BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

IN THE MATTER OF THE CONTINUED COSTING AND PRICING OF UNBUNDLED NETWORK ELEMENTS AND TRANSPORT AND TERMINATION	DOCKET NO. UT-003013 PART B **TRACER'S REPLY BRIEF**

I. INTRODUCTION

1. The Washington Telecommunications Ratepayers Association for Cost-based and Equitable Rates submits the following reply brief in Part B of this docket. As in its Opening Brief, in this brief TRACER addresses only the recurring costs of high capacity loops (DS1 and DS3).

II. UNE COSTS/PRICES

A. QWEST

2. RECURRING COSTS/RATES

a. RECURRING COST ISSUES (INCLUDING TOTAL INSTALLED FACTOR (TIF) AND UTILIZATION ASSUMPTIONS (FILL).

i. TIFs

2. In its Post-Hearing Brief Qwest asserts that its total installed factors ("TIFs") are reasonable, forward-looking and supported by the company's actual experience in

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Washington. Qwest Post-Hearing Brief at 30, lines 5-6. Qwest also asserts that in calculating its TIFs it relies on current General Ledger Journal files, as well as other company reports. Qwest's Post-Hearing Brief at 30, lines 22-24. According to the company, although they were not readily apparent in the study or model, its TIFs have been included in previously filed costs studies and models in a variety of ways. Qwest's Post-Hearing Brief at 31, lines 2-5. Finally, Qwest claims that its TIFs are appropriate for forward-looking cost studies because they represent a relationship of material investment to expenditures based on data from "the most current time period." Qwest's Post-Hearing Brief at 31, lines 12-15. TRACER disagrees.

3. As pointed out by the Joint CLECs and the Staff, Qwest's TIFs are substantially inflated compared to efficient industry practices, and, as a result, its investment costs are inflated. Joint CLEC Post-Hearing Brief at 29, para. 71. Qwest calculates these TIFs based on embedded costs, and some of the calculations are based on information dating back as far as 1997. Joint CLEC Post-Hearing Brief at 30, para. 71; Staff Brief at 8 ("Forward-looking costs should be based on reasonably current data, and Staff believes the 1997 data is borderline, at best, as representing forward-looking costs."). As the Joint CLECs state: "Because Qwest's TIFs are based on its book expenditures, these TIFs necessarily reflect Qwest's existing practices and procedures rather than the forward-looking, most efficient practices and procedures required by a TELRIC analysis." Joint CLEC Post-Hearing Brief at 30, para. 72. Further, as discussed by Mr. Spinks on cross-examination, the level of the TIFs is inflated compared to historical loadings. Tr. 38986; Staff Brief at 8. While Qwest claims that its TIFs have been included in previously filed cost studies and models in various ways, it does not

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offer any demonstration explaining why in the studies offered in this case the TIFs are significantly higher than historical levels.

4. As noted by TRACER, Staff, and the Joint CLECs, Mr. Weiss, the Joint CLECs' expert witness, testified that Qwest's TIFs do not comport with his experience. TRACER's Opening Brief at 11, para. 19; Staff Brief at 9; Joint CLEC Brief at 30, para. 72. Thus, the Staff concludes that, "given the age of the data and lack of documentation, the intervenor-proposed TIFs are more reasonable than Qwest's and should be adopted by the Commission." Staff Brief at 9. TRACER agrees.

5. Qwest's response is to criticize Mr. Weiss's testimony on the grounds that he did not ask the Joint CLECs about their experiences with TIFs. Qwest also complains that the Joint CLECs failed to provide their information in response to Qwest data requests. However, the CLECs' experiences with TIFs are not the focus here; it is Qwest's costs that are at issue. More to the point, the basis for Mr. Weiss's recommendation is *his* experience as an engineering/economic consultant and as an executive officer of an operating telephone company and on the TIF factors he observed for Verizon in this case. Weiss Direct, Ex. T-1330 at 17. It makes no difference whether he examined the Joint CLECs' experiences or not. In short, Qwest's criticism is not well taken.

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ii. Fill Factors

6. Qwest claims that Mr. Weiss's observations regarding fill factors are misplaced and, in contrast, argues that its fill factors are appropriate for Washington. Qwest's Post-Hearing Brief at 32-34.

7. The fill factors used by Qwest appear to be based primarily upon its actual experience. *See* Million Rebuttal, Ex. T-1009 at 27-28; Joint CLEC Post-Hearing Brief at 29, para. 70. However, there is no basis to believe that Qwest's current actual utilization level reflects what would be appropriate for an efficient provider in a competitive environment. *See* Weiss Direct, Ex. T-1330 at 15-17; Joint CLEC Post-Hearing Brief at 29, para. 70.

8. As TRACER pointed out in its Opening Brief, Qwest, in its analysis and criticism of Mr. Weiss's recommendation regarding plant utilization factors, fails to account for the numerous circumstances where it is possible to aggregate the demand from a number of end user customers; Qwest also misstates the true fiber and equipment fills in the ring example it uses in criticizing Mr. Weiss. *See* TRACER's Opening Brief at 9, para. 15.

9. In contrast to the Qwest proposal, TRACER believes that Mr. Weiss's recommendation regarding fill factors is reasonable and appropriate for a TELRIC study. As stated in its Opening Brief, TRACER also believes it is appropriate to use 100% as the input value for fiber fill, based upon the FCC's decision to use that value in its federal universal service cost studies. TRACER's Opening Brief at 10, para. 17. As the FCC stated in its Tenth

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Report and Order in Federal-State Joint Board on Universal Service, CC Docket No. 96-45, FCC 99-304 (1999), at paragraph 208:

> Finally, we affirm our tentative conclusion that the input value for fiber fill in the federal mechanism should be 100 percent. The majority of commenters addressing this specific issue agree with our tentative conclusion. AT&T and MCI contend that fiber feeder fill factors of 100 percent are appropriate because the allocation of four fibers per integrated DLC site equates to an actual fill of 50 percent, since a redundant transmit and a redundant receive fiber are included in the four fibers per site. AT&T and MCI explain that, because fiber capacity can easily be upgraded, 100 percent fill factors applied to four fibers per site are sufficient to meet unexpected increases in demand, to accommodate customer churn, and, to handle maintenance issues. Similarly, SBC asserts that fiber fill factors of 100 percent can be obtained because they are not currently subject to daily service order volatility and are more easily administered. In contrast, BellSouth advocates that we employ projected fills estimated by BellSouth engineers. As noted above, these estimates are unsupported and we reject them accordingly. In sum, we find that the record demonstrates that it is appropriate to use 100 percent as the input value for fiber fill in the federal mechanism.

D. HIGH CAPACITY LOOPS

10. As discussed in TRACER's Opening Brief, the Commission, in its Generic Cost Case, UT-960369 et al., determined UNE loop rates using cost models that included investment for providing high capacity loops**.** *See* TRACER's Opening Brief at 31, para. 77. In order to be consistent with the Commission's prior decisions in the Generic Cost Docket, Mr. Klick proposed DS1 and DS3 loop rates that were developed by starting with the UNE loop rates already established by the Commission in that docket, subtracting the cost of plug-in electronics included in the cost for those loops, and adding in the cost for the plug-in electronics appropriate for DS1 and DS3 loops. Klick Direct, Ex. T-1310 at 36.

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11. Qwest, on the other hand, proposed costs and rates for DS1 and DS3 loops based upon new cost studies that ignore the prior decisions of this Commission. It criticizes Mr. Klick's recommendation by arguing that the Commission did not set DS1 and DS3 loop rates in its Generic Cost Docket. Instead, Qwest argues, the adjustments the Commission ordered in its Eighth Supplemental Order were not intended to establish a cost for high capacity loops but were intended to produce a proper allocation of placement and structure costs across all loops in Washington. Qwest's Post-Hearing Brief at 36. However, the cost model runs relied upon by this Commission in the Generic Cost Docket included DS1 and DS3 loops. In fact, the Commission specifically ordered that DS1 and DS3 loops be included "on a physical line, not a channel equivalent basis." 8th Supp. Order, para. 199-205; Klick Direct, Ex. T-1310 at 35-36; Spinks Direct, Ex. T-1350 at 2-3. Qwest's witness, Mr. Buckley, also admitted that the company's RLCAP Model filed in that case also included loop investment for all loops, including high capacity loops. Tr. 2048. As Qwest argues, the models used by the Commission produced an *average* loop cost, reflecting the costs of both copper and fiber facilities. Qwest's Post-Hearing Brief at 37-38. High capacity loops were included in that average; therefore, it is appropriate to use that loop cost in calculating high capacity loop costs.

12. Qwest correctly points out that none of the loop models considered by the Commission in the Generic Cost Docket specifically addressed the equipment required to provision high capacity circuits. Qwest's Post-Hearing Brief at 37. However, Mr. Klick accounts for that fact in his recommendation by subtracting the cost of plug-in electronics appropriate for voice grade loops and adding in the cost for the plug-in electronics appropriate

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for DS1 and DS3 loops. TRACER continues to believe that Mr. Klick's approach is the preferable way to set costs and prices for DS1 and DS3 loops in this proceeding.

13. Nevertheless, as stated by TRACER in its Opening Brief, if the Commission determines not to utilize the above procedure to ensure that DS1 and DS3 loop costs are determined in a manner that is consistent with the UNE costs set in the Generic Cost Docket and, instead, to rely upon Qwest's studies for DS1 and DS3 loops submitted in this proceeding, TRACER urges the Commission to, at a minimum, make the corrections recommended by Mr. Klick and Mr. Weiss. TRACER's Opening Brief at 7, para. 11.

B. VERIZON

1. RECURRING COSTS/RATES

A. ICM COST METHODOLOGY

14. In its Post-Hearing Brief, Verizon essentially repeats the evidence supporting its position in the case and does not address the criticisms of the other parties. TRACER's criticisms and arguments relating to Verizon's proposals in this case are contained in TRACER's Opening Brief. Accordingly, TRACER incorporates its argument contained in its opening here. However, a few important points bear repeating.

15. First, Verizon's cost studies inappropriately design a network to meet both existing and future demand and, then, assign the spare capacity to the working lines in existence today (Collins Direct, Ex. T-1170 at 33; Klick Direct, Ex. T-1310 at 14), thereby effectively "charging today's customers – including CLECs – for facilities they do not need,

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raising the cost of competitive entry and forcing them to subsidize customers who will enter the market in the future." Klick Direct, Ex. T-1310 at 14-15; see also Tr. 3724; lines 18-25. If Verizon's cost model is to build plant to accommodate more than today's demand, a higher fill factor than what is observed in the network today should be used to avoid overstating the cost of meeting today's demand. Tr. 3725, lines 4-10; Tr. 3729, lines 3-13.

16. As pointed out in TRACER's Opening Brief, the ICM designs plant to meet ultimate demand (as opposed to current demand). Specifically, the model assumes 2.34 lines per lot (Collins Direct, Ex. T-1170 at 33, line 9; Tr. 2711, lines 9-24); whereas current demand is about 1.12 lines per lot. Tr. 2713, lines 4-7. As recognized by the FCC in its Tenth Report and Order in Federal-State Joint Board on Universal Service, CC Docket No. 96-45, FCC 99-304 (1999), at paragraphs 199-201, proper costing should not be determined by modeling ultimate demand:

> *We also affirm our tentative conclusion that the fill factors selected for use in the federal mechanism generally should reflect current demand and not reflect the industry practice of building distribution plant to meet ultimate demand.* As we explained in the Inputs Further Notice, the fact that industry may build distribution plant sufficient to meet demand for ten or twenty years does not necessarily suggest that these costs should be supported today . . .
>
> …We find unpersuasive GTE's assertion that the input values for distribution fill factors should reflect ultimate demand. In concluding that the fill factors should reflect current demand, we recognized that correctly forecasting ultimate demand is a speculative exercise, especially because of rapid technological advances in telecommunications. . . Given this uncertainty, *we find that basing the fill factors on current demand rather than ultimate demand is more reasonable because it is less likely to result in excess capacity, which would increase the model's cost estimates to levels higher than an efficient firm's costs* and could potentially result in excessive universal service support payments.

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> . . . GTE also claims that, in a competitive environment, facilities-based competitors would build plant to serve ultimate demand. We find, however, that these unsupported claims do not demonstrate that reflecting ultimate demand in the fill factors more closely represents the behavior of an efficient firm and will not result in the modeling of excess capacity. . . . Moreover, we believe that universal service support will be determined more accurately considering current demand, and not ultimate demand. *Although firms may 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.*

(Emphasis added). 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.

17. Contrary to Verizon's assertions, this is not the same as saying that *objective* fill (the level at which plant is reinforced or additional facilities are deployed to meet demand) should be used. The FCC explained the fill issue in its Tenth Report and Order, at paragraph 186, as follows:

> [I]n determining appropriate cable sizes, network engineers include a certain amount of spare capacity to accommodate administrative functions, such as testing and repair, and some expected amount of growth. The percentage of the total usable capacity of cable that is expected to be used to meet current demand is referred to as the cable fill factor. If cable fill factors are set too high, the cable will have insufficient capacity to accommodate small increases in demand or service outages. In contrast, if cable fill factors are set too low, the network could have considerable excess capacity. While carriers may choose to build

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> excess capacity for a variety of reasons, it is necessary to determine the appropriate cable fill factors for use in the federal mechanism. . . . [I]f the fill factors are too low, the resulting excess capacity would increase the model's cost estimates to levels higher than an efficient firm's costs, potentially resulting in excessive universal service support payments. Accordingly, . . . we tentatively selected the HAI defaults for distribution fill factors, the average of the HAI and BCPM default values for copper feeder fill factors, and fiber fill factors of 100 percent.

The FCC also explained that the actual fill factor may be lower than the fill factor used to design the network, because cable and fiber are available only in certain sizes. The fill factor that results, known as the effective fill, is the number of pairs needed to meet demand, divided by the number of pairs installed. *Id.* At fn. 386. None of the fill factors adopted by the FCC represent *objective* fill (Tenth Report and Order at 82, fn. 392), and TRACER is not arguing in this case that objective fill should be used. The point is that reasonable fill factors should be used and the model should build plant only to meet current demand, not ultimate demand. To the extent there is anything inconsistent with this in prior Commission orders, TRACER respectfully submits that the Commission should revisit those decisions.

D. RECURRING RATES

1. High Capacity Loops

18. As did Qwest, Verizon proposes costs and prices for DS1 and DS3 loops based upon new cost studies that ignore the prior decisions of this Commission. As discussed above in connection with Qwest's high capacity loop costs studies, the loop costs previously determined by this Commission in the Generic Cost Docket are applicable to DS1 and DS3 loops as well, and the additional loop cost studies proffered by Verizon are unnecessary and

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inappropriate. As with Qwest, TRACER believes that the proposal of Mr. Klick that the commission determine DS1 and DS3 loop costs in a manner that is consistent with its prior decisions in the Generic Cost Docket be adopted. See Klick Direct, Ex. T-1310 at 35-36; Ex.-1310. Accordingly, TRACER incorporates here its argument above relating to Qwest's studies.

19. Nevertheless, if the Commission determines not to utilize Mr. Klick's proposal and, instead, to rely upon Verizon's cost studies for DS1 and DS3 loops submitted in this proceeding, TRACER urges the Commission to make adjustments to the Verizon results to correct the flaws identified by Mr. Klick and Mr. Weiss.

III. CONCLUSION

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

RESPECTFULLY SUBMITTED THIS 19TH DAY OF JUNE 2001.

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