

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

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

DIRECT TESTIMONY
OF
D. M. (MARTI) GUDE
ON BEHALF OF
QWEST CORPORATION

JUNE 26, 2003

TESTIMONY INDEX

	<u>Page</u>
EXECUTIVE SUMMARY	i
I. IDENTIFICATION OF WITNESS	1
II. PURPOSE OF TESTIMONY	2
III. INTRODUCTION OF THE QWEST CAPITAL COST AND EXPENSE FACTOR MODULES	3
BACKGROUND	3
OVERVIEW OF CAPITAL COST AND EXPENSE FACTOR MODULES	6
CAPITAL COST MODULE	
• General Description	9
• Cost Of Money And Depreciation Inputs	10
EXPENSE FACTORS MODULE	
• General Description	13
• Expense Factor Module Inputs	23
IV. CONCLUSION	25

EXECUTIVE SUMMARY

D. M. (Marti) Gude is employed by Qwest Corporation. In her position as Director - Cost Accounting, she is responsible for various regulatory and management accounting functions. Her specific responsibilities include developing TELRIC-based cost study factors, and preparing and analyzing embedded cost studies, which Qwest uses for purposes such as deregulation, cost accounting, and regulatory filings.

Her direct testimony introduces the Capital Cost and Expense Factor Modules employed in processing the ICM and other cost studies filed by Qwest in support of its wholesale pricing recommendations made in this proceeding. It also provides an overview of the various processes employed in developing the cost factors used in Qwest's TELRIC cost determinations.

1 **I. IDENTIFICATION OF WITNESS**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is D. M. (Marti) Gude. My business address is 1314 Douglas-on-the-Mall,
4 Omaha, Nebraska.

5 **Q. PLEASE IDENTIFY YOUR EMPLOYER AND EXPLAIN YOUR POSITION AND**
6 **RESPONSIBILITIES.**

7 A. I am employed by Qwest Corporation. My title is Director - Cost Accounting and I am
8 responsible for various regulatory and management accounting functions, which include
9 developing TELRIC-based cost study factors and preparing and analyzing embedded cost
10 studies for use in connection with the Company's deregulation, cost accounting and
11 regulatory filings.

12 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL**
13 **EXPERIENCE?**

14 A. I received a Bachelor of Science degree in Business Administration, with a major in
15 Accounting, from the University of Nebraska - Lincoln and a Master of Business
16 Administration degree, with honors, from the University of Nebraska at Omaha. I am also
17 a Certified Public Accountant, certified in the State of Nebraska as an inactive registrant.

18 I was a member of a large public accounting firm for four years prior to joining Qwest's
19 predecessors (U S WEST and Northwestern Bell) in 1979. My public accounting
20 experience included audits for companies in various industries, which included the
21 issuance of opinions on financial statements. At Qwest and its predecessors, U S WEST

1 and Northwestern Bell, I have held various positions in the Budget, Finance, Corporate
2 Accounting and Cost Accounting departments. I have worked in the area of cost
3 accounting since January 1986.

4 **Q. HAVE YOU FILED TESTIMONY BEFORE THE WASHINGTON UTILITIES**
5 **AND TRANSPORTATION COMMISSION AND/OR TESTIFIED PREVIOUSLY**
6 **ON THE SUBJECT OF COST DISTRIBUTION, COST FACTOR**
7 **DEVELOPMENT AND/OR COST ACCOUNTING?**

8 A. Yes. Appendixes A-1, A-2 and A-3 of my testimony provide a chronological listing of the
9 dockets/cases, by state, in which I have previously testified.

10 **II. PURPOSE OF TESTIMONY**

11 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

12 A. The purpose of my testimony is to introduce the Capital Cost and Expense Factor Modules
13 employed in processing the Integrated Cost Model (ICM) and other cost studies filed by
14 Qwest in support of its wholesale pricing recommendations made in this proceeding, and
15 to provide an overview of the processes employed in developing the various cost factors
16 used in Qwest's Total Element Long Run Incremental Cost (TELRIC) cost studies.

1 **III. INTRODUCTION OF THE QWEST**
2 **CAPITAL COST AND EXPENSE FACTOR MODULES**

3 **BACKGROUND**

4 **Q. WHAT IS THE PURPOSE OF A TELRIC STUDY, AND HOW DOES THAT**
5 **PURPOSE AFFECT THE SELECTION OF THE MOST REASONABLE INPUT**
6 **VALUES FOR A FORWARD-LOOKING COST STUDY?**

7 A. The central purpose of TELRIC in this proceeding is to determine a forward-looking cost
8 basis for pricing unbundled network elements (UNEs) and interconnection services.
9 TELRIC was selected by the FCC as a cost standard with the specific purpose of
10 simulating prices that could prevail in a competitive market and can, therefore, lead to
11 efficient and beneficial build-versus-lease decisions by competitive local exchange carriers
12 (CLECs).¹

13 **Q. GENERALLY SPEAKING, WHAT ARE THE IMPORTANT ATTRIBUTES OF**
14 **THE INPUTS USED IN A TELRIC MODEL?**

15 A. To produce accurate cost estimates, inputs should be consistent with the purpose and
16 definition of TELRIC and with each other. In this proceeding, this means that cost model
17 inputs should reflect current company/state-specific (Washington) information where that
18 information is consistent with a forward-looking environment and the practices and current
19 technologies actually being used by an efficient carrier.

¹ First Report and Order, *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, FCC 96-325, August 8, 1996, ¶ 672.

1 **Q. IN THIS PROCEEDING, WOULD IT BE APPROPRIATE TO CONTINUE TO**
2 **RELY ON INPUTS AND COST FACTOR VALUES THAT WERE EMPLOYED IN**
3 **DETERMINING UNE PRICES FOR QWEST SERVICES IN PRIOR**
4 **WASHINGTON PROCEEDINGS?**

5 A. No. The previous Washington cost proceedings for Qwest relied on 1996 vintage cost data
6 and cost factor modeling methodologies that are no longer current. In this proceeding,
7 Qwest has prepared and filed cost studies that reflect more current (2001) operating data
8 and revised ICM cost factor development methodologies. As a result, the previously relied
9 upon cost factor values are no longer applicable, or even usable, in processing the cost
10 studies filed in this proceeding.

11 **Q. HAS THE WASHINGTON COMMISSION ORDERED A REVIEW OF TELRIC**
12 **MODEL INPUTS AND THE COST STUDY FACTOR VALUES TO BE USED IN**
13 **THIS PROCEEDING?**

14 A. Yes. In setting prices for Qwest services in its Forty-First Supplemental Order in Docket
15 No. UT-003013, the Commission ordered that the cost factor values used in setting UNE
16 prices in Qwest's previous cost dockets be revisited in this case (Docket UT-023003).²
17 This Commission directive, combined with the fact that more current data is available and
18 the fact that improved cost factor methodologies have been developed, makes the review
19 and updating of cost factors appropriate in this proceeding.

² See Docket No. UT-003013, *In the Matter of the Continued Costing and Pricing of Unbundled Network Elements, Transport and Termination*, Forty-First Supplemental Order; Part D Initial Order; Establishing Nonrecurring and Recurring Rates For UNEs, at ¶¶ 76 and 79.

1 **Q. IN CREATING INPUTS FOR A TELRIC COST MODEL, DOES A COMPANY'S**
2 **CURRENT OPERATING EXPERIENCE PROVIDE A RELIABLE GUIDE FOR**
3 **ESTIMATING FORWARD-LOOKING COSTS?**

4 A. Yes. Current experience provides a reliable starting point for determining today's
5 forward-looking costs for many key input values – including input values for
6 depreciation lives, the cost of capital, network maintenance expenses, network operation
7 expenses, the cost of support assets, other operating taxes, and general overhead costs.
8 In addition to being a reliable starting point, current experience is also a valuable tool to
9 be used in evaluating a TELRIC model's costing outputs. This is because TELRIC is a
10 methodology designed to simulate costs using proven current technology in a forward-
11 looking replacement network. This does not mean that Qwest advocates the use of
12 embedded costs. But it does mean that, unless a rational analysis produces valid and
13 substantively supported evidence for concluding that a cost's current level will change
14 significantly in a forward-looking environment, then the current cost level is the best
15 evidence of the future. It is certainly preferable and more consistent with TELRIC to use
16 costs proximate to the current cost level than to arbitrarily assume significant reductions
17 that are not based on a clear rationale for how those reductions can be achieved, even in
18 the hypothetical world of TELRIC. TELRIC is not an attempt to model what it would
19 have cost to replace and operate today's network years ago, what it would cost years
20 from now, or what an unrealistic or purely hypothetical network would cost. To be
21 meaningful and to fulfill its purpose, TELRIC must have a solid grounding in reality.

1 A failure to comprehend and/or adhere to the basic principles of TELRIC has caused
2 substantial errors in the application of TELRIC theory in cost dockets that have been
3 convened in many jurisdictions since the passage of the Telecommunications Act of 1996
4 (the Federal Act). This is why it is important to evaluate, not only a cost study's modeling
5 attributes and inputs, but to test its outputs for reasonableness against one's knowledge of a
6 company's current-day operations.

7 It is also important that TELRIC modeling assumptions reflect explicit, rather than
8 implicit, changes to today's current costs. Cost models that employ operating cost
9 assumptions and methodologies, which indiscriminately link operating cost changes
10 directly to investment cost changes can drastically reduce (unintentionally or intentionally)
11 a company's current operating costs to levels that are pennies on the dollar, just as the
12 AT&T HAI model has done in many jurisdictions. Models that produce such results
13 should be viewed with suspicion because they are contrary to TELRIC principles.
14 Forward-looking TELRIC models are expected to produce operational results that would
15 be achievable by an efficient carrier. They are not intended to produce unintentional
16 consequences or hypothetical or fictional results that could never be attained by an
17 efficient carrier building and operating a network in the real world.

18 **OVERVIEW OF CAPITAL COST AND EXPENSE FACTOR MODULES**

19 **Q. BRIEFLY DESCRIBE HOW QWEST'S COST STUDIES ARE PREPARED AND**
20 **THE ROLE THAT EXPENSE FACTORS PLAY IN DETERMINING TELRIC**
21 **COSTS.**

1 A. Qwest's TELRIC cost studies filed in this proceeding follow four basic steps:³ (1) *define*
2 *the network element or service; (2) develop the investment for the network element or*
3 *service; (3) estimate investment-related capital costs (e.g., depreciation, cost of money,*
4 *and income tax) based on the application of annual cost factors to the investment; and (4)*
5 *estimate operating costs.* This last step is accomplished through the use of various cost
6 causative methodologies and cost modules within Qwest's cost study processes. Such
7 methodologies would include the use of:

- 8 • per-line cost values, or
- 9 • calculating investment-related operating direct expenses (e.g., maintenance
10 expense) based on annual cost factors that are applied to *investments*, or
- 11 • calculating other operating expenses (e.g., marketing -- product management and
12 sales expenses) based on annual cost factors that are applied to the previously
13 derived investment-related costs

14 Once calculated, the capital costs from step (3) are combined with the operating expenses
15 from step (4) to provide the TELRIC for a network element. The final step is to add an
16 appropriate share of common costs to the TELRIC cost to obtain the total cost (TELRIC
17 plus Common).

18 **Q. PLEASE DESCRIBE BRIEFLY HOW CAPITAL COSTS AND EXPENSE**
19 **FACTORS HAVE BEEN INTEGRATED INTO QWEST'S COST STUDIES FILED**
20 **IN THIS PROCEEDING.**

³ Ms. Teresa Million describes Qwest's cost study process in more detail in her direct testimony.

1 A. Qwest has filed its Integrated Cost Model (ICM) to support its wholesale pricing
2 recommendations in this proceeding.⁴ The overall model is described in the testimony of
3 Ms. Teresa Million. There are several separate cost modules within ICM – the Capital Cost
4 Module and Expense Factors Module are two of them. The Capital Cost Module
5 determines depreciation, capital return, and income tax effect factors. The factor outputs of
6 this module become inputs to the Expense Factors Module.

7 The Expense Factors Module calculates the direct network, other direct, and common costs
8 that are to be associated with, and applied in, each of the TELRIC-based investment, non-
9 recurring, or collocation studies produced by Qwest's ICM. Costs are determined in one
10 of two ways: (1) through the development of per-loop/line cost amounts; or (2) through
11 the development of investment or expense-based cost factors. I will describe the
12 procedures and processing involved in this module, and the Capital Cost Module, in more
13 detail later in my testimony.

14 **Q. HAS QWEST FILED DETAILED DOCUMENTATION IN THIS PROCEEDING**
15 **THAT SUPPORTS ITS ICM STUDY AND THE SPECIFIC COST MODULES**
16 **YOU WILL BE DISCUSSING?**

17 A. Yes, it has. The ICM cost study material filed by Ms. Million in this proceeding contains
18 detailed model reports and documentation manuals, which explain in some detail the
19 Capital Cost and Expense Factor Modules that I am discussing in this testimony.

⁴ Qwest has also filed other stand-alone studies that employ the cost factors addressed in my testimony. Factor discussions throughout my testimony, which are referenced to ICM, are intended to also encompass the factors used in these other studies.

1 **CAPITAL COST MODULE**

2 **General Description**

3 **Q. BRIEFLY DEFINE THE CAPITAL COST MODULE AND ITS KEY INPUTS.**

4 A. Capital costs are the costs associated with a company's cost of money and depreciation.

5 Both are key ingredients in determining a company's cost of providing service. The cost
6 of money encompasses the cost of both debt and equity capital, as well as the ratio, or mix,
7 of the two types of capitalization. Depreciation costs are a derivative of the modeled
8 TELRIC investments and the associated depreciation lives and salvage values for each
9 category of plant investment. The ICM filed by Qwest in this proceeding is flexible with
10 regard to both of these key inputs.

11 Qwest's ICM allows the user to select either the Qwest default cost of money option or,
12 alternatively, to separately input specific values for the composite tax rate, the cost of
13 equity, the cost of debt, and the proportion of debt and equity (i.e., the debt / equity capital
14 ratio).

15 Users of Qwest's ICM are also allowed to change the model's depreciation parameters,
16 which are applied to modeled investments. Although Qwest advocates the use of Qwest-
17 economic depreciation parameters in the cost studies used to support pricing decisions in
18 this proceeding, the user can input alternative account lives and future net salvage values.
19 The depreciation calculations for the selected values also incorporate, and are reliant on,
20 other inputs, such as the composite federal and state income tax rate, cost of debt, cost of
21 equity, and debt ratio. The user also has the option of choosing either Equal Life Group or

1 straight-line depreciation. Qwest's filed studies utilize economic depreciation parameters,
2 which include the use of ELG.

3 The selections made in the Capital Cost Module are subsequently processed as inputs to
4 the Expense Factors Module, which I will address later in my testimony.

5 **Cost Of Money And Depreciation Inputs**

6 **Q. WHAT COST OF MONEY HAS QWEST UTILIZED IN PREPARING THE**
7 **TELRIC STUDIES FILED IN THIS PROCEEDING?**

8 A. The TELRIC studies filed by Qwest in this proceeding utilize the Washington
9 Commission's most recently prescribed cost of money of 9.63%.⁵

10 **Q. IS THIS THE APPROPRIATE COST OF MONEY TO USE IN THE**
11 **PREPARATION OF TELRIC DATA?**

12 A. No. TELRIC studies should utilize a forward-looking, economic cost of money, which
13 should represent the weighted average cost of debt and equity, calculated with
14 consideration of the appropriate measure of competitive risk. Since the risk of a
15 competitive firm is much greater than the risk of a monopolist, this significantly higher
16 risk should be appropriately reflected in its cost of capital.

17 The Federal Act has greatly expanded competition and the number of competitors that
18 Qwest faces. As a result, Qwest's risks have increased. TELRIC studies are intended to

5 The Overall Cost of Money employed in Qwest's cost studies filed in this proceeding was initially established by the Washington Commission in Docket No. UT-950200; the 9.63% cost of money was initially adopted for use in Docket No. UT-960369.

1 capture this risk in the cost of money inputs used in processing the costing model. The
2 FCC has acknowledged this point in the development of its costing and pricing rules,
3 which require the use of a forward-looking cost of capital (*see* 47 C.F.R. Section
4 51.505(b)(2)). Thus, Qwest believes that the development and reliance on a higher
5 forward-looking cost of capital in the TELRIC models used for setting prices in this
6 proceeding would be more appropriate than utilizing the Commission's prescribed cost of
7 money.

8 Nonetheless, Qwest is aware that the Commission has traditionally expressed a preference
9 for using its prescribed cost of money in the preparation of incremental cost studies. For
10 this reason, Qwest has used the Commission's prescribed 9.63% cost of money in the
11 TELRIC studies filed in this proceeding. However, Qwest does not advocate, nor intend to
12 suggest, that this is the most appropriate cost of money for Qwest in its current
13 environment, nor does it believe that this cost of money is necessarily appropriate for use
14 in cost studies beyond the scope of this case.

15 **Q. WHAT DEPRECIATION LIVES AND SALVAGE VALUES HAS QWEST**
16 **UTILIZED IN PROCESSING THE ICM STUDIES FILED IN THIS**
17 **PROCEEDING?**

18 A. Qwest's ICM studies filed in this proceeding reflect the use of forward-looking economic
19 depreciation lives. In this proceeding, Qwest has prepared its TELRIC cost studies
20 utilizing the lives and salvage values Qwest uses for reporting its operating results to the
21 Securities and Exchange Commission (SEC). Exhibit DMG-2 displays the depreciation
22 lives and future net salvage values employed in Qwest's filed cost studies.

1 **Q. WHY SHOULD THE TELRIC STUDIES EMPLOYED IN SETTING PRICES IN**
2 **THIS PROCEEDING REFLECT THE ECONOMIC DEPRECIATION INPUTS**
3 **UTILIZED BY QWEST?**

4 A. TELRIC studies should utilize forward-looking economic depreciation lives that reflect
5 how long the plant and equipment can reasonably be expected to continue to be used and
6 useful on a going-forward basis. Competition resulting from the Act has led to diverse and
7 rapid changes in telecommunications technology and equipment. Forward-looking
8 depreciation lives should take into account this rapid pace of change -- they should not be
9 based on some measure of past lives developed in the monopoly era. A continuance of, or
10 a reliance on, the use of artificially long equipment lives would serve only to understate
11 overall costs, by understating annual depreciation expense.

12 The use of forward-looking economic depreciation lives is also in concert with the FCC's
13 costing and pricing rules that require the use of forward-looking depreciation lives (*see* 47
14 C.F.R. Section 51.505(b)(3)). It is also in keeping with the FCC's initial indication of how
15 it will address depreciation lives in the upcoming Triennial Review Order. The FCC, in
16 the attachment to its February 20, 2003, press release relating to the Triennial Review
17 Order stated: "[T]he Order declines to mandate the use of any particular set of asset lives
18 for depreciation, but clarifies that the use of an accelerated depreciation mechanism may
19 present a more accurate method of calculating economic depreciation."⁶ The SEC
20 depreciation lives and salvage values employed by Qwest in processing its TELRIC
21 studies constitute forward-looking depreciation inputs. While the economic depreciation

⁶ Attachment to FCC Press Release, February 20, 2003, at 4.

1 lives proposed by Qwest in this proceeding are not as aggressive as those suggested by the
2 FCC in its press release regarding the Triennial Review Order on February 20, 2003,
3 Qwest has chosen to use more conservative lives rather than make an issue of depreciation
4 in this cost docket.

5 **EXPENSE FACTORS MODULE**

6 **General Description**

7 **Q. PLEASE EXPLAIN THE QWEST ICM EXPENSE FACTORS MODULE AND**
8 **WHAT IT IS USED FOR.**

9 A. The Expense Factors Module (EFM) employed in Qwest's ICM is comprised of a series of
10 EXCEL-based spreadsheets developed for the purpose of determining and displaying (1)
11 the cost-per-loop/line values for loop cost studies, as well as (2) the investment and
12 expense-related factors used in calculating costs associated with the Company's TELRIC-
13 based wholesale interconnection/UNE services. The use of two distinct approaches is
14 required since certain direct costs, such as Network Operations and Other Operating Taxes
15 (e.g. property taxes and business fees), are closely tied to, and would primarily fluctuate
16 with units of service provided, such as the number of customers or access lines served.
17 Other direct costs – those encompassing Maintenance and Support Asset-related costs (e.g.
18 Network Support, General Support and Computers) – are more closely tied to the cost
19 model's forward-looking investment estimates, or to its modeled total "direct" costs. For
20 these cost categories, cost factors are developed and applied in a manner that allows such
21 costs to fluctuate in accordance with forward-looking investment/direct cost estimates.

1 In developing “cost study factors,” the EFM computes factors for three general categories
2 of costs: (1) direct network costs (including the development of factors for network
3 operations and other operating taxes applicable to non-loop/line studies); (2) other direct
4 costs; and (3) common costs. The first and second cost categories include many individual
5 factors; the third category consists of single, composite, common cost factor.⁷ The factors
6 for each cost group are prepared in a manner that requires that they are appropriately
7 applied to determine the total TELRIC-based cost for each UNE. Additionally, an
8 uncollectible factor, which represents the level of wholesale uncollectibles, is developed
9 for application to the TELRIC (before uncollectible) + Common costs. This uncollectible
10 value is then included in the display of the total TELRIC cost (total including
11 uncollectible) and overall TELRIC + Common cost amounts produced by the cost studies.

12 **Q. HAVE YOU PROVIDED ANY MATERIAL AS A PART OF YOUR TESTIMONY**
13 **THAT ILLUSTRATES THE EXPENSE FACTORS MODULE PROCESSING YOU**
14 **ARE DESCRIBING?**

15 A. Yes. In order to facilitate a more detailed discussion of cost factor development and EFM
16 processing, I have provided an illustrative matrix that displays the various types of costs
17 (direct, other direct, uncollectible and common) processed in Qwest’s EFM, along with
18 the associated sources and formulas used for determining costs in the cost studies
19 modeled by Qwest (*see* Exhibit DMG–3). Column B of this illustrative matrix lists the
20 various types of costs, while Columns C and D indicate the application formula, and the

⁷ In addition to the recovery of attributable direct costs, the recovery of a “reasonable allocation of forward-looking common costs” is mandated by the FCC’s TELRIC rules (*see* 47 C.F.R. §§ 51.505(a)(2) & (c)).

1 source of the type of factor (i.e. investment-based factor (abbreviated “IF”) or expense-
2 based factor (abbreviated “EF”)), or amount (abbreviated “A”), shown in Column E. To
3 complete the exhibit, an “X” was placed in Columns F, G or H of the exhibit to indicate
4 which costs were relevant to each of the three general types of cost studies (i.e. loop
5 studies, other UNE studies, or non-recurring / collocation studies). The format of my
6 illustrative exhibit is similar to the factor output summary that is actually created by
7 ICM, although my illustrative exhibit was modified to exclude the display of actual
8 values in order to facilitate the general discussion of the EFM components, which I will
9 be addressing next.

10 **Q. BRIEFLY DESCRIBE WHAT KIND OF COSTS COMPRISE EACH OF THE**
11 **THREE GENERAL COST FACTOR CATEGORIES.**

12 A. **“Direct Network Costs”** consist of the depreciation and capital costs resulting from the
13 application of factors developed in the Capital Cost Module (CapCost), and the plant
14 maintenance costs, network operations costs, and other operating taxes (which are
15 primarily property and occupation taxes in Washington). Maintenance factors are
16 calculated for each plant account. They are listed in the Factor Summary report under four
17 sub-divisions: (1) Land & Buildings; (2) Outside Plant; (3) Central Office Equipment; and
18 (4) Station Equipment. These are investment-related factors; that is, they are developed to
19 be applied to investment balances, rather than to operating costs. In contrast, the “Direct
20 Network Costs” for network operations and other operating taxes are expressed as dollar
21 amounts per-loop/line for loop cost studies and as forward-looking cost-related factors for
22 all other cost studies.

1 Network Operations costs consist of:

- 2 • power,
- 3 • network administration,
- 4 • testing,
- 5 • plant operations administration, and
- 6 • engineering

7 Other Operating Taxes consist of:

- 8 • property taxes,
- 9 • business and occupation taxes not passed through to customers, and
- 10 • FCC and state PUC fees

11 **“Other Direct Costs”** include Element-Specific Product/Service Expenses, Billing and
12 Collection costs, Marketing costs (product management, sales and advertising, where
13 applicable), and Support Asset costs comprised of Network Support, General Support and
14 Computer costs.

15 Network Support costs consist of:

- 16 • motor vehicles,
- 17 • aircraft,
- 18 • special purpose vehicles,
- 19 • garage work equipment, and
- 20 • other work equipment

21 General Support costs consist of:

- 22 • land,
- 23 • buildings,
- 24 • furniture,
- 25 • office equipment,
- 26 • capital leases – land & buildings, capital leases – other, and leasehold
- 27 improvements – land & buildings, and
- 28 • building rent expense paid, including the rent compensation portion

29 Computers costs consist of:

- 1 • general purpose computers, and
- 2 • computer capital leases and leasehold improvements.

3 Support Asset costs are recorded in Accounts 6110 – 6124, or if capitalized, in the 2000
4 series of accounts under FCC 47 C.F.R. Part 32 accounting rules.

5 “**Common Costs**” include expenses that are required for the operation of the business and
6 the provision of services as a whole (e.g., Executive or Human Resources expenses).

7 From an accounting perspective, these costs are generally identified as the corporate
8 operations (FCC 47 C.F.R. Part 32 - Account 6700 series) expenses. Since these costs
9 cannot be directly or indirectly attributed to any one particular service or service grouping,
10 a “Common” cost factor is developed and applied in ICM processing in order to determine
11 wholesale costs.

12 **Q. WHAT IS THE BASIS FOR DETERMINING THE EXPENSES USED TO BUILD**
13 **THESE FACTORS?**

14 A. As is typical for most, if not all, TELRIC models (including those developed by the FCC
15 and AT&T’s HAI), the starting point for the development of expense factors is the
16 Company’s most current operating results. Qwest has utilized 2001 published FCC
17 ARMIS data and its accounting records for developing the factors employed in its ICM
18 filed in this proceeding. Qwest’s currently incurred expenses, once converted to “forward-
19 looking” costs based on the Company’s anticipated future productivity and inflation
20 changes, constitute the best basis for creating cost model factors and approximating
21 Qwest’s expected, realistically achievable, forward-looking operating expenses associated
22 with a TELRIC modeled network..

1 The appropriateness of using current or “historical” costs as the starting point for a
2 TELRIC analysis was directly addressed recently by the Colorado Commission:

3 a. Even a “forward-looking” study must look forward from
4 somewhere. That starting point may be historical costs. In order to
5 determine what something might cost in the future, it is permissible to
6 consider what it costs in the present. In fact, both of the primary cost
7 studies presented in this docket are based on “historical” data. The HAI
8 model 5.2a . . . uses . . . ARMIS data. Qwest’s model uses Qwest’s book
9 costs. It is simply disingenuous for any party to argue that historical costs
10 are not relevant to this proceeding.

11 b. The Commission emphasizes that the use of historical costs is a
12 starting point only, from which forward-looking adjustments are made to
13 arrive at a TELRIC-complaint rate. Without any adjustment, the costs
14 would fail to be forward-looking.⁸

15 Thus, any rational TELRIC analysis looks first at current reality, then adjusts it based on
16 forward-looking changes that have a grounding in reality as opposed to being speculative
17 in nature.

18 **Q. PLEASE BRIEFLY DESCRIBE HOW THE VARIOUS ANNUAL EXPENSE**
19 **FACTORS ARE CALCULATED.**

20 A. Qwest’s ICM Expense Factors Module, and the associated expense factors documentation,
21 allow the user to understand Qwest’s cost factor development and application processes,
22 and to audit the results. In the Expense Factors Module, expenses and investments, as well
23 as line count values are obtained directly from Qwest’s current results from operations and
24 its standard accounting reports. From this data, the user can then convert current costs to

⁸ Commission Order, *In The Matter of U S WEST Communications, Inc. 's Statement of Generally Available Terms and Conditions*, Docket No. 99A-577T (Colorado PUC December 21, 2001), at 30-31 (footnote omitted).

1 forward-looking costs by applying the default efficiency and inflation inputs, or the user
2 can enter user-defined inputs for these values.

3 As I explained previously, in ICM's Expense Factors Module capital costs, investment-
4 driven maintenance costs, and the expense factor or cost-per-line costs associated with
5 Network Operations and Other Operating Taxes are referred to as "Total Direct Network
6 Costs." The "Other Direct Costs" (consisting of Element Specific Expenses, Billing and
7 Collection, Product Management and Sales, and Support Assets), as well as "wholesale
8 uncollectibles" are combined with Direct Network costs in order to determine TELRIC
9 costs. Common costs are then added to obtain the TELRIC + Common costs used for
10 UNE pricing.

11 As I stated earlier in my testimony, Qwest's ICM studies filed in this proceeding employ
12 two distinct cost factor approaches for determining its "Direct" (or TELRIC) costs. The
13 use of two distinct approaches is required since certain costs, such as Network Operations
14 and Other Operating Taxes (e.g. property taxes and business fees), are closely tied to, and
15 would primarily fluctuate with, the number of customers or access lines served. Other
16 costs – those encompassing Maintenance and Support Asset-related costs (e.g., Network
17 Support, General Support and Computers) – are more closely tied to the cost model's
18 forward-looking investment estimates, or to its modeled total "direct" costs. For these cost
19 categories, cost factors are developed and applied in a manner that allows such costs to
20 fluctuate in accordance with forward-looking investment/direct cost estimates.

1 **Q. DOES THE USE OF A COST-PER-LINE APPROACH FOR DETERMINING**
2 **CERTAIN COSTS IN QWEST'S ICM MODEL FILED IN THIS PROCEEDING**
3 **CONSTITUTE A CHANGE FROM PREVIOUS ICM FILINGS?**

4 A. Yes. The use of a cost-per-line approach for determining Network Operations and Other
5 Operating Taxes for loop/line studies is a recent enhancement to Qwest's ICM processing.
6 This update to ICM processing resulted from: (1) an improved understanding of the nature
7 of these costs and TELRIC's modeling requirements; (2) an evaluation of ICM's earlier
8 version results, which unintentionally understated the forward-looking level of costs
9 required for these categories by tying them directly to the amount of booked investments:
10 and (3) the review of other cost models, including the AT&T HAI model that has a long
11 standing history of employing a cost-per-line approach in determining network operations
12 costs.

13 This refinement in ICM methodology recognizes that these particular costs are more
14 directly related to the servicing of individual units of service than they are to the level of
15 investment-related costs associated with those services. Where it is possible to identify
16 distinct and homogeneous units of service, such as with loop/line quantities, costs are
17 calculated on a cost per-loop/line basis. The use of a cost-per-line approach has been
18 widely accepted in other jurisdictions (e.g., it has been utilized in the Company's most

1 recent UNE pricing dockets conducted in Colorado, Arizona, Minnesota and Utah), as well
2 as in the FCC's SM Switching Model.⁹

3 Neither Network Operations costs nor Other Operating Taxes can realistically be expected
4 to follow TELRIC-modeled investment-related cost changes. Network Operations costs
5 are primarily driven by changes in access line activity and other customer activities (i.e.,
6 switching minutes, transport miles, etc.), and Other Operating Taxes constitute costs
7 controlled by state and local taxing authorities who are not bound by nor likely to reduce
8 their tax collections to reflect any TELRIC-based investment modeling standard. Rather,
9 state and local taxing authorities will, most likely in today's economic climate, meet their
10 budgetary needs and public commitments by maintaining or increasing, not cutting or
11 lowering, taxes. Taxes, such as property taxes levied against Qwest, will continue to be
12 based upon physical plant currently in place, not some reduced, or hypothetically modeled
13 level of investment. By employing a current (forward-looking) cost-per-line methodology
14 for these costs, the TELRIC pricing results produced by ICM more clearly identify the
15 operational costs Qwest would incur in delivering wholesale services under TELRIC
16 pricing principles.

17 **Q. DOESN'T THE EXPENSE FACTORS MODULE ALSO DEVELOP AN EXPENSE**
18 **FACTOR FOR NETWORK OPERATIONS AND OTHER OPERATING TAXES?**

⁹ See FCC 99-304 *In the Matter of Federal-State Joint Board on Universal Service Forward-looking Mechanisms for High Cost Support for Non-Rural LECs*, CC Docket No. 96-45, CC Docket No. 97-160, released November 2, 1999 at ¶340, and footnotes 727 and 728.

1 A. Yes, it does. ICM employs two assignment methodologies for handling these types of
2 costs -- a loop/line cost amount approach and an expense factor approach. A dual
3 approach was established to recognize that, although loop facilities constitute a
4 significant portion of Qwest's total provided services, there are numerous other kinds of
5 services also being provided. Because it would be impractical to attempt to identify all
6 the various units of service, and to model the costs accordingly, the two different
7 approaches were developed in order to properly determine these direct costs and yet
8 simplify the process. Thus, the cost per-loop/line amount approach was developed and is
9 used for loop services, which have homogeneous units. For the non-loop/line services
10 (e.g. switching, transport, high capacity facilities) that have a much more diverse
11 universe of units, ICM employs the use of expense-related factors, utilizing forward-
12 looking investments and costs.

13 **Q. DO THE METHODOLOGIES EMPLOYED IN QWEST'S ICM EXPENSE**
14 **FACTORS MODULE ENSURE THAT DOUBLE COUNTING OF COSTS DOES**
15 **NOT OCCUR?**

16 A. Yes. ICM cost factor methodologies are designed to help the user insure that double
17 counting (or omission) of expenses does not occur. The cost factors are initially developed
18 from current cost relationships using the books of account as a starting point. All costs on
19 the books of Qwest are accounted for -- costs are explicitly removed if they are directly
20 assigned in another study, or if they are not applicable to TELRIC studies. The user can
21 see the total costs (booked expenses), the removed expenses, and the expenses that remain
22 in the development of ICM's expense factors. For example, a reviewer of ICM can see

1 that business office costs, which are separately identified and used in non-recurring cost
2 studies, are removed from the costs employed in the development of expense factors
3 applied in other studies. This removal, or expense mapping, documents for the
4 reviewer/user, the costs that were used in ICM's expense factor development, while
5 ensuring that costs were not double counted.

6 **Expense Factor Module Inputs**

7 **Q. PLEASE DESCRIBE THE OTHER SPECIFIC INPUTS MADE TO THE QWEST**
8 **ICM EXPENSE FACTORS MODULE.**

9 A. Once the initial expense data has been obtained from the Company's books and analyzed,
10 the next phase of processing converts current expenses into forward-looking TELRIC
11 expenses. This is accomplished in Qwest's ICM Factors Module through the input and
12 application of efficiency and inflation/deflation factors. In the Expense Factors Module
13 input screen, the user may input a "Cost Savings Value" and an "Inflation Rate." The
14 "Cost Savings Value" estimates the gains expected in productivity or efficiency, while the
15 "Inflation Rate" estimates the amount of inflation (or deflation) anticipated. These values
16 can be applied on an account specific basis, or applied uniformly to all accounts.

17 **Q. PLEASE DESCRIBE HOW THE QWEST DEFAULT FOR THE COST SAVINGS**
18 **VALUE WAS DEVELOPED?**

19 A. The Cost Savings Value input is designed to reflect efficiency gains. This input was based
20 on the X-Factor productivity estimates found in the FCC's order *In the Matter of Price*

1 *Cap Performance Review for Local Exchange Carriers Access Charge Reform*.¹⁰ Since
2 base expenses in the factor development process are at a 2001 level, this input reflects
3 estimated efficiency gains resulting from increased labor productivity and improved
4 technologies for a two-year period (2001 to 2003). Qwest's Cost Savings Value was
5 derived by calculating the weighted average of the X-Factor productivity estimates
6 reported by the FCC, AT&T, and the United States Telephone Association (USTA). Since
7 it is a weighted average of these different proposals, it strikes a reasonable balance among
8 the competing proposals. The weighted calculation results in a two-year efficiency gain of
9 10.25% -- this constitutes an aggressive estimate of future efficiency relative to Qwest's
10 historical trends.

11 **Q. PLEASE DESCRIBE HOW THE QWEST DEFAULT FOR THE INFLATION**
12 **FACTOR WAS DEVELOPED?**

13 A. The 8.16% inflation input was based on information prepared specifically for Qwest by the
14 economic consulting firm, Joel Popkin and Company (*see* Exhibit No. DMG-4). The
15 Wage & Salary Index value represents a two-year estimate of inflation between 2001 and
16 2003, based on Qwest-specific circumstances, including Qwest's union labor contract and
17 compensation and benefits practices. The use of a Qwest-specific inflation rate is an
18 appropriate and reasonable input for TELRIC modeling in this proceeding because it best
19 represents the environment in which Qwest must operate.

¹⁰ See FCC 97-159, *In the Matter of Price Cap Performance Review for Local Exchange Carriers Access Charge Reform*, CC Docket No. 94-1, 96-262, Fourth Report and Order in CC Docket No. 94-1 and Second Report and Order in CC Docket No. 96-262, released May 21, 1997.

1 **Q. DO YOU RECOMMEND USE OF QWEST'S DEFAULT INPUTS FOR**
2 **EFFICIENCY AND INFLATION?**

3 A. Yes, I do. I believe that Qwest's productivity and inflation default inputs described in this
4 testimony reasonably reflect the anticipated gains in efficiency, and an inflation value
5 which is appropriate for use in preparing Qwest-specific forward-looking cost models and
6 studies – models that are consistent with the forward-looking requirements of the TELRIC
7 model.

8 **IV. CONCLUSION**

9 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

10 A. Yes, it does.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

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

EXHIBITS
OF
D. M. (MARTI) GUDE
ON BEHALF OF
QWEST CORPORATION

JUNE 26, 2003

INDEX OF DIRECT EXHIBITS

Exhibit DMG-2	Qwest – Washington Economic Securities and Exchange Commission (SEC) Depreciation Values
Exhibit DMG-3	Expense Factor Module Derivation / Application Chart
Exhibit DMG-4	Qwest Compensation Increases – November 2002 View