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2 **WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

3
4 **IN THE MATTER OF**

5 THE CONTINUED COSTING AND PRICING OF
6 UNBUNDLED NETWORK ELEMENTS AND
7 TRANSPORT AND TERMINATION

DOCKET NO. UT-003013
PART B

8 **TRACER'S OPENING BRIEF**
9

10 **I. INTRODUCTION**

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12 *I.* The Washington Telecommunications Ratepayers Association for Cost-based
13 and Equitable Rates submits the following opening brief in Part B of this docket. While
14 TRACER members are interested in the Commission's decisions with respect to other UNEs
15 that are the subject of this proceeding, in this brief TRACER addresses only the recurring costs
16 of high capacity loops (DS1 and DS3).
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18 **II. LEGAL AND POLICY ISSUES**

19 **A. LEGAL**

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21 *2.* This proceeding arises out of the FCC's UNE Remand Order, Third Report and
22 Order, In the Matter of Implementation of the Local Competition Provisions of the
23 Telecommunications Act of 1996, CC Docket No. 96-98. FCC 99-238 (1999). In that order, in
24 response to a directive from the U. S. Supreme Court, the FCC reevaluated the unbundling
25 obligations of section 251 of the Telecommunications Act of 1996 ("Act"), Pub. L. No. 104-

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2 104, 110 Stat. 56, codified at 47 U.S.C. §§ 151 et seq. Based on the unbundling standards
3 adopted in that order, the FCC concluded that a number of network elements for which costs
4 and prices have not yet been developed by this Commission must be unbundled, including high
5 capacity loops (DS1, DS3, fiber, and other high capacity loops). Pursuant to its obligations
6 under the Act to establish rates for unbundled network elements (“UNEs”)(47 U.S.C. §252(d))
7 and its authority under Title 80 RCW and Title 480 WAC, the Commission initiated this
8 proceeding to establish rates for those UNEs that remain unpriced. In its previous Generic
9 Cost Docket, Docket No. UT-960369 et al., the Commission determined that UNE prices
10 should be based on TELRIC costing methodology. Although at the time it acted the
11 Commission concluded that the FCC’s Interconnection Order and rules (In the Matter of the
12 Implementation of the Local Competition Rules of the Telecommunications Act of 1996, CC
13 Docket 96-98, First Report and Order (1996), Appendix B – Final Rules)(“Interconnection
14 Order”) was not binding because of an 8th Circuit Court of Appeals decision that was later
15 reversed, the Commission followed the “guidance” of the FCC and the agreement of the parties
16 in approving the use of the TELRIC methodology. 8th Supp. Order, Docket No. UT-960369 et
17 al., para. 9 (1998). In that order the Commission made a number of determination about
18 costing methodology principles and cost model inputs. Decisions relevant to the costing and
19 pricing of high capacity loops are discussed below.
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2 3. While the FCC’s pricing rules were recently reversed by the 8th Circuit Court
3 of Appeals, the effect of that portion of the decision dealing with the pricing rules has been
4 stayed pending review by the U. S. Supreme Court. Accordingly, those pricing rules remain in
5 effect and should guide the Commission’s decisions in this proceeding.
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7 **B. POLICY**

8 4. In determining costs and prices for the UNEs that are the subject of this
9 proceeding, the Commission should be particularly mindful of two of the fundamental goals of
10 the 1996 Act, which are to open the local exchange and exchange access markets to
11 competition and to promote innovation and investment by all participants in the
12 telecommunications marketplace. Joint Explanatory Statement at 1. At the heart of the new
13 scheme adopted by Congress is section 251 of the Act, which seeks to reduce inherent
14 economic and operational advantages possessed by incumbent local exchange carriers
15 (“ILECs”). Thus, section 251 imposes specific market-opening obligations on the ILECs,
16 including unbundling of certain key network elements. In determining the unbundling
17 obligations and standards the FCC recognized that there would be continuing need for all three
18 forms of competitive entry: facilities-based, use of UNEs, and resale. UNE Remand Order, at
19 para. 5. With respect to the use of UNEs, the FCC stated: “We continue to believe that the
20 ability of requesting carriers to use unbundled network elements, including various
21 combinations of unbundled network elements, is integral to achieving Congress’ objective of
22 promoting rapid competition to all consumers in the local telecommunications market.” Id.
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2 The FCC also recognized that the efficient availability of UNEs “is a necessary precondition to
3 the subsequent deployment of self-provisioned network facilities.” Id.

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5 5. In its 8th Supplemental Order in the Generic Cost Docket, this Commission
6 recognized the importance of following TELRIC costing principles to serving the public
7 interest by stating:

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9 By following these [TELRIC] cost principles, a cost floor that reflects
10 the prospective economic costs incurred by an efficient supplier is established
11 for each network element. . . Economic efficiency dictates that the cost floor be
12 established in a manner which maximizes society’s welfare and is consistent
13 with the Act’s requirement that the rates be just and reasonable. . . Setting
14 economically efficient prices will provide the right signal to competitive local
15 exchange carriers (CLECs). Most importantly, it will help them in making their
16 decision either to construct their own network or to lease facilities from the
17 incumbent local exchange carrier (ILEC). If the price of an unbundled network
18 element is set too high, a CLEC may build facilities when society’s scarce
19 resources would be better employed if it had rented facilities from the ILEC.
20 On the other hand, if the price of unbundled network elements is set too low, a
21 CLEC may rent facilities from an ILEC rather than build. This would reduce
22 society’s well-being, because the least cost supplier is not the one who is
23 building and maintaining the network facilities. In order to maximize society’s
24 welfare, resources should be directed toward the supplier that can construct a
25 network at the lowest cost to society.

8th Supp. Order at para. 11-12. Thus, setting the proper TELRIC prices for UNEs is key to the
achievement of the goals of the 1996 Act, to promoting competition and the public benefits it
can bring, and to maximizing society’s welfare. TRACER respectfully submits that following
the recommendations made below would be consistent with these policy objectives and with
the applicable legal requirements.

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2 **III. UNE COSTS/PRICES**

3 **A. QWEST**

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5 **2. RECURRING COSTS/RATES**

6 **a. Recurring cost issues (including total installed factor (TIF) and**
7 **utilization assumptions (fill).**

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9 **6.** Qwest's Part B cost studies and outputs are not consistent with the recurring
10 costs and methodology established by the Commission in the Generic Cost Docket, UT-
11 960360. TELRIC methodology is supposed to reflect the least-cost, most-efficient, and
12 reasonable technology for providing the studied services or network elements that is currently
13 being deployed. A forward-looking cost model does not measure the embedded cost-of-
14 service. Klick Direct, Ex. T-1310 at 9-10. However, Qwest's witness, Teresa Million, stated
15 in her prefiled testimony that the Qwest cost models use assumptions based on Qwests actual
16 experience and practice. Million Direct, Ex. T-1001 at 5. On cross-examination she
17 acknowledged that to the extent that others in the telecommunications industry may use
18 practices that are more efficient than those used by Qwest, they would not be reflected in the
19 Qwest studies. Tr. 1821, lines 16-19. Thus, because Qwest's existing plant in the particular
20 area may not reflect forward-looking technology or design choices or its practices reflect the
21 most efficient available, its cost models do not properly reflect forward-looking TELRIC
22 methodology.
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2 7. Second, Ms. Million stated that Qwest has undertaken cost studies in Part B on
3 an element-by-element basis. This also is inconsistent with the way in which UNE costs were
4 established by the Commission in the Generic Cost Docket and with proper TELRIC
5 methodology. As the Commission noted in paragraph 28 of the 8th Supplemental Order in that
6 docket, “most parties agree that the cost estimates for unbundled network elements should be
7 based upon the cost of satisfying the total demand for the elements, rather than some smaller
8 level of incremental demand.” In other words, the cost models should be designed to build the
9 entire network and, thereby, incorporate into the cost estimates the full economies of scope and
10 scale available to the ILECs. Qwest’s failure to do so overstates costs by removing the full
11 extent of those economies available to Qwest. Klick Direct, Ex. T-1310 at 12.
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14 8. For the discussion relating to Qwest’s TIFs and utilization (fill) assumptions
15 relating to high capacity loops, see section d. below.

16 **d. High Capacity Loops**

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18 9. Qwest proposes costs and rates for DS1 and DS3 loops based upon new cost
19 studies that ignore the prior decisions of this Commission. The cost model runs relied upon by
20 this Commission in the Generic Cost Docket included DS1 and DS3 loops. In fact, the
21 Commission specifically ordered that DS1 and DS3 loops be included “on a physical line, not a
22 channel equivalent basis.” 8th Supp. Order, para. 199-205; Klick Direct, Ex. T-1310 at 35-36;
23 Spinks Direct, Ex. T-1350 at 2-3.
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2 **10.** In contrast, the Joint CLECs' witness, John Klick, proposes that the
3 Commission determine DS1 and DS3 loop costs in a manner that is consistent with its prior
4 decisions in the Generic Cost Docket. Klick Direct, Ex. T-1310 at 36-37; Ex. E-1310.
5 According to Mr. Klick, the correct approach would be to start with the UNE loop rates already
6 established by the Commission, subtract the cost of plug-in electronics included in the cost for
7 those loops, and add in appropriate cost for the plug-in electronics appropriate for DS1 and
8 DS3 loops. Klick Direct, Ex. T-1310 at 36. This approach would result in a DS1 cost that is
9 50.6% higher than the cost of a 2-wire loop and a DS-3 cost that is 462.8% higher than the cost
10 of a 2-wire loop. Because the Commission's previous decisions assumed two loops for DS1
11 services and one loop for DS3 services, Mr. Klick increased the 2-wire portion of the
12 Commission's 4-wire loop rate by 50.6% to reflect the cost of DS1 services and increased the
13 Commission's 2-wire loop rate by 462.8% to reflect the cost of DS3 services. Errata to Klick
14 Direct, Ex. E-1310 at 36-37. The resulting costs for DS1 and DS3 loops is set forth in Table 2,
15 Exhibit E-1310 at 37. TRACER agrees that this is the preferable way to set costs and prices
16 for DS1 and DS3 loops in this proceeding.
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19 **11.** Nevertheless, if the Commission determines not to utilize the above procedure
20 to ensure that DS1 and DS3 loop costs are determined in a manner that is consistent with the
21 UNE costs set in the Generic Cost Docket and, instead, to rely upon Qwest's studies for DS1
22 and DS3 loops submitted in this proceeding, TRACER urges the Commission to, at a
23 minimum, make the corrections recommended by Mr. Klick and Mr. Weiss.
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2 **12.** Mr. Weiss, a very experienced professional engineer, reviewed Qwest's cost
3 studies for DS1 and DS3 loops and concluded they were both flawed in at least two major
4 respects. First, he concluded that the total in plant factors for line cards and hardware were
5 overstated. Second, he concluded that the utilization levels assumed by Qwest were too low.
6 Weiss Supp. Direct, Ex. T-1333 at 7.

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8 **13.** With respect to plant utilization, without providing substantiation, Qwest asserts
9 that it does not deploy OC3-type fiber architectures until end-user demand at a particular
10 location exceeds 11 DS1s. Million Rebuttal, Ex. T-1009 at 28. According to Qwest only 5%
11 of the locations where DS1s are currently deployed to serve end-user customers have demand
12 that exceeds 11 DS1s. Nevertheless, Qwest has weighted its OC3 fiber-based architecture at
13 46%. It then assumes that on average only 31 DS1s will be utilized out of the total capacity of
14 84 DS1s available from the OC3 multiplexing, which is only a 37% utilization factor. Weiss
15 Supp. Direct, Ex. T-1333 at 7; Million Rebuttal, Ex. T-1009 at 29. According to Mr. Weiss,
16 that assumption increases the direct material cost of the common equipment associated with
17 providing DS1-capable loops by over 170%. In response, Mr. Weiss adjusted Qwest's
18 proposed plant utilization factors to better reflect forward-looking utilization rates that would
19 be experienced in a competitive market. *Id.* Specifically, he utilized a fill factor of 85%,
20 which, based on his experience, is appropriate for a single DS1 multiplexed from OC3. This
21 implies that 71 DS1s out of every 84 DS1s derived from OC3 would be used productively by
22 Qwest. Weiss Supp. Direct, Ex. T-1333 at 10.
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2 **14.** Ms. Million criticizes Mr. Weiss’s use of an 85% utilization factor by citing an
3 example of an OC3 ring architecture deployed to serve demand at more than one location.
4 Since an OC3 circuit requires that essentially identical circuit equipment be placed at both the
5 central office and at the end-user’s location, a ring that served three end-user locations, each
6 requiring 28 DS1s, would require the deployment of four sets of the OC3 circuit equipment,
7 with the total capacity of the ring being 84 DS1s. TRACER agrees that in such a ring
8 architecture with three end-user customers being served, four sets of OC3 circuit equipment
9 would be required. However, the utilization of the ring and all segments thereof would be
10 100%, not 33% as claimed by Ms. Million (Tr. 2027-2028) or 66% on one segment and 33%
11 on the others as claimed by Mr. Buckley. Tr. 2058. That is because, in a true ring architecture,
12 traffic can flow in both directions and through all customer locations, and because the capacity
13 on all segments of the ring is 84 DS1s. No more customers can be added at any point on the
14 ring without increasing the capacity of the circuit equipment at the central office.
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17 **15.** But a more important point is that Qwest in its analysis fails to account for the
18 numerous circumstances where it is possible to aggregate the demand from a number of end-
19 user customers located in the same building or complex. As Mr. Weiss testified, it is certainly
20 possible to aggregate the demand from multiple tenants in a high-rise building, each of which
21 has demand for one or more DS1s, and serve all that demand over an OC3. Tr. 3688, lines 15-
22 20. By looking only at individual end-user demand in modeling DS1 costs and ignoring the
23 situations where demand at a multi-tenant location can be aggregated, Qwest understates the
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2 efficiencies that can be achieved by deploying OC3 fiber-based architectures and, accordingly,
3 overstates DS1 costs.

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5 **16.** According to Mr. Weiss, an 85% utilization level is reasonable and achievable
6 based on his experience for both DS1 and DS3 loops. In the case of DS3 loops, use of the 85%
7 fill facet implies that 10 DS3s out of every 12 DS3s derived from OC3 will be used
8 productively by Qwest. Weiss Direct, Ex. T-1330 at 12. TRACER agrees that an 85% fill
9 factor is appropriate and will not result in an overstatement of the cost of serving current
10 demand.

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12 **17.** With respect to fiber utilization, TRACER believes that it is appropriate to use
13 100% as the input value for fiber fill. This would be consistent with what the FCC has ordered
14 for use in the federal universal service mechanism. As stated by the FCC in its Tenth Report
15 and Order in Federal-State Joint Board on Universal Service, CC Docket No. 96-45, FCC 99-
16 304 (1999), at paragraph 208:

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18 **18.** Finally, we affirm our tentative conclusion that the input value for fiber fill in
19 the federal mechanism should be 100 percent. The majority of commenters addressing this
20 specific issue agree with our tentative conclusion. AT&T and MCI contend that fiber feeder
21 fill factors of 100 percent are appropriate because the allocation of four fibers per integrated
22 DLC site equates to an actual fill of 50 percent, since a redundant transmit and a redundant
23 receive fiber are included in the four fibers per site. AT&T and MCI explain that, because
24 fiber capacity can easily be upgraded, 100 percent fill factors applied to four fibers per site are
25 sufficient to meet unexpected increases in demand, to accommodate customer churn, and, to

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2 handle maintenance issues. Similarly, SBC asserts that fiber fill factors of 100 percent can be
3 obtained because they are not currently subject to daily service order volatility and are more
4 easily administered. In contrast, BellSouth advocates that we employ projected fills estimated
5 by BellSouth engineers. As noted above, these estimates are unsupported and we reject them
6 accordingly. In sum, we find that the record demonstrates that it is appropriate to use 100
7 percent as the input value for fiber fill in the federal mechanism.
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9 **19.** Mr. Weiss also proposes that the Qwest cost studies for DS1 and DS3 loops be
10 adjusted to reflect total in-plant factors (TIF) of 1.40 and 1.20 for optical/digital hard-wired
11 and plug-in plant investments, with additives of 0.06 to each of these factors to allow for the
12 costs of warehousing hardwire and plug-in inventory where appropriate. Weiss Direct, Ex. T-
13 1330 at 12-13; Weiss Supp. Direct, Ex. T-1333 at 10. His recommendation is based on his
14 experience both as an engineering/economic consultant and as an executive officer of an
15 operating telephone company. His recommendation is also based on the TIF factors he has
16 observed ranging from Verizon's for optical fiber terminal equipment (low end of the range) to
17 Qwest's for the hardwired portions of digital multiplex equipment (high end of the range). All
18 other TIF information he has seen indicates that the costs of bringing OEM equipment into a
19 telephone company plant base fall between Verizon's and Qwest's figures. Weiss Direct, Ex.
20 T-1330 at 17. TRACER agrees Mr. Weiss's proposal is reasonable and urges the Commission
21 to adopt it.
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2 **20.** Mr. Klick revised the Qwest cost estimates for DS1 and DS3 loops using the
3 input changes recommended by Mr. Weiss. The results for DS3 loops are set forth in Klick
4 Direct, Ex. T-1310, Table 4 at page 41. The results for DS1 loops are set forth in Errata to
5 Klick Direct, Ex. E-1310, Table 1 at page 2.
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7 **B. VERIZON**

8 **1. RECURRING COSTS/RATES**

9 **a. ICM Cost Methodology**
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11 **21.** As with Qwest, Verizon's cost studies are also inconsistent with prior
12 Commission decisions on the nature of TELRIC. Instead of modeling a network that would be
13 built by an efficient firm, Verizon essentially assumes that its existing network and facilities
14 represent an acceptable estimate of how an efficient firm would meet current and future
15 demand. Klick Direct, Ex. 1310 at 13; see Collins Direct, Ex. T-1170 at 7. For example,
16 Verizon's study reflects structure mix and sharing parameters based on Verizon Northwest's
17 actual operating experience, not the structure mix and sharing parameters approved by the
18 Commission in the Generic Cost Docket. Collins Direct, Ex. T-1170 at 23.
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20 **22.** Verizon contends that it has developed the current costs of replacing its existing
21 facilities and even incorporated certain efficiencies that are not in its existing network. Collins
22 Direct, Ex. T-1170 at 24-25. However, numerous inefficiencies remain. Most important is the
23 fact that Verizon's cost studies design a network to meet both existing and future demand and,
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2 then, assign the spare capacity to the working lines in existence today. Collins Direct, Ex. T-
3 1170 at 33; Klick Direct, Ex. T-1310 at 14. As stated by Mr. Klick:

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5 This has the effect of charging today's customers – including CLECs – for
6 facilities they do not need, raising the cost of competitive entry and forcing
7 them to subsidize customers who will enter the market in the future. In
8 competitive markets, no customer or group of customers would agree to pay
prices that incorporate such a subsidy unless they were less expensive than
building only the plant required for its own use. The Commission rightly
rejected this approach in its Eighth Supplemental Order, citing the FCC. . .

9 Klick Direct, Ex. T-1310 at 14-15; see also Tr. 3724, lines 18-25. If Verizon's cost model is to
10 build plant to accommodate more than today's demand, a higher fill factor than what is
11 observed in the network today should be used to avoid overstating the cost of meeting today's
12 demand. Tr. 3725, lines 4-10; Tr. 3729, lines 3-13.

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14 23. The sizing of distribution plant for the local loop in the ICM is inconsistent with
15 the prior decisions of this Commission and the FCC regarding the proper modeling of TELRIC
16 loop costs. The ICM designs plant to meet ultimate demand (as opposed to current demand).
17 Specifically, the model assumes 2.34 lines per lot (Collins Direct, Ex. T-1170 at 33, line 9; Tr.
18 2711, lines 9-24); whereas current demand is about 1.12 lines per lot. Tr. 2713, lines 4-7. In
19 the Generic Cost Docket US WEST argued that 3 lines per household should be modeled,
20 even though current demand was significantly less than that. 8th Supplemental Order, para.
21 174. Instead, the Commission adopted a value of 1.25 lines per household. 8th Supp. Order,
22 para. 180. Similarly, in its Tenth Report and Order in Federal-State Joint Board on Universal
23 Service, CC Docket No. 96-45, FCC 99-304 (1999), at paragraphs 199-201, the FCC stated:
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2 We also affirm our tentative conclusion that the fill factors selected for
3 use in the federal mechanism generally should reflect current demand and not
4 reflect the industry practice of building distribution plant to meet ultimate
5 demand. As we explained in the Inputs Further Notice, the fact that industry
6 may build distribution plant sufficient to meet demand for ten or twenty years
7 does not necessarily suggest that these costs should be supported today . . .

8 . . . We find unpersuasive GTE's assertion that the input values for
9 distribution fill factors should reflect ultimate demand. In concluding that the
10 fill factors should reflect current demand, we recognized that correctly
11 forecasting ultimate demand is a speculative exercise, especially because of
12 rapid technological advances in telecommunications. . . Given this uncertainty,
13 we find that basing the fill factors on current demand rather than ultimate
14 demand is more reasonable because it is less likely to result in excess capacity,
15 which would increase the model's cost estimates to levels higher than an
16 efficient firm's costs and could potentially result in excessive universal service
17 support payments.

18 . . . GTE also claims that, in a competitive environment, facilities-based
19 competitors would build plant to serve ultimate demand. We find, however,
20 that these unsupported claims do not demonstrate that reflecting ultimate
21 demand in the fill factors more closely represents the behavior of an efficient
22 firm and will not result in the modeling of excess capacity. . . . Moreover, we
23 believe that universal service support will be determined more accurately
24 considering current demand, and not ultimate demand. Although firms may
25 have installed excess capacity, it does not follow that the cost of this choice
should be supported by the universal service support mechanism. As growth
occurs, however, we anticipate that the requirement for new capacity will be
reflected in updates to the model.

24. In the Tenth Report and Order the FCC was determining the proper inputs for
estimating the forward-looking economic cost of supported services. The same logic and
decisions apply with equal force to the selection of inputs for estimating the forward-looking
economic costs of UNEs. And, as the FCC rejected GTE's arguments that universal service
costs should be determined by modeling ultimate demand, this Commission should reject
Verizon's attempts to do the same thing in determining the costs of UNEs.

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2 25. Mr. Klick points out that Verizon also overstates costs in the way it develops its
3 expense ratios. By dividing embedded expenses by forward-looking investments, Verizon
4 effectively builds into TELRIC the higher operating expenses associated with embedded plant
5 and equipment, rather than incorporating the lower forward-looking operating expenses
6 associated with state-of-the art technology. Klick Direct, Ex. 1310 at 15.
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8 26. If Verizon is able to incorporate these inefficiencies into its UNE cost
9 calculations, it will effectively be able to frustrate Congress' objective of promoting rapid
10 competition to all consumers in the local telecommunications market. As the Commission
11 noted in paragraph 12 of its 8th Supplemental Order in the Generic Cost Docket, economic
12 efficiency and society's welfare demand that UNE prices be set at efficient and proper levels.
13 Moreover, proper prices are a necessary precondition to the ability of requesting CLECs to use
14 UNEs and to the subsequent deployment of self-provisioned network facilities.
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16 27. Finally, Mr. Klick points out how Verizon's ICM-based calculations would
17 improperly double-count the effects of inflation if in the future if Verizon is permitted to
18 update UNE prices to reflect the effects of inflation. Klick Direct, Ex. T-1310 at 20. As Mr.
19 Klick notes, the cost of capital established by the Commission in the Generic Cost Docket and
20 used by both Verizon and Qwest in this proceeding are "nominal" costs of capital. Nominal
21 costs of capital compensate investors for both the time value of money and business and
22 financial risk and for the effects of inflation. If nominal costs of capital are employed in
23 establishing cost-based prices for UNEs, the unit prices for material and labor used to develop
24 the total network investment must be "locked in" at the initial levels for the future. Klick
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2 Direct, Ex. T-1310 at 21. It would be inappropriate to allow network investment levels to also
3 increase in the future to reflect the effects of inflation, because this would be compensating the
4 ILECs twice for the effects of inflation. Id. This is a real issue for this case, because, as
5 Verizon witness, Kevin Collins, testified, Verizon intends to periodically update its cost
6 studies, cost estimates, prices, and inputs over time: “As a general matter, I would expect that
7 through time we would want to update costs and prices. As cost characteristics change, as
8 market conditions change, there should be some periodic updates.” Tr. 2718, lines 22-25.

10 **28.** The Commission must calculate the capital component of recurring rates in a
11 manner that avoids compensating the ILECs twice for inflation. It must either (1) use the
12 initially-adopted material unit prices and labor rates in a future proceeding to update UNE
13 costs and apply the appropriate nominal cost of capital, or (2) use the current material unit
14 prices and labor rates, now and in the future, and apply the “real” cost of capital, which would
15 require that UNE rates be periodically adjusted in the future to reflect the effects of inflation on
16 the underlying material and labor unit prices. Klick Direct, Ex. T-1310 at 27. Which approach
17 the Commission intends to take should be decided now.

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20 **b. Stand-alone studies**

21 **29.** As discussed above with respect to Qwest, stand-alone studies that estimate
22 costs on an element-by-element basis are inconsistent with the way in which UNE costs were
23 established by the Commission in the Generic Cost Docket and with proper TELRIC pricing.
24 UNE cost models should be designed to build the entire network and, thereby, incorporate into
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2 the cost estimates the full economies of scale and scope available to the ILECs. Klick Direct,
3 Ex. T-1320 at 12.

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5 **c. Common costs**

6 **30.** As noted by Mr. Klick, one of the biggest concerns with the ICM is the
7 application of the common cost factors developed from the earlier models used by the
8 Commission in setting UNE prices in the Generic Cost Docket to the outputs generated by the
9 current model and studies. The proper size of the common cost ratio to be applied to a
10 particular is a function of how that model directly assigns attributable costs to individual
11 UNEs. Thus, in the Generic Cost Docket approved a common cost factor of 4.05% for Qwest
12 and a factor of 24.75% for Verizon based on the fact that the models relied upon by Qwest
13 directly assigned a higher proportion of total cost to individual UNEs than did the model relied
14 upon by Verizon. Docket No. UT-960369 et al., 17th Supp. Order at 51; Klick Direct, Ex. T-
15 1310 at 18-19. Here, Verizon merely asserts that the common cost factor developed in the
16 Generic Cost case applies, but provides no evidence that the old and the new models treat
17 accounts the same.
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20 **d. Recurring Rates**

21 **1. High Capacity Loops**

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23 **31.** As did Qwest, Verizon proposes costs and prices for DS1 and DS3 loops based
24 upon new cost studies that ignore the prior decisions of this Commission. As discussed above
25 in section 3(A)(2)(d) dealing with Qwest's high capacity loop costs studies, the loop costs

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2 previously determined by this Commission in the Generic Cost Docket are applicable to DS1
3 and DS3 loops as well, and the additional loop cost studies proffered by Verizon are
4 unnecessary and inappropriate. As with Qwest, TRACER believes that the proposal of Mr.
5 Klick that the commission determine DS1 and DS3 loop costs in a manner that is consistent
6 with its prior decisions in the Generic Cost Docket be adopted. See Klick Direct, Ex. T-1310
7 at 35-36; Ex.-1310. As discussed above, that would involve starting with the UNE loop rates
8 established in the Generic Cost Docket, subtracting the cost of plug-in electronics included in
9 the cost for those loops, and adding in the appropriate cost for the plug-in electronics
10 appropriate for DS1 and DS3 loops. Klick Direct, Ex. T-1310 at 6. The resulting cost for
11 Verizon's DS1 and DS3 loops is set forth in Table 2, Exhibit E-1310 at 37.
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14 **32.** Nevertheless, if the Commission determines not to utilize the above procedure
15 and, instead, to rely upon Verizon's cost studies for DS1 and DS3 loops submitted in this
16 proceeding, TRACER urges the Commission to make adjustments to the Verizon results to
17 correct the flaws identified by Mr. Klick and Mr. Weiss.
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19 **33.** As Mr. Klick notes, Verizon's DS1 cost is based on runs of its ICM, which
20 generate a DS0 loop cost more than 25% higher than the cost developed by the Commission in
21 the Generic Cost Docket. Klick Direct, Ex. T-1310 at 38. This suggests that the ICM departs
22 significantly from the costing methodology and inputs previously approved by the
23 Commission. More to the point here, the costs developed for DS1 loops by the ICM include
24 24 times the fiber feeder and structure investment than the ICM assigns to 2-wire DS0 loops.
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This is inconsistent with the Commission's earlier conclusion that structure costs should not be

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2 allocated to DS1 and DS3 loops on the basis of DS0 equivalents. 8th Supp. Order, Docket No.
3 UT-960369 et al. at para. 199-205. The Verizon clearly overstates efficient and appropriate
4 forward-looking costs for DS1 and DS3 loops. As noted by Mr. Klick, because the version of
5 ICM provided by Verizon does not permit revision of these inputs, he could not determine the
6 precise magnitude of this overstatement of costs. At a minimum, Verizon should be directed to
7 rerun its ICM to assign structure costs “on a physical line, not a channel equivalent basis.” 8th
8 Supp. Order, para. 199-205.
9

10 **34.** An additional problem with the Verizon study is the fact that it assumes that
11 copper architectures will be used to provision DS1 loops 69% of the time. This 69% weighting
12 of copper loops is excessive and unreasonable for a forward-looking study and should be
13 adjusted to match the 27% weighting used by Qwest, as recommended by Mr. Weiss. Errata to
14 Weiss Direct, Ex. E-1346 at 2.
15

16 **35.** For the same reasons he did so with Qwest, Mr. Weiss recommends that the
17 Commission use a fill factor of 85% for loops derived from optical/digital multiplexing
18 arrangements. In his opinion such a utilization factor is reasonable and achievable by an
19 efficient firm. Weiss Direct, Ex. T-1330 at 14-17.
20

21 **36.** Also, for the same reasons he did so with Qwest, Mr. Weiss recommends that
22 the Commission use total in-plant factors of 1.40 and 1.20 for optical/digital hard-wired and
23 plug-in plant investments. Weiss Direct, Ex. T-1330 at 17-18.
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2 **37.** Mr. Klick revised the Verizon cost estimates for DS1 loops to reflect the
3 changes in assumptions about fill factors and TIFs and the weightings to be assigned to various
4 architectures. The results are set forth in Table 1, page 2, Errata to Klick Direct, Ex. E-1310.

5
6 Verizon also presented a DS3 study, which was not based on its ICM. As stated by Mr. Klick,
7 Verizon's DS3 costs are also flawed because they reflect only an architecture of OC3 equipped
8 with 3 DS3s. However, Verizon's workpapers show that this is the most expensive
9 architecture for providing DS3s and is used to provide less than 25% of Verizon's DS3
10 services. Klick Direct, Ex. T-1310 at 40.

11
12 **38.** Mr. Klick also recalculated Verizon's DS3 costs after incorporating the changes
13 recommended by Mr. Weiss. The results are shown on Table 4, Exhibit T-1310, at page 42.

14 TRACER agrees with Mr. Klick that the Commission should only accept cost studies that are
15 consistent with its prior decisions. It, therefore, should reject Verizon's proposed cost studies
16 for determining DS1 and DS3 loop costs. Klick Direct, Ex. T-1310 at 42. Nevertheless, if the
17 Commission determines to utilize Verizon's cost studies submitted in this proceeding, at a
18 minimum the Commission should require Verizon to incorporate the changes recommended by
19 Mr. Weiss and Mr. Klick and should require Verizon to rerun the model to reflect the
20 assignment of structure costs on a physical line, not a channel equivalency basis.
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2 **VII. CONCLUSION**

3 **39.** For the reasons discussed above, TRACER respectfully submits that the
4 Commission should reject the Qwest and Verizon cost studies for DS1 and DS3 loops and set
5 prices for those UNEs using the methodology recommended by Mr. Klick in his Exhibit T-
6 1310 and E-1310.
7

8 RESPECTFULLY SUBMITTED THIS 25TH DAY OF MAY 2001.

9
10 **ATER WYNNE LLP**

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