

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

IN THE MATTER OF THE CONTINUED  
COSTING AND PRICING OF UNBUNDLED  
NETWORK ELEMENTS AND TRANSPORT

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Docket No. UT-003013

**PART A  
RESPONSE TESTIMONY OF  
RICHARD CABE  
ON BEHALF OF  
RHYTHMS LINKS INC. AND  
COVAD COMMUNICATIONS COMPANY**

**October 23, 2000**

## I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Richard Cabe. My business address is 219 I Street, Salida, Colorado.

**Q. ARE YOU THE SAME RICHARD CABE WHO SUBMITTED TESTIMONY IN PART A OF THIS PROCEEDING?**

A. Yes I am.

**Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.**

A. The Commission should reject Qwest's and Verizon's proposed prices for dark fiber. The ILECs' proposed prices improperly include capacity costs for the fiber itself, as well as fiber placement and the requisite support structure, even though their highly restrictive terms and conditions ensure that the company would never incur such costs on behalf of competitors who lease dark fiber. Even if the Commission adopts less onerous restrictions on competitors' right to use dark fiber, it may be necessary to adopt some discount off of full capacity costs to reflect the limitations on a competitor's capacity claim on the dark fiber and the fact that the cost of spare fiber is recovered through prices for lit fiber-based services by application of fill or utilization factors calculated before spare fibers were available to CLECs as dark fiber.

**Q. WHAT IS "DARK FIBER"?**

A. The FCC has adopted a definition of "dark fiber" as "... [u]nused fiber through which no light is transmitted, or installed fiber optic cable not carrying a signal.' It is 'dark' because it is sold without light communications transmission. The [carrier] leasing the fiber is expected to put its own electronics and signals on the fiber and make it 'light.'"<sup>1</sup> Dark fiber can appear in either the loop (usually between the central office and the RT) or the interoffice portion of an incumbent's network.

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<sup>1</sup> *Third Report and Order and Fourth Further Notice of Proposed Rulemaking*, CC Docket No. 96-98, Released November 5, 1999 (*UNE Remand Order*) at fn. 292, citing Harry Newton, *Newton's Telecom Dictionary*, 14<sup>th</sup> ed. (Flatiron Publishing, New York, 1998) at 197-98.

**Q. WHAT IS THE APPROPRIATE COST BASIS FOR PRICING DARK FIBER?**

A. In general, the cost basis for pricing dark fiber should be the same as the cost basis for pricing any unbundled network element, namely, long-run forward-looking economic cost. The application of this cost standard to the dark fiber element, however, requires a careful consideration of the terms and conditions under which the incumbent makes dark fiber available to competitors.

**Q. WHY IS IT IMPORTANT TO ENSURE THAT THE COST BASIS FOR PRICING DARK FIBER TAKES INTO ACCOUNT THE TERMS AND CONDITIONS UNDER WHICH THE INCUMBENT MAKES DARK FIBER AVAILABLE?**

A. Although a consideration of terms and conditions is always part of the definition of the “cost object” to be studied, the terms and conditions aspect of the dark fiber element can have a particularly significant effect on the proper calculation of forward-looking economic costs. If dark fiber were provided under terms and conditions similar to other UNES, costs caused by providing dark fiber could be calculated in a manner that is similar to cost estimation for other UNES. On the other hand, if dark fiber is available only where it has been installed to serve as spare capacity for the ILEC, and it will be available to CLECs only so long as the ILEC doesn’t need that spare capacity, then the cost caused by provision of dark fiber under these restricted circumstances cannot be calculated in a fashion similar to other UNES that require the installation of capacity. Under restrictive terms and conditions the ILEC will never incur the costs of purchasing or installing fiber optic cable in order to provide dark fiber to a CLEC. Fiber will not be installed to fulfill a CLECs order because CLECs can only request that fiber which happens to be already in place. Neither will fiber be installed to meet the ILEC’s growing need for fiber occupied by a CLEC; in this circumstance the CLEC would be ‘evicted’ and the fiber would be taken back for the ILEC’s use. If dark fiber is only offered “as available” and subject to being “taken back” then the fiber at issue was installed to meet the ILEC’s future needs and continues to be available for that purpose even while it is used by the CLEC.

Washington ILECs have proposed terms for provision of dark fiber that make dark fiber

available only under restricted circumstances and allow the incumbent to “take back” any dark fiber leased to a competitor<sup>2</sup>. These terms and conditions make it clear that, unlike other UNEs, the companies will never construct or place new dark fiber to meet the demand for this element.

These terms and conditions mean that, from a cost causation standpoint, dark fiber is a very different element from, *e.g.*, an unbundled loop or unbundled interoffice transport. For such elements the ILEC must provide capacity to satisfy both its own needs and the needs of CLECs purchasing UNEs. Under the Washington ILECs’ proposed terms and conditions for dark fiber, CLECs can never impose any capacity costs for fiber or related support structures such as conduit and innerduct; if spare, unused fiber is not available to satisfy a competitor’s request, Qwest and Verizon will simply refuse to provide dark fiber. If one of the Washington ILECs provides dark fiber and subsequently finds that it needs additional fiber on that route, it will never be caused to build new capacity by the CLEC’s occupancy of dark fiber. It will avoid building new capacity by taking back the dark fiber that a competitor has leased. Under the proposed terms and conditions, dark fiber continues to be available to Washington ILECs as spare capacity, whether it is leased to a competitor or not. Failure to consider the effect of the terms and conditions for the dark fiber element, therefore, could lead to a serious misstatement of costs.

**Q. GIVEN THE PROPOSED TERMS AND CONDITIONS, HOW SHOULD WASHINGTON ILECS HAVE STUDIED THE COSTS FOR DARK FIBER?**

- A. In the cost component that reflects the recurring costs for the fiber itself (as opposed to any fixed costs for terminations), Washington ILECs should have studied only the operations and

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<sup>2</sup> Qwest’s terms and conditions for providing dark fiber are set out in Section 9.7 of its March 22, 2000 SGAT. In particular, Section 9.7.2.10 provides: “Upon reasonable notification to the CLEC as defined by Commission, U S WEST reserves the right to reclaim in part or in whole, UDF previously obtained by the CLEC. This condition would arise in those cases where U S WEST is in jeopardy of meeting or maintaining control of its obligation to provide services as required by law.”

Verizon’s terms and conditions are described in the Phase B Direct Testimony of R. Kirk Lee and provide for taking back dark fiber on 12 months notice to a CLEC.

maintenance costs of the fiber.<sup>3</sup> Washington ILECs should have excluded any costs for the fiber itself, the structure supporting the fiber as well as placement of the fiber. These costs are capacity-related costs and are not causally related to the dark fiber element as Qwest and Verizon have defined that element.

**Q. DID WASHINGTON ILECS STUDY THE CORRECT RECURRING COSTS FOR THE DARK FIBER ELEMENT, AS YOU HAVE EXPLAINED IN YOUR PREVIOUS ANSWER?**

A. No. Both Qwest and Verizon studies reveal that the companies attempted to study the long-run forward-looking economic cost of using dark fiber, as if the ILEC would incur the cost of acquiring that capacity on behalf of the CLEC and then dedicate that capacity to the CLEC's use. This is not the nature of the cost caused by a CLEC's use of dark fiber provided under the terms and conditions proposed by Qwest and Verizon. The Washington ILECs' cost studies include the cost for the fiber itself, as well as costs for related support structure and placement plus a substantial "fill factor" or utilization adjustment, which has the effect of marking up the cost per fiber recovered through fiber-based services to include the cost of unused fiber installed as spare.<sup>4</sup> Of course, the cost of the unused fibers that Washington ILECs include as an addition to the cost of each fiber in use represents precisely the "dark" fiber that is coming into use under the proposed prices now under consideration. If the Commission adopts the ILECs' proposed terms and conditions for dark fiber, it should require them to exclude all of these capacity-related costs from both interoffice and loop dark fiber. Further, the cost of unused fibers is currently recovered through cost-based prices for fibers in use by application of fill factors in developing costs for fibers in use. If presently unused fibers come into use as dark fiber leased at prices that include some portion of capacity cost, then previously applied fill factors should be revised downward to recognize

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<sup>3</sup> For both Qwest and Verizon this is a mileage-related component for inter-office dark fiber or a loop-related component for dark fiber in the loop.

<sup>4</sup> See, e.g., Qwest witness Million Part B Direct Testimony Exhibit TKM-10 and Verizon witness Collins Exhibit Tab 22.

higher utilization of fiber.

Appropriate cost estimation for dark fiber provided under the restrictive proposed terms and conditions would have required an entirely different analysis. This analysis would have produced a substantially lower cost result if it had actually been limited to provision of “in-place, ‘unused’ fibers” being offered under the Washington ILECs’ proposed terms and conditions.

**Q. THE *UNE REMAND ORDER* AT FOOTNOTE 694 SPECIFICALLY CITES A TEXAS PUBLIC UTILITY COMMISSION RULE CONCERNING “TAKE BACK” PROVISIONS FOR DARK FIBER AS AN EXAMPLE OF A MEASURE THAT ADDRESSES THE LEGITIMATE CONCERNS OF INCUMBENTS REGARDING THE NEED TO HAVE ACCESS TO THE SPARE CAPACITY OF DARK FIBER. IF THE COMMISSION REJECTS WASHINGTON ILECS’ RESTRICTIVE TERMS AND CONDITIONS FOR DARK FIBER AND INSTEAD ADOPTS TERMS AND CONDITIONS SIMILAR TO THOSE THAT THE TEXAS PUBLIC UTILITY COMMISSION HAS APPROVED, HOW WOULD THIS AFFECT YOUR PRICING RECOMMENDATION?**

A. It is my understanding that the Texas terms and conditions for dark fiber, referred to in the direct testimony of Verizon witness R. Kirk Lee at page 10, still allow the incumbent to take back the fiber only if a competitor is not utilizing the capacity of that fiber to a predetermined extent. Thus, although the Texas terms and conditions do allow competitors to retain use of the dark fiber element under some circumstances (and therefore to impose some capacity-related costs on the incumbent), they do not equate to the full reservation rights that a competitor would have if it obtained an unbundled loop or transport from Qwest or Verizon, or obtained dark fiber from a competitive market. Therefore, if the Commission adopts a standard that parallels the Texas example, or allows dark fiber to be offered under another form of restrictive terms and conditions, I recommend that the Commission require Washington ILECs to provide dark fiber at some discount from the full capacity cost that would be associated with the fiber if it were part of an unbundled loop or interoffice transport element. The cost for an equivalent use of fiber as part of an unbundled loop or interoffice transport UNE serves as a proxy for the ceiling price that would be appropriate if and only if the competitor obtained dark fiber under the same terms and conditions as “lit” fiber, but

without the incumbent-owned electronics.

**Q. ARE EITHER OF THESE SITUATIONS IDEAL?**

A. No. If there were a market for dark fiber,<sup>5</sup> CLECs would be able to contract for dark fiber from providers other than the ILECs. Such competitive providers, in the business of leasing dark fiber, would respond to CLEC requests by placing dark fiber wherever it is requested at prices approximating the forward-looking economic cost that the incumbents claim to have estimated, and without the ‘take back’ provisions included in Qwest and Verizon terms and conditions. To make dark fiber more useful to competition, the Commission would ideally allow competitors to work with Washington ILECs to plan for additional fiber capacity where it will be needed. This is distinguished from Washington ILECs’ proposals in which competitors are only able to obtain spare fibers that Washington ILECs happen to have in place for reasons entirely of their own, and which will then be available to interconnecting competitors only until the ILEC chooses to displace the competitor with its own use for the fiber. If Washington ILECs were willing to provide dark fiber as if they were in the business of doing so, without restrictions that they currently propose, then the long-run forward-looking economic cost approach that Qwest and Verizon attempted to implement would be correct and would provide an appropriate basis for pricing.<sup>6</sup>

**Q. DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?**

A. Yes, it does.

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<sup>5</sup> In the UNE Remand proceeding before the FCC ILECs argued that such a market exists and that the existence of such a market precludes a finding that the ‘impair’ standard has been met and dark fiber should be offered as an unbundled network element. The FCC’s response to this argument was succinct: “We disagree.” *UNE Remand Order* at ¶ 349. The Order’s subsequent discussion enumerates reasons for the finding that no market presently exists to prevent CLECs from being impaired by ILEC denial of access to dark fiber.

<sup>6</sup> I say “attempted to implement” because my present analysis goes only to the conceptual basis for the cost analysis supporting Qwest and Verizon pricing proposals, and I express no opinion as to the success of their attempts to implement an approach that I believe is conceptually incorrect.