TAB F

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of Qwest Communications International Inc., Consolidated Application for Authority to Provide In-Region, InterLATA Services in Montana, Utah, Washington and Wyoming	))))))))	WC Docket No. 02-189

JOINT DECLARATION OF RICHARD CHANDLER AND ROBERT MERCER ON BEHALF OF AT&T CORP.

I. BACKGROUND AND QUALIFICATIONS.

1. **Richard Chandler.** My name is Richard A. Chandler. I am Senior Vice President at HAI Consulting, Inc. I was also Senior Vice President at HAI Consulting, Inc.'s predecessor, Hatfield Associates, Inc.

2. I received BSEE and MSEE degrees from the University of Missouri in 1970 and 1971, respectively, and an MBA from the University of Denver in 1983. I also have completed additional graduate study in electrical engineering at the University of Colorado.

3. I have substantial experience in the telecommunications industry. I began my career as an electronic engineer at the Institute for Telecommunication Sciences studying microwave and optical propagation and analyzing radar systems. I then worked at Bell Laboratories in the exploratory development of customer switching systems. While at Bell Labs,

I worked extensively on packet switching and circuit switching technologies. I then transferred to AT&T, where I was a product manager. My responsibilities at AT&T included, among other things, developing an deploying product strategies for packet and other switching systems. I then joined a startup mobile satellite company as vice president of network engineering. In that role, I developed the ground system network architecture for the proposed system.

4. At HAI (and Hatfield Associates, Inc.), I was (and continue to be) the principal developer of the Hatfield/HAI cost models. In addition, I analyze a wide range of telecommunications technologies and systems for a number of clients.

5. Throughout my career, I have taught graduate-level telecommunications technology courses in digital switching and other digital communications technologies, including transmission and packet switching, basic telephony, and cellular and wireless communications, at the University of Colorado, the University of Denver, and Pace University.

6. I have filed numerous affidavits and declarations concerned with telecommunications technology before this Commission, state regulatory agencies, and in Federal court cases.

7. **Robert Mercer.** My name is Robert A. Mercer. I am the President of BroadView Telecommunications, LLC ("BVT"), a consulting firm specializing in analyses of the telecommunications infrastructures. The address of the firm is 5201 Holmes Place, Boulder, Colorado, 80303.

8. I received a Bachelor of Science degree in Physics from Carnegie Institute of Technology (now Carnegie - Mellon University) in 1964, and a Ph.D. in Physics from Johns

Hopkins University in 1969. After receiving my Ph.D. in Physics from Johns Hopkins University, I was an Assistant Professor of Physics at Indiana University from 1970 until 1973.

9. I then joined Bell Telephone Laboratories. Over the next eleven years, I held a variety of positions in the Network Planning organizations at Bell Labs and AT&T General Departments. My final position at Bell Labs was Director of the Network Architecture Planning Center, where I managed an organization that was responsible for early Bell System planning of the Integrated Services Digital Network (ISDN), as well as systems engineering for new data services being planned by AT&T.

10. I joined Bell Communications Research (Bellcore, now Telcordia Technologies) in January, 1984, where I was Assistant Vice President of Network Compatibility Planning. Among other responsibilities, I directed Bellcore's technology analysis of various legal and regulatory proceedings at the federal and state levels. I also coordinated and provided direction to Bellcore's activities in domestic and international standards activities, and served as a member of the Board of Directors of the American National Standards Institute.

11. After leaving Bellcore in late 1985, I held positions with BDM Corporation and AT&T Bell Laboratories before joining Hatfield Associates, Inc., in early 1987. I held the positions of Senior Consultant, Senior Vice President, and President of the firm. On October 1, 1997, the former principals and employees of Hatfield Associates, Inc., formed HAI Consulting, Inc., and I became the President of that firm. At Hatfield Associates and HAI, I was extensively involved in the development of the various versions of the HAI Model. I also presented testimony on and defended the model in a large number of regulatory proceedings pertaining to the cost of Unbundled Network Elements and Universal Service.

12. In March of 2000, I left HAI to form BroadView Telecommunications. The firm provides strategic planning, education, and expert services related to public and private telecommunications infrastructures, dealing specifically with network architectures, technologies, services, and service providers. At BroadView, I have continued to present and defend the HAI Model in numerous regulatory proceedings.

13. I also hold an adjunct faculty position in the Interdisciplinary Telecommunications Program at the University of Colorado in Boulder, where I am developing an executive seminar on telecommunications developments, teach a course on telecommunications technology, and serve on Masters thesis committees. I have previously taught a course on advanced data communications and computer networking for several years. I have taught many other courses and seminars as well for other organizations and institutions, in the areas of the telecommunications infrastructure, network technologies, broadband networks, data and voice communications, computer networking, and network management.

II. PURPOSE AND SUMMARY.

14. The purpose of our testimony is to demonstrate that the unbundled network element ("UNE") switching rates adopted by the state Commissions in Washington, Wyoming, Utah and Montana are substantially inflated by clear TELRIC errors. In Parts III through VI of this declaration, respectively, we summarize the Washington, Wyoming Utah and Montana UNE rate proceedings that resulted in Qwest's SGATs. We demonstrate that the methodologies employed by those state commissions to develop Qwest's UNE switching rates are inflated by numerous clear TELRIC errors.

III. QWEST'S WASHINGTON UNE SWITCHING RATES ARE INFLATED BY CLEAR TELRIC ERRORS.

15. The recurring switching rates adopted by the Washington Utilities and Telecommunications Commission ("WUTC") are not remotely TELRIC-compliant. The rates adopted by the WUTC are the result of two separate pricing proceedings ("Phases"). In Phase I, the WUTC purported to determine Qwest's (then US WEST's) forward-looking recurring switching costs, net of common costs.[1] In Phase II, the WUTC adopted a "common cost factor" to increase the recurring switching costs developed in Phase I in order to account for the common costs associated with those elements. In the Phase II proceeding, the WUTC adopted recurring switching rates for Qwest equal to the Phase I costs grossed up by the common cost factor adopted in Phase II.[2]

16. The WUTC committed numerous clear errors in both Phase I and in Phase II that vastly inflated the recurring switching rates that would be produced by any reasonable application of TELRIC-principles. Even Qwest recognized that these inflated recurring rates would not pass muster at this Commission and, about a month before filing its Section 271 Application, has unilaterally lowered those rates in order to "expedite consideration of Qwest's Section 271 application." *See* Thompson Decl. ¶ 9. Qwest claims that these eleventh hour rates reductions result in TELRIC rates for two reasons: (1) the new rates are lower than the rates adopted by the WUTC and (2) the new rates pass the Commission's benchmarking analysis,

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[1] *See* Eighth Supplemental Order, Interim Order Establishing Costs for Determining Prices in Phase II; And Notice of Prehearing Conference, *Pricing Proceeding for Interconnection, Unbundled Elements, Transport and Termination, and Resale*, Docket Nos. UT-960369, -960370, -960371 (May 11, 1998) ("*Phase I Order*").

[2] *See* 17th Supplemental Order, Interim Order Determining Prices; Notice of Prehearing Conference, *Pricing Proceeding for Interconnection, Unbundled Elements, Transport and*

using Colorado as the benchmark state. Neither of these arguments withstands scrutiny, the new rates are not based on a TELRIC principles, Qwest's Washington switching rates do not, in fact, pass a valid benchmark analysis, and because Qwest makes no attempt to show that its lower rates result from a TELRIC-compliant analysis.

17. As noted above, the recurring loop rates adopted by the WUTC are the product of a two-phase proceeding. In Phase I, the WUTC adopted costs for those rate elements net of common costs. In Phase II, the WUTC made a few changes to the costs developed in Phase I, adopted common cost factors, and adopted final recurring loop rates. As demonstrated below, the methodologies used by the WUTC to develop Qwest's Washington recurring loop rates in these proceedings were not remotely TELRIC-compliant.

18. *Phase I.* The WUTC rejected all switching cost studies submitted in the Phase I proceeding. *See Phase I Order* ¶ 347. Instead, the WUTC computed switching rates using its own largely unexplained, and clearly non-TELRIC-compliant, methodology. *See Phase I Order* ¶ 320. The fact that the WUTC failed to comply TELRIC-principles to compute switching rates is plain from its own description of how those rates were developed. The switching rates adopted by the WUTC are based on pre-1997 embedded switching investments by the smaller of the two incumbents with only a time-of-purchase adjustment. Furthermore, those data are not even Qwest-specific. On the contrary, they are based on *Verizon's* Washington Network, which is considerably smaller (and hence has higher per line costs) than Qwest's network.[3]

Termination, and Resale, Docket Nos. UT-960369, -960370, -960371 (September 23, 1999) ("*Phase II Order*").

[3] Both Qwest and Verizon provide residential service to customers in Washington.

19. The WUTC began its switching cost analysis with 1994 data. In particular, the WUTC used 1994 data provided by GTE (now Verizon) and US WEST (now Qwest) purporting to identify "embedded [1994] investment" per line. *Phase I Order* ¶ 307. The WUTC did not even attempt to convert those embedded switch investments into a forward-looking switching investment that, for instance, reflected forward-looking planning, engineering, and purchasing practices. Instead, the WUTC simply converted the 1994 embedded investment value into 1997 dollars. *See Phase I Order* ¶ 307. Simply put, the switching investment used by the WUTC to develop switching rates is the 1997 dollar value of Qwest's and Verizon's 1994 embedded switch investment. *See Phase I Order* ¶ 307.

20. Clearly, the 1997 dollar value of the BOCs' 1994 switching investment is not forward-looking, and cannot reasonably be used to approximate Qwest's 2002 switching investment. In fact, there is ample evidence that the 1997 dollar value of the BOCs' 1994 switching investment does not even approximate a forward-looking 1997 switching investment. The "UNE Fact Report," sponsored by U S WEST and GTE, among others, and submitted to the Commission, explains that "on a per-line basis, [switch] prices declined over 60 percent from 1986 to 1996 and were projected to fall another 12 percent by 2000."[4] Furthermore, Northern Business Information, a McGraw-Hill subsidiary that annually canvassed ILECs for their actual switching and other network investment and reported these results in publicly-available documents, estimated that the Bell companies paid an average of $105 per line in 1994 and

[4] Peter W. Huber and Evan T. Leo, "UNE FACT REPORT," submitted by USTA in CC Docket No. 96-98, May 26, 1999, at I-28. The report was prepared on behalf of U S WEST, GTE, Ameritech, SBC, Bell Atlantic, and BellSouth.

would pay only $96 per line in 1997. The corresponding GTE investments were $119 in 1994 and $115 in 1997.[5]

21. Based on this methodology, and in spite of the publicly-available data to the contrary, the WUTC determined that Qwest's 1994 embedded average switch investment per line, in 1997 dollars, was $213.12. *See Phase I Order* ¶ 307, n. 37. That process was clearly flawed. As the WUTC itself recognized, data provided by Qwest and Verizon showed that actual switch acquisitions made after 1994 averaged only $109.35. *See id.* To account for this discrepancy, the WUTC purported to remove "outliers" from the data sets. The WUTC never identified its criteria for identifying "outliers," however, nor did the WUTC identify which data entries it determined to be outliers. After applying its black-box methodology to remove "outliers" from the datasets, the WUTC determined that the 1994 embedded switching investment (in 1997 dollars) was $205.03. *See Phase I Order* ¶ 308.

22. As noted above, the $205.03 is based on the 1994 switch investment submitted by Qwest and Verizon. The WUTC recognized that the number of lines serviced by Qwest was higher than that served by Verizon. To account for this difference, the WUTC lowered the embedded switching investment for Qwest to $186.37. *See Phase I Order* ¶ 309. Again, the WUTC did not explain (or provide any data showing) how it made this adjustment. The WUTC also made another adjustment to its embedded switching investment for Qwest to account for the fact that not all lines are revenue producing. To account for this fact, the WUTC arbitrarily increased its estimate of Qwest's embedded switching investment by 8% to $201.28. Once again, the WUTC did not explain how it determined the amount of the adjustment.

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[5] Northern Business Information, *U.S. Central Office Equipment Market: 1995 Edition*, Exhibit

23. The WUTC did, however, recognize that its black-box calculations of Qwest's 1994 embedded network (in 1997 dollars) appeared to be inflated compared to the 1995 embedded costs for Verizon that Verizon had computed using this Commission's data. In particular, Verizon had submitted evidence in the Phase I proceedings that, according to this Commission's data, its 1995 embedded investment would be no higher than $150. *See Phase I Order* ¶¶ 300 & 311.

24. At this point, the WUTC gave up and simply adopted, for Qwest, the 1995 embedded cost estimate for Verizon's network of $150. *See Phase I Order* ¶ 312. Thus, the Qwest Washington switching rates adopted by the WUTC are (1) based not on Qwest-specific data, but on Verizon's Washington switching costs and (2) equal to 1995 embedded switching investment with neither *forward-looking adjustments nor a time-of-purchase adjustment that would have at least attempted to make the number representative of the 1997 price.* On this record, it is clear that the switching rates adopted by the WUTC do not remotely comply with TELRIC principles – indeed, those rates are neither forward-looking, nor based on Qwest's network.

25. There are two other clear TELRIC errors in the $150 per line figure adopted by the WUTC. First, that figure erroneously assumes a fixed cost for all switch sizes. The WUTC attempted to justify that assumption on the basis that the vendor contracts provided by GTE and U S WEST indicate that the industry has moved to a per line charging mechanism in recent years (¶312). In reality, however, the commercially-available switch data utilized by the HAI Model, and this Commission's extensive analysis, shows that switch prices, expressed per line, do fall as

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3-37. Note also that these are bundled prices that include switch software.

a function of switch size, due to a sizable "getting started" cost that is spread over the number of lines served by the switch. This error is compounded by the fact that the WUTC used Verizon's switching investment to compute Qwest's switching costs, because, on the average, Qwest's switches are larger and serve more lines than do Verizon's in Washington. Second, the per-line amounts adopted by the HAI model and the FCC Synthesis Model are well below $150 per line (except for the very smallest switches).

26. The HAI Model submitted by AT&T in Washington uses a switch price function derived from commercially-available data. The per-line price ranges from $139.67 for a 1,000-line switch to $75 for an 80,000 line switch; at a line size of 20,000 lines typical of a large ILEC, the switch price is approximately $95. The FCC's switch price regression analysis provides the data necessary to estimate the per-line price for a blended average of host and remote switches applicable to Washington. The FCC found that 1) the getting-started price is $486,700 for a host or stand-alone switch and $161,800 for a remote switch; and 2) the added price per line for all types of switches is $87. Therefore, since Qwest operates 108 host and stand-alone switches and 17 remote switches in Washington,[6] the blended composite getting-started price is $442,514.[7] Adding the $87/line yields a per-line price of approximately $530 for a 1,000 line switch, $93 for an 80,000-line switch, and $109 for a 20,000 line switch. The vast majority of lines in Washington are served by large switches; according to Qwest's ICONN database, over 83% of Washington switched lines are served by switches handling more than 20,000 lines.[8] The

[6] *See* Qwest ICONN database at http://www.qwest.com/cgi-bin/iconn/iconn_centraloffice.pl. The Washington switch listing shows 130 entries, but five are duplicate records.

[7] (17/125)x$161,800+(108/125)x$486,700 = $442,514.

[8] *See id.*

weighted average per line investment using the numbers derived immediately above is $107.98 (or 28% less than the $150 figure).

27. The bottom line is this: The switching rates adopted by the WUTC for Qwest are not remotely TELRIC-compliant. Thus, Qwest's claims that its modest last minute rate reductions necessarily results in switching rates is baseless, and should be given no credence.

IV. QWEST'S UTAH UNE SWITCHING RATES ARE INFLATED BY CLEAR TELRIC ERRORS.

28. Qwest effectively acknowledges that the UNE rates actually set by the Utah PSC are not remotely TELRIC-compliant. Instead of relying on those rates, Qwest has filed "new" UNE rates, based on a "benchmarking" analysis of the rates set in Utah. In their accompanying Declaration, Messrs. Lieberman and Pitkin explain why these new rates cannot be considered TELRIC-compliant because the benchmarking analysis used by Qwest is flawed. But there is also an additional reason why Qwest's eleventh hour rate reductions should not be considered with respect to Utah. Despite filing the "new" rates that it claims are TELRIC-compliant, Qwest continues to advocate substantially higher rates in the Utah PSC's ongoing UNE rate proceeding. In particular, although Qwest's 271 Application is predicated on average switching port and usage rates of $1.58 with features (or $0.92 without features) and $.001705, respectively, Qwest is advocating much higher average switching port and usage rates of $2.08 with features (or $1.33 without features) and $.002143, respectively, in the ongoing state UNE rate proceeding. Thus, it is clear that Qwest's gambit is to get its section 271 application approved on the basis of its current rates and then subsequently have those rates hiked to competition-foreclosing levels.

29. For these reasons, Qwest's application must ultimately be measured by the rates set by the Utah PSC. And there can be no doubt that the rates the PSC set for switching UNEs

are well in excess of TELRIC. Qwest's switching UNE rates were set by the Utah PSC in 1999 on the basis of 1998 cost data. *See* Report and Order, Docket No. 94-999-01 (Utah PSC June 10, 1999) ("*1999 Utah UNE Pricing Order*"). Given that the costs of providing UNEs have declined considerably in since this time, these stale UNE rates cannot be considered to be representative of the forward-looking, economic costs of providing UNEs today.

30. But even judged on the basis of 1998 costs, the rates set by the *1999 Utah UNE Pricing Order* must be considered excessive. In setting loop and switching rates, the Utah PSC "split the baby," taking the average of AT&T's and US WEST's proposed rates. Although this resulted in rates that were somewhat lower than advocated by US WEST, the resulting rates were still excessive.

31. In particular, in its *1999 Utah UNE Pricing Order*, the Utah PSC found that US WEST's cost model did not satisfy the Commission's TELRIC methodology. As the Utah PSC correctly observed, the ICM "does not produce a forward-looking, economically efficient network" but instead "mimics the embedded costs of recent network experience." *1999 Utah UNE Pricing Order* at 6-7. Thus, the Utah PSC concluded that the ICM resulted in rates that were overstated. *Id.* at 7.

32. This conclusion was well-founded. The switching cost part of ICM is handled by the Switching Cost Model ("SCM"). The arbitrator in Minnesota found the following defects in SCM:

- The SCM input processes are highly complex and extremely sensitive to U S WEST's designated inputs, which are unknown, undocumented and proprietary (¶82);

- numerous SCM inputs require decisions regarding the type of technology and efficient engineering practices that cannot be discerned from any of the documentation or models provided (id);

- SCM deploys the same switches from the same manufacturer as are currently in place, unless the current switch is an analog switch, in which case SCM deploys a digital switch. Contrary to TELRIC principles, SCM does not consider whether switch from another vendor might be more cost effective than the switch currently used at each location (¶83); and

- SCM does not universally deploy the least cost equipment That is because optimal network configuration has changed over time. It cannot by concluded that deploying the same digital switch from the same vendor as is currently deployed in U S WEST's network in Minnesota will meet the least cost criterion. (¶85)

33. As the Minnesota PUC's analysis shows, Qwest's SCM merely computes switching investment for the embedded network. It is not even a true model, in that it bases its outputs on every existing physical aspect of the embedded switches. It will, for example, compute investment for switch configurations that are decidedly not forward-looking, such as the collocation of a host and a remote switch in the same wire center.[9] Thus, the SCM "model" by definition does not produce forward-looking and, therefore, is incapable of producing TELRIC-compliant switching investment estimates. Furthermore, SCM's databases containing critical investment data are password-protected, and the fundamental formulas that calculate investment cannot be viewed by the user.

34. On the other hand, the Utah PSC found that AT&T's HAI model was appropriately "forward-looking." *Id.* at 7 ("The record shows that the HAI model employs a forward-looking, economically efficient approach."). Nonetheless, the Utah PSC decided it would not rely solely on the basis of the HAI model because of concerns regarding the way in which HAI's used "proxy[s]" to determine the location of some customers. *Id.* The Utah PUC,

[9] As an example, Qwest's Cottonwood, Utah, wire center (CTWDUTMA) contains a Nortel DMS 100 as well as a remote switch, an optically-connected 5ESS remote. There are similar examples in other states in the Qwest region, including Washington and Colorado.

however, did *not* find that, by using proxy locations, the HAI model understated costs; to the contrary, it specifically rejected that claim. *See id.* at 7 ("we are not convinced by USWC testimony that the HAI model necessarily builds a deficient amount of outside plant.").

35. Thus, given the Utah PSC's express recognition that the HAI model was forward-looking and did not understate the costs of outside plant – coupled with its finding that the ICM was an "embedded" cost model – the only appropriate course would have been for the Utah PSC to set rates using HAI model. The Utah PSC, however, did not follow this straightforward approach. Instead, the Utah PSC arbitrarily set rates on the basis of the simple average of those calculated by the HAI model and US WEST's embedded ICM model. *See id.* at 7. But all this served to do was reduce somewhat the bias from using US WEST's ICM. As the Utah PSC recognized, the two models produce "significant[ly]" different "cost estimates." For example, with respect to switching, HAI generated monthly costs of $0.001610 for switching usage while the ICM generated $0.003133 for switching usage. *Id.* Thus, the resulting average of the results generated by the two models exceeds that generated by the HAI model, which, as noted, the Utah PSC itself recognized was appropriately forward-looking.

36. Even if the HAI Model's method for calculating customer locations understated the necessary amount of outside plant, a conclusion rejected by the Utah PSC, that would not provide grounds for using an average of the HAI and the ICM to set non-loop UNE rates. This is particularly true given the fact that the Commission has endorsed HAI's switching cost module. *See Platform Order* 75-78 (finding that HAI "assume[s] the least cost, most-efficient and reasonable technology" to provide switching and "generally satisf[ies] the requirement that each network function and element necessary to provide switching and interoffice transport is associated with a particular cost"). Thus, there can be no doubt that by averaging the results of

the HAI with the "embedded" ICM, the Utah PSC set switching rates in excess of TELRIC. Moreover, as we explained above, the federal courts have expressly concluded that this type of crude averaging cannot result in TELRIC-based rates. *AT&T Communications of New Jersey, Inc.* v. *Bell Atlantic-New Jersey*, Civ. No. 97-5762 (KSH), slip op. (D.N.J. June 6, 2000).

37. The UNE switching rates set in the 1999 order also allow Qwest to double-recover its costs. Most notably, the Utah PSC allowed Qwest to collect a separate, fixed vertical features charge. *1999 Utah UNE Pricing Order* at 11. But in the HAI model "[v]ertical features are incorporated into the functionality provided in the local switching port, and thus are included in the port rate as derived from the HAI Model." Post-Hearing Br. of AT&T, Docket No. 94-999-01, at 22 (Utah PSC Feb. 17, 1999). And as noted, the Utah PSC used the HAI (in part) to set switching rates, including the port rate, but never addressed, or even acknowledged, AT&T's argument that HAI already includes the costs of vertical features in its port charge. Furthermore, even Qwest now admits that the HAI Model includes vertical feature costs by stating that "Qwest has determined that it cannot refute AT&T's assertion that there is no need for the $0.38 adjustment that was incorporated into Qwest's Colorado switch port rate in order to recover the cost of applications software used to provide vertical features."[10] Thus, by assessing a separate vertical features charge, the Utah PSC is requiring new entrants to pay twice for the costs of the switching equipment used to provide those features. Given the size of this charge – $3.71 per month for the most popular Feature Group 2 package – CLECs are placed at a significant cost disadvantage when competing with Qwest.

[10] Reply Declaration of Jerrold L. Thompson, WC Docket No. 02-148, ¶ 38 at 24. Thompson recognizes that the switch maintenance factor used in the HAI Model, 0.0558, is greater than the actual ARMIS-derived value of 0.04209 for Qwest in Colorado. The contrast is even greater in

V. QWEST'S WYOMING UNE SWITCHING RATES ARE INFLATED BY CLEAR TELRIC ERRORS.

38. On July 31, 2001, Qwest initiated a generic rate proceeding to establish permanent UNE prices for all CLECs in Montana.[11] In the aftermath of costly and unproductive arbitration proceedings, only two CLECs intervened (AT&T and Contact Communications); AT&T subsequently withdrew without filing testimony. On June 19, 2002, Qwest settled the case by stipulation with Contact and the Consumer Advocate Staff of the PSC.[12]

39. Qwest's Wyoming rates are now based on the same flawed SCM model that was found to be non-TELRIC compliant by the Utah commission and the Minnesota commission. The Wyoming staff stated that "the Switching Model [SCM] includes an appropriate approach in calculating the investments associated with switching."[13] But that statement plainly is unfounded. The investment calculations in SCM cannot even be viewed by the user (including the Wyoming staff), and the critical investment inputs are buried in password-protected database files. Even when Qwest provided the database password, it was discovered that the investment inputs are listed using arcane and indecipherable alphanumeric equipment codes with no explanation as to their meaning or how they are to be combined to configure a working switch,

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Utah, where the ARMIS-based value is 0.01272, which is less than one-fourth the default value (also 0.0558) used by the Model.

[11] Wyoming PSC Docket No. 700000-TA-01-700, *In the Matter of Qwest Corporation's Request to Open an Unbundled Network Elements TELRIC Cost Docket.*

[12] Wyoming PSC Docket No. 700000-TA-01-700, Stipulation and Agreement (June 19, 2002); Wyoming PSC Docket No. 70000-TA-00-599, *In the Matter of the Application of Quest Corp. Regarding Relief under Section 271 of the Federal Telecommunications Act of 1996, Wyoming's Participation in a Multi-State Section 271 Process, And Approval of Its Statement of Generally Available Terms*, Order on SGAT Compliance (July 9, 2002) at 2.

[13] Prefiled Testimony and Exhibits of Marcy L. Norby on Behalf of the Consumer Advocate Staff, Docket No. 70000-TA-01-700 (Record No. 6768), March 15, 2002, at 12-14.

and the model does not show the fundamental calculations used to compute switching investment.

40. As we explained above, even with the limited amount of review that can be done with the SCM, it is clear that the SCM computes switching investments based on Qwest's embedded network and does not even attempt to make forward-looking adjustments.

41. Even Qwest evidently recognized that its Wyoming rates would not pass muster at this Commission. On July 1, 2002—just before filing its Section 271 Application—Qwest unilaterally reduced certain of its rates for local switching usage, local switch ports, shared transport, and tandem switching. *See* Thompson Wyoming Pricing Decl. ¶ 12. However, Qwest has made no showing that these minor reductions to substantially inflated rates result in TERLIC-compliant switching rates.

VI. QWEST'S MONTANA UNE SWITCHING RATES ARE INFLATED BY CLEAR TELRIC ERRORS.

42. On June 6, 2001—six days before the scheduled beginning of trial—CLECs (Avista, Mountana Wireless, Touch America, and the Montana Consumer Counsel) agreed to a Qwest "compromise" proposal to rates for switching and other UNEs based on Qwest's cost studies. *See* Docket No. D2000.6.89, Stipulation filed June 6, 2001; *id.*, Final Order on Stipulation (served Oct. 12, 2001). There was no pretense that the stipulated rates represented any principled effort to comply with the TELRIC standard. To the contrary, the stipulation contained the express disclaimer that "[n]o party's position in this docket is accepted by the other parties by virtue of their entry into this Stipulation, nor does it indicate their acceptance, agreement or concession to any rate-making principle, cost of service determination, or pricing principle embodied, or arguably embodied, in this Stipulation." Stipulation ¶ 3.

43. The Wyoming PSC, while ratifying the stipulation, made no findings that the stipulated rates were TELRIC compliant. The PSC expressly reserved the right to argue, in its recommendation to the FCC after Qwest's anticipated 271 filing, that "elements of the Stipulation should be changed before the FCC approves Qwest's 271 petition for interLATA market entry in the State of Montana." Docket No. D2000.6.89, Final Order on Stipulation ¶ 9. The PSC elaborated (*id.*, ¶¶ 10-11):

> 10. The Commission conditions its approval because this docket is related to Docket No. D2000.5.70, the Qwest Montana section 271 proceeding. Costing and pricing issues that arise in the 271 proceeding are not necessarily resolved by this Stipulation. Qwest concurs that the Stipulation is not all-inclusive and that other costing and pricing issues will remain if the Stipulation is approved. . . . The Commission expects that these and other costing and pricing issues will be addressed in another costing and pricing docket. . . .
>
> 11. Prices contained in the Stipulation may be at odds with final Commission recommendations on certain issues in the 271 proceeding. The Commission cannot be more specific because its analysis and decisions in the 271 proceeding are not complete.

44. On July 3, 2002—just before filing its Section 271 Application—Qwest unilaterally lowered those rates to "expedite consideration of Qwest's Section 271 application." *See* Thompson Montana Pricing Decl. ¶ 13. Qwest claims that these eleventh hour rate reductions produce TELRIC-compliant rates because (1) the new rates are lower than the rates adopted by the Montana PSC and (2) the new rates pass the Commission's benchmarking analysis, using Colorado as the benchmark state.

45. As explained in the attached declaration of Messrs. Lieberman and Pitkin, Qwest's benchmarking analysis is unsound. Here, it is sufficient to note that the Montana PSC, in allowing the new rates to take effect, expressly disclaimed any finding they were TELRIC-

compliant: "The Commission has not undertaken the review contemplated by 47 U.S.C. § 252(f)(3)(B) and consequently retains authority to continue review of the SGAT under 47 U.S.C. § 252(f)(4)." Docket No. D2000.6.80, *Review of Qwest Communications' Statement of Generally Available Terms Pursuant to Section 252(f) of the Telecommunications Act of 1996*, Order No. 6425 (served July 12, 2001).

VII. CONCLUSION

46. For the foregoing reasons, there is no question that Qwest's recurring switching rates are inflated by clear TELRIC errors in Washington, Wyoming, Utah, and Montana.

VERIFICATION PAGE

I declare under penalty of perjury that the foregoing Declaration is true and correct.

/s/ Richard Chandler

Richard Chandler

Executed on: July 31, 2002

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I declare under penalty of perjury that the foregoing Declaration is true and correct.

/s/ Robert Mercer

Robert Mercer

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DECLARATION OF THOMAS H. WEISS
ON BEHALF OF AT&T CORP.

I. BACKGROUND AND QUALIFICATIONS.

1. My name is Thomas H. Weiss. My business address is 405 Crossway Lane, Holly Springs, N.C., 27540. I am the President of Weiss Consulting, Inc. I received a Bachelor of Science Degree in Electrical Engineering from North Carolina State University at Raleigh in January 1970. I earned a Master of Science degree in Business Management from Duke University Graduate School of Business Administration (now the Fuqua School of Business) in 1973.

2. I am a Registered Professional engineer licensed to practice in Maryland and Missouri. I am also a member of the National Society of Professional Engineers and the North Carolina Society of Professional Engineers, both in the Private Practice Divisions. I also hold memberships in three specialist branches of the Institute of Electrical and Electronic Engineers: the Communications Society, the Computer Society and the Network Society.

3. I have been an active participant in academics within various university programs. I am the author of *Public Utility Plant Investment Decisions in the Face of Advancing Technology and Regulatory Policy Reform*, Proceedings of the 27th Annual Regulatory Conference, Iowa State University, Ames (1988). I have been a speaker and a panel member at the 1984 Public Utilities Conference, University of Georgia College of Business and at the 1988 Iowa State University Regulatory Conference. I also have served as a member of the faculty at the 1989 United States Telephone Association Advanced Management Workshop, which was sponsored by the University of Kansas at Lawrence.

4. Prior to founding Weiss Consulting, Inc. in 1994 – a telecommunications consulting firm that provides technical, management and economic consulting services to federal and state governments, as well as to private businesses – I practiced as a telecommunications engineer with a national local exchange carrier, and I have also worked for private consulting firms. From January 1970 through June 1978 I was an engineer and financial manager with General Telephone Company of the Southeast, a local exchange operating company owned by GTE Corporation (now Verizon Communications, Inc.). From 1978 to 1986, I was employed as a Senior Consultant with the public utilities consulting firm, Hess & Lim, Inc. And from 1986-1994, I was Vice President of Baker G. Clay & Associates, Inc., another public utility consulting firm.

5. In 1997, I was appointed Vice President – Operations Research for Vermont Telephone Company, Inc. where, in a general management capacity over a three-year period, I was charged with responsibility to improve the company's operations efficiency, its relations with regulators in the State of Vermont, and to assist the CEO in recruiting and hiring a senior executive to be responsible for customer service and regulatory relations. In 2001, I was

engaged as a consultant to the U.S. Agency for International Development where I worked with telecommunications companies and the Telecommunications Regulators Association of Southern Africa ("TRASA") to develop regulatory accounting and cost allocation systems for implementation in TRASA's fourteen member states.

6. More generally, I am a Registered Professional Engineer with over thirty-two years of experience in the telecommunications industry. My consulting practice has focused on technology, management and regulatory issues. I have extensive experience analyzing the prices charged for services that are rendered by domestic telecommunications utilities in both wholesale and retail markets.

7. I have presented expert testimony on communications matters both in federal and state courts, and I have testified in over one hundred and forty proceedings before public utility regulators in twenty-four states and the District of Columbia. I also have testified on economic and regulatory issues before the Federal Energy Regulatory Commission. And I testified on behalf of AT&T and WorldCom before the Colorado Public Utilities Commission ("CPUC") in CPUC Docket No. 99A-577T, the most recent Qwest UNE pricing proceeding in Colorado. Most recently before the Commission and on behalf of AT&T Corporation, I presented declarations regarding the Qwest NRCs presented with its Section 271 Application in WC Docket No. 02-148.

II. PURPOSE AND SUMMARY.

8. The purpose of my Declaration is to demonstrate that the non-recurring charges ("NRCs") for Unbundled Network Elements ("UNEs") presented by Qwest in partial support of its Application in this docket are vastly inflated by clear TELRIC errors. The NRCs adopted by the regulators in Montana and Wyoming are based on Qwest's NRC cost model (ENRC, Version

2.0) results adopted by the CPUC in its Docket No. 99A-577T; the NRCs presented by Qwest for Washington are an amalgam of charges developed in Washington Utilities and Transportation Commission ("WUTC") Docket Nos. UT-960369[1] and UT-003013.[2] The NRCs presented by Qwest for Utah are grounded in the same ENRC model used to set nonrecurring charges in Colorado but adjusted to reflect specific findings made by the Public Service Commission of Utah in Docket No. 00-049-105. As I demonstrated in my testimony before the CPUC in Docket No. 99A-577T, the ENRC model cost studies upon which Qwest bases its nonrecurring charges for Montana, Washington, Utah and Wyoming contain numerous clear TELRIC errors that substantially overstate Qwest's NRCs. These errors include (1) the improper recovery of disconnect costs at the time when a loop is initially provisioned;[3] (2) recovery of costs for manual work activities that would be performed electronically in a forward-looking network; (3) recovery of costs for activities that are unnecessary in a forward-looking network; (4) reliance on improperly computed time estimates for various work activities; (5) recovery of nonrecurring costs that should be recovered through recurring rates; and (6) allocations of network related costs that are not properly attributable to non-recurring charges.

9. As a result of these clear TELRIC errors, Qwest's NRCs for hot cuts and basic installations are substantially overstated, and create a substantial barrier to CLEC entry into

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[1] In connection with its Application, the NRCs presented by Qwest for two-wire and four-wire Basic Loop Installations result from the 8th Supplemental Order dated May 11, 1998, Paragraphs 442-482 and the 17th Supplemental Order dated September 23, 1999, pages 120-121 – both in WUTC Docket No. 960369.

[2] In connection with its Application, charges presented by Qwest for Coordinated Loop Installations with and without Cooperative Testing are "benchmarked" to the NRCs presented for Colorado.

Qwest local exchange markets. Because Qwest uses the same NRC cost model to compute non-recurring charges in each state, I used the NRC cost model submitted by Qwest in Colorado and Utah to estimate the impact of some of the TELRIC errors that inflate Qwest's NRCs.[4] As demonstrated below, many of Qwest's NRCs are inflated by more than 300%, and in some cases by more than 500%. In Part III of this declaration, I describe the TELRIC errors that inflate Qwest's NRCs. In part IV of this declaration, I show how correcting these TELRIC errors affect Qwest's proposed hot cut NRCs and basic installation NRCs.

III. QWEST'S NON-RECURRING CHARGES ARE MASSIVELY INFLATED BY CLEAR TELRIC ERRORS.

10. The Commission has long recognized that cost-based pricing for NRCs is critical to making competitive local exchange market entry economically feasible. *See, e.g., AT&T Communications,* 103 FCC 2d 277, ¶ 37 (1985) ("It is evident that nonrecurring charges can be used as an anticompetitive weapon to . . . discourage competitors"); Second Memorandum Opinion and Order on Reconsideration, *Expanded Interconnection with Local Telephone Company Facilities,* 8 FCC Rcd. 7341, ¶ 43 (1993) ("absent even-handed treatment, nonrecurring reconfiguration charges could constitute a serious barrier to competitive entry"). *See also* 47 C.F.R. § 51.507(e) ("[n]onrecurring charges . . . shall not permit an incumbent LEC to recover more than the total forward-looking economic cost of providing the applicable element"). Regardless of the level of the recurring rates charged by an Incumbent Local

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[3] The WUTC, in its 8th Supplemental Order in Docket No. UT-960369, and the Utah Public Service Commission, in Docket No. 00-049-105, required that Qwest separate its loop NRCs for those jurisdictions between connection and disconnection.

[4] I used the Utah cost model to assess Qwest's Utah rates. In Montana, Washington and Wyoming, the Qwest imported critical NRCs from Colorado. Thus, the Colorado NRC model is appropriate for assessing those rates.

Exchange Carrier ("ILEC"), an ILEC can and will evade competition if it is allowed to increase potential competitors' costs significantly through inflated non-recurring charges. As a general proposition, carriers must pay NRCs at the time when the ILECs make the associated UNEs available for CLEC use. If those NRCs are sufficiently overstated, then potential new entrants will not be able to afford to enter the market. Moreover, higher NRCs increase the level of market risk faced by potential new competitive local exchange market entrants because the high price of entry substantially reduces the potential competitors' pricing flexibility relative to the pricing flexibility enjoyed by the incumbent. As described below, the NRCs presented by Qwest in connection with the instant Application (*i.e.*, for Washington, Montana, Utah and Wyoming) are inflated by myriad clear TELRIC errors.

11. *Qwest Improperly Recovers Disconnect Costs From Competitive Local Exchange Carriers Through Installation NRCs.* The purpose of UNE loop installation and migration charges is to recover the one-time expenses incurred by an ILEC for installing or migrating a UNE loop to serve a CLEC customer. These one-time expenses include costs that are associated with pre-ordering activity, ordering activity, and provisioning activity. Costs that are associated with the service disconnection activity do not fall into any of these categories and, therefore, should not be included in these up-front non-recurring charges. Qwest's NRCs do not reflect this fundamental principle.

12. Qwest's Montana and Wyoming NRCs for installation and migration of UNE loops – activities which are incurred by incumbent local exchange carriers ("ILECs") at the time service is initiated – include costs for disconnecting the loop, which are not incurred until service is terminated. As has been recognized by regulators in Washington and Utah, to the extent that disconnect costs are actually incurred, those costs should be recovered at the time that they are

incurred, not at the time of installation. By collecting those costs at the time of installation, Qwest is effectively charging CLECs for losing customers that they have only just won. And these additional up-front disconnect costs impose a substantial entry barrier.

13. In the past, Qwest justified its practice of recovering disconnect costs from its *retail* customers at the time of service installation on the ground that that difficult to collect a disconnect charge from a departing retail customer (especially where that retail customer moves out of state). But that reasoning does not apply to the installation of lines purchased by *wholesale* customers, *i.e.* CLECs. That is why the Utah state commission recently required Qwest to remove disconnect charges from its installation NRCs.[5] The Public Service Commission of Utah explained that "Qwest has factors in place to deal with bad debt by wholesale customers" and that "[c]urrently these factors are at a very low level (two-tenths of one percent), showing that Qwest's concern that CLECs will not pay them is unlikely to occur."[6] Unlike retail customers, CLECs are often large firms that continuously do business with Qwest. Thus, Qwest's concern that a CLEC will "disappear" and never pay its disconnect charges are baseless. The WUTC found that uncertainty regarding the scale and timing of disconnection

[5] *See Application of Qwest Corporation for Commission Determination of Prices for Wholesale Facilities and Services*, Order, Public Service Commission of Utah Docket No. 00-049-105, at 10-11 (June 6, 2002) ("*Utah Order*") (finding "that it is poor policy to charge up-front for these costs that [Qwest] . . . may not incur until much later").

[6] *Utah Order* at 10-11. Moreover, the Utah Commission correctly noted that, if disconnects could properly be recovered up-front (which they cannot), those up-front disconnect charges would have to be discounted to account for the time value of money based on the average amount of time that a CLEC keeps a customer. *See Utah Order* at 11. Qwest's Colorado disconnect charges to not account for the time value of money.

activity required that connection and disconnection charges be assessed and accounted-for separately.[7]

14. Moreover, allowing Qwest to recover disconnect charges at the time of service initiation, allows Qwest to recover costs for activities that do not occur. In current modern automated networks, after the initial physical connection has been established between an end-user premises and the network, both ILECs and CLECs maintain "Dedicated Inside Plant" ("DIP") and Dedicated Outside Plant" ("DOP") to most residence and business locations. Under this so-called "DIP/DOP" arrangement, the physical path between the customer's premises and the central office remains intact after a customer's service has been discontinued, thereby enabling the carrier to leave "warm dial tone" on the access line until a new customer occupies the premises. Under this modern dedicated plant arrangement, when a customer orders service to be discontinued (disconnected), no physical plant "disconnection" takes place and no premises visit is undertaken; all that happens is that plant records are updated to change the status of the physical facilities from a "active" status to "warm dial tone."[8] In this modern form of the network, customers that have paid installation NRCs that include disconnection costs will have paid for services that are never performed.

15. The complex relationship between Qwest and CLECs also militates against the recovery of up-front disconnect charges. The advent of competition in the local exchange market alters the traditional relationship between connections and disconnections for network

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[7] WUTC's 8th Supplemental Order in Docket No. UT-960369, Paragraphs 471-472.

[8] "Warm Dial Tone" (a/k/a "Soft Dial Tone") is the same combination of tones normally received from the central office to alert the end user that the line is ready to accept dialing signals. However, while the "standard" dial tone allows the caller to make all forms of calls,

elements that are associated with an existing Qwest customer migrating to a CLEC. For example, a service that is initially provided to a retail customer by Qwest may ultimately be disconnected due to a successful migration to a *CLEC*. And the costs of the wholesale activity are far less than they would be in the corresponding old-fashioned retail context. The disconnect charge that was paid by the customer to Qwest at the time the customer initially ordered service from Qwest will be a windfall to Qwest. Moreover, at the time of the migration, Qwest will recover yet another disconnect charge from the CLEC as part of the migration NRCs. Thus, allowing Qwest to recover disconnect costs in its installation and migration charges results in overstated costs to retail and CLEC customers, and a windfall to Qwest.

16. Qwest's ENRC model is configured to account separately for connection and disconnection costs. Using the ENRC model for Colorado,[9] I have separated the total basic loop NRCs for Montana and Wyoming between charges applicable to connection activities and charges applicable to disconnection activities. The impact of this change, along with the impact of correcting the TELRIC errors in Qwest's ENRC cost studies are summarized at Exhibit 1 and at Exhibit 1a.[10] Exhibit 2 shows, in detail, the impact of correcting TELRIC errors in Qwest's ENRC studies for which the results are summarized for Washington, Montana and Wyoming at Exhibit 1; Exhibit 3 shows the details behind the corrected ENRC studies as summarized for Utah at Exhibit 1.

"warm dial tone" allows dial access only to the telephone company service office and to emergency numbers (i.e., 9-1-1).

[9] The Colorado ENRC model is the basis for the NRCs that Qwest has presented for Montana and Wyoming.

[10] Exhibit 1a shows the separation of total nonrecurring costs for Washington, Montana and Wyoming between connection and disconnection.

17. *Qwest's NRCs Reflect The Costs Of Activities That Are Unnecessary In A Forward-Looking Network.* A TELRIC-compliant non-recurring cost study would compute NRCs based on the most efficient forward-looking technology available to the ILEC. Qwest's non-recurring cost studies fail to comply with this basic TELRIC principle. In fact, Qwest's NRC cost studies reflect the costs of several manual activities that would (and currently can) be performed electronically. In most cases, the automated processes are far less expensive than the manual processes assumed by Qwest's NRC cost studies.

18. Qwest's NRC cost model used to compute NRCs in all four states in its instant Application reflect the costs of activities that are not necessary in a forward-looking network. For example, Qwest's NRC studies for a Loop Coordinated Install, Cooperative Test, First ("hot cut") assumes that two separate work groups are involved in testing activities: (1) the field installation group and (2) the service delivery implementation group. *See* Exhibit 2.[11] Aside from the fact that the costs of the installation activities of the field installation group are not capitalized (discussed, in detail, below), as they should be in a forward-looking network, these testing activities would not be performed because modern, and currently-available testing equipment, enables loop testing activities to be conducted by a single technician from either end of the loop thereby eliminating (in most cases) the need for a technician from both groups to be involved on each install. For example, the 3M™ Dynatel™ 965DSP-SA Subscriber Loop Analyzer allows a single technician, operating from either end of the loop, to conduct resistance, line loss, slope, and other loop tests (including wideband) without involvement by a technician located at the other end of the loop.

[11] In fact, Qwest's activity listing for virtually all loop install NRCs includes testing requirements at both ends of the loop by field installation and service delivery implementation personnel.

19. Based on this evidence, Qwest's assumption that manual intervention by two separate workgroups will be required for each installation and migration procedure is not TELRIC-compliant. To show the impact of this plain TELRIC error on Qwest's NRCs I have recomputed Qwest's NRCs based on the assumptions that manual intervention by service delivery implementation personnel, will be required for two percent (2%) of loop installations.

20. *Qwest's NRCs Are Inflated By Improperly Computed Time Estimates For Various Work Activities.* Qwest's Colorado NRCs reflect Qwest's estimates for the amount of labor to complete particular NRC-related activities. Qwest's estimates of the amount of labor required to complete NRC-related activities were developed by employees that Qwest refers to as subject matter experts ("SMEs"); the SMEs provide single point estimates of the times required to perform NRC-related activities. For Qwest's NRC cost studies, it is this nominal estimate from the SME process that is multiplied by a labor rate to yield the direct cost for work groups to complete the activities necessary to bring UNEs to CLECs.

21. By relying on this single-point unit resource estimation process, Qwest overstates NRC-related labor resource requirements because Qwest's SMEs relied on their embedded (*i.e.*, not forward-looking) experience to estimate the times required to perform the activities at issue. To compound that problem, Qwest's estimates of labor requirements do not reflect the results of any statistical study or other technique that would account for the diverse opinions of several SMEs. In short, Qwest's approach to resource requirements evaluations is statistically-biased and therefore of little, if any, value to the objective of defining meaningful labor resource requirements.

22. For example, Qwest's NRC analyses assume that the central office frame technician will spend 15 minutes on every order – 5 minutes to "analyze" each order, 4 minutes

each to complete two cross connections (8 total minutes), and 2 minutes to complete (close-out) the order in the Work Force Administration ("WFA") system. From "front-to-back," as described below, this manual process should entail the expenditure of no more than 9 minutes of frame technician time to present an end-user loop to a CLEC's facilities.

23. Order "analysis" means that the frame technician simply reads the order to determine the frame locations at which jumper changes are to be made then, based on his/her most basic training, translating that information into the physical location of the jumpers (*e.g.*, horizontal or vertical side of the frame). Even a new frame technician can read an order and physically locate each one of two jumper terminals within 1.5 minutes, yielding a total order "analysis" time of 3 minutes. *See, e.g.*, Exhibit 2 & Exhibit 3, showing the NRC changes associated with a 3 minute analysis time for each order.[12]

24. Once the locations of the frame jumpers have been determined, the frame technician moves to each location where jumper activity is to occur, removes the jumper from the existing location, and reconnects the jumper at the new location – in short, this activity is a simple cross-connection that should involve no more than 2.5 minutes for each of the removal and reconnection activities. Accordingly, a total of 5 minutes for Qwest frame technicians to manually accomplish these simple tasks is sufficient for this activity. *See, e.g.*, Exhibit 2 & Exhibit 3.

25. Having completed the physical changes necessary to accomplish the order for frame activity, it is necessary for the technician to advise Qwest's administrative systems that the

[12] It should be noted that this 3-minute estimate is generous to Qwest since most basic loop installations involve only one jumper change, on the horizontal side of the frame to effect connection of an existing ILEC loop to the facilities of a CLEC.

required work is now complete. At Qwest, this notice is given by the frame technician using the WFA system and Qwest assumes that this interaction between the field and the administration system will require 2 minutes of frame technician time for each order that requires frame activity. Actually, this process is accomplished in only one minute through a computer terminal at which the technician merely enters information necessary to identify the completed order (usually a local service request order number), the activity that was performed (usually by using work activity codes), the amount of time expended, and the time of day at which the work was completed.

26. It should be noted that this overall 9-minute work time (3 "analysis" minutes; 5 cross-connect minutes; and one records update minute) is generous to Qwest in that it is based on the time required to complete a single order when, in the real world, many such orders are completed in a group at the same frame by the same technician thereby creating economies of scale that are not recognized in either Qwest's frame work estimates or in the adjusted work times that are presented at Exhibits 2 and 3.

27. Qwest's NRC cost model also overstates the work time for Service Delivery Implementor[13] activities. Qwest has estimated that service delivery implementor activities will consume 25 total minutes for each local service request loop order: 5 minutes each to verify that the circuit is shown as available in two operations administrative systems, 5 minutes to notify the

[13] Service Delivery Implementors are responsible for tying up the loose ends of a local service request order after the actual pre-ordering, ordering, and installation activities have been completed, *e.g.*, ensuring that the required connection is shown as complete in the network administration systems, notifying the customer that the requested circuit is available, and closing-out the order in the administrative systems.

customer that the circuit is available, and 10 minutes post closing activities in the WFA Control Module ("WFA-CM").

28. Qwest's assumption that it will take the technician 5 minutes to screen every order is unrealistic. This activity is a daily routine for experienced technicians and they should only require 1 minute or less of work time to screen the average order. Similarly, Qwest's assumption that it will be necessary for the technician to spend 5 minutes to "verify" that the Central Office work has been completed is unnecessary because the technician should know whether the central office framework had been completed after screening the order.

29. Qwest's assumption that it will take 5 minutes for the Service Delivery Implementor to manually notify the CLEC that work has been completed is also inaccurate. As a preliminary matter, this manual notification process should be completed electronically through e-mail or automated system downloads. A forward-looking network with properly administered OSS would eliminate the need for manual processing of these activities. But even if manual notification were necessary, that notification should take a clerk or technician no longer than 1 minute to issue the notification either via e-mail or facsimile transmission.

30. Qwest's assumption that the Service Delivery Implementor will have to spend 10 minutes completing every order in the WFA system is also unjustified. The WFA-CM system should have been posted electronically when the Central Office Technician completed his or her work and updated the system. And even if the WFA had not been updated when the Central Office technician completed work (which would occur no more than 2% of the time), it would only take less than a minute to correct or update the system. This activity would take no longer than 1 minute.

31. Overall, this entire segment of the provisioning process for basic loops should be completed electronically if integrated efficient database systems are properly administered. Qwest has inappropriately assumed that it would be necessary to perform a series of manual verifications and checks to ensure that Qwest employees have completed their work. Manual intervention by the Service Delivery Implementor should only be warranted on a small percentage of basic orders. It would be reasonable to assume that 2% of the orders may require manual intervention by the Service Delivery Implementor and that the total work time required would be no more than 5 minutes.

32. *Qwest's NRCs Reflect The Costs Of Activities That Would Be Automated In A Forward-Looking Network.* A forward-looking NRC cost model should reflect the fact that a forward-looking OSS system automates most service administration features, including automated network reconfiguration and testing (especially in the loop portion of the network), and it would integrate the service administration and testing systems that are currently in place for retail markets. Qwest's cost studies do reflect the fact that its OSS systems are capable of performing these activities electronically. However, Qwest's ENRC model assumes that these processes will be performed by the OSS systems only 90% of the time. According to Qwest, a CLEC order will "fall out" of Qwest's OSS system 10% of the time, and will require very expensive manual processing. That assumption is not consistent with forward-looking principles.

33. A properly designed and implemented forward-looking OSS system would be capable of processing nearly 100% of all orders. Recent data submitted by Qwest in a proceeding before the Minnesota PUC confirms that fact. In particular, Qwest reported to the Minnesota PUC that Qwest *currently* succeeds in obtaining flow-through rates in its retail order

processing system in the range of 94 percent to 96 percent, *i.e.*, only between 4 percent and 6 percent of orders currently are falling out of the current Qwest system-wide retail service provisioning system and, thereby, require manual handling.[14] Given that OSS are continuously being updated and improved upon, and the fact that a formal industry-wide approach is underway to develop fully-automated and network-integrated OSS systems, a reasonable forward-looking fall-out rate would be near zero. In Exhibits 1-3 (attached), I have conservatively reflected a forward-looking fall-out rate in Qwest's NRCs to be 2% for all valid NRC activities that would be subject to automated system fallout.

34. *Qwest's NRCs Recover Costs That Should Be Recovered Through Recurring Charges.* Public utility accounting has traditionally required that costs which generate future benefits over a period of one year or more be capitalized on utilities' books of accounts. Public utility pricing has generally recognized that such capitalized costs be recovered in recurring rates. Telecommunications utilities are no different than other utilities in that regard and, in fact, the FCC system of accounts (FCC Rules, Part 32) requires just such accounting for long-lived assets.[15] Accordingly, Qwest also should recover these assets as recurring charges, not as non-recurring charges.

35. Many of the activities that are associated with the installation of services do, in fact, have an expected life of more than one year and, thus, must be reflected on the books of account as capitalized costs and recovered in recurring rates over the life of the associated assets

[14] The range of flow through rates for Qwest's retail service ordering is reported in exhibits to the February 15, 2002 testimony of Qwest witness Robert Brigham in Minnesota Docket No. P-442, 421, 3012/M-01-1916; "LSR flow through - March 9, 2001," page 1 of 66.

[15] 47 C.F.R. § 32.2000(a)(3).

(*e.g.*, loops provided in either retail or UNE markets). Qwest's NRC cost study incorrectly allocates many of these costs to NRCs, rather than to the recurring cost category. Those activities include Qwest's design, installation and "turn-up" testing[16] work that is undertaken to develop a new loop leased to a CLEC between an end-user and the CLEC's interface with Qwest. *See* Exhibits 2 and 3.

36. Qwest's NRCs also include cost loading that should not be attributed to nonrecurring functions. In particular, Qwest's NRCs include network operations costs that should be attributed to recurring activities. These loading factors include, product management expense, sales expenses, network operations expenses, uncollectible revenues; intangible expenses, expenses associated with network support assets, general support assets, and general purpose computers TELRIC.[17] Costs in these categories are intended to be recovered in monthly recurring charges. The FCC's Rules require that costs associated with corporate overheads (*e.g.*, the 67XX series of accounts) are properly allocated to charges for non-recurring costs. *See* 47 C.F.R. § 51.505(a)(2); *Local Competition Order* ¶ 694.

IV. THE SERIOUS TELRIC ERRORS IN QWEST'S NON-RECURRING COST MODEL VASTLY OVERSTATES RECURRING RATES FOR CRITICAL RATE ELEMENTS.

37. The serious TELRIC-errors in Qwest's ENRC cost study substantially inflate several critical NRCs, creating barriers to CLEC local entry. There are two general methods of providing *facilities-based* local telephone services. First, CLECs can install a redundant network

[16] "Turn-up" testing is work associated with bringing a new loop on line to provide service between an end-user and a CLEC's facilities; turn-up testing does not include testing performed to ensure that existing loops are functioning as required.

[17] For example, see Exhibit 3, pages 7 and 8 (the exhibit shows that I have removed these allocations).

that provide lines (or radio signals) to premises. Second, CLECs can install their own switching and transmission equipment (and also obtain collocation space in Qwest central offices), and lease only unbundled loops ("UNE-L") from Qwest. Qwest's NRCs foreclose this second method of facilities-based entry in all four applicant states.

38. *Hot Cut NRCs.* Each time that a CLEC that provides facilities-based local telephone service via UNE-L in Washington, Utah, Wyoming and Montana wins a Qwest residential or business customer, the loop serving that customer must be physically disconnected from Qwest's switching equipment and re-connected to the CLEC's switching equipment that is collocated in Qwest's central office. That process is called a "hot cut" (Qwest's cost studies refer to hot cuts as "Loop Coordinated Installs" with and without testing).

39. Qwest charges AT&T and other CLECs a fixed up-front NRC for performing hot cuts. For every residential or business customer that a CLEC wins from Qwest in Montana and Wyoming, AT&T must now pay Qwest $171.88 to have that customer's line physically transferred, in coordination with Qwest, to AT&T's facilities; in Washington and Utah, the hot cut NRC installation charges are $162.81 and $107.27, respectively.[18]

40. Those charges are way out of line when compared to those of other ILECs that have obtained Section 271 approval. For example, Verizon charges hot cut NRCs of $4.07,[19] in

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[18] Disconnection charges in the amounts of $9.06 and $18.56 apply in Washington and Utah, respectively.

[19] *See Supplemental Application of Verizon New Jersey, Inc., BellAtlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a/ Verizon Enterprise Solutions), Verizon Global Networks, Inc., and Verizon Select Services, Inc., for Authorization to Provide In-Region InterLata Services in New Jersey*, Comments of AT&T, CC Docket No. 02-67, at 8 (filed April 8, 2002).

Pennsylvania, and $35 in New Jersey and New York.[20] There is no question that Qwest's hot cut NRCs in these states is not even remotely close to being TELRIC-compliant. As discussed above, Qwest's hot cut NRCs are inflated by numerous TELRIC errors. As demonstrated by AT&T in Washington and Utah, a TELRIC-compliant non-recurring cost study showed that a forward-looking hot cut costs for Colorado would not exceed $2.08.[21]

41. Furthermore, although Qwest's NRC cost studies are so fundamentally flawed that it is not feasible to correct all of the TELRIC errors so that it produces TELRIC-compliant NRCs, I have attempted to fix the TELRIC errors discussed above. As shown in Exhibit 2, by separating disconnect costs, and adjusting for other errors described and discussed above, Qwest's NRC model produces a hot cut connection NRC of only $13.77 for Montana, Washington and Wyoming. A "hot-cut" connection in Utah costs the CLEC $16.64. Thus, according to Qwest's cost study (after correcting for the TELRIC errors in that study), its hot cut NRCs in these states are inflated by at least 500%

42. *Loop Basic Install.* A CLEC that obtains a new customer that is not already served by the ILEC will require a "Basic Install" of a loop (these include new customers and customers that request additional lines). Just as Qwest's inflated hot cut NRCs create a barrier to

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[20] *See id.* That clearly represent apples-to-apples comparisons. Qwest suggests that the appropriate hot cut rate for making comparisons is its hot cut rate without testing. *See* Thompson CO Decl. ¶ 75. However, Verizon carefully explained that its hot cut rates reflect numerous coordination and testing functions. *See Application of Verizon New Jersey, Inc., BellAtlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a/ Verizon Enterprise Solutions), Verizon Global Networks, Inc., and Verizon Select Services, Inc., for Authorization to Provide In-Region InterLata Services in New Jersey,* Lacouture & Ruesterholz Decl., CC Docket No. 01-347, ¶ 16 (filed Feb. 1, 2002) (noting that, as part of the hot cut process, Verizon has agreed to "test for the CLEC's dial tone").

[21] *See* AT&T/WorldCom Exhibit RL-2 to the testimony of Roy Lathrop, filed on June 27, 2001 in Colorado PUC Docket No. 99A-577T.

a CLEC entering and serving customers that currently obtain service from Qwest, Qwest's inflated Basic Install NRCs create a barrier to entry that can make it economically infeasible for a CLEC to obtain and serve new Colorado local telephone customers.

43. Qwest's Basic Install NRC is $55.27 in Montana and Wyoming;[22] $29.10 in Utah and $37.53 in Washington.[23] As AT&T demonstrated in the Washington and Utah state UNE rate proceedings, a fully TELRIC-compliant Basic Install NRC would not exceed $10 in those states.

44. The reason that Qwest's Basic Install NRC is so high is that it reflects all of the serious TELRIC errors discussed above. To the extent possible, I have corrected Qwest's NRC cost model. After implementing those corrections, Qwest's ENRC model produces Basic Install NRCs (excluding disconnection costs) of $8.30 for Montana and Wyoming, and Washington and $8.05 for Utah. Thus, according to the corrected version of Qwest's NRC cost study, Qwest's Basic Install charges are inflated, on average, at least 565% for the states involved in the instant Application.

V. CONCLUSION

45. For the foregoing reasons, the NRCs presented by Qwest in the instant Application are substantially inflated by numerous clear TELRIC errors.

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[22] Including disconnection costs.

[23] Excluding disconnection costs, which are at $18.56 and $14.41 in Utah and Washington, respectively.

VERIFICATION PAGE

I declare under penalty of perjury that the foregoing Declaration is true and correct.

/s/ Thomas Weiss

Thomas Weiss

Executed on: August 1, 2002

EXHIBIT 1
REDACTED – FOR PUBLIC INSPECTION

EXHIBIT 1a
REDACTED – FOR PUBLIC INSPECTION

EXHIBIT 2
REDACTED – FOR PUBLIC INSPECTION

EXHIBIT 3
REDACTED – FOR PUBLIC INSPECTION