Did you look at the CLECs specifically referenced by Qwest in its testimony?

A. Using Listings information joined with LERG information, I was able to do a comparative evaluation of the CLECs' digital switch capability. (See Exhibit AFF-6) It is no surprise that Qwest has far more capacity than any of the CLECs but the amount of local switching capacity available to Cox, AT&T, Eschelon, McLeodUSA, MCI, SBC, Sprint, XO, and Xspedius is, nonetheless, impressive. I found no evidence, however, that Z Tel has any switching capacity. Based on the information to which I have access, I believe that Z Tel is not providing switched access, local exchange services with its own facilities. Among this set of CLECs, I found 15 digital switches in Phoenix and 3 in Tucson. Additionally, I found 67 NPA-NXXs assigned to the Phoenix area (480, 602, 623) and 9 to the Tucson area (520).

The relative end-user presence of Cox, AT&T, Eschelon, McLeodUSA, MCI, SBC, Sprint, XO, Xspedius and Z Tel can be further defined by indexing the listings information against those of Qwest to protect the privacy of highly confidential information. An index is a means of standardizing the relative proportions of information thereby facilitating comparative analysis.

Exhibit AFF-7

	Phoenix Area Main Listings			Tucson Area Main Listings	
	Bus	Res		Bus	Res
Qwest	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Cox	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

AT&T	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
MCI	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Eschelon	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
McLeodUSA	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SBC	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Sprint	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
XO	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Xspedius	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Z Tel	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Exhibit AFF-7 was developed by setting all Qwest listings totals to a value of 100, allowing relative CLEC values to be derived for the purpose of comparison. A 0 value does not necessarily mean 0 listings but rather that the number of listings is so small relative to those of Qwest that they equate to 0 in the context presented. This analysis is not meant to be conclusive. It simply provides one more means of evaluating the level of local exchange competition.

Only Cox, AT&T, and MCI have residence main listing indices above **[redacted]**. This is especially worrisome because AT&T and MCI have indicated they will no longer pursue residence CLEC customers. Only Cox's Phoenix residence main listings index is greater than **[redacted]**. AT&T's Phoenix business main listings index is next highest at **[redacted]** but all other indices are well below **[redacted]**. While it is startling to see so many zeros in the residence columns, consider that *all* positive figures except those for Cox could conceivably move toward zero if resale or UNE options diminish in use by major CLECs. In this simple comparative form, competitive levels are not impressive.

Q. What about other CLECs with switches?

A. Based on my analysis, there are another **[redacted]** DSs available to 11 CLECs not specifically noted by Qwest in the Phoenix area – Allegiance, Electric Lightwave, Global Crossing, Great West, Level 3, Mountain Tel, North Country, Pac-West, TCG (acquired

by AT&T), Time Warner and Winstar. While these switches are present in the LERG data, if, and how, these switches are being used is very much in question. Some switches have no listings currently and, therefore, may not be in use or may be used for something other than end-user, switched-access, local exchange services. Winstar[14], for example, does not appear to be providing CLEC service in AZ at this time. A similar situation can be seen in Tucson where [redacted] DSs are held by Brooks (acquired by MCI), Level 3, TCG (acquired by AT&T) and Time Warner. While some allowance must be made for the timing of the data, more switching capacity would appear to be available, but underutilized, than suggested by the CLECs specifically identified by Qwest in its application.

Exhibit AFF-8

Total Other Digital Switches in AZ

	Phoenix	Tucson
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

Q. Are there other means to measure the level of CLEC competition in Arizona?

[14] Winstar has an application for service withdrawal before the Commission, T-03023A-04-0317

A. The level of CLEC competition can be measured in more than one manner, for example through an analysis of lines, revenues or listings information as discussed earlier. Given the visibility, accuracy, breadth and real-time operational nature of the Listings Information, as discussed earlier, I chose to use the Listings Information to derive Herfindahl-Hirschman Index ("HHI") estimates that help gauge the level of competitive presence through measuring market concentration. Market concentration is commonly understood to be a function of the number of firms in a market and their respective market shares.

The HHI[15] measure is a commonly accepted measure of market concentration used most notably by the U.S. Department of Justice in its evaluation of merger applications. It is calculated by squaring the market share of each firm competing in a market, and then summing the resulting numbers. The HHI can range from a minimum of nearly 0 to a maximum of 10,000. The DOJ regards markets with an HHI below 1,000 to be unconcentrated; markets with an HHI between 1,000 and 1,800 to be moderately concentrated; and markets with an HHI above 1,800 to be highly concentrated.

Using the Listings Information, I estimated a statewide HHI of 5,336 for Residence and 5,168 for Business. These HHI figures take into consideration the end-user presence of all ILECs and CLECs in Arizona. Limiting the estimates to just Qwest and all CLECs in Arizona changes the HHI for Business to 6,333 and for Residence to 6,124. Further limiting the estimates to Phoenix metro[16] and Tucson metro[17] changes the Phoenix HHI business and residence figures to 5,916 and 5,529, respectively, and the Tucson HHI

[15] http://www.usdoj.gov/atr/public/guidelines/hmg.htm
[16] NPAs 480, 602, & 623
[17] NPA 520

business and residence figures to 7,168 and 7,292, respectively. (see Exhibit AFF-9) These figures suggest that the local exchange market is highly concentrated.

Some may believe that the HHI figures would be much lower if based on access lines. It is worth pointing out, however, that for any HHI figure to drop below the DOJ upper range of 1,800 used to define a moderately concentrated market, Qwest's market share, however measured, would have to drop below 43 percent. Even in the more generous state wide figure based on listings noted above, Qwest's business and residence main listing shares are above 70 percent. Therefore, I believe it reasonable to use these HHI estimates as a fair measure of the current local exchange service market concentration in Arizona, Phoenix metro and Tucson metro.

Q. Did you look at the level of competition in any other way?

A. Yes. I made use of resale, UNE and bypass estimated information provided by Qwest in response to RUCO's data requests, as well as the exhibit information provided by Qwest in exhibit DLT-17[18] of its application. By sorting and aligning the information into Phoenix and Tucson wire center areas, I was able to determine HHI factors based on line information to compare with those based on listings information as described earlier. Using the line loss information, I calculated combined HHIs of 5,483 for Phoenix and 5,867 for Tucson. Separate HHIs for Business and Residence were not possible to calculate since the facilities bypass information, UNE-P and UNE-L estimated by Qwest is not easily separated into business and residence. I was able, however, to combine the HHIs generated via the listings information for simple comparison with the HHIs generated using Qwest's line information. Combined HHIs for Phoenix metro and Tucson metro based on listings information are 5,532 and 7,273 respectively.

[18] Revised per Qwest's response to STF 3.15

The most notable difference in the results of HHI based on lines, as provided by Qwest, and those based on listings concerns the Tucson area. My analysis reveals major differences between the number of CLECs believed by Qwest, as measured by its line information, to be involved in local exchange competition and those that can be seen active in the listings information. Two differences are worth noting in the following exhibit.

Exhibit AFF-10

	Phoenix Metro		Tucson Metro	
	Lines	Listings	Lines	Listings
HHI	[redacted]	[redacted]	[redacted]	[redacted]
CLECs	[redacted]	[redacted]	[redacted]	[redacted]
>=0.1% Share	[redacted]	[redacted]	[redacted]	[redacted]
Qwest Share	[redacted]	[redacted]	[redacted]	[redacted]
Mkt Total	[redacted]	[redacted]	[redacted]	[redacted]
Qwest #	[redacted]	[redacted]	[redacted]	[redacted]
CLEC #	[redacted]	[redacted]	[redacted]	[redacted]

(1) The line information provided by Qwest points to 40 business and residence CLECs in Tucson while the listings information points to only 33 CLECS. (2) The CLEC facilities-based line estimate provided by Qwest is driven by Local Interconnection Service ("LIS") trunk information and a multiplier of 2.75[19]. While this methodology may be appropriate for some confirmed facilities-based providers, several of the key LIS trunk users in Tucson cannot be found in the listings information at all. Most significant are Level 3, KMC Telecom and Pac-West. KMC Telecom did not even complete its Access Services tariff with the ACC until August, 2004 nor does it have an identified end-office. Level 3

[19] Qwest explains in response to RUCO 02-038S1 "...this is a conservative assumption...a single trunk can support up to approximately 10 facilities-based lines (source: UNE Fact Report, Section III, P. 14, May 26, 1999)"

does not provide any local exchange services directly to end-users[20]. While CLECs, such as these, may be providing interconnection services, they are not likely providing switched access services directly to end-users. They should, therefore, not be included in an analysis intended to reflect the state of switched access, local exchange competition. It should also be noted that the estimate for Cox derived by Qwest's LIS trunk translation to lines understates Cox's total lines. There are, therefore, issues with some estimates being too low and some being too high with this methodology.

Q. What are the general economic condition and business strategies of the CLEC industry?

A. Commenting on the economic condition of the CLECs in Arizona, requires more resources and time than reasonably available, so I will limit my comments[21] in this area to the 10 CLECs referenced by Qwest in its testimony - Cox, AT&T, Eschelon, McLeodUSA, MCI, SBC, Sprint, XO, Xspedius, Z Tel. Unless otherwise noted, my comments regard publicly available information for the parent company rather than just the specific CLEC entity.

Cox and SBC would have to be considered at the top in terms of financial health. Both are large and diverse companies whose core revenues are derived from areas other than Arizona local exchange service.

1. Cox

Cox Communications is an indirect 63.4 percent majority-owned subsidiary of Cox Enterprises with total 2003 revenues exceeding $5.7 billion, of which about 8 percent have been attributed to telephony. Cox's core revenues arise from the 6.3 million video

[20] per Level 3 response to STF 2.1
[21] Based on information obtained from Yahoo, Hoovers and company websites.

customers it serves nationally. Cox offers video and high-speed Internet access in almost all of its markets, telephone service in a number of markets and advanced services in select markets. Cox launched its Phoenix cable phone service in 1998[22] and its Tucson cable phone service in 2003[23]. Cox appears committed to local exchange service and has also announced plans for VoIP service. It remains to be seen how Cox's operations will be impacted by Cox Enterprises' plans to acquire full ownership and take Cox Communications private.

2. SBC

SBC has evolved from one of the seven RBOCs divested from AT&T in 1984 into a holding company anchored by the merger of Southwestern Bell, Pacific Telesis, and Ameritech. SBC has 55 million access lines in 13 states but relatively few in Arizona. Its wireless operations were joined with those of BellSouth to form Cingular Wireless and now rank #2 nationally behind Verizon Wireless with 24 million subscribers in 38 states. SBC offers its services and products to businesses and consumers, as well as other providers of telecommunications services. Although SBC's stock has dropped along with the overall industry, there is little concern about SBC's financial health. SBC has the experience, market strength and resources to execute many strategies for many service offerings in many markets. It appears, however, that SBC is "maintaining a small number of mass-market customers but is not seeking to acquire any new customers[24]" in Arizona.

3. AT&T, MCI and Sprint

[22] X-changemag.com, 08/1999, Phoenix Area Offers Enormous Growth Potential
[23] Cox news release, June 23, 2003, Cox Communications Launches Cox Digital Telephone Service Throughout Tucson and Green Valley, Arizona
[24] Direct testimony of Matthew Rowell, T-00000A-03-0369, page 21, line 19, response to Staff data request 3-1 and 3-2.

Much has been written about the financial and organization changes that AT&T, MCI and Sprint have undergone in recent years. The three have been the backbone of US long distance services since the mid-1980s but have struggled as long distance industry revenues have declined with the advance of alternatives such as email and wireless. The brand recognition and long distance market strength of AT&T, MCI and Sprint remain formidable, however, their economic condition does not appear to match that of Cox or SBC and their commitment to local exchange service appears to have shifted to VoIP. New investments in Arizona's traditional local exchange services seem unlikely.

4. McLeodUSA

McLeodUSA's telecommunications services, in 25 Midwest, Southwest, Northwest and Rocky Mountain states, continue to recover from bankruptcy and reorganization in 2002. EOY 2003 revenues were 68 percent of EOY 2001. McLeodUSA offers local and long distance service, Internet access and other data services, primarily to small and midsized businesses. Mid-year 2004 revenues were $385M. McLeodUSA is sustained in part by a telecommunications history that began in the Midwest well before the 96 Telecom Act but declining revenues for the third consecutive year and a stock price that has dropped below 50 cents may pose investment limits for local exchange service.

5. XO

XO sought Chapter 11 bankruptcy protection in 2002, emerged in 2003 and has since completed the acquisition of Allegiance Telecom. XO began as NEXTLINK, a broadband communications provider, in 1994 and combined with Concentrix to provide a broader set of communications services in September 2000. XO offers a variety of access options including fiber direct to buildings, DSL (digital subscriber line), and fixed-wireless

technologies and is primarily targeting small and midsized businesses. Although XO's stock had dropped in 2004, as have many others, its mid-September price was $3.35.

6. Eschelon

Eschelon originated as Advanced Telecommunications, Inc. in 1996 and now provides telecommunications services in 12 markets in seven states, with only Nevada outside of Qwest's ILEC area. Eschelon provides local and long-distance, Internet access, leased lines, and data services, primarily to small and midsized businesses. In relative terms, Eschelon is a fairly new provider with $141M in 2003 revenues.

7. Xspedius

Xspedius is a privately held company with little known publicly about its financial condition. Some recent changes, however, are typical of general changes seen in the telecommunications industry. With capital infusion from Thermos Companies, Xspedius acquired the assets of bankrupt e.Spire Communications and its subsidiary, ACSI Network, in mid-2002. The e.Spire assets and operations acquired had an original invested capital basis of $1.6 billion and generated approximately $200 million of revenue in 2002 and $250 million of revenue in 2003. Xspedius offers local access, long-distance, dedicated Internet access, and other data services to business clients and wholesale customers.

8. Z Tel

Z Tel Communications, a.k.a., Z-Tel Technologies Inc, is a publicly traded company founded with the passing of the 96 Telecom act to compete using the UNE-P option. The Company provides telecommunications services to consumers, business and other

communications companies. Z Tel's stock traded above $40 in early 2000 but in mid-September 2004 traded at $0.45, about the time when work force reductions were announced. If Z Tel is fully committed to UNE-P services, likely changes in FCC rules within the next year would seem to be a major barrier.

Q. Please summarize your conclusions about the state of CLEC Competition in Arizona?

A. (1) While there are as many as 69 CLECs listed with the ACC, only 42[25] CLECs can be found in the Listings Information.

(2) 21 CLECs have 45 digital switches designated as end-offices with a maximum capacity of 2,790,000 phone numbers. Whether these switches are being used primarily to provide service to end-users is unclear.

(3) Continued use of the UNE-P competitive option is highly uncertain. Some of Qwest's largest competitors in the residence market have recently announced plans to not actively market to new customers based upon the uncertainties surrounding UNE-P.

(4) Although **[redacted]** of 136 Qwest wire centers have some form of competitive presence, facilities-based competition can only be seen in **[redacted]** wire centers and only **[redacted]** of 64 Zone 3 wire centers have facilities-based competition.

(5) Cable providers are in the best economic and industry position to deliver alternative local exchange services. Cox is the strongest facilities-based CLEC and the only CLEC with a broad network available for residence service.

(6) HHIs estimates, whether based on Listings information analysis or line loss, measure competition well above the 1,800 threshold the DOJ uses to gauge highly concentrated markets. Using Listings information produced statewide HHIs of 5,336 for Residence and 5,168 for Business. Using line loss produced combined HHIs of 5,483 for Phoenix and 5,867 for Tucson.

[25] See Exhibit AFF-1

(7) Qwest's statewide business and residence main listing shares are above 70%.

(8) Of the 10 CLECs noted by Qwest as primary competitors, most are actively marketing service to only business customers.

(9) The competitive gains in the nearly 9 year window since the 96 Telecom Act was passed highlight slow progress with little to support that acceleration is imminent.

WIRELESS COMPETITION

Q. What is the state of Wireless competition in Arizona?

A. Much less information is available regarding wireless competition than CLEC competition. Thus, a full comparative evaluation is not possible. Nonetheless, enough information points are available to allow for a reasonable understanding of the current state of wireless competition and the direction in which wireless appears to be headed.

Table 13 of the FCC's June 18, 2004 report on Local Competition provides an EOY03 estimate of 2,843,061 wireless subscribers statewide in Arizona. This compares with information from the same report estimating total statewide ILEC and CLEC wireline subscribers at 3,249,408. The AZ ratio of wireless to wireline subscribers (87.5 percent) is above the nationwide average of 86.6 percent; however, AZ ranks only 20th with Louisiana highest at 104 percent. By any measure, the number of AZ wireless subscribers is impressive and especially relevant when weighed against the FCC wireline subscribers estimate separated into ILEC and CLEC, 2,541,931 and 707,477, respectively[26]. Unless the 2,843,061 wireless subscribers in AZ are *only* viewed as telecommunications market expansion opportunities, some allowance must be given to wireless as a competitive alternative to ILEC services and pertinent to the competitive situation facing Qwest.

[26] FCC's June 18, 2004 report on Local Competition

I made an effort to gauge the impact of wireless by researching and analyzing the following areas: 1) number portability trends from wireline to wireless, 2) wireless usage (MOUs) trends, 3) local exchange listing information for wireless users, and 4) industry surveys estimating wireless displacement of wireline.

Q. Are wireless services and packages competitive with local exchange services?

A. Wireless services are available in a wide variety of packages and bundles that commonly include long distance and custom calling features. Many wireless packages are in the range of Qwest's local exchange service that begins at $19.68[27] for residence and $36.90 for business, as stated in Qwest's testimony. For some users, however, the cost of wireless phones, as high as several hundred dollars, and monthly fees that can be $50 and above may present barriers. It is widely acknowledged, however, that the wireless industry is reaching a state where marketing programs are increasingly being designed to attract local exchange users. Some providers, perhaps most notably Cricket, are undeniably targeting mass market audiences.

> *According to a recent company survey, 43 percent of Cricket's customers substituted a traditional phone at home with the exclusive use of their cell phones for household communications. This compares to just four percent of all wireless customers who have "cut the cord," according to the Yankee Group, a firm that analyzes telecommunications trends.*[28]

"Cutting the cord" is a term that is so well-established in the wireless industry that it can be traced back at least four years[29].

Q. What does the number portability information suggest?

[27] Direct testimony of David L. Teitzel, May 20, 2004, page 60, line 17, ($13.18 plus $6.50 mandatory subscriber line charge)
[28] Cricket press release, August 17, 2004, "Cricket Customers Ditch Their Landlines"
[29] BusinessWeek, November 13, 2000

A. Number portability between wireless and wireline began in Nov'03. Even in this short period, if wireless service were displacing ILEC service, significant numbers of users should be seen moving from wireline to wireless. While the information made available to me by a few wireless providers is not comprehensive for the wireless industry in Arizona, very little impact is apparent at this time. Absent more information, I would have to say that wireline local exchange users are not currently moving their service to wireless carriers in great numbers by using number portability. Local information does contrast, however, with national information (RCR Wireless News, September 7, 2004):

> *More than 300,000 customers have cut the cord since May with more than a half a million customers switching totally to wireless since local number portability became available last November, according to numbers made available by the Federal Communications Commission.*

Q. What does the usage (MOUs) information suggest?

A. Although Staff issued data requests to all wireless providers in Arizona, little usage information helpful to this proceeding was provided. Information from one wireless provider, though limited, does point to the type of evidence that suggests displacement of local exchange services. From EOY02 to EOY03, the percent of **[redacted]** minutes interconnecting with Qwest in the Phoenix LATA dropped by **[redacted]**. In the Tucson LATA, the drop was **[redacted]** over the same period. These declines took place at the same time that overall subscribership across both LATAs was *increasing* by **[redacted]**. While there is no direct evidence that any local exchange service lines were dropped, end-user value, as measured in minutes of use, may arguably have shifted from the Qwest's local exchange network to other forms of interconnection, such as Wireless to Wireless or Wireless to CLECs. If usage is a leading indicator of end-user value, shifts in usage will ultimately translate to shifts in lines and revenues. I have no conclusive wireless usage evidence, however, supporting wireline local exchange displacement.

Q. What does the listings information suggest?

A. Being listed in Directory Assistance and/or the White Pages directory is seen by many end-users as a standard feature of local exchange service. As such, it is possible that the existence of wireless displacement could result in wireless users requesting inclusion in statewide listings services. The June 18, 2004 Listings information provided by Qwest was analyzed for the presence of wireless listings. No listings owned by the key wireless providers referenced in Qwest's application - ALLTEL, AT&T Wireless, Verizon Wireless, Cricket Communications, Nextel Communications, Sprint and T-Mobile – or any wireless provider were obvious in the listings information. **[redacted]** business main and **[redacted]** residence main listings were found in Qwest's name but tied to NPA-NXXs assigned to Qwest Wireless. These could be numbers being ported to Qwest from Qwest Wireless or foreign listings by Qwest Wireless subscribers that are listed under Qwest's name. Although the level of Listings information does not allow for exactness in this analysis, one top level number can be considered. The number of wireless users that can be assumed to have displaced their wireline main service, as measured by inclusion in the Listings information, is arguably not higher than 79 business mains and 234 residence mains[30]. These figures could include, however, main numbers that are being ported from wireless providers to ILECs or CLECs. It is important to understand, however, since wireless is not truly local exchange service, the inclusion of listings information even for those replacing their wireline service is dampened by wireless provider practices that do not appear to encourage local exchange service directory listings. The figures estimated from analyzing the listings database are so low that it is possible that those using wireless service in place of wireline local exchange service simply do not place a great value on being included in listings databases.

[30] Figures include listings from NPANXXs assigned to wireless switches but shown in listings as owned by any provider. Pooled NXXs are not included.

Q. What do industry surveys & reports suggest?

A. A statement from an August, 2003 IDC[31] report (U.S. Wireless Displacement of Wireline Access Lines Forecast and Analysis, 2003-2007) provides one perspective on the expected displacement by wireless.

> *Wireless displacement of wireline access lines is forecast to accelerate over the next several years as a function of wireline-wireless number portability and the increasing role that wireless plays in the lives of consumers. IDC forecasts an additional 18 million access lines to be displaced by wireless through 2007, with 2.4 million of those as a result of number portability.*

The June 7, 2004 survey by National Telecommunications Cooperative Association ("NTCA") states:

> *Survey results indicate that wireless displacement of wireline services is not just a threat but also an emerging reality. In fact, wireline displacement is growing at an alarming rate among rural youth, with 20% of survey takers saying they "rarely" use the landline phone in their residence, up from just 13% last year. Those indicating they "never" use the landline phone in their homes also jumped sharply, from 6% last year to 14% this year. This trend shows the slow but steady progression of the youth market toward complete disassociation from landline phones.*

A Yankee Group report released in March 2004 (2003 TAF Survey Findings Highlight the Consumer Market's Competitive Challenges) states:

> *...wireless usage is accelerating the decline of landline minutes of use. Although the number of U.S. households that have totally cut the wireline voice cord remains small, fifty percent of wireless households report their wireless usage has replaced some, a significant amount or all of their regular telephone usage. The most dramatic impact of wireless displacement on wireline voice is in long distance, where wireless users indicate on average that they now make forty-three percent of their long-distance calls on their wireless phones.*

Forrester Research in its March 31, 2004, Cord-Cutting Goes Mainstream report stated:

> *At the end of 2003, 4% of US households that subscribe to mobile service said that they have given up their landline service, and nearly twice that many intend to do so in the next three years.*

[31] International Data Corporation

Jupiter Research states in its April 23, 2004 report:

> *With wireless customer growth in the low single digits, US carriers have all announced that they are looking to landline displacement to add customers and keep minute usage up. However, under six percent of US consumers today are actually using their wireless phone as their only phone.*

Perhaps the most aggressive information regarding the displacement of wireline services by wireless can be found in a February 2004 report from Scottsdale, Arizona research firm, In-Stat/MDR (see Exhibit AFF-11):

> *...14.4% of US consumers currently use a wireless phone as their primary phone, with the remaining 85.6% still using a landline as their primary phone. However, among those consumers still using a landline as their primary phone, 26.4% would consider replacing it with a wireless phone, demonstrating a significant potential for wireline displacement over the next five years*

In-Stat/MDR has forecasted a major shift in telephone usage[32] driven by men and women between the ages of 18 and 24 (see Exhibit AFF-11):

> *This tectonic shift in telephone service - by 2008 an estimated one-third of existing phone customers won't have land lines in their homes - threatens the customer base and future profitability of regional phone companies, especially Denver-based Qwest, which doesn't have its own wireless division*

Surveys consistently report that wireless *will* displace local exchange main lines in meaningful levels. Nationally, there is survey evidence to support 4-6 percent main line displacement. Absent more local information, however, it is not clear that meaningful levels *have* been reached at this time.

Q. What about the impact of wireless on local exchange service additional lines?

[32] Denver Post, October 17, 2004, "The Young and the Wireless"

A. Most of the survey information, as noted above, tends to address the general displacement of wirelines without exact distinctions between main and additional lines. One way to estimate the impact on additional lines is to consider the range of estimates in key surveys. Using the difference between the upper range of 14 percent from In-Stat/MDR[33] and the lower range of 4 percent-6 percent that offered by Forrester Research[34], Jupiter Research[35] and Yankee Group[36] provides an estimate of 8 percent-10 percent that could be considered additional lines. Applying this range against the wireless subscriber estimate of 2,843,061 from the FCC (see Exhibit AFF-11), allows for a derived range of 227,444 to 284,306 additional line displacement. Although this is a simple estimate, it easily exceeds the estimated Qwest residence additional line figure of **[redacted]** lines[37]. This estimate adds weight to the general belief that wireless is having its greatest impact on wireline additional lines. Nationally, the FCC reports[38] that residence additional lines reached 26.2 million in 2000 and declined to 18.7 million by end of year 2002.

Q. Did you research the FCC's position regarding wireless?

A. Staff reviewed a number of FCC documents. These documents can be viewed in summary as supporting a position that wireless is not a full alternative for local exchange service.

For example, the FCC recognizes in paragraph 53 of its TRO order[39] that the mass market growth of wireless has been "remarkable". Nonetheless, the FCC goes on to say that only "3 to 5 percent of wireless customers use their wireless phone as their only phone." Additionally, the FCC addresses general beliefs about the impact of wireless on wireline

[33] In-Stat/MDR, February 2004
[34] Forrester Research, March 31, 2004
[35] Jupiter Research, April 23, 2004
[36] Delwareonline.com, The News Journal, July 23, 2004, "More phone users are hanging up land lines"
[37] Derived from residence lines included in Qwest's response to STF 31.1 less residence main lines in Qwest's response to STF 3.20
[38] FCC, Trends in Telephone Service, May 6, 2004, Table 7.4
[39] FCC-03-36A1

access lines by stating "Some carriers attribute, at least in part, the recent drop in wireline switched access lines to this replacement of wireline phones by wireless phones. This replacement may particularly affect second-line growth." At paragraph 230, the FCC states "...the record demonstrates that, although promising, wireless CMRS[40] connections in general do not yet equal traditional landline local loops in their quality, their ability to handle data traffic, and their ubiquity." At paragraph 245, the FCC appears to summarize its position by stating "Neither wireless nor cable has blossomed into a full substitute for wireline telephony". An important fact can be found in footnote 702 of the FCC TRO order " AT&T points out, for example, that wireless service is engineered to provide only roughly 70% call completion rate while wireline call completion rates exceed 99%."

Q. Is it possible to estimate an HHI with the inclusion of wireless?

A. Combining the 14 percent displacement figure from In-Stat/MDR, a well-known market research firm, as a top-line estimate with a set of related assumptions (see Exhibit AFF-11) and the CLEC and Qwest listings information, it is possible to calculate HHI estimates that include wireless. With wireless, the business HHI changes from 6,333 to 3,825 and the residence HHI changes from 6,124 to 4,747. While much lower, HHIs that included wireless estimates demonstrate a high level of market concentration. Indeed, these figures remain well above the range (1,000 - 1,800) used by the DOJ to characterize moderately concentrated markets. For completeness, I estimated an HHI of 3,624 for total access lines by making assumptions about additional line displacement by wireless combined with the line estimates provided in response to RUCO's data request #2. These figures illustrate a dramatic impact, assuming wireless can truly be considered a competitive alternative for local exchange service.

[40] Commercial Mobile Radio Service

Although it is important to consider estimates and to test key assumptions where more exact information is not available, I still believe that the market evidence is insufficient to reasonably conclude that wireless is a competitive alternative for local exchange services in the same context as services provided by CLECs.

Q. Please summarize your conclusions about the state of Wireless Competition in Arizona?

A. (1) The number of wireless phones in Arizona equate to about 87.5 percent of the wireline phones, according to the FCC's June 18, 2004 report on Local Competition.

(2) Many wireless providers appear to be participating in the AZ markets served by Qwest – ALLTEL, AT&T Wireless[41], Nextel, Sprint, Verizon, T-Mobile, and, of course, Qwest Wireless[42].

(3) Wireless packages and services are becoming competitive with wireline packages.

(4) Listings analysis does not indicate a significant number of wireline customers using wireless as a substitute for local exchanges service.

(5) Number portability figures do not indicate a major shift of wireline local exchange customers to wireless.

(6) Limited MOU information does suggest a major reduction in interconnection minutes between Qwest and wireless providers.

(7) Market research firms support wireless displacement of wireline in the low range of 4 to 6 percent with one firm (In-Stat/MDR) estimating a high point of 14.4 percent using wireless as their *primary phone*.

(8) The data I reviewed indicates that wireless may have had its greatest impact on the displacement of additional lines and wireline local exchange minutes of use.

[41] Acquisition by Cingular completed October 26, 2004
[42] The Commission recently approved Qwest Wireless' transfer of its wireless assets to Sprint. In its Application, Qwest Wireless indicated that it would continue to provide wireless service to customers, but as a reseller.

(9) The FCC recognizes the growth of wireless in mass markets but does not believe wireless is a full substitute for wireline telephony. The FCC estimates that 3 to 5 percent of wireless customers use their wireless phone as their only phone.

(10) Even using estimated wireless market share figures, HHIs calculated on a statewide level remain well above the 1,800 threshold the DOJ uses to gauge highly concentrated markets. Combining the highest estimate of wireless displacement with the listings information produces a business HHI change most favorable to Qwest from 6,333 to 3,825 and a residence HHI change from 6,214 to 4,747.

(11) Qwest does not include wireless in its competitive zone criteria but Staff believes some consideration is warranted under R14-2-1108 analysis. The degree of consideration would depend upon the extent wireless acts as a substitute for primary wireline service.

VOIP COMPETITION

Q. What is the state of VoIP competition in Arizona?

A. Staff sent a data request[43] to all ILECs and CLECs in Arizona to understand the current state of VoIP services as provisioned by local exchange carriers. Of 31 ILECs and CLECs that responded, only **[redacted]** indicated any participation with some form of VoIP service in Arizona. Qwest indicated it has no operating agreements with providers of VoIP services and no knowledge of VoIP traffic interconnecting with its network.

I also made the same inquiry of the VoIP providers identified by Qwest in its application – Five Star, Vonage and Packet8. Vonage and Packet8, a.k.a, 8x8, Inc., indicated that VoIP services are being marketed in Arizona and that interconnection with the PSTN is being facilitated by agreements with select CLECs. Their responses also make clear that the

[43] AFF 1.1 to AFF 1.5

current end-user base is very low. Vonage explained it has approximately 200,000 users in North America with Arizona constituting less than 10 percent of all subscribers.

AT&T announced[44] in July 2004 that it would be shifting its local telephony efforts to VoIP. *"...it is shifting its focus away from traditional consumer services such as wireline residential telephone services, and concentrating its growth efforts going forward on business markets and emerging technologies, such as Voice over Internet Protocol...."* At the same time, AT&T announced the availability of its VoIP, residential CallVantage^{SM} Service in 100 markets nationwide. (see Exhibit AFF-12) As of September 8, 2004, CallVantage^{SM} was available in Arizona 928, 480, and 520 area codes but not in 602 and 623. Given the flexibility afforded by VoIP, however, it may be possible for users in 602 and 623 to obtain VoIP service from AT&T by using numbers assigned to other NPAs, such as 928, 480, or 520.

MCI has been in various stages of VoIP deployment since mid-2003 when Fred Briggs[45], MCI President of Operations and Technology stated "By 2005, MCI plans to move 100 percent of our traffic to an all IP core..." MCI Advantage VoIP is available in all 115 U.S. metropolitan service areas where MCI owns local service facilities.

In August, 2004, Sprint announced[46] its third agreement in the last eight months in which it will help a cable provider offer telephone services using VoIP technology. In December 2003, Sprint agreed to provide VoIP services to Time Warner Cable, with 11 million cable customers nationally. Of the three cable providers which have agreements with Sprint -

[44] AT&T news release, 7/22/04
[45] MCI news release, 6/3/03
[46] Associated Press, 8/12/04, "Sprint, Mediacom Announce VOIP Deal"

Mediacom, USA Companies of Kearney, NE or Time Warner Cable – only Mediacom has a presence in Arizona with a few small cable systems outside of Phoenix and Tucson.

In June, 2004, Qwest launched its Qwest OneFlex™ VoIP service for business customers, following with IP Centrex service in early September. Phoenix is one the four markets in which Qwest initially launched OneFlex™. (see Exhibit AFF-13)

While Cox is much larger than any other cable provider in Arizona, it is worth noting that others do exist and will ultimately be capable of facilitating, and even providing directly, VoIP services with their broadband services. Adelphia[47] provides service in Yuma and Cable America[48] provides service in Coolidge, Florence, Mesa, Queen Creek and Wickenburg.

Q. Can the impact of VoIP service be seen in the listings information?

A. I was unable to see any discrete listings information pertaining to VoIP services. This primarily results from two factors. (1) VoIP services are not regulated by the ACC as local exchange services. For that reason, VoIP providers are under no obligation to facilitate the local exchange listings or E-911 needs of end-users. **[redacted]**, for example, is believed to be helping VoIP providers with interconnection services, such as providing new telephone numbers and facilitating numbers being ported from CLECs or ILECs, however, **[redacted]** listings are not apparent in the listings information. (2) CLECs that may be self-provisioning VoIP services may not be separating their local exchange services number assignments from VoIP number assignments since practices do not exist for this requirement.

[47] http://www.adelphia.net/
[48] http://www.cableamerica.com/, http://www.cableaz.com/

I did perform one listings analysis test to provide more insight into part of the VoIP local situation. With the VoIP end-user's permission, I requested the listings ownership information from Qwest for a telephone number that was ported from Qwest to a CLEC facilitating service for a VoIP provider. The information provided by Qwest indicates that **[redacted]** is facilitating the provision of VoIP services to end-users. Other CLECs and, perhaps, Wireless providers and ILECs may also be helping to facilitate VoIP services. The facilitation could be done by any provider with a local switch that interconnects to the PSTN.

My analysis implies that the number of VoIP service end-users is very low at this time. The number of VoIP end-users in the listings database could be several thousand or could also be as low as 1 verified end-user. There really is no simple way to conclusively determine VoIP end-user levels at this time.

Q. What are the major factors that drive VoIP deployment?

A. There are a few startup costs associated with VoIP but they are relatively modest. One example is the phone adapter which is needed to allow analog phones to function with broadband service. While the analog phone adapter might cost $50 to $100, some providers, like Vonage, supply the adapter free to new customers. The most important factor is the availability of broadband technology, such as DSL, typically provided by ILECs and CLECs, or cable modems, typically provided by cable companies like Comcast and Cox Communications.

Cox Communications passes about **[redacted]** homes in the Phoenix metro area and about **[redacted]** homes in the Tucson metro area. All these homes are capable of receiving broadband service. Qwest is capable of providing broadband service to over **[redacted]**

of all business or residence accounts in Phoenix and Tucson. In Phoenix, Qwest serves about **[redacted]** of its residence customers with broadband, in Tucson, the comparable figure is **[redacted]**. Cox did not provide its broadband penetration.

A surprising Nielsen survey[49] conducted in September 2004, concluded that 1.44 million broadband connections already exist in metro Phoenix. In that survey, Phoenix broadband connectivity was found to be second only to San Diego in the country's top 35 metro areas.

These figures suggest that the technological foundation for widespread acceptance of VoIP already exists. With the full resolution of operational factors that have bearing on the maintenance and monitoring[50] of VoIP service by providers, the only barriers confronting VoIP service are the absence of E-911, expanded broadband penetration and customer awareness.

It is worth noting that the recent FCC decision[51] that relieves the RBOCs of most obligations to unbundle fiber optic broadband local networks should help increase the availability of broadband needed for VoIP access as the RBOCs invest in fiber-to-the-home ("FTTH") and similar networks.

Q. What is the projected future of VoIP service?

A. Most projections regarding VoIP services are very optimistic. One of the most avid supporters is FCC Chairman Michael Powell. In May of this year, Chairman Powell told

[49] The Arizona Republic, October 3, 2004, "Catching the Wave"
[50] TechNewsWorld.com, September 28, 2004, "VoIP Looms Large, But Problems Persist"
[51] FCC news release, October 14, 2004, "FCC Removes More Roadblocks To Broadband Deployment In Residential Neighborhoods"

the National Cable & Telecommunications Association's annual meeting in New Orleans[52] "I think it's going to turn (the telephone industry) on its head and remake itself into something that consumers are going to find enormously valuable,"

The cable companies are probably perceived on the leading edge of joining their broadband deployment with VoIP services. Time Warner has stated it expects to offer VoIP calling to all of its 10 million plus subscribers by end-of year 2004. In May, 2004, CNET News.com reported that "Cox once thought that it would save about 10 percent in capital expenses when choosing VoIP over circuit switches. But that savings is now about 40 percent." Reuters also reported in May, 2004, that Comcast, the nation's largest cable operator expects to offer VoIP service to half of its 21M subscribers by the end of 2005 and to 40 million households by end of 2006.

In May, 2004, the Rocky Mountain News reported[53] "An estimated 25 million homes in the United States have broadband, with cable modems accounting for more than 16 million connections vs. about 9 million for phone companies, which offer broadband through digital subscriber lines. The number of U.S. households with broadband is expected to increase by 8.5 million this year, a 30 percent spike."

A study by Mercer Management Consulting announced[54] in June 2004 "expects established ISPs to double their anticipated market share over what it called current low quality VoIP offerings over the next three years and grab up to 30 percent of the residential voice market."

[52] National Cable & Telecommunications Association, May 4,2004, New Orleans, "Conversation with NCTA President Robert Sachs"
[53] Rocky Mountain News, May 5, 2004, VoIP Hailed as the Future
[54] Internetnews.com, June 15, 2004, Study Says Big Players to Dominate VoIP

In June, 2004, CNET News.com offered perhaps the most noteworthy announcement of all. "BT Group, a U.K. telecommunications provider, plans to transform its infrastructure into a pure Internet Protocol-based network by 2009." "BT[55] plans to begin mass migration from PSTN to IP in 2007. It is starting with a Voice over Internet Protocol, or VoIP, trial involving 1,500 customers this year."

With all the forecasts regarding wireline based VoIP services, it is easy to lose sight of the broadband capabilities that will be afforded by continuing advancements in wireless. End-users in less densely populated areas will be especially advantaged by such offerings. TeleSpectra, LLC, Network Service, for example, began providing broadband services in Wickenburg in July[56]. Once any form of broadband service is available, VoIP service is enabled.

This is just a sample of the announcements and forecasts concerning the future of VoIP. The weight of speculative evidence certainly tends to support VoIP competition. At this time, however, little factual evidence exists to support VoIP as a viable alternative to local exchange service.

Q. Are there any downsides to VoIP competition?

A. All of the positive industry support, bolstered by the FCC, tends to downplay operational problems that become more obvious as any new services begin to reach large scale deployment. It has come to Staff's attention that there are significant challenges in network management[57], similar in part to those which providers already using the PSTN have overcome. Full resolution of these challenges will require clear standards to

[55] BT or BT Group is also known as British Telecom or British Telecommunications. In the UK, BT serves over 21 million corporate and residential customers with more than 28 million exchange lines.
[56] http://www.wickenburgsun.com/articles/2004/07/07/news/news08.txt
[57] TechNewsWorld.com, September 28, 2004, "VoIP Looms Large, But Problems Persist"

facilitate product development to manage and monitor complex services that must ultimately be billed quickly and accurately. Without overcoming these challenges, some believe that VoIP providers will have difficulty becoming profitable. This area of concern does not diminish from the ultimate potential for VoIP but does add further weight to the belief that VoIP is not yet a full alternative for local exchange service.

Q. Is it possible to estimate an HHI with the inclusion of VoIP competition?

A. The numerical information available for VoIP services is so limited that I am not able to include VoIP in an HHI measure. Even if the number of VoIP subscribers were known, the levels are likely too low at this time to have any impact on the HHI measure. Any HHI number that includes elements of VoIP would be highly speculative.

Q. Please summarize your conclusions about the state of VoIP Competition in Arizona?

A. (1) The telecommunications industry, in general, and the FCC, specifically, are very positive about the future of VoIP services.

(2) Major CLECs have announced plans to participate in VoIP competition.

(3) VoIP end-users cannot be found in the Listings information.

(4) VoIP service is dependent on the continuing penetration of broadband services which today is low at least for Qwest if its own figures are used.

(5) Some operating challenges appear to remain before VoIP service can become widely deployed to mass markets. Resolution of these challenges will require clear standards to facilitate product development to manage and monitor complex services that must ultimately be billed quickly and accurately

(6) Estimating HHIs with the inclusion of VoIP services is not feasible at this time.

(7) Qwest does not include VoIP in its competitive zone criteria. The available information suggests that further consideration is not warranted at this time. If VoIP

becomes more prevalent and acts as a substitute for local exchange services, it could be considered in an R14-2-1108 analysis in the future.

CONSIDERATIONS RELATING TO QWEST'S PROPOSAL FOR COMPETITIVE ZONES

Q. Where is Qwest requesting Competitive Zones?

A. I should start by explaining that Qwest is requesting two wire center groups defined as Phoenix and Tucson MSAs. For clarification, there are 11 cities in the Phoenix MSA grouping that are not part of the Phoenix local calling area – Dudleyville, Kearney, Oracle, Florence, Mammoth, Superior, Coolidge, Eloy, Gila Bend, Casa Grande, and San Manuel. Five of these 11 towns – Dudleyville, Kearney, Oracle, Mammoth, and San Manuel - are also in the Tucson LATA, not the Phoenix LATA. For the purposes of my analysis and testimony, I continued with the Phoenix and Tucson MSA groupings as submitted by Qwest, therefore, you will see the 11 towns noted above within my Phoenix analysis data and associated with Phoenix in several of my exhibits.

Specifically, Qwest is requesting Competitive Zone classification for 63 wire centers in Phoenix metro and 19 wire centers in Tucson metro.

Q. Is information available to allow for analysis of wire centers as competitive zones as proposed by Qwest?

A. A general concern involves the measurement data parameters. Wire centers are historical, wireline, local exchange designations used by ILECs, such as Qwest. Since Qwest is the entity seeking competitive zones it seems fair to consider the parameters they propose, however, many new telecommunications entrants do not define their service areas on the same terms. Facilities bypass providers, not dependent on Qwest for unbundled elements

or resale services, have no need to align their tracking systems to fit the wire center methodology of the incumbent local exchange carrier. Analyzing competitive information on the basis of Qwest's wire centers becomes problematic as the set of market participants broadens. Resale and UNE competitive options can be easily framed by wire center boundaries because the facilities are those of Qwest, the ILEC. Full bypass competition, however, has to be estimated or developed through special studies in order to fit wire center parameters unless the CLEC has chosen to mirror Qwest's wire center boundaries. The information fit becomes more extreme as wireless and VoIP competition are considered. In using the wire center parameters for areas that could be deemed competitive, there is a sense of trying to fit information derived from new and emerging competition into a measurement scheme intended to facilitate regulated services. Wireless and VoIP providers appear to make no use of Qwest's wire center boundaries. The only service location known for a wireless user is the nearest cell site. VoIP users are able to move their equipment and service to other broadband access points and, consequently, are also not restricted by physical boundaries. Therefore, evaluating competitive zones at the ILEC wire center level requires a full appreciation of the inherent measurement and analysis weaknesses associated with the available information.

It may be true that if competition can be easily defined and characterized within ILEC wire center parameters, then the competitive situation is by definition neither broad nor diverse. Confirming competition within ILEC wire centers parameters may actually be a confirmation of the least impactful forms of competition rather the most impactful.

Q. Is there another methodology that should be considered by the Commission if it adopts competitive zones?

A. No methodology appears perfect but one that appears to give the most flexibility is dependent on a geographic measure that is broadly accepted by many industries – the zip

code. Zip codes are geographic definitions provided by the US Postal Service and used by all telecommunications providers for service and billing operations. Using zip code based information would allow competitive zone consideration at the highest level – statewide - or the lowest level – the discrete zip code – with several possibilities in between, such as city and county levels. Without use of zip code information, for example, analytical consideration of Qwest's related proposal for competitive zones defined by geographies other than wire centers, such as housing developments, is impractical. Housing developments may cross wire center boundaries or cover less than a full wire center. The use of zip code level information also lays the groundwork for the eventual inclusion of market information from emerging competitive alternatives, such as wireless and VoIP.

Staff initiated actions to obtain zip code level information for this proceeding but has been unable to conclude its analysis based on such information, as further explained in the testimony of Staff witness Matthew Rowell. Therefore, Staff has conducted its competitive zone analysis with traditional wire center information.

Q. If the Commission were to adopt Qwest's first criteria[58] to determine competitive zones, in which wire centers do competitors have facilities in place?

A. Information provided by Qwest in response to a RUCO data request points to 21 facilities-based CLECs (see Exhibit AFF-14) across Qwest wire centers. As explained earlier, Qwest's estimate of facilities-based competitors is based on its knowledge of LIS trunk information. Allowances must also be made for the timing of information provided. Some CLECs noted below appear to no longer be in service, such as Intermedia[59] and Winstar, and some CLECs, such as KMC Telecom, are not yet providing end-user service.

[58] See Direct testimony of Matthew Rowell
[59] Thomas Dixon email, 10/12/04, "...Intermedia Communications while still holding a local CCN does not offer any local services and has no local customers or line counts..."

Still others, such as Level 3, are using LIS trunks but do not appear to be providing end-user services. The information is consistent, however, with the number of CLECs, explained earlier, having end-offices.

EXHIBIT AFF-14

Facilities Based CLECS

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Exhibit AFF-15 outlines the number of facilities-based CLECs by wire center derived from Qwest's LIS trunk information. Given the business concentration in Tucson Main and Phoenix Main, their relative ranking, 15 and 19 facilities-based CLECs respectively, is not a surprise. Using the 1st competitive zone measure proposed[60] by Qwest, 61 of the

[60] Qwest Revised Cap Plan, page 2, "A competitor has facilities in place and is marketing or offering services in competition with Qwest."

82 wire centers requested by Qwest would qualify based on the LIS trunk measurement. The remaining 21 wire centers requested by Qwest do not pass on this measure. (See Exhibit AFF-16)

Q. Does this mean that all of these competitors are providing facilities-based local exchange service to residence and business customers in Qwest's service territory?

A. No. Its worth emphasizing that some CLECs are no longer in service, as explained earlier, others are providing services that do not directly involve end-users and some may be serving business or residence customers but not both.

Q. If the Commission were to adopt Qwest's second criteria[61] to determine competitive zones, in which wire centers are competitors utilizing unbundled network elements?

A. Exhibit AFF-17 includes information for UNE-L, UNE-P and Resale competitors by wire center requested for competitive zone designation. This information was provided by Qwest in response to a RUCO data request[62]. Only 39 of the 82 wire centers requested have UNE-L CLECs, of which 30 are in the Phoenix MSA and 9 in the Tucson MSA. Surprisingly, all UNE-L competition as identified by the Qwest data response comes from only 9 CLECs. That only 9 of the 64 CLECs noted by Qwest as listed on the ACC's website or the 42 I found active in the Listings information were found to be participating in UNE-L competition reflects the general lack of acceptance of the UNE-L competitive option.

UNE-P presence can be seen in 80 of 82 wire centers requested for competitive zone designation. The two that do not exhibit UNE-P presence are Dudleyville and Whitlow, associated with Phoenix metro but well on the southeast perimeter. By the 2nd proposed

[61] See Direct testimony of Matthew Rowell
[62] RUCO DR #2

Qwest measure[63], UNE-P has more CLEC presence in wire centers than any type of competitive alternative. All UNE-P competition as identified by the Qwest data response comes from only 17 CLECs.

Q. If the Commission were to adopt Qwest's third criteria[64] to determine competitive zones, where are competitors utilizing the resale of Qwest services?

A. Exhibit AFF-17 also notes that competitive presence attributable to Resale can be found in 77 wire centers requested for competitive zone designation. Wire centers not seen with resale competition are Foothills, Rio Verde, Oracle, and Kearney, all associated with Phoenix metro, and Mt. Lemmon, associated with Tucson. In terms of just wire center presence, Resale is the second-highest form of competition, ranking between UNE-P in 80 wire centers and facilities-based CLECs in 61 wire centers. Related to the 3rd measure[65] proposed by Qwest, I found 28 CLECs participating in resale competition within the information provided by Qwest.

Q. Can you summarize the CLEC presence in the wire centers requested by Qwest for competitive zone classification?

A. Exhibit AFF-18 provides a comprehensive view of the CLECs and their form of competition in the wire centers requested for competitive zone classification, based on information provided by Qwest in response to a RUCO data request. If participation in all forms of competitive options is a measure of diverse competition, note that only three CLECS, AT&T, MCI and McLeodUSA, meet that standard in the wire center data provided by Qwest, yet, by the measures proposed by Qwest, all 82 wire centers would qualify as competitive zones. Exhibit AFF-19, however, provides more context for each

[63]Qwest Revised Cap Plan, page 2, "A competitor is marketing or offering services through the provision of unbundled network elements provided by Qwest"
[64] See Direct testimony of Matthew Rowell
[65] Qwest Revised Cap Plan, page 2, "A competitor is marketing or offering services through the resale of Qwest's service."

wire center. Note, for example, that Circle City, Dudleyville, Rio Verde, Gila Bend, Kearney, Mammoth, Oracle, Superior, Stanfield, White Tanks, Whitlow, Wintersburg, Mt. Lemmon, and Vail North – 14 of the wire centers requested - have considerably less CLEC presence than other wire centers. That points to low levels of competitive impact. In order to gauge impact, new measures such as market share, growth trends or actual losses have to be considered.

Q. Can you put the competitive impacts and your concerns with Qwest's proposal in context?

A. Exhibit AFF-20 begins to present a more complete picture at the wire center level. It is based on information submitted by Qwest in DLT-17[66] with responses to RUCO DR #2 and related analysis appended. As presented in Exhibit AFF-20, the information is sorted in order of Qwest wire center business line decline by Zones 1, 2, and 3 for Phoenix and Tucson areas. Simply studying the Qwest line changes for each wire center from EOY 2000 to EOY 2003 is very instructive. 21 UNE Zone 1 wire centers in the Phoenix MSA have Qwest declines of more than **[redacted]** over the 2000 to 2003 period with an additional 7 wire centers in Zones 2 and 3. Tucson has a total of 7 wire centers that meet this standard. The comparable figures for residence are 28 UNE Zone 1 wire centers in Phoenix with an additional 4 in Zones 2 and 3. Tucson has a total of 11 wire centers with residence declines in excess of **[redacted]**.

Other columns in this exhibit give the line changes additional context. For example, how is it possible that Phoenix North wire center business lines have declined **[redacted]** in the three year period while Qwest's market share is estimated at **[redacted]**? Here is one possibility. Assuming that all the data are reasonably correct, it is possible that the proportion of business lines to residence lines is comparatively small. Phoenix South

[66] Revised per Qwest's response to DR 3.15

might have a very high proportion of residence lines since it has declined **[redacted]** in residence lines but is at **[redacted]** in market share. The type of loss can help give some context to the sustainability of the competitive presence. For example, 9 wire centers had business or residence declines for Qwest greater than **[redacted]** during the three year period but have no facilities bypass CLECs. Does that seem possible? Studying this further you see that all 9 wire centers are in UNE Zone 3. Some judgment must then be given to the sustainability of the competitive activity given the uncertainty of competition based on Resale and UNE options. The timing of the information may be highlighted by the Phoenix Main data. Notice that the business and residence line declines from 2000 to 2003 are **[redacted]** and **[redacted]** respectively, while Qwest's market share is **[redacted]** How is that possible? Absent data concerns, one answer is that a considerable amount of competition in Phoenix Main occurred between 1996 and 2000, previous to the three year period of 2000 to 2003. Given the early focus on business by CLECs, it is logical to assume that wire centers dominated by business lines may be reaching or have reached a competitive steady-state. There is a point, however, at which data concerns regarding the translation of LIS trunks to line loss estimates must be considered. The San Manuel wire center, for example, indicates a CLEC market share of **[redacted]** San Manuel also happens to be 1 of only 3 wire centers with facilities competition in the 19 wire centers with total Qwest lines of 5,000 or below. In the other two wire centers, Laveeen and Vail South, Qwest's business and residence line changes are positive over three year period, making San Manuel unique. Further analysis, discloses that **[redacted]** of the **[redacted]** line decline is attributable to the LIS trunk translation to facilities line loss estimate corresponding to one CLEC. This helps illustrate how information based on estimates can be problematic for analysis and raises the importance of proper context.

Q. Are there areas below the wire center level that could be considered as Qwest requests in its application?

A. As suggested in Qwest's application, Staff sought to understand the competitive situation pertaining to the identified housing developments. This effort helps illustrate the issues involved with non-traditional local exchange parameters. Staff issued a data request on August 19, 2004 to Qwest and the 10 CLECs identified in Qwest's May 20, 2004 application. Among the CLECs, only Cox responded in substantial form. All others answered that they were unable to track customers by housing development name[67].

Cox provided information related to 9 housing developments, 5 of which have agreements with Qwest. Qwest supplied information for 10 developments, 2 of which have agreements with Cox. Cox does not have customers in 10 of 15 developments in which Qwest has agreements. Qwest does not have customers in 12 of 14 developments in which Cox has agreements. While Qwest and Cox residence service figures are very similar, only Qwest reported serving business customers in any housing developments.

Limited information makes it impossible to analyze the competitive situation concerning housing developments, which may have signed preferred marketing and/or limited operating agreements with either Cox or Qwest. A few points stand out. (1) Cox and Qwest appear to be serving a similar number of housing developments with preferred agreements that do not preclude competitive offerings but may constrain marketing efforts by other CLECs. (2) Both Cox and Qwest appear to be making efforts to compete for customers in housing developments[68] in which they do not have preferred agreements, not just developments in which they do have preferred agreements. (3) Many of the housing developments with preferred agreements appear to be in early stages of development and are not being served by either Cox or Qwest at this time.

[67] Housing development names were provided by Qwest in response to DR 3.10
[68] Qwest did not provide copies of housing agreements in response to STF 20.3

While Staff intends to open a generic docket to examine the issue of preferred provider agreements, Staff sees no reason why Qwest should not be allowed to seek competitive designations for smaller locations such as housing developments, subject to the limitations and concerns noted in Mr. Rowell's testimony.

Q. Please summarize your concerns regarding the classification of competitive zones based only upon the presence of a competitor in a wire center, as proposed by Qwest?

A. The wire center information available from Qwest might lead to some conclusions if evaluated on a standalone basis but in the context of additional information, conclusions become difficult. Here are a few examples.

My wire center level analysis based on information provided by Qwest identified one wire center with an HHI of 1,319 – Phoenix Main. Given my earlier discussion of HHIs, Phoenix Main would appear to be an ideal candidate for competitive zone classification, however, closer inspection of the Phoenix Main information begins to raise questions. The composition of CLECs in Phoenix Main is heavily skewed towards facilities bypass competition making the LIS trunk estimate translation to lines especially important. The first observation from Exhibit AFF-21[69] that must be noted is the number of CLECs with significant numbers of lines which are included in Phoenix Main as facilities providers but not participating in end-user local exchange service - Level 3, Intermedia, and Winstar, for example. These three constitute a total estimate of **[redacted]** in Qwest's wire center competitive loss information. Global Crossing is shown as having **[redacted]** lines but does not appear in the listing data at all. North County is shown as having **[redacted]** lines but indicated directly to Staff that it does not provide end-user services. Pac-West is shown as having **[redacted]** lines but has only **[redacted]** main listings. While it may be

[69] CLEC names in Exhibit AFF-20 are shown as included in the Qwest data response to RUCO DR#2

possible, Pac-West's **[redacted]** ratio of total lines to main lines is difficult to accept without supporting information. Just by examining more closely the type of competition raises questions about **[redacted]** facilities bypass lines or **[redacted]** of the entire facilities bypass estimate.

Utilizing the zip code information provided by five key competitors – Cox, AT&T[70], MCI, Mountain Tel and Eschelon – adds more context. Notice in Exhibit AFF-21 that the facilities bypass estimated figures for these five CLECs totals **[redacted]**. By comparison, the zip code information provided by the five CLECs and mapped to the Phoenix Main zip codes[71] totals only **[redacted]** (Exhibit AFF-22), a reduction of **[redacted]** lines.

By examining more closely the type of competitors and considering the zip code information submitted by only five CLECs, **[redacted]** of the total wire center competitive figures from Qwest are drawn into question. This helps illustrate the analysis value that could be gained by *all* CLECs providing zip code level information. At issue is not which estimate methodology is most useful but that more than one methodology must be used when exact figures are not available. The Qwest wire center information is, perhaps, based on too broad[72] an estimate without exactness for the type of competition.

Exhibit AFF-22

Phoenix Main Wire Center

[70] AT&T only provided residence lines by zip code
[71] Wire center zip code definitions provided by Qwest in response to STF 33.1
[72] Qwest used a translation figure of 2.75 which could be as high as 10. "...this is a conservative assumption...a single trunk can support up to approximately 10 facilities-based lines (source: UNE Fact Report, Section III, P. 14, May 26, 1999)"

Zip Code	Percentage of Sqmiles of Zipcode within Wire Center	Non-Q bus & res lines	Derived non-Q bus & res lines
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
		[redacted]	[redacted]

I can offer examples that highlight potential candidates for competitive zones that are not easily identified by the Qwest wire center information. The Higley wire center has an HHI of 6,259 based on Qwest's wire center information. The zip code referenced above, however, when mapped against Higley's zip codes yields surprising results. Qwest's wire center information suggests a market share loss of **[redacted]** but the zip code information, even in limited form, suggests Qwest has lost **[redacted]** share. While the estimated information based on LIS trunks used for Phoenix Main may have been too high, the estimated information for Higley may be too low.

Exhibit AFF-23

Higley Wire Center

Zip Code	Percentage of Sqmiles of Zipcode within Wire Center	Non-Q bus & res lines	Derived non-Q bus & res lines
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
			[redacted]

Another example illustrates the most powerful value that may be gained from the zip code information. Consider the wire center analysis dilution that occurs when a highly competitive area is spread across more than one wire center. Such appears to be the case for Vail North, in southeast Tucson metro. Using Qwest's wire center information, Vail North only has an HHI of 9,756 with a market share loss of [redacted]. This would appear to suggest that Vail North is far from competitive. Qwest does not even appear to believe that Cox has a competitive presence in Vail North[73]. The available zip code information, however, discloses that Qwest *may have* a share loss of [redacted] in Vail North. The zip codes that have the greatest impact on Vail North's data are [redacted], [redacted] and [redacted]. These zip codes are found in a total of 9 wire centers dramatizing the importance of analyzing information in a non-traditional, non-ILEC manner.

Exhibit AFF-24

Vail North Wire Center

Zip Code	Percentage of Sqmiles of Zipcode within Wire Center	Non-Q bus & res lines	Derived non-Q bus & res lines
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
			[redacted]

[73] Qwest exhibit DLT-17

Despite devoting considerable effort to the zip code approach, I would like to emphasize no approach is perfect. Like wire centers, zip codes vary greatly in size and estimates would still result from the mapping of information across wire centers. The most important factor is ensuring that all CLECs supply information based on service address zip codes, not billing address zip codes. It is my belief, however, that the results are more likely to truly reflect market conditions, and offer a means to include emerging technologies, such as Wireless and VoIP.

Q. What is your recommendation for continuing measurement and analysis of competitive zones?

A. I have presented analysis in my testimony from various sources to lend the most context possible to the competitive situation. I believe, however, that much greater confidence and reliability could be added by moving from traditional ILEC geographic boundaries to a relatively simple measure used not only in telecommunications but in all industries – zip codes. I recommend the following actions.

(1) With the availability of local exchange business and residence customers and corresponding local exchange business and residence access lines by service address zip codes, a comprehensive geographic analysis could be conducted including data from Qwest, CLECs and even Wireless[74] providers adding increased confidence and certainty to any decision made by the Commission regarding competitive zones. The zip code information could be aggregated at any level needed to support Commission decisions.

(2) This methodology could be put in place to facilitate future competitive zone considerations by adding the submission of service address zip code level information to the existing annual report requirements of all providers.

[74] Only billing zip codes are known to be available for Wireless service.

(3) I also recommend continuing analysis of listings information as illustrated earlier in my testimony to provide a broad perspective of the competitive situation based on end-user information. As described earlier, the listings information is essentially a 100 percent sample of the end-user customer base and could be available for analysis at convenient periods co-incident with updates required for operational needs driven by customer listing submissions from ILECs and CLECs.

(4) I also recommend that consideration be given to tracking MOUs. Analysis of the competitive situation can be most proactive when done with leading indicators. Revenues and lines provide critical information but are really lagging indicators. For a multitude of reasons, customers may subscribe to a mix of ILEC, CLEC, Wireless and, perhaps even, VoIP services. Real-time usage of such services, however, is a leading indicator of the value placed on services by end-users. For example, even if local exchange lines are not currently being displaced by wireless, an increasing shift in MOUs, or usage, would strongly suggest a shift in value by end-users that should inevitably translate into line and revenue line shifts. Rather than just considering the competitive situation of local exchange services based on customer and line actuals, the Commission should have the option to consider if the value of local exchange services is shifting. This option, however, will require that providers track and make available usage information in a comparable format.

Q. Does this conclude your direct testimony?

A. Yes, it does.

EXHIBITS

AFF-1	CLECS in Listings Information
AFF-6	Switches & NPA-NXXs
AFF-9	HHI Estimates Based on Listings & Lines
AFF-11	HHI Estimates with Wireless
AFF-12	AT&T CallVantage^{SM} Service
AFF-13	Qwest OneFlex
AFF-15	Wire Centers with Facilities CLECs
AFF-16	Wire Centers without Facilities CLECs
AFF-17	Wire Centers with Resale & UNE CLECs
AFF-18	CLECs by Type of Competition
AFF-19	All Wire Centers with All Types of CLECs
AFF-20	Wire Center Summary by UNE Zone & Qwest Line Decline '00-'03
AFF-21	Phoenix Main Wire Center

EXHIBIT AFF-1 CLECs in Listings Information

Company Name

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

EXHIBIT AFF-6 Switches & NPA-NXXs

	DS Switches					Remote Switches				
	Phoenix 480	602	623	Tucson 520	Total DS Switches	Phoenix 480	602	623	Tucson 520	Total Remotes
Qwest	[redacted]									
AT&T	[redacted]									
Cox	[redacted]									
Eschelon	[redacted]									
MCI	[redacted]									
McLeodUSA	[redacted]									
SBC	[redacted]									
Sprint	[redacted]									
XO	[redacted]									
Xspedius	[redacted]									
Z Tel	[redacted]									
Totals	[redacted]									
Non-Qwest	[redacted]									

	NPA NXXs					
	480	602	623	520	Total NXXs	Ave NXXs per DS Switches & Remotes
Qwest	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
AT&T	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Cox	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Eschelon	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
MCI	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
McLeodUSA	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SBC	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Sprint	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
XO	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Xspedius	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Z Tel	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Totals	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Non-Qwest	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

EXHIBIT AFF-9 HHI Estimates Based on Listings & Lines

	HHI, based on listings	
	Business Mains	Residence Mains
Phoenix (480,602,623)	5,916	5,529
Tucson (520)	7,168	7,292

	Number of CLECs	
	Business Mains	Residence Mains
Phoenix (480,602,623)	30	35
Tucson (520)	23	26

	CLECs w >=0.1% share listings	
	Business Mains	Residence Mains
Phoenix (480,602,623)	15	7
Tucson (520)	13	6

EXHIBIT AFF-11 HHI Estimates with Wireless

Statewide HHI Based on Qwest Listings, CLECs Listings and Wireless estimates

	Business	Residence
HHI	3,825	4,747

Key Assumptions

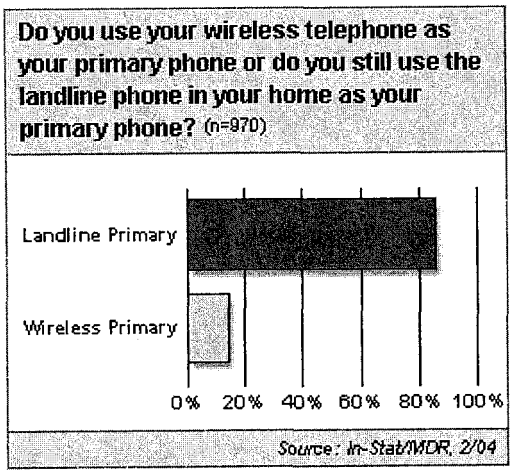
* 2,843,061 Wireless Subs per FCC
* 90% of Wireless Subs in Qwest areas
* Displacement 80% Residence
* Displacement 20% Business

Statewide HHI Based on Lines for Qwest, CLECs, & Wireless

HHI	3,624

Key Assumptions

* 2,843,061 Wireless Subs per FCC
* 30% additional line displacement
* 852,918 total line displacement



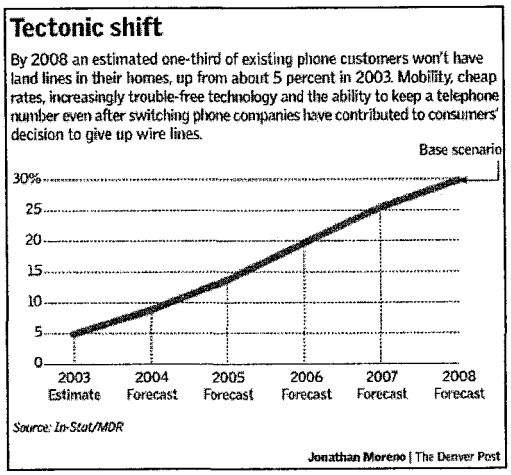


EXHIBIT AFF-12 AT&T CallVantage[SM] Service

From http://www.usa.att.com/callvantage/order/upcoming_markets.jsp

September 8, 2004

AT&T CallVantage[SM] Service numbers are available now in the following states.

Alabama	Nebraska
Arizona	New Hampshire
California	New Jersey
Colorado	New Mexico
Connecticut	New York
Delaware	North Carolina
Florida	Ohio
Georgia	Oklahoma
Illinois	Oregon
Indiana	Pennsylvania
Iowa	Rhode Island
Kansas	South Carolina
Kentucky	Tennessee
Louisiana	Texas
Maryland	Virginia
Massachusetts	Washington
Michigan	Washington DC
Minnesota	Wisconsin
Missouri	

EXHIBIT AFF-13 Qwest OneFlex

http://www.qwest.com/about/media/pressroom/1,1720,1550_archive,00.html?printVersion=1&xmlFilename=2004Jun231550&storyId=1550

June 23, 2004

Qwest OneFlex will be available to business customers in Boise, Idaho, Denver, Minneapolis and Phoenix in mid-July. By the end of 2004, customers in the following metropolitan areas will also have the benefits of Qwest OneFlex:

- Albuquerque, N.M.
- Baltimore
- Billings, Mont.
- Bismarck, N.D.
- Boston
- Casper, Wyo.
- Chicago
- Columbus, Ohio
- Des Moines, Iowa
- Los Angeles
- New York
- Omaha, Neb.
- Orange County, Calif.
- Philadelphia
- Portland, Ore.
- Salt Lake City
- San Diego
- San Francisco
- San Jose, Calif.
- Seattle
- Sioux Falls, S.D.
- Washington, D.C.

Qwest will continue to expand OneFlex to additional markets in 2005.

EXHIBIT AFF-15 Wire Centers with Facilities CLECs

Area	Wire Center	CLLI	# of Facilities CLECs
Tucson	TUCSON-MAIN	TCSNAZMA	[redacted]
Tucson	TUCSON-EAST	TCSNAZEA	[redacted]
Tucson	CATALINA	TCSNAZCA	[redacted]
Tucson	CORTARO	TCSNAZCO	[redacted]
Tucson	CRAYCROFT	TCSNAZCR	[redacted]
Tucson	FLOWING-WELLS	TCSNAZFW	[redacted]
Tucson	GREEN VALLEY	GNVYAZMA	[redacted]
Tucson	RINCON	TCSNAZRN	[redacted]
Tucson	TANQUE VERDE	TCSNAZTV	[redacted]
Tucson	TUCSON-NORTH	TCSNAZNO	[redacted]
Tucson	TUCSON-SOUTH	TCSNAZSO	[redacted]
Tucson	CORONADO	CRNDAZMA	[redacted]
Tucson	TUCSON SOUTHWEST	TCSNAZSW	[redacted]
Tucson	TUCSON SE	TCSNAZSE	[redacted]
Tucson	VAIL SOUTH	VAILAZSO	[redacted]
Phoenix	PHOENIX-MAIN	PHNXAZMA	[redacted]
Phoenix	PHOENIX-SOUTHEAST	PHNXAZSE	[redacted]
Phoenix	PHOENIX-NORTH	PHNXAZNO	[redacted]
Phoenix	SCOTTSDALE	SCDLAZMA	[redacted]
Phoenix	TEMPE-MAIN	TEMPAZMA	[redacted]
Phoenix	PHOENIX-CACTUS	PHNXAZCA	[redacted]
Phoenix	PHOENIX-GREENWAY	PHNXAZGR	[redacted]
Phoenix	PHOENIX-SUNNYSLOPE	PHNXAZSY	[redacted]
Phoenix	TEMPE-MCCLINTOCK	TEMPAZMC	[redacted]
Phoenix	BEARDSLEY	BRDSAZMA	[redacted]
Phoenix	GILBERT	MESAAZGI	[redacted]
Phoenix	GLENDALE-MAIN	GLDLAZMA	[redacted]
Phoenix	MESA-MAIN	MESAAZMA	[redacted]
Phoenix	PHOENIX-EAST	PHNXAZEA	[redacted]
Phoenix	PHOENIX-MID RIVERS	PHNXAZMR	[redacted]
Phoenix	PHOENIX-NORTHEAST	PHNXAZNE	[redacted]
Phoenix	PHOENIX-PEORIA	PHNXAZPR	[redacted]
Phoenix	SUPERSTITION-WEST	SPRSAZWE	[redacted]
Phoenix	THUNDERBIRD	SCDLAZTH	[redacted]
Phoenix	CHANDLER-MAIN	CHNDAZMA	[redacted]
Phoenix	CHANDLER-WEST	CHNDAZWE	[redacted]
Phoenix	DEER VALLEY NORTH	DRVYAZNO	[redacted]
Phoenix	PHOENIX-BETHANY WEST	PHNXAZBW	[redacted]

Area	Wire Center	CLLI	# of Facilities CLECs
Phoenix	PHOENIX-MARYVALE	PHNXAZMY	[redacted]
Phoenix	PHOENIX-NORTHWEST	PHNXAZNW	[redacted]
Phoenix	PHOENIX-SOUTH	PHNXAZSO	[redacted]
Phoenix	PHOENIX-WEST	PHNXAZWE	[redacted]
Phoenix	PINNACLE PEAK	PRVYAZPP	[redacted]
Phoenix	SHEA	SCDLAZSH	[redacted]
Phoenix	SUPERSTITION-MAIN	SPRSAZMA	[redacted]
Phoenix	CAVE CREEK	CVCKAZMA	[redacted]
Phoenix	CHANDLER-SOUTH	CHNDAZSO	[redacted]
Phoenix	COLDWATER	GDYRAZCW	[redacted]
Phoenix	LITCHFIELD PARK	LTPKAZMA	[redacted]
Phoenix	SUPERSTITION-EAST	SPRSAZEA	[redacted]
Phoenix	FORT MCDOWELL	FTMDAZMA	[redacted]
Phoenix	PHOENIX-PECOS	PHNXAZPP	[redacted]
Phoenix	HIGLEY	HGLYAZMA	[redacted]
Phoenix	PHOENIX-FOOTHILLS	PHNXAZ81	[redacted]
Phoenix	TOLLESON	TLSNAZMA	[redacted]
Phoenix	HGLY QUEEN CREEK	HGLYAZQC	[redacted]
Phoenix	NEW RIVER	NWRVAZMA	[redacted]
Phoenix	BUCKEYE	BCKYAZMA	[redacted]
Phoenix	PHOENIX-LAVEEN	PHNXAZLV	[redacted]
Phoenix	CASA GRANDE	CSGRAZMA	[redacted]
Phoenix	SAN MANUEL	SNMNAZMA	[redacted]
Other	SUNRISE	AGFIAZSR	[redacted]
Other	FLAGSTAFF EAST	FLGSAZEA	[redacted]
Other	FLAGSTAFF MAIN	FLGSAZMA	[redacted]
Other	SIERRA VISTA-MN	SRVSAZMA	[redacted]
Other	YUMA FORTUNA	YUMAAZFT	[redacted]
Other	YUMA-MAIN	YUMAAZMA	[redacted]
Other	YUMA-SOUTHEAST	YUMAAZSE	[redacted]
Other	CHINO VALLEY	CHVYAZMA	[redacted]
Other	NOGALES MIDWAY	NGLSAZMW	[redacted]
Other	PRESCOTT MAIN	PRSCAZMA	[redacted]
Other	SIERRA VISTA SO	SRVSAZSO	[redacted]
Other	COTTONWOOD-MAIN	CTWDAZMA	[redacted]
Other	SEDONA-MAIN	SEDNAZMA	[redacted]
Other	MUNDS PARK	MSPKAZMA	[redacted]
Other	PAYSON	PYSNAZMA	[redacted]
Other	SAFFORD	SFFRAZMA	[redacted]

EXHIBIT AFF-16 Wire Centers without Facilities CLECs

Area	Wire Centers	CLLI
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]
[redacted]	[redacted]	[REDACTED]

EXHIBIT AFF-17 Wire Centers with Resale & UNE CLECs

Area	Wire Center	CLLI	UNE-L CLECs	UNE-P CLECs	Resale CLECs
Phoenix	Cactus (Phoenix)	PHNXAZCA	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix Main	PHNXAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix Northeast	PHNXAZNE	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix North	PHNXAZNO	[redacted]	[redacted]	[redacted]
Phoenix	McClintock (Tempe)	TEMPAZMC	[redacted]	[redacted]	[redacted]
Phoenix	Peoria (Phoenix)	PHNXAZPR	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix South	PHNXAZSO	[redacted]	[redacted]	[redacted]
Phoenix	Mesa	MESAAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Sunnyslope (Phoenix)	PHNXAZSY	[redacted]	[redacted]	[redacted]
Phoenix	Scottsdale Main	SCDLAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Thunderbird (Scottsdale)	SCDLAZTH	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix Southeast	PHNXAZSE	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix West	PHNXAZWE	[redacted]	[redacted]	[redacted]
Phoenix	Chandler West	CHNDAZWE	[redacted]	[redacted]	[redacted]
Phoenix	Gilbert (Mesa)	MESAAZGI	[redacted]	[redacted]	[redacted]
Phoenix	Deer Valley	DRVYAZNO	[redacted]	[redacted]	[redacted]
Phoenix	Super West	SPRSAZWE	[redacted]	[redacted]	[redacted]
Phoenix	Chandler Main	CHNDAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Tempe	TEMPAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix East	PHNXAZEA	[redacted]	[redacted]	[redacted]
Phoenix	Greenway (Phoenix)	PHNXAZGR	[redacted]	[redacted]	[redacted]
Phoenix	Glendale	GLDLAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Casa Grande	CSGRAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Maryvale (Phoenix)	PHNXAZMY	[redacted]	[redacted]	[redacted]
Phoenix	Beardsley	BRDSAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Super Main	SPRSAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix Northwest	PHNXAZNW	[redacted]	[redacted]	[redacted]

Area	Wire Center	CLLI	UNE-L CLECs	UNE-P CLECs	Resale CLECs
Phoenix	Shea (Scottsdale)	SCDLAZSH	[redacted]	[redacted]	[redacted]
Phoenix	Mid Rivers (Phoenix)	PHNXAZMR	[redacted]	[redacted]	[redacted]
Phoenix	Foothills	PHNXAZ81	[redacted]	[redacted]	[redacted]
Phoenix	Bethany West (Phoenix)	PHNXAZBW	[redacted]	[redacted]	[redacted]
Phoenix	Pecos (Phoenix)	PHNXAZPP	[redacted]	[redacted]	[redacted]
Phoenix	Queen Creek (Higley)	HGLYAZQC	[redacted]	[redacted]	[redacted]
Phoenix	Super East	SPRSAZEA	[redacted]	[redacted]	[redacted]
Phoenix	Coldwater (Goodyear)	GDYRAZCW	[redacted]	[redacted]	[redacted]
Phoenix	Pinnacle Peak	PRVYAZPP	[redacted]	[redacted]	[redacted]
Phoenix	Chandler South	CHNDAZSO	[redacted]	[redacted]	[redacted]
Phoenix	Ft. McDowell	FTMDAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Litchfield Park	LTPKAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Cave Creek	CVCKAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Higley	HGLYAZMA	[redacted]	[redacted]	[redacted]
Phoenix	New River	NWRVAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Tolleson	TLSNAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Buckeye	BCKYAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Laveen (Phoenix)	PHNXAZLV	[redacted]	[redacted]	[redacted]

Phoenix	Eloy	ELOYAZ01	[redacted]	[redacted]	[redacted]
Phoenix	Wickenburg	WCBGAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Coolidge	CLDGAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Maricopa	MRCPAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Gila Bend	GLBNAZMA	[redacted]	[redacted]	[redacted]
Phoenix	White Tanks	WHTKAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Circle City	CRCYAZNM	[redacted]	[redacted]	[redacted]
Phoenix	Florence	FLRNAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Rio Verde	FTMDAZNO	[redacted]	[redacted]	[redacted]
Phoenix	Oracle	ORCLAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Wintersburg	WNBGAZ01	[redacted]	[redacted]	[redacted]
Phoenix	Kearny	KRNYAZMA	[redacted]	[redacted]	[redacted]

Area	Wire Center	CLLI	UNE-L CLECs	UNE-P CLECs	Resale CLECs
Phoenix	Mammoth	MMTHAZMA	[redacted]	[redacted]	[redacted]
Phoenix	San Manuel	SNMNAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Superior	SPRRAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Stanfield	STFDAZMA	[redacted]	[redacted]	[redacted]
Phoenix	Dudleyville	DDVLAZNM	[redacted]	[redacted]	[redacted]
Phoenix	Whitlow	WHTLAZMA	[redacted]	[redacted]	[redacted]
Tucson	Tucson Main	TCSNAZMA	[redacted]	[redacted]	[redacted]
Tucson	Craycroft (Tucson)	TCSNAZCR	[redacted]	[redacted]	[redacted]
Tucson	Flowing Wells (Tucson)	TCSNAZFW	[redacted]	[redacted]	[redacted]
Tucson	Rincon (Tucson)	TCSNAZRN	[redacted]	[redacted]	[redacted]
Tucson	Tucson South	TCSNAZSO	[redacted]	[redacted]	[redacted]
Tucson	Tucson East	TCSNAZEA	[redacted]	[redacted]	[redacted]
Tucson	Tucson North	TCSNAZNO	[redacted]	[redacted]	[redacted]
Tucson	Catalina (Tucson)	TCSNAZCA	[redacted]	[redacted]	[redacted]
Tucson	Cortaro (Tucson)	TCSNAZCO	[redacted]	[redacted]	[redacted]
Tucson	Tucson Southeast	TCSNAZSE	[redacted]	[redacted]	[redacted]
Tucson	Coronado	CRNDAZMA	[redacted]	[redacted]	[redacted]
Tucson	Tanque Verde (Tucson)	TCSNAZTV	[redacted]	[redacted]	[redacted]
Tucson	Tucson Southwest	TCSNAZSW	[redacted]	[redacted]	[redacted]
Tucson	Green Valley	GNVYAZMA	[redacted]	[redacted]	[redacted]
Tucson	Marana	MARNAZMA	[redacted]	[redacted]	[redacted]
Tucson	Tucson West	TCSNAZWE	[redacted]	[redacted]	[redacted]
Tucson	Vail South	VAILAZSO	[redacted]	[redacted]	[redacted]
Tucson	Vail North	VAILAZNO	[redacted]	[redacted]	[redacted]
Tucson	Mt. Lemmon (Tucson)	TCSNAZML	[redacted]	[redacted]	

EXHIBIT AFF-18 CLECs by Type of Competition

CLEC Name	Type of Competition				
	Facilities	UNE-L	UNE-P	Resale	All
1-800-RECONEX Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
ACN Communications Services Inc	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Allegiance Telecom Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Arizona Dial Tone	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
AT&T	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Brooks Fiber Communications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Budget Phone Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Buy-Tel Communications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CapRock Telecommunications Corp.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Comm South Companies Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Cox Telcom L.L.C.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Cypress Communications	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
DPI Teleconnect L.L.C.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Electric Lightwave, Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Ernest Communications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Eschelon Telecom Inc	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Excel Telecommunications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Global Crossing Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Granite Telecommunications LLC	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Intermedia Communications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
KMC Telecom Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Level 3 Communications LLC	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
MCI	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
McLeodUSA	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Mountain Telecommunications	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
North County Communications	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
NOS Communications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Pac-West Telecomm Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Preferred Carrier Services Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Quality Telephone	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
QuantumShift Communications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Regal Telephone Company	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SBC Telecom Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
ServiSense.Com Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Sprint Communications Company L.P.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Tel West Communications LLC	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Time Warner Telecom Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VarTec Telecom Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Verizon Avenue	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Winstar Communications LLC	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
XO Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Xspedius Communications	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Z-Tel Communications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

EXHIBIT AFF-19 All Wire Centers with All Types of CLECs

			Number of CLECs			
Area	Wire Center	CLLI Code	UNE-L	UNE-P	Resale	Facilities
Phoenix	Buckeye	BCKYAZMARS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Beardsley	BRDSAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Chandler Main	CHNDAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Chandler South	CHNDAZSODS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Chandler West	CHNDAZWEDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Coolidge	CLDGAZMARS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Circle City	CRCYAZNMRS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Casa Grande	CSGRAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Cave Creek	CVCKAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Dudleyville	DDVLAZNMRS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Deer Valley	DRVYAZNODS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Eloy	ELOYAZ01RS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Florence	FLRNAZMARS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Ft. McDowell	FTMDAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Rio Verde	FTMDAZNORS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Coldwater (Goodyear)	GDYRAZCWDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Gila Bend	GLBNAZMARS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Glendale	GLDLAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Higley	HGLYAZMADS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Queen Creek (Higley)	HGLYAZQCDS2	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Kearny	KRNYAZMARS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Litchfield Park	LTPKAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Gilbert (Mesa)	MESAAZGIDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Mesa	MESAAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Mammoth	MMTHAZMARS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Maricopa	MRCPAZMARS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	New River	NWRVAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Oracle	ORCLAZMARS1	[redacted]	[redacted]	[redacted]	[redacted]

			Number of CLECs			
Area	Wire Center	CLLI Code	UNE-L	UNE-P	Resale	Facilities
Phoenix	Foothills	PHNXAZ81DS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Bethany West (Phoenix)	PHNXAZBWDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Cactus (Phoenix)	PHNXAZCADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix East	PHNXAZEADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Greenway (Phoenix)	PHNXAZGRDS0	[redacted]	[redacted]	[redacted]	[redacted]

Phoenix	Laveen (Phoenix)	PHNXAZLVDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix Main	PHNXAZMADS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Mid Rivers (Phoenix)	PHNXAZMRDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Maryvale (Phoenix)	PHNXAZMYDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix Northeast	PHNXAZNEDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix North	PHNXAZNODS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix Northwest	PHNXAZNWDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Pecos (Phoenix)	PHNXAZPPDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Peoria (Phoenix)	PHNXAZPRDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix Southeast	PHNXAZSEDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix South	PHNXAZSODS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Sunnyslope (Phoenix)	PHNXAZSYDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Phoenix West	PHNXAZWEDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Pinnacle Peak	PRVYAZPPDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Scottsdale Main	SCDLAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Shea (Scottsdale)	SCDLAZSHDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Thunderbird (Scottsdale)	SCDLAZTHDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	San Manuel	SNMNAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Superior	SPRRAZMARS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Super East	SPRSAZEADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Super Main	SPRSAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Super West	SPRSAZWEDS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Stanfield	STFDAZMARS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Tempe	TEMPAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	McClintock (Tempe)	TEMPAZMCDS0	[redacted]	[redacted]	[redacted]	[redacted]

			Number of CLECs			
Area	Wire Center	CLLI Code	UNE-L	UNE-P	Resale	Facilities
Phoenix	Tolleson	TLSNAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Wickenburg	WCBGAZMARS1	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	White Tanks	WHTKAZMARS2	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Whitlow	WHTLAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix	Wintersburg	WNBGAZ01RS1	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Coronado	CRNDAZMADS1	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Green Valley	GNVYAZMADS0	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Marana	MARNAZMARS1	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Catalina (Tucson)	TCSNAZCADS0	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Cortaro (Tucson)	TCSNAZCODS0	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Craycroft (Tucson)	TCSNAZCRDS0	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Tucson East	TCSNAZEADS0	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Flowing Wells (Tucson)	TCSNAZFWDS0	[redacted]	[redacted]	[redacted]	[redacted]

Tucson	Tucson Main	TCSNAZMADS1	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Mt. Lemmon (Tucson)	TCSNAZMLRS2	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Tucson North	TCSNAZNODS0	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Rincon (Tucson)	TCSNAZRNDS0	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Tucson Southeast	TCSNAZSEDS0	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Tucson South	TCSNAZSODS0	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Tucson Southwest	TCSNAZSWDS0	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Tanque Verde (Tucson)	TCSNAZTVDS0	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Tucson West	TCSNAZWERS1	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Vail North	VAILAZNORS1	[redacted]	[redacted]	[redacted]	[redacted]
Tucson	Vail South	VAILAZSODS0	[redacted]	[redacted]	[redacted]	[redacted]

EXHIBIT AFF-20 Wire Center Summary by UNE Zone & Qwest Line Decline '00-'03

All figures based on line information from DLT-17 or RUCO DR2

Requested Competitive Zone Wire Centers	WC Area	UNE Zone	Q Total Lines 12/03	Q Line Change 12/00- 12/03 (DLT-17) Bus	Q Line Change 12/00- 12/03 (DLT-17) Res	Q Market Share of Lines (RUCO) Bus & Res	Ave UNE & Resale CLECs	# of Bypass CLECs
Phoenix North	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
McClintock (Tempe)	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix Northeast	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Tempe	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Pecos (Phoenix)	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Mesa	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Cactus (Phoenix)	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix Northwest	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix West	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Glendale	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix Main	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Sunnyslope (Phoenix)	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Scottsdale Main	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix East	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix South	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Greenway (Phoenix)	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Thunderbird (Scottsdale)	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Chandler West	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Maryvale (Phoenix)	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Mid Rivers (Phoenix)	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Phoenix Southeast	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Foothills	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Super West	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Shea (Scottsdale)	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Peoria (Phoenix)	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Gilbert (Mesa)	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Chandler Main	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Deer Valley	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Bethany West (Phoenix)	Phoenix	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Ft. McDowell	Phoenix	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Super Main	Phoenix	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Casa Grande	Phoenix	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Super East	Phoenix	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Coldwater (Goodyear)	Phoenix	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Cave Creek	Phoenix	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Chandler South	Phoenix	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Beardsley	Phoenix	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Pinnacle Peak	Phoenix	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Litchfield Park	Phoenix	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Tolleson	Phoenix	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
San Manuel	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Wintersburg	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Circle City	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Whitlow	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Wickenburg	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Mammoth	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
New River	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Superior	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Eloy	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Kearny	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Oracle	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Gila Bend	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Coolidge	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Florence	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Stanfield	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Dudleyville	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Laveen (Phoenix)	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Buckeye	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
White Tanks	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Higley	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Maricopa	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Rio Verde	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Queen Creek (Higley)	Phoenix	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Tucson Main	Tucson	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Tucson East	Tucson	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Rincon (Tucson)	Tucson	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Craycroft (Tucson)	Tucson	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Tucson South	Tucson	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Catalina (Tucson)	Tucson	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Tucson North	Tucson	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Flowing Wells (Tucson)	Tucson	1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Tanque Verde (Tucson)	Tucson	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Tucson West	Tucson	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Green Valley	Tucson	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Cortaro (Tucson)	Tucson	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Coronado	Tucson	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Tucson Southeast	Tucson	2	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Mt. Lemmon (Tucson)	Tucson	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Tucson Southwest	Tucson	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Marana	Tucson	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Vail North	Tucson	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Vail South	Tucson	3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

EXHIBIT AFF-21 Phoenix Main Wire Center

CLEC_NAME	Estimated CLEC - Owned Lines (Dec 2003)	UNE-L	UNE-P	Resale	Totals
ACN Communications Services Inc	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Allegiance Telecom Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Arizona Dial Tone	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
AT&T	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
AT&T Communications, Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
AT&T Local Service (fka TCG)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Budget Phone Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
CapRock Telecommunications Corp.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Comm South Companies Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Cox Telcom L.L.C.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
DPI Teleconnect L.L.C.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Electric Lightwave, Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Ernest Communications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Eschelon Telecom Inc	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Excel Telecommunications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Global Crossing Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Global Crossing Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Granite Telecommunications LLC	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Intermedia Communications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Level 3 Communications LLC	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
MCI	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
MCImetro Access Transmission Services LLC	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
McLeod	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
McLeodUSA	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
McLeodUSA Telecommunications Services Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Mountain Telecommunications	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
North County Communications	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
NOS Communications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Pac-West Telecomm Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Preferred Carrier Services Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Quality Telephone	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
QuantumShift Communications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Regal Telephone Company	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SBC Telecom Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CLEC_NAME	Estimated CLEC - Owned Lines (Dec 2003)	UNE-L	UNE-P	Resale	Totals
Sprint Communications Company L.P.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Tel West Communications LLC	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Time Warner Telecom Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VarTec Telecom Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Winstar Communications LLC	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
XO Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Z-Tel Communications Inc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Qwest	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

SMITH

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN K. MAYES
Commissioner

IN THE MATTER OF QWEST CORPORATION'S FILING OF RENEWED PRICE REGULATION PLAN	)	DOCKET NO. T-01051B-03-0454
IN THE MATTER OF THE INVESTIGATION OF THE COST OF TELECOMMUNICATIONS ACCESS	)	DOCKET NO. T-00000D-00-0672

DIRECT

TESTIMONY

OF

DEL SMITH

UTILITIES ENGINEER SUPERVISOR

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

NOVEMBER 18, 2004

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EXECUTIVE SUMMARY
QWEST CORPORATION
DOCKET NOS. T-01051B-03-0454 & T-00000D-00-0672

My Testimony regarding Qwest's service quality is organized into three sections and discusses Qwest performance during the initial term of the Price Cap Plan and makes certain recommendations intended to benefit customers by providing incentives for Qwest to maintain, if not improve, the levels of performance it has attained. The first section provides an overview of the history of Qwest's Service Quality Plan Tariff. Section two discusses Section 5 of the Price Cap Plan Settlement Agreement which addresses service quality and performance penalties included in the Service Quality Plan Tariff. In the third section, I address additional service quality performance measurements that provide insight as to how Qwest has performed during the initial term of the Price Cap Plan.

Staff has reservations concerning Qwest's ongoing performance after May 2003 for Residence Office Access due to the number of months a penalty has been incurred. While the trend for Repair Office Access shows a negative trend, results remain well above a level where penalties would be accessed. When the five categories (Held Orders, Out-of-Service Repair, Residence Office Access, Business Office Access and Repair Office Access) are viewed collectively, Staff believes that, from a penalty perspective, a conclusion can be reached that Qwest service quality for these categories has not diminished, and overall has improved, during the initial term of the Price Cap Plan. In addition, Staff believes that its review of performance data relating to billing credits, fee waivers, customer trouble reports and Commission complaints also indicates that Qwest service quality for these categories has not diminished, and overall has also improved, during the initial term of the Price Cap Plan.

Staff recommends that the current one-time credit penalty of $2.00 for each residence and business access line be continued and that conforming language be added to Qwest's Service Quality Plan Tariff. Second, Staff recommends certain technical adjustments to the penalty ranges for Residence Office Access, Business Office Access and Repair Office Access. Third, Staff recommends that a total company customer trouble objective be established and included in the Service Quality Plan Tariff. Finally, Staff recommends that all provisions of the Service Quality Plan Tariff not modified by recommendations in this Testimony be included in any renewal of the Price Cap Plan by the Commission.

Introduction

Q. Please state your name and business address.

A. My name is Del Smith. My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. By whom are you employed and what is your position?

A. I am employed by the Arizona Corporation Commission (the "Commission") in its Utilities Division. My title is Utilities Engineer Supervisor.

Q. Briefly describe your responsibilities as a Utilities Engineer Supervisor.

A. In my capacity as a Utilities Engineer Supervisor, I provide recommendations and technical assistance to the Commissioners and to other staff members on matters that come before the Commission involving Qwest Corporation ("Qwest") and other telecommunications service providers operating in the State. In addition, I am responsible for supervising other staff members who work in the Engineering Section of the Utilities Division.

Q. Please describe your educational background and professional experience.

A. I graduated from Arizona State University in 1976 with a Bachelor of Science Degree in Engineering Technology. Prior to joining the Commission in 1985 as a Utilities Consultant, I had worked for a telephone operating company for twelve years where I held positions in network planning and design. Since joining the Commission, I have worked on hundreds of issues that have come before this Commission including Qwest's last rate application which resulted in the initial Qwest Price Cap Plan.

Q. What is the scope of your testimony in this case?

A. I will review Qwest's retail service quality during the initial term of the Price Cap Plan.

Q. Have you reviewed the Notice of Filing Renewed Price Regulation Plan submitted by Qwest in this case?

A. Yes.

Summary of Testimony and Recommendations

Q. Briefly discuss how your Testimony addressing service quality is organized.

A. My Testimony regarding Qwest's service quality is organized into three sections. The first section provides an overview of the history of Qwest's Service Quality Plan Tariff. The second Section of my testimony discusses Section 5 of the Price Cap Plan Settlement Agreement which addresses service quality and performance penalties included in the Service Quality Plan Tariff. In the third section, I address additional service quality performance measurements that provide insight as to how Qwest has performed during the initial term of the Price Cap Plan.

Q. Please summarize your recommendations as they pertain to service quality.

A. First, Staff recommends that the current one-time credit penalty of $2.00 for each residence and business access line be continued and that conforming language be added to Qwest's Service Quality Plan Tariff. Second, Staff recommends certain technical adjustments to the penalty ranges for Residence Office Access, Business Office Access and Repair Office Access. Third, Staff recommends that a total company customer trouble objective be established and included in the Service Quality Plan Tariff. Finally, Staff recommends that all provisions of the Service Quality Plan Tariff not modified by

recommendations in this Testimony be included in any renewal of the Price Cap Plan by the Commission.

History of Qwest's Service Quality Plan Tariff

Q. What is the purpose of Qwest's Service Quality Plan Tariff?

A. In 1995, the Commission approved the Service Quality Plan Tariff in Decision Nos. 59147 and 59421. The tariff established several quality of service objectives for U S West (n/k/a Qwest), to meet. U S West telephone service was problematic and the Tariff was designed to improve the quality of service received by customers of the Company. The Tariff lists definitions to be used, and sets out records requirements, complaints and appeals procedures, billing requirements, construction standards, network standards and service requirements. The Tariff specifies penalties, through customer credits and fee waivers, which will be imposed if the requirements of the Tariff are not met. Additionally, the Tariff specifies penalties that will be paid to the State Treasury should certain service quality performance criteria not be met.

Q. Please briefly describe Section 2.6 of Qwest's Service Quality Plan Tariff.

A. Section 2.6 of Qwest's Service Quality Plan Tariff defines five (5) performance categories and their respective performance metrics and penalty levels. The performance categories are: 1) Held Orders, 2) Out-of-Service Repair, 3) Residence Office Access, 4) Business Office Access and 5) Repair Office Access.

Q. Please provide a brief explanation of the five (5) performance categories.

A. A held order is an establishment for service which is not filled by the due date because of the inability of the company to supply service. In Section 2.6, total held orders are tracked as a percentage of working access lines.

Qwest is required to clear 85 percent of all out-of-service trouble reports within 24 hours per its Service Quality Plan Tariff. An out-of-service trouble report is where the customer's service quality has deteriorated to such an extent that the customer cannot originate or receive calls. Section 2.6 tracks the percent of out-of-service trouble reports cleared in less than 24 hours.

Calls directed to published telephone numbers for service repair or the business offices of the Company shall be answered by an operator within 20 seconds for 80 percent of all such calls. Section 2.6 tracks the percent of calls answered within 20 seconds to the Residence Office, the Business Office and the Repair Office.[1]

Q. Please describe the revision that was made to the tariff.

A. Prior to the initial term of the Price Cap Plan, the Service Quality Plan Tariff was revised to provide for the doubling of some penalties if certain service quality performance standards were not met for two consecutive years. This provision was added when the Commission approved the merger of U S West and Qwest. Specifics are contained in Section 2.6.1.E of the Service Quality Plan Tariff.

Service Quality and Section 5 of the Price Cap Plan Settlement Agreement

Q. Does the Settlement Agreement in Qwest's last general rate case address service quality and Qwest's Service Quality Plan Tariff?

A. Yes. Section 5 of the Settlement Agreement addresses service quality. In particular, this section provides for additional customer credits should certain performance criteria not be met. The section also documents a commitment by Qwest to implement additional employee training programs with respect to new technologies and service improvements.

[1] For further explanation of each of the five performance categories and what is being measured refer to Sections 2.1, 2.5.5.B.3, 2.5.6.B and 2.6.1.F through J of Qwest's Service Quality Plan Tariff.

Q. Did the Price Cap Plan Settlement Agreement establish an additional new penalty criteria and what was the purpose of adding the additional penalty criteria?

A. Yes. Section 5 of the Settlement Agreement contains a provision that implements additional one-time credits of $2.00 for each residence and business access line due to having paid Service Quality Plan penalty payments in two or more categories in one calendar year. The primary intent of this new criteria was to provide a benefit to customers by incenting Qwest to consistently maintain its service quality during the initial term of the Price Cap Plan.

Q. In terms of penalty payments, what has Qwest's performance been in the calendar years in which the Price Cap Plan has been in effect?

A. Annual Service Quality Plan penalty payments paid by Qwest are listed in the following table. Calendar year 2000, which is prior to the start of the Price Cap Plan, is included for reference and calendar year 2004 is through June 30th.

Category	2000	2001	2002	2003	2004
Held Order	365,000	0	0	0	0
Out-of-Service	153,000	0	0	0	0
Residence Office Access	0	454,000	0	153,000	121,000
Business Office Access	0	0	0	0	0
Repair Office Access	0	0	0	0	0
Total	518,000	454,000	0	153,000	121,000

Q. Was Qwest required to implement additional one-time credits of $2.00 for each residence and business access line due to having paid Service Quality Plan penalty payments in two or more categories in one calendar year?

A. No. As the above table illustrates, Qwest has been subject to a Service Quality Plan penalty for no more than one category during calendar years 2001, 2002, and 2003.

Q. Does Staff recommend that this element of the Price Cap Plan remain in any renewal of the Price Cap Plan?

A. Yes. While Qwest did not have to implement the additional one-time credits during the initial term of the Price Cap Plan, Staff believes this requirement provides a major customer service quality benefit by providing a significant incentive to Qwest to maintain its performance in these service quality measures at a higher level than might otherwise occur should this requirement not be in place.

Q. Does Staff recommend that language addressing the one-time credit be added to Qwest's Service Quality Plan Tariff?

A. Yes. Information about the credit would then be available in the tariff which is where the public and other interested parties would look for such information. Section 2.6 of the Tariff already contains details of the ranges and penalty and offset amounts. Thus adding language addressing the one-time credit would be consistent with what is already contained in the Tariff.

Q. From an individual metric perspective, what has the trend been for each of the five Service Quality Plan categories during the Price Cap Plan?

A. Exhibits S-1 through S-5, which were provided by Qwest in response to data request STAFF 11.1 as Non-Confidential Attachment A, illustrate Qwest's performance on a monthly basis for each of the five categories from January 2000 through May 2004.

Held Order quantities were decreasing prior to the start on the Price Cap Plan and that trend has continued. Current results for Held Orders demonstrate a significant improvement.

Out-of-Service Repair performance has generally remained in, or above, the no penalty range (i.e. above 80.01 percent cleared within 24 hours). However, results in 2003 were more variable and results were in the penalty range for three of the twelve months.

Residence Office Access performance experienced a decline after the start of the Price Cap Plan before experiencing a significant improvement. Residence Office Access has generally remained in, or above the no penalty range (i.e. above 70.01 percent of calls answered within 20 seconds). However, results in 2003 were more variable and results were in the penalty range for four of the twelve months. Year-to-date 2004 results have been similar with three months out of six being in the penalty range.

Business Office Access has been less volatile than Residence Office Access (performance ranges are the same). However, there was a substantial decline in performance for approximately three months in late 2003 and early 2004.

Repair Office Access has been in a trend of slightly decreasing performance (the same performance ranges as Residence and Business Access are applicable). However, performance has remained in, or above, the no penalty range during the entire time frame shown.

Q. What conclusion does Staff make in regards to Qwest performance for these categories for the period of time the Price Cap Plan has been in effect?

A. Staff has reservations concerning Qwest's ongoing performance after May 2003 for Residence Office Access due to the number of months a penalty has been incurred. While the trend for Repair Office Access shows a negative trend, results remain well above a level where penalties would be accessed. Staff would like to see further improvement in

this area. When the five categories are viewed collectively, Staff concludes that Qwest service quality has not diminished, and overall has improved, during the initial term of the Price Cap Plan.

Q. Based upon Staff's review of the performance data, does Staff have a recommendation regarding penalty and offset ranges contained in Section 2.6 of Qwest's Service Quality Plan Tariff?

A. Yes. It is Staff's opinion that Qwest's customers would be benefited by incenting the Company to maintain the performance improvements it achieved prior to and during the initial term of the Price Cap Plan. Staff's recommendation would make two adjustments to the penalty and offset ranges for Residence Office, Business Office and Repair Office access (contained in Tariff sections 2.6.1 H, I and J). The first adjustment would split the offset range into two ranges with differing offset amounts. The second would decrease the width of the no penalty range by five (5) percent which would shift the lower three ranges upward by five (5) percent. Staff's recommendation is illustrated in the following table.

Current Range	Current Penalty/Offset	Recommended Range	Recommended Penalty/Offset
85.01% - 100.00%	$4,000/day offset	90.01% - 100.00%	$4,000/day offset
		85.01% - 90.00%	$2,000/day offset
70.01% - 85.00%	No penalty	75.01% - 85.00%	No penalty
56.01% - 70.00%	$1,000/day penalty	61.01% - 75.00%	$1,000/day penalty
32.01% - 56.00%	$2,000/day penalty	37.01% - 61.00%	$2,000/day penalty
0% - 32.00%	$4,000/day penalty	0% - 37.00%	$4,000/day penalty

Q. How does Staff believe Qwest customers would be benefited by Staff recommended change to the penalty and offset ranges?

A. First, Section 2.5.5.B.3 of the Service Quality Plan Tariff states an objective for these three measurements which is that eighty (80) percent of all such calls shall be answered

within twenty (20) seconds. Thus, the current range for no penalty is lop-sided with 2/3 of the no penalty range being below objective. Staff's recommendation narrows and balances the no penalty range around the objective which should encourage Qwest to maintain a higher performance level that more closely meets the objective in order to not incur a penalty.

Second, shifting the lower ranges upward appropriately penalizes Qwest over a broader range for poor performance and has the potential for increased penalties should low levels of performance occur. This risk can be avoided by the Company by maintaining high levels of service which, in turn, benefits customers.

Third, splitting the offset range into two components minimizes the potential for one good month offsetting as many as four months of poorer performance. For example, currently one month with performance between 85.01 percent and 90.00 percent would offset four months with performance in a range of 56.01 percent to 70.00 percent. Staff's recommendation would reduce this example to two months of 61.01 percent to 75.00 percent performance. While the Company could still receive the highest offset amount, it could only do so for results over 90.01 percent. Thus, the Company should be incented to maintain performance at a high level and customers would benefit.

Finally, Qwest was performing poorly when the original ranges were established and the ranges were set in a manner that would encourage Qwest to improve its service quality. Now that Qwest's service results have improved, it is appropriate to make adjustments that would incent Qwest to maintain its higher level of performance.

Q. Did Staff determine what the impact of its recommendation would have been had its recommended change been in effect during the calendar years the initial term of the Price Cap Plan was in place?

A. Yes. The following table summarizes what Qwest penalties would have been had Staff's recommendation been implemented during the calendar years overlapped by the initial term of the Price Cap Plan. As can be seen, nominal increases would have occurred in calendar years 2001 and 2003 (calendar year 2000 is prior to the initial term of the Price Cap Plan and calendar year 2004 is though June 30th).

	2000	2001	2002	2003	2004
Residence Office					
- Current	0	454,000	0	153,000	121,000
- Recommended	33,000	544,000	0	244,000	121,000
- Change	+33,000	+90,000	0	+91,000	0
Business Office					
- Current	0	0	0	0	0
- Recommended	0	0	0	0	0
- Change	0	0	0	0	0
Repair Office					
- Current	0	0	0	0	0
- Recommended	0	0	0	0	0
- Change	0	0	0	0	0

Q. Does Staff have a similar recommendation to make for the Out-of-Service and Held Order performance categories?

A. No, not at this time. Qwest performance for these two categories suggests that the current ranges and associates penalties and offsets are sufficient to encourage continued good performance by the Company. Out-of-Service results have been on an improving trend since 2000 and, for the most part, results for individual months have been above the objective of eighty-five (85) percent. Held Order results demonstrate significant improvement; particularly since January 2003. However, should Qwest results for either of these two categories begin to significantly deteriorate at some point in the future, it may

be appropriate to recommend alternatives to the current performance ranges and penalties/offsets for these categories.

Q. Section 5 of the Settlement Agreement also committed Qwest to implementing training programs for its "Arizona employees with respect to new technologies and service improvements". Did Qwest establish training programs to address this?

A. Yes. Qwest worked cooperatively the CWA to establish training programs for Network Technicians and Central Office Technicians. The programs established for Network Technicians consist of two phases, each one week in duration. A total of five training laboratories were constructed at both rural and urban locations in Qwest service territory.

For Central Office Technicians, certification training in two digital switch technologies was approved by the joint Qwest/CWA board. This training is above and beyond normal training for this employee classification.

Other Service Quality Indicators

Q. In addition to the service quality categories already discussed, did Staff utilize other performance data to evaluate Qwest service quality and, if so, what were theses measures?

A. Yes. Qwest provides Commission Staff each quarter a Service Quality Plan Report that shows performance on other measures in addition to those already discussed. Specifically, for the years overlapped by the initial term of the Price Cap Plan, Staff reviewed Qwest performance in regards to billing credits, fee waivers and customer trouble reports.

Q. What are billing credits and what was Staff's conclusion after reviewing the data that Qwest reported for the years 2000, 2001, 2002, 2003 and 2004 (through June 30th)?

A. Billing credits are adjustments automatically made by Qwest to a customer's bill for performance issues such as extended service interruptions, missed service calls or initial basic local service that is not provided within thirty (30) days. These credits would also include Fee items such as vouchers given to a customer by Qwest for cellular service or voice messaging or paging service credits where basic local service has not been provided within thirty (30) days. In 2000, these types of credits provided to customers were in excess of [redacted] dollars. The level of credits paid since that time has decreased each year, in 2002 credits provided to customers were just under [redacted] dollars and in 2003 these credits declined to approximately [redacted] dollars. Based upon Qwest performance through June of 2004, Staff anticipates that the level of billing credits for 2004 will be less than [redacted] dollars.

Q. What are customer trouble reports and what was Staff's conclusion after reviewing what Qwest reported for the years 2000, 2001, 2002, 2003 and 2004 (through June 30th)?

A. Customer trouble reports measure trouble reported with Qwest's network as reported by the customer. This measure is reported on a reports per 100 access line basis and excludes reports for services of another provider or when access to a customer premises is not available. Staff observed that the trend for trouble reports has been improving; i.e. the number of reports over the time frame reviewed has been decreasing. For example, the total trouble report rate per 100 lines in the fourth quarter of 2000 averaged [redacted]. In the following three years for the same quarter this trouble rate declined to [redacted] (2001), [redacted] (2002) going back up slightly to [redacted] (2003). As might be

expected, as Qwest has improved it service quality, the trend line has flattened out to a more consistent performance level since early 2002.

Q. In regards to customer trouble reports, did Staff review data that would compare Qwest performance between its urban service areas (defined as Phoenix and Tucson metro) and rural service areas and, if so, what was Staff's conclusion?

A. Yes. Staff reviewed Qwest's response, which was provided as Confidential Attachment A, to Staff data request STAFF 11.13. Over the four and a half year time frame examined, Staff observed there have been months where rural results were equal to or better than those reported for urban areas. For those months where rural results were higher than urban, the difference in reported trouble was less than 0.2 percent approximately 73 percent of the time and less than 0.3 percent approximately 86 percent of the time. Given that difference in monthly average results between urban and rural areas was relatively small, and that the average monthly results for both urban and rural areas were significantly less than the maximum of eight (8) reports per month per wire center averaged over a three-month period set forth in the Service Quality Plan Tariff, it appears that, from a trouble report perspective, comparable service quality is being provided to urban and rural areas.

Q. After its review of Qwest customer trouble reports, does Staff have a recommendation regarding performance objectives for this measure and, if so, what is it?

A. Yes. Section 2.5.6.A of the Service Quality Plan Tariff sets forth a maximum trouble report rate on an individual wire center basis. At this time Staff, does not propose a change to the wire center maximum. However, the section is silent in regards to a total company standard. Based upon Qwest's performance for the years 2000, 2001, 2002,

2003 and 2004 (through June 30th), Staff would recommend that the Tariff be revised to establish a total company maximum objective of no more than 3.0 trouble reports per 100 access lines in any month averaged over all wire centers. Staff believes the objective is reasonable as Qwest has not exceeded this level in any month since the inception of the Price Cap Plan. Further, establishing such an objective would provide incentive to the Company to maintain the higher service levels it has achieved and thus provide ongoing benefit to customers.

Q. Is the number of complaints concerning Qwest received by the Consumer Services Section of the Commission also indicative of improving levels of service quality?

A. Yes. A review of the Commission's Consumer Services Database shows that a declining number of complaints were received during the time period of January 1, 2000 through June 30, 2004. These quantities are listed in the following table.

	2000	2001	2002	2003	2004
Complaints	3562	1850	1313	607	254

Staff also reviewed Commission complaint data provided by Qwest in its quarterly Service Quality Plan Tariff reporting. Staff observed that during period of January 2000 through June 2004, Commission complaints decreased each month from levels for the same month the prior year in all but five months. In two of these five instances, the number of Commission complaints had remained the same.

Q. The Commission's Consumer Services Database shows a significant decline in the Qwest complaints received. What would you attribute this decline to?

A. Qwest made some significant strides in improving its service quality in the categories of held orders and out-of-service repair during 2000, 2001 and 2002. The decline in

complaints during 2003 and 2004 is due in part to changes in how complaints were being categorized. A significant number of complaints were being categorized as consumer inquiries and were not included in the complaint quantities provided for this period. Thus the level of complaints would be higher if the consumer inquiries were included. However, even with an adjustment, Staff believes that the trend in Commission complaints would still have declined significantly during 2003 and 2004. Complaint levels have improved more recently because Qwest has been doing a better job of handling complaints so that fewer complaints are being received by the Commission.

Conclusions and Recommendations

Q. In summary, what are Staff's overall conclusions regarding Qwest service quality during the initial term of the Price Cap Plan?

A. As previously stated, Staff has reservations concerning Qwest's ongoing performance after May 2003 for Residence Office Access due to the number of months a penalty has been incurred. While the trend for Repair Office Access shows a negative trend, results remain well above a level where penalties would be accessed. Staff would like to see further improvement in this area. Staff also reviewed performance data relating to billing credits, fee waivers, customer trouble reports and Commission complaints. Reviewing all of the performance data collectively, Staff concludes that Qwest service quality has not diminished, and overall has improved, during the initial term of the Price Cap Plan.

Q. Should the Commission approve a renewal of the Price Cap Plan, is it Staff's opinion that the Commission should include the recommendations made in this Testimony in such a Decision?

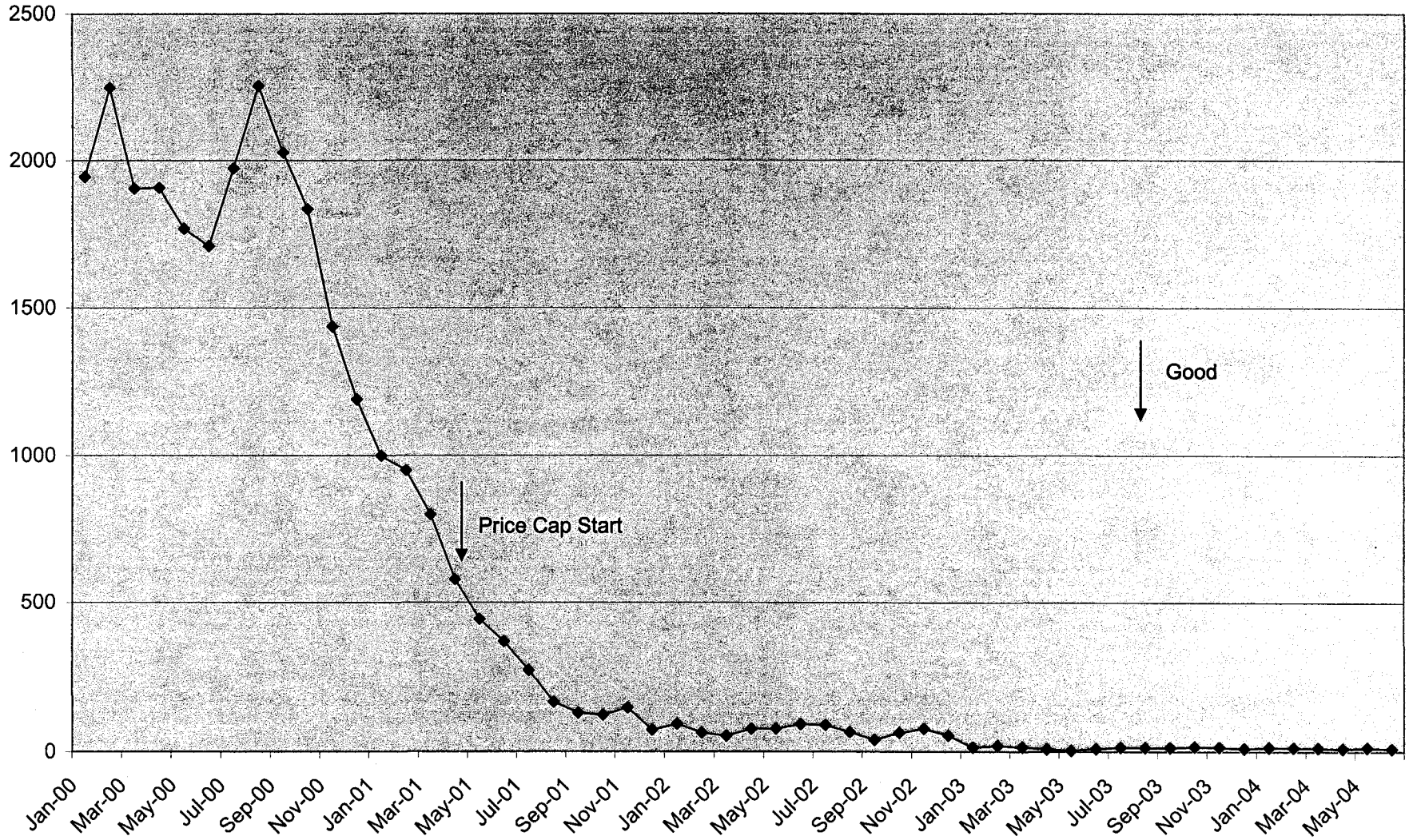
A. Yes. Furthermore, Staff recommends that all provisions of the Service Quality Plan Tariff not modified by recommendations in this Testimony be retained.

Q. Does this conclude your Direct Testimony?

A. Yes, it does.

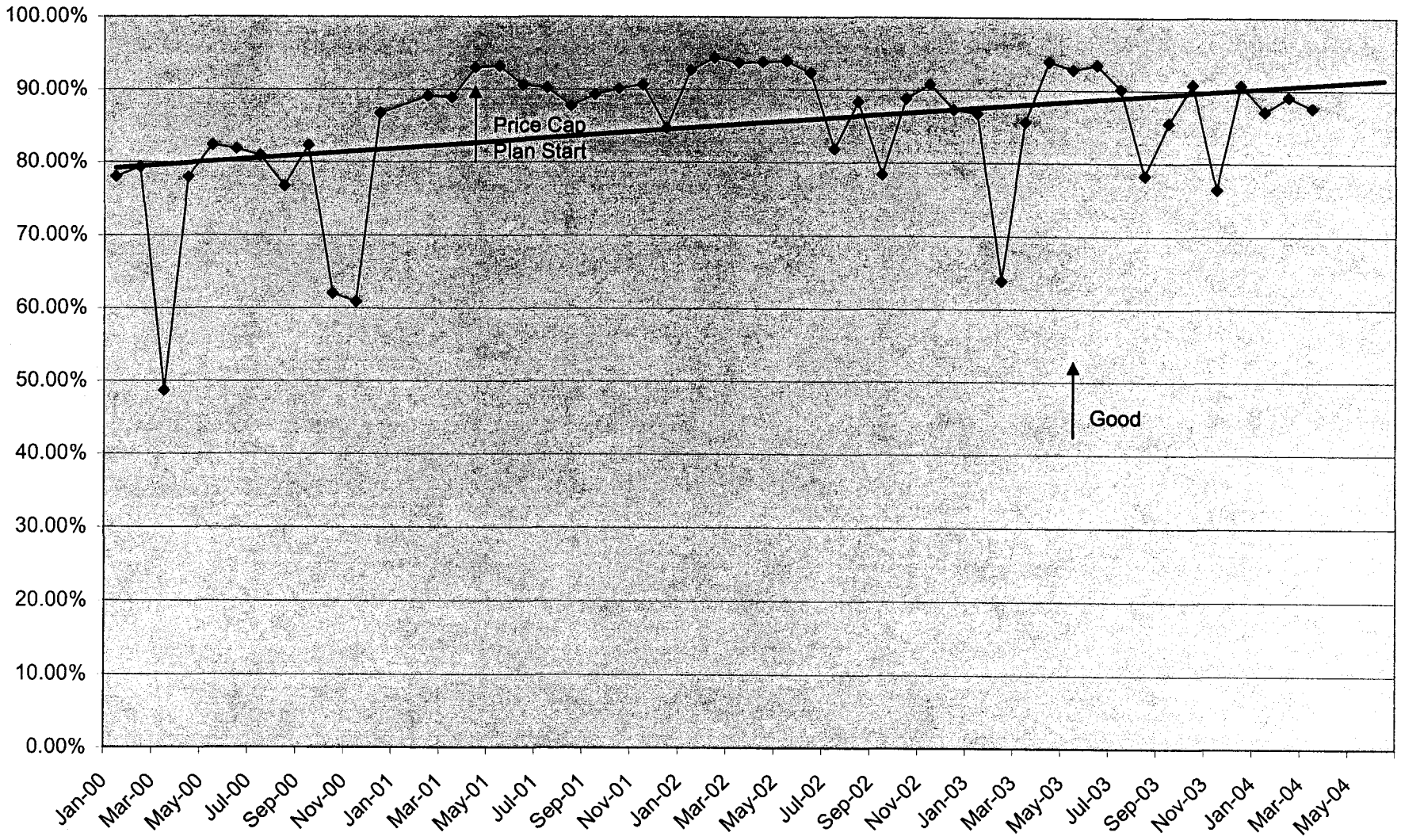
Arizona
Docket No. T-01051B-03-0454 et al.
STF 11-1
Non-Confidential Attachment A
Exhibit DS-1

Held Orders



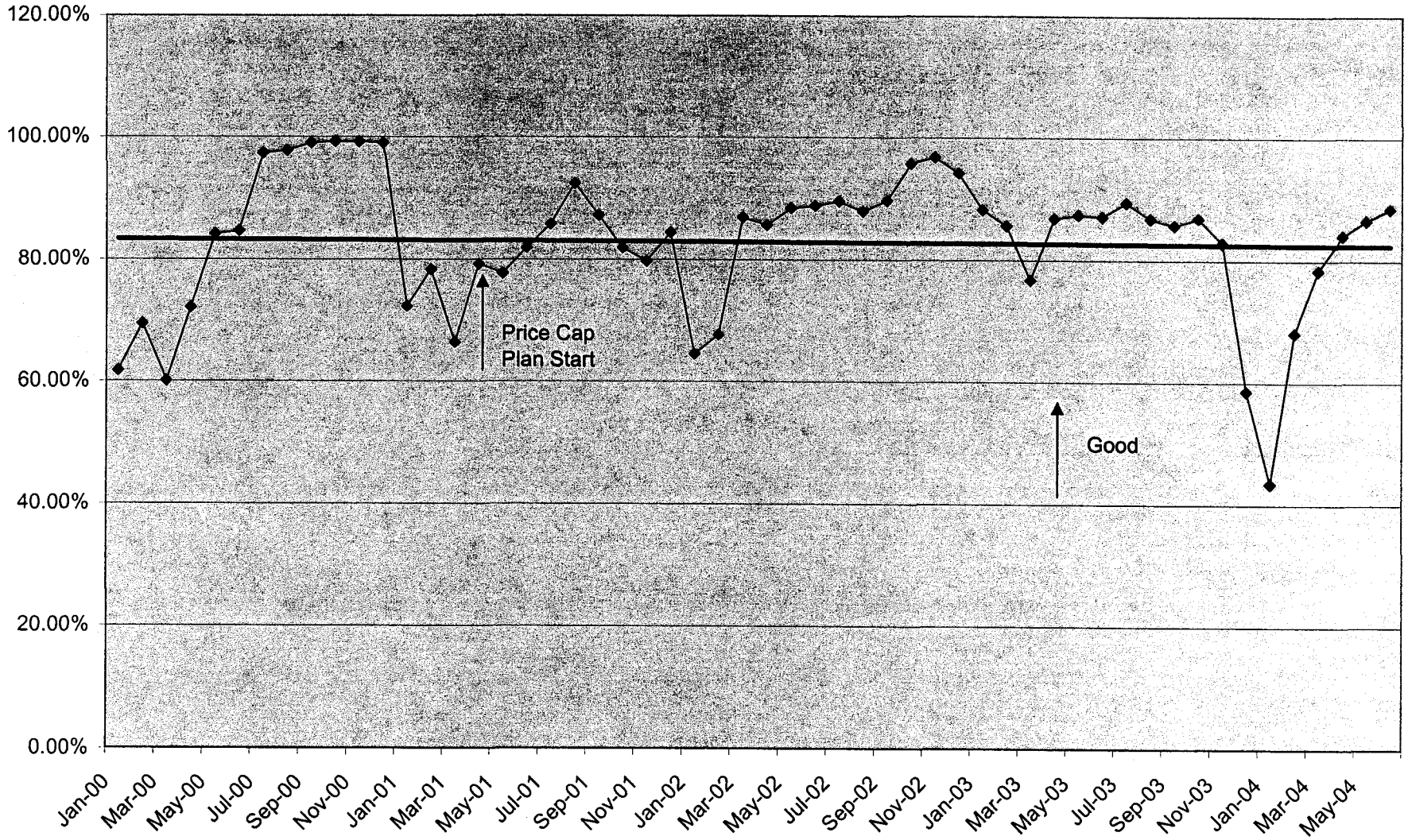
Arizona
Docket No. T-01051B-03-0454 et al.
STF 11-1
Non-Confidential Attachment A
Exhibit DS-2

Out of Service

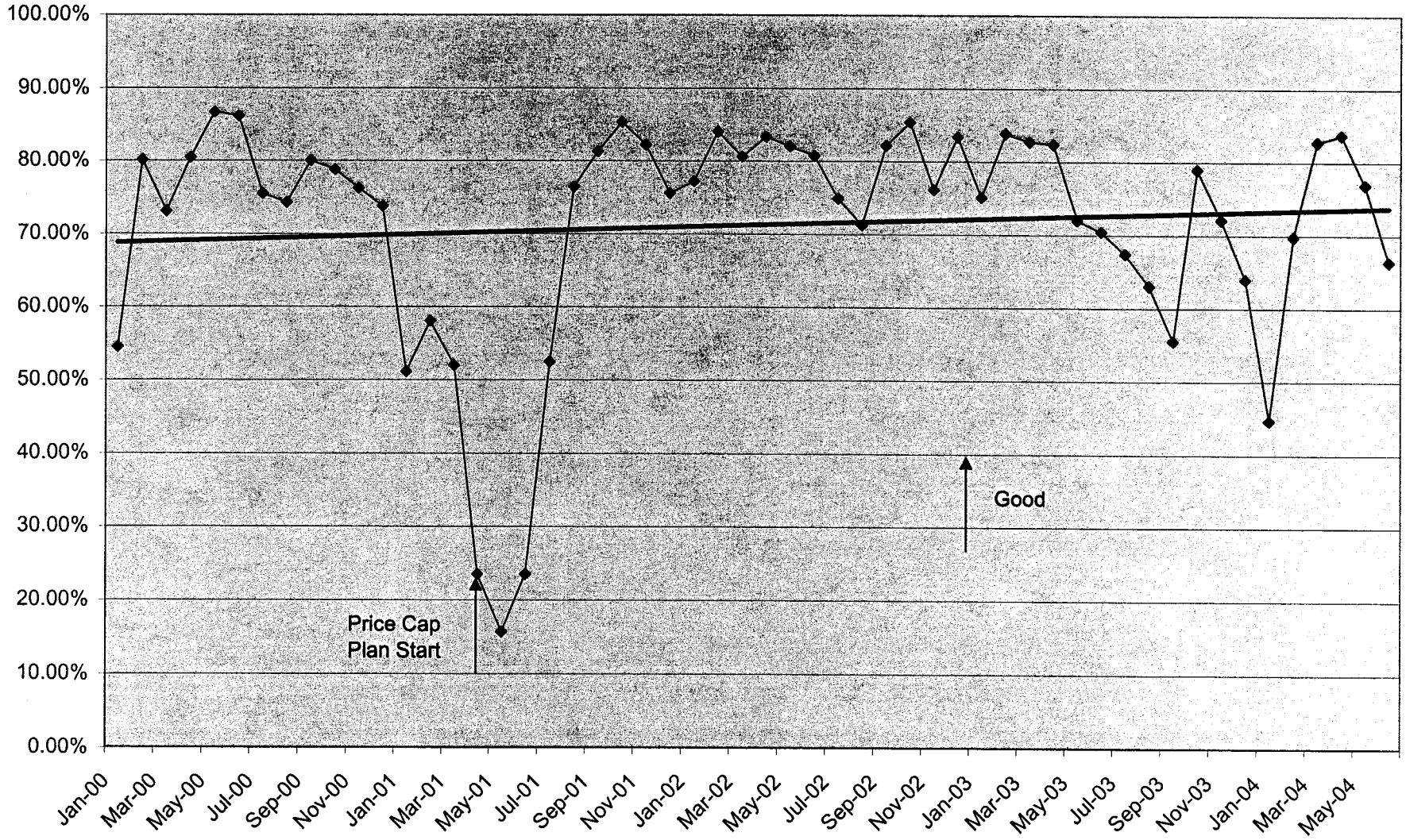


Arizona
Docket No. T-01051B-03-0454 et al.
STF 11-1
Non-Confidential Attachment A
Exhibit DS-3

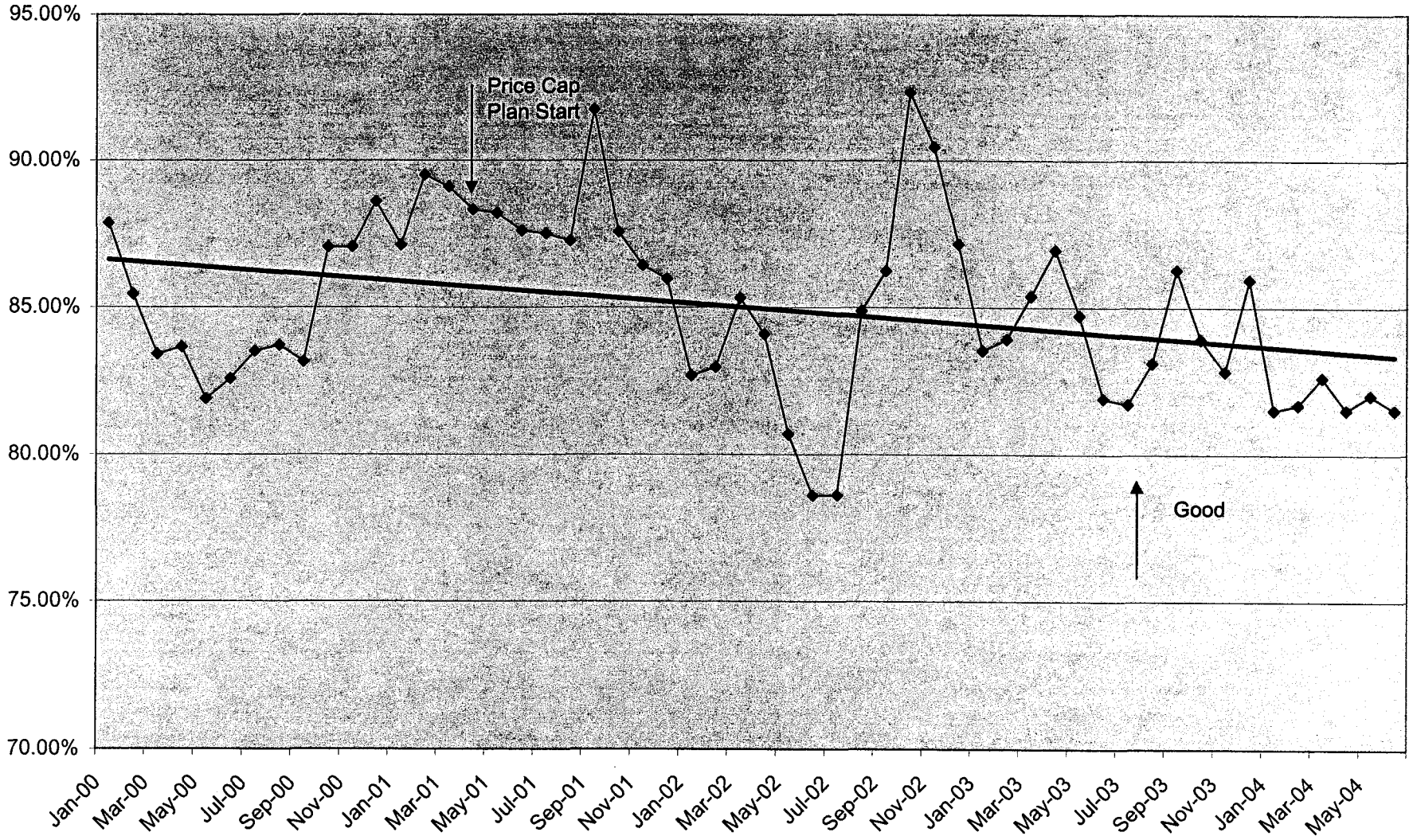
Business Office Access



Residence Office Access



Repair Office Access



REIKER

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN MAYES
Commissioner

IN THE MATTER OF QWEST CORPORATION'S FILING AMENDED RENEWED PRICE REGULATION PLAN.	)	DOCKET NO. T-01051B-03-0454
IN THE MATTER OF THE INVESTIGATION OF THE COST OF TELECOMMUNICATIONS ACCESS	)	DOCKET NO. T-00000D-00-0672

DIRECT

TESTIMONY

OF

JOEL M. REIKER

SENIOR PUBLIC UTILITIES ANALYST

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

NOVEMBER 18, 2004

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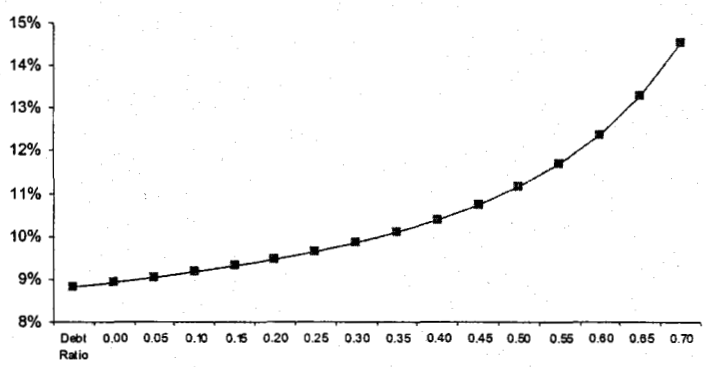
Executive Summary

The direct testimony of Staff witness Joel M. Reiker addresses the following issues:

Cost of Equity – Staff recommends the Commission adopt a 14.6 percent return on equity ("ROE") for Qwest. Staff bases its ROE recommendation on its discounted cash flow ("DCF") and capital asset pricing model ("CAPM") analyses. Staff's recommendation is based on cost of equity estimates ranging from 9.5 percent to 12.0 percent, with a capital structure/financial risk adjuster of +3.7%. Staff's ROE recommendation is dependent upon the capital structure adopted by the Commission for Qwest in this proceeding. Because the cost of equity increases with the use of debt, and Qwest has a higher debt ratio than other comparable telecommunications services companies on average, Qwest has a higher cost of equity than those companies. The following chart shows Staff's estimate of the current relationship between Qwest's cost of equity and its debt ratio:

Chart 3: Qwest's Cost of Equity & Leverage



Staff's ROE recommendation assumes the Commission will adopt a capital structure consisting of approximately 75 percent debt.

Comment on the Direct Testimony of Company Witness Peter C. Cummings - The Commission should reject Mr. Cummings' proposed ROE of 21.4 percent for the following reasons:

> Mr. Cummings's capital structure/financial risk adjustment should be rejected because Mr. Cummings fails to "de-adjust" his beta estimates before unlevering and relevering them, and he uses the market value of equity to unlever beta, but uses a book value of equity to relever beta, creating a mismatch. After correcting these errors in Mr. Cummings' analysis and giving equal weight to his telco DCF cost of equity estimate, Mr. Cummings analysis supports a cost of equity/authorized ROE for Qwest of 14.3 percent, not 21.4 percent.

INTRODUCTION

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

A. My name is Joel M. Reiker. I am a Senior Regulatory Analyst employed by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Briefly describe your responsibilities as a Senior Regulatory Analyst.

A. In my capacity as a Senior Regulatory Analyst, I perform studies to estimate the cost of capital for utilities that are seeking rate relief. I also provide recommendations to the Commission on mergers, acquisitions, financings, and sales of assets, and I have occasionally acted as arbitrator in disputes brought before the Utilities Division.

Q. Please describe your educational background and professional experience.

A. In 1998, I graduated cum laude from Arizona State University, receiving a Bachelor of Science degree in Global Business with a specialization in finance. My course of studies included classes in corporate and international finance, investments, accounting, statistics, and economics. I began employment as a Staff rate analyst in 1999. Since that time, I have attended various classes on general regulatory and business issues, including the cost of capital and the use of energy derivatives. In 2004, I attended the National Association of Regulatory Utility Commissioners and the Institute of Public Utilities' Annual Regulatory Studies Program at Michigan State University.

Q. What is the scope of your testimony in this case?

A. I provide Staff's recommended rate of return on common equity (ROE) in this case. Staff's recommended ROE is an estimate of Qwest Corporation's ("Qwest") cost of equity.

SUMMARY OF TESTIMONY AND RECOMMENDATIONS

Q. Briefly summarize how Staff's cost of equity testimony is organized.

A. Staff's cost of equity testimony is organized into four sections. Section I discusses risk and presents Staff's cost of equity capital analysis that uses the discounted cash flow ("DCF") model and the capital asset pricing model ("CAPM"). Section II presents Staff's final cost of equity estimates and discusses the effect of Qwest's capital structure on its cost of equity. Section III presents Staff's return on equity ("ROE") recommendation. Finally, Staff's comments on the Company's proposed ROE are presented in section IV.

Q. Have you prepared any exhibits to your testimony?

A. Yes. I prepared twenty-four schedules (JR-1 to JR-24) that support Staff's cost of equity analysis.

Q. What ROE Does Staff recommend?

A. Staff recommends a 14.6 percent ROE.

Q. Does Staff's ROE recommendation depend on the capital structure that is adopted?

A. Yes. As Staff explains later in this testimony, the cost of equity decreases as leverage (the percentage of debt in a capital structure) decreases. Therefore, Staff's recommended ROE is *only* valid if the Commission adopts Staff's recommended capital structure of approximately 75 percent debt and 25 percent equity.

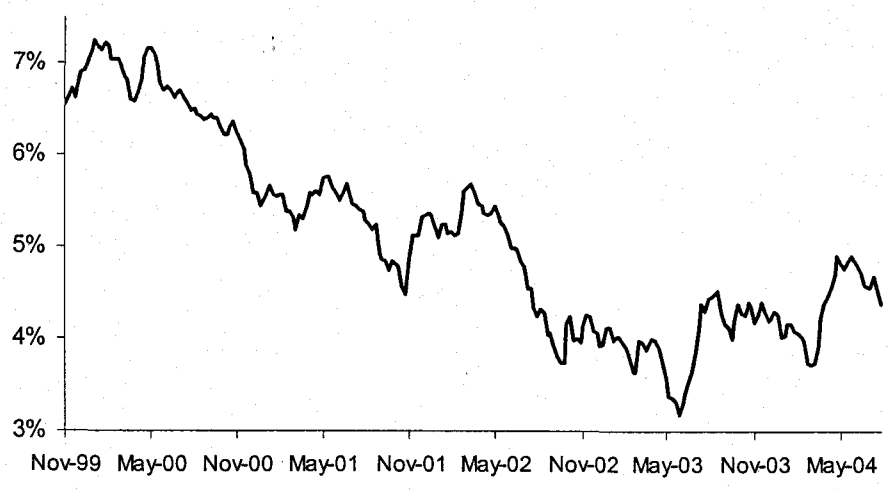
I. THE COST OF EQUITY

Comment on Capital Costs in General

Q. What has been the general trend of capital costs in recent years?

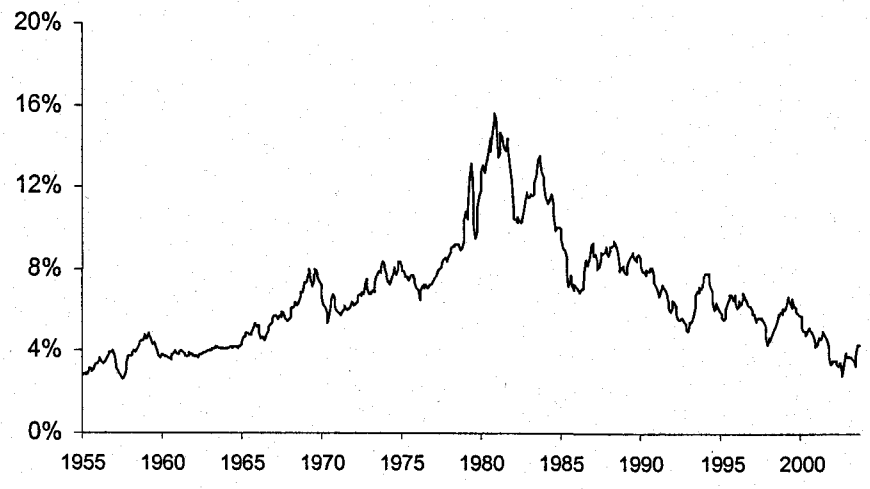
A. Interest rates have declined in recent years. Chart 1 graphs intermediate-term U.S. Treasury rates from November 1999 to August 2004:

Chart 1: Average Yield on 5-, 7-, & 10-Year Treasuries



The following graph puts interest rates and capital costs in general, into historical perspective. Interest rates have declined significantly in the past twenty years and are currently at levels comparable to the 1950's and '60's.

Chart 2: History of 5- and 10-Year Treasury Yields



According to the capital asset pricing model, the cost of equity moves in the same direction as interest rates. Chart 2 suggests that capital costs, including the cost of equity, are quite low compared to recent history.

Q. What is the effect of recently passed tax legislation on investors' required return on stocks?

A. The Jobs and Growth Tax Relief Reconciliation Act of 2003, which was signed on May 28, 2003, reduced the income tax rates on both capital gains and common stock dividends, lowering required pre-tax stock returns.

Q. What have historical returns been for average risk securities?

A. Wharton School finance professor Jeremy Siegel published his findings that the average compound and arithmetic annual returns on U.S. equities have been 8.3 percent and 9.7 percent, respectively, using 199 years of data from 1802 through 2001.[1]

One should keep in mind that the above returns are actual returns, not expected returns (which the cost of equity represents.) However, any request for an allowed ROE at or above 10.0 percent exceeds the compound and arithmetic average historical return on U.S. equities for the period mentioned above. The risk of a regulated public utility, as measured by the capital asset pricing model beta, is typically below the theoretical average beta for all stocks of 1.0. I discuss the average beta (1.00) of six publicly-traded local telecommunications service providers later.

[1] Siegel, Jeremy J. *Stocks for the Long Run*, third edition. McGraw-Hill, New York. 2002. p.13.

Q. Have investment professionals estimated the expected long-run return for equities in general?

A. Yes. In a 2003 *Journal of Portfolio Management* article, Antii Ilmanen, a Managing Director of Citigroup, estimated future long-term stock returns in general to range from 5 percent to 8 percent.[2] In 2002, Dimson, Marsh, and Staunton published their estimate of the long-run expected real return on global equities of 7 percent.[3]

Capital Structure and Risk

Q. How is risk defined?

A. Modern portfolio theory ("MPT") separates risk into two categories; market risk and unique risk. Market risk is defined as the sensitivity of an investment's returns to market returns. Market risk, also known as systematic risk, is the risk related to economy-wide perils that threaten all businesses such as changes in interest rates, inflation, and general business cycles. Market risk is the only type of risk that affects the cost of equity. The most prevalent measure of market risk is "beta." Beta is the measurement of an investment's market risk, and it reflects both the business risk and financial risk of a firm.

Unique risk, or firm-specific risk, is risk that can be eliminated by portfolio diversification, i.e. buying securities in portfolios. Unique risk is not measured by beta nor does it factor into the cost of equity because it can be eliminated through simple shareholder diversification. Unique risks are peculiar to an individual company or investment project. Investors who hold diversified portfolios do not require additional return for unique risk; therefore, it does not affect the cost of capital. Additionally,

[2] Ilmanen, Antii. " Expected Returns on Stocks and Bonds." *Journal of Portfolio Management*. Winter 2003.
[3] Dimson, Elroy, Marsh, Paul, and Mike Staunton. *Triumph of the Optimists*. 2002. Princeton University Press. p. 214.

investors who choose to be less than fully diversified cannot expect to be compensated for unique risk, as it can be easily (and virtually costlessly) eliminated.

Q. Please distinguish between business risk and financial risk.

A. Business risk is the risk associated with the fluctuation in earnings before interest and other fixed security obligations due to the basic nature of a firm's business. To the extent a firm's earnings are affected by overall macroeconomic activity, its beta and cost of equity will be affected.

Financial risk is the risk to shareholders caused by a firm's reliance on debt financing. When a firm uses debt to finance its assets; demand, operating costs, and earnings before interest and taxes are not affected. However, the fixed interest obligations associated with debt increases the uncertainty of after-interest earnings. Hence, beta reflects both the business risk and financial risk of the firm.

Q. What is the relationship between the capital structure and financial risk?

A. A greater percentage of debt in a capital structure results in a higher level of financial risk.

Q. How does Qwest's capital structure compare to capital structures of publicly traded local telecommunications service providers?

A. Schedule JR-4 shows the capital structures of six publicly traded local telecommunications service providers ("sample telcos") as of the first quarter of 2004, as well as Qwest's capital structure. As of March 2004, the sample telcos were capitalized with approximately 49 percent debt and 51 percent equity, while Qwest's capital structure consists of approximately 75 percent debt and only 25 percent equity. Shareholders bear

financial risk to the extent a company uses debt to finance assets. Qwest's shareholders bear a significantly greater amount of financial risk than shareholders in the sample telcos. Staff addresses the effect of Qwest's capital structure on its cost of equity later in this testimony.

Fair and Reasonable Return on Equity

Q. Define the term "cost of equity."

A. A firm's cost of equity is that rate of return that investors expect to earn on their equity investment given the risk of the firm. An investor's expected return is equally defined as the return on equity that she expects on other investments of similar risk.

Q. What models did Staff use to estimate Qwest's cost of equity?

A. The cost of equity is determined by the market. Therefore, Staff used two market-based models: the discounted cash flow ("DCF") model and the capital asset pricing model ("CAPM"). Staff applied these two models to publicly traded stocks to estimate Qwest's cost of equity.

Q. Did Staff apply the DCF model and the CAPM to Qwest directly?

A. No, Staff did not apply the models directly to Qwest because Qwest Corporation does not have publicly traded stock, and Staff therefore lacks the information necessary to apply the market-based models. Staff used a sample of publicly traded local telecommunications service providers as a proxy.

Q. What companies did Staff select as proxies or comparables for Qwest?

A. Staff selected the six sample telcos shown in Schedule JR-2. These companies are followed by *The Value Line Investment* Survey ("Value Line") and are the same companies used by Qwest in its cost of equity analysis.

Discounted Cash Flow Model Analysis

Q. Please provide a brief summary of the theory upon which the DCF method of estimating the cost of equity is based.

A. The DCF method of estimating the cost of equity is based upon the theory that the market price of a stock is equal to the present value of all expected future dividends. Through a mathematical restatement, the discount rate, or cost of capital, can be derived from the expected dividend, the stock price, and a dividend growth rate. The formula is generally applied to a sample of companies that exhibit similar risk to the company in question, and the resulting estimates for the discount rates (or costs of equity) are then averaged.

Use of the DCF method for estimating the cost of equity to a public utility was pioneered by Professor Myron Gordon in the 1960's, and it has become the most widely used model. In 1998, Professor Gordon said the following about the simplicity of his model when he gave the keynote Address at the 30th Financial Forum of the Society of Utility and Regulatory Financial Analysts:

> On its simplicity, the model made it extremely difficult, if not impossible, for a banker from Goldman Sachs or some other Wall Street firm, or for a finance professor from a prestige university to use the authority of his/her position to make extravagant claims before a regulatory agency. An independent expert or a member of a commission staff with far less impressive credentials could

> politely, firmly and effectively deflate any bombast in their testimony.[4]

Q. How did Staff apply the DCF Model?

A. Staff applied the DCF model using two different approaches. Staff's first approach used the constant-growth DCF model. Staff's second approach was to use a non-constant growth, or multi-stage DCF. The advantage of the multi-stage DCF is that it does not assume that dividends grow at a constant rate over time.

The Constant-Growth DCF

Q. What is the constant-growth DCF formula used in Staff's analysis?

A. The constant-growth DCF formula used in Staff's analysis is:

Equation 1:

$$K = \frac{D_1}{P_0} + g$$

where:

K = the cost of equity
D_1 = the expected annual dividend
P_0 = the current stock price
g = the expected infinite annual growth rate of dividends

The constant-growth DCF model shown in Equation 1 assumes that a company has a constant payout ratio and that its earnings are expected to grow at a constant rate. Thus, if a stock has a market price of $5 per share, an expected annual dividend of $.25 per share, and if its dividends were expected to grow 3 percent per year, then the cost of equity to the

[4] Gordon, M. J. Keynote Address at the 30th Financial Forum of the Society of Utility and Regulatory Financial Analysts. May 8, 1998. Transparency 2.

company would be 8.0 percent (the 5 percent dividend yield plus the growth rate of 3 percent per year).

Q. How did Staff calculate the dividend yield component (D_1/P_0) of the constant-growth DCF formula?

A. Staff calculated the yield component of the DCF formula by dividing the expected annual dividend by the spot stock price after the close of the market on August 18, 2004, as reported by Yahoo Finance. Staff's estimate of the average expected dividend yield for the sample telcos is 4.1 percent (see Schedule JR-3).

Staff used the spot stock price because it reflects all publicly available information. According to the efficient markets hypothesis, the current stock price includes investors' expectations of future returns and is the best indicator of these expectations.

Q. How did Staff estimate the dividend growth (g) component of the DCF model?

A. The DCF model is predicated on dividend growth, as shown by Equation 1. Therefore, Staff examined a combination of historical dividends per share ("DPS") growth and projections of future DPS growth provided by Value Line. Staff also examined historical and projected growth in earnings per share ("EPS") as well as "intrinsic" growth.

Q. How did Staff estimate DPS growth?

A. Staff estimated historical DPS growth by calculating the average rate of growth in dividends per share of the sample telcos from 1998 to 2003. The results of the analysis

are shown in Schedule JR-5. Staff's analysis indicates an average historical DPS growth rate of 4.3 percent for the sample telcos.

Q. What DPS growth rate does Value Line project for the sample companies?

A. Value Line projects a 5.4 percent DPS growth rate for the sample telcos, shown in Schedule JR-5.

Q. Why did Staff examine EPS growth to estimate the expected dividend growth component of the constant-growth DCF model?

A. Staff examined EPS growth because dividend growth does not occur independently of earnings. It would be virtually impossible for dividend growth to exceed earnings growth over the long run, as it would ultimately lead to payout ratios in excess of 100 percent, which are not sustainable. Therefore, Staff considered historical and projected growth in EPS in estimating expected dividend growth.

Q. What is Staff's historical EPS growth rate?

A. Schedule JR-5 shows Staff's historical average rate of growth in EPS for the sample telcos. Staff's average historical EPS growth rate for the period 1998 to 2003 is 3.6 percent for the sample telcos.

Q. What EPS growth rate does Value Line project?

A. Value Line projects a 6.1 percent EPS growth rate for the sample telcos, also shown in Schedule JR-5.

One should note that analysts' projections of future earnings are generally high,[5] and vary widely depending on the source.

Q. How did Staff calculate intrinsic growth?

A. Intrinsic growth is the sum of the retention growth rate term, *br*, and the stock financing growth rate term, *vs*. These terms are discussed below.

Q. What is retention growth?

A. Retention growth is simply the product of the percentage of earnings retained by the company ("retention ratio") and the book/accounting return on equity. This concept is based upon the theory that dividend growth can only be achieved if a company retains and reinvests a portion of its earnings in itself to earn a return.

Q. What is the formula for the retention growth rate?

A. The retention growth rate formula is:

Equation 2:

$$g = br$$

where: g = retention growth
b = the retention ratio (1 – dividend payout ratio)
r = the accounting/book return on common equity

[5] See Seigel, Jeremy J. Stocks for the Long Run. 2002. McGraw-Hill. New York. p. 100. Malkiel, Burton G. A Random Walk Down Wall Street. 1999. W.W. Norton & Co. New York. p. 169. Dreman, David. Contrarian Investment Strategies: The Next Generation. 1998. Simon & Schuster. New York. pp. 97-98. Testimony of Professors Myron J. Gordon and Lawrence I. Gould, consultant to the Trial Staff (Common Carrier Bureau), FCC Docket 79-63, p. 95.

Q. What retention (*br*) growth rate did Staff calculate for the sample telcos?

A. Staff calculated an average retention (*br*) growth rate of 9.6 percent for the sample telcos, as shown in Schedule JR-6. Staff calculated the rate by averaging the retention growth rate for the five years 1999 to 2003.

Q. Does Value Line project retention growth?

A. Yes. Value Line projects a 7.8 percent retention growth rate for the sample telcos for the 2007 - 2009 period.

Q. Under what circumstances is the br growth rate method a reasonable estimate of future dividend growth?

A. The br growth rate is a reasonable estimate of future dividend growth if the retention ratio is fairly constant and if the market price to book value ("market-to-book") ratio is expected to equal 1.0. The average retention ratio of the sample telcos has remained relatively stable over the past several years. However, the average market-to-book ratio of the sample telcos is 2.3. (See Schedule JR-7.) Staff assumes that investors expect the market-to-book ratio to remain above 1.0.

Q. What is the financial implication of a market-to-book ratio greater than 1.0?

A. The implication is that investors expect the sample telcos to earn book/accounting returns on equity greater than the companies' costs of equity.

Q. How has Staff accounted for the assumption that investors expect the average market-to-book ratio of the sample telcos to remain above 1.0?

A. Staff adjusted the *br* growth rate to account for the assumption that investors expect the average market-to-book ratio of the sample telcos to remain above 1.0 by adding a second growth term to its *br* growth rate to arrive at the "intrinsic" growth rate.

Q. What is the second growth term Staff used to account for the assumption that investors expect the average market-to-book ratio of the sample telcos to remain above 1.0?

A. The second growth term, derived by Myron Gordon in his book, *The Cost of Capital to a Public Utility*[6], is found by multiplying a variable, *v*, by another variable, *s*. Staff will refer to the product of *v* and *s* as the *vs*, or stock financing growth term. The *vs* growth term represents the company's dividend growth through the sale of stock.

Q. What does the variable *v* represent and how is it calculated?

A. The variable *v* represents the fraction of the funds raised from common stock sales that accrues to existing shareholders. It is calculated as follows:

Equation 3:

$$v = 1 - \left(\frac{book\ value}{market\ value} \right)$$

For example, if a share of stock with a $10 book value is selling for $13, the v term would equal 0.23 (calculated as 1-[$10/$13]).

Q. What does the variable *s* represent and how is it calculated?

[6] Gordon, Myron J. *The Cost of Capital to a Public Utility*. MSU Public Utilities Studies, Michigan, 1974. pp 31-35.

A. The variable *s* represents the expected rate of increase in common equity from stock sales. For example, if a company has $100 in equity and it sells $10 of stock then *s* would equal 10 percent ($10/$100).

Q. How does the *vs* term work?

A. When a utility is expected to earn a book/accounting return equal to its cost of equity, its market price will equal its book value and *v* will equal zero (0.0) (calculated as 1-($10/$10)). If a utility is expected to earn more than its cost of equity, then its market-to-book ratio will be greater than 1.0. When new shares are sold and the market-to-book ratio is greater than 1.0 causing *v* to be positive, then the book value per share of outstanding stock is less than the per share contributions of new shareholders. The per-share contribution in excess of book value per share accrues to the old shareholders in the form of a higher book value. The resulting higher book value leads to higher expected earnings and dividends. Thus, the growth term in the basic DCF model should include the *vs* growth term when the market-to-book ratio is not expected to equal 1.0. Staff's *vs* growth term for each of the sample telcos is shown in Schedule JR-6.

Q. Shouldn't utilities' market-to-book ratios fall to 1.0 if their authorized ROEs are set equal to their costs of equity?

A. Yes. Utilities' market-to-book ratios should fall to 1.0, in theory, making the *vs* term unnecessary. Setting the authorized return on equity for a utility equal to its cost of equity should eventually result in a market price for that utility equal to its book value. In principle, then, the *vs* term is unnecessary in the long run. In reality, rate orders do not force market-to-book ratios to 1.0 for a variety of reasons. For example, regulatory commissions do not issue orders simultaneously for multi-jurisdictional utilities, and a

company may have earnings that are unregulated. Therefore, Staff included the *vs* growth term in its DCF analysis, even though the resulting growth rate estimate might be too high. Staff's resulting estimates are too high to the extent that investors expect the sample's average market-to-book ratio to fall to 1.0 because of falling authorized ROEs.

Q. What is Staff's intrinsic growth rate and how was it calculated?

A. Schedule JR-6 shows Staff's estimate of the intrinsic growth rate for the sample telcos. Staff's intrinsic growth rate is 11.2 percent using historical retention growth and 9.5 percent using retention growth projected by Value Line. The intrinsic growth rate was calculated by adding the *br* and *vs* growth rates.

Q. What is Staff's expected infinite annual growth rate in dividends?

A. Schedule JR-8 shows Staff's calculation of expected dividend growth. Staff's estimate of the expected annual dividend growth rate is also shown in the following table:

Table 1

Growth Rate	g
Historical Dividends Per Share	4.3%
Projected Dividends Per Share	5.4%
Historical Earnings Per Share	3.6%
Projected Earnings Per Share	6.1%
Historical Intrinsic Growth	11.2%
Projected Intrinsic Growth	9.5%
Average	**6.7%**

Q. What is the result of Staff's constant-growth DCF analysis?

A. Schedule JR-3 shows the result of Staff's constant-growth DCF analysis. Staff's constant-growth DCF cost of equity estimate is also shown below:

Table 2

D_1/P_0	+	g	=	k
4.1%	+	6.7%	=	**10.8%**

The Multi-Stage DCF

Q. What is the multi-stage DCF formula?

A. The multi-stage DCF formula is shown in the following equation:

Equation 4:

$$P_0 = \sum_{t=1}^{n} \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n}\left[\frac{1}{(1+K)}\right]^n$$

Where: P_0 = current stock price
D_t = dividends expected during stage 1
K = cost of equity
n = years of non – constant growth
D_n = dividend expected in year n
g_n = constant rate of growth expected after year n

The multi-stage DCF model shown above incorporates at least two growth rates. It assumes that investors expect a certain rate of non-constant dividend growth in the near term known as "stage-1 growth", as well as a longer-term constant rate of growth known as "stage-2 growth."

Q. How did Staff implement the multi-stage DCF model?

A. Staff forecasted a stream of dividends and found the cost of equity that equates the present value of the stream to the current stock price for each of the sample telcos, consistent with Equation 4.

Q. How did Staff calculate stage-1 growth?

A. Staff forecasted dividends four years out for each of the sample telcos using expected dividends over the next twelve months for the first year and *Value Line*'s projected DPS growth rate for the subsequent three years.

Q. How did Staff estimate stage-2 growth?

A. For stage-2 growth, or constant growth, Staff used the rate of growth in gross domestic product ("GDP") from 1929 to 2003, which is 6.5 percent. Historical growth in GDP is reasonable because it ultimately assumes, in the long-term, that the local telecommunications services industry will neither grow faster, nor slower, than the overall economy.

Q. What is the result of Staff's multi-stage DCF analysis?

A. Staff's multi-stage DCF estimate of the cost of equity to the sample telcos is 9.5 percent as shown in Schedule JR-9.

Capital Asset Pricing Model

Q. Please describe the capital asset pricing model.

A. The CAPM is the best-known model of risk and return and the most popular method of estimating the cost of equity. The CAPM is the work of Nobel prize-winning economists and provides a method to estimate the risk and expected return on a risky asset. The model concludes that the expected return on a risky asset is equal to the sum of the prevailing risk-free interest rate and the market risk premium adjusted for the riskiness of the investment relative to the market. The critical assumptions of the CAPM can be summed up in the following quote from the book, *The Stock Market: Theories and Evidence*:[7]

> The [CAPM] model presents a simple and intuitively appealing picture of financial markets. All investors hold efficient portfolios and all such portfolios move in perfect lockstep with the market. Portfolios differ only in their sensitivity to the market. Prices of all risky assets adjust so that their returns are appropriate, in terms of the model, to their riskiness. This riskiness is measured by a simple statistic, beta, which indicates the sensitivity of the asset to market movements.

[7] Lorie, James, Mary T. Hamilton. *The Stock Market: Theories and Evidence*. Richard D. Irwin, Inc. Homewood, Illinois. 1973. p. 202.

Q. What is the CAPM formula?

A. The CAPM formula is shown in the following equation:

Equation 5:

$$K = R_f + \beta (R_m - R_f)$$

where:

R_f	=	risk free rate
R_m	=	return on market
β	=	beta
$R_m - R_f$	=	market risk premium
K	=	expected return

Q. How was the CAPM implemented to estimate Qwest's cost of equity?

A. Staff implemented the CAPM on the same sample telcos to which it applied the DCF model.

Q. What risk-free rate of interest did Staff estimate?

A. Staff estimated the risk-free rate to be 3.8 percent. The estimate is based upon an average of intermediate-term U.S. Treasury securities' spot rates published in *The Wall Street Journal*. Published rates, as determined by the capital markets, are objective, verifiable, and readily available, as opposed to rates published by a forecasting service which are not necessarily objective, and are certainly not necessarily verifiable or readily available. Staff averaged the yields-to-maturity of three intermediate-term[8] (five-, seven-, and ten-

[8] The use of intermediate-term securities is based on the theoretical specification that the time to maturity approximates the investor's holding period, and assumes that most investors consider the intermediate time frame (5-10 years) a more appropriate investment horizon. See Reilly, Frank K., and Keith C. Brown. Investment Analysis and Portfolio Management. 2003. South-Western. Mason, OH. p. 439.

year) U.S. Treasury securities quoted in the August 19, 2004, edition of *The Wall Street Journal*. Intermediate-term rates averaged 3.8 percent.[9]

Q. What beta (β) did Staff use?

A. Staff used the average of the Value Line and Merrill Lynch betas for the six sample telcos in its analysis. Column 'J' of Schedule JR-7 shows that the average of the Value Line and Merrill Lynch betas for the sample telcos is 1.00.

Q. Please describe the expected market risk premium ($R_m - R_f$).

A. The expected market risk premium is the amount of additional return that investors expect from investing in the market (or an average-risk security) over the risk-free asset.

Q. What is Staff's estimate of the expected market risk premium?

A. Staff's estimate for the market risk premium is 7.6 percent to 8.2 percent.

Q. How did Staff calculate the expected market risk premium?

A. Two approaches were used. The first approach is an estimate of the historical market risk premium. The second approach is an estimate of the current market risk premium.

Q. Please describe Staff's first approach to estimating the market risk premium: estimating the historical market risk premium.

[9] Average yield on 5-, 7-, and 10-year Treasury notes according to the August 19, 2004, edition of *The Wall Street Journal*: 3.40%, 3.84%, and 4.22%, respectively.

A. For the first approach, Staff assumed that the average historical market risk premium is a reasonable estimate of the expected market risk premium. If one consistently uses the long-run average market risk premium to estimate the expected market risk premium, one should, on average, be correct.

Staff used the historical intermediate-term market risk premium published in Ibbotson Associates' *Stocks, Bonds, Bills and Inflation 2004 Yearbook* for the 78-year period from 1926 to 2003. Ibbotson Associates' calculation is the arithmetic average difference between S&P 500 returns and intermediate-term government bond income returns. The 78-year period is used to eliminate shorter-term biases while at the same time including unexpected past events including business cycles. Staff's market risk premium estimate using this approach is 7.6 percent.

Q. Please describe the second approach to estimating the market risk premium: estimating the current market risk premium.

A. Staff's second approach essentially boils down to inserting a DCF-derived ROE into the CAPM equation, along with a beta and long-term risk-free rate, and solving the CAPM equation for the implied market risk premium. Value Line projects the expected dividend yield (next 12 months) and growth for all dividend-paying stocks under its review. According to the August 13, 2004, edition of Value Line, the expected dividend yield is 1.7 percent and the expected annual growth in share price is 11.58 percent.[10] Therefore, the constant-growth DCF estimate of the cost of equity to all dividend-paying stocks

[10] 3 to 5 year price appreciation potential is 55%. $1.55^{1/4} - 1 = 11.58\%$

followed by Value Line is 13.28 percent. Using a beta of 1.00 and the current long-term risk-free rate of 5.03 percent, the implied current market risk premium is 8.25 percent.[11]

Q. What are the results of Staff's CAPM analysis?

A. Schedule JR-3 shows the result of Staff's CAPM analysis. Staff's CAPM cost of equity estimate is 11.7 percent.

II. FINAL COST OF EQUITY ESTIMATES

Q. Please summarize the results of Staff's cost of equity analysis.

A. The following table shows the results of Staff's cost of equity analysis:

Table 3

Method	Estimate
Average DCF Estimate	10.2%
Average CAPM Estimate	11.7%
Overall Average	**10.9%**

Staff's average estimate of the cost of equity to the sample telcos is 10.9 percent.

Q. Did Staff examine any other companies in its cost of equity analysis?

A. Yes. As a reasonableness check, Staff calculated DCF and CAPM estimates of the cost of equity to a sample of twenty-five non-telecommunications companies ("non-telcos") identified by the Company as "comparable to [Qwest Corporation] in the risk exposure

[11] 13.28% = 5.03% + 1.00 x (current market risk premium); 8.25% = current market risk premium (decimals may not match due to rounding.)
A long-term rate is used here because the constant-growth DCF model does not assume a holding period other than infinity. Therefore, a long-term risk-free rate is used for consistency.

offered to investors." (See direct testimony of Peter C. Cummings. P. 32 at 1 – 14.)[12] Staff's average estimate of the cost of equity to the non-telcos is 10.8 percent, shown in Schedule JR-14.

The Effect of Qwest's Capital Structure on its Cost of Equity

Q. Does Qwest's cost of equity depend on its capital structure?

A. Yes. As a company increases leverage (debt) its cost of equity goes up lockstep with beta. The average capital structure of the sample telcos consists of approximately 49 percent debt. As mentioned previously, Qwest's capital structure is composed of 75 percent debt. Therefore, Qwest's shareholders bear a significantly greater amount of financial risk and require a higher return on their equity investment.

Q. Is there an accepted formula by which the effect of Qwest's capital structure on its cost of equity can be estimated?

A. Yes. The effect that a company's capital structure has on its cost of equity can be estimated by using the methodology developed by Professor Robert Hamada of the University of Chicago, which incorporates capital structure theory with the CAPM.

Q. Please explain this methodology.

A. The Value Line and Merrill Lynch betas for the sample telcos are "levered" betas – they reflect investors' perceptions of both the business risks and financial risks of the firms. In other words, one portion of the levered beta is related to the business risk of the firm and one portion of the levered beta is related to the financial risk of that firm. We already know the capital structures and levered beta for each of the sample telcos. Therefore, if

[12] Staff eliminated companies not followed by Value Line and companies with negative equity.

we remove from each firm's beta that portion of risk related to the use of debt, we can estimate what the firm's beta would be if it were financed entirely with equity capital. This is known as the "unlevered" beta. The following equation is used to estimate the unlevered beta for a firm:

$$\beta_{UL} = \frac{\beta_L}{1 + BD \div EC\,(1-t)}$$

Where:

β_{UL} = unlevered beta
β_L = levered beta
BD = book debt
EC = equity capital
t = tax rate

Q. Did Staff calculate unlevered betas for the sample telcos?

A. Yes. Schedule JR-10 shows how Staff calculated the unlevered beta for each of the sample telcos. The following table shows that the average raw beta[13] of the sample telcos decreases from .98 to .59 with the removal of all risk related to the use of debt. Therefore, a raw beta of .59 represents investors' perceptions of the business risks associated with the sample telcos. Additionally, .59 represents what the sample telcos' average raw beta would be if they were financed entirely with equity.

[13] Betas published by Value Line and Merrill Lynch have been "adjusted" for their presumed long-term tendency to converge toward 1.0. The adjustment process pushes high betas down toward 1.0 and low betas up toward 1.0. For purposes of calculating the capital structure adjustment to the cost of equity, Staff first "de-adjusted" the Value Line and Merrill Lynch betas to arrive at the "raw" beta, then "readjusted" the raw beta consistent with the methods used by Value Line and Merrill Lynch. The Value Line adjustment formula is [(raw beta x 0.67) + 0.35]. The Merrill Lynch adjustment formula is [(raw beta x 0.66257) + 0.33743].

Table 5

Company	Avg. Value Line/Merrill Lynch (levered) Raw Beta	Unlevered Raw Beta
BellSouth	0.93	0.66
SBC Communications	0.93	0.71
Verizon	0.97	0.51
Alltel	0.89	0.59
CenturyTel Inc.	1.00	0.64
Citizens Communications	1.17	0.40
Average	0.98	0.59

Q. Is there a method by which the unlevered beta can be "relevered" using the capital structure of Qwest to arrive at a beta estimate that is representative of Qwest's financial risk?

A. Yes. On average, the capital structures of the sample telcos are less leveraged, and reflect less financial risk than Qwest's capital structure. In order to calculate a beta estimate that is representative of Qwest's financial risk, the unlevered beta discussed above can be relevered using Qwest's capital structure. The following formula is used to calculate the relevered beta:

$$\beta_{RL} = \beta_{UL}\ (1 + (1 - t)BD \div EC)$$

Where:

β_{RL} = relevered beta
β_{UL} = unlevered beta
t = tax rate
BD = book debt
EC = equity capital

Schedule JR-11 shows Staff's calculation of the relevered beta. Staff has calculated the relevered raw beta to be 1.68. When adjusted, the relevered raw beta becomes 1.46.

Q. Can the relevered beta be used to estimate the effect of Qwest's capital structure on its cost of equity?

A. Yes. Once the relevered beta has been determined, the CAPM can be used to estimate the impact of Qwest's capital structure on its cost of equity. Schedule JR-12 shows Staff's calculation of the CAPM risk premium ($\beta \times R_p$) using the average Value Line and Merrill Lynch levered beta (lines 1 – 3) as well as the relevered beta of 1.46 (lines 6 – 8) for Qwest's capital structure. Line 10, column D of the same schedule shows the required capital structure adjustment to the cost of equity. This is the simple difference between the risk premium estimate derived from the average Value Line/Merrill Lynch levered beta and the estimate derived from the relevered beta:

Table 6

	β	x	(R_p)	=	$[\beta \times R_p]$
Historical MRP	1.00	x	7.6%	=	7.6%
Current MRP	1.00	x	8.2%	=	8.2%
Average					7.9%
Historical MRP	1.46	x	7.6%	=	11.1%
Current MRP	1.46	x	8.2%	=	12.0%
Average					11.6%
Cap. Struc./Financial Risk Adjustment					3.7%

As shown in Table 6, Staff estimates Qwest's cost of equity to be approximately 370 basis points, or 3.7 percent, higher than the average cost of equity to the sample telcos. Based on Staff's estimate of the average cost of equity to the sample telcos of 10.9 percent (Schedule JR-3) and Staff's capital structure/financial risk adjuster for Qwest of 3.7 percent, Staff's estimate of Qwest's cost of equity is 14.6 percent (10.9% + 3.7%).

III. ROE RECCOMENDATION

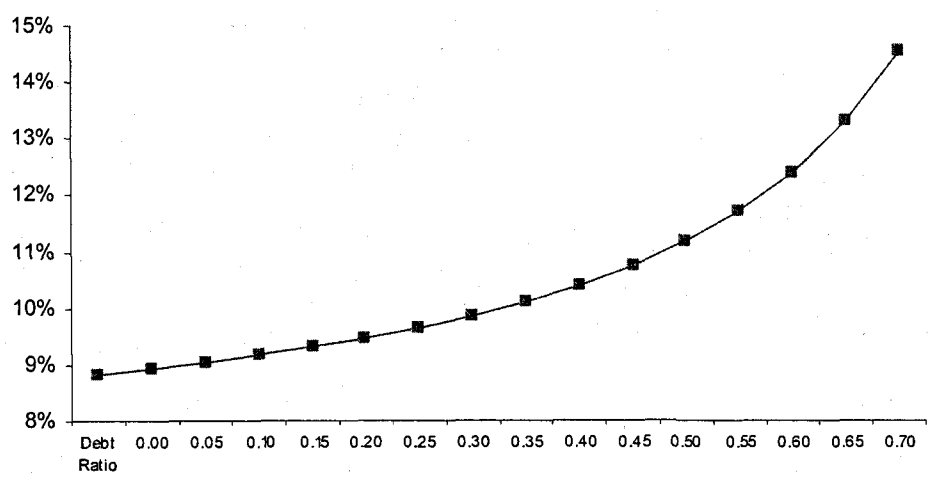
Q. What is Staff's ROE recommendation for Qwest?

A. Staff's estimate of Qwest's cost of equity is 14.6 percent assuming the Commission adopts Qwest's actual capital structure of 75.2 percent debt. Therefore, Staff recommends a ROE of 14.6 percent.

Q. Is Staff's ROE recommendation for Qwest dependent upon the capital structure adopted by the Commission?

A. Yes. Because the cost of equity increases with the use of debt, Qwest has a higher cost of equity than the sample telcos, on average. The following chart shows Staff's estimate of the current relationship between Qwest's cost of equity and its debt ratio:

Chart 3: Qwest's Cost of Equity & Leverage



Assuming Qwest had a debt ratio of 49 percent (the average debt ratio of the sample telcos) Staff would recommend a ROE of 10.9 percent (the average estimate of the cost of equity to the sample telcos). Additionally, assuming Qwest had no debt, Staff would recommend a ROE of approximately 9.0 percent, just as Chart 3 suggests.

IV. COMMENT ON THE DIRECT TESTIMONY OF COMPANY WITNESS PETER C. CUMMINGS

Q. Please summarize Mr. Cumming's ROE recommendations, analyses, and estimates.

A. Mr. Cummings recommends a 21.4 percent ROE. He calculates DCF and CAPM estimates of the cost of equity to the same sample of telephone companies used by Staff, as well as the same group of non-telecommunications companies mentioned previously. His results are shown in the following table:

Table 7

Sample	Method	Cost of Equity Estimate
Telephone Companies	DCF	7.0%
Telephone Companies	CAPM	12.1%
Non-Telephone Companies	DCF	12.8%
Non-Telephone Companies	CAPM	10.2%

Mr. Cummings eliminates his DCF estimate for the sample telcos (7.0%) as being "at odds with both financial theory and the history of capital markets data." (See direct testimony of Peter C. Cummings. p. 33 at 20 – 21.) The average of his remaining estimates is 11.7 percent. He ultimately relies on the CAPM by relevering the average beta of both samples

(using the Hamada methodology) with Qwest's capital structure to arrive at a cost of equity estimate for Qwest of 21.4 percent.

Q. Does Staff disagree with Mr. Cummings' initial cost of equity estimates?

A. No. Mr. Cummings' cost of equity estimates for the sample telcos average 9.6 percent and his cost of equity estimates for the non-telcos average 11.5 percent. The average of all of Mr. Cummings' cost of equity estimates is 10.5 percent. Staff agrees that 10.5 percent is a reasonable estimate of the average cost of equity to his sample.

Q. Does Staff agree with the methods Mr. Cummings used to arrive at his initial cost of equity estimates?

A. No. Staff does not necessarily agree with the methods he uses to arrive at his initial estimates.

Below, Staff explains why Mr. Cummings should give equal weight to his telco DCF estimate rather than excluding it. Staff also explains how Mr. Cummings' capital structure/financial risk adjustment contains errors which, when corrected, dramatically lower his final cost of equity estimate for Qwest of 21.4 percent.

Mr. Cummings' Decision to Ignore His Telco DCF Estimate

Q. Why does Mr. Cummings ignore his DCF cost of equity estimate for telephone companies?

A. According to page 33 of Mr. Cummings' direct testimony:

> The Telephone Companies DCF estimates are clearly an anomaly in the range of data. Even in the current economic environment of narrow yield spreads between corporate debt and U.S. Treasury

> securities and low interest rates, the Telco DCF equity return estimates are at or near the cost of debt for these firms... In other words, the DCF estimates imply little or no equity risk premium for investment in the common stocks of the telephone companies... Accordingly, I am giving no weight to the Telephone Company DCF estimates. (See direct testimony of Peter C. Cummings. p. 33 at 13 – 22.)

Q. Is Mr. Cummings' reason for ignoring his Telco DCF cost of equity estimate valid?

A. No. Mr. Cummings justifies excluding his telco DCF cost of equity estimate by comparing it to corporate bond yields. Mr. Cummings' reasoning is not valid because corporate bond rates cannot meaningfully be compared to the cost of equity. Additionally, evidence shows that Mr. Cummings' telco DCF cost of equity estimate does *not* violate the general rule of thumb that the cost of equity is higher than the yield on debt. Finally, Mr. Cummings's telco DCF cost of equity estimate is consistent with suggestions by financial economists and academics that the current market risk premium is probably lower than the historical market risk premium, and future long-term stock returns in the range of 5 to 8 percent can reasonably be expected.

Q. Why can't corporate bond rates be meaningfully compared to the cost of equity?

A. Corporate bond rates cannot meaningfully be compared to the cost of equity because a corporate bond contains some default risk which is diversifiable; therefore, the investor's expected rate of return is lower than the bond's yield to maturity.[14] Professor Laurence Booth of the Rotman School of Management at the University of Toronto explains:

> As for the premium over long term A bond yields, it has to be pointed out here that corporate bonds are default risky. The maximum return you can get from a corporate bond held to maturity is the yield to maturity. Since corporate bonds are default risky, the investor's expected rate of return is significantly lower than the yield to maturity. As a result, *the yield to maturity on a*

[14] Weston, J. Fred, Thomas E. Copeland. *Managerial Finance.* The Dryden Press. 1986. Chicago. Pp. 434 – 435.

> *corporate bond is not an estimate of the investor's required rate of return, and cannot be meaningfully compared to the [cost of equity]*. Only the yield to maturity on a default free government bond is an estimate of a required rate of return, similar to the [cost of equity]. This is why *all risk comparisons should be to government default free bonds, otherwise you mix apples and oranges.*[15] [emphasis added]

Regardless of whether corporate bond rates can meaningfully be compared to the cost of equity, Mr. Cummings' reason for exclusion is not valid because his telco DCF cost of equity estimate does not violate the general rule of thumb that the cost of equity is higher than the yield on debt. Four of the six sample telcos are rated 'A' or higher by Standard & Poor's. According to Value Line, the average yield on A-rated utility bonds for the period March 19, 2004 to April 1, 2004 (the approximate period over which Mr. Cummings estimates the cost of equity) was 5.51 percent – which is approximately 150 basis points *lower* than Mr. Cummings' Telco DCF cost of equity estimate of 7.0 percent.

Q. On page 33 (lines 20 – 22) of his direct testimony Mr. Cummings states that his Telco DCF estimate of 7.0 percent is "at odds with... the history of capital markets data. Accordingly, I am giving no weight to the Telephone Company DCF estimates." Is this a valid reason for Mr. Cummings to exclude his telco DCF estimate?

A. No. According to Mr. Cummings' schedules the average beta of the telephone companies is 1.01. A 7.0 percent average cost of equity for the telephone companies implies a 3.2 percent market risk premium (calculated as (7.0% - 3.8%) / 1.01). Such a market risk premium is consistent with suggestions by both financial economists and academics that the current equity risk premium is probably lower than the historical equity risk

[15] Booth, Laurence. "The Importance of Market-to-Book Ratios in Regulation." *NRRI Quarterly Bulletin*. Winter 1997. pp. 415 – 425.

premium.[16] For example, Eugene Fama of the University of Chicago and Kenneth French of the Massachusetts Institute of Technology argue that the equity risk premium in the last half of the twentieth century was only 4 percent above Treasury bill rates, and they expect stocks to outperform Treasuries by only 3 percent to 3.5 percent annually in the long term.[17] Mr. Cummings' telco DCF estimate is consistent with the belief among most people who have studied the equity premium closely that "it is probably no more than a few percentage points above Treasury bills."[18]

The Chairman of the United States Federal Reserve, Alan Greenspan, even agrees that the equity risk premium has declined. In 1999, Chairman Greenspan gave a speech before a conference sponsored by the Office of the Comptroller of the Currency in Washington, D.C. in which he stated that the decline in the equity premium over the previous decade was *not* in dispute.[19]

Finally, in Section I of this testimony, Staff cited a 2003 *Journal of Portfolio Management* article in which Antii Ilmanen, a Managing Director of Citigroup, estimated future long-term stock returns in general to range from 5 percent to 8 percent. According to published CAPM betas, telephone companies are about as risky as the average security.

Q. What are Mr. Cummings' final cost of equity estimates when his telco DCF estimate is given proper weight?

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[16] See Dimson, Elroy. Marsh, Paul & Mike Staunton. *Triumph of the Optimists: 101 Years of Global Investment Returns*. 1st edition. Princeton University Press. 2002. pp. 193. Siegel, Jeremy J. *Stocks for the Long Run*. 3rd edition. McGraw-Hill. 2002. pp. 121 – 122.
[17] Jones, Charles P. *Investments*. 8th edition. 2002. pp. 147 – 148.
[18] Jones. p. 148.
[19] Remarks by Chairman Alan Greenspan before a conference sponsored by the Office of the Comptroller of the Currency, Washington, DC. October 14, 1999.

A. As stated previously, Mr. Cummings' cost of equity estimates for the telcos average 9.6 percent and his cost of equity estimates for the non-telcos average 11.5 percent. The average of all of his cost of equity estimates is 10.5 percent.

Mr. Cummings' Capital Structure/Financial Risk Adjustment

Q. How does Mr. Cummings justify his 21.4 percent ROE recommendation?

A. Mr. Cummings justifies his final ROE recommendation of 21.4 percent by calculating a capital structure/financial risk adjustment using the Hamada methodology, similar to the process Staff used. He unlevers the average beta of the sample telcos and comparable companies and relevers it using Qwest's capital structure. He inserts his relevered beta into the CAPM equation to produce a 21.4 percent cost of equity estimate.

Q. Are there problems with Mr. Cummings' capital structure/financial risk adjustment?

A. Yes. There are two problems with Mr. Cummings' capital structure/financial risk adjustment:

1. Mr. Cummings does not "de-adjust" his beta estimates before unlevering and relevering them.
2. Mr. Cummings uses the market value of equity to unlever beta, but uses a book value of equity to relever it, creating a mismatch.

As Staff explains below, correcting these problems dramatically decreases Mr. Cummings' capital structure/financial risk adjustment and his final cost of equity estimate for Qwest.

Q. Should published beta estimates be "de-adjusted" before unlevering and relevering them?

A. Yes. Beta estimates published by Value Line and Merrill Lynch are "Bayesian" estimates. Bayesian statistics provide a method of formally taking prior, often subjective, information or belief about a parameter (such as the presumed long-term tendency for betas to converge toward 1.0) into account in the estimation procedure.[20] De-adjusting beta estimates out of Bayesian mode and back into their classical (and objective) raw estimates gives us the original ordinary least squares ("OLS") slope, or raw beta. The classical estimate of the raw beta shows us how a particular security moved in relation to the market over some time period. Because the purpose of the Hamada methodology is to estimate how a security *would* have moved in relation to the market given different degrees of leverage, it makes sense to "de-adjust" beta estimates out of Bayesian mode and back into their classical (and objective) raw beta estimates before unlevering and relevering them. After unlevering and relevering raw beta estimates, they can then be "re-adjusted" back into Bayesian mode for comparison with betas published by Value Line and Merrill Lynch.

Q. Is it appropriate to unlever beta with a market value of equity and relever it with a book value of equity, as Mr. Cummings does?

A. No. It is not appropriate to unlever beta with a market value of equity and relever it with a book value of equity when there is no reasonable basis to assume market values equal book values. Mr. Cummings compares apples to oranges. In Exhibit PCC-3 of his direct testimony Mr. Cummings calculates unlevered beta estimates for his sample companies using capital structures consisting of *market* equity values which are significantly higher

[20] Wonnacott, Thomas H., & Ronald J. Wonnacott. *Introductory Statistics for Business and Economics*. 3rd ed. pp. 515, 570.

than their book values. He then relevers beta on page 36 of his direct testimony using a *book* equity value for Qwest. This is inappropriate because it makes little intuitive sense to unlever beta with a *market* equity ratio and relever it with a *book* equity ratio when evidence suggests market values are significantly higher than book values. Mr. Cummings' calculation essentially assumes that if Qwest Corporation were publicly-traded it would have a market-to-book ratio of just 1.0, compared to the average market-to-book ratio of the sample telcos of 2.3, and an average market-to- book ratio of the non-telcos of 11.8.[21]

Q. Did Staff correct Mr. Cummings' capital structure/financial risk adjustment for these errors?

A. Yes. Schedule JR-24 shows Staff's corrections to Mr. Cummings' capital structure/financial risk adjustment. Column 'U', line 41 of Schedule JR-24 shows Mr. Cummings' relevered beta for Qwest recalculated to incorporate (1) the de-adjusting of published betas before unlevering and relevering them, and (2) the use of book equity values rather than market equity values in the calculation. Mr. Cummings' average relevered beta for Qwest is 1.37 after making these corrections, compared to his original average relevered beta estimate of 2.15. (See direct testimony of Peter C. Cummings. p. 36 at 13 – 27.) Inserting this corrected average relevered beta estimate into Mr. Cummings CAPM produces a 15.0 percent CAPM cost of equity estimate.[22] This 15.0 percent CAPM cost of equity estimate is 380 basis points, or 3.8 percent, higher than Mr. Cummings' initial average CAPM cost of equity estimate for the sample telcos and non-telcos of 11.2 percent. (See direct testimony of Peter C. Cummings. p. 34 at 3 – 4.)

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[21] It should also be noted that Qwest's parent, QCI, has a market value of equity that is substantially greater than its book value.

[22] Calculated as $3.8\%(R_f) + 1.37(\beta) \times 8.2\%(R_p)$

Q. Can Mr. Cummings' final cost of equity estimate for Qwest of 21.4 percent be corrected?

A. Yes. Adding Mr. Cummings' corrected capital structure/financial risk adjuster of 380 basis points mentioned above, to his average DCF/CAPM cost of equity estimate for the sample telcos and non-telcos of 10.52 percent, produces a final cost of equity estimate for Qwest of 14.3 percent (10.52% + 3.8% = 14.3%).

This 14.3 percent cost of equity estimate can, in turn, reasonably be used as the authorized ROE for setting rates for Qwest, assuming the Commission adopts a capital structure for Qwest consisting of approximately 75 percent debt.

V. CONCLUSION

Q. Please summarize your recommendations.

A. Staff recommends the Commission adopt an authorized ROE of 14.6 percent. Staff's ROE recommendation is dependent upon the capital structure adopted by the Commission in this proceeding, and assumes that the Commission will adopt Qwest's actual capital structure consisting of approximately 75 percent debt. Staff recommends the Commission give little weight to the testimony of the Company's witness, Peter C. Cummings. Mr. Cummings' final cost of equity estimate for Qwest and resulting ROE recommendation are demonstrably overstated and should not be relied upon.

Q. Does this conclude your direct testimony?

A. Yes, it does.

Qwest Corporation
Summary of Cost of Equity Estimates
Sample Telcos

	[A]	[B]	[C]		[D]		[E]
Line No.	Sample	Methodology	Cost of Equity Estimate		Capital Structure/Financial Risk Adjustment		Final Cost of Equity Estimate
1	Sample Telcos	DCF	10.2%				
2	Sample Telcos	CAPM	11.7%				
3		Average	10.9%	+	3.7%	=	14.6%
4							
5							
6							
7							
8							
9	Supporting Schedules: JR-3, JR-12						

Schedule JR-1

Qwest Corporation
Cost of Equity Analysis Sample Telcos

Line No.	[A] Sample Telcos	[B] Industry
1	BellSouth	Telecom. Services
2	SBC Communications	Telecom. Services
3	Verizon	Telecom. Services
4	Alltel	Telecom. Services
5	CenturyTel Inc.	Telecom. Services
6	Citizens Communications	Telecom. Services

Schedule JR-2

Qwest Corporation
DCF and CAPM Cost of Equity Estimates
Sample Telcos

Line No.	[A]	[B]		[C]		[D]		[E]
	DCF Method			D_1/P_0	+	g	=	*k*
1	Constant Growth DCF Estimate			4.1%	+	6.7%	=	10.8%
2	Multi-Stage DCF Estimate						=	9.5%
3	**Average of DCF Estimates**							**10.2%**
4								
5	**CAPM Method**	**Rf**	+	β	x	**(Rp)**	=	*k*
6	Historical Market Risk Premium	3.8%	+	1.00	x	7.6%	=	11.4%
7	Current Market Risk Premium	3.8%	+	1.00	x	8.2%	=	12.0%
8	**Average of CAPM Estimates**							**11.7%**
9								
10								
11						**Average**		**10.9%**
12								
13	Source: The Wall Street Journal, Value Line, Yahoo Finance, Ibbotson Associates SBBI 2004 Yearbook							
14	Supporting Schedules: JR-7, JR-8, JR-9							

Schedule JR-3

Qwest Corporation
Average Capital Structure of Sample Telcos

Line No.	[A] Company	[B] Debt	[C] Equity
1	BellSouth	39.1%	60.9%
2	SBC Communications	31.8%	68.2%
3	Verizon	56.7%	43.3%
4	Alltel	45.5%	54.5%
5	CenturyTel Inc.	47.3%	52.7%
6	Citizens Communications	75.2%	24.8%
7			
8	Average Sample Telcos	49.3%	50.7%
9			
10	Qwest Corporation	75.2%	24.8%
11			
12			
13			
14			
15			
16			
17	Source: Value Line, Ramirez Direct Testimony		

Schedule JR-4

Qwest Corporation
Growth in Earnings and Dividends
Sample Telcos

Line No.	[A]	[B] Dividends Per Share 1998 to 2003 DPS	[C] Dividends Per Share Projected DPS	[D] Earnings Per Share 1998 to 2003 EPS	[E] Earnings Per Share Projected EPS
1	BellSouth	4.7%	4.9%	4.6%	3.8%
2	SBC Communications	7.8%	0.4%	-6.1%	2.3%
3	Verizon	0.0%	0.8%	-0.7%	3.1%
4	Alltel	3.8%	4.0%	7.6%	8.4%
5	CenturyTel Inc.	5.3%	16.9%	11.0%	5.7%
6	Citizens Communications	n/a	n/a	5.4%	13.2%
7					
8	Average Sample Telcos	4.3%	5.4%	3.6%	6.1%
9					
10					
11					
12	Source: Value Line				

Schedule JR-5

Qwest Corporation
Intrinsic Growth
Sample Telcos

Line No.	[A] Company	[B] Retention Growth 1999 to 2003 br	[C] Retention Growth Projected br	[D] Stock Financing Growth vs	[E] Intrinsic Growth 1999 to 2003 br + vs	[F] Intrinsic Growth Projected br + vs
1	BellSouth	12.1%	8.5%	0.0%	12.1%	8.5%
2	SBC Communications	11.2%	2.5%	0.6%	11.8%	3.1%
3	Verizon	11.9%	9.0%	1.8%	13.7%	10.8%
4	Alltel	8.1%	8.5%	0.3%	8.4%	8.8%
5	CenturyTel Inc.	9.3%	8.5%	0.2%	9.5%	8.7%
6	Citizens Communications	4.8%	10.0%	6.9%	11.7%	16.9%
7						
8	Average Sample Telcos	9.6%	7.8%	1.6%	11.2%	9.5%
9						
10						
11						
12						
13						
14						
15						
16	Source: Value Line, MSN Money					

Schedule JR-6

Qwest Corporation
Selected Financial Data of Sample Telcos

Line No.	[A] Company	[B] Symbol	[C] Spot Price 8/18/04	[D] Book Value 8/18/04	[E] Mkt To Book	[F] *Merrill Lynch* Beta β	[G] *Merrill Lynch* Raw Beta β_{raw}	[H] *Value Line* Beta β	[I] *Value Line* Raw Beta β_{raw}	[J] Average *Merrill Lynch* & *Value Line* β	[K] Average *Merrill Lynch* & *Value Line* Raw Beta β_{raw}
1	BellSouth	BLS	27.15	11.70	2.3	0.98	0.97	0.95	0.90	0.97	0.93
2	SBC Communications	SBC	25.58	11.72	2.2	0.88	0.82	1.05	1.04	0.97	0.93
3	Verizon	VZ	39.13	12.44	3.1	0.98	0.97	1.00	0.97	0.99	0.97
4	Alltel	AT	53.92	23.02	2.3	0.88	0.82	1.00	0.97	0.94	0.89
5	CenturyTel Inc.	CTL	31.55	24.46	1.3	0.92	0.88	1.10	1.12	1.01	1.00
6	Citizens Communications	CZN	12.45	5.27	2.4	1.25	1.38	1.00	0.97	1.13	1.17
7											
8	Average				2.3	0.98	0.97	1.02	1.00	1.00	0.98
9											
10	Source: Yahoo Finance, Value Line, Merrill Lynch										

Schedule JR-7

Qwest Corporation
Calculation of Expected Infinite Annual Growth in Dividends
Sample Telcos

Line No.	[A]	[B]
		g
1	DPS Growth - Historical	4.3%
2	DPS Growth - Projected	5.4%
3	EPS Growth - Historical	3.6%
4	EPS Growth - Projected	6.1%
5	Intrinsic Growth - Historical	11.2%
6	Intrinsic Growth - Projected	9.5%
7		
8	Average	6.7%
9		
10		
11		
12	Supporting Schedules: JR-5, JR-6	

Schedule JR-8

Qwest Corporation
Multi-Stage DCF Estimates
Sample Telcos

Line No.	[A]	[B] Current Mkt. Price (P_o)	[C] Projected Dividends[1] (stage 1 growth) (D_t) d_1	[D] d_2	[E] d_3	[F] d_4	[G] Stage 2 growth[2] (g_n)	[H] Equity Cost Estimate (K)
1	BellSouth	27.2	1.08	1.12	1.16	1.20	6.5%	10.2%
2	SBC Communications	25.6	1.28	1.31	1.34	1.38	6.5%	11.0%
3	Verizon	39.1	1.54	1.56	1.58	1.60	6.5%	9.9%
4	Alltel	53.9	1.51	1.57	1.64	1.71	6.5%	9.1%
5	CenturyTel Inc.	31.6	0.28	0.32	0.37	0.42	6.5%	7.5%
6	Citizens Communications	12.5	1.00	n/a	n/a	n/a	6.5%	n/a
7							Average	9.5%

$$P_0 = \sum_{t=1}^{n} \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n}\left[\frac{1}{(1+K)}\right]^n$$

Where : P_0 = current stock price
D_t = dividends expected during stage 1
K = cost of equity
n = years of non – constant growth
D_n = dividend expected in year n
g_n = constant rate of growth expected after year n

[1] d_1 = "Est'd Div'd next 12 mos." 08/13/2004, *Value Line* Summary & Index.
[2] Average annual growth in GDP 1929 - 2003 in current dollars. http://www.bea.doc.gov/

Schedule JR-9

Qwest Corporation
Calculation of Unlevered Beta
Sample Telcos

$$\beta_{UL} = \frac{\beta_L}{1 + BD + EC\ (1 - t)}$$

Where :

β_{UL} = unlevered beta
β_L = levered beta
BD = book debt
EC = equity capital
t = tax rate

Line No.	[A]	[B] *Value Line* Levered Raw Beta β_L	[C] *Merrill Lynch* Levered Raw Beta β_L	[D] Average *Merrill Lynch* & *Value Line* Raw Beta β_L	[E] Tax Rate t	[F] Book Debt BD	[G] Equity Cap EC	[H] *Value Line* Unlevered Raw Beta β_{UL}	[I] *Merrill Lynch* Unlevered Raw Beta β_{UL}	[J] Average *Merrill Lynch* & *Value Line* Unlevered Raw Beta β_{UL}
1	BellSouth	0.90	0.97	0.93	0.35	0.39	0.61	0.63	0.68	0.66
2	SBC Communications	1.04	0.82	0.93	0.33	0.32	0.68	0.80	0.62	0.71
3	Verizon	0.97	0.97	0.97	0.32	0.57	0.43	0.51	0.51	0.51
4	Alltel	0.97	0.82	0.89	0.38	0.46	0.54	0.64	0.54	0.59
5	CenturyTel Inc.	1.12	0.88	1.00	0.39	0.47	0.53	0.72	0.57	0.64
6	Citizens Communications	0.97	1.38	1.17	0.36	0.75	0.25	0.33	0.47	0.40
7										
8	Sample Telcos	1.00	0.97	0.98	0.35	0.49	0.51	0.61	0.57	0.59
9										
10										
11										
12										
13										
14	Tax Rate: Value Line									
15	Supporting Schedules: JR-4, JR-7									

Qwest Corporation
Calculation of Relevered Beta
Sample Telcos

$$\beta_{RL} = \beta_{UL}\ (1 + (1 - t)BD + EC)$$

Where :

β_{RL} = relevered beta
β_{UL} = unlevered beta
t = tax rate
BD = book debt
EC = equity capital

Line No.	[A]	[B] *Value Line* Unlevered Raw Beta β_{UL}	[C] *Merrill Lynch* Unlevered Raw Beta β_{UL}	[D] Book Debt BD	[E] Equity Cap EC	[F] Tax Rate t	[G] *Value Line* Relevered Raw Beta β_{RL}	[H] *Merrill Lynch* Relevered Raw Beta β_{RL}	[I] Average *Value Line* & *Merrill Lynch* Raw Relevered Beta	[J] *Value Line* Adjusted Relevered Beta .35 + .67(Raw Beta) β_{RL}	[K] *Merrill Lynch* Adjusted Relevered Beta .34 + .66(Raw Beta) β_{RL}	[L] Average *Value Line* & *Merrill Lynch* Adjusted Relevered Beta
1	Qwest Corporation	0.61	0.57	0.75	0.25	38.3%	1.74	1.62	1.68	1.51	1.41	1.46
2												
3												
4												
5												
6												
7												
8	Tax Rate: Company ApplicationSchedule C-3											
9	Supporting Schedules: JR-10											

Qwest Corporation
Required Capital Structure Adjustment
Sample Telcos

Line No.	[A]	[B]		[C]		[D]
	Sample Telcos Average Levered Beta	β	x	**(Rp)**	=	**[β × Rp]**
1	Historical Market Risk Premium	1.00	x	7.6%	=	7.6%
2	Current Market Risk Premium	1.00	x	8.2%	=	8.2%
3	**Average [β × Rp]**					**7.9%**
4						
5	**Qwest Corp. Relevered Beta**	β		**(Rp)**		**[β × Rp]**
6	Historical Market Risk Premium	1.46	x	7.6%	=	11.1%
7	Current Market Risk Premium	1.46	x	8.2%	=	12.0%
8	**Average [β × Rp]**					**11.6%**
9						
10	Capital Structure/Financial Risk Adjustment (8 - 3)					3.7%
11						
12						
13						
14						
15	Supporting Schedules: JR-3, JR-11					

Schedule JR-12

Qwest Corporation
Cost of Equity Analysis Non-Telcos

Line No.	[A] Non-Telcos	[B] Industry
1	Abbot Labs	Pharmaceuticals
2	AFLAC	Insurance
3	Air Products	Materials & Chemicals
4	Anheuser Busch	Beverages
5	Auto. Data Proc.	IT Services
6	Barrick Gold	Precious Metals
7	Brown-Forman	Beverages
8	California Water	Water Utility
9	Coca-Cola	Beverages
10	Colgate-Palmolive	Household Products
11	Danaher Corp.	Machinery
12	Ecolab Inc.	Materials & Chemicals
13	Emerson Electric	Electrical Equipment
14	E.W. Scripps	Media
15	Gillette	Personal Products
16	Illinois Tool Works	Machinery
17	Johnson & Johnson	Pharmaceuticals
18	Legget & Platt	Leggett & Platt
19	McDonald's Corp.	Hotels & Resaurants
20	MGIC Investment	Thrifts & Mortgage
21	Sherwin-Williams	Specialty Retail
22	UnitedHealth Grp.	Health Care Providers
23	UST Inc.	Tobacco
24	Vulcan Materials	Construction Materials
25	WPS Resources	Electric Utility

Schedule JR-13

Qwest Corporation
DCF and CAPM Cost of Equity Estimates
Non-Telcos

Line No.	[A]	[B]		[C]		[D]		[E]
	DCF Method			**D_1/P_0**	**+**	**g**	**=**	***k***
1	Constant Growth DCF Estimate			1.9%	+	12.8%	=	14.8%
2	Multi-Stage DCF Estimate						=	8.2%
3	**Average of DCF Estimates**							**11.5%**
4								
5	**CAPM Method**	**Rf**	**+**	**β**	**x**	**(Rp)**	**=**	***k***
6	Historical Market Risk Premium	3.8%	+	0.79	x	7.6%	=	9.8%
7	Current Market Risk Premium	3.8%	+	0.79	x	8.2%	=	10.3%
8	**Average of CAPM Estimates**							**10.0%**
9								
10								
11						**Average**		**10.8%**
12								
13	Source: The Wall Street Journal, Value Line, Yahoo Finance, Ibbotson Associates SBBI 2004 Yearbook							
14	Supporting Schedules: JR-18, JR-19, JR-20							

Schedule JR-14

Qwest Corporation
Average Capital Structure of Non-Telcos

Line No.	[A] Company	[B] Debt	[C] Equity
1	Abbot Labs	33.0%	67.0%
2	AFLAC	17.3%	82.7%
3	Air Products	40.5%	59.5%
4	Anheuser Busch	72.1%	27.9%
5	Auto. Data Proc.	1.6%	98.4%
6	Barrick Gold	17.9%	82.1%
7	Brown-Forman	37.2%	62.8%
8	California Water	52.7%	47.3%
9	Coca-Cola	31.0%	69.0%
10	Colgate-Palmolive	89.0%	11.0%
11	Danaher Corp.	24.7%	75.3%
12	Ecolab Inc.	37.3%	62.7%
13	Emerson Electric	39.2%	60.8%
14	E.W. Scripps	19.6%	80.4%
15	Gillette	57.6%	42.4%
16	Illinois Tool Works	11.0%	89.0%
17	Johnson & Johnson	11.3%	88.7%
18	Legget & Platt	34.6%	65.4%
19	McDonald's Corp.	44.3%	55.7%
20	MGIC Investment	13.3%	86.7%
21	Sherwin-Williams	25.6%	74.4%
22	UnitedHealth Grp.	27.9%	72.1%
23	UST Inc.	98.6%	1.4%
24	Vulcan Materials	32.4%	67.6%
25	WPS Resources	46.6%	53.4%
26			
27			
28	Average Company Sample	36.7%	63.3%
29			
30	Qwest Corporation	75.2%	24.8%
31			
32			
33	Source: Value Line, Ramirez Direct Testimony		

Schedule JR-15

Qwest Corporation
Docket No. T-01051B-03-0454

Qwest Corporation
Growth in Earnings and Dividends
Non-Telcos

Line No.	[A]	[B] Dividends Per Share 1998 to 2003 DPS	[C] Dividends Per Share Projected DPS	[D] Earnings Per Share 1998 to 2003 EPS	[E] Earnings Per Share Projected EPS
1	Abbot Labs	10.1%	6.8%	7.9%	8.3%
2	AFLAC	18.2%	14.9%	19.4%	14.1%
3	Air Products	6.6%	4.4%	0.0%	15.9%
4	Anheuser Busch	9.0%	5.8%	14.3%	8.3%
5	Auto. Data Proc.	13.0%	7.8%	11.0%	10.9%
6	Barrick Gold	4.1%	1.8%	-16.5%	13.4%
7	Brown-Forman	5.3%	4.8%	8.1%	8.1%
8	California Water	0.9%	1.0%	-3.6%	11.1%
9	Coca-Cola	8.0%	10.4%	6.5%	9.7%
10	Colgate-Palmolive	10.4%	5.9%	13.4%	7.3%
11	Danaher Corp.	10.8%	9.9%	19.3%	12.1%
12	Ecolab Inc.	8.8%	9.2%	12.2%	13.0%
13	Emerson Electric	5.9%	2.3%	-2.7%	10.9%
14	E.W. Scripps	2.9%	9.6%	13.4%	12.8%
15	Gillette	5.0%	1.8%	1.1%	11.4%
16	Illinois Tool Works	12.8%	5.6%	4.8%	16.4%
17	Johnson & Johnson	13.7%	11.2%	15.0%	10.8%
18	Legget & Platt	10.6%	4.2%	-3.3%	12.6%
19	McDonald's Corp.	17.3%	3.7%	2.6%	10.0%
20	MGIC Investment	5.4%	9.0%	7.0%	11.5%
21	Sherwin-Williams	6.6%	10.0%	7.6%	11.0%
22	UnitedHealth Grp.	14.9%	32.0%	35.0%	15.9%
23	UST Inc.	4.3%	2.8%	3.8%	2.0%
24	Vulcan Materials	7.3%	5.0%	-2.2%	10.6%
25	WPS Resources	2.0%	1.8%	9.4%	5.7%
26					
27	Average Company Sample	8.5%	7.3%	7.3%	11.0%
28					
29					
30					
31	Source: Value Line				

Schedule JR-16

Qwest Corporation
Intrinsic Growth
Non-Telcos

Line No.	[A] Company	[B] Retention Growth 1999 to 2003 br	[C] Retention Growth Projected br	[D] Stock Financing Growth vs	[E] Intrinsic Growth 1999 to 2003 br + vs	[F] Intrinsic Growth Projected br + vs
1	Abbot Labs	18.2%	13.0%	1.2%	19.3%	14.2%
2	AFLAC	11.8%	14.0%	0.4%	12.3%	14.4%
3	Air Products	10.6%	12.0%	1.4%	12.0%	13.4%
4	Anheuser Busch	33.2%	27.5%	2.6%	35.8%	30.1%
5	Auto. Data Proc.	14.4%	23.5%	3.0%	17.3%	26.5%
6	Barrick Gold	4.6%	4.5%	0.4%	5.0%	4.9%
7	Brown-Forman	13.7%	12.5%	0.4%	14.0%	12.9%
8	California Water	1.8%	5.5%	2.5%	4.3%	8.0%
9	Coca-Cola	18.9%	18.0%	1.5%	20.4%	19.5%
10	Colgate-Palmolive	127.3%	25.0%	71.4%	198.7%	96.4%
11	Danaher Corp.	14.4%	14.5%	5.1%	19.5%	19.6%
12	Ecolab Inc.	15.7%	17.0%	3.4%	19.1%	20.4%
13	Emerson Electric	8.7%	10.0%	0.0%	8.7%	10.0%
14	E.W. Scripps	9.7%	11.5%	0.0%	9.7%	11.5%
15	Gillette	24.7%	27.5%	2.9%	27.5%	30.4%
16	Illinois Tool Works	11.5%	14.0%	0.3%	11.8%	14.3%
17	Johnson & Johnson	17.0%	15.0%	1.6%	18.6%	16.6%
18	Legget & Platt	8.1%	7.0%	0.3%	8.4%	7.3%
19	McDonald's Corp.	15.2%	12.0%	0.0%	15.2%	12.0%
20	MGIC Investment	19.7%	12.5%	0.2%	19.9%	12.7%
21	Sherwin-Williams	14.5%	15.0%	1.4%	15.9%	16.4%
22	UnitedHealth Grp.	24.5%	29.0%	4.4%	28.9%	33.4%
23	UST Inc.	48.5%	27.0%	-10.9%	37.7%	16.1%
24	Vulcan Materials	8.7%	9.0%	0.0%	8.8%	9.0%
25	WPS Resources	2.2%	4.0%	4.8%	7.0%	8.8%
26						
27	Average Company Sample	19.9%	15.2%		23.8%	19.2%
28						
29						
30						
31						
32						
33						
34						
35	Source: Value Line					

Schedule JR-17

Qwest Corporation
Selected Financial Data of Non-Telcos

Line No.	[A] Company	[B] Symbol	[C] Spot Price 8/18/04	[D] Book Value 8/18/04	[E] Mkt To Book	[F] Merrill Lynch Beta β	[G] Merrill Lynch Raw Beta β_{raw}	[H] Value Line Beta β	[I] Value Line Raw Beta β_{raw}	[J] Average Merrill Lynch & Value Line β	[K] Average Merrill Lynch & Value Line Raw Beta β_{raw}
1	Abbot Labs	ABT	40.59	9.05	4.5	0.53	0.29	0.80	0.67	0.67	0.48
2	AFLAC	AFL	39.54	14.08	2.8	0.70	0.55	0.95	0.90	0.83	0.72
3	Air Products	APD	51.99	17.94	2.9	0.90	0.85	0.95	0.90	0.93	0.87
4	Anheuser Busch	BUD	53.07	3.98	13.3	0.27	-0.10	0.60	0.37	0.44	0.14
5	Auto. Data Proc.	ADP	40.12	9.04	4.4	1.06	1.09	0.95	0.90	1.01	0.99
6	Barrick Gold	ABX	19.25	6.54	2.9	n/a	n/a	0.45	0.15	0.45	0.15
7	Brown-Forman	BFB	45.94	9.85	4.7	n/a	n/a	0.65	0.45	0.65	0.45
8	California Water	CWT	27.50	15.05	1.8	n/a	n/a	0.70	0.52	0.70	0.52
9	Coca-Cola	KO	44.57	6.07	7.3	0.53	0.29	0.65	0.45	0.59	0.37
10	Colgate-Palmolive	CL	52.13	0.86	60.4	0.65	0.47	0.70	0.52	0.68	0.50
11	Danaher Corp.	DHR	50.20	13.15	3.8	0.90	0.85	1.00	0.97	0.95	0.91
12	Ecolab Inc.	ECL	30.29	5.42	5.6	0.76	0.64	0.90	0.82	0.83	0.73
13	Emerson Electric	EMR	62.43	16.26	3.8	0.95	0.92	1.05	1.04	1.00	0.98
14	E.W. Scripps	SSP	101.15	24.30	4.2	0.68	0.52	0.90	0.82	0.79	0.67
15	Gillette	G	40.85	2.27	18.0	0.50	0.25	0.65	0.45	0.58	0.35
16	Illinois Tool Works	ITW	90.97	26.26	3.5	0.91	0.86	1.00	0.97	0.96	0.92
17	Johnson & Johnson	JNJ	57.03	9.71	5.9	0.51	0.26	0.70	0.52	0.61	0.39
18	Legget & Platt	LEG	27.41	11.28	2.4	1.02	1.03	1.05	1.04	1.04	1.04
19	McDonald's Corp.	MCD	26.48	10.07	2.6	0.86	0.79	1.05	1.04	0.96	0.92
20	MGIC Investment	MTG	68.50	40.99	1.7	1.01	1.02	1.15	1.19	1.08	1.10
21	Sherwin-Williams	SHW	39.93	10.85	3.7	0.81	0.71	1.00	0.97	0.91	0.84
22	UnitedHealth Grp.	UNH	65.07	13.03	5.0	0.54	0.31	0.65	0.45	0.60	0.38
23	UST Inc.	UST	38.77	0.31	125.1	0.58	0.37	0.90	0.82	0.74	0.59
24	Vulcan Materials	VMC	47.72	18.52	2.6	0.83	0.74	1.05	1.04	0.94	0.89
25	WPS Resources	WPS	47.70	28.08	1.7	n/a	n/a	0.75	0.60	0.75	0.60
26											
27	Average				11.8	0.74	0.60	0.85	0.74	0.79	0.66
28											
29	Source: Yahoo Finance, Value Line, Merrill Lynch										

Schedule JR-18

Qwest Corporation
Calculation of Expected Infinite Annual Growth in Dividends
Non-Telcos

Line No.	[A]	[B]
		g
1	DPS Growth - Historical	8.5%
2	DPS Growth - Projected	7.3%
3	EPS Growth - Historical	7.3%
4	EPS Growth - Projected	11.0%
5	Intrinsic Growth - Historical	23.8%
6	Intrinsic Growth - Projected	19.2%
7		
8	Average	12.8%
9		
10		
11		
12	Supporting Schedules: JR-16, JR-17	

Schedule JR-19

Qwest Corporation
Multi-Stage DCF Estimates
Non-Telcos

Line No.	[A]	[B] Current Mkt. Price (P_o)	[C] Projected Dividends[1] (stage 1 growth) (D_t) d_1	[D] d_2	[E] d_3	[F] d_4	[G] Stage 2 growth[2] (g_n)	[H] Equity Cost Estimate (K)
1	Abbot Labs	40.6	1.04	1.11	1.19	1.28	6.5%	9.1%
2	AFLAC	39.5	0.38	0.42	0.47	0.52	6.5%	7.5%
3	Air Products	52.0	1.16	1.21	1.26	1.32	6.5%	8.6%
4	Anheuser Busch	53.1	0.98	1.01	1.04	1.08	6.5%	8.2%
5	Auto. Data Proc.	40.1	0.56	0.60	0.65	0.70	6.5%	7.9%
6	Barrick Gold	19.3	0.22	0.23	0.23	0.24	6.5%	7.4%
7	Brown-Forman	45.9	0.85	0.88	0.92	0.95	6.5%	8.2%
8	California Water	27.5	1.13	1.15	1.16	1.18	6.5%	10.1%
9	Coca-Cola	44.6	1.06	1.15	1.25	1.36	6.5%	9.0%
10	Colgate-Palmolive	52.1	0.96	1.03	1.11	1.20	6.5%	8.4%
11	Danaher Corp.	50.2	0.06	0.07	0.07	0.08	6.5%	5.6%
12	Ecolab Inc.	30.3	0.33	0.36	0.39	0.42	6.5%	7.6%
13	Emerson Electric	62.4	1.60	1.64	1.68	1.72	6.5%	8.8%
14	E.W. Scripps	101.2	0.80	0.87	0.94	1.01	6.5%	7.1%
15	Gillette	40.9	0.65	0.67	0.69	0.71	6.5%	7.9%
16	Illinois Tool Works	91.0	1.04	1.10	1.16	1.22	6.5%	7.5%
17	Johnson & Johnson	57.0	1.14	1.25	1.36	1.49	6.5%	8.6%
18	Legget & Platt	27.4	0.60	0.63	0.65	0.68	6.5%	8.6%
19	McDonald's Corp.	26.5	0.44	0.45	0.47	0.48	6.5%	8.0%
20	MGIC Investment	68.5	0.30	0.33	0.36	0.40	6.5%	6.6%
21	Sherwin-Williams	39.9	0.72	0.79	0.86	0.95	6.5%	8.4%
22	UnitedHealth Grp.	65.1	0.03	0.04	0.05	0.06	6.5%	5.3%
23	UST Inc.	36.8	2.12	2.16	2.21	2.26	6.5%	11.4%
24	Vulcan Materials	47.7	1.04	1.09	1.15	1.20	6.5%	8.6%
25	WPS Resources	47.7	2.22	2.26	2.30	2.34	6.5%	10.6%
							Average	8.2%

$$P_0 = \sum_{t=1}^{n} \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n}\left[\frac{1}{(1+K)}\right]^n$$

Where : P_0 = current stock price
D_t = dividends expected during stage 1
K = cost of equity
n = years of non – constant growth
D_n = dividend expected in year n
g_n = constant rate of growth expected after year n

[1] d_t = "Est'd Div'd next 12 mos." 08/13/2004, *Value Line* Summary & Index.
[2] Average annual growth in GDP 1929 - 2003 in current dollars. http://www.bea.doc.gov/

Qwest Corporation
Docket No. T-01051B-03-0454

Qwest Corporation
Calculation of Unlevered Beta
Non-Telcos

$$\beta_{UL} = \frac{\beta_L}{1 + BD + EC\ (1 - t)}$$

Where :

β_{UL} = unlevered beta
β_L = levered beta
BD = book debt
EC = equity capital
t = tax rate

Line No.	[A]	[B] Value Line Levered Raw Beta β_L	[C] Merrill Lynch Levered Raw Beta β_L	[D] Average Merrill Lynch & Value Line Raw Beta β_{raw}	[E] Tax Rate t	[F] Book Debt BD	[G] Equity Cap EC	[H] Value Line Unlevered Raw Beta β_{UL}	[I] Merrill Lynch Unlevered Raw Beta β_{UL}	[J] Average Merrill Lynch & Value Line Unlevered Raw Beta β_{UL}
1	Abbot Labs	0.67	0.29	0.48	25.0%	0.33	0.67	0.49	0.21	0.35
2	AFLAC	0.90	0.55	0.72	35.0%	0.17	0.83	0.79	0.48	0.64
3	Air Products	0.90	0.85	0.87	27.5%	0.40	0.60	0.60	0.57	0.58
4	Anheuser Busch	0.37	-0.10	0.14	38.0%	0.72	0.28	0.14	-0.04	0.05
5	Auto. Data Proc.	0.90	1.09	0.99	39.5%	0.02	0.98	0.89	1.08	0.98
6	Barrick Gold	0.15	n/a	0.15	30.0%	0.18	0.82	0.13	n/a	0.13
7	Brown-Forman	0.45	n/a	0.45	34.0%	0.37	0.63	0.32	n/a	0.32
8	California Water	0.52	n/a	0.52	40.0%	0.53	0.47	0.31	n/a	0.31
9	Coca-Cola	0.45	0.29	0.37	24.5%	0.31	0.69	0.33	0.22	0.28
10	Colgate-Palmolive	0.52	0.47	0.50	32.0%	0.89	0.11	0.08	0.07	0.08
11	Danaher Corp.	0.97	0.85	0.91	31.5%	0.25	0.75	0.79	0.69	0.74
12	Ecolab Inc.	0.82	0.64	0.73	37.0%	0.37	0.63	0.60	0.46	0.53
13	Emerson Electric	1.04	0.92	0.98	32.0%	0.39	0.61	0.73	0.64	0.68
14	E.W. Scripps	0.82	0.52	0.67	37.0%	0.20	0.80	0.71	0.45	0.58
15	Gillette	0.45	0.25	0.35	29.0%	0.58	0.42	0.23	0.12	0.18
16	Illinois Tool Works	0.97	0.86	0.92	34.0%	0.11	0.89	0.90	0.80	0.85
17	Johnson & Johnson	0.52	0.26	0.39	28.5%	0.11	0.89	0.48	0.24	0.36
18	Legget & Platt	1.04	1.03	1.04	36.0%	0.35	0.65	0.78	0.77	0.77
19	McDonald's Corp.	1.04	0.79	0.92	33.0%	0.44	0.56	0.68	0.51	0.60
20	MGIC Investment	1.19	1.02	1.10	30.0%	0.13	0.87	1.08	0.92	1.00
21	Sherwin-Williams	0.97	0.71	0.84	35.5%	0.26	0.74	0.79	0.58	0.69
22	UnitedHealth Grp.	0.45	0.31	0.38	35.0%	0.28	0.72	0.36	0.24	0.30
23	UST Inc.	0.82	0.37	0.59	38.5%	0.99	0.01	0.02	0.01	0.01
24	Vulcan Materials	1.04	0.74	0.89	31.0%	0.32	0.68	0.79	0.56	0.67
25	WPS Resources	0.60	n/a	0.60	26.0%	0.47	0.53	0.36	n/a	0.36
26										
27										
28	Company Sample	0.74	0.60	0.66	33%	0.37	0.63	0.54	0.46	0.48
29										
30										
31										
32										
33	Tax Rate: Value Line									
34	Supporting Schedules: JR-15 JR-18									

Schedule JR-21

Qwest Corporation
Calculation of Relevered Beta
Non-Telcos

$$\beta_{RL} = \beta_{UL}\ (1 + (1 - t)BD + EC)$$

Where :

β_{RL} = relevered beta
β_{UL} = unlevered beta
t = tax rate
BD = book debt
EC = equity capital

Line No.	[A]	[B] *Value Line* Unlevered Raw Beta β_{UL}	[C] *Merrill Lynch* Unlevered Raw Beta β_{UL}	[D] Book Debt BD	[E] Equity Cap EC	[F] Tax Rate t	[G] *Value Line* Relevered Raw Beta β_{RL}	[H] *Value Line* Adjusted Relevered Beta .35 + .67(Raw Beta) β_{RL}	[I] *Merrill Lynch* Relevered Raw Beta β_{RL}	[J] *Merrill Lynch* Adjusted Relevered Beta .34 + .66(Raw Beta) β_{RL}	[K] Average *Value Line* & *Merrill Lynch* Adjusted Relevered Beta
1	Qwest Corporation	0.54	0.46	0.75	0.25	38.3%	1.54	1.38	1.31	1.21	1.29
2											
3											
4											
5											
6											
7											
8	Tax Rate: Company Application Schedule C-3										
9	Supporting Schedules: JR-21										

Qwest Corporation
Required Capital Structure Adjustment
Non-Telcos

Line No.	[A]	[B]		[C]		[D]
	Non-Telcos Average Levered Beta	β	x	**(Rp)**	=	**[β × Rp]**
1	Historical Market Risk Premium	0.79	x	7.6%	=	6.0%
2	Current Market Risk Premium	0.79	x	8.2%	=	6.5%
3	**Average [β × Rp]**					**6.2%**
4						
5	**Qwest Corp. Relevered Beta**	β		**(Rp)**		**[β × Rp]**
6	Historical Market Risk Premium	1.29	x	7.6%	=	9.8%
7	Current Market Risk Premium	1.29	x	8.2%	=	10.6%
8	**Average [β × Rp]**					**10.2%**
9						
10	Capital Structure Adjustment (8 - 3)					4.0%
11						
12						
13						
14						
15	Supporting Schedules: JR-14, JR-22					

Schedule JR-23

Qwest Corporation
Corrections to Mr. Cummings' Capital Structure/Financial Risk Adjustment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]	[Q]	[R]	[S]	[T]	[U]
	Levered Beta						Capital Structure				Unlevered Beta				Relevered Beta						
	Adjusted Beta			Raw (de-adjusted) Beta							Adjusted	Raw (de-adjusted) Beta			Adjusted	Raw (de-adjusted) Beta			Re-adjusted Beta		
	ML_{adj} Published	VL_{adj} Published	Avg_{adj}	ML_{raw} ([A]-.34)/.66	VL_{raw} ([B]-.35)/.67	Avg_{raw}	$ Equity	$ Debt	% Debt	% Equity	Avg_{adj}	ML_{raw}	VL_{raw}	Avg_{raw}	Avg_{adj}	ML_{raw}	VL_{raw}	Avg_{raw}	ML ([P]x.66)+.34	VL ([Q]x.67)+.35	Avg
Telephone Companies							(millions)	(millions)													
1 BellSouth	0.98	0.95	0.97	0.97	0.90	0.93	20,410	13,124	39.1%	60.9%	0.68	0.68	0.63	0.66	1.95	1.96	1.81	1.89	1.64	1.56	1.60
2 SBC Communications	0.88	1.05	0.97	0.82	1.04	0.93	38,444	17,924	31.8%	68.2%	0.74	0.63	0.80	0.72	2.13	1.80	2.30	2.05	1.53	1.89	1.71
3 Verizon	0.98	1.00	0.99	0.97	0.97	0.97	33,894	44,452	56.7%	43.3%	0.53	0.52	0.52	0.52	1.53	1.50	1.50	1.50	1.33	1.36	1.35
4 ALLTEL Corp	0.88	1.00	0.94	0.82	0.97	0.89	7,037	5,885	45.5%	54.5%	0.61	0.53	0.63	0.58	1.75	1.52	1.80	1.66	1.35	1.56	1.45
5 CenturyTel Inc	0.92	1.10	1.01	0.88	1.12	1.00	3,438	3,089	47.3%	52.7%	0.64	0.56	0.71	0.63	1.83	1.59	2.03	1.81	1.39	1.71	1.55
6 Citizens Comm Company	1.25	1.05	1.15	1.38	1.04	1.21	1,453	4,409	75.2%	24.8%	0.39	0.46	0.35	0.41	1.11	1.33	1.01	1.17	1.22	1.03	1.12
7																					
8 **Average**	**0.98**	**1.03**	**1.00**	**0.97**	**1.01**	**0.99**			**49.3%**	**50.7%**	**0.60**	**0.56**	**0.61**	**0.59**	**1.72**	**1.62**	**1.74**	**1.68**	**1.41**	**1.52**	**1.46**
9																					
10 **Comparable Companies**																					
11 Abbott Laboratories	0.53	0.80	0.67	0.29	0.67	0.48	13,498	6,640	33.0%	67.0%	0.50	0.22	0.51	0.36	1.45	0.63	1.46	1.05	0.76	1.33	1.04
12 AFLAC Inc	0.70	0.95	0.83	0.55	0.90	0.72	6,825	1,423	17.3%	82.7%	0.73	0.48	0.79	0.64	2.09	1.38	2.26	1.82	1.25	1.87	1.56
13 Air Products & Chemicals	0.90	1.00	0.95	0.85	0.97	0.91	3,782	2,572	40.5%	59.5%	0.66	0.59	0.67	0.63	1.89	1.69	1.93	1.81	1.46	1.64	1.55
14 Anheuser Busch Cos Inc	0.27	0.60	0.44	-0.10	0.37	0.14	2,912	7,532	72.1%	27.9%	0.16	-0.04	0.14	0.05	0.47	-0.11	0.40	0.15	0.27	0.62	0.44
15 Automatic Data Processing	1.06	0.95	1.01	1.09	0.90	0.99	5,371	85	1.6%	98.4%	0.99	1.08	0.89	0.98	2.86	3.10	2.54	2.82	2.39	2.06	2.22
16 Barrick Gold Corp		0.45	0.45		0.15	0.15	3,491	762	17.9%	82.1%	0.39		0.13	0.13	1.13		0.38	0.38		0.60	0.60
17 Brown-Forman Cl B		0.65	0.65		0.45	0.45	1,145	680	37.2%	62.8%	0.47		0.32	0.32	1.35		0.93	0.93		0.97	0.97
18 California Water Service		0.65	0.65		0.45	0.45	253	283	52.7%	47.3%	0.38		0.26	0.26	1.08		0.74	0.74		0.85	0.85
19 Coca Cola Co	0.53	0.65	0.59	0.29	0.45	0.37	14,576	6,552	31.0%	69.0%	0.46	0.22	0.35	0.29	1.31	0.65	0.99	0.82	0.77	1.02	0.89
20 Colgate-Palmolive Co	0.65	0.70	0.68	0.47	0.52	0.50	384	3,115	89.0%	11.0%	0.11	0.08	0.08	0.08	0.31	0.22	0.24	0.23	0.48	0.51	0.50
21 Danaher Corp	0.90	1.05	0.98	0.85	1.04	0.95	3,961	1,301	24.7%	75.3%	0.80	0.70	0.86	0.78	2.31	2.01	2.47	2.24	1.67	2.01	1.84
22 Deluxe Corp																					
23 Ecolab Inc	0.76	0.90	0.83	0.64	0.82	0.73	1,331	791	37.3%	62.7%	0.60	0.46	0.59	0.53	1.72	1.32	1.70	1.51	1.21	1.49	1.35
24 Emerson Electric	0.95	1.05	1.00	0.92	1.04	0.98	6,617	4,260	39.2%	60.8%	0.70	0.65	0.74	0.69	2.02	1.87	2.11	1.99	1.58	1.77	1.67
25 E W Scripps - CL A	0.68	0.90	0.79	0.52	0.82	0.67	1,884	458	19.6%	80.4%	0.68	0.45	0.71	0.58	1.96	1.28	2.04	1.66	1.19	1.71	1.45
26 Gillette Co	0.50	0.65	0.58	0.25	0.45	0.35	2,244	3,050	57.6%	42.4%	0.31	0.13	0.24	0.18	0.88	0.37	0.68	0.53	0.59	0.81	0.70
27 Illinois Tool Works	0.91	1.00	0.96	0.86	0.97	0.92	7,896	972	11.0%	89.0%	0.88	0.80	0.90	0.85	2.54	2.30	2.58	2.44	1.86	2.08	1.97
28 Johnson & Johnson	0.51	0.70	0.61	0.26	0.52	0.39	27,837	3,555	11.3%	88.7%	0.56	0.24	0.48	0.36	1.60	0.69	1.38	1.04	0.79	1.28	1.04
29 Leggett & Platt Inc	1.02	1.05	1.04	1.03	1.04	1.04	2,132	1,128	34.6%	65.4%	0.77	0.77	0.78	0.77	2.21	2.20	2.23	2.22	1.80	1.85	1.82
30 McDonalds Corp	0.86	1.00	0.93	0.79	0.97	0.88	12,266	9,749	44.3%	55.7%	0.61	0.52	0.64	0.58	1.76	1.49	1.84	1.66	1.33	1.58	1.45
31 MGIC Investment Corp	1.01	1.20	1.11	1.02	1.27	1.14	3,896	600	13.3%	86.7%	1.00	0.92	1.15	1.04	2.88	2.65	3.31	2.98	2.09	2.57	2.33
32 Middlesex Water Co																					
33 Sherwin-Williams Co	0.81	1.00	0.91	0.71	0.97	0.84	1,493	514	25.6%	74.4%	0.74	0.58	0.79	0.69	2.12	1.67	2.28	1.97	1.45	1.88	1.66
34 UnitedHealth Group Inc	0.54	0.65	0.60	0.31	0.45	0.38	6,198	2,400	27.9%	72.1%	0.48	0.24	0.36	0.30	1.36	0.70	1.03	0.86	0.80	1.04	0.92
35 UST Inc	0.58	0.85	0.72	0.37	0.75	0.56	16	1,140	98.6%	1.4%	0.01	0.01	0.02	0.01	0.04	0.02	0.04	0.03	0.35	0.38	0.37
36 Vulcan Materials	0.83	1.00	0.92	0.74	0.97	0.86	1,837	881	32.4%	67.6%	0.70	0.57	0.74	0.65	2.00	1.63	2.12	1.88	1.42	1.77	1.59
37 WPS Resources Corp		0.75	0.75		0.60	0.60	1,018	888	46.6%	53.4%	0.48		0.38	0.38	1.37		1.09	1.09		1.08	1.08
38																					
39 **Average**	**0.74**	**0.85**	**0.78**	**0.60**	**0.74**	**0.66**			**36.7%**	**63.3%**	**0.57**	**0.46**	**0.54**	**0.49**	**1.63**	**1.32**	**1.55**	**1.39**	**1.21**	**1.39**	**1.27**
40																					
41 **Average Telephone & Comparable Cos.**	**0.86**	**0.94**	**0.89**	**0.79**	**0.87**	**0.82**					**0.58**	**0.51**	**0.57**	**0.54**	**1.67**	**1.47**	**1.65**	**1.54**	**1.31**	**1.45**	**1.37**

Source: Direct testimony of Peter C. Cummings Exhibit PCC-3
Value Line
Direct testimony of Joel M. Reiker Schedules JR-10 & JR-11
Deluxe Corp eliminated due to negative equity
Middlesex Water Co. eliminated because it is not followed by Value Line

Schedule JR-24

RAMIREZ

BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
MIKE GLEASON
Commissioner
KRISTIN MAYES
Commissioner

IN THE MATTER OF QWEST CORPORATION'S FILING AMENDED RENEWED PRICE REGULATION PLAN	)))	DOCKET NO. T-01051B-03-0454
IN THE MATTER OF THE INVESTIGATION OF THE COST OF TELECOMMUNICATIONS ACCESS	)))	DOCKET NO. T-00000D-00-0672

DIRECT

TESTIMONY

OF

ALEJANDRO RAMIREZ

PUBLIC UTILITIES ANALYST I

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

NOVEMBER 18, 2004

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EXECUTIVE SUMMARY

The direct testimony of Staff witness Alejandro Ramirez addresses the following issues:

Capital Structure – Staff recommends that the Commission adopt Qwest Corporation's actual end of test year 2003 capital structure consisting of 75.2 percent debt and 24.8 percent equity.

Cost of debt – Staff recommends that the Commission adopt Qwest Corporation's actual end of test year 2003 cost of outstanding debt of 7.81 percent.

Overall Rate of Return - Staff recommends that the Commission adopt 9.5 percent for the overall rate of return ("ROR") to establish the revenue requirement for Qwest Corporation.

INTRODUCTION

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

A. My name is Alejandro Ramirez. I am a Public Utilities Analyst employed by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Briefly describe your responsibilities as a Public Utilities Analyst.

A. In my position as a Public Utilities Analyst, I perform studies to estimate the cost of capital component of the revenue requirement in rate proceedings. I also perform other financial analyses.

Q. Please describe your educational background and professional experience.

A. In 2002, I graduated summa cum laude from Arizona State University, receiving a Bachelor of Science degree in Global Business with a specialization in finance. While attending Arizona State University, I successfully completed the Barrett Honors College curriculum. My course of studies included classes in corporate and international finance, investments, accounting, statistics, and economics. I began employment as a Staff Public Utilities Analyst in 2003. Since that time, I have provided recommendations to the Commission on financings and prepared various studies in the field of cost of capital and econometrics. I have also attended seminars related to general regulatory and business issues.

Q. What is the scope of your testimony in this case?

A. I provide Staff's recommended capital structure, cost of debt and rate of return in this proceeding. I discuss the appropriate overall rate of return ("ROR") for establishing the revenue requirement for Qwest Corporation. ("QC" or "Applicant").

SUMMARY OF TESTIMONY AND RECOMMENDATIONS

Q. Briefly summarize how Staff's cost of capital testimony is organized.

A. Staff's cost of capital testimony is organized in four sections. Section I discusses the concept of weighted average cost of capital ("WACC"). Section II presents the concept of capital structure and Staff's recommended capital structure for QC in this proceeding. Section III presents Staff's recommended cost of debt for the Applicant. Finally, Section IV presents Staff's overall rate of return recommendation for the Applicant.

Q. Have you prepared any exhibits to your testimony?

A. Yes. I prepared five schedules (AXR-1 to AXR-5) that support Staff's cost of capital analysis.

Q. What is Staff's recommended overall rate of return for Qwest Corporation?

A. Staff recommends a 9.5 percent ROR. Staff's recommendation is based on its cost of equity estimate of 14.6 percent and the Applicant's actual end of test year cost of debt of 7.81 percent. The ROR calculation is presented on Schedule AXR-1.

I. THE WEIGHTED AVERAGE COST OF CAPITAL

Q. Please define the cost of capital concept.

A. The cost of capital is the opportunity cost of the funds employed as the result of an investment decision. The cost of capital represents the returns that could be expected to be earned in other investments with equivalent risk. In other words, the cost of capital is the return that stakeholders expect for committing their resources in a determined business enterprise. The cost of capital is calculated as the weighted average cost of capital("WACC").

Q. How is the WACC for utilities calculated?

A. The WACC is calculated by adding the weighted expected return on equity and the weighted embedded cost of debt.

The following equation shows how the WACC is calculated:

Equation 1.

$$WACC = W_{debt} * r_{debt} + W_{equity}\, r_{equity}$$

Where W_{debt} and W_{equity} are the weights given to the Applicant's securities (the proportion of the each security relative to the portfolio), r_{debt} is the embedded cost of debt and r_{equity} is the expected return on equity.

Q. Can you explain Equation 1?

A. Let's assume that a firm has a capital structure composed of 75 percent debt and 25 percent equity. Let's also assume that the embedded cost of debt is 7.8 percent and the expected return on equity (cost of equity) is 10.5 percent. The WACC calculation is as follows:

$$WACC = (75\% * 7.8\%) + (25\% * 10.5\%)$$

$$WACC = 5.85\% + 2.63\%$$

$$WACC = 8.48\%$$

The weighted average cost of capital in this example is 8.48 percent. Given the example firm's capital structure, the company would have to earn an overall rate of return of 8.48 percent to cover its cost of capital.

II. CAPITAL STRUCTURE

Background

Q. Please briefly explain the capital structure concept.

A. The capital structure of a firm shows how its assets are financed over the long-run. The capital structure of a firm is the mix of capital leases, long-term debt, preferred stock and common stock that are used to finance the firm's assets.

Q. How is the capital structure calculated?

A. The capital structure of a company is calculated by finding the percentage of each component of the capital structure (capital leases, long-term debt, preferred stock and common stock) relative to the total capital (the total sum of all the components of the capital structure).

For illustrative purposes, let's suppose that company A is financed by $15,000 of capital leases, $80,000 of long-term debt, $5,000 of preferred stock and $35,000 of common stock. Company A's capital structure would be calculated as follows:

Table 1.

Component			%
Capital Leases	$15,000	($15,000/$135,000)	11.1%
Long-Term Debt	$80,000	($80,000/$135,000)	59.3%
Preferred Stock	$5,000	($5,000/$135,000)	3.7%
Common Stock	$35,000	($35,000/$135,000)	25.9%
Total	$135,000		100%

In this example, Company A's capital structure is composed of 11.1 percent capital leases, 59.3 percent long-term debt, 3.7 percent preferred stock and 25.9 percent common stock.

Qwest Corporation Capital Structure

Q. What capital structure does the Applicant propose for its Arizona operations?

A. QC proposes in this proceeding a capital structure composed of 75.17 percent debt and 24.83 percent common equity. Schedule AXR-1 shows QC's proposed capital structure in this proceeding.

Q. How did the Applicant calculate the proposed capital structure?

A. The Applicant calculated the value of components of its Arizona capital structure based on regulatory and accounting records prescribed by the Federal Communication Commission ("FCC") allocated among jurisdictions on the basis of net plant in service.

Q. Would the Applicant's proposed capital structure change if the net plant in service for Arizona versus other jurisdictions changes?

A. No. A change in the relative percentage of net plant in the Arizona jurisdiction would change the dollar value of the capital components; however, the proportion of each component would remain the same.

For illustrative purposes, let's go back to the example of Company A, which as previously stated, is financed by $15,000 of capital leases, $80,000 of long-term debt, $5,000 of preferred stock and $35,000 of common stock. Assuming two net plant scenarios (10 percent and 16 percent) for Company A's operations in a region. Table 2 summarizes the results:

Table 2.

	10 % Allocation Factor		16 % Allocation Factor	
Component	Dollar Amount	%	Dollar Amount	%
Capital Leases	$1,500	11.1%	$2,400	11.1%
Long-Term Debt	$8,000	59.3%	$12,800	59.3%
Preferred Stock	$500	3.7%	$800	3.7%
Common Stock	$3,500	25.9%	$5,600	25.9%
Total	$13,500	100%	$21,600	100%

As shown in Table 2, changes in the allocation factor (net plant) do not change the proportion of the financial instruments included in the capital structure.

Q. How does QC's capital structure compare to other telephone companies?

A. Schedule AXR-2 shows a comparison between a Sample of Telecos (the sample used by Staff witness Mr. Reiker), QC and Qwest International (Holding Company of QC). The average capital structure for the sample Telecos is composed of 47.8 percent debt and 52.2 percent equity. In contrast, QC's capital structure is composed of 75.2 percent debt and 24.8 percent equity. QC's capital structure is more leveraged than the average capital structure of the sample Telecos. Qwest International, QC's holding company, currently has negative equity.

Q. Does Staff have any concerns regarding QC's capital structure?

A. Yes. Staff is concerned with QC's current capital structure and its implication for the future. As stated above, QC's current capital structure is more leveraged than the sample telecos. Moreover, Staff is concerned with QC's new dividend policy that was established in July 2004.

Q. What is QC's new dividend policy?

A. QC's new dividend policy allows QC to consistently declare dividends in excess of its earnings. The following is an excerpt found in QC's 10-Q[1] for the period ending June 30, 2004, page 24:

> "In July 2004, we [Qwest Corporation] modified our dividend practice to balance our financial needs, cash position and credit profile with those of our parent. As a result, going forward, we may declare and pay dividends in excess of our earnings."

Q. How could this new dividend policy affect QC's overall financial condition?

A. If QC consistently declares dividends in excess of its earnings, QC's book equity may be further reduced, resulting in an even more leveraged capital structure. QC's bond rating and its cost of debt may be adversely affected by an increase in leverage.

Q. Does staff believe that the Applicant's actual capital structure should be adopted for rate-making purposes in this case?

A. Yes.

III. COST OF DEBT

Q. Are the applicant's debt instruments graded by credit rating agencies?

A. Yes. Schedule AXR-3 shows QC's long-term debt rating from the three main credit rating agencies: Standard & Poor's ("S&P"), Moody's Investors Services (Moody's) and Fitch Ratings ("Fitch") at June 30, 2004 and at December 31, 2003. Investment grade bonds are those whose investment grade is at least BBB- (S&P), Baa3 (Moody's) and BBB- (Fitch). QC's long-term debt grade at December 31, 2003 was B- (S&P), Ba3 (Moody's) and B (Fitch). QC's long-term debt grade at June 30, 2004 was BB- (S&P), Ba3 (Moody's) and

[1] See Exhibit 1: *Note 8: Subsequent Events*. Taken from QC's 10-Q filed on August 06, 2004.

BB (Fitch). Even though QC's long-term debt grade has improved since December 31, 2003, it is still regarded as speculative.

Q. How does QC's long-term debt rating compare to the sample Telecos previously referred to in this testimony?

A. Schedule AXR-4 shows S&P and Moody's bond grades for the sample Telecos. With the exception of Citizens Communications, the sample Telecos have an investment grade (At least BBB- in S&P and Baa3 in Moody's) rating.

Q. Is Staff concerned with QC's long-term debt grade?

A. Yes, it is. As shown in Schedule AXR-3, QC's long-term debt grade is still below the investment grade. In addition, QC's credit rating could be negatively affected by Qwest International Communications, Inc. financial position. The following is an excerpt found in QC's 10-Q for the period ending June 30, 2004, page 37:

> "...if cash provided by our and QCII's [Qwest Communications International, Inc] operations does not improve, if competitive pressures increase, if revenue and cash provided by operations continue to decline, if economic conditions weaken or if we [Qwest Corporation] or QCII become subject to significant judgments..."
>
> "We or QCII could be required to make significant payments that we do not have the resources to make."
>
> "...QCII's ability to meet its debt service obligations and its financial condition could be materially and adversely affected, potentially adversely affect its credit ratings, its ability to access the capital markets and its compliance with debt covenants."
>
> "*As a wholly owned subsidiary of QCII, our business operations and financial condition could also be affected, potentially impacting our credit ratings and access to capital markets* [emphasis added]."

Q. What is the implication of QC's lower debt rating compared to the sample Telecos?

A. A lower debt rating translates into higher debt costs for new issuances resulting in higher cost of service that may be passed on to ratepayers.

Q. What cost of debt does the Applicant propose?

A. The Applicant proposes 7.81 percent as the cost of debt (for practical purposes, capital leases are included in the long-term portion). Schedule AXR-5 summarizes QC's cost of debt.

Q. Does Staff agree with the cost of debt that QC proposes?

A. Yes, Staff agrees with QC's proposed cost of debt of 7.81 percent.

IV. RATE OF RETURN RECOMMENDATION

Q. What is Staff's overall rate of return recommendation for Qwest Corporation?

A. Based on the cost of equity recommendation of 14.6 percent presented by Staff witness Mr. Reiker, Staff recommends a ROR of 9.5 percent for the Applicant, as shown in Schedule AXR-1 and the following table:

Table 3

	Weight	Cost	Weighted Cost
Long-term Debt	75.2%	7.81%	5.87%
Common Equity	24.8%	14.6%	3.63%
Cost of Capital/ROR			**9.5%**

CONCLUSION

Q. Please summarize Staff's recommendations.

A. Staff recommends that the Commission adopt an overall rate of return of 9.5 percent. Staff's recommendation is based on a 75.2 percent debt and a 24.8 percent equity capital structure.

Q. Does this conclude your direct testimony?

A. Yes, it does.

Qwest Corporation
Capital Structure
And Weighted Cost of Capital

Line No.	[A]	[B] Weight (%)	[C] Cost	[D] Weighted Cost
1	**Long-term Debt**	75.2%	7.81%	5.87%
2	**Common Equity**	24.8%	14.6%	3.63%
3				
4	**Weighted Average Cost of Capital/ROR**			9.5%
5				
6				
7				
8				
9				
10	Supporting Schedules: Schedule AXR-5			
	Staff Witness Mr. Reiker Direct			

Capital Structure of Sample Telecos

Company	Debt Percentage[1]	Equity Percentage[1]
BellSouth	36.8%	63.2%
CenturyTel, Inc.	47.2%	52.8%
Citizens Communications	74.8%	25.2%
ALLTel	44.3%	55.7%
SBC Communications	29.6%	70.4%
Verizon	54.1%	45.9%
Average	47.8%	52.2%
Qwest Intl.	106.9%	-6.9%
Qwest Corporation	75.2%	24.8%

Sources: Applicant's Filing & Hoover's Online
[1] For the Year 2003

Qwest Corporation Long-term Debt Rating

Credit Agency	June 30, 2004	December 31, 2003
Standard & Poor's	BB-	B-
Moody's	Ba3	Ba3
Fitch Ratings	BB	B

Source: Qwest Corporation 10-Q filed for ending period June 30, 2004

Summary of Rating Agency Categories

Credit Agency			
Standard & Poor's	Moody's	Fitch Ratings	Description
AAA	Aaa	AAA	Extremely strong capacity to meet financial commitments
AAA-	Aaa	AAA-	
AA+	Aa1	AA+	Very strong capacity to meet financial commitments
AA	Aa2	AA	
AA-	Aa3	AA-	
A+	A1	A+	Strong capacity to meet financial commitments
A	A2	A	
A-	A3	A-	
BBB+	Baa1	BBB+	Adequate capacity to meet financial commitments
BBB	Baa2	BBB	
BBB-	Baa3	BBB-	
BB+	Ba1	BB+	Speculative characteristics
BB	Ba2	BB	
BB-	Ba3	BB-	
B+	B1	B+	
B	B2	B	
B-	B3	B-	
CCC+	-	CCC+	
CCC	-	CCC	
CCC-	-	CCC-	
CC+	-	CC+	
CC	-	CC	
CC-	-	CC-	
D	-	D	Default has occurred

Bond Ratings for the Sample Telecos

Company	S&P	Moody's
BellSouth	A+	Aa3
CenturyTel, Inc.	BBB+	Baa2
Citizens Communications	BB+	Ba3
ALLTel	A	A2
SBC Communications	A+	Aa3
Verizon	A+	A1

Source: C.A. Turner Utility Reports, August 2004

Qwest Corporation Cost of Debt Allocated to Arizona

Description	Total Capital	------Interest------ Total	Cost of Debt
Short Term Borrowings	$0	$0	
Current Maturities - LT Debt	$142,865,764	$10,026,105	
Premium	$0	$0	
Discount	$83,927	$94,568	
Debt Iss.	$156,862	$176,583	
Net Funded Debt	$142,624,975	$10,297,256	7.22%
Current Maturities - Capital Leases	$1,576,704	$135,804	8.61%
Total ST Debt	$144,201,678	$10,433,060	7.24%
Funded Debt	$1,147,851,781	$84,497,330	
Premium on LT Debt	$109	$77	
Discount on LT Debt	$25,649,989	$464,554	
Debt Issuance Expenses	$27,201,468	$1,452,999	
Net Funded Debt	$1,095,000,433	$86,414,805	7.89%
Obligations Under Capital Leases	$1,190,246	$111,715	9.39%
Other Long Term Debt	$2,609,385	$170,132	6.52%
Total LT Debt	$1,098,800,065	$86,696,652	7.89%
Total ST + LT Debt	$1,243,001,744	$97,129,713	7.81%

NOTE 8: SUBSEQUENT EVENTS[2]

Note 8: Subsequent Events

During the second quarter of 2004, we declared cash dividends of $253 million and paid cash dividends of $910 million. We have historically declared and paid regular dividends to our parent, QSC, based on the earnings of our wireline operations. In July 2004, we modified our dividend practice to balance our financial needs, cash position and credit profile with those of our parent. As a result, going forward, we may declare and pay dividends in excess of our earnings. In addition, during July 2004, we declared dividends of $400 million.

[2] Taken from QC's 10-Q filed on August 06, 2004, page 24.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

MARC SPITZER - CHAIRMAN
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
MIKE GLEASON
KRISTIN K. MAYES

IN THE MATTER OF QWEST CORPORATION'S FILING OF RENEWED PRICE REGULATION PLAN	))	DOCKET NO. T-01051B-03-0454
IN THE MATTER OF THE INVESTIGATION OF THE COST OF TELECOMMUNICATIONS ACCESS	))))	DOCKET NO. T-00000D-00-0672

DIRECT TESTIMONY

OF

THOMAS REGAN

ON BEHALF OF

THE STAFF OF THE ARIZONA CORPORATION COMMISSION

NOVEMBER, 2004

NOTICE: THE PROPRIETARY INFORMATION HAS BEEN REDACTED FROM THIS TESTIMONY.

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I. STATEMENT OF QUALIFICATIONS AND INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Thomas M. Regan. My business address is 8625 Farmington Cemetery Road, Pleasant Plains, Illinois, 62677.

Q. WHAT IS YOUR PRESENT OCCUPATION?

A. I am an Economist with the firm of William Dunkel and Associates. I have been employed by William Dunkel and Associates since 1994. Since that time, I have regularly provided consulting services in telephone regulatory proceedings throughout the country.

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN ARIZONA?

A. Yes. I filed testimony on behalf of the Staff of the Arizona Corporation Commission in the previous general rate case of Qwest in the State of Arizona, Docket No. T-1051-99-105. My testimony in that proceeding discussed economic principles that apply to the calculation of economic costs, and the role that those costs have in telecommunications proceedings.

Q. HAVE YOU PREPARED AN APPENDIX THAT DESCRIBES YOUR QUALIFICATIONS?

A. Yes. My qualifications are shown on Appendix A.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS PROCEEDING?

A. The purpose of my Direct Testimony in this proceeding is to discuss Qwest's request to draw funds from the Arizona Universal Service Fund (AUSF) and Qwest's proposed rate design in this proceeding.

Q. WILL YOU PLEASE SUMMARIZE YOUR DIRECT TESTIMONY?

A. Yes. My Direct testimony is summarized as follows:

STAFF'S AUSF "CODE" ANALYSIS:

Qwest's benchmark rates are well in excess of the TSLRICs of basic local service. Therefore, Qwest would not receive any AUSF funding following the requirements of the Code.

Qwest's proposed AUSF analysis calculates a large amount of claimed AUSF support need, due primarily to the fact that Qwest's analysis does not use the properly calculated TSLRIC of basic local exchange telephone service. Qwest's claimed basic local TSLRIC has two major problems:(1) The Administrative Code states:

> **R14-2-1201(14)** "Total Service Long Run Incremental Cost" is the total additional cost incurred by a telecommunications company to produce the entire quantity of a service, **given that the telecommunications company already provides all of its other services.**

Qwest would already be incurring the costs of the loops and ports if Qwest was "already" providing toll, access and vertical services, so those costs are not "additional" costs of basic local exchange service. However Qwest improperly included 100% of these loop and port costs in its claimed basic local TSLRIC.

(2) An additional problem is Qwest has improperly added Network Support costs and common overhead costs to the claimed "TSLRIC" of basic local service, despite the fact that the Code requires the cost to be the TSLRIC only.

STAFF'S SECOND, OR "OVERALL ANALYSIS" FOR AUSF

Qwest is not entitled to any AUSF under the Code requirements. However, as a further check to see if Qwest has any reasonable basis for asking for support in certain geographic areas, I also performed a "second analysis", which I refer to as the "overall analysis" of Qwest's intrastate services and intrastate costs. I have performed this additional analysis that compares Qwest's total intrastate revenues to Qwest's total intrastate costs (including the intrastate costs of the loop and port facilities, which are shared by Qwest's major services). Since the "overall analysis" I performed includes all of the intrastate loop costs in the calculation, the "overall analysis" also includes all of the revenues from all of the intrastate services that share the loop facility.

Qwest has asked for support in certain Zone 2 and Zone 3 areas. Even the "overall analysis" indicates that Qwest does not need support to cover its intrastate costs in Zone 2 and Zone 3. **

** in Zones 2 and 3. For these reasons, I recommend that Qwest's request for AUSF funding be denied.

RATE DESIGN

For the ** ** intrastate switched access rate elements, Qwest's rates in Arizona are approximately 28% higher than the average rates of Qwest across its 14 state service territory. Qwest's current intrastate switched access charges are approximately ** ** higher than the interstate switched access rates (when the interstate EUCL charges are included in the calculation of the interstate switched access rates). I recommend that Qwest's intrastate switched access rates be reduced by 25%. This reduction will effectively bring Qwest to "parity" with the Qwest interstate switched access rates (when the interstate EUCL charges are factored into the calculation of the interstate switched access rates), and will bring the Arizona intrastate switched access rates in line with the average intrastate switched access charges of Qwest across its 14 state service territory.

I oppose Mr. Teitzel's proposal to eliminate the exchange zone increment 1 and 2 rates. The purpose of the zone increment charges is to recover costs for serving

areas that have higher than average costs. The current Zone increment charges are properly serving the purpose of defraying at least part of the costs in high cost areas.

I oppose Qwest's proposal to eliminate the current one free call allowance for Directory Assistance. Qwest has not provided any compelling support for its proposal to eliminate the one free call allowance. In addition, *even* Qwest's proposed "Fully Allocated TSLRIC" of Local Directory Assistance is ** ** per call, whereas the average revenue per local DA call (including free call allowance calls) is ** ** per call. With the current one free call allowance, the current DA rates provide a contribution of over ** ** above Qwest's proposed "Fully Allocated TSLRIC" cost.

I do not oppose Qwest's proposal to eliminate several service packages and custom calling packages that include 2,3,4 or 5 custom calling features. The annual revenue impact of these proposals is an increase of $785,315.

I do not oppose Qwest's proposed changes for Call Management/Centron 1 packages, or Qwest's proposed pricing changes for Centron 6 and Centron 30 packages. The annual revenue impact of these proposals is an increase of $127,335.

I do not oppose Qwest's proposed changes for private line services. The annual revenue impact of these proposals is an increase of $748,000.

I do not oppose Qwest's proposed changes for 800 Database service. The annual revenue impact of these proposals is an increase of $46,000.

The overall annual revenue impact of the rate changes I have proposed in this testimony (including the rate changes proposed by Qwest, which I do not oppose), is ($7,228,420).

II. THE ARIZONA UNIVERSAL SERVICE FUND (AUSF)

A. THE AUSF UNDER THE ARIZONA ADMINISTRATIVE CODE

Q. HOW ARE AUSF SUPPORT AMOUNTS TO BE CALCULATED UNDER THE ARIZONA ADMINISTRATIVE CODE?

A. The Arizona Administrative Code states that AUSF support shall be based upon the difference between the "benchmark rates for basic local service" and "the appropriate cost to provide basic local exchange service as determined by the Commission", less any federal USF support. The Code specifically states:

> R14-2-1202. Calculation of AUSF Support
>
> a. The amount of AUSF support to which a provider of basic local exchange telephone service is eligible for a given AUSF support area shall be based upon the difference between the benchmark rates for basic local exchange telephone service provided by the carrier, and the appropriate cost to provide basic local exchange

> telephone service as determined by the Commission, net of any universal service support from federal sources.

Q. WHAT MEASURE OF COST DOES THE ARIZONA ADMINISTRATIVE CODE REQUIRE BE USED TO DETERMINE "THE APPROPRIATE COST TO PROVIDE LOCAL EXCHANGE TELEPHONE SERVICE"?

A. For "large local exchange carriers" (i.e. incumbent providers of basic local exchange telephone service serving 200,000 or more access lines in Arizona[1]) like Qwest, the Code requires that "Total Service Long Run Incremental Cost" be used as the appropriate cost standard when determining "the appropriate cost of providing basic local exchange telephone service for purposes of determining AUSF support".[2] The Code specifically states that for a large exchange carrier...

> the appropriate cost of providing basic local exchange telephone service for purposes of determining AUSF support shall be the Total Service Long Run Incremental Cost.[3]

Q. DOES THE ADMINISTRATIVE CODE DEFINE "TOTAL SERVICE LONG RUN INCREMENTAL COST"?

A. Yes. The Administrative Code states:

> **R14-2-1201(14)** "Total Service Long Run Incremental Cost" is the total additional cost incurred by a telecommunications company to produce the entire quantity of a service, **given that the telecommunications company already provides all of its other services.** Total Service Long Run Incremental Cost is based on the least cost, most efficient technology that is capable of being implemented at the time the decision to provide the service is made. (emphasis added)

[1] AAC Section R14-2-1201(12).
[2] AAC Section R14-2-1202(D).
[3] AAC Section R14-2-1202(D).

1 Q. THE CODE'S DEFINITION OF TOTAL SERVICE LONG-RUN
2 INCREMENTAL COST (TSLRIC) INDICATES THAT TSLRIC IS THE
3 ADDITIONAL COST TO PROVIDE THE SERVICE "GIVEN THAT THE
4 TELECOMMUNICATIONS COMPANY ALREADY PROVIDES ALL OF ITS
5 OTHER SERVICES." WHAT OTHER SERVICES DOES QWEST PROVIDE
6 BESIDES BASIC LOCAL EXCHANGE TELEPHONE SERVICES?
7 A. In addition to providing basic local exchange services, Qwest also provides
8 intraLATA toll services, intrastate switched access services, interstate switched
9 access services, vertical services (e.g. Caller I.D., Call Waiting, etc.), and other
10 services.
11
12 Q. WHAT FACILITIES DOES QWEST NEED TO PROVIDE THESE OTHER
13 SERVICES?
14 A. In order to provide these other services, Qwest needs a number of facilities,
15 including loop and port facilities. If Qwest "already provides" toll, switched
16 access and vertical services, Qwest would already have incurred the loop facility
17 and port facility costs. Therefore, loop and ports are not "additional costs"
18 incurred to provide basic local exchange service. Therefore, the loop and port
19 costs are not part of the basic local service TSLRIC.
20

[4]In this testimony the reference to the loop is to the switched loop or common line. That is the switched loop that is used for services including local, toll, etc. The reference to the loop is not to the private line loop that is a dedicated service (such as a burglar alarm line).

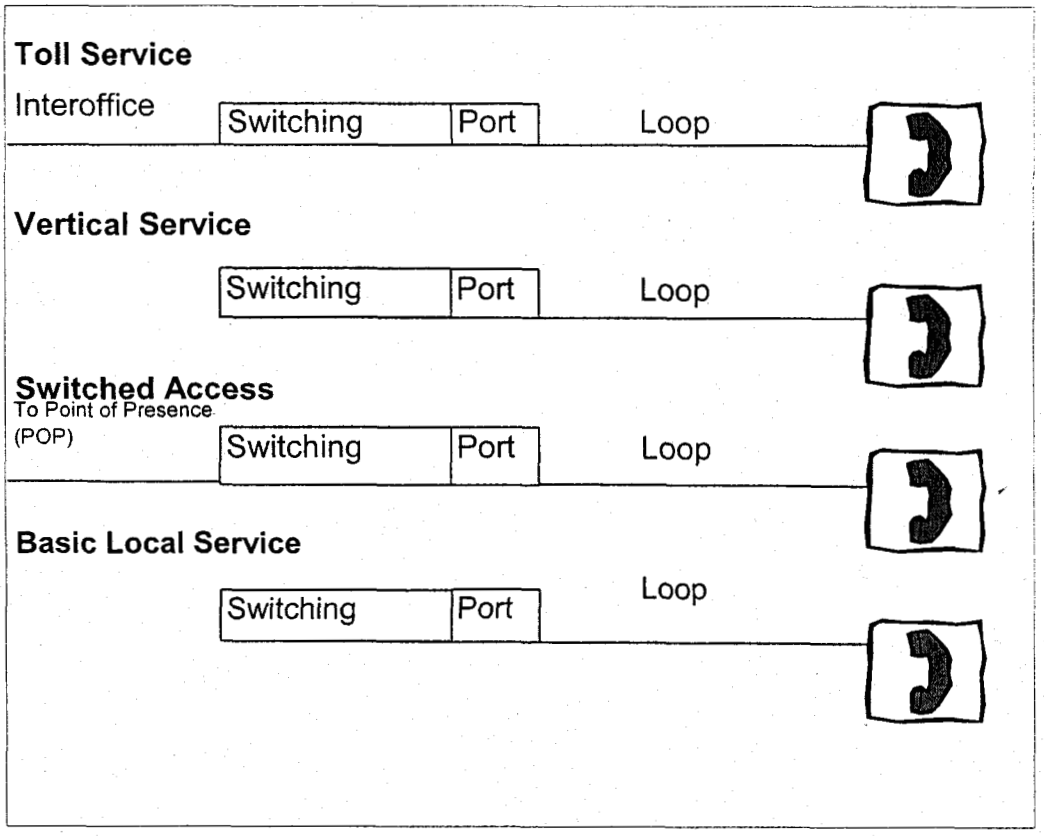
[5]Qwest-Arizona 2003 ARMIS Report 43-04, Loop Circuit Equipment investment; ($776,179,000 (line 1275) + $2,070,789,000 Loop Cable and Wire investment (line 1455) divided by $4,741,883,000 Total Telecommunications Plant In Service (Line 2194) = 60%.

Q. CAN YOU GRAPHICALLY DEMONSTRATE THE FACT THAT THE LOOP AND PORT WOULD BE NEEDED ALREADY "GIVEN THAT THE TELECOMMUNICATIONS COMPANY ALREADY PROVIDES ALL OF ITS OTHER SERVICES"?

A. Yes. Shown below are the facilities that are needed to provide various major services:

FACILITIES NEEDED TO PROVIDE

THE MAJOR TELECOMMUNICATIONS SERVICES



[6] ¶58, Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, CC Docket No. 96-262, FCC 96-488. Examples of the use of the term "common line" include the FCC End User Common Line (EUCL) charge, which is a charge to end users to recover a portion of the common line costs.

A copy of the above diagram is also attached hereto as Schedule TMR-1. The loop facility is needed to provide any or all of the above services. For example, if a company "already provides all of its other services" (toll, vertical services, switched access services), the loop facility would be needed, even if basic exchange service was not provided.[7]

A company providing all of the above services except for basic local exchange service would have loops and ports. Loops and ports are not "additional costs" incurred by providing basic local exchange service, and are therefore not included in the TSLRIC of basic local exchange service.

Q. HAS THE FCC SPECIFICALLY INDICATED THAT THE LOOP FACILITIES ARE REQUIRED TO ORIGINATE AND TERMINATE LONG DISTANCE CALLS?

A. Yes. The FCC found that all of the loop facilities are required to originate and terminate long distance calls. The FCC specifically stated:

> A telecommunications carrier will typically provide these services, together with numerous other telecommunications service, over a single network because the total cost of providing these services on shared facilities, under shared management, is less than the combined cost of providing these services on separate facilities particularly under separate management operations. A substantial portion of these costs of shared facilities and operations are joint and common costs; it is difficult, if not impossible to approximate the actual portion of such costs for which each product or service is responsible. For these types of costs, considerations other than cost causation must prevail in determining how the costs should be allocated among various services. [8]

[7] Vertical services include services such as Call Forwarding, Call Waiting, Caller ID, etc.

Implementation of §254(k) of the Communications Act of 1934, as amended, Order adopted and released May 8, 1998, Paragraph 8.

And,

> These costs pose particularly difficult problems for the separations process: The costs of such facilities cannot be allocated on the basis of cost-causation principles because **all of the facilities would be required even if they were used only to provide local service or only to provide interstate access services. A significant illustration of this problem is allocating the cost of the local loop**, which is needed both to provide local telephone service as well as to originate and terminal long-distance calls. The current separations rules allocate 25 percent of the cost of the local loop to the interstate jurisdiction for recovery through interstate charges.[9] (emphasis added)

Q. HAS QWEST PREVIOUSLY ACKNOWLEDGED THE FACT THAT THE LOOP FACILITIES ARE REQUIRED TO PROVIDE MANY OF THE TELEPHONE SERVICES THAT QWEST PROVIDES?

A. Yes. In the last rate case of Qwest in Arizona, a witness testifying on behalf of Qwest stated:

> There is no denying the fact that the local loop is required within a wireline network to deliver *any* wireline service.[10] (emphasis in original)

Obviously, if it is to be assumed that "the telecommunications company already provides all of its other services", as required by the Code's definition of Total Service Long Run Incremental Cost (TSLRIC), Qwest would already need to have loop facilities to deliver those services. Quite simply, Qwest would be unable to provide its major "other services"

[9] ¶23, *FCC Access Charge Reform Order*, FCC 97-158.

[10] Arizona Docket No. T-01051B-99-0105, Rejoinder Testimony of Dr. William E. Taylor, page 21, lines 15-16.

without already having the loop facilities. Without loop facilities, Qwest would be unable to deliver its major "other services" to its customers.

Q. WHAT ADDITIONAL COSTS WOULD BE INCURRED TO PROVIDE BASIC LOCAL EXCHANGE TELEPHONE SERVICE, ASSUMING THAT QWEST "ALREADY PROVIDES" ALL OF ITS OTHER SERVICES?

A. The only additional costs that would be incurred to provide basic local exchange telephone service (given that Qwest provided all of its other services) would be the costs of local usage, and some other minor costs (e.g. incremental billing and collection costs and directory listing costs). These costs amount to approximately ** ** per line, per month for residence and ** ** per line, per month for business. The calculation of these costs is shown on Schedule TMR-2.

Since Qwest's other services such as toll, switched access, vertical services and other services, require loop and port facilities, Qwest would incur the costs of the loop and port facilities to provide those other services. Qwest would not incur any additional loop and port facilities costs if basic local exchange telephone service is also provided along with the family of services provided using those loop and port facilities. Therefore, the costs of the loop and port facilities are <u>excluded</u> in the proper calculation of the TSLRIC of basic local exchange telephone service.

Q. YOU INDICATED THAT THE ARIZONA ADMINISTRATIVE CODE STATES THAT AUSF SUPPORT FOR QWEST SHALL BE BASED ON THE DIFFERENCE BETWEEN THE "BENCHMARK RATES FOR BASIC LOCAL SERVICE" AND THE TSLRIC OF BASIC LOCAL SERVICE.[11] DOES THE CODE DEFINE THE ""BENCHMARK RATES FOR BASIC LOCAL SERVICE"?

A. Yes. The Code provides the following definition:

> **R14-2-1201(7)** "Benchmark rates" for a telecommunications services provider are those rates approved by the Commission for that provider for basic local exchange telephone service, plus the Customer Access Line Charge approved by the Federal Communications Commission.

Q. WHAT ARE QWEST'S BENCHMARK RATES UNDER THE CODE?

A. Qwest's residential basic local exchange telephone service (i.e. 1FR service) rate is $13.18, and the FCC residential Customer Access Line Charge (CALC) is $6.50.[12] Therefore Qwest's residential benchmark rate is $19.68. Qwest's business basic local exchange telephone rate (i.e. 1FB) is $30.40, and the FCC business CALC is $6.53.[13] Therefore, the business benchmark rate is $36.93.

Q. WOULD QWEST RECEIVE ANY AUSF FUNDING FOLLOWING THE CODE?

---

[11] Less any Federal USF Support.
[12] Million Direct Testimony Exhibit TKM-2.
[13] Million Direct Testimony Exhibit TKM-2.

A. No. Under the Code, AUSF support for Qwest is based on the difference between the benchmark rates for basic local service and the TSLRIC of basic local service.

Qwest's benchmark rates are well in excess of the TSLRICs of basic local service. This is shown below:

	Benchmark Rates	TSLRICs	
Residence Basic Local Service	$19.68	**	**
Business Basic Local Service	$36.93	**	**

The calculation of the TSLRIC costs above is shown on Schedule TMR-2.

B. QWEST'S PROPOSED "TSLRIC" OF BASIC LOCAL SERVICE IS CRITICALLY FLAWED.

Q. QWEST CLAIMS THAT IT SHOULD RECEIVE $64.04 MILLION ANNUALLY FROM THE AUSF.[14] WHY DOES THE QWEST ANALYSIS CALCULATE SUCH A LARGE AMOUNT OF CLAIMED AUSF SUPPORT NEEDED?

A. The Qwest analysis calculates such a large amount of claimed AUSF support need, due to the fact that Qwest's analysis does not use the properly calculated TSLRIC of basic local exchange telephone service. Qwest's claimed basic local TSLRIC has two major problems:

[14] Million Direct Testimony, page 23, line 15.

(1) Qwest included the loop and port costs as being "additional" costs (part of the TSLRIC) of basic local service. However they are not additional costs "**given that the telecommunications company already provides all of its other services.**"

Qwest would already be incurring the costs of the loops and ports if Qwest was "already" providing toll, access and vertical services, so those costs are not "additional" costs of basic local exchange service. However Qwest improperly included 100% of these loop and port costs in its claimed basic local TSLRIC.

(2) An additional problem is Qwest has improperly added Network Support costs and common overhead costs to the claimed "TSLRIC" of basic local service, despite the fact that the Code requires the cost to be the TSLRIC only.

Therefore, Qwest's proposal to include loop, port, shared and common costs in the local basic service TSLRIC in the AUSF analysis is in direct violation of the Code's definition of TSLRIC.

Q. ONE OF THE COSTS THAT QWEST INCLUDES IN ITS "FULLY ALLOCATED COST" IS WHAT QWEST CALLS THE "DIRECT COST". DOES QWEST CLAIM THAT ITS CLAIMED "DIRECT COST" IS EQUIVALENT TO THE TSLRIC?

A. Yes. One of the cost components that Qwest includes in its proposed "fully allocated cost" is what Qwest calls the "direct" cost. Qwest claims that its proposed "direct cost" is equivalent to the TSLRIC. Qwest's witness, Ms. Million, makes this fact clear beginning on page 9 of her Direct testimony:

> Studies are useful in determining whether the direct revenues associated with a service will cover the direct forward-looking costs associated with the service. That is, the Commission rules require the revenues for a service or group of services to cover the **direct costs (i.e., TSLRIC)** of the facilities, components or capabilities used to provision the service or services. (emphasis added)

C. QWEST IMPROPERLY INCLUDES ALL OF THE LOOP FACILITY AND PORT FACILITY COSTS IN WHAT QWEST CALLS THE "TSLRIC" OF BASIC LOCAL SERVICE.

Q. DOES QWEST'S PROPOSED TSLRIC OF BASIC LOCAL SERVICE HAVE CRITICAL FLAWS?

A. Yes. Qwest's proposed "direct" cost (TSLRIC) includes 100% of the loop facility costs, and includes 100% of the port facilities costs. The loop and port facilities are facilities that Qwest must have to provide its other major services. As shown on Schedule TMR-1, the loop and port facilities are required to provide any of Qwest's major services. Without the loop and port facilities, Qwest could not deliver toll calls to and from its customers. Without the loop and port facilities, Qwest could not deliver vertical

features to its end-users. Without the loop and port facilities, Qwest could not provide IXCs with switched access services. Therefore, all of the costs of the loop and port facilities would have to be incurred in order for Qwest to provide all of its other services. The loop and port facility costs are examples of costs that are shared among the whole family of Qwest's major services. Qwest would not incur any additional loop and port costs to provide basic local exchange telephone service if Qwest was already providing all of its other services. Therefore, the costs of the loop and port facilities are not properly included in the TSLRIC. Qwest made a critical violation of the Code's definition of TSLRIC when it included the full costs of the loop and port facilities in its claimed "direct cost" (i.e., TSLRIC) of basic local service. Qwest's proposal to be granted AUSF funding in this proceeding is based upon Qwest's violation of this definition.

Q. DOES QWEST'S PROPOSAL TO INCLUDE 100% OF THE COSTS OF THE LOOP IN ITS CLAIMED COST OF BASIC LOCAL EXCHANGE SERVICE VIOLATE THE ORDERS OF THE COMMISSIONS IN NUMEROUS STATES?

A. Yes. A number of states have found that the loop is a shared/joint/common cost, and that it is not a cost of just basic local exchange telephone service. Here are some examples:

The Indiana Utility and Regulatory Commission (IURC) specifically found that assigning 100% of the loop cost to one service would violate Section 254(k) of The Telecommunications Act of 1996. It found the loop is "included in the definition of common and joint costs." The IURC found that,

> For purposes of resolving 'takings' claims and 'a reasonable share of the joint and common costs of facilities used to provide those services,' the loop must, therefore, be included in the definition of common and joint costs in order to determine confiscation claims and to be in compliance with the second sentence of Section 254(k). We find that the direct assignment of 100 percent of the loop costs to any one service would be a violation of the second sentence of Section 254(k).[15]

In the State of Utah, the Commission specifically found fault with Qwest's calculation of TSLRIC, because Qwest assigned all of the costs of the access line (i.e. loop) to basic residential service:

> We are troubled by the Company's failure to take into account Commission past orders which deal with some of the pivotal issues and assumptions which go into the calculation of TSLRIC. One failure, in particular, is the Company's decision to assign all costs of access lines to basic residential service...The Commission has already rejected the Company's premise that the only purpose of access lines, the local loop, is for the customer to obtain a dial tone or local service. Without the local loop, the end user would not have access to switched access products or use of toll services.[16]

[15]Indiana Utility Regulatory Commission Order, Cause No. 40785, Section V.(C) Common and Joint Costs, Issued October 28, 1998.

[16]US West Communications, Inc Docket No. 95-049-05, Report and Order, page 95 (Issued November 6, 1995).

Similarly, in the State of Iowa, the Utilities Board found that Qwest's (then U S WEST) LRIC methodology was flawed due to the fact that Qwest assigned all of the costs of the loop to local service:

> Designating the access line as a separate service and allocating all of its costs to the local service customer continues to be a major problem with U S WEST's LRIC methodology.[17]

The Washington Utilities and Transportation Commission found:

> Finally, the residential cost study contains a basic flaw: USWC improperly allocates 100% of the local loop to residential service, and 0% to services that rely and depend on the use of that facility. The Commission in the past has addressed this issue and found it appropriate to allocate a portion of the loop costs to toll and other services.[18]

The Colorado Public Utilities Commission found:

> The second argument defines the local loop as a system. This system has many different users demanding service, including residential customers; small, medium and large businesses; governmental bodies; resellers; long distance companies; and others. A local loop is required and used by all of these users. Consequently, it has value to all of these users, and all should pay a portion of customer access.[19]

The New Hampshire Public Utilities Commission found:

> The commission is well aware of the company's claim that basic local exchange service has been and continues to be subsidized by toll. In the past, the notion of various services contributing to the support of basic exchange has been reinforced by cost studies that have served to demonstrate that the 'contribution' paid by customers of

[17]US West Communications, Inc., Docket No. RPU-94-1, Final Decision and Order, p. 13 (IUB Nov. 21, 1994).

[18]US West Communications, Inc. Docket No. UT-941464 et al, Fourth Supplemental Order at 39. (WUTC Oct. 1995)

[19]Page 19, Colorado Public Utilities Commission Order, I&S Docket No. 1720, dated March 20, 1987.

> other services represents a disproportionately greater share of the company's incurred costs. These studies have served to mislead due to the company's decisions to assign NTS costs to local exchange services despite the fact that both interstate and state toll services are provided over local NTS facilities. Without local exchange facilities there would be no mechanism to connect interexchange services to the majority of customers premises. Since clearly the availability of the local network for toll use is a benefit to interexchange carriers and all toll customers, the Commission believes that assignment of NTS costs solely to local exchange services is unreasonable.[20]

Q. WHAT HAS NARUC STATED?

A. The general position of most of the state commissions is summarized by the National Association of Regulatory Utility Commissioners' (NARUC) statement,

> Interexchange carriers should pay a portion of the NTS loop cost because they use the LECs loop to provide their services.[21]

Q. ARE THE LOOP AND PORT FACILITIES COSTS A LARGE PORTION OF QWEST'S PROPOSED COST OF BASIC LOCAL EXCHANGE TELEPHONE SERVICE?

A. Yes. The majority of Qwest's proposed cost of basic local exchange telephone service in the Qwest-proposed AUSF analysis is the costs of the loop and port facilities. For example, as shown on page 1 of Ms. Million's Direct Testimony Schedule TKM-2, Qwest's claimed "Fully Allocated TSLRIC" cost of 1FR service (flat rate basic local exchange telephone service) in Zone 3 is ** **. Included in this amount is a cost of

[20]Pages 39-40, New Hampshire Public Utilities Commission Order, Docket No. DR-89-010, dated March 11, 1991.

[21]Page 13, Initial Comments of the National Association of Regulatory Utility Commissioners, CC Docket No. 96-262, January 29, 1997.

** ** for the loop facility and ** ** for the port facility.[22] Therefore, over ** ** of the costs that Qwest has included in its cost of basic local exchange telephone service are the costs of the loop and port facilities. Quite simply, over ** ** of the costs that Qwest has included in its proposed cost of basic local exchange telephone service are not properly included in the calculation of the Total Service Long Run Incremental Cost of basic local exchange service. This means that over ** ** of the costs that Qwest has included in its AUSF analysis are not properly included in the AUSF analysis under the requirements of the Code.

Qwest's own figures show that the TSLRIC of residential basic local exchange service (1FR) is ** **, other than the loop and port costs which Qwest improperly included.[23]

D. QWEST IMPROPERLY PROPOSES TO ADD ADDITIONAL COSTS TO ITS CLAIMED TSLRIC OF BASIC LOCAL SERVICE IN ITS AUSF ANALYSIS

Q. WHAT COST DOES QWEST USE FOR BASIC LOCAL EXCHANGE TELEPHONE SERVICE IN ITS PROPOSED AUSF CALCULATION?

[22] This is shown on Schedule TMR-7, which is a copy of a page from Qwest's cost study that calculates Qwest's proposed "Fully Allocated Cost" of 1FR basic local exchange telephone service.
[23] See Schedule TMR-7, page 2 of 2, line 26.

A. On page 24 of her Direct Testimony, Ms. Million indicates that she used "Qwest's fully allocated cost to calculate the amount of AUSF support necessary." On page 11 of her Direct testimony, Ms. Million explains that Qwest's "fully allocated costs" are the sum of three separate cost components: (1) what Qwest claims is Direct cost/TSLRIC, (2) Network Support costs and (3) common overhead costs. Ms. Million specifically states:

> Qwest's cost models all employ the same basic procedures to arrive at monthly recurring Total Direct or TSLRIC, Network Support and common overhead cost estimates that make up the fully allocated costs.

As demonstrated in the quote above, Qwest has improperly proposed to add additional "Network Support" and "common overhead" costs to its claimed "TSLRIC" of basic local service, despite the fact that the Code requires the cost to be the TSLRIC only.

Q. THE CODE REQUIRES THE TSLRIC TO BE USED IN THE AUSF ANALYSIS. WHY IS QWEST PROPOSING TO USE ITS CLAIMED "FULLY ALLOCATED COST", INSTEAD OF THE TSLRIC AS REQUIRED UNDER THE CODE?

A. According to Qwest's witness Ms. Million, Qwest is using its claimed "fully allocated cost" because Qwest wants to use a cost that includes not only the TSLRIC, but also includes costs that are "shared among groups of

services" and includes "common overhead costs". On page 24, lines 10-16 of her Direct testimony, Ms. Million states:

> [T]he total cost to provide a retail service includes the direct cost of the service, the costs that are shared among groups of services and a contribution to the common overheads of the corporation. If the AUSF support were calculated using an amount that recovered less than the total cost to provide the service, then the shared costs as well as the amount of contribution to common overheads from basic local exchange service would be borne entirely by the lines located in Zone 1.

On page 25, lines 6-7 of her Direct testimony, Ms. Million states:

> Therefore, the appropriate cost to use in calculating the AUSF support amount is Qwest's fully allocated cost.

Q. DOES QWEST ACKNOWLEDGE THE FACT THAT THE TSLRIC DOES NOT INCLUDE SHARED COSTS OR COMMON OVERHEAD COSTS?

A. Yes. Beginning on page 19, line 16, Ms. Million states:

> In contrast, Qwest's TSLRIC results include only the direct costs for each of the single services, whereas the costs which are shared among services and the common costs result in what is referred to as the fully allocated cost.

Q. QWEST IS PROPOSING TO USE WHAT IT CALLS THE "FULLY ALLOCATED COST" OF BASIC LOCAL EXCHANGE TELEPHONE SERVICE IN ITS AUSF ANALYSIS. IS QWEST'S PROPOSED COST CONSISTENT WITH THE AUSF REQUIREMENTS OF THE CODE?

A. No. As already discussed, the Code requires that the "Total Service Long Run Incremental Cost" be used in the AUSF analysis. Section R14-2-1201(14) of the Code defines the Total Service Long Run Incremental

1 Cost as the total additional cost incurred by a telecommunications
2 company to produce the entire quantity of a service, given that the
3 telecommunications company already provides all of its other services.
4
5 Q. WHAT MAJOR PROBLEMS NEED TO BE ADDRESSED IN THE QWEST
6 PROPOSED AUSF ANALYSIS, IN ORDER FOR A REASONABLE
7 COMPARISON OF TOTAL INTRASTATE REVENUES TO TOTAL
8 INTRASTATE COSTS TO BE MADE?
9 A. Qwest's proposed USF analysis improperly includes 100% of the loop and port
10 facilities. Specifically, with reference to Qwest's proposed USF calculations
11 shown on Exhibit TKM-2, the figures shown in the "Cost" column of that Exhibit
12 include 100% of the unseparated loop facilities, and 100% of the cost of the
13 unseparated port facilities.[24] This poses two significant problems.
14
15 First of all, the FCC-State Joint Board Part 36 rules allocate 25% of the loop
16 facility costs to the interstate jurisdiction, and 75% to the intrastate jurisdiction.[25]
17 Therefore, only 75% of the loop costs should even be considered in this intrastate
18 proceeding. In addition, the USF being addressed in this proceeding is the
19 intrastate USF. Therefore, it would be appropriate to determine Qwest's intrastate

[24] This can be determined by comparing the figures in the "cost" column on Exhibit TKM-02 to the "Fully Allocated TSLRIC" figures that appear on Qwest's residential basic exchange service cost study provided in response to Data Request WDA 2-21, Attachment B, filename "AZRCBXZ204", tab "WINPC3 Output (RES).
[25] Part 36.154(c).

1 USF needs based upon the difference between Qwest's intrastate revenues and
2 intrastate costs.
3
4 Secondly, if all of the intrastate loop costs are going to be included in the
5 calculation, then all of the revenues from all of the intrastate services that share
6 the loop facility must also be included in the calculation. Despite the fact that
7 Qwest included 100% of the unseparated loop costs and 100% of the port facility
8 costs in its proposed AUSF analysis, Qwest limited the revenues to just basic
9 local exchange revenues and the interstate end user common line (EUCL)[26] in its
10 analysis.[27]
11
12 Q. WHY WOULD IT BE REASONABLE TO INCLUDE THE INTRASTATE
13 COSTS OF THE LOOP AND PORT FACILITIES IN THE OVERALL
14 ANALYSIS, AS LONG AS THE TOTAL INTRASTATE REVENUES ARE
15 ALSO INCLUDED?
16 A. The loop and port facilities are shared by a whole family of services, including
17 toll, switched access, vertical features and basic local service. The revenues from
18 the whole family of services contribute to the costs of the loop and port facilities
19 that all of these services share and depend upon. As long as the "overall" analysis
20 includes the revenues from all of the services that share the loop and port
21 facilities, it is appropriate to include the costs of the loop and port facilities that all
22 of the services share.

[26] The EUCL is also commonly referred to as the Subscriber Line Charge (SLC).
[27] Million Direct Testimony Exhibit TKM-02.

In contrast, the Qwest proposed AUSF analysis includes all of the shared costs of the loop and port facilities, but does not include all of the revenues from the services that share and contribute to the cost of the loop and port facilities. Therefore, Qwest's proposed analysis is a one-sided analysis that includes all of the shared costs of the loop and port facilities, but excludes the revenues from many of the services that contribute to the costs of the loop and port facilities.

E. ADDITIONAL STAFF AUSF ANALYSIS, COMPARING ALL INTRASTATE REVENUES TO ALL INTRASTATE COSTS

Q. MS. MILLION STATES THAT QWEST WOULD LIKE TO CALCULATE ITS AUSF FUNDING NEEDS USING A COST THAT INCLUDES "COSTS THAT ARE SHARED AMONG GROUPS OF SERVICES" AND "COMMON OVERHEAD" COSTS.[28] HAVE YOU PERFORMED AN ALTERNATIVE ANALYSIS FOR AUSF FUNDING THAT USES TOTAL COSTS?

A. Yes. In a prior section, I discussed the fact that Qwest would not receive any AUSF funding following the Code's AUSF rules, because Qwest's basic local service benchmark rates are greatly in excess of Qwest's TSLRICs of providing basic local service. I will refer to the prior analysis as the "Code Analysis". The "Code Analysis" indicates that Qwest should not receive AUSF support, as previously discussed.

[28] Million Direct, page 24, lines 10-16.

1 As a further check to see if Qwest has any reasonable basis for asking for AUSF
2 support, I also performed a "second analysis", which I will refer to as the "overall
3 analysis" of Qwest's intrastate services and intrastate costs. The "overall
4 analysis" includes residential and small business lines. The "overall analysis"
5 does not include large business services like Centrex.
6
7 I do believe that a reasonable AUSF calculation could be performed by comparing
8 the total intrastate revenues per line (including local, toll, switched access, vertical
9 services, etc.) to the total intrastate cost of providing telecommunications services
10 (including the costs of shared facilities).
11
12 Q. COULD YOU PLEASE DESCRIBE THE "OVERALL ANALYSIS" YOU
13 PERFORMED, IN GENERAL TERMS?
14 A. Yes. In my analysis, I compared the total intrastate revenues to the total intrastate
15 costs, separately by each Zone (i.e. Zone 1, Zone 2 and Zone 3). The analysis
16 includes both small business and residence services. The analysis does not
17 include large business services like Centrex. The AUSF support amounts are
18 calculated separately for each Zone by comparing the total intrastate revenues to
19 the total intrastate costs in each Zone.
20
21 Q. WHAT COSTS DID YOU INCLUDE IN YOUR ANALYSIS?
22 A. For the loop facility costs, I started with the Commission's approved UNE loop
23 rate for each Zone. I then removed 25% of the UNE loop rates to represent the

1 portion of the loop facility costs that are allocated to the interstate jurisdiction,
2 consistent with the FCC-State Joint Board Part 36 rules.[29]
3
4 For the port facility costs, I started with the Commission's approved UNE port
5 rate. The UNE port rate is a statewide average rate. I then removed 17% of the
6 UNE port rate to represent the portion of the port facility costs that are allocated
7 to the interstate jurisdiction, based upon jurisdictional separations. The UNE
8 rates also include common costs, as Ms. Million indicates in her Direct
9 testimony.[30]
10 I included costs for basic local usage, billing and collection and directory listings.
11
12 In addition, since this analysis includes the revenues for intrastate switched
13 access, intrastate toll and vertical features, I also included additional costs for
14 switched access, toll and vertical features costs. For purposes of the additional
15 costs of basic local usage, billing and collection, directory listings, intrastate
16 switched access, intrastate toll and vertical features, I used the "Fully Allocated
17 TSLRIC" costs provided by Qwest in this proceeding. As I have already
18 discussed, Qwest's proposed "fully allocated" costs include "Network Support"
19 and common overhead costs. For some services, the costs vary by zone. Each of
20 these costs are reflected as per-line costs in my analysis provided on Schedule
21 TMR-3.
22

[29] Part 36.154(c).

[30] Million Direct testimony, page 24, line 21.

1 Q. WHAT REVENUES DID YOU USE IN YOUR ANALYSIS?

2 A. The revenues I used in my analysis include the basic local exchange service rate
3 (i.e. 1FR or 1FB rate)[31], zone increment charges, vertical features revenues,
4 intrastate toll revenues and intrastate switched access revenues. The revenues for
5 some services vary by zone. Each of these revenues are reflected as per-line
6 revenues in my analysis provided on Schedule TMR-3.
7
8 Q. WHAT ARE THE RESULTS OF YOUR ANALYSIS THAT COMPARES
9 QWEST'S TOTAL INTRASTATE REVENUES TO TOTAL INTRASTATE
10 COSTS BY UNE ZONE?
11 A. The analysis shows that overall, Qwest's intrastate revenues ** **
12 Qwest's intrastate costs. Overall, statewide (i.e. Zones 1, 2 and 3), Qwest's total
13 intrastate revenues are ** **.
14 For Zones 2 and 3, Qwest's total intrastate revenues are **
15 **. The results are summarized on page 2 of
16 Schedule TMR-3.
17
18 Q. DOES QWEST RECEIVE REVENUES OTHER THAN FROM BASIC LOCAL
19 EXCHANGE SERVICE?

---

[31] The Interstate End User Common Line (EUCL) charge was not included in my analysis. Only intrastate costs and intrastate revenues were included in the analysis.
[32] This can be determined by comparing the figures in the "cost" column on Exhibit TKM-02 to the "Fully Allocated TSLRIC" figures that appear on Qwest's residential basic exchange service cost study provided in response to Data Request WDA 2-21, Attachment B, filename "AZRCBXZ204", tab "WINPC3 Output (RES).
[33] Part 36.154(c).

[34] The EUCL is also commonly referred to as the Subscriber Line Charge (SLC).
[35] Million Direct Testimony Exhibit TKM-02.

A. Yes. The comparison below demonstrates that the residential basic exchange service rate is by no means the only intrastate revenue that Qwest receives when it provides telephone service to a residential customer. A comparison of the residential intrastate revenues and residential intrastate costs is shown below for Zone 2 and Zone 3:

**

[36] This figure is calculated using Qwest's proposed "Fully Allocated TSLRIC" costs. This figure includes ** ** of billing and collections costs.

[37] The total Qwest proposed "Fully Allocated TSLRIC" billing and collections costs per line are ** ** per line, per month, as shown on Schedule TMR-7. However, I have included ** ** of billing and collections costs in the 1FR cost shown above.

**

The above figures are also shown on page 1 of Schedule TMR-3, attached hereto.

Quite simply, Qwest receives a lot more revenue than just the basic local exchange service rate when it provides telephone service to an end user. For example, as shown above and on page 1 of Schedule TMR-3, the residential basic local exchange service rate represents ** ** of the revenues that Qwest receives when it serves a residential customer in Zone 3.

Q. AT ONE TIME, DID THE FCC CONSIDER DETERMINING FEDERAL USF NEEDS BY COMPARING THE TOTAL COSTS TO TOTAL REVENUES?

[38]This figure is calculated using Qwest's proposed "Fully Allocated TSLRIC" costs. This figure includes ** ** of billing and collections costs.

[39] The total billing and collections costs per line are ** ** per line, per month, as shown on Schedule TMR-3. However, I have included ** ** of billing and collections costs in the 1FR cost shown above.

A. Yes. At one time, the FCC did consider determining Federal USF needs by comparing a carrier's costs to a "revenue benchmark".[40] The "revenue benchmark" that the FCC was going to use did not just include basic local service revenues. The FCC's benchmark also included the revenues for switched access services and vertical services. Both the FCC-State Joint Board[41] and the FCC properly concluded that since the cost they calculated included the shared loop facilities costs, the revenue benchmark should include the revenues from the family of services that share the loop facilities:

> As the Joint Board recommended, the revenue benchmark should take account not only of the retail price currently charged for local service, but also of other revenues the carrier receives as a result of providing service, including vertical service revenue and interstate and intrastate access revenues. Failure to include all revenues received by the carrier could result in substantial overpayment to the carrier.[42]
>
> We include revenues from discretionary services in the benchmark for additional reasons. ... Revenues from services in addition to the supported services should, and do, contribute to the joint and common costs they share with the supported services.[43]

The FCC never did implement the Federal USF calculation that compared cost to revenues, but when it was preparing to use that standard, the FCC properly recognized the concept that this cost had to be compared to revenues from the family of services which shared the loop (including switched access service

[40] Currently, the FCC uses its Proxy Model cost results for a company to compare to other costs, not rates. Under the FCC's current USF, a carriers' disbursements from the Federal USF depend on the carriers' costs relative to the national average cost of serving customers. See §36.631(c) of the FCC's Rules.
[41] The FCC-State Joint Board is made up of both state commissioners and FCC commissioners.
[42] Report and Order in CC Docket No. 96-45, FCC 97-157, Released May 8, 1997, ¶200.
[43] Report and Order in CC Docket No. 96-45, FCC 97-157, Released May 8, 1997, ¶261.

revenues and vertical services revenues), not compared to just basic exchange revenues.

Q. DOES QWEST CURRENTLY RECEIVE ANY FEDERAL HIGH COST LOOP SUPPORT IN ARIZONA?

A. No. Under the Federal high cost loop system currently in place, Qwest does not receive any Federal high cost loop support in Arizona.[44]

Q. WHAT DO YOU CONCLUDE?

A. I conclude that Qwest's request for the Zone 2 and Zone 3 AUSF support should not be granted. The "Code Analysis" shows that Qwest would not receive any AUSF funding following the Code's AUSF rules, because Qwest's basic local service benchmark rates are greatly in excess of Qwest's TSLRICs of providing basic local service.

Qwest's proposed AUSF analysis improperly includes the costs of the shared loop and port facilities. Over ** ** of the costs that Qwest has included in its "Fully Allocated Cost" of basic local exchange telephone service are not properly included in the calculation of the Total Service Long Run Incremental Cost of

[44] Universal Service Administrative Company, Federal Universal Service Support Mechanisms Fund Size, Projections for the First Quarter 2005, Appendix HC01, November 2, 2004.
[45] Part 36.154(c).

[46] Million Direct testimony, page 24, line 21.
[47] The Interstate End User Common Line (EUCL) charge was not included in my analysis. Only intrastate costs and intrastate revenues were included in the analysis.

basic local exchange service, and are therefore not properly included in the AUSF analysis under the requirements of the Code.

My second, or "overall analysis" indicates that Qwest does not need AUSF support to cover its intrastate costs in Zone 2 and Zone 3. **

** in Zones 2 and 3. For these reasons, I recommend that Qwest's request for AUSF funding be denied.

III. RATE DESIGN

A. ZONE INCREMENT CHARGES

Q. ON PAGE 86 OF HIS DIRECT TESTIMONY, MR. TEITZEL PROPOSES TO ELIMINATE THE EXCHANGE ZONE INCREMENT 1 AND 2 RATES, WHICH ARE PRICED AT $1.00 AND $3.00 RESPECTIVELY. DO YOU SUPPORT MR. TEITZEL'S PROPOSAL?

A. No. I do not support Mr. Teitzel's proposal.

The purpose of the zone increment charges is to recover costs for serving areas that have higher than average costs. Mr. Teitzel makes this point clear on page 87 of his Direct Testimony, when he provides the following Q & A:

> Q. HAVE LOCAL SERVICE ZONE INCREMENTS BEEN A MEANS FOR QWEST TO RECOVER COSTS FOR SERVING AREAS THAT ARE, ON

AVERAGE, MORE COSTLY TO SERVE THAN OTHER AREAS OF THE STATE?

A. Yes. The Zone 2 increments have been assessed to customers that are in the highest cost areas of Qwest's service territory, while the Zone 1 increments are applicable to areas that have local exchange costs that are slightly higher than average.

Therefore, the current Zone increment charges are properly serving the purpose of defraying at least part of the costs in high cost areas.

B. SWITCHED ACCESS

Q. ON PAGE 14, LINE 14 OF HIS DIRECT TESTIMONY, QWEST'S WITNESS MR. MCINTYRE DISCUSSES A $5 MILLION INTRASTATE SWITCHED ACCESS REVENUE REDUCTION. HAS THIS REDUCTION BEEN RESCINDED BY THE COMMISSION?

A. Yes. In Decision 67047, the Commission reversed the $5 million reduction.[48]

Q. ON PAGE 15 OF HIS DIRECT TESTIMONY, MR. MCINTYRE STATES THAT IN THE RECENT PAST, QWEST HAS SUPPORTED LOWERING INTRASTATE SWITCHED ACCESS RATES TO "INTERSTATE LEVELS". WHAT IS THE MAJOR REASON WHY QWEST'S INTERSTATE SWITCHED ACCESS RATES ARE LESS THAN QWEST'S INTRASTATE SWITCHED ACCESS RATES?

A. Qwest's interstate switched access charges are priced artificially low because those interstate rates are supported by the interstate End User Common Line

[48] Decision No. 67047, Dated June 18, 2004, page 7, line 3.

(EUCL) charge that appears on local end-user customers' bills. For residential customers, the interstate EUCL is currently $6.50 per line per month for Qwest in Arizona. Therefore, the interstate switched access charges are artificially suppressed rates, that are supported in part by per-line charges paid for by end-user customers.

Q. HAS THE ARIZONA COMMISSION PROPERLY RECOGNIZED THAT THERE ARE PUBLIC POLICY CONCERNS THAT IMPACT THE COMMISSIONS ABILITY TO SET QWEST'S INTRASTATE SWITCHED ACCESS RATES AT "PARITY" WITH THE QWEST INTERSTATE SWITCHED ACCESS RATES?

A. Yes. In its Order in Qwest's last rate case, Docket No. T-01051B-99-0105 et. al., the Commission stated:

> Although the Settlement Agreement professes a goal of reaching parity between Qwest's intrastate and interstate switched access charges, it does not, at least in its initial three year term reach that goal. It does, however, take a step forward. While we agree that achieving parity between intrastate and interstate switched access rates is a laudable goal, there are many other public policy issues that impact our ability to reach that goal, such as the desirability of imposing an End User Common Line charge. Such decision concerning the structure of toll service charges should occur in a generic docket as it affects more than just Qwest.[49]

Q. CAN YOU PROVIDE A COMPARISON OF QWEST'S CURRENT INTRASTATE SWITCHED ACCESS RATES, TO QWEST'S INTERSTATE SWITCHED ACCESS RATES <u>INCLUDING THE EUCL CHARGE</u>?

[49]Commission Opinion and Order in Docket No. T-01051B-99-0105 et. al, page 12, lines 15-21, October 20, 2000.

A. Yes. In discovery, Qwest provided its current average revenue per minute for intrastate switched access services, which is ** ** per minute.[50]

The average interstate switched access rate, including EUCL, is ** **.[51]

A summary of the results of this analysis is shown below:

**

**

The calculation of the interstate switched access rates shown above is shown on Schedule TMR-4, attached hereto.

Q. WHAT DO YOU CONCLUDE FROM THIS ANALYSIS?

A. The analysis I have performed demonstrates that Qwest's current intrastate switched access charges are approximately ** ** higher than the interstate switched access rates (when the interstate EUCL charges are included in the calculation of the interstate switched access rates).[53]

---

[50] In response to other discovery, Qwest provided what its intrastate switched access revenues would be if its switched access rates were set equal to (i.e. at "parity") with Qwest's interstate switched access rates (not including the interstate EUCL charge). Those revenues equal ** ** per minute. I then calculated the interstate EUCL charge on a per-minute-of-use basis, by dividing the average monthly interstate EUCL rate by the total monthly interstate switched access minutes of use. On a per-minute-of-use basis, the interstate EUCL charge is ** ** per minute.

[51] ** **.

[52] Qwest response to Data Request WDA 6-2.

[53] ** **.

Q. HAVE YOU PERFORMED ANOTHER ANALYSIS TO HELP ASSESS THE LEVEL OF QWEST'S CURRENT INTRASTATE SWITCHED ACCESS RATES?

A. Yes. In a separate analysis, I compared the current charges for Qwest's ** ** intrastate switched access rates in Arizona, to the average intrastate switched access charges of Qwest for those same services across Qwest's 14 state service territory.[54] This analysis demonstrates that for the ** ** intrastate switched access rates, Qwest's rates in Arizona are approximately 28% higher than the average rates of Qwest across its 14 state service territory. A summary of this analysis is shown below:

**QWEST'S RATES FOR THE ** **

INTRASTATE SWITCHED ACCESS RATES

	Arizona	Qwest 14 State Average[55]
Carrier Common Line Access Service (CCL)		
Originating	$0.006244	$0.009255
Terminating	$0.014153	$0.012329
Local Switching		
Originating	$0.017300	$0.011177
Terminating	$0.017300	$0.010197
Tandem Switching	$0.005000	$0.003980
Total-Originating and Terminating	$0.059997[56]	$0.0469380
Approx. Major Ave.per Access Minute (=Total/2)	$0.029998	$0.023469
Percent- Arizona/Average	128%	

[54] Qwest's ** ** intrastate switched access rates in Arizona are local switching, Carrier Common Line Access Service (CCL), and tandem switching, as shown on page 1 of Schedule TMR-5.

[55] The Carrier Common Line Access Service rates exclude the state of Montana. Montana has a flat-rated CCL that is split among each IXC based on each IXC's relative market share measured in relative share of minutes of use.

[56] The average revenue per minute for Qwest's intrastate switched access in Arizona is ** **.This figure includes access charges in addition to the major charges included in the above analysis. (See Qwest's response to Data Request WDA 6-2).

The calculation of the above figures is shown on page 2 of Schedule TMR-5, attached hereto.

Q. WHAT DO YOU RECOMMEND FOR INTRASTATE SWITCHED ACCESS SERVICES?

A. I recommend that Qwest's intrastate switched access rates be reduced by 25%. The intrastate switched access rates that I propose this reduction for are shown on page 1 of Schedule TMR-5. This reduction will effectively bring Qwest to "parity" with the Qwest interstate switched access rates (when the interstate EUCL charges are factored into the calculation of the interstate switched access rates), and will bring the Arizona intrastate switched access rates in line with the average intrastate switched access charges of Qwest across its 14 state service territory. The Staff's proposed intrastate switched access rates exceed Qwest's proposed TSLRIC costs for each of the switched access services shown on page 2 of Ms. Million's Direct testimony schedule TKM-1.[57]

Q. WHAT IS THE REVENUE IMPACT OF YOUR SWITCHED ACCESS PROPOSAL?

[57] However, not every switched access rate element is included on Ms. Million's schedule TKM-1. While I recommend that each of Qwest's intrastate switched access rates shown on page 1 of Schedule TMR-5 be reduced by 25%, I do not intend that any rate be below TSLRIC. I reserve the right to modify my proposal in the event that Qwest demonstrates that any of my proposed rates would result in a rate(s) below the TSLRIC cost to provide that service(s).

1 A. The annual revenue impact of my proposal to reduce Qwest's intrastate switched
2 access rates by 25% is a reduction ** **, as shown on page 1 of
3 Schedule TMR-5.
4
5 Q. WHAT REDUCTION IN REVENUES ARE YOU PROPOSING FOR
6 CARRIER COMMON LINE?
7 A. As shown on page 1 of Schedule TMR-5, I propose a 25% reduction for Qwest's
8 CCL rates, which results in an annual revenue reduction of ** **.
9
10 Q. WHAT SERVICE DOES QWEST PROVIDE IN EXCHANGE FOR THE
11 CARRIER COMMON LINE ACCESS SERVICE RATES?
12 A. The CCL rates are the IXCs' payment for Carrier Common Line Access Service.
13 The IXCs pay the CCL if they want to use Qwest's common line (i.e. loop)
14 facilities to provide intrastate toll services. Carrier Common Line Access Service
15 is described in Qwest's tariff as follows:
16 Carrier Common Line Access Service provides for the use of Company
17 common lines by customers for access to end users to furnish intrastate
18 telecommunications service.[59]
19
20
21 Q. IS IT REASONABLE TO CHARGE THE IXCs A CCL FOR USING THE
22 LOOP FACILITIES?
23 A. Yes. The IXCs receive a great benefit from sharing the loop facilities with basic
24 local exchange service and all of the other services that share the loop facilities.

[58] Qwest's response to Data Request WDA 2-9, Attachment A.
[59] Qwest Arizona Access Service Price Cap Tariff, Section 3.1 (General Description), page 1, Effective 8-29-01.

Since the IXCs share the loops with other services and other users, the IXCs can use the loops by paying just a fraction of what it would cost the IXCs to construct their own loops. For example, at the current Qwest CCL rates, all of the IXCs combined pay an average of only ** ** per line per month in intrastate CCL charges. This calculation is shown on Schedule TMR-6, attached hereto. In comparison, Qwest's average charge for a UNE loop is $12.12 per month in Arizona.[60] Therefore, under Qwest's current CCL rates, all of the IXCs combined, are only required to pay for ** ** (on average) of what it would cost the IXC to obtain its own loop facilities.[61]

Quite simply, even at the current CCL rates, the IXCs are making a very small percent contribution to the costs of the common line loop facilities that the IXCs depend upon, benefit from and share with other services and other users. I agree with the National Association of Regulatory Commissioners' (NARUC), when it stated:

> Interexchange carriers should pay a portion of the NTS loop cost because they use the LECs loop to provide their services.[62]

C. DIRECTORY ASSISTANCE

Q. ON PAGE 97 OF HIS DIRECT TESTIMONY, MR. TEITZEL PROPOSES TO ELIMINATE THE CURRENT ONE CALL FREE ALLOWANCE

[60] *A Survey of Unbundled Network Element Prices in the United States* (Updated January 2004), conducted by the Public Service Commission of West Virginia, Appendix 3, page 1.

[61] ** ** divided by $12.12 = ** **.

[62] Page 13, Initial Comments of the National Association of Regulatory Utility Commissioners, CC Docket No. 96-262, January 29, 1997.

1 ASSOCIATED WITH DIRECTORY ASSISTANCE. PLEASE DESCRIBE
2 WHAT IS MEANT BY THE FREE CALL ALLOWANCE?
3 A. As discussed on page 96 of Mr. Teitzel's Direct testimony, Qwest's customers are
4 currently allowed to place one call per month to "Local Directory Assistance" free
5 of charge.
6
7 Q. IS THERE ANY COST-BASED REASON TO ELIMINATE THE ONE FREE
8 CALL ALLOWANCE?
9 A. No. As shown on page 2 of Ms. Million's Exhibit TKM-01, Qwest's proposed
10 "Fully Allocated TSLRIC" of Local Directory Assistance is ** ** per call.
11 The current annual revenue for local DA is ** **, and the total
12 number of DA calls (including the free call allowance calls) is ** **.[63]
13 Therefore, the average revenue per local DA call (including free call allowance
14 calls) is ** ** per call.[64] This means that with the current one free call
15 allowance, the current DA rates provide a contribution of over ** ** above
16 Qwest's proposed "Fully Allocated TSLRIC" cost.[65]
17
18 Q. WHAT ARE SOME OF THE REASONS QWEST PROVIDES FOR WANTING
19 TO ELIMINATE THE ONE FREE CALL ALLOWANCE?
20 A. According to Mr. Teitzel, he is proposing to eliminate the current call allowance
21 associated with local directory assistance in order to "achieve consistency with the

[63] This is shown in Qwest's recurring priceout provided in response UTI 1-001S1, Revised Confidential Attachment B, Section C6.2.4.
[64] ** ** divided by ** ** equals ** **.
[65] ** ** divided by ** ** equals ** **.

1 national directory assistance product"[66], to "alleviate customer confusion", to
2 "simplify the service for our customers", as well as to "improve efficiency" and to
3 "enhance the competitive positioning" of Qwest's Directory Assistance service.[67]
4
5 Q. WILL ELIMINATING THE ONE FREE CALL ALLOWANCE ALLEVIATE
6 CUSTOMER CONFUSION OR SIMPLIFY THE SERVICE FOR
7 CUSTOMERS?
8 A. Not necessarily. Many customers benefit from receiving a one call per month free
9 allowance for local DA. To now remove the free call allowance that customers
10 have become accustomed to would not necessarily "alleviate customer
11 confusion", or "simplify the service". It is possible that such a change could very
12 well create customer confusion and complicate the service for customers.
13 Eliminating the free call allowance is not a benefit for customers.
14
15 Q. ON PAGES 98-101 OF HIS DIRECT TESTIMONY, MR. TEITZEL CLAIMS
16 THAT THE FREE CALL ALLOWANCE SHOULD BE ELIMINATED
17 BECAUSE THE MARKET FOR DIRECTORY ASSISTANCE HAS BECOME
18 MORE COMPETITIVE SINCE THE CURRENT QWEST PRICE PLAN WAS
19 ADOPTED. ON PAGE 98 OF HIS DIRECT TESTIMONY, MR. TEITZEL
20 CLAIMS THAT ELIMINATING THE FREE CALL ALLOWANCE WILL
21 "ENHANCE THE COMPETITIVE POSITIONING" OF ITS LOCAL DA
22 SERVICE. DOES MR. TEITZEL EXPLAIN HOW ELIMINATING THE FREE

[66] Teitzel Direct, page 97, lines 6-7.
[67] Teitzel Direct, pages 97-98.

1 CALL ALLOWANCE WILL MAKE QWEST'S LOCAL DIRECTORY
2 ASSISTANCE SERVICE ANY MORE COMPETITIVE IN THE MARKET?
3 A. No. Mr. Teitzel provided no evidence that eliminating the free call allowance
4 would do anything to improve Qwest's competitive position in the local DA
5 market. In fact, it would seem logical that having a free call allowance would
6 make Qwest a more attractive Directory Assistance provider than a provider that
7 does not offer a free call allowance. It is not clear how eliminating the free call
8 allowance would do anything to improve Qwest's competitive position in the local
9 DA market.
10
11 Q. WHAT DO YOU PROPOSE FOR LOCAL DIRECTORY ASSISTANCE?
12 A. I propose that no changes be made to local DA. I recommend that the current one
13 free call allowance per month for local DA be retained.
14
15 **D. SERVICE PACKAGES**
16
17 Q. ON PAGE 103 OF HIS DIRECT TESTIMONY, MR. TEITZEL PROPOSES TO
18 ELIMINATE SEVERAL OF ITS SERVICE PACKAGES AND CUSTOM
19 CALLING PACKAGES THAT INCLUDE 2, 3, 4 OR 5 CUSTOM CALLING
20 FEATURES. DO YOU OPPOSE MR. TEITZEL'S PROPOSALS TO
21 ELIMINATE THESE SERVICES?
22 A. No.
23

1 Q. WHAT IS THE REVENUE IMPACT OF MR. TEITZEL'S PROPOSALS TO
2 ELIMINATE THESE SERVICES?
3 A. Eliminating these service offerings results in an annual reduction in revenues.
4 However, Qwest has re-mapped the demand for the services that are being
5 eliminated, to other service offerings that Qwest will continue to provide. The net
6 revenue impact of these proposals (after re-mapping demand to other services), is
7 an annual increase of ** **.[68]
8
9 Q. ON PAGES 105-106 OF HIS DIRECT TESTIMONY, MR. TEITZEL
10 PROPOSES CHANGES FOR CALL MANAGEMENT/CENTRON 1
11 PACKAGE, AND PRICING CHANGES FOR CENTRON 6 AND CENTRON
12 30 PACKAGES. DO YOU OPPOSE THESE PROPOSED CHANGES?
13 A. No.
14
15 Q. WHAT IS THE REVENUE IMPACT OF MR. TEITZEL'S PROPOSES
16 CHANGES FOR CALL MANAGEMENT/CENTRON 1 PACKAGE, AND
17 PRICING CHANGES FOR CENTRON 6 AND CENTRON 30 PACKAGES?
18 A. The combined revenue impact of these proposals is an annual increase of
19 ** **.[69]
20
21 **E. PRIVATE LINE AND 800 DATABASE**
22

[68] Qwest's response to Data Request WDA 15-5, Attachment A.
[69] Qwest's response to Data Request WDA 15-6, Attachment A.

Q. ON PAGES 1-4 OF HIS DIRECT TESTIMONY, MR. MACINTYRE PROPOSES SEVERAL RATE CHANGES FOR PRIVATE LINE SERVICES, RESULTING IN AN ANNUAL INCREASE IN REVENUE OF $748,000. DO YOU OPPOSE THESE RATE CHANGES?

A. No.

Q. QWEST PROPOSES CHANGES FOR ITS 800 DATABASE SERVICE. DO YOU OPPOSE THESE CHANGES?

A. No. The revenue impact of Qwest's proposal for 800 Database service is very small (a revenue increase of $46,000).[70] I do not oppose the proposed changes.

Q. CAN YOU PLEASE SUMMARIZE THE REVENUE IMPACTS OF YOUR RATE PROPOSALS?

A. Yes. The annual revenue impacts of my rate proposals are shown below:

**

**

Total	($7,228,420)

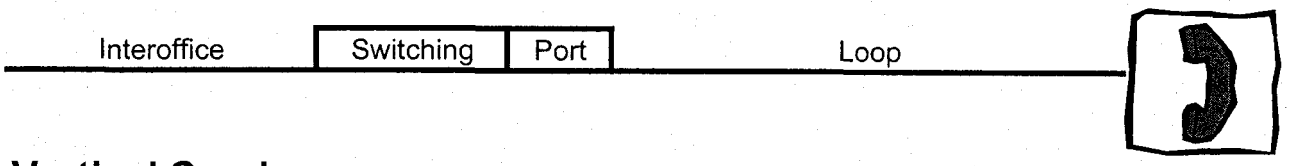
[70] McIntyre Direct Testimony, page 17, line 3.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

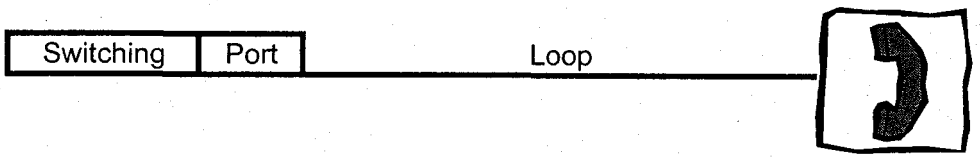
A. Yes.

FACILITIES NEEDED TO PROVIDE THE MAJOR TELECOMMUNICATIONS SERVICES

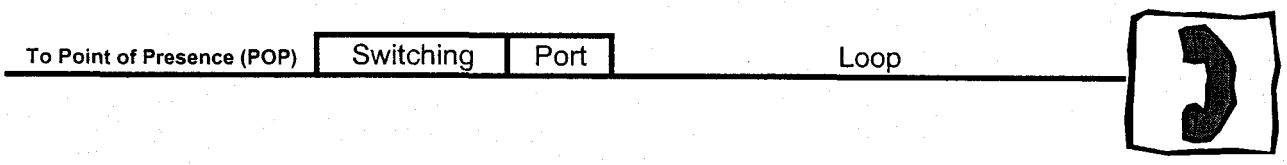
Toll Service:



Vertical Service (e.g. Caller ID, Call Waiting, etc.):



Switched Access:



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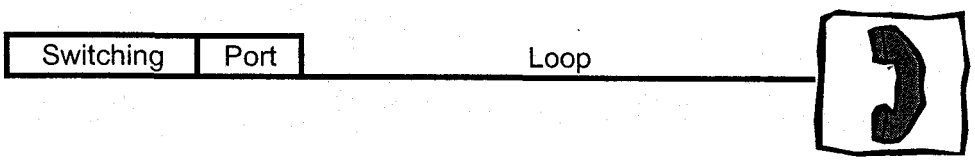

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COMPARISON OF INTRASTATE SWITCHED ACCESS CHARGES IN QWEST STATES

ACCESS SERVICE	RATE PER MINUTE															
	Colorado	Idaho - North	Idaho - South	Iowa	Minnesota	Montana	Nebraska	New Mexico	North Dakota	Oregon	South Dakota	Utah	Washington	Wyoming	Arizona	Qwest Average
Carrier Common Line Access Service																
Originating	$ 0.009020	$ 0.021533	$ 0.015303	$0.001258	$ 0.001896	See Note (1)	$0.00	$ 0.012259	$ 0.018941	$0.00	$ 0.038420	$0.004700	$0.00	$0.00	$0.006244	$0.009255 *
Terminating	$ 0.020819	$ 0.029265	$ 0.020432	$0.001258	$ 0.012361	See Note (1)	$0.00	$ 0.012259	$ 0.018941	$0.00	$ 0.038420	$0.004700	$0.00	$0.00	$0.014153	$0.012329 *
Local Switching																
Originating	$ 0.012362	$ 0.014308	$ 0.016918	$0.010000	$ 0.008063	$ 0.015416	$0.001968	$ 0.015822	$ 0.010566	$0.004380	$ 0.008610	$0.010400	$ 0.015873	$0.005664	$0.017300	$0.011177
Terminating	$ 0.012362	$ 0.014308	$ 0.016918	$0.010000	$ 0.008063	$ 0.015416	$0.001968	$ 0.015822	$ 0.010566	$0.004380	$ 0.008610	$0.010400	$ 0.001178	$0.005664	$0.017300	$0.010197
Tandem Switching	$ 0.005000	$ 0.004000	$ 0.002469	$0.004000	$ 0.001750	$ 0.005480	$0.002545	$ 0.003423	$ 0.005734	$0.003000	$ 0.007700	$0.002592	$ 0.003306	$0.003705	$0.005000	$0.003980
Total	$ 0.059563	$ 0.083414	$ 0.072040	$0.026516	$ 0.032133	$ 0.036312 Plus CCL	$0.006481	$ 0.059585	$ 0.064748	$0.011760	$ 0.101760	$0.032792	$ 0.020357	$0.015033	$0.059997	$0.046938
Approx. Major Ave.per Access Minute (Total / 2)	$ 0.029782	$ 0.041707	$ 0.036020	$0.013258	$ 0.016067	$ 0.018156	$0.003241	$ 0.029793	$ 0.032374	$0.005880	$ 0.050880	$0.016396	$ 0.010179	$0.007517	$0.029999	$0.023469

(1) The CCL in Montana is $2.899 per residence access line, per month, which is split among each IXC based on relative market share, measured in minutes of use. (Section 3.1 through Section 3.2 of Qwest's Montana Access Service Tariff.
* Excludes Montana.

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5. EXCHANGE SERVICES

5.9 PACKAGED SERVICES

5.9.1 PACKAGES ASSOCIATED WITH BASIC EXCHANGE SERVICE

A. Business *CUSTOMCHOICE* (M) (T)(M1)

1. Description

Business *CUSTOMCHOICE* is a package of features available to business customers in conjunction with an additional or individual flat rate access line. Business customers subscribing to the package are entitled to unlimited use of the services/features specified below:

- Anonymous Call Rejection
- Call Forwarding
  - Busy Line (Expanded)
  - Busy Line (External)
  - Busy Line (Overflow)
  - Busy Line/Don't Answer (Expanded)
  - Busy Line (External)/Don't Answer
  - Busy Line (Overflow)/Don't Answer
  - Busy Line (Programmable)
  - Don't Answer
  - Don't Answer (Expanded)
  - Don't Answer (Programmable)
  - Variable
- Call Transfer
- Call Waiting
- Call Waiting ID
- Caller ID Name and Number
- Calling Connection Plans[1]
  - Minutes Free
- Continuous Redial
- Custom Ringing
- Do Not Disturb
- Hunting
- Last Call Return
- Long Distance Alert
- Message Waiting Indication

[1] For Terms, Conditions, Rates and Charges see 6.3.18 in the Competitive Exchange and Network Services Price Cap Tariff. (M1)

(M) Material moved to 105.9.1.

(M1) Material moved from Page 172.

5. EXCHANGE SERVICES

5.9 PACKAGED SERVICES
5.9.1 PACKAGES ASSOCIATED WITH BASIC EXCHANGE SERVICE

A.1. (Cont'd) (M) (T)(M1)

- Priority Call
- Remote Access Forwarding
- Selective Call Forwarding
- Scheduled Forwarding
- Speed Call - 8 Number
- Speed Call - 30 Number
- Three-Way Calling
- U S WEST Receptionist - Name & Number

2. Terms and Conditions

a. A business customer may select an unlimited number of compatible services or features from the list in 5.9.1.A., preceding. All terms and conditions specified elsewhere apply for the respective services/features requested as part of this service. (T)

b. Existing Business *CUSTOMCHOICE* customers cannot take advantage of promotions for Business *CUSTOMCHOICE* or any of the services/features specified in 5.9.1.A.1., preceding, unless specifically allowed by the terms and conditions of the promotion. (T)

c. Business *CUSTOMCHOICE* is subject to a minimum billing period of one month.

d. The Company may withdraw this offering to customers at any time with appropriate notice. (M1)

(M) Material moved to 105.9.1.

(M1) Material moved from Page 173.

Thomas M. Regan, Consultant
8625 Farmington Cemetery Road
Pleasant Plains, IL 62677

PRESENT POSITION

William Dunkel and Associates
Position: Consultant

- Filed testimony on behalf of the Missouri Office of Public Counsel before the Missouri Public Service Commission, Case No. TR-2002-251, in which I addressed Sprint's rate rebalancing.
- Filed testimony on behalf of Illinois Attorney General before the Illinois Commerce Commission, Docket No. 02-0864, in which I addressed UNE loop costs and UNE rates.
- Testified on behalf of the Maryland Office of the People's Counsel before the Maryland Public Service Commission in a Universal Service proceeding involving Verizon-Maryland, Case No. 8745.
- Testified on behalf of the Government and Consumers Intervenors (GCI) before the Illinois Commerce Commission in an Alternative Regulation case involving Ameritech Illinois, Docket No. 98-0252, in which I addressed economic principles.
- Filed testimony on behalf of the New Mexico Public Regulation Commission in a subsidy case involving VALOR Communications, Case No. 3300, in which I addressed economic principles.
- Testified on behalf of the New Mexico Public Regulation Commission Staff in a subsidy case involving Qwest Communications, Case No. 3325, in which I addressed economic principles.
- Filed testimony on behalf of the Staff of the Arizona Corporation Commission in a general rate case involving Qwest Communications, Docket No. T-01051B-99-0105, in which I addressed economic principles.
- Filed testimony on behalf of the Pennsylvania Office of Consumer Advocate in a case involving Bell Atlantic-Pennsylvania, Docket No. R-953409 in which he addressed stimulation as a result of toll price reductions.
- Testified on behalf of the Colorado Office of Consumer Counsel in a rate rebalancing case involving U.S. West Communications, Inc., Docket No. 96S-257T et al.
- Testified on behalf of the Utah Committee of Consumer Services in the Residential Price Flexibility case of Qwest in Utah Docket No. 01-2383-01.

- Participated, but did not testify in, the following proceedings:

-Illinois Docket No. 04-0461 (SBC Imputation Requirements)
-Alaska Docket No. R-03-003 (ACS AFOR Proceeding)
-Alaska Docket No. R-01-001 (Access Rate Proceeding)
-Utah Docket No. 03-049-49 (Qwest Price Flexibility-Residential)
-Utah Docket No. 03-049-50 (Qwest Price Flexibility-Business)
-Alaska Docket Nos. U-1-83, U-01-85, U-01-87 (General Rate Proceeding)
-Maryland Case No. 8960 (Washington Gas Light Company Depreciation Rate Proceeding)
-Kansas Docket No. 03-HVDT-664-RTS (Audit and General Rate Proceeding)
-Pennsylvania Docket Nos. C-200271905 (Access Charge Complaint Proceeding)
-Kansas Docket No. 03-WHST-503-AUD (Audit and General Rate Proceeding)
-Illinois Docket No. 02-0864 (SBC UNE Rate Proceeding)
-Pennsylvania Docket Nos. A-310200F0002, A-311350F0002, A-310222F0002, A-310291F0003 (Verizon for Approval of Agreement and Plan of Merger)
-California Docket A.02-01-004 (Kerman General Rate Case)
-Kansas Docket No. 03-S&AT-160-AUD (Audit and General Rate Proceeding)
-Pennsylvania Docket Nos. P-00991649, P-00991648, M-00021596 (Joint Petition for Global Resolution of Telecommunications Proceedings)
-Illinois Docket No. 02-0560 (Verizon Advanced Services Wavier)
-Missouri Docket No. TR-2001-65 (Cost of Access Proceeding)
-Kansas Docket No. 02-JBNT-846-AUD (Audit and General Rate Proceeding)
-Kansas Docket No. 02-BLVT-377-AUD (Audit and General Rate Proceeding)
-Kansas Docket No. 02-S&TT-390-AUD (Audit and General Rate Proceeding)
-Kansas Docket No. 02-WLST-210-AUD (Audit and General Rate Proceeding)
-Kansas Docket No. 02-HOMT-209-AUD (Audit and General Rate Proceeding)
-Kansas Docket No. 01-CRKT-713-AUD (Audit and General Rate Proceeding)
-Kansas Docket No. 01-SFLT-879-AUD (Audit and General Rate Proceeding)
-Kansas Docket No. 01-BSST-878-AUD (Audit and General Rate Proceeding)
-Kansas Docket No. 01-PNRT-929-AUD (Audit and General Rate Proceeding)
-Kansas Docket No. 01-SNKT-544-AUD (Audit and General Rate Proceeding)
-New Mexico Case No. 3223 (Universal service fund proceeding)
-Arizona Docket No. T-00000A-00-0194 (Wholesale cost/UNE proceeding of Qwest)
-Arizona TX 98-00716 (Tax Case of Citizens Telecommunications Company of White Mountain, et. al.)
-Maryland Case No. 8862 (PIC change charge case of Verizon Maryland)
-New Mexico Case No. 3008 (General Rate/Depreciation case of USWest)
-Arizona Docket No. T-01051B-97-0689 (Depreciation case of US West)
-Illinois Docket No. 99-0412 (EAS case involving Geneseo Telephone Company)
-Kansas Docket No. 98-SWBT-677-GIT (State USF case involving SWBT)
-Kansas Docket No. 00-UTDT-455-GIT (State USF case involving Sprint)
-Arizona Docket No. T-02724A-00-0595 (Earnings Review of Table Top Telephone Co.)
-Missouri Docket No. TO-98-329 (USF case involving SWBT)

-Ohio Docket No. 97-1657-TP-UNC (Access charge case involving Ameritech Ohio)
-Illinois Docket Nos. 98-0200/98-0537 (Consolidated) (Usage sensitive service of GTE)
-Florida Undocketed Special Project (Fair and Reasonable Rates of BellSouth, GTE, and Sprint)
-Pennsylvania Docket No. A-310125F002 (GTE North Interconnection Proceeding)
-Washington Docket UT-960369 (US West Communications, Inc. Interconnection Case)
-Utah Docket No. 97-049-08 (US West Communications, Inc. General Rate Case)
-Oklahoma Cause No. PUD 96-0000214 (Public Service of Oklahoma Depreciation Case)
-Hawaii Docket No. 7702 (GTE Hawaiian Tel General Rate Case)
-Washington Docket UT-950200 (US West Communications, Inc. General Rate Case)
-Pennsylvania Docket R-00953409 (Bell Atlantic Toll Automatic Savings Plan)
-Pennsylvania Docket R-00963550 (Bell Atlantic Rate Rebalance Proceeding)
-Iowa Docket RPU-95-11 (US West Communications, Inc. General Rate Case - Withdrawn by USWC just prior to hearings)
-Arizona Docket E-1051-93-183 (US West Communications, Inc. General Rate Case - Remand)
-Colorado Docket 95S-523T (US West Communications, Inc. CustomChoice Case - Withdrawn)
-Utah Docket 95-049-05 (US West Communications, Inc. General Rate Case)
-Iowa Docket RPU-95-10 (US West Communications, Inc. Interconnection Case)
-Hawaii Docket 94-0298 (General Telephone and Electronics (GTE) Depreciation Case)
-Indiana Cause No. 39938 (Indianapolis Power and Light Company - Depreciation Case)

Participation in the above proceedings included some or all of the following:

Developing analyses, writing draft testimony, preparing data requests, analyzing issues, analyzing economic costs and principles, price elasticity and other economic issues, writing draft testimonies, preparing data requests and responses, preparing draft questions for cross-examination, drafting briefs, and developing various quantitative and economic models.

Member of the Economic Advisory Board at the University of Illinois-Springfield.

PREVIOUS EMPLOYMENT

Sangamon State University
Graduate Assistant

-Prepared research projects on various economic topics
-Formed theoretical and statistical models
-Analyzed results of empirical models
-Formulated policy recommendations based on results.
-Worked with students

EDUCATION

Master of Arts in Economics from Sangamon State University in Springfield, Illinois
GPA 3.97/4.0
Bachelor of Arts in Liberal Arts Economics from University of Illinois, Urbana, Illinois
Relevant Coursework:

-Mathematics and Calculus
-Statistical Analysis
-Accounting/Financial Analysis
-Economic and Statistical Modeling
-Economics in Management
-International Economics
-Environmental Economics
-Marketing

Academic Awards and Honors:
-Phi Theta Kappa Honor Fraternity
-Economics Marshall Award
-Omicron Delta Epsilon Economics Honor Society
-Who's Who at America's Colleges and Universities
-Outstanding Student in Economics Award
-Highest graduate GPA in history of Economics program

BEFORE THE

ARIZONA CORPORATION COMMISSION

IN THE MATTER OF QWEST CORPORATION'S FILING OF RENEWED PRICE REGULATION PLAN	)))	DOCKET NO. T-0151B-03-0454
IN THE MATTER OF THE INVESTIGATION OF THE COST OF TELECOMMUNICATIONS ACCESS	)))	DOCKET NO. T-00000D-00-0672

DIRECT TESTIMONY AND SCHEDULES

OF

WILLIAM DUNKEL

ON BEHALF OF

THE STAFF OF THE ARIZONA CORPORATION COMMISSION

NOVEMBER 2004

NOTICE: THE CONFIDENTIAL INFORMATION HAS BEEN REDACTED FROM THIS TESTIMONY.

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I. STATEMENT OF QUALIFICATIONS AND INTRODUCTION

Q. Please state your name and address.

A. My name is William Dunkel. My business address is 8625 Farmington Cemetery Road, Pleasant Plains, Illinois 62677.

Q. What is your present occupation and some highlights of your background?

A. I am a consultant providing services in telephone rate proceedings. I am the principal of William Dunkel and Associates, which was established in 1980. Since that time, I have regularly provided consulting services in telephone regulatory proceedings throughout the country. I have participated in over 140 state regulatory telephone proceedings before over one-half of the state commission in the United States, as shown on Appendix A attached hereto. I have participated in telephone regulatory proceedings for over 20 years. I have provided cost analysis, rate design, jurisdictional separations, depreciation, expert testimony and other related services to state agencies throughout the country in numerous telecommunication state proceedings. I have also provided depreciation testimony to state agencies in several electric utility or natural gas proceedings.

I am a member of the Society of Depreciation Professionals.

During the period 1975-1980, I was the Separations and Settlements expert for the Staff of the Illinois Commerce Commission.

From July, 1977 until July, 1980, I was a Staff member of the FCC-State Joint Board on Separations, concerning the "Impact of Customer Provision of Terminal Equipment on Jurisdictional Separations" in FCC Docket No. 20981 on behalf of the Illinois Commerce Commission. The FCC-State Joint Board is the national board which specifies the rules for separations in the telephone industry.

I have taken the AT&T separations school which is normally provided to the AT&T personnel.

I have taken the General Telephone separations school which is normally provided for training of the General Telephone Company personnel in separations.

I currently provide, or in the past have provided, services in telecommunications proceedings to the following clients:

The Public Utility Commission or the Staffs in the States of:

Alaska	Mississippi
Arkansas	Missouri
Arizona	New Mexico
Delaware	U.S. Virgin Islands
Georgia	Utah
Guam	Virginia
Illinois	Washington
Maryland	Kansas

The Office of the Public Advocate, or its equivalent, in the States of:

Colorado	Missouri
District of Columbia	New Jersey
Georgia	New Mexico
Hawaii	Ohio

Illinois	Oklahoma
Indiana	Pennsylvania
Iowa	Utah
Maine	Washington
Florida	

The Department of Administration in the States of:

Illinois	South Dakota
Minnesota	Wisconsin

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the Staff of the Arizona Corporation Commission (ACC Staff).

Q. Have you previously participated in any proceedings in Arizona?

A. Yes. I have participated in several previous matters in Arizona on behalf of the ACC Staff. I conducted a Cost of Service Study on behalf of the Staff of the Arizona Corporation Commission in an undocketed matter preparing a cost study pertaining to USWC. I participated in a general rate case, Docket No. E-1051-93-183, involving USWC on behalf of the ACC Staff; I participated in a depreciation docket, Docket No. T-01051B-97-0689, involving USWC on behalf of the ACC Staff; and I participated in the general rate case, Docket No. T-01051B-99-0105, involving USWC on behalf of the ACC Staff. On behalf of the ACC Staff, I have participated in several Phases of the Wholesale cost/UNE case Docket No. T-00000A-00-0194.

Q. What is the purpose of your testimony?

A. I address depreciation rates, the jurisdictional separations of the cost of the interstate

DSL service, "construction charges" pertaining to BSI (BSI is an affiliate which uses some Qwest facilities when providing cable TV-like services) and the "percent condition" used in the Reproduction Cost New Less Depreciation (RCNLD) calculations. This testimony also responds to related portions of Qwest's filing.

Q. Could you summarize your major recommendations?

A. Yes. For the reasons presented in this testimony:

(1) I recommend the adjustment shown on Schedule WDA-15. This adjustment is incorporated into adjustments B-3 and C-6 in the Staff accounting schedules. This adjustment removes from the intrastate jurisdiction the direct costs of interstate DSL service. 100% of the DSL revenues are in the interstate jurisdiction, but Qwest is placing the majority of the DSL costs in the intrastate jurisdiction. This is a mismatch of revenues and costs, and also violates the FCC Part 36 jurisdictional separations requirements.

(2) I recommend the Adjustments shown on Schedule WDA-18. This adjustment is incorporated into adjustments B-4 and C-7 in the Staff accounting schedules. This adjustment imputes the "construction charges" that BSI should have paid to Qwest Corporation (QC) for the "video only" remote terminals (USAMs) which QC constructed for BSI's needs. Qwest originally claimed BSI had paid these construction charges, but BSI had not.

(3) The current Qwest depreciation rates in Arizona are much higher than in any other Qwest state. I propose certain modifications to the Qwest depreciation calculations.

(a) I recommend the end-of-test-year "percent reserve" values be used in the depreciation rate calculations. Qwest is using the values as of the start of the 2003 test year, but the Commission filing requirements require end-of-test-year values be used. The result of this adjustment is shown in column H of page 1 of Schedule WDA-12. This adjustment is incorporated into adjustments C-22 in the Staff accounting schedules.

(b) Qwest's depreciation calculations assume that Qwest in Arizona will retire its metallic buried cable an average of 12 years after it is placed into service. However the actual Qwest Arizona data shows Qwest keeps these investments in service an average of 58 years.

In addition, in its depreciation calculation Qwest assumed $228 million of investment would retire in the buried cable metallic account in the year 2003. The actual retirements in 2003 were $5 million. Qwest effectively pretended the "service life" of $228 million of investments ended in the year 2003 in this account, but that was not true for $223 million[1] of that investment. As a result, Qwest is not depreciating over the true "service life." Failure to depreciate over the "service life" violates the ACC and

[1] ($228 million - $5 million = $223 million).

USOA (Uniform System of Accounts) depreciation requirements. To correct these and other problems discussed in this testimony, I recommend a 23-year "projection life" for this account. My recommendation is also the mid-point of the FCC recommended life range for this account.

Based on similar analyses of the "projection lives" and "future net salvage" values of the major accounts, I recommend the depreciation rates shown in Column L of Schedule WDA-12, page 1. This adjustment is incorporated into adjustment C-23 in the Staff accounting schedules.

(4) I recommend the "percent condition" values shown on Schedule WDA-17, for reasons discussed in this testimony. The "percent condition" impacts the "fair value" rate base, but does not impact the "original cost" rate base calculations.

II. INTERSTATE DSL SERVICE

Q. What is DSL service?

A. DSL (Digital Subscriber Loop) is a broadband/wideband Internet transport service provided by Qwest.[2] In order to provide DSL service Qwest must have electronic equipment, known as DSLAMs, in the central offices or in the remote terminals.[3]

[2] The Internet service itself is not provided by Qwest. The DSL service addressed in this section is provided by the Qwest Corp., which is the same corporation that also provides a regulated intrastate services. This section does not address DSL services provided by BSI or any other Qwest affiliate.
[3] This does not imply this is the only equipment needed.

For separations purposes DSL is considered a "wideband" service.[4]

The FCC has declared that DSL service used for internet access is an interstate "Special Access" service (a form of interstate "private line"service).[5] For example, paragraph 1 of that FCC Order states:

> In this Order, we conclude our investigation of a new access offering filed by GTE that GTE calls its DSL Solutions-ADSL Service ("ADSL service"). We find that this offering, which permits Internet Service providers (ISPs) to provide their end user customers with high-speed access to the Internet, is an interstate service and is properly tariffed at the federal level.

Paragraph 25 states:

> We agree that GTE's ADSL service is a **special access service**, thus warranting federal regulation under the "ten percent" rule (emphasis added).

The DSL services addressed in this section are used primarily for Internet access.[6]

The fact that DSL is an interstate Special Access service means that all of the DSL revenues are to be booked as interstate revenues, and the DSL investments are to be "direct assigned" to the interstate jurisdiction.

Q. At the end of 2003, how much direct investment in interstate DSL service did Qwest Arizona have?

---

[4] See Qwest response to WDA 8-15. In jurisdictional separations (47 CFR FCC Part 36) the term "wideband" is used. The term "broadband" is not used.

[5] October 30, 1998 FCC "Memorandum Opinion and Order" in CC Docket No. 98-79 (FCC 98-292), paragraphs 1,2 and 25) Interstate "Special access" is a form of interstate "private line" service. The FCC later extended this ruling to carriers other than just GTE. See the November 30, 1998 "Memorandum Opinion and Order" in CC Docket Nos. 98-168, 98-161, 98-167, and 98-103 (FCC 98-317).

[6] Qwest response to WDA 04-032 (g).

A. According to a Qwest discovery response, the Qwest-Arizona net "direct incremental DSL investment" in interstate DSL service at the end of 2003 was ** **.[7] This is shown on Schedule WDA-14

Q. How has Qwest treated the DSL revenues and costs?

A. Qwest has booked the DSL **revenues** to the **interstate jurisdiction**, which is proper based on the FCC's declaration of DSL as an interstate private line/special access services. However, Qwest placed the majority of the DSL **costs** in the **intrastate** jurisdiction, which is a mismatch of revenues and costs.

In request WDA 08-004 the Staff asked Qwest:

> The first page of Attachment B to the Qwest response to WDA 04-032 shows the "Direct incremental DSL investment" as of 12-31-2003....
>
> a. In the Part 36 separations of costs between jurisdictions for 2003, were each of these amounts directly assigned to the interstate jurisdiction?....

Qwest answer:

a. No.

The Qwest treatment of DSL revenues and major DSL costs in the test year 2003 is shown below:

[7] Qwest response to WDA-04-032.

	DSL Revenues	Major DSL Investments[8]
Intrastate Jurisdiction	0%	64%
Interstate Jurisdiction	100%	36%

The majority of the DSL expenses are also in the intrastate jurisdiction in the Qwest filing.[9]

Q. How does Qwest explain the fact that they place the majority of the DSL costs in the intrastate jurisdiction?

A. Qwest refers to FCC Order "FCC 01-162".[10] That Order froze **parts** of the separations calculations at the year 2000 level. Qwest alleges this FCC Order prevents Qwest from "directly assigning" the interstate DSL investments to the interstate jurisdiction.[11]

Q. Does that FCC Order prevent Qwest from "directly assigning" the interstate DSL service costs to the interstate jurisdiction?

A. No. That FCC Order does not freeze the "direct" assignments. In fact that Order specifically states states "direct assigned" costs are **not frozen**, and the Order requires

[8] See Qwest response to WDA 17-003.
[9] The allocation of the investment impacts the allocation of the expenses. In FCC Part 36 jurisdictional separations, depreciation expense and "plant specific" expenses (such as maintenance expenses) are separated based on how the investments are separated.
[10] FCC's "Report and Order" in CC Docket No. 80-286, released May 22, 2001.
[11] Qwest response to WDA 08-004(b).

"Direct assignment of private line service costs between jurisdictions shall be updated annually."[12]

From FCC Order Number FCC 01-162, Appendix C, "Final Rules"

> **§ 36.3 Freezing of jurisdictional separations category relationships and/or allocation factors**
>
> (a) Effective July 1, 2001, through June 30, 2006, all local exchange carriers subject to Part 36 rules shall apportion costs to the jurisdictions using their study area and/or exchange specific separations allocation factors calculated during the twelve month period ending December 31, 2000, for each of the categories/sub-categories as specified herein. **Direct assignment of private line service costs between jurisdictions shall be updated annually. Other direct assignment of investment, expenses, revenues or taxes between jurisdictions shall be updated annually...** (emphasis added)

In paragraph 23 of the text of that Order the FCC stated:

> 23. Similarly, we find that in order to relieve all carriers of performing traffic or relative-use studies for separations purposes, all allocation factors used to assign Part 36 categories, subcategories, or further subdivisions to the state or interstate jurisdictions shall be frozen utilizing the factors calculated for the calendar year 2000. **Categories or portions of categories that have been directly assigned in the past, however, will continue to be directly assigned to each jurisdiction. In other words, the frozen factors shall not have an effect on the direct assignment of costs for categories, or portions of categories, that are directly assigned. Since those portions of facilities that are utilized exclusively for services within the state or interstate jurisdiction are readily identifiable, we believe that the continuation of direct assignment of costs** will not be a burden on carriers, nor will it adversely impact the stability of separations results throughout the freeze.[60] (emphasis added)

and footnote 60 stated:

> 60. Examples of facilities in which a portion can be directly assigned include, Central Office Equipment- Category 2, Tandem switching equipment and Cable and Wire Facilities-Category 2, **Wideband** and exchange trunk. *See* 47 C.F.R. §§ 36.124 and 36.155. (emphasis added)

[12] 47 CFR §36.3(a).

Schedule WDA-16 contains the pages from the FCC Order that include the above quotations.

The FCC rules after the modification adopted in Order FCC 01-162 require that for circuit equipment:

> Direct assignment of any subcategory of Category 4.1 Exchange Circuit Equipment to the jurisdictions **shall be updated annually**. (47 CFR § 36.126, (c) (4))[13] (emphasis added)

The vast majority of the direct DSL investments shown on Schedule WDA-14 are "wideband" investments. The FCC specifically mentions "wideband" as **not** being frozen, as stated in the FCC's footnote 60 above.

Q. Are there other FCC rules that also say that wideband investments are to be directly assigned?

A. Yes.

FCC Rules §36.155 says:

> **Wideband and exchange trunk C&WF –Category 2-apportionment procedure.**
> (a) The cost of C&WF applicable to this category **shall be directly assigned** where feasible. If direct assignment is not feasible, cost shall be apportioned between the state and interstate jurisdictions on the basis of the relative number of minutes of use." (emphasis added)

The same rule applies to wideband exchange line circuit investment.[14]

---

[13] The above requirement applies to the "Wideband Exchange Line Circuit Equipment-Category 4.11," which is the category that contains the majority of the DSL circuit equipment direct investment. The wording that "direct assignment … to the jurisdictions shall be updated annually" is the same for all categories of circuit equipment (Categories 4.1, 4.2, and 4.2)[13] and major Cable and Wire Facilities (47 CFR §36.126, (c) (4), (e)(4) and (f)(4)).

In summary of the above, the major DSL investments are "wideband" and separations requirements say the "wideband" investments are to be directly assigned, where feasible. The FCC "Separations Freeze" Order specifically says the "direct" assignments are not frozen and must be updated annually. The FCC Order specifically mentions "wideband" as an example of what is **not** frozen.

The interstate DSL wideband costs must be directly assigned to the interstate jurisdiction. Placing the **majority** of the interstate DSL **costs** in the **intrastate** jurisdiction is a mismatch of cost and revenues (all the DSL revenues are in the interstate jurisdiction), and is in violation of the FCC Part 36 jurisdictional separations requirements.

Q. What is Schedule WDA-15?

A. Schedule WDA-15 shows the correction that results from direct assigning the DSL "direct" investments out of the intrastate jurisdiction. The investments used in this calculation were the direct investments provided by Qwest as shown on Schedule WDA-14.[15]

The net direct DSL investment which Qwest included in the intrastate jurisdiction in 2003 was ** **. The associated expenses were ** **, as shown on Schedule WDA-15. These are the intrastate investments and costs that were removed in

[14] 47 CFR §36.126(c)(1) says the wideband exchange line circuit investment is to be apportioned "in the same manner as the related exchange line cable and wire facilities as described in §36.155," which is the requirement quoted above.
[15] From Qwest response to WDA-04-032.

the adjustment shown on Schedule WDA-15. These changes are incorporated into the Staff accounting adjustments B-3 and C-6.

100% of the DSL revenues are assigned to interstate. The costs of interstate DSL service should also be "directly assigned" to the interstate jurisdiction, and therefore directly assigned out of the intrastate costs, for the reasons given above.[16]

III. "CABLE TV LIKE" SERVICES PROVIDED BY BSI

Q. What issue will you discuss in this section?

A. Some Qwest Corporation (QC)[17] faculties are used by a QC affiliate, Broadband Services, Inc. (BSI), in providing TV/VDSL and other services.[18] These TV services are similar to cable TV services. In this section we will discuss the remote terminals, called USAMs. BSI generally owns the electronics used for these services, however QC generally owns the remote cabinets that house the BSI equipment and QC generally owns the cables used by BSI to provide these services. In Arizona, there are approximately 1000 QC USAM locations at which the QC cabinet contains BSI electronics, but does not

[16] This statement applies to the DSL costs shown on Schedule WDA-15. It is not implying any other DSL or private line adjustment should be made.
[17] Qwest Corporation is the company that provides the regulated services, including intrastate regulated services.
[18] VDSL (Very high bit rate digital subscriber line) is the technology that BSI uses to carry TV and other services over the QC copper cable.

also contain equipment used by QC for voice services.[19] I will call these the "video only" cabinets or "video only" USAMs.[20]

For technical reasons, the TV/VDSL signal cannot be sent over as long a copper cable as voice telephone service or DSL can.[21] Therefore to provide TV/VDSL it is reasonable to expect it would be necessary to build additional remote sites in order to bring the TV/VDSL electronics closer to the customers, to shorten the copper loop length. Qwest's response to a Staff data request:

***

"***[22] (note ["lengths"] added to correct typographical error.)

Q. Did BSI pay "construction charges" to QC for the locations where QC constructed cables and USAM cabinets to meet BSI's needs?

A. In discovery over a several month period, Qwest repeatedly stated that BSI had paid "construction charges" to QC for the "video only" USAMs. When QC constructed cabinets to meet BSI's needs, "construction charges" under Section 4 of Qwest's Arizona Exchange and Network Services Price Cap Tariff should have applied. Qwest repeatedly said BSI had paid QC construction charges for such locations.

---

[19] Qwest supplemental response to WDA 17-08(c). In this section we are only addressing the USAMs installed after March 2,1999 (when BSI became responsible for the TV/VDSL services). There is additional related information in the confidential response to WDA 14-001.

[20] There are also over *** *** other QC USAM cabinets which house both QC electronics used for voice, and BSI electronic. (Qwest response to WDA 12-003)

[21] Choice TV can be sent over a maximum of 5,200 feet of copper (Qwest response to WDA-027). DSL can be provided over 13,000 feet of copper (Qwest response to WDA 14-003S1) (Public information)

[22] Qwest supplemental response to WDA 12-009(j).

Examples of Qwest's repeated statements that BSI had paid such construction charges include:

***

.***(Qwest response to WDA 14-001(a))

Another Qwest claim that BSI paid the construction charges is:

***

*** (Qwest response to WDA 14-001(b))

In response to another request about "video only" USAMs, Qwest responded:

*** ***
(Qwest response to WDA 14-001(i))

Statement:
*** .***

Qwest response:

***

***[23]

Q. Had BSI paid these construction charges?

A. No. In spite of these numerous statements by Qwest that claimed BSI paid these construction charges, the Staff was not receiving documents from Qwest that showed the amount of the construction charges BSI had allegedly paid. Finally, in a supplemental response dated November 3, 2004, Qwest acknowledged **BSI paid no construction**

[23] In WDA 12-009, Qwest was asked to confirm that the following are reasonable representations of statements made by Qwest personnel during the Staff on-site visit of September 9, 2004.

charges for the "video only" USAMS. Qwest stated pertaining to the "video only" USAMs:[24]

> WDA 17-008 (e) **BSI paid no construction charges** associated with the items included in subpart d. Qwest wishes to clarify it statement to Mr. Dunkel that "BSI paid construction charges for the construction of the USAM "video only" remote locations." A more accurate statement would be the following:
>
> The capital budget for construction of the USAM "video only" remote locations is held at the parent company, in a "VDSL program budget."
>
> The parent corporation assigns a portion of the parent company VDSL program budget to QC for the construction of USAM cabinets and for fiber placement. The parent corporation also assigns a portion of the VDSL program budget to BSI for the placement of shelves and cards. Qwest's statement that "BSI paid construction charges for the construction of the USAM 'video only' remote locations reflected the respondents' incorrect understanding that because QC was assigned budget dollars for VDSL related construction, QC received actual cash compensation from BSI for the capital expended for VDSL related construction.
>
> Confidential Attachment D shows the VDSL expenditures that were authorized and shows which come encourage expenditures related to each of the 10 sites. (emphasis added)

Qwest acknowledged Qwest's "respondents" were incorrect in their prior claims that BSI had paid these construction charges. Qwest's response to part (g) also states BSI paid no construction charges for the new cables QC installed to the "video only" USAMs.

Q. Are the QC investments in the cabinets and cables which QC installed to serve BSI's needs in the Qwest rate base?

[24] Part (d) of WDA 17-008 referred to "the dollar amount of the Engineer, Furnish and Install (EF&I) investment for the cabinet, site preparations, connection to the electric utility and other items owned by Qwest "core" company at that location." Of the "video only" USAMs.

A. Yes. Qwest has these investments in its regulated rate base. In response to WDA 17-008 (m) Qwest stated:

> It is a correct statement that the intrastate portion of the investments discussed in parts (b) and (f) are in the intrastate (original cost) plant in service in this case. Is also a correct statement that the investments have been depreciated and that the intrastate portion is included in the intrastate accumulated depreciation in this case. Finally, QC is being compensated for this investment through the monthly recurring charges paid to QC by BSI.

Q. Is the above statement that "QC is being compensated for this investment through the monthly <u>recurring</u> charges paid to QC by BSI" a reasonable compensation for this investment?

A. No. The vast majority of Remote Collocation revenues are from the non-recurring charges. ***

***

According to Qwest discovery responses, the Remote Collocation charges used by Qwest in 2003 for are as follows:[25]

Remote Collocation	Recurring	Non-Recurring
Space per Standard Mounting Unit	$1.35	$868.13
FDC Terminations per Binder Group	$0.82	$558.99
Power	$3.64	

At the above rates, an un-affiliated CLEC that used a "Standard Mounting Unit" in a QC remote terminal for 5 years would pay $949.13[26] over that period. ***

[25] Attachment A to Qwest response to WDA 11-05, also Attachment A to WDA 10-15. In the current Qwest Arizona Statement of Generally Available Terms and Conditions for Interconnection (SGAT) the Remote Collocation Non-Recurring Rates are also large compared to the month rates.

[26] $868.13 NR + (60 months * $1.35) = $949.13

***

At the above rates, an un-affiliated CLEC that used an "FDC Terminations per Binder Group" in a QC remote terminal for 5 years would pay $608.19[28] over that period.

***

***

Q. Did Qwest acknowledge that BSI *

***

A. Yes. In response to discovery, Qwest ***

***[30]

Request WDA 14-001 was:

(a) Please explain why Attachment A to the Qwest response to WDA 10-015 **

*** for remote collocation in the year 2003.

Qwest Response:

(a) ...***

***

[27] 60 months * $1.35 = $81.00
[28] $558.99 NR + (60 months * $0.82) = $608.19
[29] 60 months * $0.82 = $49.20
[30] Qwest response to WDA-10-15. and WDA 14-001.

The above Qwest response states ***

*** We later found out BSI did not pay the remote terminal construction charges either, as previously discussed. [31]

In addition, Qwest's data responses for the years 1999 through 2003 also show BSI paying *** ***[32] The reality is BSI did not pay the remote terminal construction charges, and also ***

***

Q. How much does BSI pay QC for the average USAM remote location?

A. BSI pays QC less than *** *** per USAM location which BSI uses.[33] In 2003 BSI paid QC a total of *** *** per month for remote collocation and the terminations at the remote collocations.[34] BSI had equipment in over *** ** QC USAMs.[35] That is less than *** *** per USAM location which BSI uses.[36]

The QC average investment in the installed "video only" USAM cabinet, site preparations, and connection to the electric utility is over *** ***.[37] Any

---

[31] This is referring to the "video only" USAMs installed after 3/2/1999.

[32] Qwest response to WDA 14-001(c) and (d) and confidential attachment A, Qwest response to WDA-10-15

[33] This include for the remote cabinet, site preparations, connection to the electric utility. This does not include BSI payment for cable, or collocation in the central office.

[34] Lines 50, 59, and 132, confidential attachment A, Qwest response to WDA-10-15.

[35] ***

***. Qwest response to WDA 12-003

[36] *** ***

[37] From Qwest Confidential Attachment B to WDA 17-8S1. This does not include cable costs. It includes furnished, engineered and installed, cabinet, site preparations, and connection to the electric utility.

1 reasonable calculation of the costs (cost of money, depreciation, maintenance, what QC
2 pays for electricity, etc) would be a cost of several hundred dollars a month on a
3 *** *** investment. At those QC owned USAMs that contain only the BSI video
4 cards, the average of *** *** per month paid by BSI is the only QC revenue generated
5 by that *** *** investment. [38]
6
7 **Q. What would have been done with the construction charges if BSI would have paid**
8 **them?**
9 A. Construction charges are applied as reductions to the gross plant in service.[39] Had BSI
10 paid the construction charges, the QC intrastate rate base would be lower than what
11 Qwest has filed.
12
13 **Q. What is Schedule WDA-18?**
14 A. Schedule WDA-18 shows the adjustment to the intrastate rate base and depreciation
15 expense as a result of adjusting for the construction charge which Qwest should have paid
16 for the "video only" USAMs.[40] I recommend these adjustments be made for the reasons
17 presented above. These changes are incorporated into adjustments B-4 and C-7 in the
18 Staff accounting schedules.
19
20 **Q. Do you have any other comment on this issue?**

---

[38] BSI does pay other charges, not addressed above, such as for Collocation in the central offices, or for cables, but the costs for those are not included in the investment discussed above. This discussion addresses only the Remote Collocations.
[39] Qwest response toe WDA 04-023(a)
[40] I have not included any adjustment for the USAMs which include both BSI video and QC voice cards.

1 A. Yes. Staff had asked for, and received a delay in our testimony filing date. It was only
2 after our original October 19, 2004 filing date had passed that we obtained the Qwest
3 November 3, 2004 response in which Qwest admitted that BSI had not paid the remote
4 terminal construction charges.[41] Had we filed on our original October date, we would not
5 have had the correct information on this issue.
6
7 Qwest has also discussed the complexity of some of my discovery. The discovery was
8 instrumental in revealing the inaccuracy of what Qwest had been telling the Staff about
9 the alleged BSI construction charges. The Qwest admission that BSI did not pay
10 construction charges on the "video only" USAM cabinets was in response to part (e) of a
11 request (WDA 17-008). The Qwest admission that BSI did not pay construction charges
12 on the new cables which QC installed to connect to those "video only" USAMs was in
13 response to part (g) of that request. The Qwest admission that the separated portion of the
14 QC investments in the "video only" USAMs were in the intrastate rate base in this case
15 was in response to part (m) of that request. It took significant discovery to obtain the facts
16 to be placed before the Commission. As the results show, the Staff was pursuing real and
17 significant issues.
18
19 **IV. DEPRECIATION ADJUSTMENTS**
20
21 **Q. What depreciation rate adjustments will you be addressing in this testimony?**
22 A. I will be addressing two depreciation rate adjustments:

[41] Qwest supplemental response to Parts (e) and (g) of a request WDA 17-008.

1. Adjusting the depreciation "percent reserves" to the end-of- test year 2003 levels; and

2. Adjusting to the projection lives and net salvage values to reflect the current information pertaining to Qwest in Arizona.

Q. Are the current Qwest depreciation rates in Arizona extremely high?

A. Yes. The depreciation rates in Arizona are much higher than the depreciation rates in any other Qwest state. The overall Qwest intrastate depreciation rate in Arizona is 9.7 percent. Out of the 15 state jurisdictions, the **next** highest Qwest overall intrastate depreciation rate is 7.8 percent in Wyoming, and the overall depreciation rates in all other Qwest jurisdictions are lower than that.[42] Schedule WDA-1 is a comparison that was provided by Qwest and shows the Qwest depreciation rates in Arizona are much higher than in any other Qwest state. These high depreciation rates when into effect in Arizona in 2000.

Q. As discussed above, for the past four years the depreciation rates in Arizona have been much higher than the depreciation rates in any other Qwest state. What impact do these past high rates have on the depreciation rates that should be adopted now?

A. Under the "remaining life" depreciation that is used in Arizona, higher depreciation rates in the past results in lower depreciation rates for the future.

[42] Data provided by Qwest. See Qwest response to (WDA 04-006). There are 15 state jurisdictions. Qwest operates in 14 states, but Idaho North and Idaho South are treated as two different regulatory service areas.

1 As an analogy, assume that two people owed $2,000 each, which had to be paid off in
2 two years. Assume one person paid $1,000 toward that debt the first year. That means
3 they have to pay $1,000 the second year. The other person paid $1,500 towards that debt
4 the first year. That means they only have to pay $500 towards that debt the second year.
5
6 The customers in Arizona are similar to the second person in this analogy: for the past
7 several years Arizona customers have been supporting depreciation rates which are much
8 higher than the depreciation rates in any other Qwest state. As a result, we should expect
9 that the properly calculated new Arizona depreciation rates would be lower than
10 average.[43]
11
12 **Q. Has Qwest proposed a change in depreciation rates in this proceeding?**
13 A. Yes. Qwest proposes to revise the depreciation rates to incorporate the depreciation
14 "percent reserve" and investment amounts[44] as of the **start** of the 2003 test year (amounts
15 as of 1/1/2003).[45] This revision reduced the intrastate depreciation expense by $109.7
16 million per year, according to Qwest. Qwest calculated this amount based on the
17 "percent reserve" and investments at the **start** of the test year (amounts as of 1/1/2003).[46]
18

---

[43] The depreciation "accruals" go into the depreciation reserve ("Accumulated Depreciation"). When actual retirements occur, funds are removed form the depreciation reserve. Since the "accruals" have been higher than the retirements, the amount in the depreciation reserve has grown rapidly. In a "remaining life" depreciation calculation, the depreciation reserve is used in the calculation of the revised depreciation rates. A higher depreciation reserve results in lower depreciation rates.
[44] A table of the surviving investments by year installed, (called the "generation arrangement") is used in the depreciation "remaining life" calculation.
[45] Exhibits KDW-2 of the direct testimony of K. Dennis Wu, Qwest. The "generation arrangements" as of 1/1/2003 were also used in this calculation.
[46] Based on the generation arrangement and percent reserves as of December 31, 2002 (Exhibit KDW-2) also called 1/1/03 (Exhibit KDW-1).

1 **Q. Is there a problem with Qwest's proposed use of the percent reserve and**

2 **investments as of the start of the 2003 test year?**

3 A. Yes. Qwest adjusted these "percent reserve" figures to the **start** of the test year level.

4 However, the Commission rules require that the **end** of the test year figures be used.

5

6 For example, R14-2-103 A.(3)(h) defines "original cost" as determined "at the end of the

7 test year".

8

9 There are also numerous other requirements in R14-2-103 to use the "end of the test

10 year" figures.[47]

11

12 **Q. Has the Qwest percent reserve in Arizona grown rapidly since the higher**

13 **depreciation rates went into effect?**

14 A. Yes. Shown below are the overall Qwest Arizona percent reserve levels at the end-of-

15 year:

16

[47] For example, R14-2-103 A.(3)(n) and R14-2-103 A.(3)(p).

	1996	1997	1998	1999	2000	2001	2002	2003
Percent Reserve:[48]	45%	47%	49%	50%	49%	50%	56%	62%
Change over Prior Year:		2%	2%	1%	-1%	1%	6%	6%

The "accruals" that result from the depreciation rates go into the depreciation reserve. When plant is retired, money is removed from the depreciation reserve. When the accruals from the depreciation rates are much higher than the actual retirements, that in-balance results in a rapid growth of the depreciation reserve.

A. UPDATE DEPRECIATION RESERVE TO END OF TEST YEAR

Q. What is the first depreciation rate correction that Staff proposes?

A. The first Staff depreciation rate correction is to calculate the depreciation rates using the depreciation reserve percents and investments that existed at the **end** of the test year, instead of the depreciation reserve percents and investments that existed at the **start** of the test year. The percent reserves are significantly higher at the end of the test year then they were are the start of the test year. At the start of the 2003 test year the overall percent reserve was 55.8%.[49] At the end of the test year the overall percent reserve was 62.1%.[50] Higher depreciation reserves result in lower depreciation rates.

[48] Intrastate Arizona Qwest percent reserve (depreciation reserve as a percent of Plant in Service). End of year figures. Source Qwest response to WDA 02-026 (Public information)
[49] Wu Exhibit KDW-1, "Intrastate Statement C".
[50] Page 4 of Schedule WDA-2, attached (this is a page from Qwest response to Staff request WDA 02-005). Note, the specific percent reserve for each account is used in the depreciation rate calculation.

1

2 **Q. Why does the "percent reserve" impact the depreciation rates?**

3 A. Percent reserve is one of the three values that is used to calculate the depreciation rate.

4 The formula used to calculate the depreciation rates is as follows:

5 Depreciation rate = (100%-(percent reserve)-(future net salvage))/ (avg. remaining life)

6

7 The values specific to the specific company and specific account are used in the

8 calculation.

9

10 **Q. What is the impact of using the percent reserve figures from the end of the test year,**

11 **instead of the percent reserve as of the start of the test year?**

12 A. The result of this correction is to reduce the annual intrastate depreciation accruals by

13 approximately[51] $163 million below the current rates.[52]

14

15 **Q. What is a source of these revised figures that utilize the end-of-test-year**

16 **depreciation reserves and investments?**

17 A. These revised calculations were provided by Qwest during the discovery process. Page 3

18 of Schedule WDA-2 shows the Qwest calculation of $163 million reduction in annual

---

[51] All depreciation dollar impacts in this testimony are approximate. I recommend depreciation rates. Other Staff witnesses apply those depreciation rates to the investments. Adjustments may have been made to their investment amounts, so the impact of the depreciation rates may be somewhat different than the approximate impacts discussed herein.

[52] This figure was provided by Qwest in response to WDA 01-010 and 02-005, pages from these responses are attached as Schedule WDA-2.

intrastate depreciation accruals below current rates when the end-of-test-year percent reserves and end-of-test-year investment levels are utilized.[53]

I performed a similar calculation with similar results. Details of this adjustment are shown on Schedule WDA-12, page 2, column T.

Using the end-of–test-year percent reserve, the annual depreciation expense is $163 million lower than under the current rates. However, Qwest had already proposed some adjustment from the current rates, as previously discussed. The result of this Staff correction is to reduce the annual intrastate depreciation expense by $53 million more than the Qwest adjustment, as is shown on line (1) of Schedule WDA-3.

Q. What do you recommend on this first depreciation rate issue?

A. I recommend that the percent reserves as of the end-of-the-test-year be utilized in the depreciation rate calculations. These are the 12/31/2003 values. The use of the end-of-the-test-year figures is consistent with the Commission's standard filing requirements.[54] This correction is incorporated into adjustment C-22 in the Staff accounting schedules.

B. UPDATE DEPRECIATION "LIVES" AND "NET SALVAGE"

Q. What is the second depreciation adjustment that Staff proposes?

[53] This figure was provided in response to request WDA 02-005. Request WDA 02-005 was a follow-up to request WDA 01-010. The last page of Schedule WDA-2 is the WDA 01-010 request, to clarify what was issue being addressed in these calculations.

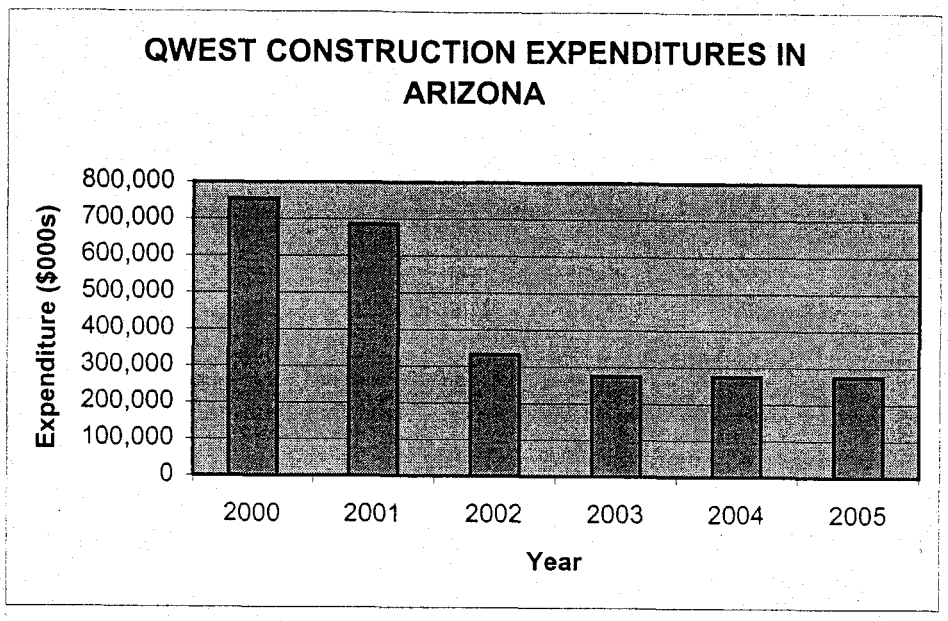
[54] For example, R14-2-103 A.(3)(h) defines "original cost" as determined "at the end of the test year". There are also numerous other requirements in R14-2-103 to use the "end of the test year" figures. (For example, R14-2-103 A.(3)(n) and R14-2-103 A.(3)(p)).

1 A. The second depreciation adjustment that Staff proposes is to revise the depreciation rates
2 based upon more current Qwest Arizona "life"[55] and "future net salvage" information.
3 "Average remaining life" and "future net salvage" are two factors that are used in the
4 calculation of the depreciation rates (along with the previously discussed "percent
5 reserve").
6
7 As stated on page 8 of the Direct Testimony of K. Dennis Wu, the current Arizona
8 depreciation rates were based on information as of 1/1/1997. In this proceeding Qwest
9 does not propose to update the "lives" or "future net salvages" used in the depreciation
10 rate calculations. We now have seven additional years of more recent information. Staff
11 included this more recent information in determining revised "lives" and "future net
12 salvages" for Qwest in Arizona. The differences in "future net salvage" values are
13 relatively insignificant except in one account,[56] so this adjustment is primarily related to
14 differences in "lives."
15
16 **Q. Why are the current Arizona depreciation rates much higher than in any other**
17 **Qwest jurisdiction?**
18 A. The major reason is that in the last depreciation case in Arizona, Docket T-01051B-97-
19 0689, Qwest advocated adopting short projection lives for most major accounts. Qwest
20 presented a witness and a study that alleged the there would soon be a massive,
21 accelerated modernization and retirements. As a result, they projected massive retirement
22 of the existing investments in the near future. According to that Qwest presentation, the

[55] The "projection live" is a key factor used in the calculation of the "average remaining life."
[56] The "future net salvage" issue is significant in the "poles" account.

1 "projection lives" used in the depreciation calculation had to be shortened drastically
2 because of this upcoming massive modernization.[57] Qwest also alleged the Commission
3 should base Qwest's depreciation rates on information pertaining to IXCs and CLECs.
4
5 In that case, the Commission generally adopted drastically shortened projection lives for
6 many major accounts.
7
8 The short "lives" resulted in much higher depreciation rates and a much higher
9 depreciation expense. These higher depreciation rates went into effect in May 2000.[58]
10
11 **Q. Did the forecasted massive accelerated modernization actually occur?**
12 A. No. In fact Qwest's construction expenditures in Arizona actually have **declined greatly**
13 after the higher depreciation rates went into effect in the year 2000.
14

[57] Lawrence K. Vanston, Qwest witness in Docket No. T-01051B-97-0689, who also authored "Transforming the Local Exchange Network" used by Qwest in that case.
[58] Qwest response to WDA 02-003



This graph is also attached as Schedule WDA-4.

The Qwest construction expenditures in Arizona are now one-third what they were in the year 2000. In addition, Qwest now forecasts that its construction expenditures in Arizona will continue to be one-third of what they were in 2000.[59]

It is now very clear that Qwest did not undertake the massive accelerated modernization that was forecast. For the last four years the ratepayers in Arizona have been supporting high depreciation rates on the basis of a forecast of near term massive accelerated modernization and retirements, but the massive accelerated modernization and retirements never actually happened.

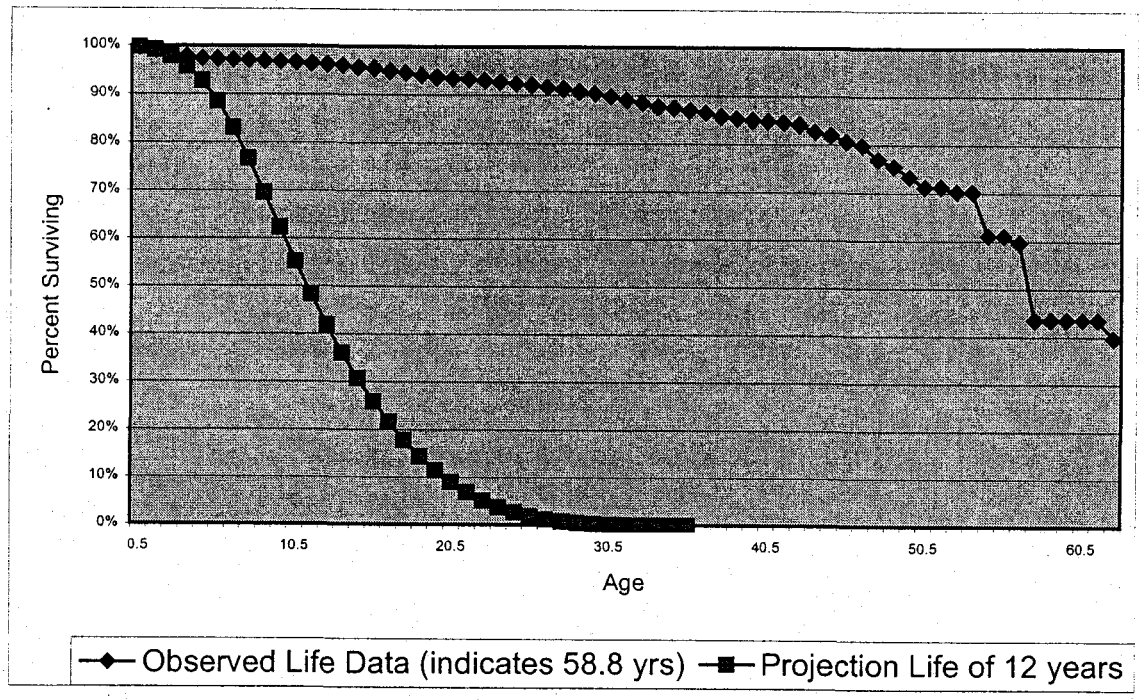
Q. What is Qwest effectively asking the Commission to do in this proceeding?

[59]Qwest forecasts construction in Arizona in 2005 as the same as it was for 2003. (Schedule F-3 of the Qwest standard filing requirements in this case.)

1 A. In this filing Qwest is again effectively asking the Commission to calculate depreciation
2 rates based on the assumption of massive retirements occurring in the near future.
3
4 **Q. What is the "projection life"?**
5 A. The "projection life" is used in the calculation of the "remaining life". A "projection
6 life" is the average life expectancy of new assets. This is the average number of years
7 between the time a new investment goes into service, and the time it is expected to retire
8 from service. The "remaining life" is the average of the future life expectancies of all
9 items in a particular plant account.
10
11 **Q. What "projection life" did Qwest use for the largest depreciable account, which is**
12 **the Buried Cable Metallic account?**
13 A. Qwest used a 12-year "projection life," which results in a 5.5 year average "remaining
14 life."
15
16 **Q. How does a 12-year "projection life" compare to the actual recent experience of**
17 **Qwest in Arizona in this account?**
18 A. For this account, graphed below is a comparison of the Qwest Arizona "observed"
19 survivor curve to the survivor curve for the 12-year "projection life"[60] that Qwest is
20 using:
21

[60] The "dispersion" (Iowa curve) used is also the same as Qwest is using. The 12 year projection life is the same as Qwest is using.

Graph of Recent Observed Life Data and Qwest Projection Life
Account 2423 - Buried Cable - Metallic



As this shows, the 12-year projection life does not match the actual recent experience and data of Qwest in Arizona. This graph is also part of Schedule WDA-19.

Q. What is the actual observed average service life in the buried cable metallic account of Qwest in Arizona?

A. Based on the most recent data,[61] the observed average service life in the buried cable-metallic account of Qwest in Arizona is 58.8 years. This observed life figure was

[61] The data in the chart above was from activities in this account for Qwest in Arizona in the years 2001, 2002, and 2003.

calculated by Qwest and provided to the Staff.[62] A copy of the Qwest response that provided the 58.8-year observed life is attached as Schedule WDA-10.[63]

Q. Is Staff proposing a 58.8-year projection life for this account?

A. No. The FCC has established "ranges" in which the projection lives for various accounts are expected to fall. The FCC uses the ranges for determining the cost to be included in the High Cost Fund (HCF), for purposes of setting unbundled network element (UNE) and interconnection rates, and to determine the reasonableness of the price of new services.[64] To be conservative, Staff is not recommending a revised projection life for any account that is longer than the midpoint of the FCC range for that account.[65] This is a reasonable, but conservative, step at this time. For buried cable metallic the FCC range for projection lives is 20 to 26 years. As a result, the Staff recommendation is a 23-year projection life, although the actual current data shows that Qwest in Arizona keeps their investment in this account in service much longer than a 23 year average. Since the investment in this account is already 12.4 years old on average, the observed life indication is over 58 years, and Qwest has no plans for massive retirements in this account, the expectation that these investments will retire an average of 23 years after they when into service is very conservative.

---

[62] Attachment A to Qwest's response to WDA-02-06S1. As is the accepted practice, the most recent "band" was used. This figure is based on the retirements and other data for the years 2001, 2002, and 2003. None of the data in these years existed at the time of the prior Qwest depreciation case in Arizona.

[63] This calculation used the accepted method of analyzing data to determine the observed average life. This accepted method looks at the percent of the investment that retires each year of life, in the actual data of Qwest in Arizona.

[64] Paragraphs 34 and 39, FCC Order 99-397 CC Docket No. 98-137, released December 30, 1999.

[65] For some accounts the existing projection life was supported by the data and we have not changed those existing approved projection lives. Some of those existing projection lives were outside the FCC range. But any change in projection lives Staff proposes are all with the FCC range.

1 As stated above, the observed life in this account is well in excess of 23 years based on
2 the most recent information.[66]
3
4 Staff recommends a 23-year projection life for the buried cable-metallic account, which
5 results in a 12.0-year average remaining life, as shown on schedule WDA-11.
6
7 **Q. Does this recommendation assume the future will be identical to the past?**
8 A. No. This proposal does not assume that the future will be identical to the past. Using 23
9 years instead of the "observed" 58 years average life means Staff has included a generous
10 allowance for the possibility that the investments may live a shorter average life in the
11 future than they have in the past.
12
13 **Q. Is Qwest planning any widespread retirement of buried metallic cables?**
14 A. No. There are three different Qwest sources that indicated that Qwest is not planning a
15 massive retirement of the existing buried cable metallic investments:
16 (1) A recent Wall Street Journal Article stated:
17 Qwest Communications International Inc., the local phone company in 14
18 Western states, has decided to roll fiber out only to new housing
19 developments, and its chief executive officer, Richard C. Notebaert, has
20 dismissed a blanket rollout of the technology as not economical.[67]
21

[66] Based on Qwest's activity in the years 2001, 2002, and 2003. Qwest had a larger retirement in 2000 than in other years, but the overall average of the data since the prior Qwest depreciation case is consistent with the Staff's recommendation.
[67] November 8, 2004 Wall Street Journal article entitled "Showdown of the Giants", by Jesse Drucker, Dennis K. Berman and Peter Grant.

(2) In Schedule F-3 of R-14-2-103 standard filing requirements, Qwest's forecast for its construction budget through the year 2005 is the same construction level it had in 2003, so no massive accelerated replacements are forecast by Qwest.[68]

(3) In request WDA 04-11 we asked Qwest:

> WDA 04-011 (a.) Please provide a copy of any QWEST plans for the widespread retirement of Buried Cable-Metallic in the distribution portion of the network.

In response they provided no copy of any such plans. Qwest stated:

> a. Any Qwest retirement plans are provided and disclosed at http://www.qwest.com/disclosures/.

A review of that website contained no Qwest plans for the widespread retirement of buried metallic cable.

Q. If Qwest does start installing a different technology "only to new housing developments" does that mean that existing buried cable in the existing housing developments will be retired quickly?

A. No. That would indicate the existing cable would continue to be used in the existing housing developments. Of course, everything retires someday, the Staff proposal for the buried cable metallic account includes a projection life of 23 years (which results in an average remaining life of 12 years). The projection life of 12 years (which results in an average remaining life of 5.5 years), which the Company proposes, is not realistic and is inconsistent with Qwest's own plans. Qwest's calculations effectively assume that all of

[68] Also, see the Confidential file provided by Qwest titled "Inputs-1203.xls" shows ** **

the metallic buried cable that Qwest had in service on 1-1-2003 would retire an average of 5.5 years after 1-1-2003, which would be in the middle of the year 2008, on average. To retire all the existing buried metallic cable in an average of 5.5 years would require a massive project by Qwest, which Qwest is not planning to undertake. As previously stated, Qwest has "dismissed a blanket rollout of the technology as not economical" and is limiting any change "only to new house developments."

C. THE QWEST DEPRECIATION CALCULATIONS VIOLATE THE ACC AND USOA UTILITY DEPRECIATION REQUIREMENTS.

Q. What is a related problem with the Qwest depreciation calculations?

A. The Qwest proposal violates the ACC and Uniform System of Accounts (USOA) utility depreciation requirements. The ACC and USOA both require that investments be depreciated over their "service life." The "service life" ends when the investments retire from service. However for purposes of calculating the depreciation rates, Qwest ends the investments alleged "life" before they actually retire, so Qwest is not depreciating the investments over their "service life."

Q. What is the Arizona Administrative Code definition of depreciation for regulated utility purposes?

A. The Arizona Administrative Code, Section R-14-2-102(A)(3) states:

> 'Depreciation' means an accounting process that will permit the recovery of the original cost of an asset less its net salvage over the service life. (emphasis added)

Section R14-2-102(B)(3) requires:

> The cost of depreciable plant adjusted for net salvage shall be distributed in a rational and systematic manner over the estimated service life of such plant. (emphasis added)

Section R14-2-102(A)(9) states:

> 'Service life' means the period between the date an asset is first devoted to public service and the date of its retirement from service. (emphasis added)

Q. What is the USOA definition of depreciation for regulated telephone utility?

A. The FCC and ACC both use the Uniform System of Accounts (USOA) for Telecommunications Companies (FCC Part 32, 47 CFR, Ch. 1). The USOA requires that depreciation be over the "service life."

Under "Depreciation Accounting", the USOA requires that:

> ...the loss in service value of the property ...be... distributed under the straight-line method during the service life of the property." (emphasis added, §32.2000(g)(1))

That service life ends when the investment is "retired from service". (USOA Part 32.2000(d))

Q. How much investment retired in the Qwest Arizona buried cable metallic account in the year 2003?

1 A. As shown on Schedule WDA-5, Qwest retired $5.1 million in this account in the year
2 2003. This means the "service life" of $5.1 million of investment ended in the year 2003
3 in this account.[69]
4
5 **Q. For purposes of calculating the average "remaining life" used in their depreciation**
6 **calculation for this account, what retirements in the year 2003 did Qwest assume?**
7 A. For purposes of calculating their depreciation rate, Qwest assumed $228 million of
8 "retirements" for Qwest in Arizona in this account (the buried cable metallic account) in
9 the year 2003. Qwest effectively pretended the "service life" of $228 million of
10 investment ended in the year 2003 in this account, although that was not true. The
11 "service life" of $223 million out of that $228 million continued past 2003. So Qwest is
12 not using the "service life" of that $223 million of investment.[70]
13
14 Schedule WDA-6 summarizes the year 2003 "retirements" that are assumed in the Qwest
15 depreciation calculation. The Qwest "remaining life" depreciation calculation assumes
16 retirements in 2003 that are 44 times the actual 2003 retirements in this account.[71]
17 Qwest's depreciation calculation has no relationship to reality and is not using the
18 "service life." The service life ends on the "date of retirement from service," but Qwest is
19 removing massive amounts of investment from the depreciation calculations before those
20 investments "retire" (ending their "average service life"). The resulting Qwest

[69] As shown on Schedule WDA-5, in most recent years the retirements in this account have been in the range of $5 to $7 million dollars per year. The highest retirement year was $46 million, and the lowest $0.4 million. As previously discussed, Qwest's construction plans as far ahead as they provided information (through 2005) are similar to what they were in 2003, so Qwest has no plans for massive retirements in the foreseeable future. The average retirement in this account was $9 million per year over the last ten years.
[70] The problem is not limited to the year 2003 in the Qwest calculation.
[71] The retirements in other years in the near future are also excessive, in the Qwest depreciation calculation.

1 "remaining life" figures, and resulting Qwest depreciation rates, also have no relationship
2 to reality.
3
4 For many other major accounts the year 2003 "retirement" amounts used in the Qwest
5 depreciation calculations were also many times the actual 2003 retirement amounts,
6 which effectively means Qwest is not depreciating over the "service life", as discussed
7 above.
8
9 The Qwest proposed depreciation rate for the buried cable metallic account is
10 inconsistent with the USOA and ACC requirements that the depreciation be over the
11 "service life."
12
13 For depreciation purposes, Qwest is effectively pretending that Qwest is currently
14 involved in massive, accelerated retirements and modernization in Arizona, but it really is
15 not. Customer should not pay real money for imaginary retirements.
16
17 **Q. What is Schedule WDA-7?**
18 A. This is a response from Qwest that confirms our understanding of the year 2003
19 retirements they had included in their "remaining life" calculation was correct.
20
21 **Q. How does the Qwest massive overestimate of the 2003 retirements impact the**
22 **depreciation rates Qwest is recommending?**

A. These overstated retirements were used in the calculation of the Qwest average "remaining life." By pretending this $288 million of investments would retire in 2003, Qwest assigned it a 0.5-year "remaining life."[72] This was included in the 5.5 year average remaining life which Mr. Wu proposes as shown on his Exhibit KDW-1, Statement A.[73] Of course, the vast majority of that $288 million of investments did not retire in 2003, which means their actual remaining life was longer than Qwest pretended. Since only $5.1 million actually retired in 2003, the Qwest average remaining life cannot be reasonably accepted.

Similar overestimates of retirements exist in other near future years in this Qwest remaining life calculation as well.

Q. How was the improper 5.5-year remaining life used by Qwest to calculate the depreciation rate that Qwest proposes for this account?

A. Qwest proposes an 8.1% depreciation rate for this account.[74] That depreciation rate was calculated as shown below:

Depreciation rate = (100%-(percent reserve)-(future net salvage))/ (avg. remaining life)

=(100%-62.6%-(-7%))/5.5 years remaining life

= 8.1%

[72] In depreciation, investments are assumed to retire in the middle of the year.

[73] This 5.5 years is the weighted average of the remaining lives shown on each line of pages 1 and 2 of Schedule WDA-8. Page 2 shows the 5.5 (shown as 5.52927) Pages 3 and 4 show how he calculated those remaining lives. Column C shows the amount he expected to retire in the coming year. For example, at 19.5 years age, he expected $2,508 to retire in the coming year out of each $11,444 surviving investment, or 21.91% of the 19.5 year old plant expected to retire in the coming one year (2003).

[74] Qwest Exhibit KDW-1, Statement A, Column H. Note: This Qwest calculation improperly uses the "start of year" percent reserve, as discussed elsewhere in this testimony.

1 The improper 5.5 year average remaining life was used to calculate the improper
2 depreciation rate that Qwest proposes.
3
4 **Q. Please summarize the above point.**
5 A. Contrary to the ACC and USOA requirements, Qwest is not depreciating the investments
6 over the "service life." The "service life" ends when the investments are retired from
7 service. By using figures which do not reflect true retirements or true retirement
8 expectations, Qwest is calculating depreciation over a period which ends prior to the time
9 the investments actually retire from service. Qwest is not depreciating over the "service
10 life." This violates the ACC and USOA requirements.
11
12 **D. PROJECTION LIVES OF OTHER MAJOR ACCOUNTS**
13
14 **Q. You previously discussed the projection life in the Buried Cable Metallic account. In**
15 **what accounts did you review the projection lives and future "net salvages"?**
16 A. I reviewed the projection lives and future net salvage values of all accounts in the major
17 investment categories, which are Cable and Wire Facilities (24XX accounts) and Central
18 Office Equipment (22XX accounts). My analysis procedure for these other accounts was
19 similar to the analysis I previously described for the Buried Cable Metallic account.
20
21 The accounts in which the Staff recommends a different projection life can be seen in columns
22 D and E of Schedule WDA-12, page 5. The FCC ranges are shown in columns A and B
23 on that same page. The recent observed life is shown in column C.

In all accounts in which Staff is proposing a change in the existing projection life, the new value Staff is proposing is does not exceed the mid-point of the FCC range for that account.[75]

I did not review the lives or net salvage parameters of the Support Assets Accounts (21XX accounts, such as Furniture) or the Other Terminal Equipment account (2362). These account categories are relatively minor compared to the investments in Cable and Wire Facilities and Central Office Equipment. I did not address the minor investment categories in order to focus resources on the significant categories.[76]

Q. What other accounts will you specifically discuss in this testimony?

A. I will discuss the most significant accounts. As shown in Column W on page 2 of Schedule WDA-12, the largest adjustments were in the Digital Switching Equipment, Circuit Digital, and Buried Cable-Metallic accounts. Above I have discussed the Buried Cable-Metallic account, account 2423. I will discuss Digital Switching Equipment and Circuit Digital Equipment below.

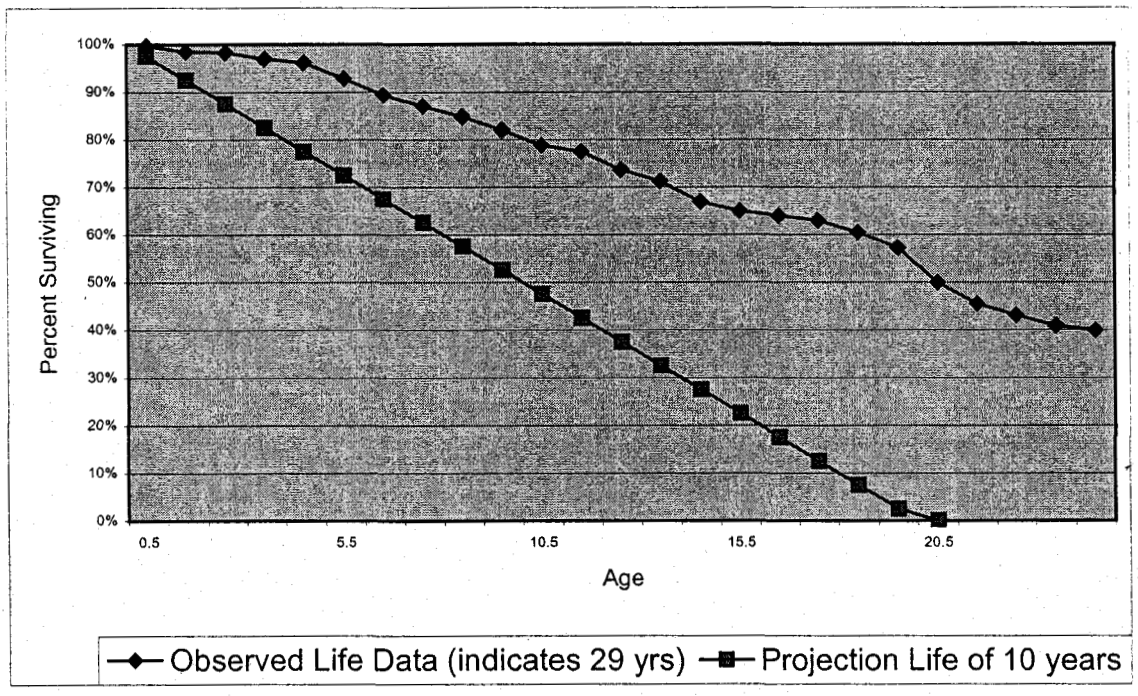
Q. What is some of the key information pertaining to the projection life in the Digital Switching Equipment account, account number 2212?

[75] If the current projection life is outside the FCC range, and Staff has not recommended a change in the projection life in that account, the projection life could continue to be outside of the FCC range.
[76] To simplify the case, I also did not address any possible change to the curve shapes (retirement dispersions).

A. Some relevant information is shown on page 5 of Schedule WDA-12. The observed life is 29 years, as calculated by Qwest based on Qwest activities in the most recent years. The FCC projection life range for this account is 12 to 18 years.

For this account, graphed below is a comparison of the Qwest Arizona "observed" percent survivor curve to the survivor curve for the 10-year "projection life"[77] that Qwest is using:

Graph of Recent Observed Life Data and Qwest Projection Life
Account 2212 - Digital Switching Equipment



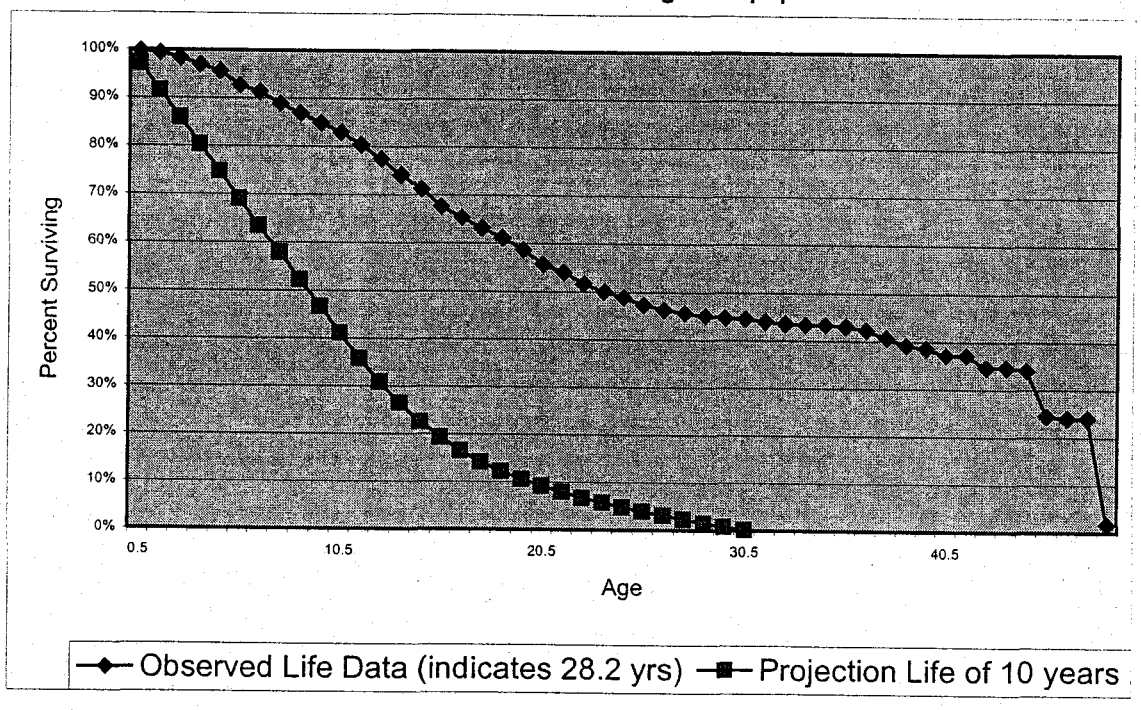
As this shows, the 10-year projection life does not match the actual experience and data of Qwest in Arizona. This graph is also part of Schedule WDA-19.

[77] The "dispersion" (Iowa curve) used is also the same as Qwest is using. The 10- year projection life is the same as Qwest is using.

1 Staff recommends a 15-year projection life, this is mid-range in the FCC range for this
2 account.[78] The average age of the investment in this account is 7.2 years. In the years
3 2000 through 2003, Qwest retired an average of 2.2% of the investment per year in this
4 account. Since the Qwest construction budget forecast through the year 2005 is the same
5 level of construction Qwest had in 2003, the evidence does not support the belief that this
6 investment will retire an average of 10 years after it was placed in service.
7
8 Staff recommends a 15-year projection life for the Digital Switching Equipment account.
9
10 **Q. What is some of the key information pertaining to the projection life in the Circuit**
11 **Digital account, account 2232?**
12 A. Some relevant information is shown on page 5 of Schedule WDA-12. The observed life
13 is 28.2 years, as calculated by Qwest based on Qwest activities in the most recent years.
14 The FCC projection life range for this account is 11 to 13 years.
15
16 For this account, graphed below is a comparison of the Qwest Arizona "observed"
17 percent survivor curve to the survivor curve for the 10-year "projection life"[79] that Qwest
18 is using:
19

[78] The observed life data from prior year bands are also above 15 years.
[79] Exhibit KDW-1, "Parameter Report". The "dispersion" (Iowa curve) used is also the same as Qwest is using.

Graph of Recent Observed Life Data and Qwest Projection Life
Account 2232 - Circuit Digital Equipment



As this shows, the 10-year projection life does not match the actual recent experience and data of Qwest in Arizona. This graph is also part of Schedule WDA-19.

Staff recommends a 12-year projection life. This is the mid-range of the FCC range for this account. Qwest has not provided any plans that indicate any future drastic change in the investment in this account, as compared to recent activities. The average age of the investment in this account is 7.3 years. The currently approved projection life is 10 years. In the years 2000 through 2003, Qwest retired an average of 1.9 % of the investment per year in this account. As previously discussed, Qwest does not plan accelerated

construction in Arizona in the foreseeable future (Qwest standard filing requirement Schedule F-3).

Staff recommends a 12-year projection life for the Circuit Digital account.

E. USE OF CLEC, IXCS OR CATV "FINANCIAL REPORTING" LIVES

Q. In this case Qwest is serving discovery on CLECs/IXCs asking for their "regulated and financial reporting depreciation" information.[80] Is this information relevant?

A. No, for several reasons as will be discussed below.

Q. What is the first reason any such response from the CLECs/IXCs would not be relevant?

A. The Qwest depreciation rates to be determined in this case are for **utility regulatory** purposes. The depreciation rates in this case must be determined following the requirement that apply to **utility regulatory** depreciation. We previously discussed some of the ACC and USOA requirements.

There are many different types of "depreciation," just as there are many different types of doctors. A person with a PhD. in economics is a "doctor" but they are not qualified to operate on you.

[80] Questions 3 through 10, Qwest's First Set of Data Requests To AT&T of the Mountain States, Inc. in this docket, dated July 21, 2004.

Q. Do the CLECs/IXCs calculate depreciation rates using the USOA/ACC requirements that apply to utility regulatory depreciation?

A. No. In the oral argument pertaining to Qwest's Motion to Compel, the AT&T attorney stated that AT&T does not have regulated depreciation rates, and has not calculated depreciation on a utility regulated basis for many years. However, Qwest continued to seek information from AT&T, knowing that any response on "depreciation" will **not** be "depreciation" calculated consistent with the USOA/ACC utility regulatory depreciation requirements.

In a prior proceeding various IXCs/CLECS had already stated that they do not have any depreciation rates calculated on the utility regulatory standards.

In response to the ALJ's Request in Docket No.T-01051B-97-0689, both AT&T and E-spire Communications stated that they had no utility commission-regulated depreciation rates or projected lives:

> Finally, as stated in its January 14, 2000 filing in this docket, AT&T does not have any depreciation rates or projected lives set by state regulatory agencies for purposes of rate of return regulation.[81]

In addition, Cox Arizona Telecom, L.L.C. stated:

> Cox Arizona Telecom, L.L.C. states that: (i) it does not use 'rate of return' depreciation lives or rates...[82]

[81] Page 2, AT&T's Supplemental Comments on Depreciation Rate Schedules filed on February 2, 2000, Docket No. T-01051B-97-0689.

[82] Cox Arizona Telecom, L.L.C.'s Filing on Depreciation Lives and Rates Pursuant to January 7, 2000 Procedural Order. Docket No. T-01051B-97-0689.

In the current case, the Qwest requests to these companies asked for "regulated and financial reporting depreciation" information, but Qwest knew these CLECs/IXCs do not have **utility regulatory** depreciation rates calculated in accordance with the USOA/ACC depreciation requirements. Since these companies do not have **utility regulatory** depreciation rates, the only "depreciation" information they could provide is whatever they have, which might be "depreciation" based on "financial" reporting or "tax" reporting requirements, or other that is not based on the USOA/ACC depreciation requirements. "Depreciation" that is not calculated using the standards which are relevant in this case, is not relevant. Qwest did not limit its request to asking these CLEC/IXCs to provide depreciation information which was based on the USOA/ACC **utility regulatory** depreciation requirements.

Q. Are the "depreciation" rates as determined for "financial reporting" purposes based on the same requirements as depreciation rates for utility regulatory purposes?

A. No. The ACC rules and the USOA contain specific requirements, such as the depreciation must be over the "service life," and the "service life" of an investment is the period which ends on the "date of its retirement from service." The "financial reporting" lives are not calculated based on the USOA/ACC requirements.

The FCC addressed this in its Order on depreciation dated December 30, 1999. The "GAAP" and "SEC" requirements the FCC is discussing below are the requirements which apply to "financial reporting depreciation."

> 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. (Citations omitted)
>
> 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. (Citations omitted)
>
> These other safeguards, such as SEC requirements, are not adequate substitutes for depreciation represcription because they are not designed to protect ratepayers, but are designed to protect investor interests. (Citations omitted)[83]

The Qwest requests to the CLECs/IXCs specifically ask for "financial reporting depreciation" information. "Financial reporting depreciation" is determine using different requirements than the requirements which apply to **utility regulatory** depreciation, as the FCC stated in the quotation above. Therefore any "financial reporting depreciation" information is not based on the proper standard for this proceeding.

Q. Does the FCC allow the use of "financial reporting" lives in depreciation which is used to set customer rates?

A. No. The FCC does not allow the use of "financial reporting" rates or lives for purposes that affects ratepayers. As a result of the FCC Order quoted above, the FCC now allows companies which are <u>not</u> rate of return regulated to file "financial reporting" depreciation rates with the FCC, but the FCC does not allow them to use those "financial reporting"

[83]FCC 99-397, paragraphs 48 and 49, December 30, 1999.

depreciation rates in calculations which would impact customer rates. Instead, the FCC stated it would continue to maintain and use the FCC depreciation "ranges" (which are based upon utility depreciations requirements) for depreciation that effects rates. Specifically:

(1) The FCC will not allow the companies to adjust their "price caps" as a result of depreciation rates which result from those "financial" lives.

(2) The FCC uses the "ranges", not the "financial" lives, for determining the cost to be included in the High Cost Fund (HCF),

(3) The FCC uses the "ranges", not the "financial" lives, for purposes of evaluating unbundled network element (UNE) and interconnection rates,

(4) The FCC uses the "ranges", not the "financial" lives, to determine the reasonableness of the price of new services.[84]

In short, the FCC has properly concluded that the "financial" reporting lives or "financial" depreciation rates are not appropriate in calculating a depreciation expense which would be used to set rates charged ratepayers.

Q. Another type of "depreciation" that Qwest might get in response to it requests are "tax" depreciation or "tax" lives. These are used for income tax purposes. Are "tax" lives determined using the same standards as apply to utility regulatory depreciation?

A. No. A widely recognized utility regulatory depreciation text warned against such an improper comparison.

[84]Paragraphs 34 and 39, FCC Order 99-397 CC Docket No. 98-137, released December 30, 1999.

Public Utilities Depreciation Practices published by NARUC is the widely accepted public utility depreciation practices text. On page 20, it states:

> It is important to note the difference in purpose of book depreciation and tax depreciation. Book depreciation is a cost allocation process used to satisfy specific accounting and regulatory principles and requirements, whereas tax depreciation provides additional tax and financial incentives unrelated to the strict cost allocation process.[85]

The "tax" lives are calculated on requirements that are very different from the "service lives", which are required for utility regulatory proceedings. For example, the tax code applied a 15-year "tax" life to a rental house that I own.[86] This house is now less than 30 years old, but was fully depreciated for income tax purposes several years ago. This "tax" life is clearly much shorter than the actual life or "service life." In the real world, this house has many decades of service life left before retirement.

At the end of the 15 year tax life, the tax code also assumes this rental house I own has zero market value (zero "net salvage"). In reality, this house has a very significant market value. It is a three-bedroom house (with fireplace) in a good neighborhood.

As the above true example illustrates, "depreciation" can be very different, depending on what standard is used.

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[85]Page 20, Public Utilities Depreciation Practices, NARUC, August, 1996.

[86]2077 Scarbrough, Springfield, Illinois. Department of the Treasury, Internal Revenue Service, Publication 9946, "How to Depreciate Property." The lives for calculating depreciation for federal income tax purposes for residential rental property generally ranges from 15 years to 27.5 years, depending primarily upon when the property was placed in service. The depreciation rate applies to the building. The lot does not depreciate.

Q. Are the "lives," "percent reserves," or "net salvage" figures of an IXC, CLEC or CATV company relevant when calculating the utility depreciation rate of a specific account for Qwest in Arizona?

A. No. The formula we use to calculate the Qwest regulated utility depreciation rate for a specific account is as follows:

Depreciation rate = (100%-(percent reserve)-(future net salvage))/ (avg. remaining life)

The values specific to the specific company and specific account are used in the calculation.

For example the Qwest Arizona "percent reserve" for the buried cable metallic account is 71.1%, and that is what is properly used in the calculation of the Qwest Arizona depreciation rate for that account. If a CLEC or IXC has a 30% reserve in some account, so what? That CLEC's or IXC's "percent reserve" figure is not the correct figure for the Qwest Arizona buried cable metallic account. Likewise, the lives or net salvage figures of an IXC or CLEC do not have any place in the calculation of the Qwest Arizona buried cable metallic depreciation rate.

Q. Is the equipment, and industry, different for IXCs as compared to LECs?

A. Yes. The FCC has specifically stated that because of significant differences in these two types of companies, for the IXCs are not comparable to the ILECs for depreciation purposes:

> Additionally, the depreciation practices of IXCs and incumbent LECs are not directly comparable because they use different types of switches and cables.[87]

The FCC further stated,

> ...the underlying conditions that go into estimating the basic factors for interexchange carriers (IXCs) and incumbent LECs are sufficiently different for the two groups that they should be considered differently.[88]

Q. In addition to the above, why must the "service lives" be used to properly calculate the regulatory depreciation rates, instead of using some "financial reporting" or "tax life"?

A. The service life must properly be used to calculate the regulatory depreciation rates because that is consistent with how the regulatory utility depreciation rates are applied. The USOA generally requires the depreciation rates apply to the investment all of the time the investment is "in service."[89] If the regulatory depreciation rates were calculated using "financial" or "tax" lives which were different than the "service lives," then those depreciation rates would be inconsistent with the way the depreciation rates will be applied under the USOA. For example, assume an investment will be "in service" ten years before it retires. In order for that investment to fully recover by the time the investment retires, a depreciation rate of 10% might be appropriate.[90] If a 10% depreciation rate applies in each of the ten years the plant is "in service", this will generate depreciation accruals equal to 100% of the investment by the time the investment retires. The investment would be "fully depreciated" when it retired, which is the desired result. However, if the depreciation rate was calculated improperly using a

[87]Paragraph 18, FCC 99-397, December 30, 1999.
[88]Footnote 54, FCC 99-397, December 30, 1999.
[89]USOA, Part 32.2000(g)(2)(iii)
[90]This assumes zero net salvage. This simplified example assumes one unit utilized the ten years.

five year "financial reporting" life, the depreciation rate calculated would be 20%. A 20% depreciation rate applied in each of the ten years of the "service life" before the investment retired would produce 200% in depreciation accruals, which is over-depreciating.[91]

Q. Can you summarize this issue?

A. Yes, the "depreciation" information Qwest is trying to obtain from CLECs and IXCs is not relevant in this proceeding for several reasons:

(1) The CLEC/IXC's depreciation rates are not utility regulatory depreciation rates calculated consistent with the USOA/ACC requirements. "Financial reporting" depreciation or "tax" depreciation is not calculated on the USOA/ACC utility regulatory standards.

(2) The IXCs are different than the ILECs, as the FCC has stated.

(3) The "percent reserve" or other parameter used in calculating the depreciation rate for a specific Qwest account should be the Qwest values, not a CLEC's or IXC's values.

(4) There would be a mismatch of the way utility regulated depreciation rates are applied if depreciation rates are calculated on a different standard.

F. "FUTURE NET SALVAGE" UPDATES

[91]The Company might cease depreciation accruals when the account becomes fully depreciated. In that event, the depreciation rate would be at 20% for the first five years of the service life, and 0% for the last five years of the service life. That would result in over-charging the customers during the first five years, which violates "inter-generational" equity. This would also be contrary to the requirement that depreciation be on the "straight-line method during the service life of the property," as required by USOA. (USOA, §32.2000(g)(i))

1

2 **Q. Did you review the "future net salvage" percents of the major accounts?**

3 A. Yes. I have reviewed the "future net salvage" values for the central office and cable and

4 wire facilities accounts.

5

6 The accounts in which the Staff recommends a different future "net salvage" value can be

7 seen in columns J and K of Schedule WDA-12, page 5. The FCC future "net salvage"

8 ranges are shown in columns F and G on that same page. The recent observed net salvage

9 values are shown in columns H and I.

10

11 "Future net salvage" is one of the factors (some times called "parameters") used in

12 calculating the depreciation rates.[92] As shown on page 5 of Schedule WDA-12, for eleven

13 accounts, Staff recommends "future net salvage" values that are different than the values

14 currently in use. Most of these changes have a relatively small impact, and eight of the

15 eleven changes are changes that make the depreciation rate higher than it would have

16 been if I had not changed the net salvage value. In other words, eight of these changes are

17 in Qwest's favor. The three salvage changes that have the effect of decreasing the

18 depreciation rate are the change to the Pole Lines account, and the changes to two fiber

19 (non-metallic) cable accounts (non-metallic subaccounts of Accounts 2421, and 2423). In

20 all accounts in which Staff proposes a revised future net salvage value, the value Staff

21 proposes was not above the middle of the FCC "net salvage" range for that account.

[92] The net salvage is the "gross salvage" less the "cost of removal". It is often presented as a percent of original cost. Net salvage can be a negative number or negative percent. For example, if the scrap (or resale) value of a retiring item was $10, but the cost of removing it was $30, that would be a -$20 net salvage. If the original cost of that item was $100, that would be a –20% net salvage (-$20/$100=-20%)

Q. Please discuss the adjustment to the "future net salvage" in the Pole Line account.

A. The current value for this account is –138%. Qwest provided data showing the actual net salvage averaged –72.4 % over the years for which data was provided (1983 through 2003). This Qwest provided document is attached as Schedule WDA-13. As also shown on that document, the average net salvage for the last ten years was –87.2%. Both of these figures are significantly different than the –138% value currently in use. The FCC range for this account is –75% to –50%. I selected –75%. This is within the FCC range. This is the most negative of the FCC range (produces a higher depreciation rate than any other value in the range). –75% is near the –72.4% value for all years, and the –87.4% value for the last yen years. Based on the actual Qwest data In Arizona, –75% future net salvage is a much better value than the continued use of –138%.

Q. Would you please address the adjustment to the "future net salvage" in the non-metallic cable accounts?

A. Yes. The analysis was similar to what I just described for the Pole Line accounts. Aerial Cable-Non-Metallic is the largest change in net salvage non-metallic account, so I will use it to explain the analysis.

The current prescribed net salvage value for this account is –27%. Qwest provided data showing the actual net salvage averaged -6.8% over the years for which data was provided (1988 through 2003) and the average for the last ten years was -9.3%. The actual data indicated the factor should be adjusted in the positive direction. However the

FCC range for this account is –25% to –10% (with –17.5% as middle of the range), so I could not adjust as far positive as the data indicated, while not going above the middle of the FCC range. I adjusted as positive as I could up to the middle of the FCC range, which was to –17.5%. A more positive number (such as -10%) would have resulted in a lower depreciation rate than I am recommending, but to be conservative, I did not go above the middle of the FCC range.

Q. What does Staff you recommend pertaining to the depreciation rates in this proceeding?

A. Staff recommends the depreciation rates shown in Column L of Schedule WDA-12, Page 1, for the reasons discussed above. These depreciation rates are calculated following the USOA/ACC requirements. These depreciation rates are based on the actual Qwest Arizona data and plans.

The "projection lives" Qwest used in its calculations are clearly inconsistent with the actual Qwest Arizona data, as shown on Schedule WDA-19. The retirement amounts Qwest used in its calculation are clearly inconsistent with the actual Qwest Arizona retirements. An example of this is shown on Schedule WDA-6 for the buried cable metallic account.

V. "PERCENT CONDITION"

Q. Do the revised depreciation rates that Staff has recommended impact the "percent condition" which is used in the "fair value" rate base calculations?

A. Yes. Certain values from the depreciation calculations are used in the "percent condition" calculations. The "percent condition" calculations impact the "fair value" rate base, but do not impact the "original cost" rate base calculations.

Schedule WDA-17 shows the "percent condition" values consistent with the depreciation rates proposed by Staff.

Q. Other than the charges related to the depreciation rates, is there another problem with the "percent condition" values as proposed by Qwest?

A. Yes. Other than the issues related to the depreciation rates used, there is another problem with Qwest's "percent condition" calculation. In response to request WDA 04-007, Qwest stated that the Qwest "percent condition" calculations were on a "vintage group (VG) basis." However, this Commission uses Equal Life Group (ELG), so the basis of these Qwest calculations was incorrect. In response to WDA 04-009, Qwest acknowledged that the "ELG" remaining life value was the "correct" remaining life, not the "vintage group" (VG) remaining life that Qwest had used in its "percent condition" calculations. I have corrected these problems on Schedule WDA-17, in addition to utilizing the values associated with the Staff recommended depreciation rates.

VI. CONCLUSION

1 **Q. Could you summarize your major recommendations?**

2 A. Yes. For the reasons presented in this testimony:

3 (1) I recommend the adjustment shown on Schedule WDA-15. This adjustment
4 removes from the intrastate jurisdiction the direct costs of interstate DSL service.
5 This is incorporated into adjustments B-3 and C-6 in the Staff accounting
6 schedules.

7

8 (2) I recommend the adjustments shown on Schedule WDA-18. This imputes the
9 construction charges that BSI should have paid to QC for the "video only"
10 USAMs. This is incorporated into adjustments B-4 and C-7 in the Staff
11 accounting schedules.

12

13 (3) I recommend the end-of-test-year "percent reserve" values be used in the
14 depreciation rate calculations. Qwest is using the values as of the start of the 2003
15 test year, but the Commission filing requirements require end-of-test-year values
16 be used. The result of this adjustment is shown in column H of page 1 of Schedule
17 WDA-12. This adjustment is incorporated into adjustment C-22 in the Staff
18 accounting schedules.

19

20 (4) I recommend the revised "projection lives" and "future net salvage" values shown
21 in columns E and K of Schedule WDA-12, page 5. This adjustment is
22 incorporated into adjustment C-23 in the Staff accounting schedules.

23

As a result of items (3) and (4) above, I recommend the depreciation rates shown in Column L of Schedule WDA-12, page 1.

(5) I recommend the "percent condition" values shown on Schedule WDA-17. The "percent condition" calculations impact the "fair value" rate base, but do not impact the "original cost" rate base calculations.

William Dunkel, Consultant
8625 Farmington Cemetery Road
Pleasant Plains, Illinois 62677

Qualifications

The Consultant is a consulting engineer specializing in telecommunication regulatory proceedings. He has participated in over 140 state regulatory proceedings as listed on the attached Relevant Work Experience.

The Consultant has provided cost analysis, rate design, jurisdictional separations, depreciation, expert testimony and other related services to state agencies throughout the country in numerous telecommunication state proceedings. The Consultant has also provided depreciation testimony to state agencies throughout the country in several electric utility proceedings.

The Consultant made a presentation pertaining to Video Dial Tone at the NASUCA 1993 Mid-Year Meeting held in St. Louis.

In addition, the Consultant also made a presentation to the NARUC Subcommittee on Economics and Finance at the NARUC Summer Meetings held in July, 1992. That presentation was entitled "The Reason the Industry Wants to Eliminate Cost Based Regulation--Telecommunications is a Declining Cost Industry."

The Consultant provides services almost exclusively to public agencies, including the Public Utilities Commission, the Public Counsel, or the State Department of Administration in various states.

William Dunkel currently provides, or in the past has provided, services in telecommunications proceedings to the following clients:

The Public Utility Commission or the Staffs in the States of:

Arkansas	Mississippi
Arizona	Missouri
Delaware	New Mexico
Georgia	Utah
Guam	Virginia
Illinois	Washington
Maryland	U.S. Virgin Islands

The Office of the Public Advocate, or its equivalent, in the States of:

Colorado	Maryland
District of Columbia	Missouri
Georgia	New Jersey
Hawaii	New Mexico
Illinois	Ohio
Indiana	Pennsylvania
Iowa	Utah
Maine	Washington

The Department of Administration in the States of:

Illinois	South Dakota
Minnesota	Wisconsin

In April, 1974, the Consultant was employed by the Illinois Commerce Commission in the Electric Section as a Utility Engineer. In November of 1975, he transferred to the Telephone Section of the Illinois Commerce Commission and from that time until July, 1980, he participated in essentially all telephone rate cases and other telephone rate matters that were set for hearing in the State of Illinois. During that period, he testified as an expert witness in numerous rate design cases and tariff filings in the areas of rate design, cost studies and separations. During the period 1975-1980, he was the Separations and Settlements expert for the Staff of the Illinois Commerce Commission.

From July, 1977 until July, 1980, he was a Staff member of the FCC-State Joint Board on Separations, concerning the "Impact of Customer Provision of Terminal Equipment on Jurisdictional Separations" in FCC Docket No. 20981 on behalf of the Illinois Commerce Commission. The FCC-State Joint Board is the national board which specifies the rules for separations in the telephone industry.

The Consultant has taken the AT&T separations school which is normally provided to the AT&T personnel.

The Consultant has taken the General Telephone separations school which is normally provided for training of the General Telephone Company personnel in separations.

Since July, 1980 he has been regularly employed as an independent consultant in telephone rate proceedings across the nation.

He has testified before the Illinois House of Representatives Subcommittee on Communications, as well as participating in numerous other schools and conferences pertaining to the utility industry.

Prior to employment at the Illinois Commerce Commission, the Consultant was a design engineer for Sangamo Electric Company designing electric watt-hour meters used in the electric utility industry. The Consultant was granted patent No. 3822400 for a solid state meter pulse initiator.

The Consultant graduated from the University of Illinois in February, 1970 with a Bachelor's of Science Degree in Engineering Physics with emphasis on economics and other business-related subjects. The Consultant has taken several post-graduate courses since graduation.

RELEVANT WORK EXPERIENCE OF WILLIAM DUNKEL

ALASKA

- ACS	
General rate case	Docket Nos. U-01-83, U-01-85, U-01-87
AFOR proceeding	Docket No. R-03-003
- All Companies	
Access charge proceeding	Docket No. R-01-001

ARIZONA

- U.S. West Communications	Cost of Service Study
Wholesale cost/UNE case	Docket No. T-00000A-00-0194
General rate case	Docket No. E-1051-93-183
Depreciation case	Docket No. T-01051B-97-0689
General rate case	Docket No. T-01051B-99-0105

ARKANSAS

- Southwestern Bell Telephone Company	Docket No. 83-045-U

CALIFORNIA

(on behalf of the Office of Ratepayer Advocates (ORA))

- Kerman Telephone General Rate Case	A.02-01-004

(on behalf of the California Cable Television Association)

- General Telephone of California	I.87-11-033
- Pacific Bell	
Fiber Beyond the Feeder Pre-Approval Requirement	

COLORADO

- Mountain Bell Telephone Company	
General Rate Case	Docket No. 96A-218T et al.
Call Trace Case	Docket No. 92S-040T
Caller ID Case	Docket No. 91A-462T
General Rate Case	Docket No. 90S-544T
Local Calling Area Case	Docket No. 1766
General Rate Case	Docket No. 1720
General Rate Case	Docket No. 1700
General Rate Case	Docket No. 1655
General Rate Case	Docket No. 1575
Measured Services Case	Docket No. 1620
- Independent Telephone Companies	

Cost Allocation Methods Case	Docket No. 89R-608T

DELAWARE

- Diamond State Telephone Company	
General Rate Case	PSC Docket No. 82-32
General Rate Case	PSC Docket No. 84-33
Report on Small Centrex	PSC Docket No. 85-32T
General Rate Case	PSC Docket No. 86-20
Centrex Cost Proceeding	PSC Docket No. 86-34

DISTRICT OF COLUMBIA

- C&P Telephone Company of D.C.	
Depreciation issues	Formal Case No. 926

FCC

- Review of jurisdictional separations	FCC Docket No. 96-45
- Developing a Unified Intercarrier Compensation Regime	CC Docket No. 01-92

FLORIDA

- BellSouth, GTE, and Sprint	
Fair and reasonable rates	Undocketed Special Project

GEORGIA

- Southern Bell Telephone & Telegraph Co.	
General Rate Proceeding	Docket No. 3231-U
General Rate Proceeding	Docket No. 3465-U
General Rate Proceeding	Docket No. 3286-U
General Rate Proceeding	Docket No. 3393-U

HAWAII

- GTE Hawaiian Telephone Company	
Depreciation/separations issues	Docket No. 94-0298
Resale case	Docket No. 7702

ILLINOIS

- Commonwealth Edison Company	
General Rate Proceeding	Docket No. 80-0546
General Rate Proceeding	Docket No. 82-0026
Section 50	Docket No. 59008
Section 55	Docket No. 59064

Section 50	Docket No. 59314
Section 55	Docket No. 59704
- Central Illinois Public Service	
Section 55	Docket No. 58953
Section 55	Docket No. 58999
Section 55	Docket No. 59000
Exchange of Facilities (Illinois Power)	Docket No. 59497
General Rate Increase	Docket No. 59784
Section 55	Docket No. 59677
- South Beloit	
General Rate Case	Docket No. 59078
- Illinois Power	
Section 55	Docket No. 59281
Interconnection	Docket No. 59435
- Verizon North Inc. and Verizon South Inc.	Docket No. 02-0560
DSL Waiver Petition Proceeding	
- Geneseo Telephone Company	
EAS case	Docket No. 99-0412
- Central Telephone Company	
(Staunton merger)	Docket No. 78-0595
- General Telephone & Electronics Co.	
Usage sensitive service case	Docket Nos. 98-0200/98-0537
General rate case (on behalf of CUB)	Docket No. 93-0301
(Usage sensitive rates)	Docket No. 79-0141
(Data Service)	Docket No. 79-0310
(Certificate)	Docket No. 79-0499
(Certificate)	Docket No. 79-0500
- General Telephone Co.	Docket No. 80-0389
- SBC	
Imputation Requirement	Docket No. 04-0461
Implement UNE Law	Docket No. 03-0323
UNE Rate Case	Docket No. 02-0864
Alternative Regulation Review	Docket No. 98-0252
- Ameritech (Illinois Bell Telephone Company)	
Area code split case	Docket No. 94-0315
General Rate Case	Docket No. 83-0005
(Centrex filing)	Docket No. 84-0111
General Rate Proceeding	Docket No. 81-0478
(Call Lamp Indicator)	Docket No. 77-0755
(Com Key 1434)	Docket No. 77-0756
(Card dialers)	Docket No. 77-0757
(Concentration Identifier)	Docket No. 78-0005

(Voice of the People)	Docket No. 78-0028
(General rate increase)	Docket No. 78-0034
(Dimension)	Docket No. 78-0086
(Customer controlled Centrex)	Docket No. 78-0243
(TAS)	Docket No. 78-0031
(Ill. Consolidated Lease)	Docket No. 78-0473
(EAS Inquiry)	Docket No. 78-0531
(Dispute with GTE)	Docket No. 78-0576
(WUI vs. Continental Tel.)	Docket No. 79-0041
(Carle Clinic)	Docket No. 79-0132
(Private line rates)	Docket No. 79-0143
(Toll data)	Docket No. 79-0234
(Dataphone)	Docket No. 79-0237
(Com Key 718)	Docket No. 79-0365
(Complaint - switchboard)	Docket No. 79-0380
(Porta printer)	Docket No. 79-0381
(General rate case)	Docket No. 79-0438
(Certificate)	Docket No. 79-0501
(General rate case)	Docket No. 80-0010
(Other minor proceedings)	Docket No. various
- Home Telephone Company	Docket No. 80-0220
- Northwestern Telephone Company	
Local and EAS rates	Docket No. 79-0142
EAS	Docket No. 79-0519

INDIANA

- Public Service of Indiana (PSI)	
Depreciation issues	Cause No. 39584
- Indianapolis Power and Light Company	
Depreciation issues	Cause No. 39938

IOWA

- U S West Communications, Inc.	
Local Exchange Competition	Docket No. RMU-95-5
Local Network Interconnection	Docket No. RPU-95-10
General Rate Case	Docket No. RPU-95-11

KANSAS

- Southwestern Bell Telephone Company	
Commission Investigation of the KUSF	Docket No. 98-SWBT-677-GIT
- Rural Telephone Service Company	
Audit and General rate proceeding	Docket No. 00-RRLT-083-AUD

Request for supplemental KUSF	Docket No. 00-RRLT-518-KSF
- Southern Kansas Telephone Company	
Audit and General rate proceeding	Docket No. 01-SNKT-544-AUD
- Pioneer Telephone Company	
Audit and General rate proceeding	Docket No. 01-PNRT-929-AUD
- Craw-Kan Telephone Cooperative, Inc.	
Audit and General rate proceeding	Docket No. 01-CRKT-713-AUD
- Sunflower Telephone Company, Inc.	
Audit and General rate proceeding	Docket No. 01-SFLT-879-AUD
- Bluestem Telephone Company, Inc.	
Audit and General rate proceeding	Docket No. 01-BSST-878-AUD
- Home Telephone Company, Inc.	
Audit and General rate proceeding	Docket No. 02-HOMT-209-AUD
- Wilson Telephone Company, Inc.	
Audit and General rate proceeding	Docket No. 02-WLST-210-AUD
- S&T Telephone Cooperative Association, Inc.	
Audit and General rate proceeding	Docket No. 02-S&TT-390-AUD
- Blue Valley Telephone Company, Inc.	
Audit and General rate proceeding	Docket No. 02-BLVT-377-AUD
- JBN Telephone Company	
Audit and General rate proceeding	Docket No. 02-JBNT-846-AUD
- S&A Telephone Company	
Audit and General rate proceeding	Docket No. 03-S&AT-160-AUD
- Wheat State Telephone Company, Inc.	
Audit and General rate proceeding	Docket No. 03-WHST-503-AUD
- Haviland Telephone Company, Inc.	
Audit and General rate proceeding	Docket No. 03-HVDT-664-RTS
- Twin Valley Telephone, Inc.	
Audit and General rate proceeding	Docket No. 03-TWVT-1031-AUD
- Golden Belt Telephone Association	
Audit and General rate proceeding	Docket No. 04-GNBT-130-AUD

MAINE

- New England Telephone Company	
General rate proceeding	Docket No. 92-130

MARYLAND

- Chesapeake and Potomac Telephone Company	
General rate proceeding	Docket No. 7851
Cost Allocation Manual Case	Case No. 8333
Cost Allocation Issues Case	Case No. 8462
- Verizon Maryland	

PICC rate case	Case No. 8862
USF case	Case No. 8745
- Washington Gas Light Company	
Depreciation Rate Case	Case No. 8960

MINNESOTA

- Access charge (all companies)	Docket No. P-321/CI-83-203
- U. S. West Communications, Inc. (Northwestern Bell Telephone Co.)	
Centrex/Centron proceeding	Docket No. P-421/91-EM-1002
General rate proceeding	Docket No. P-321/M-80-306
Centrex Dockets	MPUC No. P-421/M-83-466
	MPUC No. P-421/M-84-24
	MPUC No. P-421/M-84-25
	MPUC No. P-421/M-84-26
General rate proceeding	MPUC No. P-421/GR-80-911
General rate proceeding	MPUC No. P-421/GR-82-203
General rate case	MPUC No. P-421/GR-83-600
WATS investigation	MPUC No. P-421/CI-84-454
Access charge case	MPUC No. P-421/CI-85-352
Access charge case	MPUC No. P-421/M-86-53
Toll Compensation case	MPUC No. P-999/CI-85-582
Private Line proceeding	Docket No. P-421/M-86-508
- AT&T	
Intrastate Interexchange	Docket No. P-442/M-87-54

MISSISSIPPI

- South Central Bell	
General rate filing	Docket No. U-4415

MISSOURI

- Southwestern Bell	
General rate proceeding	TR-79-213
General rate proceeding	TR-80-256
General rate proceeding	TR-82-199
General rate proceeding	TR-86-84
General rate proceeding	TC-89-14, et al.
Alternative Regulation	TC-93-224/TO-93-192
- United Telephone Company	
Depreciation proceeding	TR-93-181
- All companies	
Extended Area Service	TO-86-8

EMS investigation	TO-87-131
Cost of Access Proceeding	TR-2001-65

NEW JERSEY

- New Jersey Bell Telephone Company

General rate proceeding	Docket No. 802-135
General rate proceeding	BPU No. 815-458
	OAL No. 3073-81
Phase I - General rate case	BPU No. 8211-1030
	OAL No. PUC10506-82
General rate case	BPU No. 848-856
	OAL No. PUC06250-84
Division of regulated	BPU No. TO87050398
from competitive services	OAL No. PUC 08557-87
Customer Request Interrupt	Docket No. TT 90060604

NEW MEXICO

- U.S. West Communications, Inc.

E-911 proceeding	Docket No. 92-79-TC
General rate proceeding	Docket No. 92-227-TC
General rate/depreciation proceeding	Case No. 3008
Subsidy Case	Case No. 3325
USF Case	Case No. 3223

- VALOR Communications

Subsidy Case	Case No. 3300

OHIO

- Ohio Bell Telephone Company

General rate proceeding	Docket No. 79-1184-TP-AIR
General rate increase	Docket No. 81-1433-TP-AIR
General rate increase	Docket No. 83-300-TP-AIR
Access charges	Docket No. 83-464-TP-AIR

- General Telephone of Ohio

General rate proceeding	Docket No. 81-383-TP-AIR

- United Telephone Company

General rate proceeding	Docket No. 81-627-TP-AIR

OKLAHOMA

- Public Service of Oklahoma

Depreciation case	Cause No. 96-0000214

PENNSYLVANIA

- GTE North, Inc.	
Interconnection proceeding	Docket No. A-310125F002
- Bell Telephone Company of Pennsylvania	
Alternative Regulation proceeding	Docket No. P-00930715
Automatic Savings	Docket No. R-953409
Rate Rebalance	Docket No. R-00963550
- Enterprise Telephone Company	
General rate proceeding	Docket No. R-922317
- All companies	
InterLATA Toll Service Invest.	Docket No. I-910010
Joint Petition for Global Resolution of Telecommunications Proceedings	Docket Nos. P-00991649, P-00991648, M-00021596
- GTE North and United Telephone Company	
Local Calling Area Case	Docket No. C-902815
- Verizon	
Joint Application of Bell Atlantic and GTE for Approval of Agreement and Plan of Merger	Docket Nos. A-310200F0002, A-311350F0002, A-310222F0002, A-310291F0003
Access Charge Complaint Proceeding	Docket No. C-200271905

SOUTH DAKOTA

- Northwestern Bell Telephone Company	
General rate proceeding	Docket No. F-3375

TENNESSEE
(on behalf of Time Warner Communications)

- BellSouth Telephone Company	
Avoidable costs case	Docket No. 96-00067

UTAH

- U.S. West Communications (Mountain Bell Telephone Company)	
General rate case	Docket No. 84-049-01
General rate case	Docket No. 88-049-07
800 Services case	Docket No. 90-049-05
General rate case/ incentive regulation	Docket No. 90-049-06/90-049-03
General rate case	Docket No. 92-049-07
General rate case	Docket No. 95-049-05
General rate case	Docket No. 97-049-08
Qwest Price Flexibility-Residence	Docket No. 01-2383-01
Qwest Price Flexibility-Business	Docket No. 02-049-82
Qwest Price Flexibility-Residence	Docket No. 03-049-49

Qwest Price Flexibility-Business	Docket No. 03-049-50

VIRGIN ISLANDS, U.S.

- Virgin Islands Telephone Company	
General rate case	Docket No. 264
General rate case	Docket No. 277
General rate case	Docket No. 314
General rate case	Docket No. 316

VIRGINIA

- General Telephone Company of the South	
Jurisdictional allocations	Case No. PUC870029
Separations	Case No. PUC950019

WASHINGTON

- US West Communications, Inc.	
Interconnection case	Docket No. UT-960369
General rate case	Docket No. UT-950200
- All Companies-	Analyzed the local calling areas in the State

WISCONSIN

- Wisconsin Bell Telephone Company	
Private line rate proceeding	Docket No. 6720-TR-21
General rate proceeding	Docket No. 6720-TR-34

Arizona
T-01051B-03-0454 and T-00000D-00-0672
WDA 04-006

INTERVENOR: William W. Dunkel and Associates

REQUEST NO: 006

In response to WDA 02-002, Qwest states that it does not recognize the "2003 State Depreciation Rates" workpaper referenced. Attached is a copy of the file. The first tab of this document is the entitled "Booked Results". The first line of this document is "COMPOSITE DEPRECIATION RATES (%) STATE (INTRASTATE) Booked Results". The footer on this document indicates "Jim Jones".

a. Is there a Jim Jones who works with depreciation for Qwest or on behalf of Qwest?

b. Does Qwest acknowledge that someone working for Qwest or on behalf of Qwest prepared the Excel spreadsheet attached?

c. Does Qwest acknowledge that Qwest provided that Excel spreadsheet to Staff and/or Staff consultants in response to a data request as a non-confidential document?

d. If Qwest denies any of the prior parts of this request, please provide a full explanation of why Qwest disagrees with that statement, and provide the corrected statement.

RESPONSE:

a. Yes.

b. Yes.

c. Qwest provided the data to Utilitech (Michael Brosch) as part of an information request.

d. Please see responses to (a), (b), and (c).

Respondent: Dennis Wu

QWEST CORPORATION

COMPOSITE DEPRECIATION RATES (%) STATE (INTRASTATE) Booked Results

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
New Mexico	7.3	7.4	7.9	7.7	7.5	7.5	6.4	6.3	6.3	6.0	6.0	6.0
Oregon	5.8	5.9	6.3	6.1	7.5	7.5	7.0	6.9	6.8	6.6	6.6	6.7
Utah	6.2	6.3	6.6	7.9	8.4	8.2	6.9	7.2	6.5	6.5	6.8	6.7
Washington	6.0	6.5	6.3	6.3	6.3	6.6	6.6	6.2	5.7	5.9	6.0	6.1
Minnesota	7.2	7.0	7.3	8.2	8.4	8.3	6.2	8.1	7.4	7.7	7.8	7.2
Colorado	8.0	7.4	8.9	8.6	8.6	8.6	7.2	7.1	7.1	7.1	6.4	5.6
South Dakota	5.9	6.5	6.5	6.5	8.1	8.1	7.4	6.9	7.3	7.4	7.5	7.3
Arizona	7.2	7.2	7.3	7.3	7.3	7.3	6.8	6.3	8.3	9.2	9.4	9.5
Iowa	7.5	6.2	6.5	6.7	6.7	6.7	6.7	6.5	6.7	6.8	6.7	6.9
Montana	5.7	6.2	6.5	6.0	6.2	6.4	6.7	8.7	7.5	6.3	6.3	6.4
Wyoming	6.2	6.3	6.6	6.2	6.4	6.4	7.3	7.3	7.4	7.6	7.8	7.8
Nebraska	7.7	8.9	8.7	8.5	9.3	9.3	8.1	8.0	7.9	8.0	7.9	6.3
North Dakota	6.2	6.0	6.4	6.3	7.6	8.1	8.2	8.0	7.7	6.8	6.9	6.9
So. Idaho	4.5	7.2	7.7	7.2	7.3	7.4	8.9	8.3	8.0	7.5	7.9	7.6
No. Idaho	6.8	6.8	6.5	6.4	6.4	7.9	7.9	7.5	7.7	7.7	7.0	7.4
QC (exluding Malheur)								7.0	7.1	7.2	7.2	6.9

Notes:

Arizona
T-01051B-03-0454
WDA 02-005

INTERVENOR: William W. Dunkel and Associates

REQUEST NO: 005

The Qwest response to Dunkel 01-010 provided a "technical update" as of 12/31/03. That response indicates that the vintage "retirement adjustments" referred to in Dunkel Request No. 1.7 were not included.

(a) Please provide a copy of this "technical update" as of 12/31/03, with the vintage "retirement adjustments" included.

(b) Is it correct that only changes need to adjust this "technical update" as of 12/31/03, to include the vintage "retirement adjustments" would be to (1) reduce the UG Cable Metallic Investment and Depreciation reserve amounts by $9,923,(000) (2) reduce the Buried Cable Metallic Investment and Depreciation reserve amounts by $15,939,(000), (3) reduce the Intra-building Metallic Investment and Depreciation reserve amounts by $3,128,(000), and carry the impact of these above changes through the calculations. (These figure are for the 1925 vintages as of 12/31/2003, according to data provided by Qwest in response to Dunkel Request 01-001.)

(c) If you do not agree with the statement in part (b), then provide each of the adjustments, and the amount to be used in each of those adjustments, to adjust this "technical update" as of 12/31/03, to include the vintage "retirement adjustments".

RESPONSE:

(a) Please see Non-Confidential Attachment A.

(b) Yes.

(c) See response to (b).

Respondent: Dennis Wu

DOCKET NO. T-01051B-03-0454
& T-00000D-00-0672
WDA 02-005 (a)
ATTACHMENT: A

'18/04
:51 AM
XREF: 09
PRES: 1997,SF,02
PROP: 2004,SG,02
PRESCRIBED PARAMETERS

COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: STATEMENT A
PAGE 1 OF 1

SUMMARY OF DEPRECIATION RATES
ALL VINTAGE RECOVERY

ACCOUNT NUMBER	CLASS OR SUBCLASS OF PLANT	DEPRECIATION RATES IN EFFECT 12/31/2003 REM LIFE YEARS	FUTURE RESERVE %	NET SALVAGE %	RATE %	RATES EFFECTIVE IN 2004 REM LIFE YEARS	FUTURE RESERVE %	NET SALVAGE %	RATE %
		A	B	C	D	E	F	G	H
2112	MOTOR VEHICLES	3.6	66.4	16.0	4.9	3.8	57.7	16.0	6.9
2114	SPEC PURPOSE VEHICLE	9.8	0.0	0.0	10.2	4.4	43.9	0.0	12.8
2115	GARAGE WORK EQUIP	10.2	-55.1	-4.0	15.6	9.1	-17.2	-4.0	13.3
2116	OTHER WORK EQUIP	5.4	7.2	7.0	15.9	6.7	44.6	7.0	7.2
2121	BUILDINGS	26.0	29.2	-6.0	3.0	24.0	27.6	-6.0	3.3
2122	FURNITURE	5.5	-10.8	0.0	20.1	6.8	72.6	0.0	4.0
2123.1	OFFICE EQUIPMENT	3.3	26.3	0.0	22.3	2.5	102.4	0.0	0.0
2123.2	COMPANY COMM EQUIP	5.3	67.7	0.0	6.1	4.6	92.3	0.0	1.7
2124	GEN PURPOSE CMPTR	2.4	72.4	5.0	9.4	1.7	95.9	5.0	0.0
2212	DIGITAL SW EQUIP	5.4	37.5	3.0	11.0	5.2	54.9	3.0	8.1
2220	OPERATOR SYSTEMS	4.1	96.6	-3.0	1.6	3.8	5.1	-3.0	25.8
2231	RADIO SYSTEMS	6.6	64.0	-2.0	5.8	5.0	98.3	-2.0	0.7
2232	CIRCUIT EQUIP								
	CIRCUIT DDS	4.0	75.4	3.0	5.4	3.4	90.2	3.0	2.0
	CIRCUIT DIGITAL	5.1	47.8	2.0	9.8	5.3	60.6	2.0	7.1
	CIRCUIT ANALOG	3.3	89.3	0.0	3.2	2.8	101.3	0.0	0.0
2362	OTHER TERM EQUIP	6.4	49.9	2.0	7.5	6.5	56.4	2.0	6.4
11	POLE LINES	26.0	71.6	-138.0	6.4	25.0	90.3	-138.0	5.9
2421	AERIAL CABLE MET	5.2	61.5	-27.0	12.6	5.0	104.9	-27.0	4.4
2421	AERIAL CABLE NON MET	13.1	12.5	-27.0	8.7	8.7	44.0	-27.0	9.5
2422	UNDGRD CABLE MET	5.8	50.8	-6.0	9.5	5.6	83.1	-6.0	4.1
2422	UNDGRD CABLE NON MET	7.7	26.5	-6.0	10.3	6.8	49.7	-6.0	8.3
2423	BURIED CABLE MET	5.6	40.0	-7.0	12.0	5.4	71.7	-7.0	6.5
2423	BURIED CABLE NON MET	12.9	24.8	-7.0	6.4	8.7	49.3	-7.0	6.6
2424	SUB CABLE MET	1.4	-20.6	0.0	86.1	0.5	121.6	0.0	0.0
2424	SUB CABLE NON MET	9.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0
2426	INTRA BLDG CA MET	8.3	70.7	0.0	3.5	8.1	76.8	0.0	2.9
2426	INTRA BLDG NON MET	6.1	20.2	0.0	13.1	6.2	61.2	0.0	6.3
2431	AERIAL WIRE	5.5	16.8	-30.0	20.6	5.3	90.5	-30.0	7.5
2441	CONDUIT SYSTEMS	44.0	21.1	-20.0	2.2	43.0	23.8	-20.0	2.2

DIGITAL SW RESERVE ADJ FOR RESIDUAL ANALOG SW, SXS, & XBR - UCB, BCB, NCB 1925 VINTAGE INVESTMENT EXCLUDED

ATTACHMENT "A"
AZ-DOC. NO. T-0151B-03-0454
WDA SET 2, NO.02 – 05 a.

/10/04
:2:51 AM
XREF: 09
PRES: 1997,SF,02
PROP: 2004,SG,02
PRESCRIBED PARAMETERS

COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: STATEMENT B
PAGE 1 OF 1

CHANGE IN ANNUAL DEPRECIATION ACCRUALS
RESULTING FROM CHANGES IN DEPRECIATION RATES
INTRA STATE FACTORS APPLIED ($000)

ACCOUNT NUMBER	CLASS OR SUBCLASS OF PLANT	INVESTMENT 1/1/04	RATES EFFECTIVE 12/31/2003 RATE AMOUNT	AMORT AMOUNT	TOTAL	RATES EFFECTIVE IN 2004 RATE AMOUNT	AMORT AMOUNT	TOTAL	CHANGE IN ACCRUALS
		I	J=D*I	K	L=J+K	M=H*I	N	O=M+N	P=O-L
2112	MOTOR VEHICLES	50,002	2,450	0	2,450	3,450	0	3,450	1,000
2114	SPEC PURPOSE VEHICLE	18	2	0	2	2	0	2	0
2115	GARAGE WORK EQUIP	1,075	168	0	168	143	0	143	-25
2116	OTHER WORK EQUIP	27,124	4,313	0	4,313	1,953	0	1,953	-2,360
2121	BUILDINGS	168,555	5,057	0	5,057	5,562	0	5,562	505
2122	FURNITURE	1,253	252	0	252	50	0	50	-202
2123.1	OFFICE EQUIPMENT	4,186	933	0	933	0	0	0	-933
2123.2	COMPANY COMM EQUIP	1,719	105	0	105	29	0	29	-76
2124	GEN PURPOSE CMPTR	68,171	6,408	0	6,408	0	0	0	-6,408
2212	DIGITAL SW EQUIP	899,493	98,944	0	98,944	72,859	0	72,859	-26,085
2220	OPERATOR SYSTEMS	1,962	31	0	31	506	0	506	475
2231	RADIO SYSTEMS	20,998	1,218	0	1,218	147	0	147	-1,071
2232	CIRCUIT EQUIP								
	CIRCUIT DDS	3,517	190	0	190	70	0	70	-120
	CIRCUIT DIGITAL	1,084,182	106,250	0	106,250	76,977	0	76,977	-29,273
	CIRCUIT ANALOG	25,342	811	0	811	0	0	0	-811
2362	OTHER TERM EQUIP	51,022	3,827	0	3,827	3,265	0	3,265	-562
11	POLE LINES	38,664	2,474	0	2,474	2,281	0	2,281	-193
2421	AERIAL CABLE MET	145,482	18,331	0	18,331	6,401	0	6,401	-11,930
2421	AERIAL CABLE NON MET	6,840	595	0	595	650	0	650	55
2422	UNDGRD CABLE MET	284,540	27,031	0	27,031	11,666	0	11,666	-15,365
2422	UNDGRD CABLE NON MET	133,505	13,751	0	13,751	11,081	0	11,081	-2,670
2423	BURIED CABLE MET	1,194,457	143,335	0	143,335	77,640	0	77,640	-65,695
2423	BURIED CABLE NON MET	17,322	1,109	0	1,109	1,143	0	1,143	34
2424	SUB CABLE MET	2	2	0	2	0	0	0	-2
2424	SUB CABLE NON MET	0	0	0	0	0	0	0	0
2426	INTRA BLDG CA MET	31,784	1,112	0	1,112	922	0	922	-190
2426	INTRA BLDG NON MET	773	101	0	101	49	0	49	-52
2431	AERIAL WIRE	8,069	1,662	0	1,662	605	0	605	-1,057
2441	CONDUIT SYSTEMS	330,286	7,266	0	7,266	7,266	0	7,266	0
	TOTALS	4,600,343	447,728	0	447,728	284,717	0	284,717	-163,011
	COMPOSITES				9.7			6.2	

DIGITAL SW RESERVE ADJ FOR RESIDUAL ANALOG SW, SXS, & XBR - UCB, BCB, NCB 1925 VINTAGE INVESTMENT EXCLUDED

6/18/04
12:51 AM
XREF: 09
PRES: 1997,SF,02
PROP: 2004,SG,02
PRESCRIBED PARAMETERS

COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: STATEMENT C - RESERVES
PAGE 1 OF 1

SUMMARY OF RESERVES (INTRA STATE FACTORS APPLIED) 1-1-2004

ACCOUNT	CATEGORY	1-1-2004 INVESTMENT	BOOK RESERVE AMOUNT	BOOK RESERVE PERCENT	AVERAGE SERVICE LIFE	AVERAGE REM LIFE	AVERAGE NET SALVAGE	FUTURE NET SALVAGE	THEORETICAL RESERVE AMOUNT	THEORETICAL RESERVE PERCENT
		A$	B$	C=B/A	D	E	F	G	H$	I
2112	MOTOR VEHICLES	50,002,464	28,870,369	57.7	9.2	3.8	15	16	24,451,205	48.9
2114	SPEC PURPOSE VEHICLE	18,258	8,024	43.9	14.9	4.4	0	0	12,872	70.5
2115	GARAGE WORK EQUIP	1,074,994	-184,705	-17.2	13.6	9.1	-24	-4	225,749	21.0
2116	OTHER WORK EQUIP	27,123,901	12,101,709	44.6	10.8	6.7	9	7	9,900,224	36.5
2121	BUILDINGS	168,555,110	46,482,803	27.6	34.0	24.0	2	-6	62,028,280	36.8
2122	FURNITURE	1,253,232	910,003	72.6	13.4	6.8	3	0	636,642	50.8
2123.1	OFFICE EQUIPMENT	4,185,608	4,287,951	102.4	12.5	2.5	0	0	3,348,486	80.0
2123.2	COMPANY COMM EQUIP	1,719,023	1,586,731	92.3	10.2	4.6	0	0	943,744	54.9
2124	GEN PURPOSE CMPTR	68,171,220	65,345,000	95.9	8.7	1.7	6	5	52,219,155	76.6
2212	DIGITAL SW EQUIP	899,492,511	493,905,660	54.9	11.0	5.2	3	3	459,640,673	51.1
2220	OPERATOR SYSTEMS	1,962,173	100,607	5.1	12.0	3.8	-3	-3	1,381,370	70.4
2231	RADIO SYSTEMS	20,997,530	20,642,508	98.3	17.6	5.0	-1	-2	15,391,189	73.3
2232	CIRCUIT EQUIP									
	CIRCUIT DDS	3,516,888	3,171,205	90.2	10.4	3.4	8	3	2,352,798	66.9
	CIRCUIT DIGITAL	1,084,181,775	657,468,596	60.6	10.7	5.3	2	2	536,669,979	49.5
	CIRCUIT ANALOG	25,342,409	25,674,921	101.3	14.7	2.8	-1	0	20,476,666	80.8
2362	OTHER TERM EQUIP	51,022,353	28,796,299	56.4	11.1	6.5	8	2	22,500,858	44.1
2411	POLE LINES	38,664,356	34,911,771	90.3	35.0	25.0	-86	-138	40,636,238	105.1
2421	AERIAL CABLE MET	145,481,570	152,605,742	104.9	14.5	5.0	-21	-27	124,095,779	85.3
2421	AERIAL CABLE NON MET	6,839,635	3,012,601	44.0	15.0	8.7	-27	-27	3,645,525	53.3
2422	UNDGRD CABLE MET	284,539,853	236,393,171	83.1	19.0	5.6	-6	-6	212,835,810	74.8
2422	UNDGRD CABLE NON MET	133,504,518	66,293,221	49.7	13.4	6.8	-6	-6	69,689,358	52.2
2423	BURIED CABLE MET	1,194,457,308	855,895,237	71.7	13.9	5.4	-7	-7	781,175,079	65.4
2423	BURIED CABLE NON MET	17,321,629	8,542,486	49.3	18.0	8.7	-7	-7	9,578,861	55.3
2424	SUB CABLE MET	1,887	2,294	121.6	22.0	0.5	0	0	1,844	97.7
2424	SUB CABLE NON MET	0	0	0.0	0.0	0.0	0	0	0	0.0
2426	INTRA BLDG CA MET	31,784,356	24,404,951	76.8	21.0	8.1	2	0	19,769,869	62.2
2426	INTRA BLDG NON MET	773,315	473,231	61.2	10.5	6.2	0	0	317,059	41.0
2431	AERIAL WIRE	8,068,659	7,303,094	90.5	11.2	5.3	-25	-30	5,712,611	70.8
2441	CONDUIT SYSTEMS	330,285,891	78,455,729	23.8	57.0	43.0	-20	-20	97,434,338	29.5
	TOTAL	4,600,342,426	2,857,461,209	62.1					2,577,072,261	56.0

DIGITAL SW RESERVE ADJ FOR RESIDUAL ANALOG SW, SXS, & XBR - UCB, BCB, NCB 1925 VINTAGE INVESTMENT EXCLUDED

/18/04
12:51 AM
XREF: 09
PRES: 1997,SF,02
PROP: 2004,SG,02
PRESCRIBED PARAMETERS

COMPANY: QWEST CORPORATION
STATE: ARIZONA
PAGE 1 OF 1

PARAMETER REPORT

PRESCRIBED

CATEGORY	FIRST ELG YEAR	P.L. OR AYFR	AVG. NET SALV.	FUTURE NET SALV.	CURVE SHAPE PARAMETERS C	G	S	COMMENTS
2112 MOTOR VEHICLES			15	16				
2112 PASSENGER CARS	1983	8.6	15.4	16.0	IOWA CURVE	L3.0		
2112 LIGHT TRUCKS	1983	8.6	15.4	16.0	IOWA CURVE	L3.0		
2112 HEAVY TRUCKS	1983	8.6	15.4	16.0	IOWA CURVE	L3.0		
2114 SPEC PURPOSE VEHICLES	0	16.1	0	0	IOWA CURVE	S6.0		
2115 GARAGE WORK EQUIP	0	13.7	-24	-4	IOWA CURVE	L0.0		
2116 OTHER WORK EQUIP	0	11.5	9	7	IOWA CURVE	L4.0		
2121 BUILDINGS			2	-6				
2121 LARGE BUILDINGS	1983	43.0	2.0	-6.0	IOWA CURVE	R1.0		
2121 OTHER BUILDINGS	1983	43.0	2.0	-6.0	IOWA CURVE	R1.0		
2122 FURNITURE	1983	9.5	3	0	IOWA CURVE	O4.0		
2123.1 OFFICE EQUIPMENT	1983	7.0	0	0	IOWA CURVE	L0.5		
2123.2 COMPANY COMM EQUIP			0	0				
2123.2 STAND ALONE	0	8.3	-0.1	0.0	IOWA CURVE	L0.5		
2123.2 PBX & KEY INTRASYSTEMS	0	8.3	-0.1	0.0	IOWA CURVE	L0.5		
2124 GEN PURPOSE CMPTR	1983	5.0	6	5	IOWA CURVE	O1.0		
2212 DIGITAL SW EQUIP	1983	10.0	3	3	IOWA CURVE	O1.0		
2220 OPERATOR SYSTEMS	1983	10.7	-3	-3	IOWA CURVE	S2.0		
31 RADIO SYSTEMS	1983	15.1	-1	-2	IOWA CURVE	S1.5		
2232 CIRCUIT DDS	1983	8.1	8	3	IOWA CURVE	L1.0		
2232 CIRCUIT DIGITAL	1983	10.0	2	2	IOWA CURVE	O2.0		
2232 CIRCUIT ANALOG	1983	8.0	-1	0	IOWA CURVE	L0.0		
2362 OTHER TERM EQUIP	0	6.8	8	2	IOWA CURVE	O3.0		
2411 POLE LINES	1982	46.4	-86	-138	IOWA CURVE	O1.0		
2421 AERIAL CABLE MET	1982	12.0	-21	-27	IOWA CURVE	R1.0		
2421 AERIAL CABLE NON MET	1982	14.5	-27	-27	IOWA CURVE	SQ		
2422 UNDGRD CABLE MET	1982	15.0	-6	-6	IOWA CURVE	R1.5		
2422 UNDGRD CABLE NON MET	1982	13.1	-6	-6	IOWA CURVE	SQ		
2423 BURIED CABLE MET	1982	12.0	-7	-7	IOWA CURVE	L1.5		
2423 BURIED CABLE NON MET	1982	17.6	-7	-7	IOWA CURVE	SQ		
2424 SUB CABLE MET	1982	15.0	0	0	IOWA CURVE	SQ		
2424 SUB CABLE NON MET	1982	9.0	0	0	IOWA CURVE	SQ		
2426 INTRA BLDG CA MET	1982	19.0	2	0	IOWA CURVE	L2.0		
2426 INTRA BLDG CABLE NON MET	1982	11.5	0	0	IOWA CURVE	O1.0		
2431 AERIAL WIRE	0	8.9	-25	-30	IOWA CURVE	L0.0		
2441 CONDUIT SYSTEMS	1982	56.6	-20	-20	IOWA CURVE	SQ		

DIGITAL SW RESERVE ADJ FOR RESIDUAL ANALOG SW, SXS, & XBR - UCB, BCB, NCB 1925 VINTAGE INVESTMENT EXCLUDED

Arizona
T-01051B-03-0454
Dunkel 01-010

INTERVENOR: Dunkel and Associates

REQUEST NO: 010

a. Have the Qwest personnel or Qwest consultants prepared a Depreciation Study or Technical Update, (using either interstate or state depreciation rates) pertaining to or including the Qwest Arizona investments, using data which included data as of 12-31-2001, or later?

b. If the answer to part (a) is yes, list each such Depreciation Study or Technical Update, including the date of the most recent data used in the study.

c. For each Depreciation Study or Technical Update listed in response to part (b), state whether the data shown in that Study or Update included any fitting of curves (either Iowa curves or Gompertz- Makeham) to mortality data (either full or computed).

RESPONSE:

(a) Yes. Qwest personnel prepared Technical Updates on a 12/31/02 and 12/31/03 basis. There have been no full Depreciation Studies prepared for Arizona during 12/31/01 to 12/31/03.

(b) The Technical Update as of 12/31/02 is filed as Exhibit 1 of the Direct Testimony of K. Dennis Wu. The 12/31/03 Technical Update statements are provided as Non-confidential Attachment "A". The 12/31/03 Technical Update does <u>not</u> include the vintage "retirement adjustment" referred to in Qwest's Response to Dunkel Set 1, Data Request No. 1.7. It does include adjustments to the digital switch account for residual reserve amounts from the accounts noted on the Technical Update statements (Non-confidential Attachment "A").

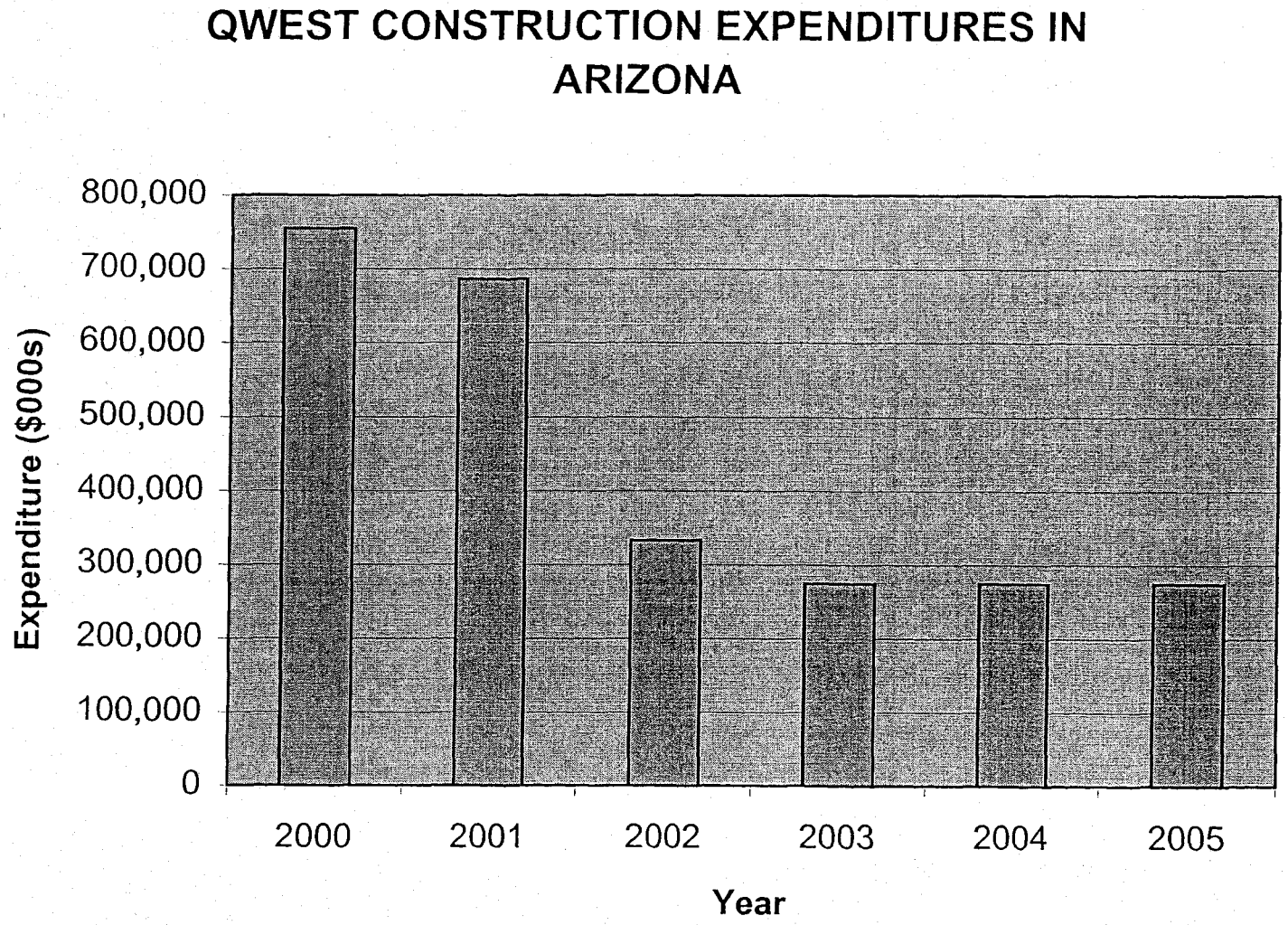
(c) There have been no curve fitting routines performed for either of the Technical Updates referred to in part (b). Qwest utilized Iowa curve shapes currently prescribed by the Arizona Corporation Commission.

Respondent: Jim Jones, Qwest Manager

Summary of Depreciation Adjustments
Intrastate Basis
($000s)

	Change from Qwest Filing in Annual Depreciation Accrual	Change from Qwest Filing in Net Rate Base (see note a)	Source
(1) Staff - Adjustment to End of Test Year Percent Reserve, Calculated on 12/31/03 Investments	-53,310	-66,661	WDA 02-005 and PFA-01
(2) Staff - Adjustment to Update Projection Lives and Future Net Salvage Depreciaiton Parameters	-86,563	0	Schedule WDA-12 and WDA 02-005
(3) Overall Impact of Both Staff Adjustments	-139,873	-66,661	Row (1) + Row (2)

Note:
a. Staff accounting witness will include any income tax impacts.


QWEST CONSTRUCTION EXPENDITURES IN ARIZONA
Expenditure ($000s)
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
2000
2001
2002
2003
2004
2005
Year

REDACTED

QWEST CONSTRUCTION EXPENDITURES IN ARIZONA
($000)

	2000	2001	2002	2003	2004	2005
Publicly Available Construction Expenditure Amount	754,173	685,877	332,556	275,002	275,002	275,002
Source	FCC ARMIS Report 43-02 Table B-6	FCC ARMIS Report 43-02 Table B-6	FCC ARMIS Report 43-02 Table B-6	Schedule F-3 Qwest's R14 Filing	Schedule F-3 Qwest's R14 Filing	Schedule F-3 Qwest's R14 Filing
Confidentially Available Construction Expenditure Amount				275,002	275,002	275,002
Source	Confidential Attachment A to Qwest's Response to RUCO 3-17	Confidential file Entitled "Inputs_1203.xls" Provided by Qwest	Confidential file Entitled "Inputs_1203.xls" Provided by Qwest	Public Schedule F-3 Qwest's R14 Filing	Public Schedule F-3 Qwest's R14 Filing	Public Schedule F-3 Qwest's R14 Filing

Arizona
T-01051B-03-0454
Dunkel 01-005

INTERVENOR: Dunkel and Associates

REQUEST NO: 005

For each depreciable account, provide the Gross Salvage and Cost of Removal data for the years 1983 through 2003. This should be information similar to that provided on "Table A, Annual Retirements, Gross Salvage and Cost of Removal" included in the Qwest Supplement to Application filed November 12, 1997 in the prior Depreciation Case (Docket No T-1051B-97-0689), excepted using the more current data (20 years through 2003). For each year the information should at include, but not necessarily limited to, the plant in service, the plant retired, the gross salvage, and the cost of removal. Provide in electronic format (in the same electronic format as this information is provided to the FCC) on an IBM compatible 3.5" disk or CD and in paper format.

RESPONSE:

See Non-confidential Attachments "A" and "B" for the requested information.

Respondent: Jim Jones, Qwest Manager

06/04/04
09:42 AM
XREF: 09
PRES: 1997,SF,02
PROP: 2004,SA,02

COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: 2423 BURIED CABLE MET
CATEGORY: 2423 BURIED CABLE MET
PAGE 1 OF 1

TABLE A
ANNUAL RETIREMENTS
GROSS SALVAGE AND COST OF REMOVAL

TOTAL RETIREMENTS

YEAR	PLANT IN SERVICE DEC. 31	PLANT RETIRED*	GROSS AMOUNT	SALVAGE* PERCENT	COST OF REMOVAL* AMOUNT	COST OF REMOVAL* PERCENT	NET SALVAGE PERCENT
	A	B	C	D=(C/B) *100	E	F=(E/B) *100	G=(D-F)
1983	341,030,033	1,091,942	269,318	24.7	271,322	24.8	-0.1
1984	453,054,876	2,952,967	252,694	8.6	359,699	12.2	-3.6
1985	515,528,004	3,942,588	391,710	9.9	378,851	9.6	0.3
1986	568,349,007	3,828,198	505,262	13.2	268,159	7.0	6.2
1987	621,495,274	8,526,647	312,824	3.7	350,990	4.1	-0.4
1988	661,399,112	5,205,021	335,453	6.4	475,687	9.1	-2.7
1989	697,118,053	8,571,997	251,777	2.9	528,112	6.2	-3.3
1990	726,997,349	7,912,039	232,275	2.9	630,559	8.0	-5.1
1991	755,505,302	8,371,185	185,734	2.2	542,710	6.5	-4.3
1992	789,491,483	3,725,800	125,320	3.4	526,421	14.1	-10.7
1993	821,220,535	3,335,448	214,946	6.4	417,838	12.5	-6.1
1994	862,860,571	4,482,470	274,889	6.1	462,087	10.3	-4.2
1995	923,074,315	393,716	335,694	85.3	528,989	134.4	-49.1
1996	1,010,068,793	6,564,761	417,460	6.4	686,101	10.5	-4.1
1997	1,096,797,018	5,451,901	1,323,477	24.3	616,741	11.3	13.0
1998	1,161,283,610	5,630,145	-656,088	-11.7	822,731	14.6	-26.3
1999	1,256,424,735	3,437,219	322,711	9.4	2,434,733	70.8	-61.4
2000	1,358,187,361	45,598,074	332,533	0.7	18,271,820	40.1	-39.4
2001	1,490,943,138	6,550,043	1,565,792	23.9	8,569,771	130.8	-106.9
2002	1,603,813,910	5,974,011	276,720	4.6	1,813,299	30.4	-25.8
2003	1,644,110,671	5,131,169	117,459	2.3	992,325	19.3	-17.0
GRAND TOTAL		146,677,341	7,387,960	5.0	39,948,945	27.2	-22.2
1983-2003#		146,677,341	7,387,960	5.0	39,948,945	27.2	-22.2
1994-2003##		89,213,509	4,310,647	4.8	35,198,597	39.5	-34.7

\# REPRESENTS RETIREMENTS FROM SURVIVING VINTAGES.
\## BAND OF LAST 10 ACTIVITY YEARS.
* EXCLUDING SALES & TRANSACTIONS THAT WERE EXCLUDED FROM LIFE DETERMINATION.

Qwest Assumed 44 Times More Retirement than Actually Occurred in Buried Cable Metallic Account

	Amount	Source
Actual Amount Retired in 2003	$5.1 million	Schedule WDA-5
Assumed 2003 Retired Amount in Qwest Calculation	$228 million	Page 3 of this Schedule
Qwest Calculation divided by Actual Retirement in 2003	**44.7**	

Company: Qwest - Arizona
Account: 2423 Buried Cable Metallic

Avg Life: 12.0
Iowa Curve: L1.5

Retirement Amount Projected by Curve

	Vintage	Age	1/1/03 Amount Surviving	Percent Retired During Year based on Curve	Qwest Projected Retirement Amount in 2003
	A	B	C	D	E = C*D
*	2002	0.5	67,153,436	0.63%	421,008
*	2001	1.5	104,985,190	1.30%	1,366,650
*	2000	2.5	138,272,697	2.19%	3,031,834
*	1999	3.5	103,905,174	3.23%	3,359,513
*	1998	4.5	88,168,309	4.55%	4,010,533
*	1997	5.5	94,242,748	6.16%	5,803,124
*	1996	6.5	92,591,577	7.77%	7,193,203
*	1995	7.5	70,944,467	9.20%	6,527,601
*	1994	8.5	44,929,447	10.47%	4,702,139
*	1993	9.5	33,970,174	11.54%	3,919,454
*	1992	10.5	36,489,077	12.44%	4,540,760
*	1991	11.5	35,183,412	13.24%	4,657,605
*	1990	12.5	34,823,081	13.99%	4,870,853
*	1989	13.5	41,594,703	14.77%	6,143,982
*	1988	14.5	48,007,424	15.63%	7,504,609
*	1987	15.5	58,944,952	16.62%	9,793,973
*	1986	16.5	52,207,748	17.74%	9,263,712
*	1985	17.5	60,864,325	19.00%	11,561,467
*	1984	18.5	54,321,832	20.39%	11,076,988
*	1983	19.5	38,943,562	21.91%	8,532,715
*	1982	20.5	50,962,708	23.56%	12,006,120
	1981	21.5	21,558,966	25.34%	5,462,723
	1980	22.5	20,371,825	27.28%	5,557,187
	1979	23.5	19,908,568	29.38%	5,848,220
	1978	24.5	17,984,499	31.65%	5,692,131
	1977	25.5	12,237,868	34.16%	4,179,996
	1976	26.5	8,702,672	36.85%	3,207,077
	1975	27.5	7,420,084	39.78%	2,951,697
	1974	28.5	13,585,162	42.98%	5,839,175
	1973	29.5	22,934,853	46.41%	10,644,570
	1972	30.5	12,670,377	50.18%	6,357,697
	1971	31.5	12,420,541	54.56%	6,776,561
	1970	32.5	12,403,581	59.95%	7,435,376

Company: Qwest - Arizona
Account: 2423 Buried Cable Metallic

Avg Life: 12.0
Iowa Curve L1.5

Retirement Amount Projected by Curve

Vintage	Age	1/1/03 Amount Surviving	Percent Retired During Year based on Curve	Qwest Projected Retirement Amount in 2003
A	B	C	D	E = C*D
1969	33.5	7,980,942	66.95%	5,343,177
1968	34.5	4,191,031	75.67%	3,171,309
1967	35.5	3,380,570	100.00%	3,380,570
1966	36.5	3,423,840	100.00%	3,423,840
1965	37.5	2,081,092	100.00%	2,081,092
1964	38.5	2,782,549	100.00%	2,782,549
1963	39.5	2,582,261	100.00%	2,582,261
1962	40.5	1,499,420	100.00%	1,499,420
1961	41.5	1,110,473	100.00%	1,110,473
1960	42.5	859,272	100.00%	859,272
1959	43.5	301,454	100.00%	301,454
1958	44.5	195,393	100.00%	195,393
1957	45.5	235,269	100.00%	235,269
1956	46.5	462,193	100.00%	462,193
1955	47.5	169,497	100.00%	169,497
1954	48.5	270,590	100.00%	270,590
1953	49.5	60,690	100.00%	60,690
1952	50.5	91,618	100.00%	91,618
1951	51.5	4,543	100.00%	4,543
1950	52.5	2,476	100.00%	2,476
1949	53.5	13,427	100.00%	13,427
1948	54.5	3,193	100.00%	3,193
1947	55.5	427	100.00%	427
1946	56.5	1,455	100.00%	1,455
1945	57.5	1,320	100.00%	1,320
1944	58.5	0	100.00%	0
1943	59.5	0	100.00%	0
1942	60.5	364	100.00%	364
1941	61.5	78,315	100.00%	78,315
1940	62.5	2,371	100.00%	2,371
1939	63.5	0	100.00%	0
1938	64.5	1,640	100.00%	1,640
1937	65.5	230	100.00%	230
1936	66.5	5,024	100.00%	5,024
1935	67.5	0	100.00%	0
1934	68.5	0	100.00%	0
1933	69.5	0	100.00%	0
1932	70.5	0	100.00%	0
1931	71.5	93	100.00%	93
1930	72.5	2,314	100.00%	2,314
Total		1,565,500,385	14.59%	228,378,109

Source:
Qwest Response to WDA 2-25

Arizona
T-01051B-03-0454 and T-00000D-00-0672
WDA 16-006

INTERVENOR: William W. Dunkel and Associates

REQUEST NO: 006

Regarding the "generation arrangement" as of 1/1/2003 for buried cable metallic (account 2423) provided by Qwest as part of "Attachment A" in response to WDA 02-025:

(a) For 1956, the "remaining life years" shown is "0.50". Is it correct that indicates that for purposes of this calculation, all the surviving investments on that line were calculated as retiring during the year 2003? If this is not a correct statement, provide the corrected statement, and the supporting calculations.

(b) The "projection life table" for buried cable metallic (account 2423) provided by Qwest as part of "Attachment A" in response to WDA 02-025 for the age "19.5" shows $2,508 retiring out of $11,444 (surviving at the start of the year). Is it correct that indicates that for purposes of this calculation, 21.9% of all the surviving investments which is age 19.5 (at the start of the year) is considered as retiring during the year 2003? If this is not a correct statement, provide the corrected statement, and the supporting calculations.

RESPONSE:

Objection. This request is not reasonably calculated to lead to the discovery of admissible evidence concerning issues related to the modification, renewal or termination of the Price Cap Plan. Therefore, this request is overly broad and unduly burdensome because it seeks information beyond the scope of this proceeding. Without waiving this objection, Qwest provides the following response:

(a) 0.50 represents the average remaining life in years for vintage 1956 investment as of 1/1/2003. "For the purposes of this calculation", the surviving vintage 1956 investment dollars are essentially retired during the year 2003.

(b) "For the purposes of this calculation", yes.

Respondent: Dennis Wu

Arizona
T-01051B-03-0454
WDA 02-025

INTERVENOR: William W. Dunkel and Associates

REQUEST NO: 025

Column E of Exhibit KDW-1 shows remaining life years. Provide the workpapers showing the calculation of each of the remaining life figures in that column.

RESPONSE:

Please see Non-Confidential Attachment A.

Respondent: Dennis Wu

06/18/04
01:36 PM
XREF: 09
PRES: 1997,SF,02
PROP: 2003,SJ,02

COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: 2423 BURIED CABLE MET
CATEGORY: 2423 BURIED CABLE MET
TABLE 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2003% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAINING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F+++	G=B/F	H=E*G
*2002	0.5	67,153,436	0.9982	0.50	8.19	8.69	7,727,540	63,289,666
*2001	1.5	104,985,190	0.9887	1.49	7.63	9.13	11,494,826	87,742,951
*2000	2.5	138,272,697	0.9875	2.48	7.08	9.58	14,427,296	102,204,456
*1999	3.5	103,905,174	0.9690	3.44	6.58	10.08	10,308,001	67,827,169
*1998	4.5	88,168,309	0.9802	4.45	6.12	10.62	8,302,580	50,806,698
*1997	5.5	94,242,748	0.9921	5.48	5.72	11.22	8,399,286	48,046,674
*1996	6.5	92,591,577	0.9893	6.46	5.40	11.90	7,781,012	42,015,001
*1995	7.5	70,994,467	0.9881	7.46	5.15	12.65	5,614,332	28,886,976
*1994	8.5	44,929,447	0.9807	8.42	4.94	13.44	3,344,015	16,505,316
*1993	9.5	33,970,174	0.9807	9.40	4.76	14.26	2,382,678	11,334,730
*1992	10.5	36,489,077	0.9822	10.43	4.60	15.10	2,417,247	11,107,986
*1991	11.5	35,183,412	0.9712	11.35	4.44	15.94	2,207,422	9,798,064
*1990	12.5	34,823,081	0.9620	12.26	4.28	16.78	2,075,398	8,880,602
*1989	13.5	41,594,703	0.9673	13.29	4.11	17.61	2,361,789	9,710,557
*1988	14.5	48,007,424	0.9617	14.24	3.94	18.44	2,604,039	10,248,863
*1987	15.5	58,944,952	0.9462	15.16	3.75	19.25	3,061,623	11,489,797
*1986	16.5	52,207,748	0.9517	16.20	3.57	20.07	2,601,837	9,277,430
*1985	17.5	60,864,325	0.4319	15.68	3.38	20.88	2,915,251	9,847,436
*1984	18.5	54,321,832	0.9214	17.73	3.19	21.69	2,504,330	7,991,718
*1983	19.5	38,943,562	0.9309	18.86	3.01	22.51	1,730,229	5,204,099
*1982	20.5	50,962,708	0.9315	19.86	2.83	23.33	2,184,561	6,179,210
1981	21.5	21,558,966	0.9277	20.61	2.86	23.26	926,763	2,647,738
1980	22.5	20,371,825	0.9053	21.32	2.66	23.73	858,571	2,280,923
1979	23.5	19,908,568	0.9215	22.52	2.47	24.80	802,888	1,979,728
1978	24.5	17,984,499	0.9167	23.47	2.28	25.56	703,654	1,606,942
1977	25.5	12,237,868	0.8777	23.97	2.11	25.83	473,866	999,494
1976	26.5	8,702,672	0.8792	24.88	1.94	26.59	327,257	636,487
1975	27.5	7,420,084	0.7384	24.49	1.79	25.81	287,504	513,537
1974	28.5	13,585,162	0.7903	25.73	1.64	27.02	502,742	822,490
1973	29.5	22,934,853	0.7478	26.33	1.49	27.45	835,565	1,245,188
1972	30.5	12,670,377	0.6567	27.06	1.35	27.94	453,435	611,284
1971	31.5	12,420,541	0.6729	27.12	1.21	27.93	444,694	538,428
1970	32.5	12,403,581	0.6770	27.66	1.08	28.39	436,880	470,121
1969	33.5	7,980,942	0.5904	27.89	0.89	28.42	280,815	251,256
1968	34.5	4,191,031	0.6088	28.44	0.75	28.89	145,054	108,790
1967	35.5	3,380,570	0.6031	28.91	0.50	29.21	115,744	57,872
1966	36.5	3,423,840	0.6174	30.72	0.50	31.03	110,333	55,166
1965	37.5	2,081,092	0.6167	31.51	0.50	31.81	65,413	32,706
1964	38.5	2,782,549	0.6268	31.43	0.50	31.74	87,664	43,832
1963	39.5	2,582,261	0.5897	32.15	0.50	32.45	79,581	39,790
1962	40.5	1,499,420	0.5805	32.96	0.50	33.25	45,093	22,547
1961	41.5	1,110,473	0.4754	32.69	0.50	32.92	33,729	16,864
1960	42.5	859,272	0.3778	29.86	0.50	30.05	28,595	14,298
1959	43.5	301,454	0.4089	31.16	0.50	31.37	9,611	4,805
1958	44.5	195,393	0.2838	29.43	0.50	29.58	6,606	3,303
1957	45.5	235,269	0.2103	26.55	0.50	26.65	8,827	4,414
1956	46.5	462,193	0.2050	25.92	0.50	26.02	17,764	8,882
1955	47.5	169,497	0.1687	25.20	0.50	25.28	6,705	3,352
1954	48.5	270,590	0.1526	29.42	0.50	29.50	9,173	4,586
1953	49.5	60,690	0.0769	26.76	0.50	26.80	2,265	1,132
1952	50.5	91,618	0.2333	32.71	0.50	32.83	2,791	1,395
1951	51.5	4,543	0.0410	26.48	0.50	26.50	171	86

06/18/04
01:36 PM
XREF: 09
PRES: 1997,SF,02
PROP: 2003,SJ,02

COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: 2423 BURIED CABLE MET
CATEGORY: 2423 BURIED CABLE MET
TABLE 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2003% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAINING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F+++	G=B/F	H=E*G
1950	52.5	2,476	0.0124	23.88	0.50	23.89	104	52
1949	53.5	13,427	0.0847	23.97	0.50	24.01	559	280
1948	54.5	3,193	0.2004	28.43	0.50	28.53	112	56
1947	55.5	427	0.0044	35.49	0.50	35.49	12	6
1946	56.5	1,455	0.0988	36.23	0.50	36.28	40	20
1945	57.5	1,320	0.1437	36.59	0.50	36.66	36	18
1944	58.5	0	0.0000	0.00				
1943	59.5	0	0.0000	0.00				
1942	60.5	364	0.1661	36.77	0.50	36.86	10	5
1941	61.5	78,315	0.1852	36.95	0.50	37.04	2,114	1,057
1940	62.5	2,371	0.0682	32.25	0.50	32.29	73	37
1939	63.5	0	0.0000	0.00				
1938	64.5	1,640	0.2709	36.42	0.50	36.56	45	22
1937	65.5	230	0.0041	28.74	0.50	28.74	8	4
1936	66.5	5,024	0.0240	32.29	0.50	32.30	156	78
1935	67.5	0	0.0000	0.00				
1934	68.5	0	0.0000	0.00				
1933	69.5	0	0.0000	0.00				
1932	70.5	0	0.0000	0.00				
1931	71.5	93	0.0851	26.76	0.50	26.80	3	2
1930	72.5	2,314	0.1157	23.98	0.50	24.04	96	48
TOTAL		1,565,550,385					114,558,413	633,424,521
NON-ELG V		213,994,342					8,113,120	15,029,122
ELG V		1,351,556,043					106,445,293	618,395,399

	ALL VINTS	NELG VINTS	ELG VINTS
AVG SERVICE LIFE:			
TOT B/TOT G	13.66596	26.37633	12.69719
AVG REMAINING LIFE:	ALL VINTS	NELG VINTS	ELG VINTS
TOT H/TOT G	5.52927	1.85245	5.80951

COMPUTED GROSS ADDS-ALL VINTS: SUM OF (B/C) 1,753,449,939
AVG PROPORTION SURVIVING: B/ SUM OF (B/C) 0.89284

USING IOWA CURVE: L1.5
* ELG VINTAGES, PROJECTION LIFE 12.0
++ FROM TABLE 2-VG/ELG; COL H FOR ELG, COL I FOR VG
+++ FROM TABLE 2-VG/ELG FOR ELG VINTAGES, COMPUTED AS D+(C*E) FOR VG VINTAGES
% ACTUAL

06/18/04
01:36 PM
XREF: 09
PRES: 1997,SF,02
PROP: 2003,SJ,02

COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: 2423 BURIED CABLE MET
CATEGORY: 2423 BURIED CABLE MET
TABLE 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2003% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAINING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F+++	G=B/F	H=E*G
*2002	0.5	67,153,436	0.9982	0.50	8.19	8.69	7,727,540	63,289,666
*2001	1.5	104,985,190	0.9887	1.49	7.63	9.13	11,494,826	87,742,951
*2000	2.5	138,272,697	0.9875	2.48	7.08	9.58	14,427,296	102,204,456
*1999	3.5	103,905,174	0.9690	3.44	6.58	10.08	10,308,001	67,827,169
*1998	4.5	88,168,309	0.9802	4.45	6.12	10.62	8,302,580	50,806,698
*1997	5.5	94,242,748	0.9921	5.48	5.72	11.22	8,399,286	48,046,674
*1996	6.5	92,591,577	0.9893	6.46	5.40	11.90	7,781,012	42,015,001
*1995	7.5	70,994,467	0.9881	7.46	5.15	12.65	5,614,332	28,886,976
*1994	8.5	44,929,447	0.9807	8.42	4.94	13.44	3,344,015	16,505,316
*1993	9.5	33,970,174	0.9807	9.40	4.76	14.26	2,382,678	11,334,730
*1992	10.5	36,489,077	0.9822	10.43	4.60	15.10	2,417,247	11,107,986
*1991	11.5	35,183,412	0.9712	11.35	4.44	15.94	2,207,422	9,798,064
*1990	12.5	34,823,081	0.9620	12.26	4.28	16.78	2,075,398	8,880,602
*1989	13.5	41,594,703	0.9673	13.29	4.11	17.61	2,361,789	9,710,557
*1988	14.5	48,007,424	0.9617	14.24	3.94	18.44	2,604,039	10,248,863
*1987	15.5	58,944,952	0.9462	15.16	3.75	19.25	3,061,623	11,489,797
*1986	16.5	52,207,748	0.9517	16.20	3.57	20.07	2,601,837	9,277,430
*1985	17.5	60,864,325	0.4319	15.68	3.38	20.88	2,915,251	9,847,436
*1984	18.5	54,321,832	0.9214	17.73	3.19	21.69	2,504,330	7,991,718
*1983	19.5	38,943,562	0.9309	18.86	3.01	22.51	1,730,229	5,204,099
*1982	20.5	50,962,708	0.9315	19.86	2.83	23.33	2,184,561	6,179,210
1981	21.5	21,558,966	0.9277	20.61	2.86	23.26	926,763	2,647,738
1980	22.5	20,371,825	0.9053	21.32	2.66	23.73	858,571	2,280,923
1979	23.5	19,908,568	0.9215	22.52	2.47	24.80	802,888	1,979,728
1978	24.5	17,984,499	0.9167	23.47	2.28	25.56	703,654	1,606,942
1977	25.5	12,237,868	0.8777	23.97	2.11	25.83	473,866	999,494
1976	26.5	8,702,672	0.8792	24.88	1.94	26.59	327,257	636,487
1975	27.5	7,420,084	0.7384	24.49	1.79	25.81	287,504	513,537
1974	28.5	13,585,162	0.7903	25.73	1.64	27.02	502,742	822,490
1973	29.5	22,934,853	0.7478	26.33	1.49	27.45	835,565	1,245,188
1972	30.5	12,670,377	0.6567	27.06	1.35	27.94	453,435	611,284
1971	31.5	12,420,541	0.6729	27.12	1.21	27.93	444,694	538,428
1970	32.5	12,403,581	0.6770	27.66	1.08	28.39	436,880	470,121
1969	33.5	7,980,942	0.5904	27.89	0.89	28.42	280,815	251,256
1968	34.5	4,191,031	0.6088	28.44	0.75	28.89	145,054	108,790
1967	35.5	3,380,570	0.6031	28.91	0.50	29.21	115,744	57,872
1966	36.5	3,423,840	0.6174	30.72	0.50	31.03	110,333	55,166
1965	37.5	2,081,092	0.6167	31.51	0.50	31.81	65,413	32,706
1964	38.5	2,782,549	0.6268	31.43	0.50	31.74	87,664	43,832
1963	39.5	2,582,261	0.5897	32.15	0.50	32.45	79,581	39,790
1962	40.5	1,499,420	0.5805	32.96	0.50	33.25	45,093	22,547
1961	41.5	1,110,473	0.4754	32.69	0.50	32.92	33,729	16,864
1960	42.5	859,272	0.3778	29.86	0.50	30.05	28,595	14,298
1959	43.5	301,454	0.4089	31.16	0.50	31.37	9,611	4,805
1958	44.5	195,393	0.2838	29.43	0.50	29.58	6,606	3,303
1957	45.5	235,269	0.2103	26.55	0.50	26.65	8,827	4,414
1956	46.5	462,193	0.2050	25.92	0.50	26.02	17,764	8,882
1955	47.5	169,497	0.1687	25.20	0.50	25.28	6,705	3,352
1954	48.5	270,590	0.1526	29.42	0.50	29.50	9,173	4,586
1953	49.5	60,690	0.0769	26.76	0.50	26.80	2,265	1,132
1952	50.5	91,618	0.2333	32.71	0.50	32.83	2,791	1,395
1951	51.5	4,543	0.0410	26.48	0.50	26.50	171	86

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COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: 2423 BURIED CABLE MET
CATEGORY: 2423 BURIED CABLE MET
TABLE 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2003% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAINING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F+++	G=B/F	H=E*G
1950	52.5	2,476	0.0124	23.88	0.50	23.89	104	52
1949	53.5	13,427	0.0847	23.97	0.50	24.01	559	280
1948	54.5	3,193	0.2004	28.43	0.50	28.53	112	56
1947	55.5	427	0.0044	35.49	0.50	35.49	12	6
1946	56.5	1,455	0.0988	36.23	0.50	36.28	40	20
1945	57.5	1,320	0.1437	36.59	0.50	36.66	36	18
1944	58.5	0	0.0000	0.00				
1943	59.5	0	0.0000	0.00				
1942	60.5	364	0.1661	36.77	0.50	36.86	10	5
1941	61.5	78,315	0.1852	36.95	0.50	37.04	2,114	1,057
1940	62.5	2,371	0.0682	32.25	0.50	32.29	73	37
1939	63.5	0	0.0000	0.00				
1938	64.5	1,640	0.2709	36.42	0.50	36.56	45	22
1937	65.5	230	0.0041	28.74	0.50	28.74	8	4
1936	66.5	5,024	0.0240	32.29	0.50	32.30	156	78
1935	67.5	0	0.0000	0.00				
1934	68.5	0	0.0000	0.00				
1933	69.5	0	0.0000	0.00				
1932	70.5	0	0.0000	0.00				
1931	71.5	93	0.0851	26.76	0.50	26.80	3	2
1930	72.5	2,314	0.1157	23.98	0.50	24.04	96	48
TOTAL		1,565,550,385					114,558,413	633,424,521
NON-ELG V		213,994,342					8,113,120	15,029,122
ELG V		1,351,556,043					106,445,293	618,395,399

	ALL VINTS	NELG VINTS	ELG VINTS
AVG SERVICE LIFE:			
TOT B/TOT G	13.66596	26.37633	12.69719
AVG REMAINING LIFE:	ALL VINTS	NELG VINTS	ELG VINTS
TOT H/TOT G	5.52927	1.85245	5.80951

COMPUTED GROSS ADDS-ALL VINTS: SUM OF (B/C) 1,753,449,939
AVG PROPORTION SURVIVING: B/ SUM OF (B/C) 0.89284

USING IOWA CURVE: L1.5
* ELG VINTAGES, PROJECTION LIFE 12.0
++ FROM TABLE 2-VG/ELG; COL H FOR ELG, COL I FOR VG
+++ FROM TABLE 2-VG/ELG FOR ELG VINTAGES, COMPUTED AS D+(C*E) FOR VG VINTAGES
% ACTUAL

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XREF: 09
PRES: 1997,SF,02
PROP: 2003,SJ,02

COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: 2423 BURIED CABLE MET
CATEGORY: 2423 BURIED CABLE MET
TABLE 2-VG/ELG

PROJECTION LIFE TABLE
AVERAGE SERVICE LIFE AND REMAINING LIFE BY AGE

PROJECTION LIFE TABLE PARAMETERS AVG LIFE 12.00

USING IOWA CURVE: L1.5

BEGINNING OF YEAR		AMOUNT		ANNUAL ACCRUALS FOR BOY AGE A		ELG	ELG	VG
AGE	AMOUNT IN SERVICE	RETIRED DURING YEAR (LIFE GROUP)	AGE OF AMOUNT RETIRED	EACH LIFE GROUP	FOR ALL REMAINING GROUPS	AVG. SERVICE LIFE	AVG. REMAINING LIFE	VINT REMAIN. LIFE
A	B	C=B-next B	D	E=C/D	F*	G=B/F	H=G-A	I#
0.0	100,000	149	0.5	298	11,788	8.48	8.48	12.00
0.5	99,851	626	1.0	626	11,490	8.69	8.19	11.52
1.5	99,225	1,292	2.0	646	10,864	9.13	7.63	10.59
2.5	97,933	2,147	3.0	716	10,218	9.58	7.08	9.72
3.5	95,786	3,097	4.0	774	9,503	10.08	6.58	8.93
4.5	92,689	4,216	5.0	843	8,728	10.62	6.12	8.21
5.5	88,473	5,448	6.0	908	7,885	11.22	5.72	7.58
6.5	83,025	6,450	7.0	921	6,977	11.90	5.40	7.04
7.5	76,575	7,046	8.0	881	6,056	12.65	5.15	6.59
8.5	69,529	7,277	9.0	809	5,175	13.44	4.94	6.21
9.5	62,253	7,183	10.0	718	4,366	14.26	4.76	5.88
10.5	55,070	6,853	11.0	623	3,648	15.10	4.60	5.58
11.5	48,217	6,383	12.0	532	3,025	15.94	4.44	5.30
12.5	41,834	5,852	13.0	450	2,493	16.78	4.28	5.03
13.5	35,982	5,315	14.0	380	2,043	17.61	4.11	4.77
14.5	30,668	4,794	15.0	320	1,663	18.44	3.94	4.51
15.5	25,874	4,299	16.0	269	1,344	19.25	3.75	4.25
16.5	21,574	3,828	17.0	225	1,075	20.07	3.57	4.00
17.5	17,746	3,371	18.0	187	850	20.88	3.38	3.75
18.5	14,375	2,931	19.0	154	663	21.69	3.19	3.51
19.5	11,444	2,508	20.0	125	508	22.51	3.01	3.28
20.5	8,936	2,105	21.0	100	383	23.33	2.83	3.07
21.5	6,831	1,731	22.0	79	283	24.15	2.65	2.86
22.5	5,100	1,392	23.0	61	204	24.98	2.48	2.66
23.5	3,709	1,090	24.0	45	144	25.82	2.32	2.47
24.5	2,619	829	25.0	33	98	26.66	2.16	2.28
25.5	1,790	612	26.0	24	65	27.51	2.01	2.11
26.5	1,178	434	27.0	16	42	28.36	1.86	1.94
27.5	745	296	28.0	11	25	29.22	1.72	1.79
28.5	448	193	29.0	7	15	30.08	1.58	1.64
29.5	256	119	30.0	4	8	30.94	1.44	1.49
30.5	137	69	31.0	2	4	31.81	1.31	1.35
31.5	68	37	32.0	1	2	32.68	1.18	1.21
32.5	31	18	33.0	1	1	33.56	1.06	1.08
33.5	13	9	34.0	0	0	34.38	0.88	0.89

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XREF: 09
PRES: 1997,SF,02
PROP: 2003,SJ,02

COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: 2423 BURIED CABLE MET
CATEGORY: 2423 BURIED CABLE MET
TABLE 2-VG/ELG

PROJECTION LIFE TABLE
AVERAGE SERVICE LIFE AND REMAINING LIFE BY AGE

PROJECTION LIFE TABLE PARAMETERS AVG LIFE 12.00

USING IOWA CURVE: L1.5

BEGINNING OF YEAR AGE	AMOUNT IN SERVICE	AMOUNT RETIRED DURING YEAR (LIFE GROUP)	AGE OF AMOUNT RETIRED	ANNUAL ACCRUALS FOR BOY AGE A EACH LIFE GROUP	ANNUAL ACCRUALS FOR BOY AGE A FOR ALL REMAINING GROUPS	ELG AVG. SERVICE LIFE	ELG AVG. REMAINING LIFE	VG VINT REMAIN. LIFE
A	B	C=B-next B	D	E=C/D	F*	G=B/F	H=G-A	I#
34.5	4	3	35.0	0	0	35.24	0.74	0.75
35.5	1	1	36.0	0	0	36.00	0.50	0.50
TOTAL		100,000						

* F(AGE A) = SUM OF COL E AGE A TO END
\# I = 0.5 + ((SUM OF COL B FROM AGE A+1 THROUGH END)/(COL B AT AGE A))

Arizona
T-01051B-03-0454
Dunkel 01-001S2

INTERVENOR: Dunkel and Associates

REQUEST NO: 001S2

Please provide each of the following on a state basis for each depreciable account:

a. Separately for each depreciable account please provide the complete Generations Arrangements, using data through December 31, 2003. In addition to the paper copy, please also provide this requested information in electronic format (in the same electronic format as depreciation information is provided to the FCC) on an IBM compatible 3.5" disk or CD. (Note, page 2 of Qwest Exhibit NHH-2 indicates the Generation Arrangements with cost data as of December 31, 2003 exist.) In the electronic copy, the information for earlier years should not all be combined, if the separate vintage information is available (for example-not "1971 and prior years").

b. The Generation Arrangements provided should include all information normally included, similar to (but with data through 12-31-2003) the Generation Arrangements included in the Qwest Supplement to Application filed November 12, 1997 in the prior Depreciation Case (Docket No T-1051B-97-0689). The data should include, but is not necessarily limited to, the "Amount Surviving", the "Proportion Surviving", and the "Realized Life" for each vintage.

c. The dividing point between the vintages treated as ELG (Equal Life Group) and those treated as VG (Vintage Group) should be the same dividing point as it is for that account in the Generation Arrangement used in the Commission approved calculations of depreciation in the prior Depreciation Case (Docket No T-1051B-97-0689). (For example in the Buried Cable Metallic account, VG for the year 1981 and prior, but ELG for the year 1982 and after.)

RESPONSE:

a. See Non-confidential Attachments "A" and "B" for the requested information;

b. See also Non-confidential Attachments "A" and "B" for the requested information;

c. See also Non-confidential Attachments "A" and "B" for the requested information;

Respondent: Jim Jones, Qwest Manager

06/04/04
09:03 AM
XREF: 09
PRES: 1997.SF.02
PROP: 2004.SA.02

COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: 2423 BURIED CABLE MET
CATEGORY: 2423 BURIED CABLE MET
TABLE 1-VG/ELG

GENERATION ARRANGEMENT
DEVELOPMENT OF AVERAGE REMAINING LIFE AND AVERAGE SERVICE LIFE

VINT AGE	AGE	EXPERIENCE AS OF 1-1-2004% AMOUNT SURVIVING	PROP SURV	REAL LIFE	REMAINING LIFE YEARS	VINT AVG LIFE YEARS	AVERAGE LIFE WEIGHTS	REMAINING LIFE WEIGHTS
N	A	B	C	D	E++	F+++	G=B/F	H=E*G
*2003	0.5	63,550,598	0.9997	0.50	8.19	8.69	7,312,951	59,894,123
*2002	1.5	68,916,847	0.9879	1.49	7.63	9.13	7,545,704	57,598,291
*2001	2.5	119,473,541	0.9849	2.47	7.08	9.58	12,465,803	88,309,034
*2000	3.5	141,529,013	0.9832	3.47	6.58	10.08	14,040,506	92,387,240
*1999	4.5	102,216,637	0.9634	4.41	6.12	10.62	9,625,475	58,902,001
*1998	5.5	86,892,236	0.9781	5.44	5.72	11.22	7,744,179	44,299,249
*1997	6.5	92,883,712	0.9912	6.47	5.40	11.90	7,805,562	42,147,562
*1996	7.5	91,141,285	0.9875	7.45	5.15	12.65	7,207,568	37,084,525
*1995	8.5	69,927,991	0.9868	8.45	4.94	13.44	5,204,611	25,688,800
*1994	9.5	44,263,132	0.9795	9.40	4.76	14.26	3,104,629	14,769,152
*1993	10.5	33,488,287	0.9800	10.38	4.60	15.10	2,218,457	10,194,487
*1992	11.5	35,981,118	0.9816	11.41	4.44	15.94	2,257,470	10,020,213
*1991	12.5	34,697,266	0.9707	12.32	4.28	16.78	2,067,900	8,848,517
*1990	13.5	34,346,643	0.9616	13.22	4.11	17.61	1,950,237	8,018,449
*1989	14.5	40,979,775	0.9662	14.25	3.94	18.44	2,222,842	8,748,566
*1988	15.5	47,281,737	0.9603	15.20	3.75	19.25	2,455,831	9,216,354
*1987	16.5	57,779,416	0.9417	16.10	3.57	20.07	2,879,508	10,267,527
*1986	17.5	51,397,405	0.9501	17.15	3.38	20.88	2,461,809	8,315,752
*1985	18.5	59,990,601	0.4315	16.11	3.19	21.69	2,765,671	8,825,696
*1984	19.5	53,499,362	0.9200	18.65	3.01	22.51	2,376,930	7,149,217
*1983	20.5	38,354,000	0.9296	19.79	2.83	23.33	1,644,078	4,650,409
*1982	21.5	50,176,909	0.9300	20.79	2.65	24.15	2,077,371	5,513,441
1981	22.5	21,061,546	0.9212	21.54	2.66	23.98	878,151	2,332,941
1980	23.5	20,006,214	0.9022	22.23	2.47	24.45	818,219	2,017,531
1979	24.5	19,527,131	0.9175	23.44	2.28	25.54	764,601	1,746,128
1978/PRIOR		164,748,269	0.5066	26.38	1.23	27.31	6,032,162	7,400,469
TOTAL		1,644,110,671					117,928,224	634,345,674
NON-ELG V		225,343,160					8,493,133	13,497,069
ELG V		1,418,767,511					109,435,091	620,848,606

	ALL VINTS	NELG VINTS	ELG VINTS
AVG SERVICE LIFE: TOT B/TOT G	13.94162	26.53240	12.96447
AVG REMAINING LIFE: TOT H/TOT G	5.37908	1.58917	5.67321

COMPUTED GROSS ADDS-ALL VINTS: SUM OF (B/C) 1,928,901,066
AVG PROPORTION SURVIVING: B/ SUM OF (B/C) 0.85236

USING IOWA CURVE: L1.5
* ELG VINTAGES, PROJECTION LIFE 12.0
++ FROM TABLE 2-VG/ELG; COL H FOR ELG, COL I FOR VG
+++ FROM TABLE 2-VG/ELG FOR ELG VINTAGES, COMPUTED AS D+(C*E) FOR VG VINTAGES
% ACTUAL

Company: Qwest - Arizona
Account: 2423 Buried Cable Metallic

Generation Arrangement

		Experience to 1/1/2004		
Vintage	Age	Amount Surviving	Proportion Surviving	Realized Life
A	B	C	D	E
2003	0.5	63,550,598	0.9997	0.50
2002	1.5	68,916,847	0.9879	1.49
2001	2.5	119,473,541	0.9849	2.47
2000	3.5	141,529,013	0.9832	3.47
1999	4.5	102,216,637	0.9634	4.41
1998	5.5	86,892,236	0.9781	5.44
1997	6.5	92,883,712	0.9912	6.47
1996	7.5	91,141,285	0.9875	7.45
1995	8.5	69,927,991	0.9868	8.45
1994	9.5	44,263,132	0.9795	9.40
1993	10.5	33,488,287	0.9800	10.38
1992	11.5	35,981,118	0.9816	11.41
1991	12.5	34,697,266	0.9707	12.32
1990	13.5	34,346,643	0.9616	13.22
1989	14.5	40,979,775	0.9662	14.25
1988	15.5	47,281,737	0.9603	15.20
1987	16.5	57,779,416	0.9417	16.10
1986	17.5	51,397,405	0.9501	17.15
1985	18.5	59,990,601	0.4315	16.11
1984	19.5	53,499,362	0.9200	18.65
1983	20.5	38,354,000	0.9296	19.79
1982	21.5	50,176,909	0.9300	20.79
1981	22.5	21,061,546	0.9212	21.54
1980	23.5	20,006,214	0.9022	22.23
1979	24.5	19,527,131	0.9175	23.44
1978	25.5	17,663,610	0.9136	24.38
1977	26.5	11,938,044	0.8707	24.85
1976	27.5	8,522,878	0.8745	25.76
1975	28.5	7,285,589	0.7358	25.23
1974	29.5	13,335,239	0.7874	26.52
1973	30.5	22,447,435	0.7435	27.08
1972	31.5	12,266,613	0.6481	27.71
1971	32.5	12,159,835	0.6692	27.79
1970	33.5	12,104,735	0.6718	28.34
1969	34.5	7,867,593	0.5899	28.48
1968	35.5	4,092,856	0.6044	29.04
1967	36.5	3,304,809	0.5992	29.51
1966	37.5	3,348,121	0.6135	31.34
1965	38.5	2,036,749	0.6131	32.12
1964	39.5	2,717,453	0.6223	32.05
1963	40.5	2,538,316	0.5881	32.74
1962	41.5	1,471,783	0.5783	33.54
1961	42.5	1,084,117	0.4718	33.16
1960	43.5	823,545	0.3702	30.23
1959	44.5	289,326	0.4011	31.57
1958	45.5	184,169	0.2750	29.71
1957	46.5	224,482	0.2054	26.75
1956	47.5	449,632	0.2030	26.12
1955	48.5	156,131	0.1609	25.36

Company: Qwest - Arizona
Account: 2423 Buried Cable Metallic

Generation Arrangement

		Experience to 1/1/2004		
Vintage	Age	Amount Surviving	Proportion Surviving	Realized Life
A	B	C	D	E
1954	49.5	251,252	0.1464	29.57
1953	50.5	53,309	0.0711	26.84
1952	51.5	90,420	0.2333	32.94
1951	52.5	4,091	0.0385	26.52
1950	53.5	2,444	0.0124	23.89
1949	54.5	10,083	0.0707	24.04
1948	55.5	3,151	0.2004	28.63
1947	56.5	317	0.0036	35.50
1946	57.5	361	0.0476	36.30
1945	58.5	1,303	0.1437	36.74
1944	59.5	0	0.0000	0.00
1943	60.5	0	0.0000	0.00
1942	61.5	6,996	0.1661	36.94
1941	62.5	60,465	0.1683	37.12
1940	63.5	2,340	0.0682	32.32
1939	64.5	0	0.0000	0.00
1938	65.5	1,619	0.2709	36.70
1937	66.5	227	0.0041	28.74
1936	67.5	4,958	0.0240	32.31
1935	68.5	0	0.0000	0.00
1934	69.5	0	0.0000	0.00
1933	70.5	0	0.0000	0.00
1932	71.5	0	0.0000	0.00
1931	72.5	92	0.0851	26.84
1930	73.5	2,284	0.1157	24.10
1929	74.5	0	0.0000	0.00
1928	75.5	0	0.0000	0.00
1927	76.5	0	0.0000	0.00
1926	77.5	0	0.0000	0.00
1925	78.5	15,939,497	0.1445	21.20
Total		**1,644,110,671**		

Source:
All data from the text delimited filed "WAZGCO.FCC"
provided by Qwest in response to WDA 01-01.

Arizona
T-01051B-03-0454
WDA 02-006S1

INTERVENOR: William W. Dunkel and Associates

REQUEST NO: 006S1

For each depreciable account Qwest should provide the "observed life" points for the most recent "band" of years (The most recent "band" is the years 2001-2003 inclusive. (The "observed life" points are the percentages of investment surviving at each age. These are standard depreciation terms). This is the same Observed Life information as Qwest provided in the Depreciation Rate Study Qwest filed in Arizona the last time Qwest requested a change in depreciation rates (Docket Number T-01051B-97-0689), except data through 12-31-2003 is requested.

This request does not ask that Qwest fit curves to the "observed life" data.

RESPONSE:

Qwest did not develop "Observed Life Information" as part of its depreciation Technical Update. To be responsive to this request, Qwest will perform the special study required to produce the historical retirement based "observed life" data. Because of the time and resources involved with such a study, Qwest will provide the data on or before July 2, 2004.

Respondent: Dennis Wu

SUPPLEMENTAL RESPONSE DATED 07/02/04:

Please see Non-Confidential Attachment A. Qwest has provided the observed life points for all accounts studied on a "Full Mortality" basis. This is consistant with exhibits filed in the previous Arizona Depreciation Rate Study. Accounts studied on a "Computed Mortality" basis do not produce observed life points and are not included in Attachment A. The "Computed Mortality" accounts are: 2114 Special Purpose Vehicles, 2115 Garage Work Equipment, 2116 Other Work Equipment, 2123.2 Stand Alone, and 2431 Aerial Wire.

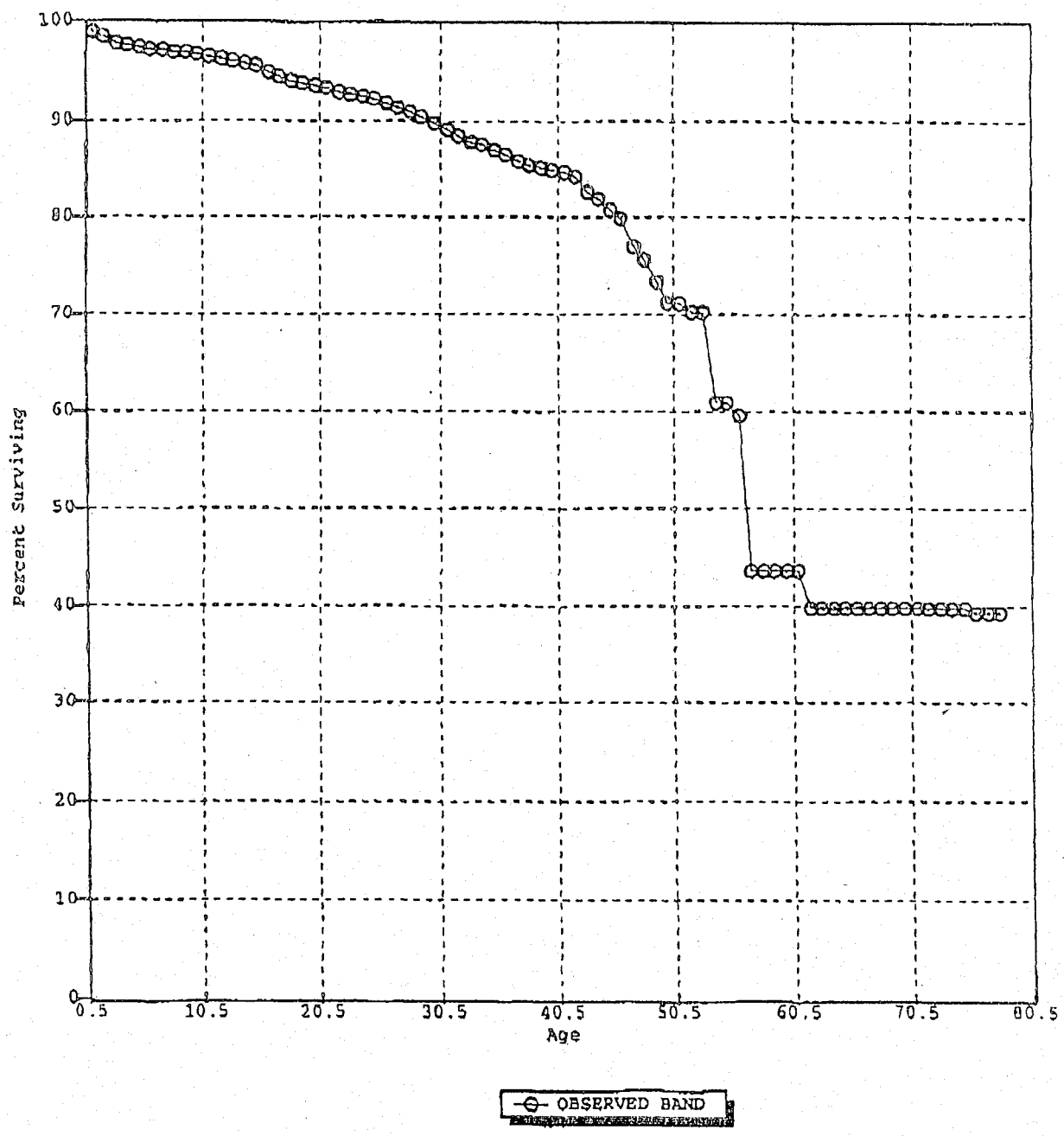
Respondent: Dennis Wu

ARIZONA
DOCKET NO. T01051B-03-0454
WDA 02-06S1
ATTACHMENT A

DATE: 6/21/2004

COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: 2423 BURIED CABLE TOTAL
CATEGORY: 2423 BURIED CABLE TOTAL

CURVE SHAPE COMPARISION
BAND=0103



CURVES SCALED TO THE OBSERVED LIFE OF 58.8

Company: Qwest - Arizona
Account: 2423 Buried Cable Metallic

Avg Life: 23.0
Iowa Curv L1.5

Generation Arrangement (Staff Recommendation)

			Experience to 1/1/2004			Average	Average	Average	Remaining	Computed
	Vintage	Age	Amount Surviving	Proportion Surviving	Realized Life	Remaining Life	Service Life	Life Weights	Life Weights	Original Investment
	A	B	C	D	E	F	G	H=C/G	I=F*H	J=C/D
*	2003	0.5	63,550,598	0.999716	0.50	15.88	16.38	3,880,694	61,610,251	63,568,646
*	2002	1.5	68,916,847	0.987931	1.49	15.41	16.91	4,075,112	62,804,179	69,758,742
*	2001	2.5	119,473,541	0.984909	2.47	14.85	17.35	6,887,478	102,254,845	121,304,171
*	2000	3.5	141,529,013	0.983217	3.47	14.28	17.78	7,960,224	113,668,230	143,944,861
*	1999	4.5	102,216,637	0.963392	4.41	13.73	18.23	5,606,496	76,987,405	106,100,753
*	1998	5.5	86,892,236	0.978074	5.44	13.21	18.71	4,644,739	61,346,169	88,840,134
*	1997	6.5	92,883,712	0.991171	6.47	12.71	19.21	4,835,520	61,452,830	93,711,117
*	1996	7.5	91,141,285	0.987499	7.45	12.23	19.73	4,619,086	56,498,140	92,295,053
*	1995	8.5	69,927,991	0.986783	8.45	11.78	20.28	3,448,799	40,613,196	70,864,604
*	1994	9.5	44,263,132	0.979483	9.40	11.35	20.85	2,122,642	24,098,028	45,190,292
*	1993	10.5	33,488,287	0.979959	10.38	10.97	21.47	1,559,892	17,109,418	34,173,144
*	1992	11.5	35,981,118	0.981579	11.41	10.63	22.13	1,626,245	17,279,305	36,656,349
*	1991	12.5	34,697,266	0.970713	12.32	10.32	22.82	1,520,273	15,693,851	35,744,088
*	1990	13.5	34,346,643	0.961611	13.22	10.06	23.56	1,458,115	14,662,089	35,717,805
*	1989	14.5	40,979,775	0.966155	14.25	9.82	24.32	1,685,324	16,542,574	42,415,332
*	1988	15.5	47,281,737	0.960292	15.20	9.60	25.10	1,883,825	18,082,455	49,236,812
*	1987	16.5	57,779,416	0.941736	16.10	9.40	25.90	2,230,764	20,971,808	61,354,147
*	1986	17.5	51,397,405	0.950074	17.15	9.22	26.72	1,923,629	17,733,890	54,098,321
*	1985	18.5	59,990,601	0.431542	16.11	9.05	27.55	2,177,663	19,703,827	139,014,362
*	1984	19.5	53,499,362	0.920023	18.65	8.89	28.39	1,884,747	16,746,802	58,149,998
*	1983	20.5	38,354,000	0.929587	19.79	8.73	29.23	1,312,277	11,452,331	41,259,171
*	1982	21.5	50,176,909	0.930020	20.79	8.57	30.07	1,668,653	14,300,868	53,952,528
	1981	22.5	21,061,546	0.921153	21.54	10.02	30.76	684,658	6,856,864	22,864,318
	1980	23.5	20,006,214	0.902218	22.23	9.75	31.02	644,944	6,286,170	22,174,469
	1979	24.5	19,527,131	0.917524	23.44	9.48	32.14	607,509	5,759,982	21,282,411
	1978	25.5	17,663,610	0.913623	24.38	9.22	32.80	538,489	4,963,760	19,333,595
	1977	26.5	11,938,044	0.870708	24.85	8.96	32.65	365,678	3,274,935	13,710,734
	1976	27.5	8,522,878	0.874516	25.76	8.69	33.36	255,456	2,221,121	9,745,821
	1975	28.5	7,285,589	0.735790	25.23	8.44	31.43	231,779	1,955,110	9,901,718
	1974	29.5	13,335,239	0.787381	26.52	8.18	32.96	404,628	3,308,821	16,936,194
	1973	30.5	22,447,435	0.743466	27.08	7.92	32.97	680,858	5,393,743	30,192,952
	1972	31.5	12,266,613	0.648086	27.71	7.67	32.68	375,348	2,878,749	18,927,433
	1971	32.5	12,159,835	0.669171	27.79	7.42	32.75	371,266	2,754,956	18,171,481
	1970	33.5	12,104,735	0.671782	28.34	7.18	33.16	365,070	2,619,452	18,018,831
	1969	34.5	7,867,593	0.589900	28.48	6.93	32.57	241,537	1,674,880	13,337,163
	1968	35.5	4,092,856	0.604431	29.04	6.70	33.09	123,684	828,407	6,771,414
	1967	36.5	3,304,809	0.599154	29.51	6.47	33.38	99,002	640,180	5,515,796
	1966	37.5	3,348,121	0.613466	31.34	6.24	35.17	95,207	594,122	5,457,714
	1965	38.5	2,036,749	0.613094	32.12	6.02	35.81	56,875	342,293	3,322,081
	1964	39.5	2,717,453	0.622303	32.05	5.80	35.66	76,198	442,083	4,366,765
	1963	40.5	2,538,316	0.588080	32.74	5.59	36.03	70,450	393,837	4,316,280
	1962	41.5	1,471,783	0.578314	33.54	5.38	36.65	40,154	216,145	2,544,955
	1961	42.5	1,084,117	0.471812	33.16	5.18	35.60	30,450	157,753	2,297,771
	1960	43.5	823,545	0.370227	30.23	4.98	32.08	25,672	127,930	2,224,434
	1959	44.5	289,326	0.401073	31.57	4.79	33.49	8,640	41,383	721,379
	1958	45.5	184,169	0.274988	29.71	4.60	30.98	5,945	27,354	669,734
	1957	46.5	224,482	0.205434	26.75	4.42	27.66	8,115	35,845	1,092,720
	1956	47.5	449,632	0.203020	26.12	4.24	26.98	16,666	70,608	2,214,723
	1955	48.5	156,131	0.160886	25.36	4.06	26.01	6,002	24,376	970,448
	1954	49.5	251,252	0.146353	29.57	3.89	30.14	8,336	32,425	1,716,751

Company: Qwest - Arizona
Account: 2423 Buried Cable Metallic

Avg Life: 23.0
Iowa Curv L1.5

Generation Arrangement (Staff Recommendation)

Vintage	Age	Experience to 1/1/2004 Amount Surviving	Proportion Surviving	Realized Life	Average Remaining Life	Average Service Life	Average Life Weights	Remaining Life Weights	Computed Original Investment
A	B	C	D	E	F	G	H=C/G	I=F*H	J=C/D
1953	50.5	53,309	0.071082	26.84	3.72	27.10	1,967	7,322	749,961
1952	51.5	90,420	0.233334	32.94	3.56	33.77	2,677	9,530	387,513
1951	52.5	4,091	0.038511	26.52	3.40	26.65	154	522	106,229
1950	53.5	2,444	0.012415	23.89	3.24	23.93	102	331	196,866
1949	54.5	10,083	0.070657	24.04	3.09	24.26	416	1,286	142,703
1948	55.5	3,151	0.200361	28.63	2.94	29.22	108	318	15,727
1947	56.5	317	0.003611	35.50	2.80	35.51	9	25	87,786
1946	57.5	361	0.047594	36.30	2.65	36.43	10	26	7,585
1945	58.5	1,303	0.143664	36.74	2.51	37.10	35	88	9,070
1944	59.5	0	0.000000	0.00	0.00	0.00	0	0	0
1943	60.5	0	0.000000	0.00	0.00	0.00	0	0	0
1942	61.5	6,996	0.166104	36.94	2.07	37.28	188	388	42,118
1941	62.5	60,465	0.168268	37.12	1.91	37.44	1,615	3,083	359,338
1940	63.5	2,340	0.068177	32.32	1.75	32.44	72	126	34,322
1939	64.5	0	0.000000	0.00	0.00	0.00	0	0	0
1938	65.5	1,619	0.270900	36.70	1.40	37.07	44	61	5,976
1937	66.5	227	0.004100	28.74	1.19	28.75	8	9	55,366
1936	67.5	4,958	0.023955	32.31	0.93	32.33	153	143	206,972
1935	68.5	0	0.000000	0.00	0.00	0.00	0	0	0
1934	69.5	0	0.000000	0.00	0.00	0.00	0	0	0
1933	70.5	0	0.000000	0.00	0.00	0.00	0	0	0
1932	71.5	0	0.000000	0.00	0.00	0.00	0	0	0
1931	72.5	92	0.085093	26.84	0.50	26.89	3	2	1,081
1930	73.5	2,284	0.115662	24.10	0.50	24.16	95	47	19,747
1929	74.5	0	0.000000	0.00	0.00	0.00	0	0	0
1928	75.5	0	0.000000	0.00	0.00	0.00	0	0	0
1927	76.5	0	0.000000	0.00	0.00	0.00	0	0	0
1926	77.5	0	0.000000	0.00	0.00	0.00	0	0	0
1925	78.5	15,939,497	0.144481	21.20	0.50	21.28	749,152	374,576	110,322,184
Total		1,644,110,671					76,207,620	915,933,657	1,928,901,062
Non-ELG		225,343,160					7,195,420	54,321,166	391,550,633
ELG		1,418,767,511					69,012,199	861,612,490	1,537,350,429

	All Vintages	Non-ELG Vintages	ELG Vintages
Average Service Life: (col C/ col H)	**21.57**	31.32	20.56
Average Remaining Life: (col I/ col H)	**12.02**	7.55	12.48

STATEMENT A
SUMMARY OF DEPRECIATION RATES

		Rates Effective 12/31/03				Update Reserve to 12/31/03				Adjust Lives and Salvage Parameters			
Account Number	Category	Remaining Life Years	Reserve %	Future Net Salvage %	Depreciation Rate %	Remaining Life Years	Reserve %	Future Net Salvage %	Depreciation Rate %	Remaining Life Years	Reserve %	Future Net Salvage %	Depreciation Rate %
		A	B	C	D	E	F	G	H	I	J	K	L
2112	Motor Vehicles	3.6	66.4%	16.0%	4.9%	3.8	57.7%	16.0%	6.9%	3.8	57.7%	16.0%	6.9%
2114	Special Pupose Vehicles	9.8	0.0%	0.0%	10.2%	4.4	43.9%	0.0%	12.8%	4.4	43.9%	0.0%	12.8%
2115	Garage Work Equipment	10.2	-55.1%	-4.0%	15.6%	9.1	-17.2%	-4.0%	13.3%	9.1	-17.2%	-4.0%	13.3%
2116	Other Work Equipment	5.4	7.2%	7.0%	15.9%	6.7	44.6%	7.0%	7.2%	6.7	44.6%	7.0%	7.2%
2121	Buildings	26.0	29.2%	-6.0%	3.0%	24.0	27.6%	-6.0%	3.3%	24.0	27.6%	-6.0%	3.3%
2122	Furniture	5.5	-10.8%	0.0%	20.1%	6.8	72.6%	0.0%	4.0%	6.8	72.6%	0.0%	4.0%
2123.1	Office Equipment	3.3	26.3%	0.0%	22.3%	2.5	102.4%	0.0%	0.0%	2.5	102.4%	0.0%	0.0%
2123.2	Company Communications Equipment	5.3	67.7%	0.0%	6.1%	4.6	92.3%	0.0%	1.7%	4.6	92.3%	0.0%	1.7%
2124	General Purpose Computer	2.4	72.4%	5.0%	9.4%	1.7	95.9%	5.0%	0.0%	1.7	95.9%	5.0%	0.0%
2212	Digital Switching Equipment	5.4	37.5%	3.0%	11.0%	5.2	54.9%	3.0%	8.1%	8.3	54.9%	0.0%	5.4%
2220	Operator Systems	4.1	96.6%	-3.0%	1.6%	3.8	5.1%	-3.0%	25.8%	3.8	5.1%	-3.0%	25.8%
2231	Radio Systems	6.6	64.0%	-2.0%	5.8%	5.0	98.3%	-2.0%	0.7%	5.0	98.3%	-2.0%	0.7%
2232	Circuit DDS	4.0	75.4%	3.0%	5.4%	3.4	90.2%	3.0%	2.0%	3.9	90.2%	0.0%	2.5%
2232	Circuit Digital	5.1	47.8%	2.0%	9.8%	5.3	60.6%	2.0%	7.1%	6.3	60.6%	0.0%	6.3%
2232	Circuit Analog	3.3	89.3%	0.0%	3.2%	2.8	101.3%	0.0%	0.0%	3.6	101.3%	0.0%	0.0%
2362	Other Terminal Equipment	6.4	49.9%	2.0%	7.5%	6.5	56.4%	2.0%	6.4%	6.5	56.4%	2.0%	6.4%
2411	Pole Lines	26.0	71.6%	-138.0%	6.4%	25.0	90.3%	-138.0%	5.9%	24.7	90.3%	-75.0%	3.4%
2421	Aerial Cable - Metallic	5.2	61.5%	-27.0%	12.6%	5.0	104.9%	-27.0%	4.4%	11.4	104.9%	-35.0%	2.6%
2421	Aerial Cable - Non Metallic	13.1	12.5%	-27.0%	8.7%	8.7	44.0%	-27.0%	9.5%	21.7	44.0%	-17.5%	3.4%
2422	Underground Cable - Metallic	5.8	50.8%	-6.0%	9.5%	5.5	83.1%	-6.0%	4.2%	13.3	83.1%	-30.0%	3.5%
2422	Underground Cable - Non Metallic	7.7	26.5%	-6.0%	10.3%	6.8	49.7%	-6.0%	8.3%	21.1	49.7%	-6.0%	2.7%
2423	Buried Cable - Metallic	5.6	40.0%	-7.0%	12.0%	5.4	71.7%	-7.0%	6.5%	12.0	71.7%	-10.0%	3.2%
2423	Buried Cable - Non Metallic	12.9	24.8%	-7.0%	6.4%	8.7	49.3%	-7.0%	6.6%	18.6	49.3%	-5.0%	3.0%
2424	Submarine Cable - Metallic	1.4	-20.6%	0.0%	86.1%	0.5	121.6%	0.0%	0.0%	0.5	121.6%	-1.0%	0.0%
2424	Submarine Cable - Non Metallic	9.0	0.0%	0.0%	11.1%	0.0	0.0%	0.0%	0.0%	0.0	0.0%	0.0%	0.0%
2426	Intrabuilding Cable - Metallic	8.3	70.7%	0.0%	3.5%	7.7	76.8%	0.0%	3.0%	9.5	76.8%	0.0%	2.4%
2426	Intrabuilding Cable - Non Metallic	6.1	20.2%	0.0%	13.1%	6.2	61.2%	0.0%	6.3%	14.6	61.2%	0.0%	2.7%
2431	Aerial Wire	5.5	16.8%	-30.0%	20.6%	5.3	90.5%	-30.0%	7.5%	10.2	90.5%	-40.0%	4.9%
2441	Conduit Systems	44.0	21.1%	-20.0%	2.2%	43.0	23.8%	-20.0%	2.2%	42.9	23.8%	-20.0%	2.2%

STATEMENT B
INTRASTATE BASIS
CHANGE IN ANNUAL DEPRECIATION ACCRUALS
RESULTING FROM CHANGES IN DEPRECIATION RATES
($000)

Account Number	Category	Investment 1/1/04	Rates Effective 12/31/03 Rate Amount	Amortization Amount	Total	Update Reserve to 12/31/03 Rate Amount	Amortization Amount	Total	Change in Accruals	Adjust Lives and Salvage Parameters Rate Amount	Amortization Amount	Total	Change in Accruals
		M	N=D*M	O	P=N+O	Q=H*M	R	S=Q+R	T=S-P	U=L*M	V	W=U+V	X=W-P
2112	Motor Vehicles	50,002	2,450	0	2,450	3,450	0	3,450	1,000	3,450	0	3,450	1,000
2114	Special Pupose Vehicles	18	2	0	2	2	0	2	0	2	0	2	0
2115	Garage Work Equipment	1,075	168	0	168	143	0	143	-25	143	0	143	-25
2116	Other Work Equipment	27,124	4,313	0	4,313	1,953	0	1,953	-2,360	1,953	0	1,953	-2,360
2121	Buildings	168,555	5,057	0	5,057	5,562	0	5,562	506	5,562	0	5,562	506
2122	Furniture	1,253	252	0	252	50	0	50	-202	50	0	50	-202
2123.1	Office Equipment	4,186	933	0	933	0	0	0	-933	0	0	0	-933
2123.2	Company Communications Equipment	1,719	105	0	105	29	0	29	-76	29	0	29	-76
2124	General Purpose Computer	68,171	6,408	0	6,408	0	0	0	-6,408	0	0	0	-6,408
2212	Digital Switching Equipment	899,493	98,944	0	98,944	72,859	0	72,859	-26,085	48,573	0	48,573	-50,372
2220	Operator Systems	1,962	31	0	31	506	0	506	475	506	0	506	475
2231	Radio Systems	20,998	1,218	0	1,218	147	0	147	-1,071	147	0	147	-1,071
2232	Circuit DDS	3,517	190	0	190	70	0	70	-120	88	0	88	-102
2232	Circuit Digital	1,084,182	106,250	0	106,250	76,977	0	76,977	-29,273	68,303	0	68,303	-37,946
2232	Circuit Analog	25,342	811	0	811	0	0	0	-811	0	0	0	-811
2362	Other Terminal Equipment	51,022	3,827	0	3,827	3,265	0	3,265	-561	3,265	0	3,265	-561
2411	Pole Lines	38,664	2,475	0	2,475	2,281	0	2,281	-193	1,315	0	1,315	-1,160
2421	Aerial Cable - Metallic	145,482	18,331	0	18,331	6,401	0	6,401	-11,929	3,783	0	3,783	-14,548
2421	Aerial Cable - Non Metallic	6,840	595	0	595	650	0	650	55	233	0	233	-363
2422	Underground Cable - Metallic	284,540	27,031	0	27,031	11,951	0	11,951	-15,081	9,959	0	9,959	-17,072
2422	Underground Cable - Non Metallic	133,505	13,751	0	13,751	11,081	0	11,081	-2,670	3,605	0	3,605	-10,146
2423	Buried Cable - Metallic	1,194,457	143,335	0	143,335	77,640	0	77,640	-65,695	38,223	0	38,223	-105,112
2423	Buried Cable - Non Metallic	17,322	1,109	0	1,109	1,143	0	1,143	35	520	0	520	-589
2424	Submarine Cable - Metallic	2	2	0	2	0	0	0	-2	0	0	0	-2
2424	Submarine Cable - Non Metallic	0	0	0	0	0	0	0	0	0	0	0	0
2426	Intrabuilding Cable - Metallic	31,784	1,112	0	1,112	954	0	954	-159	763	0	763	-350
2426	Intrabuilding Cable - Non Metallic	773	101	0	101	49	0	49	-53	21	0	21	-80
2431	Aerial Wire	8,069	1,662	0	1,662	605	0	605	-1,057	395	0	395	-1,267
2441	Conduit Systems	330,286	7,266	0	7,266	7,266	0	7,266	0	7,266	0	7,266	0
	TOTAL	4,600,342	447,728	0	447,728	285,035	0	285,035	-162,693	198,154	0	198,154	-249,574
					9.7%			6.2%				4.3%	

STATEMENT C
INTRASTATE BASIS
SUMMARY OF RESERVES 1-1-2004

Account Number	Category	Investment 1/1/04	Book Reserve Amount	Book Reserve Percent	Update Reserve to 12/31/03: Average Service Life	Average Remaining Life	Average Net Salvage	Future Net Salvage	Theoretical Reserve Amount	Theoretical Reserve Percent	Adjust Lives and Salvage Parameters: Average Service Life	Average Remaining Life	Average Net Salvage	Future Net Salvage	Theoretical Reserve Amount	Theoretical Reserve Percent
		A	B	C=B/A	D	E	F	G	H	I	J	K	L	M	N	O
2112	Motor Vehicles	50,002,464	28,870,369	57.7%	9.2	3.8	15.4%	16.0%	24,529,470	49.1%	9.2	3.8	15.4%	16.0%	24,529,470	49.1%
2114	Special Pupose Vehicles	18,258	8,024	43.9%	14.9	4.4	0.0%	0.0%	12,866	70.5%	14.9	4.4	0.0%	0.0%	12,866	70.5%
2115	Garage Work Equipment	1,074,994	-184,705	-17.2%	13.6	9.1	-24.0%	-4.0%	226,065	21.0%	13.6	9.1	-24.0%	-4.0%	226,065	21.0%
2116	Other Work Equipment	27,123,901	12,101,709	44.6%	10.8	6.7	9.0%	7.0%	9,912,781	36.5%	10.8	6.7	9.0%	7.0%	9,912,781	36.5%
2121	Buildings	168,555,110	46,482,803	27.6%	34.0	24.0	2.0%	-6.0%	62,067,941	36.8%	34.0	24.0	2.0%	-6.0%	62,067,941	36.8%
2122	Furniture	1,253,232	910,003	72.6%	13.4	6.8	3.0%	0.0%	636,343	50.8%	13.4	6.8	3.0%	0.0%	636,343	50.8%
2123.1	Office Equipment	4,185,608	4,287,951	102.4%	12.5	2.5	0.0%	0.0%	3,348,486	80.0%	12.5	2.5	0.0%	0.0%	3,348,486	80.0%
2123.2	Company Communications Equipment	1,719,023	1,586,731	92.3%	10.2	4.6	-0.1%	0.0%	943,002	54.9%	10.2	4.6	-0.1%	0.0%	943,002	54.9%
2124	General Purpose Computer	68,171,220	65,345,000	95.9%	8.7	1.7	6.0%	5.0%	52,241,095	76.6%	8.7	1.7	6.0%	5.0%	52,241,095	76.6%
2212	Digital Switching Equipment	899,492,511	493,905,660	54.9%	11.0	5.2	3.0%	3.0%	460,049,533	51.1%	14.2	8.3	-2.1%	0.0%	362,691,850	40.3%
2220	Operator Systems	1,962,173	100,607	5.1%	12.0	3.8	-3.0%	-3.0%	1,381,043	70.4%	12.0	3.8	-1.3%	-3.0%	1,391,606	70.9%
2231	Radio Systems	20,997,530	20,642,508	98.3%	17.6	5.0	-1.0%	-2.0%	15,392,621	73.3%	17.6	5.0	-2.1%	-2.0%	15,327,004	73.0%
2232	Circuit DDS	3,516,888	3,171,205	90.2%	10.4	3.4	8.0%	3.0%	2,353,610	66.9%	11.0	3.9	0.8%	0.0%	2,279,967	64.8%
2232	Circuit Digital	1,084,181,775	657,468,596	60.6%	10.7	5.3	2.0%	2.0%	536,214,014	49.5%	11.8	6.3	-2.1%	0.0%	493,183,264	45.5%
2232	Circuit Analog	25,342,409	25,674,921	101.3%	14.7	2.8	-1.0%	0.0%	20,467,012	80.8%	15.5	3.6	1.2%	0.0%	19,527,062	77.1%
2362	Other Terminal Equipment	51,022,353	28,796,299	56.4%	11.1	6.5	8.0%	2.0%	22,514,188	44.1%	11.1	6.5	8.0%	2.0%	22,514,188	44.1%
2411	Pole Lines	38,664,356	34,911,771	90.3%	35.0	25.0	-86.0%	-138.0%	40,652,809	105.1%	35.3	24.7	-72.4%	-75.0%	21,021,361	54.4%
2421	Aerial Cable - Metallic	145,481,570	152,605,742	104.9%	14.5	5.0	-21.0%	-27.0%	124,060,663	85.3%	21.9	11.4	-35.7%	-35.0%	93,634,330	64.4%
2421	Aerial Cable - Non Metallic	6,839,635	3,012,601	44.0%	15.0	8.7	-27.0%	-27.0%	3,648,261	53.3%	28.0	21.7	-6.8%	-17.5%	2,375,405	34.7%
2422	Underground Cable - Metallic	284,539,853	236,393,171	83.1%	19.4	5.5	-6.0%	-6.0%	216,103,618	75.9%	28.4	13.3	-41.4%	-30.0%	181,482,324	63.8%
2422	Underground Cable - Non Metallic	133,504,518	66,293,221	49.7%	13.4	6.8	-6.0%	-6.0%	69,701,314	52.2%	28.0	21.1	4.2%	-6.0%	45,135,017	33.8%
2423	Buried Cable - Metallic	1,194,457,308	855,895,237	71.7%	14.0	5.4	-7.0%	-7.0%	785,099,725	65.7%	21.6	12.0	-22.2%	-10.0%	502,999,244	42.1%
2423	Buried Cable - Non Metallic	17,321,629	8,542,486	49.3%	18.0	8.7	-7.0%	-7.0%	9,575,974	55.3%	28.0	18.6	10.9%	-5.0%	7,935,409	45.8%
2424	Submarine Cable - Metallic	1,887	2,294	121.6%	22.0	0.5	0.0%	0.0%	1,844	97.7%	22.0	0.5	-1.2%	-1.0%	1,862	98.7%
2424	Submarine Cable - Non Metallic	0	0	0.0%	0.0	0.0	0.0%	0.0%	0	0.0%	0.0	0.0	0.0%	0.0%	0	0.0%
2426	Intrabuilding Cable - Metallic	31,784,356	24,404,951	76.8%	22.0	7.7	2.0%	0.0%	20,882,322	65.7%	23.7	9.5	6.8%	0.0%	19,910,150	62.6%
2426	Intrabuilding Cable - Non Metallic	773,315	473,231	61.2%	10.5	6.2	0.0%	0.0%	316,691	41.0%	19.1	14.6	7.1%	0.0%	224,164	29.0%
2431	Aerial Wire	8,068,659	7,303,094	90.5%	11.2	5.3	-25.0%	-30.0%	5,716,501	70.8%	15.2	10.2	-38.0%	-40.0%	3,824,120	47.4%
2441	Conduit Systems	330,285,891	78,455,729	23.8%	57.0	43.0	-20.0%	-20.0%	97,347,421	29.5%	57.0	42.9	-23.8%	-20.0%	88,596,583	26.8%
	Total	4,600,342,426	2,857,461,209	62.1%					2,585,397,212	56.2%					2,037,972,957	44.3%

PARAMETER REPORT

Account Number	Category	First ELG Year	Current Prescribed P.L. or AYFR	Current Prescribed Average Net Salvage	Current Prescribed Future Net Salvage	Current Prescribed Iowa Curve Shape	Staff Recommendation P.L. or AYFR	Staff Recommendation Average Net Salvage	Staff Recommendation Future Net Salvage	Staff Recommendation Iowa Curve Shape
		A	B	C	D	E	F	G	H	I
2112	Motor Vehicles	1983	8.6	15.4%	16.0%	L3.0	8.6	15.4%	16.0%	L3.0
2114	Special Pupose Vehicles		16.1	0.0%	0.0%	S6.0	16.1	0.0%	0.0%	S6.0
2115	Garage Work Equipment		13.7	-24.0%	-4.0%	L0.0	13.7	-24.0%	-4.0%	L0.0
2116	Other Work Equipment		11.5	9.0%	7.0%	L4.0	11.5	9.0%	7.0%	L4.0
2121	Buildings	1983	43.0	2.0%	-6.0%	R1.0	43.0	2.0%	-6.0%	R1.0
2122	Furniture	1983	9.5	3.0%	0.0%	O4.0	9.5	3.0%	0.0%	O4.0
2123.1	Office Equipment	1983	7.0	0.0%	0.0%	L0.5	7.0	0.0%	0.0%	L0.5
2123.2	Company Communications Equipment		8.3	-0.1%	0.0%	L0.5	8.3	-0.1%	0.0%	L0.5
2124	General Purpose Computer	1983	5.0	6.0%	5.0%	O1.0	5.0	6.0%	5.0%	O1.0
2212	Digital Switching Equipment	1983	10.0	3.0%	3.0%	O1.0	15.0	-2.1%	0.0%	O1.0
2220	Operator Systems	1983	10.7	-3.0%	-3.0%	S2.0	8.0	-1.3%	-3.0%	S2.0
2231	Radio Systems	1983	15.1	-1.0%	-2.0%	S1.5	15.1	-2.1%	-2.0%	S1.5
2232	Circuit DDS	1983	8.1	8.0%	3.0%	L1.0	9.0	0.8%	0.0%	L1.0
2232	Circuit Digital	1983	10.0	2.0%	2.0%	O2.0	12.0	-2.1%	0.0%	O2.0
2232	Circuit Analog	1983	8.0	-1.0%	0.0%	L0.0	9.5	1.2%	0.0%	L0.0
2362	Other Terminal Equipment		6.8	8.0%	2.0%	O3.0	6.8	8.0%	2.0%	O3.0
2411	Pole Lines	1982	46.4	-86.0%	-138.0%	O1.0	46.4	-72.4%	-75.0%	O1.0
2421	Aerial Cable - Metallic	1982	12.0	-21.0%	-27.0%	R1.0	23.0	-35.7%	-35.0%	R1.0
2421	Aerial Cable - Non Metallic	1982	14.5	-27.0%	-27.0%	SQ	27.5	-6.8%	-17.5%	SQ
2422	Underground Cable - Metallic	1982	15.0	-6.0%	-6.0%	R1.5	27.5	-41.4%	-30.0%	R1.5
2422	Underground Cable - Non Metallic	1982	13.1	-6.0%	-6.0%	SQ	27.5	4.2%	-6.0%	SQ
2423	Buried Cable - Metallic	1982	12.0	-7.0%	-7.0%	L1.5	23.0	-22.2%	-10.0%	L1.5
2423	Buried Cable - Non Metallic	1982	17.6	-7.0%	-7.0%	SQ	27.5	10.9%	-5.0%	SQ
2424	Submarine Cable - Metallic	1982	15.0	0.0%	0.0%	SQ	23.0	-1.2%	-1.0%	SQ
2424	Submarine Cable - Non Metallic	1982	9.0	0.0%	0.0%	SQ	27.5	0.0%	0.0%	SQ
2426	Intrabuilding Cable - Metallic	1982	19.0	2.0%	0.0%	L2.0	22.5	6.8%	0.0%	L2.0
2426	Intrabuilding Cable - Non Metallic	1982	11.5	0.0%	0.0%	O1.0	27.5	7.1%	0.0%	O1.0
2431	Aerial Wire		8.9	-25.0%	-30.0%	L0.0	15.0	-38.0%	-40.0%	L0.0
2441	Conduit Systems	1982	56.6	-20.0%	-20.0%	SQ	56.6	-23.8%	-20.0%	SQ

SUMMARY OF STAFF'S RECOMMENDED LIVES

Account Number	Category	FCC Projection Life Range (Years) Low	High	Recent Observed Lives	Current Prescribed Lives	Staff Recommended Lives	FCC Future Net Salvage Range (Percent) Low	High	Surviving Vintage Average Net Salvage	Recent Observed Average Net Salvage	Current Prescribed Future Net Salvage	Staff Recommended Future Net Salvage
		A	B	C	D	E	F	G	H	I	J	K
2112	Motor Vehicles	7.5	9.5		8.6	8.6	10%	20%			16.0%	16.0%
2114	Special Pupose Vehicles	12.0	18.0		16.1	16.1	0%	10%			0.0%	0.0%
2115	Garage Work Equipment	12.0	18.0		13.7	13.7	0%	10%			-4.0%	-4.0%
2116	Other Work Equipment	12.0	18.0		11.5	11.5	0%	10%			7.0%	7.0%
2121	Buildings				43.0	43.0					-6.0%	-6.0%
2122	Furniture	15.0	20.0		9.5	9.5	0%	10%			0.0%	0.0%
2123.1	Office Equipment	10.0	15.0		7.0	7.0	0%	10%			0.0%	0.0%
2123.2	Company Communications Equipment	7.0	10.0		8.3	8.3	-5%	10%			0.0%	0.0%
2124	General Purpose Computer	6.0	8.0		5.0	5.0	0%	5%			5.0%	5.0%
2212	Digital Switching Equipment	12.0	18.0	29.0	10.0	15.0	0%	5%	-2.1%	-3.9%	3.0%	0.0%
2220	Operator Systems	8.0	12.0	7.6	10.7	8.0	0%	5%	-1.3%	-2.0%	-3.0%	-3.0%
2231	Radio Systems	9.0	15.0	17.0	15.1	15.1	-5%	5%	-2.1%	-2.7%	-2.0%	-2.0%
2232	Circuit DDS	7.0	11.0	16.6	8.1	9.0	-5%	10%	0.8%	-1.6%	3.0%	0.0%
2232	Circuit Digital	11.0	13.0	28.2	10.0	12.0	0%	5%	-2.1%	-6.6%	2.0%	0.0%
2232	Circuit Analog	8.0	11.0	20.6	8.0	9.5	-5%	0%	1.2%	2.5%	0.0%	0.0%
2362	Other Terminal Equipment	5.0	8.0		6.8	6.8	-5%	5%			2.0%	2.0%
2411	Pole Lines	25.0	35.0	63.1	46.4	46.4	-75%	-50%	-72.4%	-87.2%	-138.0%	-75.0%
2421	Aerial Cable - Metallic	20.0	26.0	41.1	12.0	23.0	-35%	-10%	-35.7%	-67.2%	-27.0%	-35.0%
2421	Aerial Cable - Non Metallic	25.0	30.0	41.1	14.5	27.5	-25%	-10%	-6.8%	-9.3%	-27.0%	-17.5%
2422	Underground Cable - Metallic	25.0	30.0	64.0	15.0	27.5	-30%	-5%	-41.4%	-74.5%	-6.0%	-30.0%
2422	Underground Cable - Non Metallic	25.0	30.0	64.0	13.1	27.5	-20%	-5%	4.2%	4.6%	-6.0%	-6.0%
2423	Buried Cable - Metallic	20.0	26.0	58.8	12.0	23.0	-10%	0%	-22.2%	-34.7%	-7.0%	-10.0%
2423	Buried Cable - Non Metallic	25.0	30.0	58.8	17.6	27.5	-10%	0%	10.9%	20.1%	-7.0%	-5.0%
2424	Submarine Cable - Metallic	25.0	30.0	23.0	15.0	23.0	-5%	0%	-1.2%	0.0%	0.0%	-1.0%
2424	Submarine Cable - Non Metallic	25.0	30.0	23.0	9.0	27.5	-5%	0%	0.0%	0.0%	0.0%	0.0%
2426	Intrabuilding Cable - Metallic	20.0	25.0	67.0	19.0	22.5	-30%	-5%	6.8%	8.1%	0.0%	0.0%
2426	Intrabuilding Cable - Non Metallic	25.0	30.0	67.0	11.5	27.5	-15%	0%	7.1%	20.5%	0.0%	0.0%
2431	Aerial Wire				8.9	15.0			-38.0%	-56.9%	-30.0%	-40.0%
2441	Conduit Systems	50.0	60.0	77.2	56.6	56.6	-10%	0%	-23.8%	-20.1%	-20.0%	-20.0%

Sources:
FCC Ranges from FCC 94-174, Released June 28, 1994, Appendix B, FCC 95-181, Released May 4, 1995, Appendix B, and FCC 99-397, Released December 30, 1999, Appendix B.
Recent Observed Lives from Attachment A of Qwest's response to WDA 02-06
Recent Observed Net Salvages from Attachment A of Qwest's response to WDA 01-05

Arizona
T-01051B-03-0454
Dunkel 01-005

INTERVENOR: Dunkel and Associates

REQUEST NO: 005

For each depreciable account, provide the Gross Salvage and Cost of Removal data for the years 1983 through 2003. This should be information similar to that provided on "Table A, Annual Retirements, Gross Salvage and Cost of Removal" included in the Qwest Supplement to Application filed November 12, 1997 in the prior Depreciation Case (Docket No T-1051B-97-0689), excepted using the more current data (20 years through 2003). For each year the information should at include, but not necessarily limited to, the plant in service, the plant retired, the gross salvage, and the cost of removal. Provide in electronic format (in the same electronic format as this information is provided to the FCC) on an IBM compatible 3.5" disk or CD and in paper format.

RESPONSE:

See Non-confidential Attachments "A" and "B" for the requested information.

Respondent: Jim Jones, Qwest Manager

06/04/04
09:41 AM
XREF: 09
PRES: 1997,SF,02
PROP: 2004,SA,02

COMPANY: QWEST CORPORATION
STATE: ARIZONA
ACCOUNT: 2411 POLE LINES
CATEGORY: 2411 POLE LINES
PAGE 1 OF 1

TABLE A
ANNUAL RETIREMENTS
GROSS SALVAGE AND COST OF REMOVAL

YEAR	PLANT IN SERVICE DEC. 31	PLANT RETIRED*	GROSS SALVAGE AMOUNT	SALVAGE* PERCENT	COST OF REMOVAL* AMOUNT	COST OF REMOVAL* PERCENT	TOTAL RETIREMENTS NET SALVAGE PERCENT
	A	B	C	D=(C/B) *100	E	F=(E/B) *100	G=(D-F)
1983	27,890,000	890,152	28,032	3.1	383,664	43.1	-40.0
1984	28,599,000	428,132	93,532	21.8	449,039	104.9	-83.1
1985	29,518,000	312,530	31,420	10.1	256,335	82.0	-71.9
1986	30,486,000	565,825	25,165	4.4	266,672	47.1	-42.7
1987	30,737,923	871,433	7,151	0.8	255,243	29.3	-28.5
1988	32,498,505	362,720	4,452	1.2	213,297	58.8	-57.6
1989	33,668,265	595,511	27,578	4.6	291,369	48.9	-44.3
1990	34,825,124	709,526	4,083	0.6	350,674	49.4	-48.8
1991	36,463,035	106,275	-263	-0.2	354,151	333.2	-333.4
1992	38,334,023	82,018	0	0.0	317,435	387.0	-387.0
1993	40,374,609	247,168	0	0.0	440,542	178.2	-178.2
1994	41,751,738	230,013	0	0.0	251,018	109.1	-109.1
1995	41,938,944	182,121	1,932	1.1	285,681	156.9	-155.8
1996	42,410,540	329,930	6,776	2.1	196,170	59.5	-57.4
1997	43,818,511	499,151	5,006	1.0	203,868	40.8	-39.8
1998	45,034,213	354,440	5,096	1.4	150,162	42.4	-41.0
1999	46,616,809	149,852	1,340	0.9	116,947	78.0	-77.1
2000	48,178,092	104,870	2,422	2.3	167,057	159.3	-157.0
2001	49,844,594	116,994	1,201	1.0	174,026	148.7	-147.7
2002	51,293,484	310,853	649	0.2	1,256,896	404.3	-404.1
2003	52,703,590	308,799	3,733	1.2	-517,860	-167.7	168.9
GRAND TOTAL		7,758,313	249,305	3.2	5,862,386	75.6	-72.4
1983-2003#		7,758,313	249,305	3.2	5,862,386	75.6	-72.4
1994-2003##		2,587,023	28,155	1.1	2,283,965	88.3	-87.2

REPRESENTS RETIREMENTS FROM SURVIVING VINTAGES.
BAND OF LAST 10 ACTIVITY YEARS.
* EXCLUDING SALES & TRANSACTIONS THAT WERE EXCLUDED FROM LIFE DETERMINATION.

Arizona
T-01051B-03-0454 and T-00000D-00-0672
WDA 04-032

INTERVENOR: William W. Dunkel and Associates

REQUEST NO: 032

RE: DSL

Please provide the following:

a. A complete description of the Company's DSL service, including the type of DSL service, the tariff under which the service is offered, and a diagram of the network configuration of the Company's DSL offering.

b. The amount of DSL investment by account/subaccount(s) where such investment is recorded.

c. Description of the equipment contained in the investment included in response to part (b).

d. The amount of DSL related reserves and expenses by account/subaccount(s) where such expenses and reserves are recorded.

e. Separately show the amounts of DSL costs provided in response to parts (b) and (d) above which are included in the Company's test year regulated operations.

f. The separations category in which the DSL investment is included in the Company's Part 36 Cost Study, and the percentage of this DSL investment which is allocated to the intrastate jurisdiction in the Company's Part 36 Cost Study.

g. Is it the Company's understanding the DSL service is used primarily for Internet access? If not, please explain.

h. As of 12-31-03 please provide the number of lines in which the Company provided DSL service over the same loop that local service is provided, that is the number of loops in which DSL shares the line with local service.

i. As of 12-31-03 please provide the number of lines in which the Company provided DSL service over a separate loop, which is the number of lines in which DSL does not share the loop with any other service.

RESPONSE:

a. See Non-Confidential Attachment A for a complete technical description, including diagrams, of Qwest's DSL service. Qwest offers its DSL service under its FCC Tariff # 1, Section 8.4.

b. Direct incremental DSL investment by Field Reporting Code (FRC) is identified in Confidential Attachment B to this response

c. Please see the Company's response to UTI Set 2, Request 001 for a description of equipment included within each FRC.

d. Please see the response to part (b) above for the related depreciation reserves associated with the investment. The Company does not separately track and is unable to identify separate expenses associated with this or any other product. The Company's expenses are identified as required by Part 32 of the FCC's rules and regulations.

e. The Company's costs are separated between the interstate and intrastate jurisdictions as required by Part 36 of the FCC's rules and regulations. No special separations studies have been created for DSL services or any other regulated products.

f. The separations categories for each Part 32 account identified in Parts b and d of this response are determined based on Part 36 rules and regulations. Please see the Company's response to WDA, Set 02, Request 020 in this docket.

g. Yes.

h. Please see the response provided to RUCO, Set 02, Request 046 in this docket.

i. Zero

Respondents: Parts a, g, h and i: Maryann Klasinski, Michael Wolz, Reed Peterson
Respondents: Parts b, c, d, e and f: Mike Hudson, Don Hunsaker and Deb Hayek

THIS SCHEDULE CONTAINS INFORMATION DESIGNATED
AS CONFIDENTIAL BY QWEST
AND HAS BEEN REDACTED FROM THIS
PUBLIC FILING.

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AS CONFIDENTIAL BY QWEST
AND HAS BEEN REDACTED FROM THIS
PUBLIC FILING.

REDACTED

IMPACT OF REMOVING DSL INVESTMENT FROM INTRASTATE

Impact on Rate Base

		Plant in Service	Accumulated Depreciation	Net Investment
1	Total DSL Amounts from Qwest Response to WDA 4-32			
2	Effective Intrastate Factor			
3	**Total Net Investment Removed from Intrastate *Jurisdiction***			

Impact on Operating Expenses

4	Removed Depreciation Expense related to DSL Investment			
5	Removed Maintenance Expense related to DSL Investment			
6	Remove Network Operations Expense Related to DSL Investment			
7	**Total Expenses Removed from Intrastate Jurisdiction**			

Sources:
Intrastate Factors from Non-confidential Attachment A to Qwest Response to WDA 8-06

DSL Investment, Reserve, and Deprecation Expense from Confidential Attachment B to Qwest Response to WDA 4-32

Other Regulated Intrastate Amounts from Qwest file "az1203.xls", tab "TestYear Summary".

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Jurisdictional Separations and Referral to the Federal-State Joint Board	)	CC Docket No. 80-286
	)	

REPORT AND ORDER

Adopted: May 11, 2001 Released: May 22, 2001

By the Commission:

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Part 36, shall be frozen at their calendar year 2000 percentage ratios. Part 36 requires some categories of costs to be further sub-divided into additional classifications, but does not refer to those further classifications as "categories" or "subcategories." If we were to require carriers to continue subdividing costs into these classifications, carriers still would need to perform cost studies. Because a goal of the freeze is to reduce administrative burdens on carriers, we find that any Part 36 requirement to segregate costs recorded in Part 32 accounts into categories, subcategories, or further sub-classifications shall be frozen at their percentage relationship for the calendar year 2000.

23. Similarly, we find that in order to relieve all carriers of performing traffic or relative-use studies for separations purposes, all allocation factors used to assign Part 36 categories, subcategories, or further subdivisions to the state or interstate jurisdictions shall be frozen utilizing the factors calculated for the calendar year 2000. Categories or portions of categories that have been directly assigned in the past, however, will continue to be directly assigned to each jurisdiction. In other words, the frozen factors shall not have an effect on the direct assignment of costs for categories, or portions of categories, that are directly assigned. Since those portions of facilities that are utilized exclusively for services within the state or interstate jurisdiction are readily identifiable, we believe that the continuation of direct assignment of costs will not be a burden on carriers, nor will it adversely impact the stability of separations results throughout the freeze.[60]

24. Appendix A of the Recommended Decision provides the Joint Board's recommendation of the categories and factors to be frozen.[61] SBC, however, noted that Appendix A of the *Recommended Decision* failed to include Telephone Operator Expense and Published Directory Listing as frozen categories of Account 6620-Services.[62] Because these costs and relative use factors fall within the parameters of the freeze, we agree with SBC that it is appropriate to include these costs and their relative use factors in the freeze and therefore amend the list of categories and factors as specified in Appendix B of this Report and Order.

3. Base Year of the Freeze

25. The Joint Board recommended that, for all carriers, the Part 36 freeze should be based on data from the twelve-month period immediately prior to the date of the Commission's release of a Report and Order implementing the *Recommended Decision*.[63] The Joint Board believes that a freeze based on carriers' most recent data would provide the greatest measure of

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[60] Examples of facilities in which a portion can be directly assigned include, Central Office Equipment- Category 2, Tandem switching equipment and Cable and Wire Facilities-Category 2, Wideband and exchange trunk. *See* 47 C.F.R. §§ 36.124 and 36.155.

[61] *Recommended Decision*, Appendix A, 15 FCC Rcd at 13181-83.

[62] *See* SBC Comments at 3-4. *See also*, 47 C.F.R. §§ 36.374-375.

[63] *Recommended Decision*, 15 FCC Rcd at 13174, para. 25.

APPENDIX C

Final Rules

Part 36 of Title 47 of the Code of Federal Regulations is amended as follows:

PART 36 – JURISDICTIONAL SEPARATIONS PROCEDURES; STANDARD PROCEDURES FOR SEPARATING TELECOMMUNICATIONS PROPERTY COSTS, REVENUES, EXPENSES, TAXES AND RESERVES FOR TELECOMMUNICATIONS COMPANIES

Subpart A – General

1. Section 36.3 is added as follows:

§ 36.3 Freezing of jurisdictional separations category relationships and/or allocation factors

(a) Effective July1, 2001, through June 30, 2006, all local exchange carriers subject to Part 36 rules shall apportion costs to the jurisdictions using their study area and/or exchange specific separations allocation factors calculated during the twelve month period ending December 31, 2000, for each of the categories/sub-categories as specified herein. Direct assignment of private line service costs between jurisdictions shall be updated annually. Other direct assignment of investment, expenses, revenues or taxes between jurisdictions shall be updated annually. Local exchange carriers that invest in telecommunications plant categories during the period July 1, 2001, through June 30, 2006, for which it had no separations allocation factors for the twelve month period ending December 31, 2000, shall apportion that investment among the jurisdictions in accordance with the separations procedures in effect as of December 31, 2000 for the duration of the freeze.

(b) Effective July 1, 2001, through June 30, 2006, local exchange carriers subject to price cap regulation, pursuant to § 61.41, shall assign costs from the Part 32 accounts to the separations categories/sub-categories, as specified herein, based on the percentage relationships of the categorized/sub-categorized costs to their associated Part 32 accounts for the twelve month period ending December 31, 2000. If a Part 32 account for separations purposes is categorized into more than one category, the percentage relationship among the categories shall be utilized as well. Local exchange carriers that invest in types of telecommunications plant during the period July 1, 2001, through June 30, 2006, for which it had no separations category investment for the twelve month period ending December 31, 2000, shall assign such investment to separations categories in accordance with the separations procedures in effect as of December 31, 2000.

(1) Local exchange carriers not subject to price cap regulation, pursuant to § 61.41, may elect to be subject to the provisions of § 36.3(b). Such election

REPRODUCTION COST NEW LESS DEPRECIATION
Staff Recommended Depreciation Parameters

Account Number	Category	Condition Percent (% of Life Remaining)
2112	Motor Vehicles	40.36%
2114	Special Pupose Vehicles	27.06%
2115	Garage Work Equipment	64.93%
2116	Other Work Equipment	59.30%
2121	Buildings	59.83%
2122	Furniture	49.46%
2123.1	Office Equipment	19.88%
2123.2	Company Communications Equipment	43.80%
2124	General Purpose Computer	25.81%
2212	Digital Switching Equipment	62.14%
2220	Operator Systems	30.99%
2231	Radio Systems	27.60%
2232	Circuit DDS	37.10%
2232	Circuit Digital	55.05%
2232	Circuit Analog	23.34%
2362	Other Terminal Equipment	58.10%
2411	Pole Lines	63.94%
2421	Aerial Cable - Metallic	37.95%
2421	Aerial Cable - Non Metallic	76.85%
2422	Underground Cable - Metallic	34.18%
2422	Underground Cable - Non Metallic	75.32%
2423	Buried Cable - Metallic	47.94%
2423	Buried Cable - Non Metallic	66.75%
2424	Submarine Cable - Metallic	2.26%
2424	Submarine Cable - Non Metallic	0.00%
2426	Intrabuilding Cable - Metallic	26.78%
2426	Intrabuilding Cable - Non Metallic	75.78%
2431	Aerial Wire	62.60%
2441	Conduit Systems	56.33%

REDACTED

IMPACT OF REMOVING INVESTMENT WHICH SHOULD HAVE BEEN COVERED BY BSI CONSTRUCTION CHARGES RELATED TO BSI REQUESTED FACILITIES

Total Impact on Rate Base
"Video-Only" USAMS
Installed after 3/2/99

	Intrastate Plant in Service	Intrastate Accumulated Reserve	Net Intrastate Plant in Service
USAM Equipment Average Investment per Sample Site			
Total Number of "video-only" USAM Sites installed post 3/2/99			
Total Impact on USAM Investment			
Fiber Cable Average Investment per Sample Site			
Total Number of "video-only" USAM Sites installed post 3/2/99			
Total Impact on Fiber Cable Investment			
Copper Cable Average Investment per Sample Site			
Total Number of "video-only" USAM Sites installed post 3/2/99			
Total Impact on Copper Cable Investment			
Overall Impact on Intrastate Rate Base			

Source:

IMPACT OF REMOVING INVESTMENT WHICH SHOULD HAVE BEEN COVERED BY BSI CONSTRUCTION CHARGES RELATED TO BSI REQUESTED FACILITIES

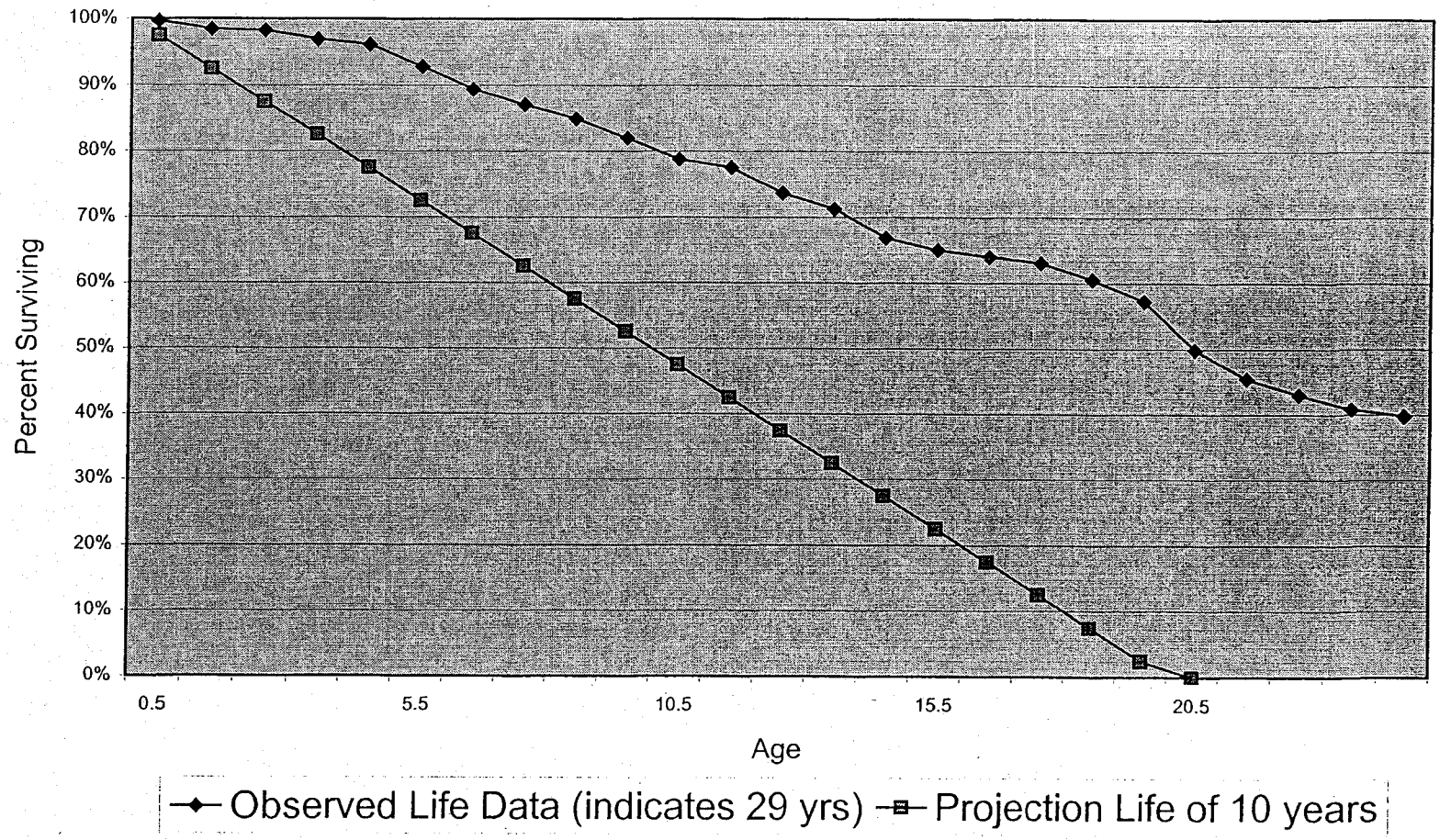
Total Impact on Depreciation Expense
"Video-Only" USAMS
Installed after 3/2/99

	Average Intrastate Depreciation Expense per Sample	Total Number of "video-only" post 3/2/99 USAM Sites	Total Intrastate Depreciation Expense
Circuit Equipment			
Underground Cable - Copper			
Underground Cable - Fiber			
Buried Cable - Copper			
Buried Cable - Fiber			
Overall Impact on Intrastate Depreciation Expense			

Source:
Qwest Confidential response to WDA 17-8
Qwest Confidential response to WDA 14-1
Qwest Confidential response to WDA 4-32

Graph of Recent Observed Life Data and Qwest Projection Life

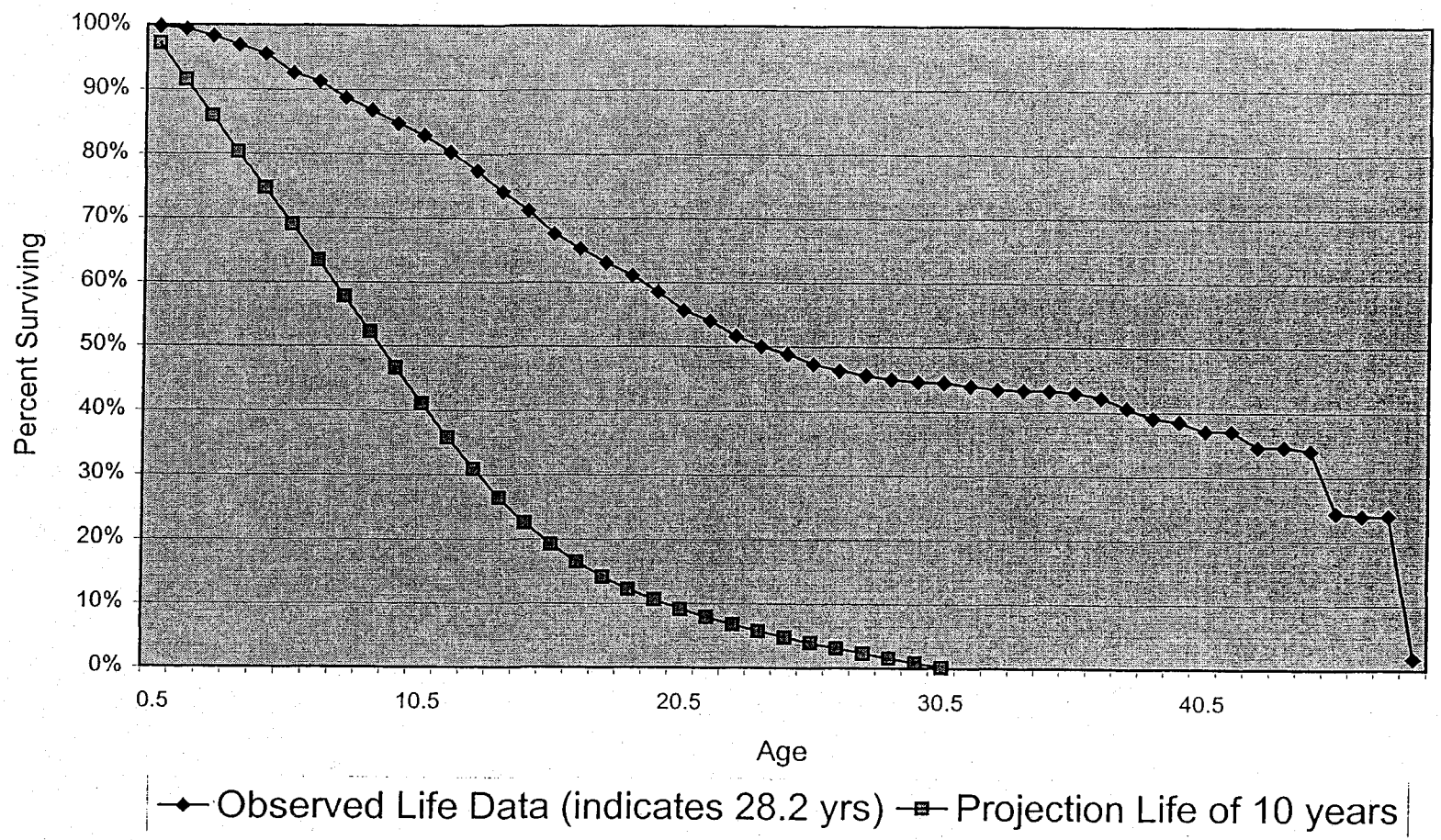
Account 2212 - Digital Switching Equipment



Source:
Observed Life from Qwest Responses to WDA 02-06 and WDA 04-02. (2001 - 2003 Band).
Projection Curve using Qwest's projection life of 10 years and O1.0 Iowa Curve

Graph of Recent Observed Life Data and Qwest Projection Life

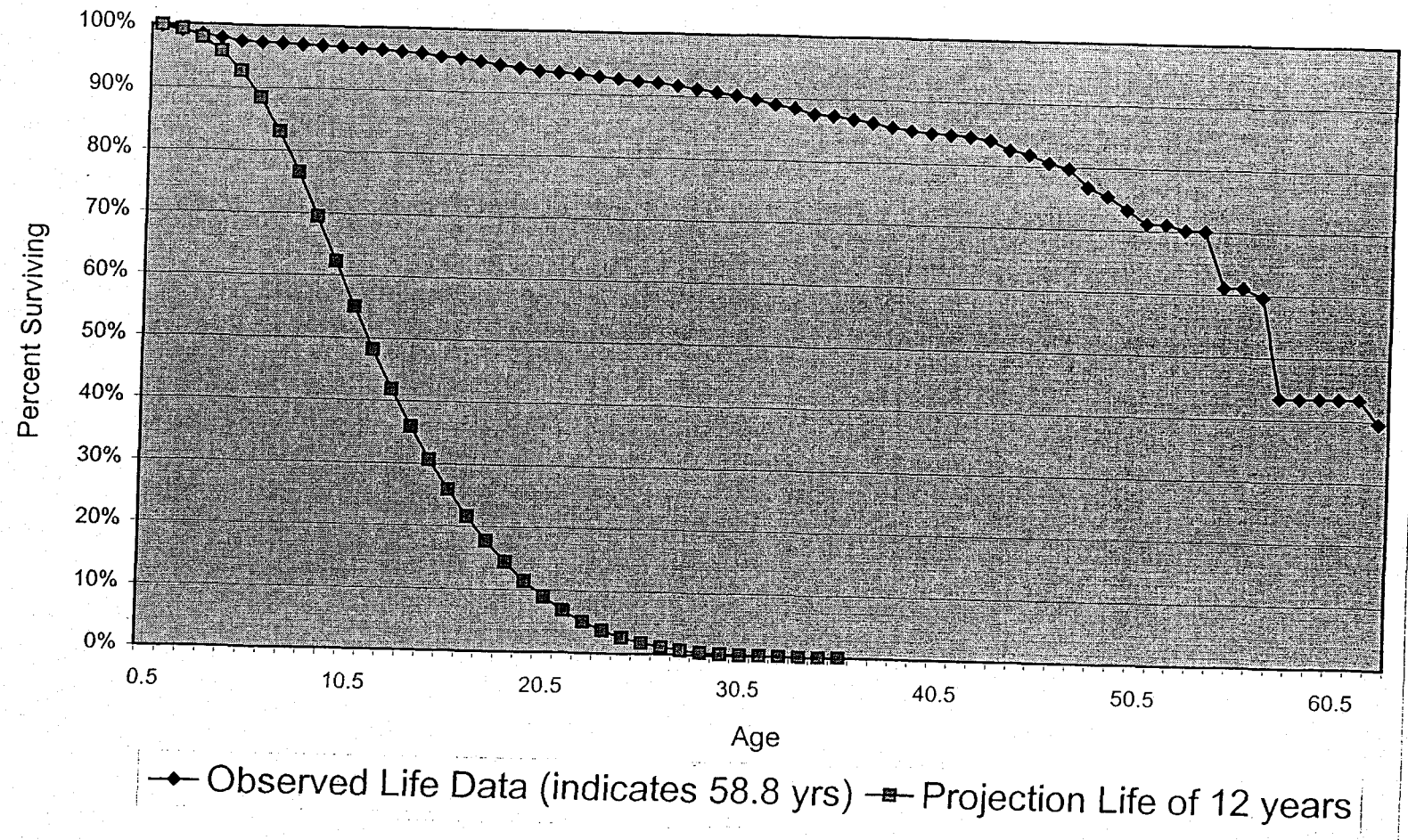
Account 2232 - Circuit Digital Equipment



Source:
Observed Life from Qwest Responses to WDA 02-06 and WDA 04-02. (2001 - 2003 Band).
Projection Curve using Qwest's projection life of 10 years and O2.0 Iowa Curve

Graph of Recent Observed Life Data and Qwest Projection Life

Account 2423 - Buried Cable - Metallic



Source:

Observed Life from Qwest Responses to WDA 02-06 and WDA 04-02. (2001 - 2003 Band).

Projection Curve using Qwest's projection life of 12 years and L1.5 Iowa Curve

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF QWEST CORPORATION'S FILING AMENDED RENEWED PRICE REGULATION PLAN	)))	DOCKET NO. T-01051B-03-0454
IN THE MATTER OF THE INVESTIGATION OF THE COST OF TELECOMMUNICATIONS ACCESS	))	DOCKET NO. T-00000D-00-0672

DIRECT TESTIMONY
OF
STEVEN C. CARVER,
MICHAEL L. BROSCH
AND
STAFF JOINT ACCOUNTING SCHEDULES

ON BEHALF OF THE STAFF OF THE
ARIZONA CORPORATION COMMISSION

PUBLIC VERSION

("Highlighted" Text Denotes Confidential Material)

NOVEMBER 18, 2004

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF QWEST CORPORATION'S FILING AMENDED RENEWED PRICE REGULATION PLAN	)))	DOCKET NO. T-01051B-03-0454
IN THE MATTER OF THE INVESTIGATION OF THE COST OF TELECOMMUNICATIONS ACCESS	))	DOCKET NO. T-00000D-00-0672

DIRECT TESTIMONY

OF

STEVEN C. CARVER

ON BEHALF OF THE STAFF OF THE ARIZONA CORPORATION COMMISSION

PUBLIC VERSION

("Highlighted" Text Denotes Confidential Material)

NOVEMBER 18, 2004

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Attachment SCC-2	Summary of Previously Filed Testimony
Attachment SCC-3	Staff Schedule E, Reconciliation of Positions, Docket No. T-1051B-99-105.
Attachment SCC-4 Attachment SCC-5	} Analyses of Pension Costs Included in Revenue Requirement
Attachment SCC-6	Qwest Discovery Responses – FAS106 OPEB
Attachment SCC-7	FCC Deregulated Services – Financial Results & Price Changes

BEFORE THE
ARIZONA CORPORATION COMMISSION
DIRECT TESTIMONY OF
STEVEN C. CARVER

QWEST CORPORATION
DOCKET NOS. T-01051B-03-0454 & T-00000D-00-0672

Q. Please state your name and business address.

A. My name is Steven C. Carver. My business address is 740 NW Blue Parkway, Suite 204, Lee's Summit, Missouri 64086.

Q. What is your present occupation?

A. I am a principal in the firm Utilitech, Inc., which specializes in providing consulting services for clients who actively participate in the process surrounding the regulation of public utility companies. Our work includes the review of utility rate applications, as well as the performance of special investigations and analyses related to utility operations, cost allocation and ratemaking issues.

Q. On whose behalf are you appearing in this proceeding?

A. Utilitech was retained by the Staff of the Arizona Corporation Commission (hereinafter "Staff" or "ACC Staff") to review and respond to the revenue requirement filed by Qwest Corporation ("Qwest" or "Company"), as ordered by the Arizona Corporation Commission ("ACC" or "Commission") pursuant to R14-2-103. The scope of work undertaken by Utilitech included submission of testimony with this Commission regarding the results of our review, primarily regarding Qwest's test year revenue requirement under the traditional approach to utility regulation.

Q. Have you previously testified before this Commission in proceedings that involved Qwest or its predecessor companies?

A. Yes. Mr. Michael Brosch, also of Utilitech, and I have prepared and presented revenue requirement recommendations in a number of proceedings involving Qwest or U S West

Communications. I have filed testimony in three of the Company's previous Arizona rate cases (Docket Nos. E-1051-88-146, E-1051-93-183 and T-1051B-99-105) dating back to 1989. I have also filed testimony in two proceedings before the Washington Utilities and Transportation Commission (Docket Nos. UT-930074 and UT-950200) as well one proceeding before both the Utah Public Service Commission (Docket No. 97-049-08) and the New Mexico Public Regulation Commission (Utility Case No. 3008).

Q. Please summarize the purpose and content of your testimony.

A. Generally, my responsibilities in this docket encompass the review and evaluation of various elements of rate base and operating income included within the overall revenue requirement. As a result, I address various adjustments to rate base and operating income, identified on the earlier table of contents, as well as introduce Staff's proposed capital structure (Schedule D) sponsored by Staff witnesses Joel Reiker and Alejandro Ramirez. The additional ratemaking adjustments, which I do not sponsor, are separately addressed in the direct testimony of Staff witnesses Michael Brosch and William Dunkel. The revenue requirement effect of the various Staff adjustments and recommendations are reflected within the Staff Joint Accounting Schedules.

EDUCATION AND EXPERIENCE

Q. What is your educational background?

A. I graduated from State Fair Community College, where I received an Associate of Arts Degree with an emphasis in Accounting. I also graduated from Central Missouri State University with a Bachelor of Science Degree in Business Administration, majoring in Accounting.

Q. Please summarize your professional experience in the field of utility regulation.

A. From 1977 to 1987, I was employed by the Missouri Public Service Commission ("MoPSC") in various professional auditing positions associated with the regulation of public utilities. In April 1983, I was promoted by the Missouri Commissioners to the position of Chief Accountant and assumed overall management and policy responsibilities for the Accounting Department. I provided guidance and assistance in

the technical development of Staff issues in major rate cases and coordinated the general audit and administrative activities of the Department.

I commenced employment with the firm in June 1987. During my employment with Utilitech, I have been associated with various regulatory projects on behalf of clients in the States of Arizona, California, Florida, Hawaii, Kansas, Illinois, Iowa, Indiana, Mississippi, Missouri, Nevada, New Mexico, New York, Oklahoma, Pennsylvania, Texas, Utah, Washington, West Virginia and Wyoming. I have conducted revenue requirement and special studies involving various regulated industries (i.e., electric, gas, telephone and water). Since joining the firm, I have also appeared as an expert witness before the MoPSC on behalf of various clients, including the Commission Staff. Additional information regarding my professional experience and qualifications are summarized in Attachments SCC-1 and SCC-2.

EXECUTIVE SUMMARY

Q. What is the overall revenue requirement proposed by Staff for Company's Arizona intrastate regulated operations?

A. Qwest submitted its prefiled testimony and required schedules[1] on May 24, 2004, subsequently revised on June 21, 2004. The Company's revised filing presents an overall intrastate revenue deficiency of $318.5 million (original cost) and $458.8 million (fair value).[2] The revised filing (June 21, 2004) was based on a historical test year ended December 31, 2003, with certain known and measurable ratemaking adjustments recognizing various prospective changes. In comparison, Staff has assembled a revenue requirement recommendation, based on an internally consistent test year approach, supporting an overall revenue increase of approximately $3.53 million. A series of accounting schedules supporting the Staff's recommended adjustments are set forth in the Staff Joint Accounting Schedules.

[1] Qwest Corporation filing pursuant to A.A.C. R14-2-103(B)(7) or "R14-2-103" filing.
[2] See Qwest Schedule A-1, filed June 21, 2004.

Q. Did the Company propose to recoup the entire $318.5 million deficiency through changes in existing tariff rates and price lists?

A. No. The Company did request an increase in AUSF support of approximately $64 million as well as several million dollars in increased miscellaneous revenues. However, the Company has also sought significant additional pricing flexibility, which may provide an opportunity for Qwest to recoup a larger portion of the remaining deficiency.

Q. Please summarize the ratemaking adjustments proposed by Staff that contribute to this difference between the revenue requirement recommendations of Company and Staff.

A. Schedule E of the Staff Joint Accounting Schedules represents a reconciliation of the various differences between the overall revenue requirement recommendations of Company and Staff.

Q. How are the Staff Accounting Schedules organized?

A. Within the joint accounting schedules, the components of the Staff's proposed revenue requirement appear on Schedule A, Change in Gross Revenue Requirement. The Staff's proposed rate base is brought forward from Schedule B, Summary of Jurisdictional Rate Base. Similarly, Staff's adjusted net operating income recommendation is brought forward from Schedule C, Summary of Operating Income. The components comprising Staff's cost of capital recommendation (i.e., rate of return) are detailed on Schedule D, Capital Structure & Costs.

Jurisdictional separation factors, applied to isolate the Arizona intrastate portion of each Staff adjustment, are summarized on Schedule F – based on revised composite intrastate separations factors resulting from the exclusion of FCC nonregulated services as discussed in a subsequent testimony section. The development of the gross revenue conversion factor used to convert the net operating income deficiency on Schedule A into the appropriate revenue requirement amount is set forth on Schedule A-1.

Staff's recommended adjustments to rate base and operating income are supported by individual schedules, also contained within the joint accounting schedules. The witness

sponsoring each adjustment and schedule comprising the Staff's overall revenue requirement recommendation is identified in the upper left-hand corner thereof and listed on the schedule index located at the front of Staff Joint Accounting Schedules.

Q. How will you identify and refer to the individual accounting adjustments?

A. Both rate base and operating income adjustments have been numbered sequentially, but separately, beginning with the number "one". In order to distinguish the first rate base adjustment from the first operating income adjustment, the adjustment number is preceded by a reference to the schedule on which the adjustment was posted. For example, the posting schedule for the rate base adjustments is Schedule B. So, the first rate base adjustment would then be referenced as Schedule (or Adjustment) B-1. Similarly, the first operating income adjustment would be identified as Schedule (or Adjustment) C-1, since Schedule C is the posting schedule for the income statement adjustments. For purposes of testimony presentation in this proceeding, Mr. Brosch and I will use the words "schedule" and "adjustment" interchangeably when referring to the individual adjustments proposed by Staff.

Q. Do the joint accounting schedules provide calculation detail supporting each Staff adjustment?

A. Yes. The joint accounting schedules contain individual adjustment "schedules" that show the quantification of each rate base and operating income adjustment, with footnote references to supporting documentation. Since virtually all information relied upon by Staff in developing these adjustments was supplied by Qwest in response to written discovery, the adjustment schedules will refer to the relevant data sources, already in the Company's possession, that represent the primary support for the Staff adjustments affecting overall revenue requirement.

Q. Please describe Staff's approach to quantifying revenue requirement in this proceeding.

A. The Staff's joint accounting schedules use Qwest's "prefiled" amounts (as revised on June 21, 2004) for rate base, revenues and expenses as a starting point. The Company's

proposed amounts were then adjusted to reflect the impact of the various revisions provided by Qwest[3] as well as modifications recommended by Staff witnesses.

By starting with the Company's proposed amounts, each ratemaking adjustment recommended by Staff represents a reconciling difference, positive or negative, between the overall revenue requirement recommendations of Staff and Qwest. In fact, Staff's Schedule E represents a reconciliation of the individual revenue requirement differences between the Company and Staff, by individual item.

Q. Please describe how the remainder of your testimony is organized.

A. The remainder of my testimony is arranged by topical section, following the table index presented previously. This index identifies the specific areas I address in testimony and references the testimony pages as well as any related adjustment support located in the joint accounting schedules.

TEST YEAR

Q. Please briefly describe the test year approach used in this proceeding.

A. As discussed previously, Qwest's revenue requirement is based on a historical test year ended December 31, 2003, with various ratemaking adjustments discussed in the direct testimony of Company witness Philip E. Grate[4]. Although Mr. Grate identifies only one post-test year pro forma adjustment proposed by Qwest, the Company sponsors ten (10) rate base and twenty-three (23) operating income adjustments that fall into three basic categories: accounting pro forma adjustments; normalizing pro forma adjustments; and ratemaking pro forma adjustments.[5] However, the Company is not seeking to recover the full amount of its asserted revenue deficiency through increases in its various tariff rates, as indicated by Mr. Grate:[6]

> Schedule A-1 of Qwest's Rule 103 filing computes Qwest's Arizona revenue requirement. Given the intensity of competition Qwest now faces

[3] Staff Adjustments B-1 and C-1, jointly sponsored with Mr. Brosch, recognize corrections Qwest has identified to its June 21, 2004, filing in response to Staff Data Requests UTI 1-1 and 7-2.
[4] Grate direct testimony, pp. 37-41.
[5] Grate direct testimony, pp. 46-52.
[6] Grate direct testimony, p. 10.

> in Arizona and the pace of Qwest's Arizona access line loss, Qwest does not believe the revenue requirement computed in the schedules of its Rule 103 filing is fully recoverable from its Arizona customers. Therefore, Qwest is not proposing rates to fully recover its revenue requirement. Instead, Qwest is proposing modifications to its price regulation plan that will allow the Company to compete on a more equal footing with its competition in Arizona.

Utilitech was retained by the ACC Staff to review Qwest's traditional revenue requirement filing and to present the results of our review, not to address Qwest's proposed modifications to the Company's price regulation plan. Staff witness Mathew Rowell discusses the price regulation plan in his direct testimony.

Q. With regard to the traditional revenue requirement elements of Qwest's filing, has the Company proposed a year-end or average approach in quantifying overall revenue requirement?

A. Generally, Qwest has proposed end-of-period investment, revenues and wage rates. However, certain elements of the ratemaking formula are based on average test year levels in areas such as: employee levels and general non-labor operating expenses.

Q. How does the Company's general test year approach compare to that employed by the Staff?

A. In quantifying its revenue requirement recommendation, the Staff concurs with the use of 2003 historical test year, with fixed, known and measurable changes through December 2003.

Q. Why is the selection and balanced adjustment of a test year important in the determination of just and reasonable utility rates?

A. The ratemaking equation commonly employed by this Commission, and other regulatory agencies, compares a required return on rate base to the investment return generated by adjusted test year operating results. If the return indicated by the adjusted operating results (i.e., adjusted test year operating income and rate base) is deficient, an increase in revenues is required to provide the utility an opportunity to earn a "reasonable" return on

its investment. Conversely, an excessive return would support a reduction in utility revenues and rates.

For the ratemaking equation to function properly, the components comprising the equation (i.e., rate base, revenues, expenses and rate of return) must be reasonably representative of ongoing levels, internally consistent and comparable – within the context of test period parameters. To the extent that these components are not properly synchronized, a utility may not have the opportunity to earn its authorized return or, alternatively, may have the opportunity to earn in excess of the return authorized. By synchronizing or maintaining the comparability of revenues, expenses and investment, the integrity of the test year can be maintained with the reasonable expectation that the resulting rates will not significantly misstate the ongoing cost of providing utility service.

Consequently, it is critical that the ratemaking process properly synchronize only those known and measurable changes which occur during the test year or within a reasonably defined period subsequent thereto, rather than establish utility rates on inappropriate factors or inconsistent post-test year events. In this manner, regulators can best be assured that rates are reasonably based on ongoing cost levels.

Q. Could you explain the concept of "known and measurable" changes, as commonly used in the ratemaking process?

A. Yes. In general terms, regulatory agencies often recognize "known and measurable changes" to operating revenues, expenses and operating income that occur within a predefined period following the test year. In my opinion, the following definition or explanation of the "known and measurable" concept is commonly applied in utility ratemaking, consistent with past Arizona practice:

> **Known and measurable changes** -- transactions or events that are:
> (a) Fixed in time. A qualifying transaction or event must occur or be reasonably certain to occur within or immediately following the test year – synchronized with other material elements of the ratemaking equation.
> (b) Known or reasonably certain to occur. The transaction or event must be "known" to exist or be highly probable to occur, in contrast with possible, uncertain or speculative changes.

(c) Measurable in amount. The financial effect of the transaction or event can be "measured" or accurately quantified.

In this context, a transaction or event should only be considered "known and measurable" if it has been agreed to by contract or commitment, can be verified to have occurred within the specified time period, and can be quantified employing actual data or reasonable estimates. However, the events giving rise to the qualifying transaction must occur within a specified and consistent period.

It is not uncommon for regulatory commissions to recognize or annualize transactions occurring within, or subsequent to, the historical test period for verifiable, yet balanced, changes which will impact a utility's future earnings. However, it is also true that parties often differ on whether offsetting factors have been appropriately considered (i.e., properly matched) and how far outside the test year it may be appropriate to reach for changes. In the absence of a reasonable balance or matching, a distorted view of the cost of service will lead to improper rate adjustments. A consistent matching of material price and quantity changes is necessary to achieve this balance, particularly when volume changes, during or subsequent to the test year, offset price level changes.

Q. How should the Company proposed adjustments that reach beyond test year-end for price or quantity changes be handled?

A. The test year cut-off should be consistently applied to all material changes in rate base, revenues, expenses and other operating income items. For example, an announced 1¢ postal rate increase effective September 1, 2003, would fall within the test year. Presuming the availability of the data required to accurately quantify the annual pro forma impact of such an increase on test year postage expense, an adjustment to annualize this "known" price change would meet the known and measurable criteria, all else remaining equal.

Instead of a postal rate increase, assume that the utility announced a 1% wage increase effective June 1, 2004. While this increase might be known and might be measurable, the specified change falls well outside the test year. Absent a wholesale update of the test

year for all material known and measurable changes through June 2004, the June 2004 wage increase would not be eligible for annualization purposes.

Q. Based on your regulatory experience, is it reasonable to expect that changes occurring subsequent to a rate case test year will automatically put upward pressure on the cost of providing utility service?

A. No. It may be anticipated that the passage of time may result in increasing expenses and plant investments, during periods of even modest inflation. As a result, the use of an end-of-period, or post-test year, rate base and the recognition of various revenue/ expense annualization and/ or normalization adjustments might be expected to consistently yield higher revenue requirements. However, the rate of depreciation reserve growth may materially mitigate growth in plant investment, while revenue trends, productivity gains from technology and reductions in certain operating expenses may offset the presumption of a generally increasing cost of service. These favorable and unfavorable revenue requirement influences can offset one another for many years, explaining how many utilities have avoided base rate increases for extended periods of time.

All components of the ratemaking equation change over time. It is only by consistently analyzing the major cost of service components that a determination can be made as to whether the overall revenue requirement has changed materially. The key issue is whether revenues are growing faster or slower than the overall costs, including investment return, necessary to support those revenues.

QWEST UPDATE – CORRECTIONS & REVISIONS

Q. Why are Staff Adjustments B-1 and C-1 necessary?

A. During the course of Staff's review of the Company's June 21, 2004, revised R14-2-103 Filing, Qwest's responses to various Staff and RUCO discovery requests have identified various corrections or revisions the Company believes are necessary to that filing. Since Staff's revenue requirement recommendation is based on adjusting the Company's proposed values for rate base and operating income, it was necessary for Staff to post the Company's revisions to the June 2004 filed amounts, in lieu of a formal revision to

Qwest's R14-2-103 Filing. Staff Adjustments B-1 and C-1 represent composite adjustments that combine the various modifications identified by the Company.

Q. Are you sponsoring these adjustments?

A. Mr. Brosch and I jointly sponsor these corrections the Company has indicated are necessary to its June 2004 R14-2-103 filing. By posting these adjustments, we are not necessarily adopting or agreeing with those Company modifications. Rather, we are merely reflecting the changes Qwest believes are necessary to its June 2004 filing. In fact, Mr. Brosch and I specifically sponsor adjustments that further correct, modify or reverse all or portions of individual Company revisions.

Q. Could you briefly describe how Staff Adjustments B-1 and C-1 are organized?

A. Yes. The Company has identified various adjustments, which affect rate base and/ or operating income. Staff Adjustment B-1 merely compiles those portions of each of these Company revisions that impact rate base into one consolidated rate base adjustment. Staff Adjustment C-1 reflects a similar approach to operating income.

Q. What was the data source of the various Company adjustments included in Staff Adjustments B-1 and C-1?

A. In response to various Staff discovery, but more specifically Staff Data Requests UTI 1-1 and 7-2, Qwest has been providing the quantification of the revisions to its filing. This data from the Company serves as the basis for these Staff adjustments. Since late summer, we have also had several discussions with Company and Staff representatives about this revision process.

TELEPHONE PLANT UNDER CONSTRUCTION (TPUC)

Q. Please describe Staff Adjustments B-5 and C-8.

A. In assembling its R14-2-103 filing, Qwest proposed a pro forma accounting adjustment (PFA-04) to change from the "capitalization" method to the "revenue requirement offset" method of accounting for telephone plant under construction ("TPUC"). Under the revenue requirement method, Qwest originally proposed to increase intrastate rate base

by $20,406,000 and increase net operating income by $101,000. Subsequent Company revisions now increase rate base by $20,148,000[7] and decrease net operating income by $157,000. Staff Adjustments B-5 and C-8 reverse the revised Qwest adjustments to rate base and net operating income.

Q. What is TPUC?

A. TPUC represents the original cost of construction projects not yet completed and in service – that is, an investment in projects that are not yet used and useful in providing utility service. The FCC Uniform System of Accounts ("USOA" or "Part 32") requires that all TPUC expenditures be charged to Account 2003, unless the construction project is estimated for completion within two months or the gross additions are expected to be less than $100,000. The construction cost of those projects of short duration or small amount may be charged directly to the appropriate plant account. Under the current FCC USOA, telecommunications companies are no longer required to maintain different accounts for short-term and long-term construction projects, although Qwest has continued to maintain this distinction because of intrastate regulatory accounting requirements.[8]

Q. Of the $20.1 million increase to rate base, what is the relative distribution between short-term and long-term construction projects?

A. According to the Company workpapers supporting Adjustment PFA-04, the TPUC balance included in rate base is predominantly related to short-term TPUC.[9] When the TPUC issue was last litigated in Docket No. E-1051-93-183, the Company had sought to include about $29.3 million of short-term TPUC ("STPUC") in rate base.[10]

Q. Why has Qwest proposed to include TPUC in rate base?

A. Although Mr. Grate has sponsored eleven pages of testimony discussing three methods used to account for TPUC, none of his testimony actually addresses why the Company

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7 The TPUC component of revised Qwest Adjustment PFA-04 is $21,023,000 compared to $21,448,000 in the original Company adjustment.

8 See response to UTI 2-1, Attachment A, Technical Accounting RA-1-74, Account 2004.

9 Original balance was comprised of short-term TPUC of $19,176,866 and long-term TPUC of $2,270,992.

10 See Decision No. 58927, pp. 5-6 (ACC Docket No. E-1051-93-183, January 3, 1995).

has sought to include TPUC in rate base for intrastate revenue requirement purposes. However, he does offer a simplified analysis of three methods of accounting for TPUC: capitalization method, rate base method and revenue requirement method. Through this analysis, Mr. Grate attempts to show that the capitalization method, currently authorized by the ACC, "does not provide an opportunity for full recovery of the cost of construction." [Grate direct, p. 69] It appears that Mr. Grate has mistakenly focused his analysis on whether the capitalization method yields the same return to the Company as the other rate base alternatives. This analysis will be discussed in more detail later in my testimony.

Q. Why should TPUC be excluded from rate base?

A. A telecommunications provider, or other regulated enterprise, may expend funds for construction in order to modernize plant, replaced damaged or worn out facilities, or meet the demands of growth or entry into new markets. The completion of a construction project may allow the Company to realize improved efficiencies, cost savings and/ or additional revenue.

As discussed in the earlier test year section of my testimony, it is critical for the elements of a test year to be representative of ongoing levels and to be internally consistent and comparable. The TPUC projects the Company has proposed to include in rate base, were not completed or in-service as of the end of the test year (December 31, 2003). Because these projects were not used and useful during the test year, any related benefits (e.g., cost savings, new revenues, etc.) reasonably expected to arise from these uncompleted projects would, by definition, only be realized subsequent to the test year. Since no adjustments have been proposed by Company or Staff to reach out beyond the test year to capture TPUC related post-test year savings or revenues in determining revenue requirement, it would be inappropriate to include in rate base any expenditures for uncompleted plant because of the inherent mismatch such inclusion would introduce into the ratemaking process.

Q. How much of the Company's construction expenditures relate to growth or are viewed as being revenue production or likely to result in cost savings?

A. I do not know. Staff Data Request UTI 16-15 requested this information, but the response thereto indicated that Qwest does not maintain or have a breakdown of the TPUC investment between new growth or revenue producing projects, efficiency or cost savings projects, replacement projects, and non-revenue producing or non-cost savings projects. Apparently, the Company has no need for this information. Further, this response also states: "The Company's revenue requirement calculation does not include any additional revenues, cost savings or efficiencies that may be expected to be realized by plant under construction." Curiously, the response observes that the recognition of such amounts, if known, "would violate the proper construction of the test year" – even though such revenues, savings or efficiencies would result from the very uncompleted projects Qwest proposed to include in rate base. Finally, the response to Staff Data Request UTI 16-15 indicates that the FCC did not require these offsets when the revenue requirement offset method was adopted. So, it is not possible to assess what proportion of TPUC may reasonably be expected to result in new sources of revenues or other cost savings.

Q. Has it been uncommon for State regulatory commissions to exclude TPUC from rate base?

A. No. I have not seen a national survey of this type of data since the mid-1990's. However, in ACC Docket No. E-1051-93-183, Qwest reported that ten of the thirteen other States in which the Company operates excluded short-term TPUC from rate base.[11] The disallowance of TPUC from rate base is not unique to Qwest. Over the years, I have been involved in a number of regulatory proceedings in various jurisdictions. In my experience, the discussion of including TPUC (or CWIP for energy companies) in rate base has addressed a variety of issues, such as test year matching concerns and requirements to demonstrate that rate base inclusion is needed to maintain the regulated entity's financial integrity.

[11] Company response to Staff Data Request No. UTI-108 in Docket No. E-1051-93-183.

Q. Would the exclusion of TPUC from rate base jeopardize Qwest financial integrity in Arizona?

A. No, I do not believe so. Based on historical information set forth on Schedule E-3, Comparative Statement of Cash Flows, from Qwest's June 2004 revised R14-2-103 filing, the Company's Arizona construction expenditures have been more than met by internally generated funds over the last three years.

Q. Will your proposal to exclude TPUC from rate base deny the Company the opportunity to earn a return on those construction expenditures?

A. No. In Decision No. 58927, the Commission adopted Staff's recommendations and excluded short-term TPUC from rate base. Furthermore, all TPUC has and will continue to accrue an allowance for funds used during construction ("AFUDC") at the approved capital cost authorized herein until the project is completed and ready for service.

Arizona: Historical Treatment of TPUC

Q. When did the Company last present the rate base inclusion of TPUC to the Commission?

A. In the Company's last rate case, the Company did not seek rate base inclusion of TPUC. To the best of my knowledge, the Company's 1993 rate case (Docket No. E-1051-93-183) was the last rate proceeding in which Qwest sought rate base treatment. In Docket No. T-1051B-99-105, the Company's rate filing did not propose inclusion of TPUC in rate base.

Q. Were you involved in the Company's 1993 Arizona rate case?

A. Yes. I was the Staff witness who sponsored the testimony excluding TPUC from rate base, which was adopted by the Commission. The basis for the Commission's decision on this issue is clearly set forth in the following excerpt from Decision No. 58927:

> The Company included $29,282,000 of short-term plant under construction ("STPUC") in its original application. The Company included the STPUC since it was expected to be in service before new rates were approved in this case.
>
> Staff recommended removal of STPUC because of the inherent mismatch that would result from its inclusion. According to Staff, there will be benefits from the completion of the plant which will not be

> recognized until a subsequent rate proceeding. In place of STPUC, Staff recommended the Company be authorized to continue the capitalization of an allowance for funds used during construction ("AFUDC") until the project is completed and ready for service. At that point, the Company would prepare an off-book computation of monthly depreciation expense on the capitalized AFUDC accumulated with STPUC, and maintain an accumulated depreciation reserve. According to Staff, this procedure should provide the amount of AFUDC to be included in plant-in-service and the depreciation reserve in future rate cases.
>
> In response, the Company indicated it would still prefer inclusion of STPUC in rate base. However, the Company agreed either method would be acceptable.
>
> Under the circumstances presented herein, we will adopt Staff's position and remove STPUC from rate base. Furthermore, all STPUC will continue to accrue AFUDC at the approved capital cost authorized herein until the project is completed and ready for service.
> [Decision No. 58927, pp. 5-6]

To my knowledge, this is the only litigated rate case in which the Commission considered and affirmatively addressed how TPUC should be handled for ratemaking purposes.

Q. At pages 66 and 67 of his direct testimony, Mr. Grate discusses the history of the ACC on the ratemaking treatment of TPUC, indicating that the Commission has switched from the capitalization method prior to 1982 to the rate base method in 1983 and reverting to the capitalization method in 1993. Do you agree with that characterization?

A. No. The Commission's findings in Decision No. 53040 (Docket No. 9981-E-1051-406) were based on a negotiated settlement. The following language appears in that order concerning short-term TPUC:

> Mountain Bell also seeks to have the Corporation Commission adopt and apply for intrastate ratemaking purposes changes to the Uniform System of Accounts relating to the treatment of the telephone plant under construction and interest during construction made by the Federal Communications Commission effective January 1, 1979. Under the stipulated settlement, the Corporation Commission will adopt and apply the directives of the Federal Communications Commission for intrastate ratemaking purposes. This will result in interest during construction no longer being accrued on short term plant under construction. Instead, short term plant under construction shall be included in the rate base.
> [Decision No. 53040, p.5]

However, it is important to recognize that Decision 53040 was indeed based on a stipulated settlement, the nature of which is further discussed in the following excerpt from that same order:

> This stipulation is entered into with the express understanding and agreement that all negotiations and offers of settlement and discussions relating thereto and this stipulation, itself, are the result of an attempt to resolve and compromise disputed and controverted positions. Accordingly, this stipulation and all negotiations and settlement conferences leading up to this agreement are made without prejudice to any party and are not admissible in evidence or deemed to be an admission against interest by any party hereto of any matter considered or discussed or contained herein, directly or indirectly. Furthermore, this stipulation, any order of this Commission entered pursuant to this stipulation, and the settlement offers leading thereto shall not be used in any manner by the parties hereto or any other party whatsoever, in any litigation, proceeding or docket pending, existing or to be tried in the future, it being expressly and clearly recognized that this stipulation is considered a nonprejudicial compromise of the parties' positions in this proceeding only.
>
> ...
>
> This stipulation shall not be binding on any party in any subsequent proceeding, docket or litigation.
> [Decision No. 53040, p.12; Emphasis Added]

In my opinion, the above language means exactly what it says. Decision No. 53040 was based on a negotiated, nonbinding settlement. Consequently, I do not concur with any implication that this order represents a careful and deliberate consideration of detailed evidence presented in that proceeding with a conclusion by the Commission that TPUC was properly includable in rate base.

Q. In this same portion of his direct testimony, Mr. Grate also states that the Commission used the rate base method on short-term TPUC in its 1983 and 1986 rate decisions. Did the Commission issue any rate orders subsequent to Decision No. 53040 which included short-term TPUC in rate base?

A. Yes. In February 1983, the Company filed an application (Docket No. E-1051-83-035) seeking an overall rate increase. This docket was a contested case proceeding, resolved by Decision No. 53849. Although a review of this decision does indicate that TPUC was

included in rate base[12] net of a minor disallowance, the policy issue of whether short-term TPUC should be included or excluded from rate base was not presented to nor addressed by the Commission – rather the parties agreed on rate base inclusion. While it was the regulatory intent of the parties to include TPUC in rate base, this order does not present a conclusive determination by the Commission, as the rate base method was not presented as a litigated issue.

A similar factual situation arose in Docket No. E-1051-84-100, pursuant to a rate increase application filed by the Company in October 1984. In Decision 54843, the Commission again included short-term TPUC in rate base, after accepting certain adjustments proposed by Staff decreasing the amount requested by the Company.[13] Again, TPUC was included in rate base by agreement of the parties, but the Commission was not presented with the policy issue of whether such inclusion was appropriate.

Docket No. E-1051-88-146 arose from a Commission initiated investigation of the Company's rates and charges, which resulted in the issuance of a complaint against a predecessor company, US West, directing the Company to show cause why its rates should not be reduced. In interim Decision No. 56363 (issued February 22, 1989), the Commission concluded that Staff had met its burden that a $33.4 million interim rate decrease was warranted. Although Decision No. 56363 (page 7) referenced the issue as uncontroverted, the Commission adopted a Staff adjustment removing short-term TPUC from rate base in quantifying the amount of the interim rate decrease. Subsequent to that interim order, the Commission issued Decision No. 56471 making the interim decrease permanent, with an additional $3.9 million reduction to touch tone rates, and rescinded Decision No. 56363 pursuant to an agreement between the Company and Staff.

In Docket No. E-1051-91-004, the Commission issued Decision No. 57462 adopting a global settlement between the Company and Staff, authorizing a $78.8 million rate

[12] Decision No.53849 (December 22, 1983), pp. 16-17 & 21.
[13] Decision No.54843 (January 10, 1986), pp. 26 & 28.

increase. This order resolved all rate case issues without addressing the disposition of any particular issue, including short-term TPUC.

Q. What is your view of this history of the Commission's rate base treatment of TPUC?

A. In my opinion, the Commission had not clearly articulated a policy position regarding the rate base treatment of TPUC until Docket No. T-1051B-99-105. While the regulatory intent of the parties may be clear, the Commission did not reach an affirmative disposition of this issue as the matter was either included in a settlement or not presented as an issue in the other proceedings identified by Mr. Grate. I believe that any implications otherwise would mischaracterize the facts and circumstances surrounding those individual proceedings.

Q. At page 72 of his direct testimony on the TPUC issue, Company witness Grate indicates that Qwest should not be required to substantiate the existence of ratepayer benefits before the Commission can approve adoption of the "revenue requirement offset" method, stating:

> Whether an accounting method favors ratepayers over investors or investors over ratepayers is not an appropriate criterion for determining the desirability of one accounting method over another. No one could reasonably assert that ratepayers should be subjected to an accounting method solely because it produces a higher revenue requirement than another method. It is no less true that investors should not be subjected to accounting method solely because it yields a lower revenue requirement than another method. The choice of accounting methods should turn on which method yields the most accurate reflection of actual costs and actual results of operations.

In deciding to adopt the capitalization method for short-term TPUC in Decision No. 58927,[14] did the Commission adopt Staff's recommendation on the basis that the capitalization method favors ratepayers over shareholders?

A. No. As indicated by the earlier excerpt from Decision No. 58927, the Commission's adoption of the capitalization method was not based on whether the method favored ratepayers or investors – instead focusing on the inherent mismatch that would result.

[14] ACC Docket No. E-1051-93-183, January 3, 1995.

FCC Accounting Requirements

Q. At page 63 through 68 of his direct testimony, Mr. Grate discusses the FCC's accounting for TPUC including a discussion of its Report and Order in CC Docket No. 93-50. At page 65, Mr. Grate states:

> Then, in 1995, the FCC released an order that adopted the revenue requirement offset method for both long-term and short-term construction projects. [footnote omitted] Attached as Exhibit PEG-D3 is a copy of the order. The order explains why the FCC concluded the revenue requirement offset method is superior to the rate base and capitalization methods and is the best approach.

Have you reviewed the FCC order discussed by Mr. Grate?

A. Yes. I have carefully reviewed the FCC Report and Order ("FCC R&O")[15] attached as Exhibit PEG-D3 to Mr. Grate's direct testimony.

> In the Notice, we proposed the revenue requirement offset method for both short-term and long-term construction projects because we believed that this method would allow us to adopt accounting that is both consistent with GAAP and fair and reasonable for ratemaking purposes. Of the thirteen commenting parties, three support the proposal, [footnote omitted] and ten oppose it in varying degrees. [footnote omitted]
> [FCC R&O, par. 7]

In general, the FCC concluded that the revenue requirement offset method was the best approach for several reasons, including:[16]

- Consistency with GAAP for both long-term and short-term TPUC;
- Provides carriers with incentive to invest in new plant, because TPUC and AFUDC would be included in rate base;
- Allows carriers to earn a rate of return on total investment;
- AFUDC is included in determination of both rate base and current income for ratemaking purposes;
- Recognition of AFUDC in current income mitigates the increase in revenue requirement resulting from including all TPUC in rate base;
- Because other methods lack these advantages, the revenue requirement offset method is superior to the alternatives.

[15] Report and Order FCC 95-56, CC Docket No. 93-50, released February 28, 1995.
[16] FCC R&O, par. 10.

The FCC also cited as an advantage the fact that the revenue requirement offset method would allow carriers to earn the authorized rate of return on all investments in the telecommunications network as a result of rate base inclusion. Because of the revenue offset unique to this method, the FCC concluded that interstate ratepayers would pay very little for any new plant until the plant is placed in service.[17]

Q. Do you concur with the FCC's findings on this issue?

A. No. At paragraph 13 of the FCC R&O, the FCC observed, in part:

> We acknowledge that in our new policy with regard to all TPUC, as in our prior policy [footnote omitted] with regard to short-term TPUC, we depart from the used and useful standard by allowing carriers to place plant in the rate base prior to its being placed in service. We believe, however, that this limited additional departure from the used and useful standard will not harm the ratepayers because for carriers as a group during each of the first few years, the revenue offset will exceed the additional revenue requirement associated with the inclusion of long-term TPUC in the rate base. The ratepayers receive the benefits of reduced rates in the initial years of implementation. In future years, the increased return and depreciation expense resulting from the inclusion of plant under construction in the rate base could exceed the amount of interest capitalized. Then the total revenue requirement for carriers as a group would exceed the level that would occur under our present requirements. Although excluding all TPUC from the rate base, as MCI suggests, would avoid this effect, we believe that such an exclusion would be unfair to carriers and that the method we are adopting best balances ratepayer and carrier interests.

I disagree with the FCC's rationale on several key points for intrastate regulatory purposes. First, the used and useful standard is "key" to the matching concept often applied for ratemaking purposes, as discussed earlier, to avoid inherent distortions introduced into the revenue requirement formula. If for no other reason, the Commission should reject the Company's proposed rate base inclusion of TPUC, consistent with its past findings.

Second, the FCC relied on its assessment of the revenue requirement impact of the change to this method, which was believed to actually "reduce rates in the initial years of

[17] FCC R&O, par. 11.

implementation." Unfortunately for the Company's Arizona intrastate customers, the FCC's assessment does not portray the realities of Qwest's proposed adoption of this method. One must look no further than the Company's own quantification of the revenue requirement effect of its Adjustment PFA-04 to see that an immaterial amount of AFUDC revenues are dwarfed by the current return realized on the TPUC balance included in rate base – resulting in an increase to revenue requirement of about $4.1 million.[18] This result is contrary to the cited expectation of the FCC of reduced revenue requirements for carriers as a group.

Q. At the time the FCC was considering adoption of the revenue requirement method, did the Company expect reduced revenue requirements in the early years of adoption?

A. Apparently not. At paragraph 12 of the FCC R&O, the FCC expressed their disagreement with the assertions of the Florida PSC, BellSouth and Qwest (then US West) that the revenue offset method "should not be used because AFUDC accruals are immaterial." The FCC went on to address its view that "we would expect AFUDC accruals under our proposal to amount to nearly $400 million or approximately 3 percent of their total return." Further, the FCC stated that carriers would be encouraged to transfer investment from the TPUC account to plant in service, as "the revenue requirement offset method gives carriers the incentive to transfer plant from construction into service as promptly as possible to avoid AFUDC revenue requirement offsets."

In earlier reply comments filed by U S West Communications, Inc. (CC Docket No. 93-50) on May 28, 1993, the Company made several references to AFUDC materiality concerns and the need for flexibility, as noted in the following excerpts:

> U S WEST believes that carriers should be accorded the flexibility to decide whether to account for AFUDC under the revenue requirement offset method or not, depending on whether the accounting carrier makes a company-specific determination that AFUDC is immaterial. Such flexibility becomes increasingly more appropriate in light of the advent of new entrants and burgeoning competition in telecommunications. In such an environment, regulated carriers should be permitted to report their results of operations on a basis that is consistent with other companies operating in similar technological and competitive environments.

[18] Qwest spreadsheet "az1203_Revised 11-05-04.xls".

> It is not clear from the NPRM the extent to which the Commission would make mandatory the revenue requirement offset method of accounting, regardless of whether or not the amounts to be capitalized are material. [footnote omitted] U S WEST urges the Commission not to make the use of such method mandatory in all circumstances.
> [U S WEST Reply Comments, May 28, 1993, p.3]
>
> ...
>
> U S WEST supports the Commission's proposal to move to the revenue requirement offset method of accounting for AFUDC, with the caveat that the full significance of SFAS 34 be accorded Commission support. Thus, if a carrier deemed AFUDC not material enough to be accounted for under the revenue requirement offset method, it would be free to utilize a different accounting methodology, such as the rate base method.
> [U S WEST Reply Comments, May 28, 1993, pp.4-5; Original Emphasis]

Although I do not concur with the suggestion that the rate base method is a reasonable alternative, it is important to observe the Company's materiality concerns and its expressed interest in flexibility. In the pending Arizona docket, the Company is heavily relying on the FCC's final decision in CC Docket No. 93-50 as the principal basis for adopting the revenue requirement offset method.

Company Analysis of AFUDC Alternatives

Q. What AFUDC cost rate does Mr. Grate's simplified analysis use for the capitalization method?

A. Referring to Exhibit PEG-D4, Mr. Grate's analysis uses an authorized rate of return of 10% (debt & equity) and an AFUDC rate of 8% (average debt cost). Unfortunately, these assumed cost rates are inconsistent with the Company's proposed weighted cost of capital, do not reflect the actual AFUDC rates recently employed by Qwest in Arizona, and fail to recognize the gross-up for income taxes that result from rate base inclusion.

Q. What weighted cost of capital is Qwest proposing in the current proceeding?

A. Referring to Staff Schedule D, Qwest is proposing a weighted cost of capital of 11.18%, not 10%.

Q. What AFUDC rate has the Company been recently using in the capitalization of AFUDC for Arizona accounting purposes?

A. Qwest's response to Staff Data Request UTI 16-14(c) indicates that the AFUDC rate employed by the Company has been 9.75% -- the return authorized by the Commission in Docket No. E-1051-93-183.

Q. Why is the gross-up for income tax expense at all important in assessing the impact of these alternative methods?

A. In assessing alternative approaches, attention should be focused on the net present value of the change in overall revenue requirement attributable to the accounting alternatives proposed by the Company. Such analyses normally focus on life cycle assessments, which Mr. Grate's Exhibit PEG-D4 assumes to be a five-year period. Unfortunately, the cost to ratepayers of either rate base method (revenue requirement offset method or rate base method) is significantly understated from a revenue requirement perspective, as the equity component of the weighted cost of capital is materially understated. Referring to Staff Schedule E, page 2, the effective return (i.e., gross of tax return) proposed by Qwest in quantifying overall revenue requirement is about 14.8%, not the 11.18% weighted cost rate nor the 10% rate assumed in Qwest's analysis.

Q. Do you agree with Mr. Grate that his analysis is useful and instructive?

A. No. His analysis only demonstrates the obvious. Rate base inclusion of TPUC, or any asset, yields a current return and cash earnings to the Company – by definition. AFUDC, on the other hand, is intended to provide a mechanism for the Company to recover the cost of financing the construction of the asset while the assets are under construction. Once construction is complete and the asset is placed in service (i.e., used and useful), the capitalization of AFUDC ceases. Such capitalized costs are included in the cost of the asset included in rate base and recovered through the depreciation of the book basis of that asset. AFUDC is not and has never been intended to compensate the utility for the full return on investment during and after construction is complete.

In other words, Qwest appears to argue that any method of capitalizing AFUDC is deficient if it does not result in equivalent value to the Company as would inclusion of TPUC in rate base – which is the key element of both the rate base method and the revenue requirement offset method. In spite of this fundament deficiency, the analysis prepared by Mr. Grate quantifies a difference in the AFUDC methodologies that is not due to a deficiency in the capitalization method, but is an intended result of the capitalization method.

Other Considerations

Q. Do any other jurisdictions in which Qwest operates have TPUC regulatory policies that differ from the FCC?

A. Yes. According to Qwest's response to Staff Data Request UTI 16-13S1, the State jurisdictions of Colorado, Minnesota and Washington require a different TPUC methodology than the FCC. It appears that Colorado and Washington allow AFUDC to be capitalized on both long-term and short-term TPUC, but exclude TPUC from rate base – similar to Arizona. Minnesota does not allow AFUDC to be capitalized on short-term TPUC, but includes short-term TPUC in rate base.

Q. When did Qwest first adopt the revenue offset method for interstate accounting and regulatory purposes?

A. For FCC regulatory purposes, Qwest adopted this method in September 1995.[19]

Q. Did the Company propose the revenue requirement offset method in the last Arizona rate case, Docket No. T-1051B-99-105?

A. No. Even though the test year in the last rate case was based on calendar year 1999, the Company did not seek rate base inclusion of TPUC or the adoption of the revenue requirement offset method.

Q. At page 66 of his direct testimony, Mr. Grate describes carrier incentives in the context of the revenue requirement offset method, allowing carriers to earn a current return on

[19] Qwest response to Staff Data Request UTI 16-10.

TPUC expenditures. Has Qwest declined to invest in new plant in Arizona specifically due to the fact that TPUC has not historically been included in rate base for intrastate ratemaking purposes?

A. No.[20]

PRO FORMA DEPRECIATION & RESERVE ADJUSTMENTS

Q. Please describe Staff Adjustments C-22, C-23 and B-7.

A. Staff Adjustment C-22 represents the annualization of depreciation expense based on the depreciable plant included in rate base and book depreciation rates adjusted to recognize the depreciation reserve balance at test year-end. Staff Adjustment C-22 is similar to Company Adjustment PFA-01, except Qwest's adjustment is based on depreciation rates that recognize depreciation reserve balances at the start of the test year. Staff Adjustment C-23 recognizes the pro forma effect of new depreciation accrual rates, based on Staff's revised "projection lives" and "future net salvage" recommendations. Collectively, these Staff adjustments represent the incremental change to the pro forma level of book depreciation expense included in Qwest's update filing of June 21, 2004, as proposed and sponsored by Staff witness Dunkel.

Qwest's update also included a rate base adjustment recognizing a pro forma depreciation reserve and deferred income tax reserve effect attributed to the decrease in depreciation expense associated with the Company's proposed technical update. Because Qwest will not commence booking any rate base effect associated with revised depreciation rates the Commission might approve until well beyond the 2003 test year, Staff Adjustment B-7 excludes the pro forma effect of any capital recovery adjustment from rate base (i.e., accumulated depreciation reserve and accumulated deferred income tax reserve).

Q. How were Staff Adjustments C-22 and C-23 quantified?

A. Book depreciation was annualized by multiplying the intrastate investment in depreciable plant included in rate base as of December 31, 2003, by the proposed accrual rates (i.e., by plant account) sponsored by Staff witness Dunkel. The aggregate amount of the pro

[20] Qwest response to Staff Data Request UTI 16-12.

forma depreciation was then compared to the sum of Qwest's annualization adjustments (Company Adjustments PFA-01 and PFN-11) and the amount of depreciation expense recorded in Account 6561 during the test year.[21]

Q. Why did you quantify the Staff Adjustments C-22 and C-23 in this manner?

A. In order to accurately quantify Staff's adjustment to the Company's June 21, 2004, updated filing, it was necessary to properly determine the amount of pro forma depreciation expense Qwest has included in its proposed operating results. Further, Staff's annualization of depreciation expense is based on the amount of intrastate depreciable plant included in rate base, as multiplied by the proposed depreciation rates recommended by Mr. Dunkel.

Q. How does the value of the Staff's proposed change in book depreciation rates compare to the change recommended by the Company?

A. Referring to the combination of Staff Adjustments C-22 and C-23, Staff's depreciation rate recommendation reduces intrastate depreciation expense (i.e., using the Staff's proposed depreciation accrual rates as applied to year-end 2003 depreciable plant) by approximately $140 million in addition to the Company's proposed reduction of about $104 million (Qwest Adjustments PFA-1 and PFN-11).

Q. Is the entire $244 million change in depreciation expense proposed by Company and Staff related solely to the change in book depreciation rates?

A. No. During 2003, the amount of book depreciation expense actually recorded by the Company is based on average depreciable investment. As the Company's investment in depreciable plant increases, so does the amount of related depreciation expense. Since Qwest has increased the level of depreciable investment during the test year (i.e., approximately $158 million according to Company workpapers underlying Adjustment PFA-01 and PFN-11), the annualization of depreciation expense on year-end investment

[21] In quantifying Staff Adjustment C-22 and C-23, special consideration was given to the recommended adjustments proposed by Mr. Dunkel for DSL assignment to interstate (Staff Adjustments B-3 & C-6) and the elimination of BSI related construction charges (Staff Adjustments B-4 & C-7) in order to ensure that the depreciation expense related to these items was not inadvertently eliminated twice or otherwise double-counted.

would be higher than recorded amounts – even if the Commission does not authorize any change in book rates. So, the $244 million decrease in depreciation has been offset, in part, by additional depreciation related to the test year growth in depreciable plant.

Q. Why do you believe that it would not be appropriate to reflect the annual effect of the proposed depreciation rate decrease in the quantification of rate base?

A. While the annualization of depreciation expense for ratemaking purposes should synchronize the new depreciation rates with the level of depreciable plant included in rate base, the depreciation reserve used as an offset to rate base should be determined consistent with the balance of plant in service included in rate base. In other words, the balance of both of these rate base components in Staff's filing should be valued at December 31, 2003 – as appropriately adjusted for eliminations, corrections or other valuation issues. In my opinion, the Commission should <u>not</u> reach out beyond test year-end to capture, in isolation, the full pro forma annual effect of the change in depreciation rates on the December 31, 2003, year-end balances for the accumulated depreciation reserve and the accumulated deferred income tax reserve. Otherwise, test year distortions and mismatched components of the ratemaking equation would yield improper results.

Q. As a result of reversing Qwest's pro forma effect on the accumulated depreciation reserve and the accumulated deferred income tax reserve, did Staff Adjustment B-7 have the effect of increasing or decreasing overall revenue requirement?

A. As indicated on Staff Schedule E, Staff Adjustment B-7 decreases intrastate rate base, thereby decreasing revenue requirement by about $7.6 million, based on Staff's proposed capital structure and cost rates.

Q. Have you proposed similar adjustments to rate base in past cases, reversing Company's rate base adjustments tied to pro forma changes in book depreciation expense?

A. Yes. I have sponsored testimony and a similar rate base reversal adjustment in the Company's last rate case (Docket No. T-1051B-99-0105), even though that Staff adjustment had the effect of increasing both rate base and overall revenue requirement.

DSL – REMOVED FROM INTRASTATE

Q. Please describe Staff Adjustments B-3 and C-6.

A. Staff Adjustments B-3 and C-6 represent the removal of DSL[22] net investment and related operating expenses from the intrastate jurisdiction. These adjustments are based on the corrections set forth on confidential Schedule WDA-15, sponsored by Staff witness Dunkel, and incorporate those recommendations into Staff's overall revenue requirement recommendation.

Q. Are any other Staff adjustments affected by Staff Adjustments B-3 or C-6?

A. Yes. One component of Staff Adjustment C-6 removes DSL related book depreciation from the intrastate jurisdiction. Since Staff has separately annualized book depreciation expense based on the intrastate depreciable plant included in rate base (i.e., net of the DSL assignment) using the proposed depreciation accrual rates sponsored by Staff witness Dunkel,[23] it is necessary to integrate Staff's DSL recommendations with that annualization of book depreciation so as to avoid any double counting of the depreciation and plant assignment.

Referring to Staff Adjustments C-22 and C-23, DSL investment has been excluded from the balance of intrastate depreciable plant for purposes of quantifying the pro forma depreciation effect of Staff's recommended accrual rates. In order to avoid removing DSL depreciation from the intrastate jurisdiction twice, the depreciation expense component of Staff Adjustment C-6 is added back on line 34 of Schedule C-22.

Q. Why did you quantify Staff Adjustments C-6 and C-22 in this manner?

A. This format accomplishes two purposes. First, Staff Adjustment C-6, in conjunction with Staff Adjustment B-3, represents a stand-alone quantification of the DSL removal recommended by Mr. Dunkel. Second, Staff Adjustment C-22 recognizes the interrelationship that exists between the two DSL adjustments and the annualization of

[22] As discussed in the direct testimony of Staff witness Dunkel, DSL is a broadband/wideband Internet transport service used for internet access and provided by Qwest.

[23] Staff Adjustments C-22 and C-23.

book depreciation expense, using Staff's proposed accrual rates that are different from those in effect during the test year.

BSI – CONSTRUCTION RELATED CHARGES

Q. Please describe Staff Adjustments B-4 and C-7.

A. Staff Adjustments B-4 and C-7 represent the proposed elimination of certain net investment and related depreciation expenses attributable to BSI construction related charges.[24] These adjustments are based on the proposed adjustments summarized on confidential Schedule WDA-18, sponsored by Staff witness Dunkel, and incorporate those recommendations into Staff's overall revenue requirement recommendation.

Q. Are any other Staff adjustments affected by Staff Adjustments B-4 or C-7?

A. Yes. Staff Adjustment C-7 removes test year book depreciation related to the construction charges that should have been paid for by BSI, as discussed by Mr. Dunkel. Since Staff has separately annualized book depreciation expense based on the intrastate depreciable plant included in rate base (i.e., net of the BSI elimination) using the proposed depreciation accrual rates also sponsored by Staff witness Dunkel,[25] it is necessary to integrate Mr. Dunkel's BSI recommendations with the annualization of book depreciation so as to avoid any double counting of the depreciation and plant assignment.

Referring to Staff Adjustments C-22 and C-23, BSI investment has been excluded from the balance of intrastate depreciable plant for purposes of quantifying the pro forma depreciation effect of Staff's recommended accrual rates. In order to avoid removing the BSI construction related depreciation twice, the depreciation expense component of Staff Adjustment C-7 is added back on line 34 of Schedule C-22.

[24] As discussed in the direct testimony of Staff witness Dunkel, BSI (a Qwest affiliate) uses certain Qwest facilities to provide ADSL TV and other services, including certain cabinet locations built specifically to serve the needs of BSI.

[25] Staff Adjustments C-22 and C-23.

Q. Why did you quantify Staff Adjustments C-7 and C-22 in this manner?

A. This format accomplishes two purposes. First, Staff Adjustment C-7, in conjunction with Staff Adjustment B-4, represents a stand-alone quantification of the BSI construction charge issue addressed by Mr. Dunkel. Second, Staff Adjustment C-22 recognizes the interrelationship that exists between the two BSI adjustments and the annualization of book depreciation expense, using the Staff's proposed book rates that are different from those in effect during the test year.

YEAR-END WAGE & SALARY ANNUALIZATION

Q. Please describe Staff Adjustment C-16.

A. Staff Adjustment C-16 revises test year basic wages and salaries by consistently recognizing, or matching, ongoing Arizona employee counts with the effective salary levels and wage rates at test year-end.

Q. Did the Company propose a pro forma adjustment to annualize salaries and wages to test year-end levels?

A. No. However, the Company's filing does include an adjustment (i.e., Adjustment PFN-05)[26] to annualize the effect of certain pay increases granted in the first quarter of 2003. In the Company's last rate case (Docket No. T-1051B-99-105), Qwest did present a payroll annualization adjustment that considered, in part, year-end employee or headcount levels.

Q. Did Company Adjustment PFN-05 recognize the effects of any decline in test year headcounts?

A. No. As discussed by Mr. Grate,[27] the Company "found no statistically valid trend in employee levels over time." Citing to Exhibit PEG-D6 attached to his direct testimony, Mr. Grate states:

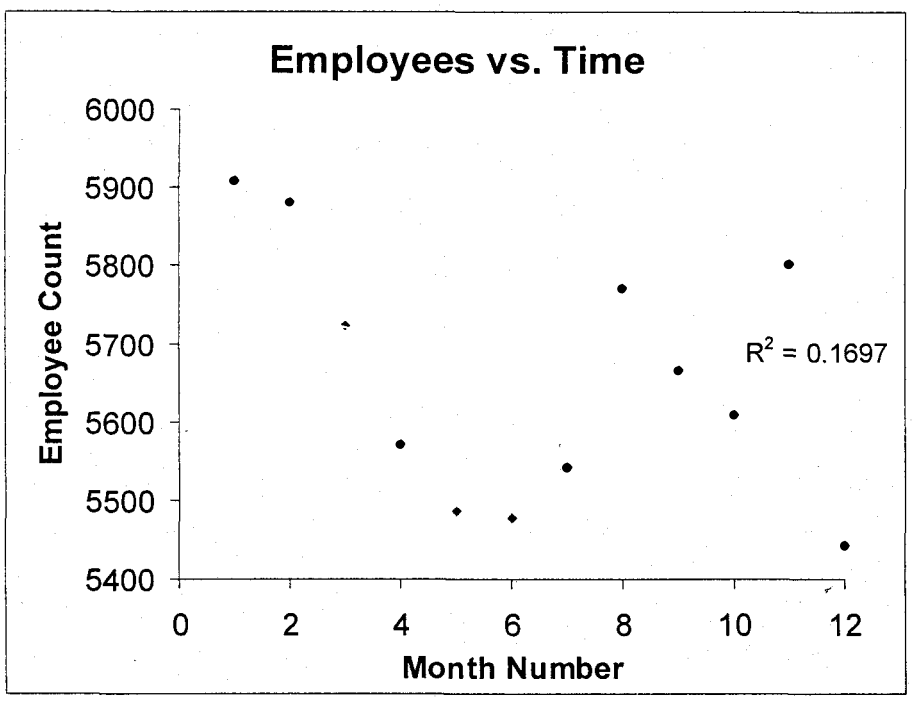
> The R-Squared of the independent variable (time) to the dependent variable (employee count) was only 0.114 and the T-Score was 1.13, indicating an absence of any statistically meaningful and reliable

[26] Grate direct testimony, p. 92.
[27] Grate direct, p. 92.

> relationship. In other words, the variability in the level of employees over the course of the test year does not support the hypothesis that the employee count at the end of the test year is more realistic or representative of ongoing conditions than the count during the test year as a whole. Accordingly, I made no adjustment for end-of-period employee levels.[28]

Mr. Grate's revised PEG-D6, provided in the non-confidential response to Staff Data Request UTI 2-2, is reproduced below for reference purposes:

Qwest Arizona
2003 Employee Levels



Q. If the test year employee trend is as poor as depicted by Mr. Grate, why should pro forma wage expense recognize employee counts at test year-end?

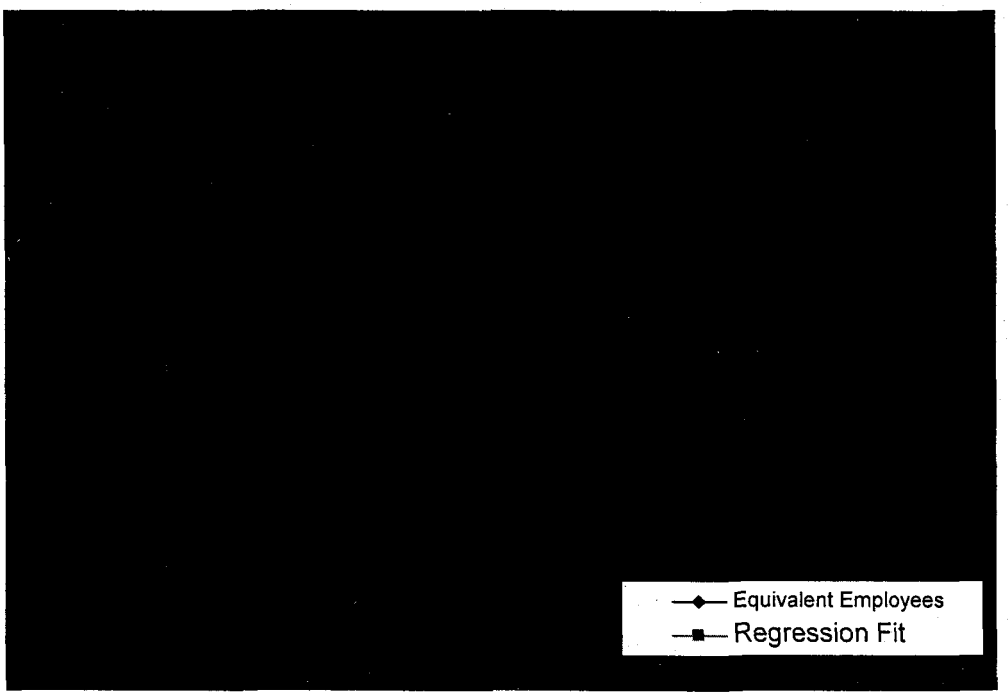
A. On first impression, it would appear that test year equivalent headcount levels, as set forth on revised PEG D-6, were sporadic and would not support the need for any significant employee annualization adjustment. However, after reviewing employee

[28] In response to Staff Data Request UTI 2-22, PEG-D6 was revised to reflect minor revisions in equivalent headcounts for October-December 2003, increasing the coefficient of determination (R-Square) from 0.114 to 0.1697.

trends prior to and subsequent to the test year, the data indicates that the "uptick" in headcounts shown on PEG D-6 for months of August - December 2003 was aberrational.

Q. Could you describe the recent historical trend in employee levels, continuing through and subsequent to the test year?

A. Yes. The following chart represents the historical trend in Qwest's actual equivalent headcounts from January 2001 through December 2003, including post-test year levels for comparative purposes. While equivalent headcounts can and do vary from month to month, like the increase in late 2003 that contributed to the Company's calculation of a poor 0.1697 R-Squared statistic, Qwest has exhibited a decidedly downward trend in headcounts since January 2001. In addition to actual monthly equivalent headcounts, the following chart also depicts the smoothed headcount trend resulting from a 36-month regression analysis (January 2001 through December 2003), using the linear regression technique employed in the Company's test year headcount analysis as well as in analyzing and annualizing test year revenues and expenses:



Although the "uptick" in late 2003 is clearly observable on this chart, the 36-month linear regression yields a statistically significant 0.8661 R-Squared, showing a strong correlation between time and equivalent headcounts – unlike the 0.1697 (revised) R-

Squared resulting from the twelve test-year data points. The "regression fit" line on the chart represents the 36-month regression results, which smooth the month-to-month data variations. The headcount estimate for the terminal month (i.e., December 2003) was used in quantifying Staff Adjustment C-16 so as to remove the aberration in employee levels in late 2003. Clearly, the regression fit trend line better reflects the historical trend in observed levels and fits relatively well with actual post-test year equivalent headcounts.

Q. Did you rely on the regression results to determine year-end headcounts for purposes of annualizing basic payroll?

A. Yes, in part. Consistent with the annualization adjustment I proposed in Qwest's last rate case (Docket No. T-1051B-99-105), Staff Adjustment C-16 is based on average regular pay (basic pay plus paid absences) per equivalent employee (i.e., both management and occupational employees) for the months of October through December 2003. Because of the aberration in December 2003 employee levels, the "regression fit" employee count for December 2003 was multiplied by the three-month average pay per employee and then multiplied by an annualization factor of twelve (12). This methodology consistently recognizes the annual effect of any wage and salary changes implemented during the test year with a reasonable valuation of year-end employee levels.[29]

Q. Since Company Adjustment PFN-05 has a negligible impact on test year wage and salary costs, how does Staff's proposed level of basic wages and salaries compare with recent actual levels?

A. The following table compares the basic wage and salary costs[30] incurred in 2001, 2002 and 2003 with Staff's pro forma level:

[29] This Staff annualization technique is comparable to the methodology used in the last rate case, but for the reliance on linear regression results.

[30] Sum of basic wages and salaries plus paid absences on a Total Arizona basis, before distribution between expense and capital accounts.

1

(millions)	Qwest – Arizona Basic Wages & Salaries[31]		
	Total State	Change	% Change
2001	[redacted]		
2002	[redacted]	[redacted]	[redacted]
2003	[redacted]	[redacted]	[redacted]
Staff Pro Forma	[redacted]	[redacted]	[redacted]

Source: Qwest confidential response to Staff Data Request UTI 9-4 & Staff Adjustment C-16.

2

3 As indicated by this table, Staff's proposed level of basic salaries and wages compares
4 favorably with recent experience – in terms of both dollar and percentage reductions. In
5 spite of continued headcount declines and reduced basic wage and salary levels, Qwest
6 has essentially presumed that actual test year expense reasonably represents ongoing
7 levels.
8
9 Q. Could you briefly explain the reference to "equivalent" employees or headcounts?
10 A. Yes. Qwest's employee workforce is distributed at work locations throughout a fourteen
11 state region. Due to the nature of the work an individual employee might perform, the
12 payroll and benefit costs of that employee could be assigned directly to the Company's
13 operations in the State in which the employee is physically located or could be allocated
14 between multiple State operations. Headcounts based on the geographic location (e.g.,
15 Arizona) of the employee are referred to as "situs" employees. If 100% of a particular
16 employee's time was directly assigned to the State in which he/she was physically
17 located, this employee would be counted as one "situs" employee as well as one
18 "equivalent" employee.
19
20 The difference between "situs" and "equivalent" employees comes into play when the
21 payroll and benefit costs of certain employees are allocated to or distributed between the
22 operations of more than one State. Since payroll costs are typically allocated between

[31] Source: Qwest confidential response to Staff Data Request UTI 9-4, basic wages and salaries plus paid absences.

multiple States, the Company determines Arizona's "equivalent" employee count based on the relationship of Arizona's salaries and wages to Total Qwest Corporation salaries and wages to allocate Total Qwest Corporation "situs" employee levels. So, an employee located in Arizona and partially allocated to other States would be viewed as one "situs" employee in Arizona, but less than one Arizona "equivalent" employee.

INCENTIVE COMPENSATION

Q. Is Staff proposing an adjustment to the test year amount of incentive compensation expense Qwest has included in revenue requirement?

A. Yes. In quantifying overall revenue requirement, Qwest Adjustment PFN-08 decreased the amount of incentive compensation accrued during the test year to reflect the actual bonus amounts paid in 2004 for the 2003 plan year.[32] Staff Adjustment C-17 represents a partial disallowance of test period incentive compensation expense Qwest has recognized in quantifying overall revenue requirement. Staff proposes to eliminate the incentive costs associated with the financial components of Qwest's incentive compensation plan, while allowing ratemaking recovery of test period expense associated with the customer satisfaction components. After Staff's proposed adjustment, the test period will include approximately [redacted] of incentive compensation expense (intrastate).

Q. Please describe the incentive program offered by the Company.

A. In prior Arizona proceedings, the Company had maintained various long-term and short-term incentive plans, which are no longer offered. During 2003, Qwest had only one incentive compensation plan (the "Bonus Plan" or "Bonus Award") for eligible employees. The Bonus Plan was offered to employees of Qwest Corporation, Qwest Services Corporation and Qwest Communications International Inc. ("QCII").[33] As presented to the Board of Directors, the philosophy of Qwest's Bonus Plan was stated as follows:[34]

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[32] Qwest response to Staff Data Request UTI 2-29S1.
[33] Qwest response to Staff Data Request UTI 8-36.
[34] Qwest response to Staff Data Request UTI 1-31S1, Confidential Attachment C.

[redacted]

Q. Please briefly describe the various components of the incentive compensation program.

A. The Bonus Plan is based on three components: [redacted]

	Weighting Factor	% Payout	Weighted Payout
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

Source: Qwest confidential response to Staff Data Request UTI 1-31.

[redacted]

Q. How did you quantify Staff Adjustment C-17?

A. As shown by the above table, the Bonus Plan is heavily weighted to [redacted] targets and objectives. For example, [redacted]. Conservatively, Staff Adjustment C-17 allows [redacted]% of test year incentive compensation payments charged to operating expense.

Q. How does the amount of incentive compensation Qwest has proposed to recover in this proceeding compare to the amounts incurred in recent years?

A. Recognizing that Company witness Grate proposes to adjust the Bonus Plan accruals recorded during the test year to the actual amount paid in 2004 for the 2003 plan year, the actual test year expense level is higher than the amount Qwest has included in overall revenue requirement. The following table compares the historical level of incentive compensation costs with the levels proposed by both Qwest and Staff.

[35] Qwest response to Staff Data Request UTI 1-31, Confidential Attachment D.