Before the

New Hampshire Public Utilities Commission

DT 01-206

Verizon's Petition for Approval of UNE Remand Tariffs

for its Statement of Generally Available Terms and Conditions

Report of the Facilitator

I. INTRODUCTION

A. PURPOSE OF THIS PROCEEDING

The purpose of this proceeding is to investigate the revisions to Verizon-New Hampshire's ("Verizon-NH") Statement of Generally Available Terms and Conditions ("SGAT") filed with the New Hampshire Public Utilities Commission ("the Commission") between August 4, 2000 and December 21, 2001. Those SGAT revisions and related cost studies were not considered previously by the Commission in its review of Verizon-NH's SGAT revisions in Docket DE 97-171. The additional offerings and related costs studies comport with the requirements of the Telecommunications Act of 1996 ("the Act"), the Federal Communications Commission's ("FCC") unbundling rules, and this Commission's prior arbitration and SGAT/TELRIC interconnection and UNE rulings. The terms, conditions, and rates

for these additional standalone unbundled network elements ("UNEs") and combined UNEs (i.e., UNEs and UNE combinations, respectively, UNE Remand revisions collectively) are provided as required by the FCC's UNE Remand Orders[1] and its Advanced Services Orders.[2] These include the terms, conditions, and rates for unbundled dark fiber, unbundled line sharing, unbundled xDSL loops, xDSL loop qualification and conditioning services, unbundled sub-loops, expanded extended loop ("EEL") combinations, various unbundled network element platforms ("UNE-P"), and other miscellaneous UNE revisions.

Therefore, the specific purpose of this investigation is to see if the aforementioned revisions to Verizon-NH's SGAT offerings and supporting cost studies comport with Sections 252 and 252(d) of the Act, the FCC's UNE Remand and Line Sharing Orders, and the Commission's Order Nos. 22,942, 22,990, 23,666, 23,738 and 23,847

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1 *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order and Fourth Further Notice of Proposed Rulemaking in CC Docket No 96-98 (rel. November 5, 1999), (*UNE Remand Order*); Supplemental Order (rel. November 24, 1999) (*Supplemental Order*), and Supplemental Order Clarification (rel. June 2, 2000) (*Supplemental Order Clarification*).

2 *Deployment of Wireline Services Offering Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order in CC Docket No. 98-147, Fourth Report and Order in CC Docket No. 96-98 (rel. December 9, 1999) (*Line Sharing Order*); Third Report and Order on Reconsideration in CC Docket No. 98-147, Fourth Report and Order on Reconsideration in CC Docket No. 96-98, Third Further Notice of Proposed Rulemaking in CC Docket No 98-147, Sixth Further Notice of Proposed Rulemaking in CC Docket No. 96-98 (rel. January 19, 2001) (*Line Sharing Reconsideration Order*).

B. OVERVIEW OF FACILITATOR'S PROCESS

1. Litmus tests

In order to analyze the assertions presented by the parties for this report to the Commission, a series of "litmus" tests were utilized, that assess in a consistent manner each portion of the specific purpose outlined above.

a. Specific tests

Verizon-NH's SGAT offerings must be in compliance with FCC UNE Remand and Line Sharing Orders as well as the Commission Orders 22,942, 22,990, 23,666, 23,738 and 23,847.

b. General test

Because the UNE Remand and Line sharing Orders only apply to UNEs, as opposed to reciprocal compensation and resale, the relevant tests per section 252(d) are that the rates must be TELRIC based, just and reasonable, and non-discriminatory.

C. APPLICATION OF THE TESTS

As would be expected, Verizon-NH stated that their SGAT complied with these tests. There were instances where Verizon-NH actually referenced specific sections of the applicable orders to prove their point, but they were rare. Because of the abbreviated schedule, full hearings were replaced with technical presentations/conferences, which were informative from one perspective, but not as complete as full hearings. The technical session was a presentation by Verizon and seemed to end up as the proof that the Verizon-NH study was in compliance. While there were opportunities for questions, this was the first official opportunity for the

questions to be asked. As a result, the burden fell primarily on Joint CLECs/OCA and the Staff to find and prove the non-compliance issues associated with Verizon-NH's SGAT as opposed to the burden of proof resting on Verizon-NH.

Further complicating this backward approach where the proof is essentially a negative proof rather than a positive proof, was the shortened time frame and abbreviated process when compared to that usually given to an investigation of this scope. The Joint CLECs/OCA partial remedy to this dilemma was to rely on the decisions in other states, especially in the other Verizon states. The problem with this approach is that if there were unique circumstances or other dependent/mitigating circumstances surrounding these referenced decisions, they were not identified. In more normal circumstances, Verizon-NH would have had the opportunity to respond in order to balance the record, but once again, the abbreviated schedule did not allow for this.

Therefore, each party has been advantaged and disadvantaged by the abbreviated schedule. Whether it has been an equal advantage/disadvantage is difficult to say. But all of the above parties have participated fully, which may indicate that any imbalance may have been within limits up to this point. However, as will be evidenced in this report, often the record was not complete enough to base a decision. Even when there appeared to be convincing evidence on one side there often was not enough information available to ensure that all sides had been heard and their arguments given appropriate weight.

The assertions of each party were grouped and weighted in the following manner.

1. The most weight was afforded assertions of non-compliance with either the FCC orders or the applicable Commission orders. If found reasonable, specific action was recommended, assuming that such an alternative was available.

2. A lesser weight was afforded assertions of non-compliance with the Act, namely 252(d). If found reasonable, specific action was generally recommended, assuming such an alternative was available.

3. While assertions of alternatives deemed more pro-competitive than that offered by Verizon-NH were important, for this specific report they were given the least amount of weight, and were generally referred to other open or suggested future proceedings. Simply because one alternative is deemed better by one party does not automatically mean that the other alternative is not in compliance with applicable federal and state requirements. There was rarely, if ever, enough evidence to make a choice between arguably acceptable alternatives in this abbreviated docket.

4. The level of comfort with a recommendation rose with the ability to forecast the effect of a particular remedy. Specific remedies were easier to judge than general remedies as to their potential effect and were weighted accordingly. Additional time and effort may have mitigated these concerns.

5. No additional weight was given to whether an issue was indicated to be crucial. It was assumed that the mere mention of an issue indicated its importance and all items were treated as being equally important.

It would have been convenient if precise numerical values could have been applied to each assertion, the values summed and resulting scores above 3.141592

were awarded and those below were not. Unfortunately this proceeding was not that convenient and considerable judgment was required. However, every effort was made to apply these tests as uniformly as possible.

D. IMPORTANCE OF PROCESS

While it may be tempting to try to determine and then to disadvantage party responsible for this abbreviated process, this would only further damage a process that may not be operating under ideal conditions. Therefore efforts were made to refrain from making a specific recommendation if the record were felt to be incomplete for any reason. If not enough information was provided and/or the information was not understood, the issue was usually referred elsewhere, including to the scheduled hearing for this docket on January 11, 2002, so that additional information could be provided before a decision will be made by the Commission.

In other words, maintaining the process is paramount. Therefore, if not enough information was provided upon which to base a specific recommendation, the recommendation was to refer the issue for further investigation in another proceeding, even in the case of an assertion of non-compliance with current orders. However, if a sufficient record existed for a part of the allegation and/or there was an extremely narrow issue that needed only limited additional information, efforts were made to directly address that portion and/or complete the record at the time of the hearing before the Commission.

Since the recommendations are only based on the record thus far, parties may want to take advantage of the January 11 hearing to augment the record in the specific areas that were found to be incomplete. It should go without saying that every party

should take this opportunity to comment on the "litmus tests" used in this report as well as the application of these tests.

E. STRUCTURE OF THIS REPORT

As might be reasonably expected, the parties addressed their particular issues in a manner most advantageous to their arguments. This resulted in non-uniform filings. Best efforts were made to tie each of the issues identified by the OCA/Joint CLECs and the staff with the comments of Verizon-NH relating to that issue. This was not always obvious. In order to accurately capture the arguments of each party, the positions of the parties have, for the most part, been lifted directly from their individual briefs. Some effort was made to shorten some of the arguments, but only in very limited situations. In the treatment of Verizon-NH's brief only, if no other party commented on a particular issue, that issue and Verizon-NH's argument was not included in this report. In addition, if no corresponding comments were found for a particular party, there was no mention of that party in the "Position of the Parties" sections.

The order of the issues for this report was generally modeled after the Verizon-NH brief. Individual arguments of the parties were grouped accordingly. If appropriate, related issues were handled together once rather than individually.

The identification of the parties are as follows: Verizon-NH is Verizon New Hampshire; the Joint CLECs are CTC Communications Corporation, Covad Communications Company, Network Plus, Inc.; OCA is the New Hampshire Office of Consumer Advocate; Staff is the Staff of the New Hampshire Public Utilities

Commission. Joint CLECs/OCA refers to the joint brief files by the Joint CLECs and the OCA.

F. BACKGROUND

On remand from the U.S. Supreme Court, the FCC adopted new rules specifying the network elements that incumbent local telephone companies are required to unbundle and provide to competitors, the so-called UNE Remand elements.[3] Verizon-NH submitted its initial UNE Remand compliance filing on August 4, 2000 in DE 97-171, the SGAT docket. The purpose of that filing was to revise and provide new material, along with cost studies, for additional UNEs pursuant to the FCC's UNE Remand Order, Supplemental Order and Supplemental Order Clarification in CC Docket 96-98. The filing also revised and provided new material, along with cost studies, for line sharing services pursuant to the FCC's Line Sharing Order in CC Docket 98-147. The August 4, 2000 filing further included revisions and new material for collocation arrangements and associated charges to bring the SGAT into line with Verizon-NH's applicable tariffs.

In its Order No. 23, 738 in DE 97-171, issued July 6, 2001 and hereinafter referred to as the July 6th Order, the Commission directed Verizon-NH to file its UNE Remand tariffs in compliance with the July 6th Order. July 6th Order at p. 66. On

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[3] Third Report and Order and Fourth Further Notice of Proposed Rulemaking, *In the Matter of Implementation of the Local Competititon Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, issued November 5, 1999.

April 18, 2001, Verizon-NH filed revisions to its xDSL service offering. These revisions included the removal of references to a minimum loop length for xDSL services, in accordance with Commission Order No. 23,666 in Docket No. DT 99-020. Verizon-NH also revised the SGAT to remove references to specific transmission speeds and clarify other xDSL regulations, consistent with modifications Verizon Massachusetts had made to its DTE No. 17 tariff. On August 20, 2001 and August 31, 2001, as part of DE 97-171, Verizon-NH filed with the Commission tariffs it proposed to comply with the FCC's UNE remand rules and with the July 6th Order.

As the Commission had already completed the litigated phase of the SGAT docket, by Order of Notice dated October 14, 2001, the Commission opened this docket, DT 01-206, to separately consider the proposed UNE Remand tariffs.

The Order of Notice announced the Commission's intention to expedite its review, as advocated by Verizon-NH, in order to facilitate contemporaneous completion of the UNE Remand docket with Docket No. DT 01-151, its consideration of Verizon-NH's §271 application. After a duly noticed prehearing conference, held on October 24, 2001, the Commission approved a procedural schedule by Order No. 23,837, issued on November 2, 2001, that entailed a technical session at which Verizon's proposed tariffs were subject to oral examination, followed by an extended discovery process and the filing of briefs. The scope of review in this expedited proceeding is limited to whether the proposed tariffs comport with the FCC's rules and whether they comport with the Commission's July 6th Order. The procedural order also indicated that the expedited review would be conducted by a Facilitator who would provide a report and recommendation to the Commission prior to a final

hearing at which parties would have the opportunity to present objections to the Facilitator's report and recommendation.

On October 29, 2001, as requested at the prehearing conference held on October 24, 2001, Verizon-NH provided a consolidated document to the parties in the proceeding. The document included the August 4, 2000 and April 18, 2001 filings, as well as associated updated UNE Remand pages from Verizon's August 20, 2001 and August 31, 2001 filings. Also on October 29th, the Joint CLECs submitted a letter specifying issues the Commission should examine in Docket No. DT 01-206. In order of priority, CTC identified dark fiber rates, terms and conditions. Covad identified DSL loop rates, line sharing rates, cooperative testing, loop qualification, and loop conditioning. Network Plus identified rates, terms and conditions for unbundled network element combinations including EEL and UNE Platform.

On October 30, 2001, Verizon submitted updated cost studies and corresponding SGAT pages for splitter administration support, dark fiber mileage costs and sub-loop unbundling, and a revised set of associated recurring/nonrecurring TELRIC cost studies.

On November 8, 2001, Verizon-NH filed an updated cost study and corresponding revisions to its SGAT for measured two-way interconnection trunks to reflect a reduction in switching costs pursuant to the July 6th Order. In addition, Verizon-NH provided the parties with a rate comparison sheet showing key UNE Remand rates that have been approved or were under investigation in Verizon's New England and New York jurisdictions.

On November 9, 2001, the Commission held a technical presentation by Verizon-NH[4] at which Verizon-NH's witnesses were available for cross-examination under oath by counsel for AT&T, AT&T Broadband, BayRing Communications, Covad Communications, CTC Communications, Network Plus, Sprint Communications, Lightship Telecom, MCT Telecom, segTEL, Inc., the Office of Consumer Advocate, Staff, and the Hearing Officer.[5] A technical session also was held on December 4, 2001.[6] Over the period from November 19, 2001 to December 21, 2001, Verizon-NH served written responses to 156 interrogatories submitted by the Joint CLECs, three interrogatories submitted by CTC, and eleven record requests issued during the technical session held on November 9, 2001.[7]

By letter from the Executive Director dated December 14, 2001, the procedural schedule approved in Order No. 23,837 was revised in conjunction with revisions to the schedule in DT 01-151.

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4 References to the transcript of the November 9, 2001 hearing are denoted "Tr. at __."

5 CTC Communications Corporation, Covad Communications Company and Network Plus are collectively referred to as the "Joint CLECs."

6 The parties also agreed during the December 4, 2001 technical session to consider in a separate proceeding on an expedited basis AT&T's concerns or misunderstandings regarding Verizon-NH's House and Riser Cable offering. AT&T further agreed to first contact Verizon-NH and provide further information regarding the scope of its concerns and attempt to resolve any misunderstanding or differences, as appropriate, without Commission involvement.

7 Five of Verizon-NH's initial responses were supplemented as a result of three telephonic procedural conferences held on November 30, 2001, December 3, 2001, and December 7, 2001.

G. PROCESS ISSUES

1. Position of the Parties

a. Joint CLECs/OCA

As the result of Verizon-NH's zeal to push through its application for Section 271 authority, the Commission has been asked to address these vital products in a method that denies other parties due process and considered evaluation of the propriety of Verizon-NH's proposals. Instead of conducting a full evidentiary cost proceeding where parties would have an opportunity to provide testimony and cost studies, and cross-examine Verizon-NH's witnesses on their pre-filed testimony, the Commission and the parties must rely on the unsubstantiated costs posited by Verizon-NH. Thus parties have been highly limited in their ability to present and point to record evidence challenging Verizon-NH's proposed rates, terms and conditions. In this brief, Joint CLECs/OCA often have been forced to invoke conclusions from other state commissions that conducted detailed cost proceedings on these issues where full due process rights were accorded, and the Joint CLECs/OCA urge the Commission to adopt the recommendations made herein.

While the Joint CLECs/OCA appreciate the efforts by the Commission and Facilitator to mitigate the harms of this truncated proceeding, the value of a proper evidentiary proceeding cannot be overemphasized. Such a proceeding, including the filing of testimony and the opportunity for cross-examination would allow a full record to be developed. Joint CLECs/OCA have been hampered in their ability to develop the record because it contains only

unsubstantiated cost studies and discovery responses from Verizon-NH. As a result, the Joint CLECs/OCA have had to rely on materials derived from other state proceedings in developing the recommendations made herein.

The Commission should be skeptical about Verizon-NH's cost proposals, particularly given the past instances in which this Commission has had to adjust Verizon's proposals.[8] Indeed, Verizon-NH initially provided nonrecurring prices in this proceeding that failed to apply reductions to its work times that the Commission had ordered in its SGAT Order just a few months ago. This proceeding should not be an exercise in which Verizon presents numerous cost-inflating assumptions and defies the other parties to identify and disprove all of them, thereby being rewarded for each such assumption that the other parties fail to identify. Since the accelerated nature of this proceeding heightens the risk of Verizon being able to slip through unsubstantiated and supracompetitive costs, the Commission should be extra-vigilant and should take notice of other state proceedings that examined these costs more extensively. Availability of the UNEs at issue in this proceeding under pro-competitive rates, terms, and conditions are vital to the future of local competition in New Hampshire. Verizon's haste to seek Section 271 authority should not come at the price of sacrificing local competition in New Hampshire. This is the very risk that the

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[8] *Petition for Approval of Statement of Generally Available Terms Pursuant to the Telecommunications Act of 1996*, Order Granting In Part and Denying in Part, Order No. 23,738 at 44, 64 (July 6, 2001) ("*SGAT Order*").

Commission faces unless its makes adjustments and modifications to Verizon-NH's proposed rates, terms and conditions such as those proposed herein.

2. Analysis and Recommendation

For the reasons stated directly above, a full evidentiary hearing would have been preferable so that the important issues identified in this report and possibly others would have received the full opportunity and resulting benefit of complete comment from all parties. These are also the reasons why a recurring recommendation is that some of these issues need the analysis that can only be derived from a complete evidentiary hearing.

II. DARK FIBER

Verizon-NH's dark fiber offering is found in Section 5.16 of its SGAT and provides unbundled access to a continuous fiber optic strand within an existing fiber optic cable sheath for use by a CLEC in the provision of telecommunications services.

A. DARK FIBER RECURRING COSTS

1. Position of the Parties

a. Verizon-NH

Dark fiber is provided subject to the availability of facilities on a first-come, first-served basis. The terms, conditions and charges included in this offering comply fully with the FCC's UNE Remand Order and this Commission's prior dark fiber arbitration rulings.

Verizon-NH's dark fiber cost study develops the proposed costs for both monthly recurring and non-recurring costs. The monthly recurring costs consist of "per mile" and "fixed" costs for each fiber pair ordered by a CLEC. See October 30, 2001 Revised UNE Remand Studies (Recurring), Part E – Exhibit and Workpapers. Verizon-NH also has developed a "per mile" cost for unusable or "stranded" fiber that may occur in situations where a fiber pair becomes unusable to Verizon as a result of providing Dark Fiber to a CLEC. Tr. at 34.

In accordance with the dark fiber service offering, the fiber used in meeting a specific request may be loop or interoffice ("IOF") fiber. As such, the "per mile" cost of dark fiber is a blend of IOF and loop fiber. A 75% IOF / 25% loop blend or weighting factor is based on forecasted demand. Tr. at 30-31. The initial cable and structure investments are the same investments that were used

in the respective IOF and loop studies approved in the DE 97-171 TELRIC proceeding. See Part E - Workpapers 8.0 and 9.0. The appropriate ACCF factors approved in the DE 97-171 TELRIC proceeding were applied to the investments to produce the monthly per mile cost.

Verizon-NH developed monthly recurring costs for a serving wire center, intermediate central office, customer premises, remote terminal, and CLEC CO/POP that are applied based on the locations required to satisfy the dark fiber request. See Tr. at 70 and Miller Presentation at 2.

Central office-related investments as well as the installation and building loading factors for the serving wire center, intermediate central office, and CLEC CO/POP elements are the same investments and loading factors that were used in IOF TELRIC study from DE 97-171. See Part E - Workpapers 3.0, 4.0, and 7.0. The monthly fixed customer premises and remote terminal elements, in turn, were based on vendor prices for a mix of Fiber Distribution Frames and associated equipment typically placed at these locations for Verizon-NH's own use. See Part E - Workpapers 5.0 and 6.0. Moreover, the appropriate ACCF factors approved in the DE 97-171 TELRIC proceeding were applied to the investments to produce the monthly fixed cost.

During the proceeding, two related issues arose concerning the application or use of a utilization factor in developing dark fiber costs. The first issue involved the .50 IOF utilization factor that was applied in the dark fiber "per mile" recurring cost study. As Verizon-NH acknowledged, the .50 factor did not correctly reflect the .65 IOF utilization factor that Staff and Verizon-NH

agreed to in the Stipulation Agreement in Docket DE 97-171. Verizon-NH stated that it would correct the factor in its compliance filing in this docket. See Tr. at 93 and Verizon-NH's response to Record Request 3. The second issue involves a concern over whether a utilization factor is appropriate for dark fiber. Tr. at 92, 94, 97. As Verizon-NH's witnesses testified, including a utilization factor in its dark fiber cost study does not result in double recovery of costs. The application of a utilization factor to the cable investment is an appropriate component of any TELRIC unit cost including dark fiber. Tr. at 91. The dark fiber UNE uses the same fiber as consumed by IOF transport UNEs, and a utilization factor for dark fiber is equally appropriate. As Verizon-NH noted in its response to Record Request 3: "The utilization factor of any network component is independent of, and relatively constant, with respect to the types or numbers of elements and services that are offered. . . . It is intended to represent the average utilization over the long run for the entire element." As also noted in the response, however, in the spirit of cooperation and to resolve a potential issue in dispute, Verizon-NH proposes to modify the IOF utilization factor to .80, thereby reducing the dark fiber cost per mile from $60.68 to $50.33.

The appropriate loop fiber and structure investments for the dark fiber cost study are the same loop and fiber investments that were used in the loop model that Verizon-NH proposed in the DE 97-171 TELRIC proceeding. See Tr. at 53. In this instance, Verizon-NH relied on its own cost model as the source of

fiber investments rather than on the Telecom Model sponsored in that case by Ben Johnson Associates. This is appropriate because:

1) The Stipulation Agreement of July 14, 1998, specifically provides (Paragraph L) that "the Commission should determine recurring charges for other elements not specifically referenced herein as proposed in BA-NH's originally filed study in this proceeding." See Tr. at 53.

2) Dark fiber is not a "loop" and as such does not use either model to produce the recurring costs. The dark fiber cost study is a distinct analysis that simply uses the same starting investments from the Verizon loop model as the basis for developing the cost of dark fiber. Tr. at 55.

Verizon-NH neither has access to the Telecom Model inputs nor an understanding of how the Telecom Model works so as to develop the dark fiber costs even if such were appropriate, which it is not. See Tr. at 55.

b. OCA/Joint CLECs

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 UNE, however, requires careful consideration of the terms and conditions under which the incumbent proposes to make dark fiber available to competitors. A consideration of terms and conditions is always part of the definition of the "cost object" to be studied. The uniquely restrictive terms and conditions related to the dark fiber element has a particularly significant effect on the proper calculation of forward-looking economic costs. Under Verizon's

formulation, and this Commission's definition, dark fiber always remains spare capacity for Verizon. This is particularly true given the fact that Verizon reserves the right to petition for relief from its obligation to provide dark fiber "if it believes that a TC request would strand an unreasonable amount of fiber capacity or would result in service disruption or degradation of service to other customers."[9] Thus, unlike CLEC access to unbundled loops or interoffice transport, CLEC access to dark fiber imposes no capacity costs or costs for related support structures such as conduit. If spare, unused fiber is not available, Verizon-NH will simply not provide it. Failure to consider the effect of these terms and conditions could result in a serious misstatement of costs. Unlike the case with, for example, unbundled loops, competitors do not have the same right to currently available dark fiber facilities as does Verizon. For example, Verizon's SGAT indicates that dark fiber must be "continuous fiber optic strand(s)"[10] that competitors may access it "only at a pre-existing hard termination point"[11] and that Verizon will not introduce additional splice points to accommodate a competitor's request for dark fiber.[12] In contrast, Joint CLECs/OCA are not aware of any provision that allows Verizon to place such restrictions on the unbundled loops that a competitor is using to provide service

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[9] SGAT § 5.16.6.H.

[10] SGAT § 5.16.1.A.

[11] SGAT § 5.16.1.G.

[12] SGAT § 5.16.1.B.

to an end-user.[13] Finally, Verizon also notes that it may reserve dark fiber for maintenance purposes.[14]

In other words, dark fiber is entirely "catch as catch can." A dark fiber must be a fiber that Verizon placed for some reason that happens to start and stop at points useful to a competitor, but that Verizon has no plans to use for any purpose. This situation is substantially different from the nondiscriminatory, first-come-first-served treatment of other unbundled network elements. Moreover, Verizon's terms and conditions make clear that the company will never construct or place new dark fiber to meet the demands of competitors for this element.

Verizon's terms and conditions mean that, from a cost causation standpoint, dark fiber is a very different element from an unbundled loop or unbundled interoffice transport. Under Verizon's proposed terms and conditions, competitors can never impose any capacity costs for dark fiber or related support structures such as conduit and interduct on Verizon. If Verizon provides dark fiber and subsequently finds that it needs additional fiber on that route, it may even avoid building new capacity by petitioning to take back the dark fiber that a competitor has leased.[15] Therefore, under Verizon's proposed

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[13] Thus, contrary to Verizon-NH's assertion that dark fiber is like other network elements in that it is subject to facility availability, once the CLEC obtains use of the network element, Verizon does not have the right to recapture it. Verizon-NH does reserve a right to seek to recapture or take back dark fiber facilities. Verizon-NH Response to Joint CLEC Information Request No. 156.

[14] SGAT § 5.16.1.E.

[15] SGAT § 5.16.6.H.

terms and conditions, the company's entire embedded base of "dark fiber" continues to be available to Verizon, whether it is currently leased to a competitor or not. Failure to consider the effect of the terms and conditions for the dark fiber element would lead to a serious misstatement of costs.

In the components that reflect the recurring costs for the fiber itself (as opposed to any fixed costs for terminations), Verizon should have studied only the operations and maintenance costs of the fiber. Verizon should exclude any investment 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 defined by Verizon, as competitors cannot, by Verizon's definition, cause Verizon to incur capacity-related costs.

The available dark fiber in Verizon's network is precisely the same fiber that is included as spare in Verizon's loop and interoffice facility cost calculations. Hence, Verizon has already attributed the cost of those facilities, and the structure and placement cost for those facilities, into the cost of loops and interoffice facilities. Verizon's proposed charges for dark fiber are a blatant attempt to double-recover the same costs it included in studies for other UNEs, under the guise of a fill factor or a utilization factor. Verizon admits that the investment costs it used for dark fiber came from the loop and interoffice facility ("IOF") cost models from which UNE rates for unbundled loops and IOF were derived.[16] Verizon witness Anglin also conceded at the November 9th Technical

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[16] Technical Session Tr. At 31

Session that loop and transport buyers are "paying for spare capacity…, because it is factored into the cost of – of the fiber, the usable fiber."[17]

Thus, even if the Commission were (incorrectly) to disagree with our analysis concerning the capacity rights available to CLEC lessors of dark fiber, it should not permit Verizon to include the cost of "spare" fiber in the loop and transport studies and then a second time in the dark fiber cost study.

An examination of the Verizon study reveals that the company attempted to study the long-run forward-looking economic cost of using a strand of fiber. Verizon's cost study includes the cost for the fiber itself, as well as costs for related support structure and placement plus a "fill factor" or utilization adjustment, which has the effect of marking up the cost per fiber to account only for a percentage of the total cable that Verizon projects will be used. Of course, the cost of the unused fibers that Verizon includes as an addition to the cost of each used fiber via the application of a "fill factor" represents precisely the "dark" fiber that would now be available under the proposed tariff — the supposed focus of its entire study. If the Commission adopts Verizon's proposed terms and conditions for dark fiber, it should require Verizon to exclude all of these capacity-related costs from dark fiber.

Verizon would have needed to conduct an entirely different analysis, which would have produced a substantially lower cost result, if it had actually limited

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[17] Technical Session Tr. At 36.

its analysis to the in-place, spare fiber that it actually offers as its dark fiber product.

The product that Verizon is actually offering can cause Verizon to incur maintenance-type expenses,[18] but does not cause investment-related costs. Hence, if it uses the Verizon study, the Commission should order Verizon to eliminate all capital-related cost components. Also, as Verizon's dark fiber studies for loop and interoffice appear to rely on the same materials employed in Verizon's corresponding UNE studies, the Commission should make any adjustments to the non-capital-related portions of those studies to the Dark Fiber study as well.

The Commission should follow the approach taken the Public Utilities Commission of the State of California. The CA PUC found that MCImetro:

> made a convincing argument that Pacific's (Pacific Bell) analysis results in double counting of investment costs. According to [MCImetro], Pacific's analysis goes astray because Pacific fails to account for the nature of the dark fiber UNE, which is fundamentally different from other UNEs. By definition, dark fiber is spare facilities that Pacific placed based on Pacific's own estimates of its expected demand for its services. Because the TELRIC studies that this Commission adopted for the UNE loop were based on total demand, all the cost for the dark fiber that will be available in Pacific's network on a forward-looking basis is already captured as the "spare capacity" or "fill" loading that is part of the existing loop and transport UNEs. Hence, because forward-looking utilization is already included in all the total network TELRIC cost analysis adopted by the Commission, the cost of spare fibers that Pacific does not currently utilize is, by definition, already included in existing UNE prices. Pacific's dark fiber pricing proposal would double-recover capacity costs already recovered through other UNE prices.[19]

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[18] It is not, however, clear that the maintenance expenses that Verizon incurs for dark fiber are as great as those it includes in its cost studies. See discussion at Section 4, infra.

[19] *Application by Pacific Bell Telephone Company (U 1001 C) for Arbitration of an Interconnection Agreement with MCImetro Access Transmission Services, L.L.C. (U 5253 C) Pursuant to Section 252(b) of the Telecommunications Act of 1996*, California Public Utilities Commission Application 01-01-010, Decision 01-09-054 at 17-18 (Sept. 20, 2001). A copy of the order can be found at: http://www.cpuc.ca.gov/word_pdf/final_decision/9826.pdf

The Commission should set the fill factor for dark fiber at 100%. The FCC has specified that "per-unit costs shall be derived from total costs using reasonably accurate 'fill factors' (estimates of the proportion of a facility that will be 'filled' with network usage); that is, the per-unit costs associated with a particular element must be derived by dividing the total cost associated with the element by a reasonable projection of the actual total usage of the element."[20] This Commission has determined that the actual element is the fiber sheath and that the dark fiber portion of the element is to be unbundled.[21] The fill factor designated by the Commission for the loop and IOF facilities will already compensate Verizon for the unused portion of the fibers. The fill factors for loop and IOF are already understated due to the fact that the dark fiber projected usage was not factored into the original loop and IOF models.[22] Verizon initially proposed a utilization factor of 50% for dark fiber and then realized it was in error as the Commission had previously ordered 65% for IOF.[23] In the "spirit of cooperation" it now offers a fill factor of 80%.[24] Verizon's proposed fill factor, as with any fill factor less than 100%, still fails to reflect the unique nature of dark fiber, and it should be modified by the Commission.

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20 *Local Competition Order* at ¶ 682.

21 *NH Dark Fiber Order*.

22 Verizon-NH Response to Record Request No. 3.

23 *Id.*

24 *Id.*

2. Staff

For recurring costs, the Commission approved a Stipulation which, in Section II.K., set the utilization factor for interoffice trunking facilities at 65%. Nonetheless, Verizon's UNE Remand filing sets the utilization factor at 50%, resulting in higher prices for Dark Fiber. It can be argued, as Staff does later, that the Stipulation applies to lit fiber only and that a different utilization factor, appropriately reflecting the market for Dark Fiber, should be determined by the Commission. However, at the very least, the utilization rate for Dark Fiber should comply with the Stipulation approved by the Commission.

At the November 9th technical session, Verizon's witnesses stated that the filing reflects an interpretation of the Stipulation as meaning to apply the 65% utilization factor to electronics or circuit equipment only. Transcript at p. 93. Verizon witness Anglin agreed that "if we've misinterpreted any part of that agreement, we will, before this process is done, bring ourselves into compliance with it." id. and "if it should be 65, then it will be 65."

The Stipulation reads, at Section II.K.: "subject to certain cost input modifications set forth below, the signatories agree that the Commission should use the results of BA-NH's cost model to determine the recurring charges for interoffice trunking facilities. BA-NH will revise its cost study to reflect a utilization factor of 65% and common costs of 15%." The Commission accepted the Stipulation as valid for analysis, July 6th Order at p. 94, with specific adjustments, id. at p. 88 and 91. The Commission did not adjust Section II.K. and it remains as drafted in the signed and approved Stipulation.

Section II.K. is unambiguous and Verizon's UNE Remand filing does not comply.

Staff recommends that Verizon's UNE Remand filing for IOF should be revised. It should be revised to accurately reflect the Commission's approval of the Stipulation or, as argued in II.B. below, to reflect Verizon's ability to provide Dark Fiber.

Verizon's cost studies for Interoffice Facilities (IOF) and Loop Dark Fiber contain three incorrect factors. The first is the Fiber Cable Utilization factor, which Verizon sets at 50%. As discussed in I.C. above, Verizon intended to comply with the Stipulation, which clearly sets the factor for interoffice cable at 65%, and has stated its current intent to correct the factor so that it does in fact comply. Staff believes that the 65% factor is correct for lit fiber and that the Stipulation requires 65% for lit IOF fiber. The use of the 65% factor indicates that fiber is utilized by Verizon and is unavailable for use by CLECs 65% of the time. For Dark Fiber, Staff argues that the correct factor is 84%

Dark Fiber is not being provided in New Hampshire at a high rate. Although demand is high, based on Staff's information from CLECs, Verizon has rejected most requests for Dark Fiber IOF and Loop routes as being unavailable. According to Verizon's response to the Joint CLECs Information Request No. 4, CLECs requested Dark Fiber 107 times between January 2000 and July 2001. Of those 107 requests, 90, or 84%, were rejected.

Given that Dark Fiber is not available to CLECs 84% of the time, Staff contends that the Dark Fiber utilization factor should reflect that unavailability.

In the absence of a more precisely crafted metric, Staff recommends a Dark Fiber Utilization factor of 84%. An example of where this 84% Dark Fiber utilization factor should be applied is in Workpaper 1.1 Part E, Dark Fiber, Two-strand Interoffice Per Mile Investments, at line 13, Fiber Cable Utilization Factor.

The second incorrect factor is the Fiber Fill Factor. The rationale for the Fiber Cable Utilization factor applies here as well, based on the same data response from Verizon. Staff recommends a Fiber Fill Factor of 84% because that figure represents the unavailability of Dark Fiber. That 84% factor should be applied, for instance in Workpaper 1.2 Part E, Dark Fiber, Two-strand Loop Per Mile Investments at line 16, Fiber Fill Factor.

The third factor that Staff contends should be revised is the FDF Equipment Utilization factor. The FDF equipment is the actual equipment Verizon puts in place to support Dark Fiber provisioning. Applying the same reasoning outlined above, Staff contends that the correct factor is 84%. The use of 84% would reflect the actual availability and projected usage of Dark Fiber to CLECs. As discussed in the July 6th Order, forward-looking costs should have a basis in reality. See, e.g. pp.56-59. An example of where the 84% FDF Equipment utilization factor should be applied is in Workpaper 3.0 Part E, Dark Fiber, Fixed Investments Serving Central Office, at line 4, FDF Equipment Utilization Factor.

The fourth factor that should be revised is Verizon's forecasted percentage of Dark Fiber, pursuant to the same rationale. Verizon's forecast predicting

75% Dark IOF Fiber usage and 25% Dark Loop Fiber usage appears unrealistic in view of the 16% availability rate experienced thus far. There is no evidence in the record to support such a forecast. In Staff's view, given Verizon's responses in this docket and in the Section 271 docket, DT 01-151, the 16% actually provisioned makes a reasonable forecast of what can be expected. Therefore Staff recommends that a 16% forecast should be applied to both IOF and Loop. An example of where the 16% forecast factor should be applied is in Workpaper 1.0 Part E, Dark Fiber, Two-strand Blended Per Mile Cost, at line 2, Forecasted Percentage of IOF Dark Fiber and line 4, Forecasted Percentage of Loop Dark Fiber.

3. Analysis and Recommendation

Three factors seem to have come together to create this problem. The first is the addition of a new UNE element, namely dark fiber. The second is the necessary continuation of a TELRIC cost study that did not anticipate the new UNE element, but may have accounted for at least some, if not all, of the capacity costs of the new UNE element in the calculation of the utilization and/or fill factor. The third factor is the practice or potential practice of Verizon-NH to afford dark fiber special treatment in their terms and conditions. For example, dark fiber will only be available for CLECs if it is in the inventory plus not in use or reserved for future use by Verizon-NH . In addition, Verizon-NH reserves the right to petition to take back CLEC used dark fiber for its use on an as needed basis.

There really is no simple fix to this problem. As stated above, Verizon-NH has introduced an independent dark fiber study while still maintaining the original

TELRIC study for other items. The original 1996 TELRIC study arguably included all of the costs of the TELRIC network necessary to provide the then current array of UNEs. Dark fiber was not a required UNE at the time of the original study. The independent dark fiber study appears to be an "add-on" study and either contains new network facilities required to be placed exclusively for the dark fiber UNE or is intended to prevent the unreasonable conclusion that there are no capacity costs remaining from the original 1996 TELRIC study that can be associated with dark fiber because they were previously included in the cost studies of the original UNEs. It does not appear that new fiber has been placed solely to meet the need of the dark fiber UNE user. Therefore it would appear that at least one of the reasons to utilize a new dark fiber study would be to avoid the unreasonable conclusion identified above.

The most just, reasonable and non-discriminatory fix would be to redo all of the underlying cost studies so that the UNE dark fiber infrastructure would be identifiable in the TELRIC study along with the investment costs of all of the other UNEs. This new study would require a full hearing. Clearly, this would not be a quick undertaking.

Other options might be quicker, but could have unintended results or results not grounded in reality. For example, if, as suggested by the Joint CLECs/OCA, the capacity costs associated with dark fiber could be excluded from the costs of dark fiber, the resulting costs of dark fiber could be too low, especially when compared to UNE's that may continue to have the capacity costs in their rates. While this might make sense as an offset to exclude costs already included in another study,

the result would not resemble the actual facilities provided. In other words, there are capacity costs associated with dark fiber, especially if it were provisioned on a more normal basis. In addition, this understatement of costs could cause CLECs to make decisions regarding UNEs that would not be sustainable when a new all-inclusive TELRIC study would likely more accurately reflect the cost relationship between all of the UNEs, including dark fiber.

a. General Recommendation

Absolute precision has its own costs, namely those costs associated with time. The schedule for this docket were abbreviated, in part because of time concerns. Therefore, what appears reasonable is to suggest that the Commission give Verizon-NH a choice. Option #1 would be to recommend that the current SGAT be rejected and that the Commission immediately initiate another all-inclusive docket, complete with the normal complement of hearings. Approval of the SGAT would not be given until the end of this new docket. This could potentially further delay Verizon-NH's §271 application to the FCC. Option #2 would be to recommend that the Commission have Verizon-NH adjust the current SGAT to implement the specific remedies recommended by the Commission. The revised SGAT would then be approved. The Commission would then initiate an all-inclusive docket to update the TELRIC and SGAT. In order to show that these approved rates are permanent, any new rates from the all-inclusive docket would not be retroactive. This would remove one of the hurdles that Verizon-NH needs to clear before submitting its §271 application to the FCC

b. Recommendation for Specific Remedies

There are two particularly troubling aspects to the Verizon-NH dark fiber filing that require adjustment. The first is the double-counting issue and the second is the issue of "reality" as advocated by the staff.

Because of the timing of these series of filings, it is highly unlikely that there is not at least some double-counting. If the cost studies for pre-existing loop and trunking accounted for total costs of the fiber, mainly the "in service" fiber + "spare" fiber, then including the costs of the "spare" fiber in the costs of any other UNE, namely dark fiber, could result in double counting, provided that the original total fiber costs did not change. Per Verizon-NH, the facility cost of fiber from the originally filed study were utilized in their new dark fiber study. Since the costs of "spare" fiber are generally contained in utilization and/or fill factors, it is these factors that deserve particular attention.

If one assumes that the Joint CLECs/OCA are correct and that 100% of the capacity costs are already recovered in other UNE rates, the mathematically correct adjustment would be to eliminate all of the capacity costs from the costs associated with dark fiber. As identified by the Joint CLECs/OCA this would include the costs of the fiber and all supporting infrastructure costs. However, this mathematical adjustment would result in an unreasonable conclusion, mainly that there is no capacity costs associated with dark fiber. The difference is that the Joint CLECs/OCA argue that because these capacity costs are already recovered elsewhere, they should not be recovered in the dark fiber rates. This would logically lead to the conclusion that there are no capacity costs associated

with the actual provisioning of dark fiber, when in fact if dark fiber is provisioned as a UNE, there are indeed network capacity costs. Dark fiber does indeed utilize fiber strands and such supporting structures as conduit. Verizon-NH's “stand alone” dark fiber study appears to recognize this aspect. Therefore, while the 100% factor advocated by the Joint CLECs/OCA may make sense in the confines of the UNE Remand cost study, it is too much of a break with reality when viewed in contrast with Verizon's other SGAT offerings. In addition, as best explained by the staff, the actual availability of dark fiber, i.e., spare fibers, appears to be around 16% as measured by the number of CLEC requests for dark fiber actually not rejected by Verizon-NH, usually for lack of available/spare facilities. Arguably, the Verizon-NH acceptance rate of CLEC dark fiber requests may not directly relate to actual spare facilities due to an uncanny ability of CLECs to consistently request dark fiber routes exactly where Verizon-NH does not have available spare fiber facilities. But this would appear unlikely. Therefore the staff-proposed 84% (100% - 16%) factor may be more reasonable than the stipulated 65% factor, based on the actual experience of the CLECs.

As stated earlier in the discussion on options, the only accurate adjustment would be if the entire TELRIC study were redone, thus eliminating this inconsistency between an existing cost study that did not anticipate dark fiber as a UNE and the requirement to provide dark fiber as a UNE. However, some adjustment must be attempted.

In that regard, it is tempting to reach into the past and apply a mid point methodology between the 65% as stipulated and the 100% as advocated by the Joint CLECs/OCA. Arguably, this analysis would come up with a factor of 82.5%. This is close to the 84% advocated by the staff and furthermore is close enough to the 80% advocated by Verizon-NH that no further adjustment in the recurring cost study would be required. To clarify a question raised in the November 9 technical session, this factor is to be applied to all utilization/fill factors for dark fiber. Tr. at 93.

In addition, the terms and conditions may need some modifications to delete the language that seems particularly discriminatory against users of UNE dark fiber. Specifically this language is in SGAT § 5.16.6.H. and allows Verizon-NH to petition for the displacing of CLECs from dark fiber if Verizon-NH needs it. This language would not be discriminatory if similar language were also included in tariffs or contracts for similar services or in the alternative, similar services to those that a CLEC might provide utilizing dark fiber. For example, if this type of provision is not in place for Verizon-NH retail customers that utilize dedicated wide band services either tariffed or under special construction (Customer Specific Offering), i.e., DS3 and above, it would appear that Verizon-NH is treating CLECs utilizing dark fiber as a lower class of valued customer. If, on the other hand, Verizon-NH can demonstrate that a vast majority of its wide-band customers are subject to these same types of provisions, then Verizon-NH does not need to make these adjustments to the

Terms and Conditions of the SGAT. This demonstration would be appropriate at the Commission hearing.

B. UNUSABLE FIBER CHARGE

1. Position of the parties

a. Verizon-NH

Verizon-NH proposes to recover unusable dark fiber costs in limited cases where providing access to dark fiber at an existing access point strands the remaining section(s) of that fiber and renders that fiber section(s) unusable unless new/additional fiber is constructed. Verizon-NH's unusable dark fiber rates comply with the Commission's Orders in DE 97-229 as well as the Commission's TELRIC Orders in DE 97-171. Specifically, recovery of unusable dark fiber was one of the terms that the Commission concluded were just and reasonable in DE 97-229. The approved terms addressed how and where dark fiber may be stranded as well as how it will be billed:

> When a fiber cable is connected, the downstream portion of the fiber may become unusable or stranded. In cases where interconnection at a remote terminal renders other portions of the fiber unusable or stranded, a recurring charge will apply per fiber pair, per mile, based on airline mileage, utilizing the V&H coordinate method. When the calculation results in a fraction of a mile, the miles will be rounded up to the next whole mile before applying the rates. In all cases, the minimum of one mile shall apply. The Company reserves the right to seek certain relief to the extent that an unreasonably large amount of fiber is stranded. (See Tr. at 43-44.)

As clearly explained at the November 9th hearing, the charge for unusable dark fiber is not applicable to every order but applies only when the specific order results in stranded fiber. This will occur mainly in loop requests. See Tr. at 37-41.

b. Joint CLECs/OCA

Verizon-NH seeks to impose a recurring charge, "Unusable Dark Fiber Per Mile Cost," which it does not charge in any other state in the New England region.[25] The charge applies when a CLEC orders dark fiber at an existing splice point at the termination point such as the remote terminal. When this occurs, Verizon-NH claims that the "remaining fiber on that originally constructed route cannot be utilized by Verizon-NH unless new/additional fiber is constructed (e.g., a portion of the original fiber became stranded, or "unusable")."[26]

Verizon-NH claims that it does not assess this charge in other states because in those states CLECs are not allowed to access fiber loops at splice points since this type of access goes beyond what is required by the UNE Remand Order.[27] Disregarding the merits of this assertion, Verizon's claim does not explain why this charge is not assessed in Massachusetts since in that state, like in New Hampshire, access to dark fiber is given at existing splice points and hard termination points.[28]

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25 Verizon-NH Response to Joint CLEC Information Request No. 16.

26 *Id.*

27 *Id.*

28 Consolidated Petitions pursuant to Section 252(b) of the Telecommunications Act of 1996 for arnitration of interconnection agreements, Massachusetts D.P.U./D.T.E. 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4-R, Order at p. 5 (August 17, 2000) ("MA DTE Phase 4-R Order"). A copy of the order can be found at: http://www.state.ma.us/dpu/telecom/96-73/con_arb_order.htm

The reason why there is not an unusable fiber charge in Massachusetts is because the MA DTE rejected such a charge. The MA DTE found that:

> Here, Bell Atlantic seeks to reintroduce into the proceeding its concern for the creation of unusable fiber by charging a CLEC for fiber that becomes stranded. We will not, however, permit Bell Atlantic's condition to be put in place. As noted by the CLECs, the procedures to be used by Bell Atlantic to specify – and to permit CLEC review of its determination thereof – the portion of the fiber to be declared unusable are vague and undocumented.[29]

The problem with the charge is rooted in the very concept of "unusable" fiber. As WorldCom noted in the MA DTE proceeding, the charge "ignores the fact that fiber networks are designed with splice points that are used as junctions, allowing interconnection from various routes."[30] The MA DTE concurred, noting:

> . . . the determination of what is stranded is extremely subjective. As noted by MCI WorldCom's witness, Ms. Marzullo, what is a complete "A" to "D" circuit length in Bell Atlantic's eyes is actually a series of "A" to "B," "B" to "C," and "C" to "D" links between splice points, each of which has different utilization characteristics. Also, what is deemed to "stranded" today may not turn out to be tomorrow, when a different configuration of customers and usage evolves. Bell Atlantic has offered not approach to an ongoing review and analysis of circuits, an approach that could permit the characterization of a fiber as "unusable" to be reevaluated as conditions change.[31]

Since Verizon (then Bell Atlantic) failed to make a demonstration that there is a cost caused by the CLEC that could be adequately documented by Bell Atlantic, the MA DTE rejected the charge.[32] This Commission should likewise reject Verizon-NH's cost proposal.

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29 *Consolidated Petitions pursuant to Section 252(b) of the Telecommunications Act of 1996 for arnitration of interconnection agreements*, Massachusetts D.P.U./D.T.E. 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4-N, Order at p. 16 (December 13, 1999) ("*MA DTE Phase 4-N Order*") A copy of the order can be found at: http://www.state.ma.us/dpu/telecom/96-73/DarkFiber.htm

30 *Id.* at 15.

31 *Id.* at 16.

32 *Id.* at 17.

There is another conceptual problem with the charge, in that Verizon-NH fails to demonstrate that there is an uncompensated cost at issue. Verizon made a very telling argument in the MA DTE proceeding. It suggested that it could have attempted to recover this cost of "unused fiber" by developing a fiber-cost-per-mile in a way that would have reflected usable fiber as well as some percentage of fiber rendered unusable by certain CLEC dark fiber requests. This approach per Bell Atlantic would have been analogous to use of "fill factors" or "utilization factors" in other applications of the TELRIC model.[33] Thus, Verizon-NH is admitting that is charge is in effect a spare capacity charge. In New Hampshire, where Verizon has proposed the use of a fill factor for dark fiber, if the Commission allows use of Verizon's proposed fill factor it would be even more inappropriate to have an "unusable" fiber charge.[34] As demonstrated above, Verizon-NH is already compensated for the spare capacity of the fiber sheath through the fill factors used to cost the loop and transport UNEs. To allow Verizon-NH to assess what is essentially a spare capacity charge on dark fiber will add to Verizon's over-recovery of its costs.

2. Analysis and Recommendation

Based on the assertion of Verizon-NH that this element has already been approved by the Commission in a previous order, the only issue remaining is the proper costs associated with this element. As noted earlier in the discussion on

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33 *Id.* at 16.

34 Verizon witness Miller admits there is a fill factor in the "usable" portion of the dark fiber. Technical Session Tr. At 42.

dark fiber, there is an excellent chance that the costs of all dark fiber are already included in the costs of the original UNEs. Allowing for recovery for these same costs in this charge would be double recovery, which is not just or reasonable.

It is again recommended that a new study be initiated, but in the interim, the costs associated with this element should be disallowed because there should not be any other costs not already included in the original TELRIC study for the original UNEs. Even allowing Verizon-NH the option of keeping its 80% could arguably still allow for at least some double counting of costs. But unlike the previous decision, if there are no capacity costs associated with these stranded fibers, there is no resulting unreasonable cost relationship between UNEs since there are no other alternative UNEs. Per Verizon–NH the sole reason for this charge is that these strands have been rendered worthless and the costs have not been recovered. If the costs have already been recovered elsewhere, then there are no unrecovered costs associated with this charge.

Therefore it is recommended that the costs for this element be $0.00 and that a new TELRIC study be undertaken as soon as possible in order to address the double counting problem. Because of the brevity of this hearing process, there was not sufficient time for a discussion as to the extent that unused fiber occurs. It would be hoped that a discussion and record as developed in Massachusetts would be a product of the revised SGAT proceeding.

C. DARK FIBER NON-RECURRING CHARGES

The parties did not address all of the issues in the same manner. Therefore all of the issues related to dark fiber non-recurring charges will be presented together. The Analysis and Recommendation will address each issue at the end of this section.

1. Position of the Parties

a. Verizon-NH

Verizon-NH developed separate connect and disconnect non-recurring costs for dark fiber service order, central office wiring, provisioning, field installation, record review and cable documentation. See August 31, 2001 NH SGAT Compliance Filing, Part T - Workpapers. The Non-Recurring Charges (NRCs) are based on Verizon-NH's current NRC model as previously described above. See Tr. at 72-73.

The time estimates that were obtained for the dark fiber NRCs were not, and should not be, adjusted as a result of the Commission's July 6 Order. As explained above, Verizon-NH's current NRC model is based on highly detailed activities and corresponding time estimates. The time estimates were solicited from a much larger base of respondents than the prior NRC model, which the Commission examined in DE 97-171. Tr. at 73-74. In addition, the time estimates are adjusted for the frequency of occurrences as well as a forward-looking adjustment factor. See Verizon-NH's responses to Record Request 1, JC-VZ-123 and 124.

At the hearing on November 9, 2001, Verizon-NH's witness testified concerning the NRC model and how the time estimates apply to the actual

activities and related adjustments for the dark fiber central office wiring nonrecurring charge. He explained that the nonrecurring dark fiber central office wiring charge of $33.08 equates to approximately 40 minutes for a technician to complete the central office wiring portion of the job. The actual tasks accomplished within that time consist of receiving the order, arriving at the work location (including travel time to an unmanned office when necessary), verifying the assignments, performing the wiring work, and closing out the job. Verizon-NH's estimate, therefore, was conservative given the range of activities that have to be performed. Tr. at 75-79.[35]

b. Staff

In direct conflict with the July 6th Order, Verizon-NH used a single-time-estimate methodology for determining labor costs, and failed to reduce the time-estimates. The Commission determined that Verizon's non-recurring cost study figures were too high because the survey to determine time estimates used very small samples and were subject to upward bias. July 6th Order at p. 59. The time estimates used in the original SGAT cost studies had been set by surveying employees to obtain a minimum, a most likely, and a maximum estimate for specific work functions; then Verizon-NH calculated a mean by weighting 1/6, 4/6, 1/6 respectively. The Commission ordered Verizon-NH to subject its time estimates to a different weighting, giving 85% weight to the minimum, 10% to the most likely, and 5% to the maximum estimates. Id. at p. 80. Further, the Commission ordered Verizon-NH to reduce its time estimates that were derived

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[35] See, however, n. 9 *infra.*

from a single SME estimate by the same percentage as resulted from the weighting adjustments just described. Id. Verizon-NH failed to make either adjustment in its UNE Remand filing.

The Staff recommends that the Commission reject Verizon's non-recurring costs until they are appropriately adjusted pursuant to the July 6th Order's requirements. Appropriate adjustments would (1) reduce single time-estimates by the 36.12% that represents the difference between Verizon's original survey weighted estimates and the 85-10-5 weighted estimates and (2) reduce any survey estimates by weighting them according to the 85-10-5 system ordered by the Commission.

c. Joint CLECs/OCA

(1) Service Order Charges

Verizon-NH seeks to impose a $61.39 Service Order charge per fiber pair.[36] This charge is clearly excessive. In Massachusetts, Verizon-NH proposed to charge $22.50 per service order for a single pair between two points and $20.45 for each additional fiber pair between the same two end points when the request is made at the same time as the request for the initial pair. As the MA DTE noted:

> Bell Atlantic's cost study does not distinguish between the amount of time needed to conduct the record review (i.e., research) and the time needed to assign an identification number to each pair. We conclude from the record that of the total 18 minutes involved in these two tasks, the relative amount of time spent by a person conducting the record review is much greater than the time spent assigning an identification number to a given circuit. The evidence indicates, too, that there is no additional research time required when Bell Atlantic conducts on multiple pairs with the same end points. While some

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[36] SGAT § 5.16.11.B (1).

additional time must be spent on assigning an identification number to the additional pairs, it appears on the record to be de minimis. Accordingly, we accept the CLECs' proposal that no service order charge should apply beyond the charge for the initial pair when multiple circuits with the same end points are ordered simultaneously.[37]

The Commission should likewise here specify that no service charge should apply beyond the charge for the initial pair when multiple pairs with the same end points are ordered simultaneously. More importantly, Verizon-NH should be required to substantiate why its service order charge is more than three times that what it assesses in Massachusetts before any such charge is considered by the Commission.

(2) Billing Measurement Units

Verizon-NH uses the V&H coordinate method and proposes that if the calculation results in a fraction of a mile that the mileage be rounded up to the next whole mile before determining the mileage.[38] The MA DTE determined that it was feasible for Verizon-NH to bill in tenths of a mile and required Verizon-NH to do so. As the MA DTE noted:

We recognize that the problems raised by the CLECs will exist, to a greater or lesser extent, for any measurement unit, as long as the billing unit rounds up to the next unit. However, this problem is especially notable in this service offering, where many of the leased fiber strands are likely to be in sub-mileage lengths or short mileage lengths, reflecting service between a central office and a portion of a local serving area. Thus, we need to select a billing unit that is appropriate to the actual lengths of circuits being ordered. Based on the evidence in this case, it appears to us that a billing unit of a tenth of a mile is reasonable and should be employed.[39]

The Commission should likewise require that Verizon-NH bill in tenths of a mile and reject Verizon's contrary proposal.

(3) Fiber Layout Map

Verizon-NH proposes to charge a CLEC requesting a fiber layout map on a time and materials basis the cost of creating the map.[40] If another CLEC

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37 *MA DTE (Phase 4-N) Order* at 9.

38 SGAT § 5.16.8.

39 *MA DTE (Phase 4-N) Order* at 22.

40 SGAT § 5.16.3.A.2.

requests a fiber layout map for the same wire center, Verizon-NH proposes to charge that CLEC on a time and materials basis to reproduce and update the map. This situation is akin to charging the first collocator the full costs of collocation. The first CLEC should only be charged a share of preparing the map as other CLECs, and Verizon-NH itself, will benefit from the information the map provides. In Massachusetts, Verizon-NH agreed to provide a comprehensive fiber layout map for each wire center requested by a CLEC.[41] Verizon-NH should be required to do that in New Hampshire with an appropriate cost to be derived that would spread the cost among CLECs and Verizon.

CLECs also should not have to pay the cost of the field survey in those cases where Verizon's records are found to be inaccurate and where fiber is not available where Verizon's records indicate the existence of fiber. To charge the CLEC for a field survey after the CLEC paid for a record review that incorrectly indicated that fiber was available would be to penalize the CLEC for Verizon's error. The CLEC would not have undertaken the fiber survey in the first instance if Verizon's record review had correctly indicated that no fiber was available.

(4) Fiber Jumper Cable Costs

In calculating the nonrecurring charge of hooking up a fiber pair, Verizon-NH computes a capitalized cost of the work by applying the EF&I factor

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[41] *MA DTE (Phase 4-N) Order* at 13.

discussed below in the Line Sharing section and more precisely as it relates to the Joint CLECs/OCA assertion that the Application of an EF&I Factor To Line Sharing Is Inappropriate. As misapplication of the EF&I factor led the costs of line sharing installation to overstated as described above, the costs of the fiber jumper installation are likewise overstated, particularly since the work involved is minimal.[42]

2. Analysis and Recommendations

Two basic issues have been identified regarding Verizon-NH's non-recurring dark fiber rates – one general concern regarding labor rates used in the studies and the other on specific non-recurring elements. The general concern is best explained by the Staff regarding the apparent use of labor time studies that do not comport with the adjustments ordered by the Commission in its July 6th Order. It appears that Verizon-NH believes that since the new time studies are based on a larger sample, that the adjustments need not be made. Since one of the major objectives was to check for conformance with the July 6th order, the burden of proof for any deviation from that order rests with Verizon-NH. While the sample size may indeed have been larger, that may not equate to the removal of any upward bias. It is not clear that small sample size necessarily equates to automatic upward bias. Therefore even though Verizon-NH may have satisfied the concern with small sample sizes, this did not automatically address the Commission's concern with upward bias.

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[42] Verizon-NH Dark Fiber Cost Study, Exhibit 2-E, Workpaper 3.0, Part E.

Having an abbreviated schedule can be a two edged sword. An incomplete record can cut both ways. In this case, there was not sufficient record to determine whether Verizon-NH's new time studies were upwardly biased. One of the litmus tests of this docket was conformance with the July 6th Order. The burden of proof was clearly Verizon-NH's. The anecdotal evidence referenced above by Verizon-NH does not constitute proof. In order to conform with the July 6th Order, it is recommended that Verizon-NH adjust the time estimates contained in the new dark fiber non-recurring studies that do not strictly conform with the methodology approved in the July 6th Order by 36.12%.

It is unclear if there are other new time estimate studies that also do not conform with the July 6th Order. Therefore it is recommended that Verizon-NH identify all of the new time estimate studies that do not conform with the July 6th Order as well as the elements that they impact. If elements other than those contained in the dark fiber recurring studies are affected, it is recommended that all of these non-compliant time estimate studies by revised as stated above. The upcoming hearing would be an excellent time for this identification as well. Because an all-inclusive updated TELRIC study has already been recommended, it is hoped that at that new proceeding this new time study advocated by Verizon-NH will be explored in more depth.

The specific areas of concern are best explained by the Joint CLECs/OCA filing. These are very specific and usually rely heavily on the record developed in other states. They will be addressed below individually.

a. Service Order Charges

On the surface, it does not seem reasonable that the service order charges in New Hampshire should be over three times those in Massachusetts. While simple comparisons between states is interesting and could be helpful as a collaborating resource, it may be less helpful in crafting specific adjustments. Too much other information would be required. It is not unreasonable that different states may not only have different cost structures but could also have different regulatory rules resulting in unique cost allocations and resulting rates. The record is not complete enough to order any revisions at this time. Hopefully this issue will be looked at more thoroughly in the future.

b. Billing Measurement Unit

The logic underlying this issue is very appealing. Certainly more rounding is less accurate than less rounding. However, if costs (and therefore rates) are calculated consistently with the distribution of the units, then the difference may not be significant overall, but they will be different. For example, arguably in the calculation of the costs for mileage band 1 to 2, a middle mileage would be used rather than the lower or upper limit – perhaps somewhere around 0.5 miles. If true, and assuming uniform distribution of lengths, a little less than half of the requests would be charged more than if they were charged in 1/10 mile increments; a little less than half of the requests would be charge less than if they were charged in 1/10 mile increments; and a few would be charged exactly the same in either case. While this discussion may have been intellectually stimulating, it is mere speculation that hopefully would have become fact in the

course of more traditional hearings. In addition, from a process standpoint, there are other concerns. For example, it was mentioned that the DTE rejected Verizon's "contrary proposal". Unfortunately, it is not included for evaluation in New Hampshire, only the discussion and result.

This issue should be investigated further. No additional adjustment is warranted because OCA and the Joint CLECs did not show that the rates were discriminatory or unreasonable, i.e., a mismatch of costs and units.

c. Fiber Layout Map

Once again the first proposal regarding fiber layout maps by the Joint CLECs/OCA has considerable intuitive appeal, but unfortunately a closer examination makes it less intuitive. For example, should a CLEC that does not want to use dark fiber be forced to pay for maps? It would have been helpful if more specifics could have been offered. Hopefully this will happen in the next hearing.

In contrast the second proposal regarding the cost of field surveys unnecessarily ordered due to errors in Verizon-NH's maps, is not only intuitively attractive, it also offers specific remedies. A more complete record would be exceedingly helpful because there could be instances where maps have become outdated. As a result it would seem reasonable that at least some time limit needs to be placed between the time of the record request and the field survey. While outside plant construction budget cycles are typically at least one year in length, this was not sufficiently developed in the record. Therefore, a time limit 6 months will be recommended. This recommendation is specifically

asked to be addressed in the comments of the parties on this report. The Commission should make adjustments accordingly. No additional adjustment, other than the time adjustment, if applicable, is recommended.

(1) Fiber Jumper Cable Cost

For consistency reasons, the recommendation reached in the Joint CLECs/OCA assertion that regarding the Application of an EF&I Factor To Line Sharing should likewise apply here. Therefore the specific recommendation is that EF&I factor for a Smart Jack should used.

D. TERMS AND CONDITIONS

1. Position of the Parties

a. Joint CLECs/OCA

(1) Record Request Process

Verizon's proposed service order process for dark fiber is cumbersome, and should be modified by the Commission. Verizon-NH is given thirty days after the CLEC makes the request to provide a response.[43] This interval is much longer than what Verizon provides in Massachusetts. In Massachusetts, Verizon-NH provides information as to availability within 15 days, and in some cases, within five days.[44] In the hearing in the §271 proceeding, Verizon-NH

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[43] SGAT § 5.16.2.C.

[44] *MA DTE (Phase 4-N) Order* at 12.

said it does provide information in fifteen days.[45] Thus, the language of the SGAT should be revised accordingly.

In addition, the SGAT and an order of this Commission require Verizon-NH to provide detailed information when it denies a dark fiber request, including the total number of fiber sheath and strands between points on the requested routes, number of strands currently in use and the transmission speed of each strand, the number of strands in use by other carriers, the number of strands reserved for Verizon's use, the number of strands lit in each of the preceding three years, the estimated completion date of any construction jobs planned for the next two years or currently underway, and an offer of an alternate route with available dark fiber.[46] Verizon, has, however interpreted the language of the SGAT as requiring CLECs to make a second request to get this information.[47] The SGAT should be re-worded so as to prevent the highly distorted reading given to the SGAT by Verizon. The NH Dark Fiber Order stated that the information identified above should accompany any response saying that the dark fiber was not available. Verizon-NH should be required to provide the full information pursuant to the initial request.

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45 Joint CLECs and OCA are still awaiting receipt of the transcript of the December 10th hearing. Upon receipt of the transcript, Joint CLECs and OCA will provide the citations to the transcript.

46 SGAT § 5.16.2.E; *NH Dark Fiber Order* at 9.

47 Verizon-NH Response to CTC Information Request No. 2. *See also*, DT 01-151, Transcript of December 10, 2001 Hearing.

Verizon-NH, in this Commission's Section 271 proceeding, has agreed to insert a checkbox on the dark fiber request form to address this problem. Unless the box is checked, the CLEC will get this information, but will pay a cable records charge. Even if the CLEC checks the box, it should still be informed which segments have fiber available, and which do not, at no extra charge. The terms of the SGAT should also specify that if fiber is not available on the most direct route, Verizon-NH will check all reasonable alternatives as part of the initial application. Verizon-NH claims that it already follows this policy,[48] so the SGAT should be revised accordingly. Verizon-NH should also make its planners available to work with CLECs to identify available routes at time and materials cost. This will go a long way to reducing the 84% rejection rate for dark fiber requests. When this Commission ordered the unbundling of dark fiber it surely did not anticipate that this would be a right in name only to the CLECs.

2. Analysis and Recommendation

Verizon-NH has agreed that a 15 day turnaround is standard. They also assert that they check all reasonable alternative routes for dark fiber application requests. It is recommended that the Verizon-NH be prepared to state at the hearing that the SGAT will be revised accordingly.

Verizon-NH has also agreed to add a check box on the form for requesting dark fiber. Verizon-NH should be prepared to put in the record the status of this

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[48] *See*, DT 01-151, Transcript of December 10, 2001 Hearing.

change. In addition it is recommended that Verizon-NH always provide specific information as to the reasons a dark fiber request has been rejected, for example, if "no facilities available" is the general reason, Verizon-NH will include specifics on the particular route segments that triggered the rejection. These appear to be a relatively straightforward issues that can be easily handled in the context of the January 11th Commission Hearing. Therefore it is recommended that the Verizon-NH be prepared to state at the hearing that these issues are being addressed.

The request that Verizon-NH planners be available to CLECs for the purpose of identifying available routes, at time and material costs, is considerably more complex and could not be clarified for implementation as a result of one or two questions at the Hearing. For these reasons this request is beyond the scope of this particular docket, but should be included as an issue in the often-recommended omnibus docket.

3. Position of Parties

a. Verizon

(1) Reservation Policy

Questions also were raised concerning Verizon-NH's reservation policy for dark fiber. Verizon-NH's policy fully complies with the Commission's Dark Fiber Order in Docket DE 97-229. See Verizon-NH's response to JC-VZ-5 and 6. The fiber reservation policy used by Verizon-NH is the same reservation policy used by Verizon in other states, except Massachusetts, where the Department of Telecommunications and Energy ("DTE") set different

parameters in an arbitration case. Verizon-NH's policy in New Hampshire and other states is reasonable and should not be modified here. Indeed, making fewer fibers available as maintenance spares than the reasonable levels Verizon-NH has maintained in the past could have a negative impact on network reliability and lead to longer out-of-service conditions, which would affect Verizon-NH's end users, IXC customers and CLEC customers.

b. Joint CLECs/OCA

(1) Reservation Policy

Verizon-NH states that it can reserve fiber that has been installed or allocated to serve a particular customer in the near future, and fiber that been allocated for growth or survivability in a particular part of the network.[49] The MA DTE found such a reservation policy problematic as it "would codify the excuse of any unspecific service obligation to limit the availability of dark fiber to its competitors."[50] The MA DTE therefore found that Verizon may not reserve a fiber strand for a customer until it has received a specific order for fiber-related service from a given customer.[51] Verizon-NH should make such a clarification in the SGAT. Otherwise, the language is far too vague and will allow Verizon-NH to unreasonably deny requests for dark fiber.

Likewise, the Commission should require that Verizon-NH place specific quantitative limits on its maintenance spare reservation policy. Once again, the

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[49] SGAT § 5.16.1.F.

[50] *MA DTE (Phase 4-N) Order* at 14.

[51] *Id.* At 14.

MA DTE has provided useful insight on this issue. It adopted a proposal that in general would presume that 5% of fibers in a sheath should be reserved for maintenance. In smaller cables, i.e., with 12 or 24 fibers, a minimum of two fibers should be reserved for maintenance. In an extremely large fiber, no more than 12 fibers should be reserved for maintenance. If Verizon-NH desires to reserve more fibers than what is specified above, it would have to provide a formal explanation to justify its position.[52] As in Massachusetts, the policy on maintenance spares should not distinguish between loop and interoffice facilities.[53] Verizon-NH exceeds the 5% reservation by making the following designations: in interoffice facilities, 4 fibers as fiber maintenance spares in cables containing up to 24 fibers, 6 fibers in cables containing from 25 to 48 fibers, 8 fibers in cables containing from 49 to 96 fibers, 10 fibers in cables containing from 97 to 144 fibers, and 12 fibers in cables above 144 fibers.[54] For loop fiber cables, Verizon-NH designates four maintenance spares per fiber terminated location.[55]

In addition, Verizon-NH clearly has a supply of partially constructed fibers that are going unused that could be used for growth or maintenance if additional

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52 *Id.* At 15.

53 See Verizon-NH Response to Joint CLEC Information Request No. 5

54 Verizon New Hampshire Response to Joint CLEC Information Request No. 5.

55 *Id.*

construction work is done.[56] Verizon-NH should be required to demonstrate why it is not feasible to use such facilities for maintenance and growth.

4. Analysis and Recommendation

Again the Joint CLECs/OCA have identified important issues that should be addressed. Unfortunately these are outside the scope of this docket because there are clearly issues that need the benefit of full hearings. Even if the entire January 11th Commission hearing were dedicated entirely to this issue, it is unlikely that the record would be complete. It would be another matter altogether if Verizon-NH were in violation of a previous Commission order and that violation had a reasonable remedy. Such is not the case.

a. Joint CLECs/OCA

(1) Access Points

Verizon-NH specifies that dark fiber may be accessed only at existing hard termination points.[57] Verizon-NH also limits accessibility to dark fiber to routes running from collocation arrangements.[58] There is no reason that a CLEC needs to be collocated to lease dark fiber, and it is technically feasible and consistent with industry practice to lease dark fiber at splice points.[59] The MA DTE has required that access to dark fiber be provided both at splice points and hard termination points, and the Commission should mandate the same type of

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[56] Verizon-NH Response to Joint CLEC Information Request No. 2.

[57] SGAT § 5.16.1.G.

[58] SGAT § 5.16.1.C.

[59] *MA DTE (Phase 4-N) Order* at 20.

access.[60] CLECs should be allowed to request service between two existing splice points or between a splice point and a customer's premises. Verizon's claim that accessible terminals are the only technically feasible points in its network where dark fiber may be accessed is obviously belied by the Massachusetts and Indiana experiences.[61]

The Commission should also require that Verizon-NH provide additional splice points at the CLEC's request. The Indiana Utilities and Regulatory Commission imposed such a requirement so that CLECs will be able to utilize dark fiber in the same manner that the incumbent does.[62] It is clear given the overwhelming rejection of dark fiber requests on the part of Verizon-NH that CLECs are not being able to utilize dark fiber in the same manner that Verizon-NH is. The Commission must promote more methods of access to dark fiber. The actual fill factor for fiber facilities in New Hampshire is 53.6%,[63] but between January 2000 and July 2001, 90 out of 107 CLEC recent dark fiber service requests were rejected.[64] Requiring Verizon-NH to provide additional splice points will help to improve this situation.

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60 *Id.*

61 Verizon-NH Response to Joint CLEC Information Request No. 1.

62 *Petition of AT&T Communications of Indiana, Inc. and TCG Indianapolis for Arbitration of Interconnection Rates, Terms and Conditions and Related Arrangements with Indiana Bell Telephone Company d/b/a Ameritech Indiana Pursuant to Section 252 (b) of the Telecommunications Act of 1996*, IURC Cause No. 40571-INT-03, Order at 224 (2000).

63 Verizon-NH Response to Information Request No. 14.

64 Verizon New Hampshire Response to Joint CLEC Request No. 4.

The fact that Verizon-NH has such a low percentage of fiber that is being used coupled with the high reject rate for CLEC dark fiber requests suggests that Verizon-NH is maintaining large quantities of fiber in an unterminated state. Verizon-NH admits that it has "partially constructed fibers in other locations outside a Verizon wire center that are not terminated to an accessible terminal."[65] Verizon-NH admits that these fibers could be rendered usable with additional fiber facility construction to complete the fiber strands.[66] Verizon-NH does not even begin to inventory these fibers for use until construction has been completed and fibers are terminated at both ends of the constructed route.[67] If these fibers are properly inventoried, and CLECs are given access to these fibers at splice points and pay for any needed construction on a time and materials basis, the availability of dark fiber should increase. Currently, Verizon-NH has no incentive to render this fiber usable and appears to be leaving a large amount of dark fiber in an unusable state.

Verizon-NH should also agree to parallel process dark fiber and collocation orders. Presently, after finding dark fiber is available, the CLEC is not able to order the dark fiber until its collocation arrangement is complete. The collocation arrangement takes 76 business days, by which time the dark fiber may no longer be available. Verizon-NH testified in this Commission's Section 271 proceeding that it is engaged in a parallel processing trial in Pennsylvania

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65 Verizon New Hampshire Response to Joint CLEC Request No. 2.

66 *Id.*

67 *Id.*

and will roll the process out in other states.[68] Given the tremendous difficulties CLECs have had in accessing dark fiber in New Hampshire, anything that will alleviate this problem should be implemented immediately. Parallel processing will limit the possibility of a subsequent dark fiber reject and should be adopted in New Hampshire.

5. Analysis and Recommendation

Again the Joint CLECs/OCA have identified important issues that should be addressed. Unfortunately these are outside the scope of this docket because there are clearly issues that need the benefit of full hearings. Even if the entire January 11th Commission hearing were dedicated entirely to this issue, it is unlikely that the record would be complete. It would be another matter altogether if Verizon-NH were in violation of a previous Commission order and that violation had a reasonable remedy. Such is not the case.

a. Verizon-NH

(1) Repair at Parity

Finally, a number of questions arose during the course of the proceeding concerning Verizon-NH's maintenance policies. Verizon-NH maintains dark fiber for CLECs to the same extent that it does for itself. See Verizon's response to JC-VZ-9 and Tr. at 115-118. Moreover, Verizon-NH offers additional services to CLECs such as field surveys, so that they will know in advance the

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[68] *See*, DT 01-151, Transcript of December 10, 2001 Hearing.

transmission characteristics of fibers, and will retrofit or clean connectors as it would for itself.

b. Joint CLECs/OCA

In the MA DTE proceeding addressing dark fiber, Verizon made a commitment that it will use the same methods, procedures, and practices to maintain CLEC fibers as it does for its fibers in the same sheath.[69] The Commission should require the same commitment here. Since CLECs are paying for maintenance in the cost of dark fiber, Verizon's failure to provide such maintenance would result in further over-recovery of costs by Verizon. Verizon-NH includes a maintenance factor in its monthly costs for IOF Per Mile, Loop Per Mile, Unusable IOF Per Mile, Unusable Loop Per Mile, Serving Central Office, Intermediate Central Office, Remote Terminal, CLEC CO/POP and Customer Premises so Verizon-NH is clearly being compensated for maintenance.[70]

Unfortunately in New Hampshire, Verizon's repair policies for dark fiber are discriminatory and effectively result in less fiber availability for CLECs as a practical matter. The transmission characteristics of dark fiber will often degrade over time such that fiber that is useful when installed will become unusable over time due to weather factors, accidental damage, repair activities

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69 *MA DTE (Phase 4-N) Order* at 22.

70 Verizon-NH Dark Fiber Cost Study, Exhibit 2-E, Workpapers 10.0, 10.1, 11.0, 11.1, 12.0, 13.0, 14.0, 15.0, 16.0.

and other factors.[71] In such situations, if Verizon-NH is using the installed fiber for its own purposes, Verizon-NH will routinely make the needed repairs to the fiber to restore its transmission characteristics to a usable level.[72] In sharp contrast, if a CLEC has requested spare dark fiber strands or has leased unbundled dark fiber strands from Verizon-NH, Verizon refuses to make any repairs to the dark fiber strands with the possible exception of the cleaning or retrofitting of connectors.[73] Additionally, Verizon also prohibits CLECs from performing their own repair work on degraded strands. Verizon's policies are not only discriminatory, but also place CLECs at a competitive disadvantage because degraded fiber may ultimately adversely impact the CLEC's quality of service. Depending on the seriousness of the degradation, the fiber may in fact be unusable by the CLEC. Verizon-NH's failure to repair unbundled dark fiber strands for CLECs or to permit CLECs to repair their leased unbundled dark fiber ultimately results in less dark fiber availability for CLECs. Further,

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[71] Docket No. DT 01-151, Verizon's responses to Conversent's data requests, Response VZ-22 ("Over time, the transmission characteristics of the fiber may deteriorate due to weather factors, accidental damage, and repair activities.").

[72] *See*, *e.g.*, Docket No. DT 01-151, Verizon's responses to Conversent's data requests, Response VZ-20 ("For emergency repairs and service restoration Verizon also splices sections of new fiber cable around a section of damaged cable" for fiber used by Verizon.); VZ-29 (For dark fiber used by Verizon, "Verizon repairs or restores fiber strands [for its own use] when a fiber cable is damaged."); VZ-35 (If the db loss for fiber "is too great for the services Verizon intends to provide over that system, Verizon will add an optical repeater to the system's design.").

[73] Verizon's SGAT, at §§ 5.16.6(C) - (D); 5.16.7(F) (Verizon "will not re-terminate or re-splice fibers in order to improve transmission characteristics."); *See*, *e.g.*, Docket No. 01-151, Verizon's responses to Conversent's data requests, Response VZ-28 (Verizon "will not retrofit or restore dark fiber that it delivers to CLECs.").

Verizon-NH's refusal to repair dark fiber for CLECs is difficult to explain when contrasted with its policy regarding the leasing of unbundled copper loops or interoffice facilities. Verizon-NH will repair loops and interoffice facilities; however, it refuses to repair dark fiber. In sum, Verizon-NH's practices regarding dark fiber are discriminatory because Verizon-NH will repair degraded dark fiber that it is using or has reserved for its own purposes; however, Verizon-NH will not repair degraded dark fiber for CLEC, even if the CLEC will pay for the repair.

Verizon-NH's policy of refusing to repair degraded dark fiber is particularly problematic if a CLEC has leased dark fiber from Verizon-NH and during the term of the lease, the fiber degrades, making it unusable to the CLEC. Given Verizon-NH's refusal to repair or to allow the CLEC to repair, this places the CLEC in the position of running an unacceptable risk of service impairment or even a service outage when degraded dark fiber is used in its network. Such a refusal to repair or to permit repair is both anti-competitive and inconsistent with industry practice.

6. Analysis and Recommendation

The CLEC argument is that Verizon is applying a factor that includes the requested type of maintenance functions. It is requested that Verizon identify where this maintenance factor originated, and where it has been used in the SGAT cost studies. If this factor is not specific to dark fiber, then the maintenance functions typically performed for the UNEs where this factor is used, will be performed for dark fiber.

7. Closing Thoughts on Dark Fiber

It would be helpful if a determination could be reached as to whether dark fiber is a "regular" UNE or a "special" UNE, entitled to different treatment than the ordinary UNE, both from the ILEC's and CLEC's standpoint. Certainly Verizon-NH views dark fiber as a "special" UNE. Based on observation only, it does not appear that even the FCC has made this determination, much less a majority of the states. As such it would be reasonable that the level of controversy surrounding these issues will not be accommodated by the January 11th Hearing. Therefore these issues are outside the scope of this docket. Clearly these issues, as well as the underlying status of dark fiber as a UNE, are begging for the benefit of full hearings. It is understood that the Commission has already had hearings on Dark Fiber, but from the number of issues and effort expended by the parties, there seem to be additional deep issues and concerns. These concerns and issues, as well as both the short term and long term implications, may need to be better understood so that the effects of any decision or non-decision can be more accurately assessed. As such it is recommended that the Commission consider undertaking a dedicated hearing to determine what, if any, special treatment should be afforded the dark fiber UNE. It is not anticipated that this will be an easy undertaking.

III. LINE SHARING

Line sharing is an unbundled network element arrangement that enables a CLEC to provide DSL services over a loop that is being used by Verizon-NH to provide local exchange service to an end user customer.

A. GENERAL COMMENTS

1. Position of the Parties

a. Verizon-NH

Verizon-NH's unbundled line sharing offering is found in Section 5.14 of its SGAT. Verizon-NH's line sharing offering complies with the requirements of the FCC's Line Sharing Orders.

The network architecture used for establishing line sharing arrangements with CLECs in New Hampshire is the same as Verizon uses throughout its footprint. See JC-VZ-68. Methods and procedures and Operating Support Systems were developed and tested at length with CLECs as part of the New York DSL Collaborative, under the auspices of the New York Public Service Commission. See JC-VZ-93. No issues were raised regarding Verizon-NH's line sharing offering during the hearing (Tr. 118-123), and no substantive issues were identified in the information requests submitted to Verizon-NH.

As Verizon-NH is already providing retail service over these loops, it has not sought to recover at this time any costs for the loop itself and only seeks to recover from CLECs its TELRIC costs to maintain line-shared loops (i.e., recurring charges for wideband test access) plus the costs for a CLEC to collocate and maintain CLEC-owned (and provided) splitters in its central

offices. CLECs provide their own splitters for their use in providing DSL services to end users. As such, Verizon-NH is not proposing charges for splitters.

(1) Line Sharing Cost Studies

Verizon-NH's line sharing cost study incorporates monthly recurring and non-recurring costs associated with the installation of line splitters in Verizon-NH central offices. See October 30, 2001 Revised UNE Remand Studies, Part N – Exhibit and Workpapers for all recurring and non-recurring costs except Service Order, Service Connection, and Installation Dispatch NRCs. For Service Order, Service Connection, and Installation Dispatch NRCs, see December 21, 2001 NH SGAT Compliance Filing, Revised UNE Remand Studies (Recurring), Part N – Workpapers, Section 3, page 1.

(2) Non-recurring Costs

The non-recurring costs for line sharing consist of a splitter installation charge, an application and engineering fee, and service order, service connection, and installation dispatch charges. The splitter installation non-recurring charge reflects the cost to a CLEC that elects to install the splitter equipment in a Verizon-NH central office space versus the CLEC's collocation space. The NRC is only the installation cost to install a shelf equipped with 96 splitters. Tr. at 118.

The installation cost was developed by applying the circuit equipment installation factor to the material investment for a splitter shelf equipped with 24 quad splitter cards (96 lines). See Part N - Workpaper, pg. 2 and 3. The circuit

digital installation factor applied in this study is the same factor that was developed for the DE 97-171 TELRIC proceeding. This factor was not modified in any way by the Commission's July 6 Order. See Verizon-NH's response to JC-VZ-19.

The application and engineering fee applicable to splitter installation is the virtual collocation augment fee developed in the DE 97-171 TELRIC proceeding. The application fee of $1,500 and engineering fee of $2,120.96 presented at the November 9, 2001 hearing did not include the 20 percent reduction to collocation engineering and administration costs as ordered in the Commission's July 6 Order. Tr. at 118. The original total cost of the virtual collocation augment was $3,620.96. The application fee of $1,500 is a non-cost based "up front" fee determined by Verizon's marketing organization. The engineering fee is simply the difference between the application fee and the total cost. See Verizon-NH's response to JC-VZ-27.

A calculation demonstrating the 20 percent reduction to the total virtual collocation cost, however, was served on the parties as part of Verizon-NH's response to JC-VZ-27. In addition, the revised virtual collocation engineering and administration costs were filed with the Commission as part of the Verizon-NH's SGAT compliance filing on December 21, 2001. In that filing, the virtual collocation application and engineering fees (applicable to line sharing) were changed to $1,500 and $1,396.77, respectively.

The service order, service connection, and installation dispatch non-recurring charges related to line sharing are the two-wire digital link non-

recurring charges developed for the DE 97-171 TELRIC proceeding. These charges reflect modifications for survey weighting and separation of connect and disconnect charges, as ordered by the Commission in its July 6 Order. Tr. at 119 and Verizon-NH's response to JC-VZ-50.

(3) Recurring Costs

The monthly recurring costs for line sharing consist of splitter maintenance, floor space, and service access charge ("SAC") per line. A different monthly splitter maintenance charge, per 96 lines, applies depending on whether the splitters are placed in a CLEC's collocation cage (Option A) or in Verizon-NH's central office space (Option C). Tr. at 119-120.

Under Option C, Verizon-NH is responsible for performing various splitter maintenance activities on behalf of the CLEC. See Verizon-NH's response to JC-VZ-25. To determine the monthly maintenance cost for Option C, Verizon-NH applied only the maintenance component of the digital circuit ACCF to the investment of a fully-equipped splitter shelf. The maintenance component of the ACCF is the same factor that was used in the DE 97-171 TELRIC proceeding. See Part N - Workpaper, Section 4, pg. 2.

Under Option A, Verizon-NH is not responsible for maintenance; therefore, the testing and repair sub-components of the maintenance factor are removed. The CLEC is assessed plant-related maintenance costs that Verizon-NH spreads over all classes of plant. Tr. at 120; Part N - Workpapers, Section 4, pg. 2.

Staff questioned why Option A and Option C maintenance costs in New Hampshire were lower than in other states. As explained in Verizon-NH's

response to Record Request 4, Verizon-NH's cost of administration and support for line splitters is lower than in other Verizon jurisdictions due to a different cost methodology for determining the common cost component. In Verizon-NH, the common cost factor, agreed to in the Stipulation Agreement, is an incremental 15% cost applied to the TELRIC cost. In the other Verizon jurisdictions, the combined joint and common cost factor is lower (in the range of 5 to 7%), however, it is applied to the investment and not the TELRIC cost. Thus, in other Verizon jurisdictions, the common cost as a function of the investment may produce higher common costs in relation to a TELRIC cost resulting from a relatively low annual carrying charge as in the case of splitter maintenance.

A monthly recurring floor space and relay rack charge applies per splitter shelf. As the basis for this charge, Verizon-NH used the monthly floor space and relay rack charge per half-rack from the virtual collocation cost study in the DE 97-171 TELRIC proceeding. Tr. at 120. The cost per shelf developed for the line sharing study simply took the half-rack cost from the virtual collocation cost study, multiplied it by two to determine the cost for a full bay, and divided by 14 (number of splitter shelves per bay). Part N - Workpaper, Section 2, pg. 1.

The monthly recurring SAC costs were developed in the physical collocation study in the DE 97-171 TELRIC proceeding and were not affected by the Commission's July 6 Order. See Verizon-NH's response to JC-VZ-29.

No additional workpapers for the SAC charge were required or submitted in this cost study.

b. Joint CLECs/OCA

The FCC's Line Sharing Order sets forth the obligations of incumbent LECs, such as Verizon-NH, to provide line sharing to competitive carriers. Under the Line Sharing Order, an ILEC must: (1) provide unbundled access to the high frequency portion of the loop so that carriers may use those frequencies to provide xDSL-based services,[74] and (2) provide access to OSS necessary to support non-discriminatory pre-ordering, ordering, provisioning, maintenance and testing, and billing for CLECs.[75]

The FCC stated in the Line Sharing Order that its "fundamental goal is to promote 'innovation, investment and competition' in the advanced services marketplace."[76] As stated by the FCC: "We note that states are free to impose additional, pro-competitive requirements consistent with the national framework established in this order."[77] Accordingly, the FCC's Line Sharing Order

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[74] *Line Sharing Order*, ¶ 19. Incumbents are required to provide unbundled access to the high frequency portion of the loop to a carrier seeking to deploy any version of xDSL that is presumed acceptable for shared-line deployment in accordance with the FCC rules. *Id.* ¶ 70. A feature is presumed acceptable for shared-line deployment so long as it does not interfere with the voice transmissions on the loop. *Id. See also* 47 C.F.R. § 230.

[75] *Line Sharing Order*, ¶ 93 n.213.

[76] *Line Sharing Order*, ¶ 1.

[77] *Line Sharing Order*, ¶ 159 (emphasis added). *See also Id.* at 6 (Executive Summary) (holding "[s]tates may, at their discretion, impose additional or modified requirements for access to this unbundled network element, consistent with our national policy framework").

empowers state commissions to look beyond the four corners of the Line Sharing Order when adopting measures implementing the minimum mandates of the Order.

Thus, the FCC set forth the baseline framework for line sharing in the Line Sharing Order, and charged the states with the task of establishing additional requirements necessary to achieve the pro-competitive goals of the Act.

This Commission must also implement rules to ensure that Verizon-NH complies with the FCC's UNE Remand Order. The unbundling requirements set forth in the FCC's UNE Remand Order, pursuant to § 251 of the Act, are "designed to create incentives for both incumbent and competitive LECs to innovate and invest in technologies and services that will benefit consumers through increased choices of telecommunications services and lower prices."[78] More specifically, the FCC sought to establish unbundling rules "to facilitate the rapid and efficient deployment of all telecommunications services, including advanced services."[79]

Under the FCC's UNE Remand Order, Verizon-NH, along with other ILECs, are obligated to provide non-discriminatory access to UNEs and OSS. The FCC expressly stated in the Line Sharing Order that the ILEC obligation to provide access to OSS for xDSL-based services "falls squarely within an

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[78] *UNE Remand Order*, ¶ 5.

[79] *Id.* ¶ 14.

incumbent LEC's duty" under the Telecom Act.[80] Access to OSS is critical to a CLEC's ability to compete with the ILECs. The FCC determined that "if competing carriers are unable to perform the functions of pre-ordering, ordering, provisioning, maintenance and repair, and billing for network elements in substantially the same time and manner as the incumbent can for itself, competing carriers will be severely disadvantaged, if not precluded altogether, from fairly competing."[81]

There are numerous areas of Verizon's SGAT in which Verizon fails to meet its legal obligations in this regard. The following sections will focus on these deficiencies. The Commission should order Verizon-NH to revise its SGAT to address these issues.

(1) Application of an EF&I Factor To Line Sharing Is Inappropriate

Verizon applies an Engineer, Furnish and Install ("EF&I") factor to its projected material-only investment to develop an estimate of total installed investment. Verizon assumes an EF&I factor for line-sharing elements that is not reasonably related to line sharing, thereby significantly inflating many of its proposed line-sharing prices, which are based on this estimate of installed investment. The line-sharing elements affected by the inappropriate application

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80 *Line Sharing Order*, ¶ 172 (citing 47 U.S.C. § 251(c)(3) of the Act and the FCC's Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499 (1996)).

81 *Line Sharing Order*, ¶ 172.

of the EF&I factor are the Splitter Installation non-recurring charge and the Administrative and Support and Splitter Equipment Support recurring charges.

Verizon assigns an EF&I factor to costs of the splitter and splitter bay that is based on historic costs for the "Digital Circuit Equipment (Subscriber Pair Gain)" equipment account.[82] Unlike digital circuit equipment such as pair gain systems, however, splitters and splitter shelves are simple and passive devices that do not even have an external power source. Splitters have little in common with sophisticated pair gain electronics equipment such as digital loop carrier systems and should not be assigned the same EF&I factor.

The EF&I factor that Verizon uses to develop total installed investment costs reflects the ratio of the company's total booked engineering and installation costs from 1996 to its booked 1996 costs for equipment included in the Digital Circuit Equipment accounting category.[83] Verizon has not developed this factor in a manner that provides a reasonable estimate of the efficient, forward-looking investment related to line-sharing activities, because line-sharing activities and related equipment such as splitters were almost certainly not included in the 1996 costs reflected in the EF&I factor.[84] Verizon-NH admits that "it has no studies, analysis or workpapers identifying the EF&I factor specifically for line splitters, and only for line splitters."[85] One cannot

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82 Verizon-NH Response to Joint CLEC Information Request No. 19.

83 Verizon-NH Line Sharing Cost Study, Exhibit 2-N, Section 4, Page 2 of 2.

84 *See Id.*

85 Verizon-NH Response to Joint CLEC Information Request No. 22.

simply presume, as Verizon has done, that an installation factor developed by analyzing a group of activities that were performed on equipment unrelated to line sharing—such as optical multiplexers—has any relevance at all to the efficient, forward-looking cost that Verizon will incur in connection with line-sharing installations. Verizon has not provided an estimate of the time actually required to provision splitter shelves, conducted a line-sharing time and motion study, or otherwise developed line-sharing-specific factors.[86]

The Maryland Commission, in a recent proceeding, agreed "with concerns raised by the other parties to this proceeding with respect to the values of the EF&I and Digital Circuit Annual Cost Factor ("ACF") proffered by Verizon."[87] These are the same concerns we have enumerated above. The Maryland Commission found that:

. . .the application of a factor-based methodology is most persuasive when the plant type used as a proxy is consistent with the plant type being priced. In this case, Verizon had or should have had specific data available for line sharing given its own Infospeed retail service and its experiences with line sharing in other jurisdictions dating back to 1999. Therefore, the Commission directs

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86 *See* Verizon-NH Response to Joint CLEC Information Request Nos. 61 and 62.

87 *In the Matter of Arbitration of Rhythms Links, Inc. and Covad Communications Company vs. Bell Atlantic Maryland, Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996,* MD PSC Case 8842, Phase II, Order 76852 at 24 (April 3, 2001) ("*MD Line Sharing Order*"). A copy of the order may be accessed at http://www.psc.state.md.us/psc/.

Verizon to develop cost studies and/or factors that are specific to line sharing and predicated upon bona fide time and motion studies.[88]

Likewise, Verizon in New Hampshire now has a wealth of experience with line sharing to develop EF&I costs tailored specifically to line sharing. The application of the EF&I factor is only appropriately applied to services or elements whose cost experience is reflected or contemplated in the development of the factor. The factor approach is particularly inappropriate in the context of the new line-sharing functions because those activities did not contribute to Verizon's overall historic relationship between investment and installation costs. Moreover, by their very nature, the inclusion of these activities into Verizon's cost experience should lower the cost to investment ratio. Thus, the application of a company-wide factor in the derivation of line-sharing prices will produce higher prices than justified because those prices will not reflect, even on an average basis, the lower cost experience associated with line-sharing activities.

If the Commission decides not to require Verizon to calculate a new EF&I factor, it should reduce the EF&I factor to that of the EF&I factor for digital circuit equipment -- SONET Circuit & Other Terminal Equipment - Customer Premise Equipment (CPE).[89] Verizon-NH uses this EF&I factor for the Smart Jack.[90] This type of circuitry is still far more complex than the line splitter but

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88 *Id.* at 13-14.

89 See Attachment to JC-VZ-34.

90 *Id.*

could be employed as an upper limit in the event the Commission elects not to require calculation of an appropriate EF&I factor.

2. Analysis and Recommendation

The already recommended omnibus TELRIC extravaganza should undertake a discussion as to the requirement for a unique EF&I factor for line sharing. It seems reasonable that the EF&I factor utilized in the Smart Jack study would be more appropriate, and such a change is easily implemented. Therefore it is recommended that this factor be utilized and that the appropriate adjustments be made.

B. VERIZON'S LINE SHARING ADMINISTRATION AND SUPPORT COST IS OVERSTATED AND SHOULD NOT APPLY TO OPTION A

1. Position of the Parties

a. Joint CLECs/OCA

Verizon does not propose to purchase and provide actual splitters for competitors under either of its provisioning options.[91] Nonetheless, Verizon does propose a monthly recurring price (per 96-line shelf) of $1.76 for "Option A" arrangements, purportedly to capture the operating expenses for the administration and support of the competitor-owned and operated splitter.[92] Verizon proposes a price (per 96-line shelf) of $5.54 for "Option C," which also

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91 Under "Option A" the competitor would purchase and install its own splitter in its collocation space. Under "Option C," the competitor would purchase the splitter, but it would be installed in Verizon's space.

92 SGAT § 4.5.15.2.10.

includes maintenance and repair costs.[93] It is entirely inappropriate to apply the "admin and support" factor to its "Option A" splitter arrangements.

The recurring Line-Sharing "Admin & Support" charge proposed by Verizon is clearly not appropriate for "Option A" arrangements—where the competitor owns and installs the splitter and maintains the splitter in the competitor's own collocation space. The factor that Verizon uses to develop this proposed cost is based on historic company costs for supporting equipment that Verizon owns, installs and manages in its own space to provide its own services. No part of the numerator in that calculation included equipment that a competitor owns, maintains, installs and manages. Hence, there is no basis whatever for concluding that any of the costs in the Verizon factor pertain to equipment in a competitor's collocation space. The Commission should reject applying any monthly recurring rate related to "Option A" arrangements.

Verizon nonetheless, in the "Option A" scenario, seeks to receive compensation to recover costs associated with its support staff who work with competitors (wholesale marketing),[94] product management, advertising and

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93 *Id.*

94 Remarkably, Verizon apparently believes its litigation of line-sharing issues to be a legitimate part of these administrative costs. In a recent Maryland arbitration on line sharing, Verizon witness Amy Stern responded to the question "Are the CLECs being charged for you to be here to litigate this issue today as part of a marketing expense?" by saying that "I view my job as kind of an overhead of doing business with CLECs. As such, I think the corporation is entitled to recover the cost of my salary and the other overheads related to doing business with CLECs." MD PSC Case 8842, Phase II, October 30, 2000, Tr. at 725, lines 10-17.

customer interfacing functions.[95] Verizon has provided no support for its assertion that a competitor's decision to collocate a splitter causes Verizon to incur any of these types of costs.

Moreover, these purported costs duplicate costs that Verizon recovers from competitors through other charges. In the "Option A" configuration, the splitter is located in the competitor's collocation space. The competitor already pays Verizon a monthly recurring charge for collocation space, which recovers costs associated with the support of equipment placed in that area (including DC power, air conditioning, etc.).

There is no reason why the competitor should pay an additional charge merely because it collocates a splitter (as opposed to a DSLAM or any other piece of equipment). None of the costs for which the charge supposedly compensates Verizon (for example, motor vehicles and Research and Development) will change based on the investment that Verizon competitors make in splitters, nor will that investment cause Verizon to incur any additional costs in those areas. Likewise, where Verizon does not incur a cost, its common overhead costs cannot be affected. Indeed, at no point has Verizon sought to charge competitors for maintenance of any other equipment they place in their own collocation spaces. The Commission should not permit Verizon to recover

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95 Verizon-NH Response to Joint CLEC Information Request No. 23; *See also*, *Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, NY PSC Case No. 98-C-1357, Recommended Decision of Administrative Law Judge Joel A. Linsider at 175 (May 16, 2001) ("*NY PSC UNE Decision*"). A copy of the recommended decision can be located at: http://www.dps.state.ny.us/fileroom.html#*

maintenance or other support costs based on the equipment that a competitor opts to place in its collocation space. Verizon can provide no convincing basis whatever for singling out splitters for this unique additional cost recovery treatment when no other combination of collocated equipment results in such an additional charge. Even more to the point, a competitor's decision to place one splitter or multiple splitters in a collocation cage has no effect on Verizon's administrative and support costs, and the record does not demonstrate otherwise.

By inappropriately tying the calculation of Verizon's costs to investment that a competitor makes for deployment of its own space, Verizon's proposal would produce bizarre results that would require equally bizarre findings to support a Commission ruling in that regard. For example, to maintain a consistent approach to all costs under this theory, the Commission would need to continually monitor the cost of the equipment that competitors purchase and deploy in collocation arrangements and adjust Verizon's factors and prices according to changes in those costs. Alternatively, the Commission would need to find that the investment for splitters (and only splitters) that competitors buy and place into collocation space will affect Verizon's costs differently from any other type of equipment (e.g., DSLAMs) that competitors have deployed or will deploy in collocation space in the future. There is simply no basis for any of these nonsensical results.

In a recent line sharing arbitration (Case 8842, Phase II), the Maryland Commission agreed that:

. . . Verizon should be prohibited from imposing A&S charges on CLECs under Option A. The Arbitrator is not persuaded by the record evidence nor the arguments of Verizon that there is a causal relationship between a CLEC placing equipment in its collocation space and Verizon's proposed A&S costs. The CLEC chooses the splitter, orders it, installs it in its collocation space and, finally, connects it. It is obvious to this Arbitrator that it is the CLECs who bear the substantial portion, if not all, of the costs under this scenario. In addition, as Rhythms/Covad and Staff note, the fees that CLECs already pay for collocation space should cover any support costs necessitated by their use of the space. It should also be noted that Verizon currently applies an overhead factor of 12 percent to UNEs. Accordingly, the Arbitrator finds that Verizon should be prohibited from imposing any A&S charges upon CLECs under Option A.[96]

The Maryland Commission noted that:

> To the extent that Verizon incurs costs related to the product design of a collocated splitter, then they have already recovered those costs through the Engineering/Implementation Fee that is imposed on the collocating CLEC. Verizon has not established that it would incur additional product design costs beyond those costs recovered through the collocation engineering augmentation fee. To order additional recovery of these costs would equate to double recovery.[97]

The New York PSC likewise has held that such charges could not be applied to Option A since the splitter would be located in the CLEC's collocation space and Verizon would incur no maintenance costs.[98] The ALJ in the recent NY UNE proceeding has reaffirmed that "applying the existing ACFs

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96 MD PSC Case 8842, Phase II, Order No. 76852, at 26-27.

97 *Id.*

98 *NY PSC UNE Decision* at 174.

to investment not owned by Verizon entails a clear risk of over-recovery."[99] The MA DTE required Verizon to recalculate the administration and support charge for Option A by removing the splitter investment from the entire investment to which the ACCF is applied to derive the rate.[100] The Commission should similarly reject Verizon-NH's attempt to charge competitors a bogus investment-based charge when it is the competitor that has made the investment, and not Verizon.

Verizon developed its proposed "admin and support" charge by applying the same EF&I factor discussed above to arrive at a total installed investment figure, and then by applying the network, marketing and other support factors for the digital circuit equipment account to that amount.[101] For the reasons discussed herein, Verizon's methodology, which applies average, historic, company-wide experiences to the development of line-sharing costs, necessarily overstates those costs. As with Verizon's other proposed line-sharing charges, an overly high price will have a deleterious impact on competitive DSL activity and the spread of advanced services throughout the state of New Hampshire.

Verizon also uses an ACF that does not accurately reflect costs it might reasonably incur to support a shelf of splitters. Verizon-NH's ACF is a

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99 *Id.* At 177.

100 *See Investigation as to Propriety of the Rates and Charges set forth in M.D.T.E No. 17, etc.*, D.T.E. 98-57-Phase III, at 41 (Mass. D.T.E. Sep. 29, 2000) ("*Massachusetts DTE (Phase III) Order*"). A copy of the order can be found at: http://www.state.ma.us/dpu/telecom/98-57phaseiii/phaseiii_order.htm

101 Verizon-NH Line Sharing Cost Study, Exhibit 2-N, Section 1, Page 2 of 3.

maintenance factor developed for any equipment classified as digital circuit equipment.[102] Verizon has done no studies, analysis or workpapers identifying a maintenance factor specifically for line splitters.[103] The splitter, which is really the card inside the chassis, is a passive device—that is, it contains no active electronic components and requires no power supply.[104] It is a simple line filter that has a long life and requires little, if any, maintenance. Moreover, even if one assumes some kind of catastrophe that could force Verizon to replace the entire splitter card shelf each year, the labor cost would not be much more than that for installing the entire line-up in the first place. Verizon does not even track the total hours of labor required to maintain a splitter on an annual basis.[105] Verizon has not shown that it would incur any administrative and support charges that are not already recovered through other elements. The Maryland Commission directed in the line sharing arbitration that "as with the EF&I, the ACF should be recalculated in the UNE proceedings to be applicable to line sharing equipment."[106]

2. Analysis and Recommendation

It does not seem just, reasonable or based in reality that Verizon-NH would incur administration and support costs associated with line splitters under

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102 Verizon-NH Response to Joint CLEC Information Request No. 23.

103 Verizon-NH Response to Joint CLEC Information Request No. 24.

104 Verizon-NH Response to Joint CLEC Information Request No. 24.

105 Verizon-NH Response to Joint CLEC Information Request No. 63.

106 MD PSC Case 8842, Phase II, Order No. 76852, at 16.

Option A, where the line splitters are located in the CLEC's collocation space. Furthermore, to the extent that there may be some administration and support costs, it would seem reasonable that they may already be included in other charges. However, as noted in other analysis, there may be other explanations that would provide a more complete record.

Therefore it is recommended that Verizon-NH be given a very brief opportunity to supplement the record on this issue. Of particular interest would be a numerator/denominator showing that should indicate if there is any double recovery. In addition it would be helpful if Verizon-NH could provide an explanation to counter the conclusion that Verizon-NH should not have any administration and support costs associated with line splitters under Option A. It is anticipated that this discussion will be exceedingly short.

Assuming that the Joint CLEC/OCA assertions will be collaborated, the recommendation would be that Verizon-NH make the applicable adjustments to the line sharing ACF.

3. Verizon's Splitter Installation Charge for Option C Is Excessive

a. Joint CLECs/OCA

Verizon proposes a non-recurring Splitter Installation charge of $938.79 to apply to competitors that elect to have Verizon install splitters in conjunction with "Option C."[107] As discussed herein, Verizon's inappropriate application of

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[107] SGAT § 4.5.15.2.10. Verizon does not propose to apply this charge to competitors who elect "Option A." This proposed treatment is obviously correct, because competitors electing "Option A" are responsible for their own splitter installation. However, contradicting its own approach, Verizon does include this

an EF&I factor based on historical data from its digital circuit equipment accounts results in Verizon's excessive estimate of line-sharing splitter installation costs. The Maryland Commission expressed concern with just this approach in Case 8842 and directed Verizon to develop cost studies and/or factors that are specific to line sharing.[108]

Verizon's proposed factor produces a result that exceeds any reasonable cost for installation and connection of a shelf of splitters. Indeed, Verizon's assumed cost translates into roughly 19 hours of installation labor (using a labor rate of $50 per hour), far beyond what a simple splitter installation would require. The mounting of the shelf involves inserting four screws and installing the splitter cards by merely sliding each card into a slot. As is readily apparent, this work effort would only take minutes to accomplish, even for an unskilled technician.

Furthermore, many of the costs supposedly captured by EF&I factor will have already been paid by the competitor through other charges. The "engineering" component of the work needed to prepare splitters for use could encompass tasks such as surveying, inspecting, and selecting the site as well as performing record keeping and coordinating items that are required to have a given equipment item ready for service (power, racking, air conditioning, etc.). The "furnishing" entails purchasing materials and getting them to the selected

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cost when it calculates the supposed "Administrative and Support" element for "Option A."

108 MD PSC Case 8842, Phase II, Order No. 76852, at 13-14.

site, whereas "installation" describes the assembly of the item into its final design. In the case of line splitters located in Verizon space, competitors will have already paid for most of the supporting "engineering and furnishing" before actual splitter cards are installed. Indeed, Verizon itself asserts that most (if not all) of these activities are performed as part of collocation augmentation activities, for which Verizon imposes a separate charge.[109] Hence, virtually all of whatever engineering activities would be required have already been accomplished, and the competitor will have already paid for that work through its collocation charges.

The Commission should reject the excessive proposed installation charge that Verizon developed using a factor-based approach and instead replace Verizon's installation costs with a direct estimate of splitter installation costs. Verizon should develop its non-recurring labor costs by multiplying a reasonable average labor time estimate for installing the cards by the relevant labor rate. A reasonably competent technician could accomplish this entire "EF&I" task in substantially less than 30 minutes (given the fact that the "Engineering" portion of the task has already been performed, and paid for, as part of the collocation augmentation.)

4. Analysis and Recommendation

Once again, this assertion appears to have merit, but does not have an easily implemented solution. The specifics required to be decided would be beyond

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109 *See* Verizon New Jersey's Response to Covad Request 1-8, New Jersey Board of Public Utilities, Docket TO00060356.

the scope of this hearing but would be well within the scope of the already recommended TELRIC redo.

5. Wideband Test Charge Should Remain Optional

a. Joint CLECs/OCA

Verizon has proposed an optional[110] monthly recurring price of $1.87 per line for line-sharing/line-splitting arrangements. Verizon has proposed making this charge optional based on the approaches taken by other states in the Verizon region and the Commission should follow that approach.

6. Analysis and Recommendation

It is unclear exactly is being requested. It appears that Verizon-NH is proposing an optional Wideband Test Charge. No evidence was put forth that indicated that Verizon-NH was changing its mind. Therefore it appears that what Verizon-NH is proposing is consistent with what the Joint CLECs/OCA are requesting.

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110 It is entirely correct to provide the WTS element on an optional basis, as several other state commissions have found should be the case. Under FCC regulations, CLECs are entitled to deploy their own testing systems. Thus, this charge should be an optional one. 47 C.F.R. § 51.319(h)(7). The New York PSC has determined that CLECs desiring to deploy their own testing systems should not be required to pay for Verizon's system. Therefore, it made the WTS charge optional. *See NY PSC UNE Decision* at 167. The MA DTE also made the charge optional noting that "CLECs are capable of performing their own cost-benefit analysis to determine whether they should ask Verizon to install a MTAU on their shared loops." *MA DTE (Phase III) Order* at 76. *See also*, MD PSC Case 8842, Phase II, Order 76852 at 21).

7. Application Augment Fee/Engineering and Implementation Fee

a. Joint CLECs/OCA

Verizon-NH bases its Application Fee and Engineering Fee on the total hours and costs associated with augmenting a virtual collocation arrangement.[111] The augmentation and engineering activities required for line sharing do not warrant the same tariff charges that are in place for collocation augmentation and engineering activities. The collocation augment fee appropriately does not accurately reflect the costs of processing applications to install a splitter. Instead Verizon-NH imports, without specific justification, a substantial application fee for augmenting the competitor's collocation arrangement. This proposed charge of $1,500[112] is implausibly high for a simple, standardized operation like the placement of a splitter in Verizon-NH's central office space.

In New York, Verizon has agreed to a streamlined collocation application form for splitters.[113] Thus, the more limited range of information that Verizon-NH would have to analyze suggests that a splitter-placement application is much simpler to process than a collocation augment application. If there is less information for Verizon-NH to process in the application, then the work required of Verizon-NH under TELRIC principles to process the application should correspondingly be less.

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[111] Verizon-NH Response to Joint CLEC Information Request No. 27.

[112] SGAT § 4.5.15.3.1.

[113] *See MA DTE (Phase III) Order* at 113.

Verizon-NH's proposed Engineering & Implementation Fee is another non-recurring charge taken from Verizon-NH's collocation tariff. This fee is designed to recover the additional cabling costs necessary to install a splitter. As proposed, the fee of $2,120.96[114] would generally apply only to CLECs using Option C. In the case of Option A, Verizon-NH would apply this fee only in the case of CLECs augmenting the POT bay.

For the same reasons discussed in connection with the application fee, Verizon-NH has simply not met its burden of demonstrating that the cost for this relatively simple installation would be as costly as more typical collocation cabling.

If a CLEC has spare cabling coming into its collocation arrangement, it should be able to use that cabling without applying for a collocation augmentation, performing additional engineering tasks, and incurring additional charges. The NY PSC did not allow collocation augmentation fees where a CLEC uses its existing cabling and required that Verizon streamline its collocation application form for splitters.[115] The MA DTE denied Verizon's proposed charges because it determined that "the work activities that Verizon must perform to provision an augmentation request are not as numerous as those required to provision a new collocation arrangement."[116] The Commission should similarly deny Verizon-NH's proposed charges here.

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114 SGAT § 4.5.15.3.2.

115 *MA DTE (Phase III) Order* at 113.

116 *MA DTE (Phase III) Order* at 113.

Analysis and Recommendation

Based on the Joint CLEC/OCA assertion, it is not intuitively obvious as to why the charge should be this high. However, clearly it took more deliberative time than is available here for Massachusetts and New York to make their cited rulings. Process requires a complete record which is not available now.

Therefore this issue should more properly be included in the already recommended global TELRIC proceeding.

8. Cooperative Testing

a. Joint CLECs/OCA

Verizon proposes a non-recurring cooperative testing charge of $32.13, which appears intended to recover the labor costs associated with coordinating with a competitor and performing continuity testing on a DSL-compatible non-line sharing loop on the due date for the loop's installation. The requirement for cooperative testing was originated in the New York Section 271 proceeding because Verizon-New York was providing many DSL-capable loops to competitors that did not even meet basic continuity requirements, i.e., they were not complete circuits.[117] Verizon's own provisioning difficulties are therefore the cause of the need for cooperative testing, and competitors should not be forced to bear the costs of Verizon's inefficiencies. Verizon-New York's

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[117] *Id.* at 109-110.

performance problems caused both Verizon-New York and its competitors to incur additional manual activity costs that neither company would choose to incur if Verizon-New York simply provisioned loops as required in its interconnection agreements. The same will hold true for Verizon-NH.

The Maryland Commission determined that no cooperative testing charge should apply:

The Commission finds that each party should bear its own costs with respect to Cooperative Testing. Both parties, the ILEC and the CLEc, enjoy the benefits of engaging in cooperative testing and, as such, it would be grossly unfair to require CLECs to bear the burden of paying for their costs as well as for Verizon's. Additionally, Verizon, not the CLEC, has the duty and obligation of delivering a functioning high frequency portion of the loop to the CLEC ordering the line sharing UNE. Verizon's argument that cooperative testing is necessary for it to comply with this obligation is not compelling. The Commission believes that the proper allocation of the costs for cooperative testing is for each party to shoulder its own expenses….there shall be no charge for cooperative testing.[118]

The MA DTE also rejected Verizon's proposed tariff charge for cooperative testing. The MA DTE found that:

is inappropriate to permit Verizon to levy a 'cooperative testing' charge on CLECs, which is based on costs that are caused by provisioning difficulties

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[118] MD PSC Case 8842, Phase II, Order 76852 at 39.

experienced by both Verizon and CLECs for stand-alone xDSL loops. The record shows that CLECs already incur their own cost for the cooperative test. Moreover, the record is clear that Verizon believe such testing is 'mutually beneficial'; therefore, Verizon should share in the cost of cooperative testing by absorbing all of its own costs associated with this test, as CLECs do. Finally, the Department agrees that shifting the costs of this test to CLECs relieves Verizon of an incentive to improve its loop performance.[119]

The need for cooperative testing to make sure that Verizon delivers unbundled loops in compliance with its contractual obligation already forces competitors to incur costs that they should not have to bear. For example, competitors often must make available their own personnel to conduct continuity tests with Verizon. Allowing Verizon to inflate competitors' costs further by imposing its share of the cooperative testing-related costs on them would be bad public policy, as the Maryland Commission and the Massachusetts Department[120] recognized. Verizon will have every incentive to provide competitors with poor service if it can thereby saddle them with more costs.

If the Commission considers any charges for cooperative testing, which should not be the case, it should offset those charges by the costs that competitors will incur for testing network elements that Verizon has not properly provisioned. Only after Verizon has demonstrated that it can sustain

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119 *MA DTE (Phase III) Order* at 110.

120 Order, *Investigation by the Department on its own motion as to the propriety of the rates and charges set for in M.D.T.E. No. 17*, D.T.E. 98-57-Phase III at 80 (Sept. 29, 2000) at 113.

delivery of loops at an acceptable level of quality should the Commission consider allowing a charge for optional cooperative testing as requested by a competitor.

9. Analysis and Recommendation

It appears that the Joint CLECs/OCA acknowledge the possibility of the need for optional cooperative testing even if Verizon-NH supplies loops at some unspecified level of acceptable quality. As such it appears that the issue is not so much the charge but rather the alleged poor provisioning performance of Verizon-NH that would necessitate some unspecified number or percentage of unnecessary cooperative testing charges. Needless to say, the record is far from complete. Therefore, the parties are requested to provide statistics regarding the ratio of legitimate cooperative testing events versus those events resulting from errors in provisioning.

It's recommended that this additional information be used to adjust the proposed charges downward to more accurately reflect the cost of legitimate cooperative testing events.

IV. XDSL

A. LOOP QUALIFICATION AND CONDITIONING

Section 5.5 of Verizon-NH's SGAT includes provisions for obtaining access to unbundled xDSL loops and loop qualification and conditioning services Verizon-NH's recurring rates for unbundled DSL loops equal the rates for its two-wire and four-wire analog loops, which the Commission approved in its Order Nos. 23,738 and 23,847. See JC-VZ-71. Consequently, the recurring xDSL loop rates are not at issue in this docket. Rather, this proceeding addresses the terms and charges to qualify or condition analog loops for DSL service.[121] See JC-VZ-49.

Loop qualification is the process used to determine whether a particular loop is qualified for ADSL, HDSL or other xDSL transmission. Certain technical difficulties arise when xDSL signals are transmitted over loops that exceed a certain length or are otherwise configured in ways that impair xDSL transmission.

The loop qualification processes identify those loops that are qualified or unqualified and, if unqualified, provide information on the reason why. See JC-VZ-146. Verizon-NH's SGAT includes terms and rates for mechanized loop qualification, manual loop qualification, and engineering query. These offerings comply with the requirements of the FCC's UNE Remand and Line Sharing orders.

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[121] Although Verizon-NH's loop qualification and conditioning terms and rates are discussed under xDSL loops, these apply to line sharing arrangements also.

The mechanized loop qualification system provides preorder access to loop make-up information resident in Verizon's loop qualification database. By entering the working telephone number or the service address, a CLEC will receive information on the loop length and a yes/no response as to whether the loop is qualified and, if not qualified, the reason. See Verizon-NH's responses to JC-VZ-85 and JC-VZ-86 for a more detailed description of the loop make-up information provided through the mechanized loop qualification system. One hundred percent (100%) of Verizon-NH's wire centers are now pre-qualified, thus, loop information is available in the loop qualification database on all Verizon-NH loops. See JC-VZ-84.

A CLEC may also request that Verizon perform a manual loop qualification or an engineering query. A manual loop qualification provides information on the presence of load coils, digital loop carrier ("DLC") and interferers. An engineering query provides additional and more detailed information than that provided in response to a manual qualification including the number and location of load coils, the length and location of bridged taps, and the length of each gauge of wire. JC-VZ-146.

B. LOOP QUALIFICATION CHARGES

1. Position of the Parties

a. Verizon-NH

During the November 9, 2001 hearing, Staff requested clarification about why the mechanized loop qualification charge was assessed as a monthly

recurring charge instead of a non-recurring charge. Tr. at 126. Verizon-NH's witness testified that the mechanized loop qualification charge is structured as a recurring rate to recover both the initial or up front costs of building the database as well as the ongoing maintenance costs. Tr. at 127. A recurring rate structure simplifies the administrative nature of recovering these costs. Tr. at 127. Verizon-NH also explained that CLECs may make single or multiple queries into the database; however, the mechanized loop qualification charge only applies when a loop is actually ordered. In this manner, CLECs benefit by having a database at their disposal to conduct market research at no charge and only pay when they sign up a DSL customer. Tr. at 129-130.

b. Joint CLECs/OCA

To the extent the Commission allows Verizon-NH to impose a charge for loop qualification, it should reject the inflated and inappropriate charges proposed by Verizon New Hampshire. Loop qualification is the process of identifying the characteristics of a loop, such as the loop length and the presence of interferors such as load coils, bridged tap or repeaters, and determining the suitability of such loop for purposes of providing xDSL services. As Joint CLECs/OCAdemonstrated herein, a forward-looking network would not contain such inhibitors, thus, there would be no need for loop qualification. As the MA DTE noted, "the presence or absence of load coils or bridged taps, the length and gauge of cable, or a determination of whether the loop is on DLC are all

immaterial in a network with 100 percent fiber feeder."[122] Thus, the MA DTE rejected Verizon's tariffed charges for mechanized loop qualification, manual loop qualification, and engineering queries. If Verizon had properly conformed its network to its engineering guidelines, CLECs would not need to qualify loops since all CSA compliant loops would support DSL service. Thus, CLECs should not have to pay for loop qualification because of Verizon's failures.

In the UNE Remand Order, the FCC required incumbent LECs to provide access to all such loop information.[123] Because the purpose of this requirement is to require incumbents to produce the information that will allow CLECs to determine for themselves whether a loop satisfies the prerequisites for the service the CLEC intends to provide,[124] the ILEC should be compensated only for providing such information to the CLEC in an electronic format, and not for costs incurred by the incumbent in interpreting such information for the CLEC. Because all the necessary information is already contained in Verizon-NH's databases – or should be – the forward-looking cost of providing such

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122 *Massachusetts DTE (Phase III) Order* at 102.

123 *See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, CC Docket 96-98 at ¶ 427-428 (1999); 47 C.F.R. §51.5.

124 This purpose is implicit in the FCC's finding that "under its existing rules, the relevant inquiry is *not* whether the retail arm of the incumbent has access to the underlying loop qualification information, but, instead, whether such information exists anywhere within the incumbent's back office and can be accessed by any of the incumbent LEC's personnel. *UNE Remand Order* at ¶ 430. Requiring such "back office" information to be made available to the CLEC necessarily excludes "front office" activities engaged on the part of the incumbent to interpret that information.

information is necessarily de minimus. Thus, for example, the Texas Commission has found that "SWBT should be fairly compensated for the real time access to its OSS functionalities" establishing a nominal interim nonrecurring charge of 10 cents per loop for loop qualification information.[125] The Public Utilities Commission of Ohio ("PUCO") has determined that loop qualification charges should be eliminated in their entirety. The PUCO noted:

Staff witness Francis stated that CBT's lack of knowledge of which loops may or may not need to be conditioned should not result in a loop qualification charge being imposed on competitors. According to the staff, the qualification of loops could have been a type of inventory function developed by CBT to identify the type and location of any loop at any given time. We agree with the staff that loop qualification is not a function of physically conditioning a loop or specifically removing load coils.[126]

The Public Utilities Commission of Nevada reached a similar assessment in regard to the loop qualification charges of Nevada Bell. The Commission rejected Nevada Bell's proposed nonrecurring loop qualification charge of $172.09, noting:

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125 *Texas Arbitration Award* at 102-103; Arbitrator's Order, State Corporation Commission of the State of Kansas, Docket No. 00-DCIT-389-ARB, May 9, 2000 at 20.

126 *In the Matter of the Application of Cincinnati Bell Telephone Company for Approval of a Retail Pricing Plan Which May Result in Future Rate Increases and For a New Alternative Regulation Plan*, PUCO Case No, 96-899-TP-ALT, Second Entry on Rehearing at p. 13. (January 20, 2000)("*PUCO CBT Order*").

It appears to the Commission that the method proposed by Nevada Bell of charging for loop qualification is very costly for those loops where the inventory has not been updated or maintained and this cost could very well be a barrier to competition. It appears to the Commission that updating and maintaining Nevada Bell's data base on its loop inventory is the responsibility of Nevada Bell and is a function of doing business and the cost to perform that function is a cost of doing business. The fact that Nevada Bell has not had an aggressive inventory program to maintain its database should not be reason to pass the cost of bringing its loop inventory data base current to CLECs. Furthermore, the Commission notes that if Nevada Bell's loop inventory was current all loop qualifications would be electronical.[127]

The Nevada Commission, therefore, adopted a 10 cent electronic loop qualification price for all loop qualification.[128]

Verizon has proposed three separate loop "qualification" elements in this proceeding: (1) Mechanized Loop Qualification, through which competitors would access Verizon's automated loop qualification database, for which Verizon proposes a monthly recurring per loop charge of $1.22; (2) Manual Loop Qualification in which Verizon would "qualify" a loop manually, for which Verizon proposes a non-recurring charge of $125.10;[129] and (3) an Engineering Query through which a competitor would be able to obtain more

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127 *Nevada Loop Conditioning Order* at ¶¶ 37-42.

128 *Id.*

129 $79.92 if the 36% factor in NRC worktimes is applied.

specific loop makeup information, for which Verizon proposes a non-recurring charge of $164.71.[130]

(1) Mechanized Loop Qualification

Verizon's proposed monthly recurring charge for Mechanized Loop Qualification is designed to recover the cost of creating and maintaining an automated loop qualification database that the company designed to provide a "yes/no" indication regarding DSL qualification as determined by Verizon for its former xDSL retail offerings, as well as the costs of updating Verizon's legacy databases with loop qualification information. It is not appropriate, however, to impose the costs of developing of Verizon's retail database on competitors. Even if Verizon had designed the database in a manner that facilitated the wholesale provision of qualified DSL-capable unbundled loops, rather than to benefit Verizon's retail operations, then as an economic matter, those costs would fall within the scope of the competition-onset costs. To the extent that Verizon would not otherwise have incurred such costs in the routine course of doing business from a forward-looking perspective (e.g., to upgrade and improve the efficiency of its own operations), Verizon should recover such competition-onset costs in a competitively neutral manner.

Furthermore, the LFACS updates for which Verizon seeks to charge new entrants would actually have a lasting benefit for all subsequent service orders

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[130] $105.22 if the 36% factor in NRC worktimes is applied.

involving that loop and thus should not be imposed solely on competitors. According to Verizon-New York:

In order to ensure that a request for an ADSL-qualified loop can be processed on a mechanized basis, loop make-up information and the Count Qualification code must be present in the LFACS database. This information is used by LFACS to assign a facility with the appropriate characteristics based upon the type of service requested.[131]

The cost of such database updates appears to be a significant portion of Verizon's mechanized loop qualification cost.[132] Thus, it appears that Verizon is attempting to force new entrants to fund its efforts to clean-up and update its embedded databases that are useful for retail as well as wholesale service. Thus, insofar as it is appropriate to include any costs for database updates, Verizon should have treated those costs as recurring costs spread over the relevant total increment of demand, namely, all loops in its service territory.

Moreover, Verizon should not have included these database update costs in any portion of a forward-looking, long-run cost study, because Verizon should have been entering this information routinely into LFACS. If Verizon had maintained its LFACS records in a complete manner, it would not be necessary for Verizon to perform the update activities at the time a new entrant ordered a

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131 Verizon-New York's Response to RL-BA-5 in NYPSC Case 98-C-1357 (emphasis added).

132 Verizon-NH ADSL Conditioning Cost Study, Add'l Loop Mechanized Costs, Workpaper Part F, Page 6 of 11.

DSL-capable loop. The Maryland Public Service Commission found as much in its recent line sharing arbitration:

The Commission finds Verizon's arguments difficult to accept. By its own admission, this LFACS has been around for "a long time" and it adds loop makeup information to the LFACS as loops are upgraded or replaced but, in all that time Verizon has supposedly only upgraded or replaced 16% of its loops.[133]

The ALJ in a New York Public Service Commission proceeding addressing Verizon's UNE rates found that CLECs credibly showed that "compliance with Verizon's own guidelines related to its databases would have resulted over the past 20 years, in more of the pertinent information being included, given the frequency of plant additions and rearrangements."[134] Based on this fact, the ALJ recommended lowering Verizon's proposed loop qualification charges by 20%.

Verizon designed its mechanized loop qualification database specifically around the needs of its retail DSL operations. Verizon's database is less useful to competitors and is more expensive than would be read-only access to Verizon's underlying databases. Verizon's current mechanized loop qualification process provides a summary "yes/no" indicator that reports whether the loop in question meets the technical requirements of Verizon's retail ADSL offering, "Infospeed DSL." Such an indicator, specific to the equipment

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133 Case 8842, Phase II, Order 76852 at 30.

134 NY PSC Case No. 98-C-1357, *Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, Recommended Decision of Administrative Law Judge Joel A. Linsider at 165 (May 16, 2001) ("*NY PSC UNE Decision*").

of Verizon's vendor and the deployment decisions that Verizon has made for its own (or its affiliate's) retail service offering, is clearly not relevant to a competitor's service offerings. To date, Verizon retail has not sought and has not had to seek further information from its database after the initial qualification request.[135] Furthermore, it masks the underlying loop makeup data that Verizon's own engineers must evaluate to determine the suitability of particular loops for Verizon's retail ADSL service. It seems that Verizon envisions that this more detailed loop makeup information would only be available to competitors at a heavy premium through the manual loop qualification or engineering query process.

The Commission should require Verizon to provide direct read-only access to the databases that Verizon's own personnel use, via an electronic interface. Although Verizon appears to be attempting to expand the information included in its mechanized loop qualification database to take some account of additional information that competitors might require to do their own qualification, providing such additional detail is not the same as providing competitors with equal access to the underlying data that Verizon can access to develop its own qualification processes. All that competitors seek is to have read-only access to this underlying data, which Verizon admits exists in LFACS and similar databases. For instance, the LFACS database contains information as to:

Indication of loaded plant;

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[135] Verizon-NH Response to Joint CLEC Information Request No. 146.

Cables and terminals served by DLC;

Bridged tap location; and

Cable length information by gauge (where LMU is available).[136]

The Maryland Commission has found that Verizon should provide read-only access to those databases via an electronic interface.[137] At a minimum, competitors should only have to pay for this mechanized access to LFACS, not for Verizon's separate mechanized loop qualification database, which it developed based on retail needs, not the needs of competitors.

It is entirely feasible for Verizon to provide a direct read-only access to LFACS and similar databases, where much of the basic information that a competitor would need to determine whether a loop is qualified for its intended DSL application resides.[138] Verizon field operations personnel have been able to obtain such access for years. Verizon concedes "that there is no activity associated with loop qualification that a competitor with trained and experienced personnel could not perform on its own behalf if it had access to the same records, databases, and test systems."[139] Given such access, many or all of the engineering activities for which Verizon seeks compensation through loop "qualification" charges would be unnecessary.

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136 Verizon-NH Response to Joint CLEC Information Request No. 80.

137 MD PSC Case 8842, Phase II, Order 76852 at 31.

138 *See* Verizon MD's Responses to Staff 7-15 and 7-15.

139 *See* Verizon-NH Response to Joint CLEC Request No. 149.

There are other problems associated with Verizon's mechanized loop qualification charge. Although Verizon's study shows task times per line, it is not clear that Verizon actually performs any of the related tasks on a line-by-line basis. Whatever information Verizon might have used to derive the artificial per-line task times that appear in its study is still entirely hidden. Therefore, not only is it impossible to check the logic of Verizon's conversions, it is also impossible to investigate whether Verizon's results are within the realm of reason. The study also erroneously amortizes costs over the expected duration of an individual competitor's lease of that loop to provision xDSL-based services. This modeling assumption understates the useful life of the information in the database. The loop makeup data related to the line will remain in the database, and subsequent competitors can use that same information to determine whether to obtain that unbundled loop to provision xDSL-based service to the same end-user or to any future end-user served by the same loop facility.

Finally, from a cost-causation perspective, it makes more sense to charge for loop qualification on a per-query basis, just as Verizon charges for other database queries. Verizon's monthly charge presents many problems. For example, Verizon would apparently impose its recurring mechanized charge on each DSL-capable loop, even if the purchaser of a particular loop had paid Verizon's excessive manual loop qualification charges (discussed below). The Commission should reject Verizon's proposed charge as inflated and excessive, particularly since the forward-looking cost of providing loop makeup

information electronically per query should be de minimis.[140] Therefore, Verizon should not be permitted to levy a separate charge for access to loop makeup information, and any such charges allowed by the Commission should be minimal.

a) Manual Loop Qualification and Engineering Query Charge

A forward-looking cost study of access to loop makeup information should assume that competitors have nondiscriminatory access to databases providing information relevant to loop makeup. For instance, the Maryland Commission found that "[b]ecause this information would be available in a forward-looking network, the Commission … finds that there are no charges with respect to manual loop qualification or engineering query."[141] The Commission should reject Verizon's proposed Manual Loop Qualification and Engineering Query charges for the reasons stated below.[142]

b) Manual Loop Qualification Charge

Verizon's proposed Manual Loop Qualification function would provide a competitor with some limited additional information beyond that contained in

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140 *See* Md. Case 8842, Phase II, Order 76852 at 31 (approving interim loop qualification rate of $0.45 on a per-use basis).

141 *Id.*

142 Should a carrier request the information manually or require some level of detail that would not normally be mechanized, it might be appropriate to apply a manual charge for that specific case.

the basic fields of the database. As a result of the manual loop qualification process, "the CLEC will be advised if the loop is qualified for xDSL per Verizon standards."[143]

Not only would Verizon apply the manual charge when a competitor specifically requests the level of information that it provides, but Verizon would apparently also impose the Manual Loop Qualification charge for loops in central offices that have yet to be added to the company's mechanized loop qualification database. Manual loop qualification for loops in central offices that have yet to be input into the electronic database is clearly an interim, inefficient process and therefore is not, by definition, a charge based on long-run costs. Moreover, providing Verizon compensation for whatever manual, inefficient process it invents for competitors creates the wrong incentive. As long as Verizon can pass along to its competitors the cost of whatever manual, short-run processes it employs, the company will have every incentive to delay implementation of more efficient, electronic interfaces. Indeed, with such a pricing policy, Verizon will have an incentive to delay implementing mechanized handoffs for all future provisioning enhancements related to new services so as to keep the costs of its potential rivals artificially inflated. Thus, the Commission should not permit Verizon to assess a manual loop

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143 Verizon's Panel Testimony on Unbundled Network Element and Interconnection Costs, July 31, 2001, CC Docket Nos. 00-218, 00-249 and 00-251, at 137 (emphasis added).

"qualification" charge for competitors to obtain information that should be available in the short run (let alone in the long run) in a mechanized fashion.

It should be possible to access data regarding the majority of loops from existing legacy systems such as LFACS; there should be no need to develop new loop makeup databases or to update existing databases. Incumbents installed loop inventory management databases such as LFACS, in different forms, over 20 years ago. The incumbents use these databases to assign loops; therefore, the databases contain at least some loop makeup information on each and every loop. Although the incumbents did not fully populate these databases with all the categories of loop makeup data at their inception, it has long been standard within the industry that all plant changes should be input to the databases on a going forward basis. The incumbents' engineering personnel were supposed to enter the modified loop makeup of existing plant into the database any time the plant was altered. Given the frequency of plant additions, changes, rearrangements, and removals over the past 20+ years, the necessary loop makeup data for virtually all of the Verizon's plant should now reside in the relevant databases.

To the extent that information needed for loop qualification resides only in Verizon's "plats" (which are paper plant records), rather than in electronic databases, it reflects Verizon's failure to populate its databases as it should have given the upgrades that New Hampshire ratepayers have been funding for years. It is Verizon's responsibility to follow its own practices for fully and accurately populating its databases, and maintaining those databases in such a way that

they contain accurate information. The costs for populating and maintaining OSS databases have traditionally been passed on to consumers as part of recurring costs. In a competitive environment, the incumbent should pay for error correction, should it be found that existing practices are either not being followed, or are not being done accurately. If loop qualification information that should have been in LFACS is missing, then Verizon should obtain the appropriate information, correct its own database(s), and provide the information to the requesting carrier, in an expeditious manner, without new charges being imposed on the competitor. If anything, Verizon should be compensating the competitor for harmful delay associated with waiting for the information to be obtained manually, rather than via a real-time mechanized interface.[144]

c) Engineering Query Charges

The cost support for Verizon's proposed Engineering Query charge contains tasks that would not occur given a forward-looking, least-cost analytical framework, and also assumes task times which appear to be excessive. These assumptions have inflated Verizon's claimed costs for this activity beyond a reasonable level. A particularly egregious example of Verizon's loading of unnecessary and redundant costs into the Engineering Query occurs

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[144] Moreover, even if the Commission does not hold Verizon accountable for providing access to the information that is supposed to be in its databases, it might be substantially more efficient simply to allow the competitors to test lines for loop qualification for themselves when mechanized records are not available, as opposed to sustaining Verizon's inflated proposed costs for looking up data on paper records.

at Steps 15 through 18 of the Facilities Management Center.[145] The specific activities occurring therein are:

Step 15: "Create worksheet indicating the length of the run, the gauge of the wire and location of any bridged tap(s), load coils or DLC."

Step 16: "Complete loop make-up form from the worksheet."

Step 17: "Update LFACS DB with length, gauge, bridged tap(s), load coils and DLC information and update LIVEWIRE with ADSL loop length."

Step 18: "Forward information to the TISOC."

The first cost overstatement in this portion of Verizon's study is the inclusion of Step 17. In that step, the Verizon employee is updating Verizon's LFACS and LIVEWIRE databases with the loop information obtained on behalf of the competitor. Although this activity may be useful for future access to that loop information (for both Verizon and competitors), it has nothing to do with the objective of responding to the carrier that requested the Engineering Query, and should be entirely eliminated from the Engineering Query charge. Instead, this work is a database maintenance or update activity, conceptually similar to the work undertaken by Verizon to establish and maintain accurate databases on an ongoing basis. Therefore, the costs associated with this work (to the extent they are legitimate forward-looking costs) should be (and probably already have been) treated the same as any other recurring cost—i.e., recovered as part of the recurring charge for the company's access lines.

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145 Attachment to Verizon-NH Response to Joint CLEC Information Request No. 40, Verizon-NH Wholesale Non-Recurring Costs Model, Tab 66.

Moreover, the task descriptions make clear that the process contemplated by Verizon includes the costs of entering the same loop data three separate times: first, into a worksheet (Step 15); second, into the loop make-up form (Step 16); and third, into the LFACS and LIVEWIRE databases (Step 17). Verizon should not charge competitors for such extensive data entry for the limited number of loop data items being provided.

At a task level, Verizon's assumptions are also unreasonable. Given an appropriate loop makeup form, there would be no need for Verizon to prepare a separate, additional, worksheet. Verizon would enter the loop data only once. Thereafter, the electronic loop makeup form could be forwarded to the TISOC without additional manual input (such as logging into a new system). Thus, Verizon could update the data essentially at the press of a key, instead of necessitating the many minutes that Verizon assumed (Step 18). Given modern databases and recordkeeping systems, it should not take any longer, on average, than half an hour for an engineering assistant to pull loop makeup information manually and fax or otherwise transmit that information to a competitor. Therefore, if one assumes that Verizon's labor rate for that employee is about $40, a total cost of about $20 would be reasonable.

2. Analysis and Recommendation

All of these assertions in their own unique way emphasize the incompleteness of the record in this area. There are far too many issues for the development of any meaningful record in this proceeding. The mere presence of assumptions regarding Verizon-NH's operations and databases is reason enough

for additional record information. The recommendation will be the by now oft-cited need for an inclusive revision of TELRIC rather than to continue to patch a 6 year old study. Deciding what Verizon-NH should or should not be doing is well beyond the scope of this hearing.

However, to the extent that there were allegations that Verizon-NH was discriminating against CLECs in the area of OSS, these should be brought forward, if they have not been already, as potential checklist violations.

V. LOOP CONDITIONING

Loop conditioning provides CLECs with the option of requesting that Verizon-NH remove load coils and bridged taps from loops to enable the CLEC to provide xDSL services to end users.

A. GENERAL COMMENTS

1. Position of the Parties

a. Verizon-NH

Verizon-NH's loop conditioning terms and charges comply with the FCC's UNE \Remand and Line Sharing orders.[146] Tr. 152-153. None of the loop conditioning activities or charges duplicate the loop qualification activities included in the mechanized or manual loop qualification or engineering query processes.

Verizon-NH's xDSL cost studies reflect the non-recurring and monthly recurring costs associated with the loop qualification and conditioning costs for xDSL capable loops. See August 4, 2000 UNE Remand Requirements, Cost Summary Exhibit 1-F and Workpapers 2-F.

a. Non-recurring costs

The non-recurring costs associated with xDSL loop qualification and conditioning services consist of the following: 1) manual loop qualification; 2)

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146 See UNE Remand Order at ¶ 193 and Line Sharing Order at ¶ 148. Under the Line Sharing Order, ILECs may recover line conditioning costs, where applicable. States, however, "may require that the conditioning charges for shared lines not exceed the charges the incumbent LECs are permitted to recover for similar conditioning of stand-alone loops for xDSL services."

engineering query; 3) removal of bridged tap (single and multiple occurrences); 4) removal of load coils; 5) cooperative testing; and 6) adding electronics.

Non-recurring charges are available for "normal" as well as "expedited" intervals. All of these charges, except for the "add electronics" element, are based on time estimates from the current activity-based non-recurring cost model. Tr. at 124. The NRC for the "add electronics" element is a "one-time" charge to recover the cost for providing additional equipment to the loop in order to extend the xDSL service length. See Part F - Workpapers, pg. 3 and 4. The "normal" and "expedited" NRCs associated with the removal of bridged taps and load coils reflect a New Hampshire-specific weighting of aerial and underground cable. Tr. at 124.

b. Recurring Costs

The xDSL monthly recurring costs consist of the mechanized loop qualification and wideband test access. The monthly recurring mechanized loop qualification cost consists of several components. First, Verizon-NH determined the total testing cost for the five-year period and converted it to a net present value ("NPV") using a 10.46% rate consistent with the stipulated 10.46% cost of capital approved in the DE 97-171 TELRIC proceeding. Verizon-NH then divided the total cost by the forecasted number of wholesale and retail line sharing xDSL loops that Verizon will be providing or using. This also was determined for a five-year period and reduced to an NPV basis using the same 10.46% factor. The result was an average testing cost per loop utilized for xDSL transmission. The cost was amortized over a 30-month period

(representing an average "service life" for a customer's use of a retail xDSL-based service) to arrive at a monthly recurring cost.

Another component of the mechanized loop testing charge is the database maintenance cost. Verizon-NH identified the cost (labor rate times activity time duration) of program development and refinements, loading and extracting data, and other ongoing maintenance activities. Verizon-NH multiplied the cumulative number of lines qualified over the planning period, by year, by the cost previously developed. Again, Verizon-NH "brought back" to the current year the forecasted number of subscribers requesting xDSL over the five-year planning period on a NPV basis (at 10.46%) to match these expenses. Verizon-NH then divided the total database maintenance expense by the total forecasted number of xDSL subscribers and converted it to a monthly expense.

Also included are the additional capital and expense requirements associated with the mechanized loop qualification database. These requirements reflect the addition of mechanized loop testing ports in those central offices that were added to the original DSL deployment schedule, as well as enhancements to the re-qualification process.

The cost for each of these was identified and summed. Material investments were loaded using the circuit digital installation factor and building investment loading factor from the DE 97-171 TELRIC proceeding. The loaded investments, in turn, were converted to annual costs by applying the appropriate annual cost factor from the TELRIC proceeding. Total annual costs were then

divided by the levelized regional DSL forecast and divided by 12 to arrive at a monthly cost. See Part F - Workpapers, Pgs. 5 and 6.

The wideband test charge recovers the costs associated with metallic test access units ("MTAU"), wideband test heads, and related Hekimian operational systems ("OS"). The MTAU consists of a shelf that houses 20 cards. Each card has a capacity for 24 individual MTAU circuits, which yields a capacity of 480 circuits per shelf. The MTAU material investment per line was loaded using the same circuit digital installation factor and building investment loading factor from the DE 97-171 TELRIC proceeding. The loaded investments were converted to annual costs by applying the appropriate annual cost factor from the TELRIC proceeding. See Part F - Workpapers, pg. 9.

The total wideband test head investments were loaded and converted to annual costs using the same calculations as discussed above for the MTAUs. Verizon-NH divided the test head annual cost by its levelized five-year forecast to derive the annual cost per line for the wideband test heads. See Part F - Workpapers, pg. 8.

The costs for the Hekimian OS include an initial capitalized software expenditure, as well as annual maintenance costs. Verizon-NH modified the annual cost factor to account for the Hekimian OS maintenance costs and used it to determine the annual capital and operating expenses associated with the Hekimian OS. Verizon added the annual cost to the annual maintenance contract to calculate the total annual cost, and divided the total by the levelized

annual regional forecast to derive the annual cost per line. See Part F - Workpapers, pg. 10.

xDSL Loop Qualification and Conditioning Issues

The Joint CLECs also suggest that there is an inconsistency between the Commission's July 6, 2001 Order in DE 97-171 and any charge for loop conditioning. Tr. 153-154. The Joint CLECs are wrong. First, as noted above, the FCC recognizes that in costing DSL it is appropriate to take account of the network that is being used. That network is largely copper, which properly includes the presence of both load coils and bridged tap. Second, current loop design guidelines permit the continued presence of bridged tap in loops, even in redesigned or newly constructed plant. See JC-VZ-98, JC-VZ-108. Thus, it is unreasonable for a CLEC to expect Verizon-NH to absorb the costs of modifying its network components that rely on copper as a transmission medium in order to support a CLEC's provision of DSL service. The Commission should reject any such proposals consistent with the FCC's rulings on this matter.

The Joint CLECs also objected to Verizon-NH's assumption that calculates the NRC for removing load coils on a "one-at-a-time" basis. Tr. at 138. This objection is groundless. Placement of load coils in a loop is done for a specific purpose – to enhance the circuit so that voice service can be carried over long loops. Removing load coils from an entire binder group for the sake of a smaller number of customers that may want data service sometime later would degrade the voice service for the remaining customers. Tr. at 138.

Moreover, Verizon-NH does not "precondition" loops in advance of a specific loop request nor condition loops on speculation. It would be a rare situation in which conditioning work had been requested for multiple loops in the same binder group at the same time. Therefore, the implied efficiencies would not be attainable on a routine basis.

Finally, the suggestion that load coils or bridged taps can be randomly removed where no request exists is imprudent. Random removal of load coils and bridged tap can result in degradation of voice service, service disconnection, and reduced utilization of loop plant (i.e., instances where coils would have to be reinstalled to provide new voice service in the future.) Even if service degradation or disconnection problems could be avoided, routinely performing unrequested bridged tap or load coil removal work on additional loops would increase the cost of each individual conditioning job based on the speculative assumption that the additional loops may be used for DSL-based services at a future time. The increase in current costs would be certain and immediate, while the long-term cost savings would be undeterminable. It would thus be inappropriate to adopt such a practice or to build a "multiple loop" assumption into the cost study process for loop conditioning.

At the November 9, 2001 hearing, Verizon-NH was asked a record request to produce a cost study calculating the costs to remove load coils on a "25 pair binder group" basis. Verizon-NH notes that the cost provided in the response should not be interpreted as acquiescence with a suggestion that rates be adopted to remove load coils based on clearing an entire 25 pair binder group. As noted

earlier, to do so would likely result in additional trouble reports on "in service lines" and instances where coils would have to be re-installed to provide new service in the future. Verizon-NH opposes any requirement that likely will have service-affecting consequences that adversely impact its retail and wholesale customers in New Hampshire. See Verizon-NH's response to Record Request 6.

At the November 9, 2001 hearing, counsel for the Joint CLECs examined Verizon-NH's witnesses concerning the NRC for the removal of load coils (Tr. at 134, 135) and questioned whether it was appropriate for Verizon-NH to base recurring and non-recurring costs on different loop designs. Tr. at 136-137. Any concerns along these lines are without merit.

Verizon-NH's proposed charges for removing load coils are fully supported by the FCC's UNE Remand Order at ¶ 193. As noted during the November 9 hearing, the FCC acknowledges that "networks built today normally should not require voice-transmission enhancing devices on loops of 18,000 feet or shorter. Nevertheless, the devices are sometimes present on such loops, and the incumbent LEC may incur costs in removing them. Thus, under our rules, the incumbent should be able to charge for conditioning such loops." Tr. at 136; Verizon-NH's response to JC-VZ-72.

Moreover, the Joint CLEC's reference to a Massachusetts DTE decision which reached a different conclusion is unavailing. Tr. at 137. In fact, as Verizon-NH pointed out, "on the same issue, it was argued and briefed pretty much in the same way, the New York PSC ruled exactly in the opposite manner

of the Massachusetts DTE on this particular subject." Tr. at 138. The undisputed fact is that the FCC's ruling expressly authorizes the recovery of these costs, and Verizon-NH's proposal is entirely consistent with the FCC's decisions. The Commission should not, on the record here, craft something different than authorized by the FCC.

b. Joint CLECs/OCA

The Commission should reject the nonrecurring charges proposed by Verizon-NH for conditioning xDSL capable loops. The FCC has delegated to the states the responsibility "to ensure that the costs incumbents impose for line conditioning are in compliance with our pricing rules for nonrecurring costs."[147] The pricing rules with which this Commission must comply require that such costs be "developed from a forward looking economic cost methodology based on the most efficient technology deployed in the incumbent LEC's current wire center locations."[148] The FCC has also cautioned specifically against allowing overcharges for loop conditioning costs, stating that: "the charges incumbent LECs impose to condition loops represent sunk costs to the competitive LEC, and . . . may constitute a barrier to offering xDSL services. . . . incumbent LECs may have an incentive to inflate the charge for line conditioning by including additional common and overhead costs, as well as profits."[149]

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147 *UNE Remand Order* ¶ 194.

148 *Local Competition Order* ¶ 685.

149 *UNE Remand Order* at ¶ 194.

The Commission should determine that the nonrecurring charges proposed by Verizon-NH for loop conditioning are contrary to the FCC's forward-looking approach and should instead permanently set those rates at $0. As Joint CLECs/OCA shall demonstrate, impediments on a loop that obstruct DSL service such as load coils would not exist in a forward looking network. Verizon witness Anglin conceded at the technical session that "we agree that networks built today should not require voice transmission enhancing on loops of 18,000 feet or shorter."[150] Permitting Verizon-NH to impose a separate nonrecurring charge for loop conditioning is inconsistent with a forward looking network. A forward looking network has no need for load coils, bridged tap, repeaters or other devices that interfere with xDSL service, so it is unreasonable to allow Verizon-NH to charge CLECs for costs it would not incur with a forward looking network, consistent with the FCC's and this Commission's rules.

The forward-looking network that Verizon is deploying utilizes advanced Digital Loop Carrier ("DLC")[151] technology. This fact demonstrates that its

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150 Technical Session Tr. At 136.

151 Verizon deploys Litespan digital loop carrier ("DLC") that will support DSL service. Verizon-NH Response to Joint CLEC Information Request No. 137. Verizon-NH is deploying "Next Generation DLC" ("NGDLC") technology. NGDLCs are simply IDLC technology that conforms to Telcordia's GR-303 specifications. These systems reduce operating and capital equipment costs while delivering a full range of telecommunications services. The NGDLC is an Integrated Access System that supports multiple distribution technologies and architectures (*e.g.*, xDSL, Fiber-to-the-Curb) and a wide range of services (narrowband and broadband) on a single access platform. <<http://www.telcordia.com/resources/genericreq/gr303/index.html.>> NGDLCs are widely deployed in the telecommunications network because they are generally less expensive than copper feeder and more cost-effective. In general, DLCs are more economical to deploy, particularly for feeder lengths over 9,000 feet. DLC also extends the reach of distance-impeded services such as some

forward-looking network, constructed with a copper/fiber crossover point of 12,000 feet, would not have load coils or excessive bridge taps. Yet Verizon-NH expects the Commission to sanction a windfall of charges for removing such devices. The Commission must ensure that Verizon-NH's nonrecurring cost methodologies remain consistent with its recurring methodology in order to prevent Verizon from double recovering its network costs. Such consistency is required to remain in compliance with TELRIC pricing principles.

Verizon-NH's proposed loop conditioning charges serve to double recover the costs associated with a forward looking network, which is inconsistent both with the FCC's rules and with sound public policy. When a CLEC agrees to pay the monthly recurring rate approved by the Commission consistent with a forward-looking network methodology, the CLEC is paying for a loop that should already be fully capable of providing DSL service. In other words, Verizon's additional charges associated with loop conditioning serve only to double recover costs that are already included in the monthly rate. Indeed, in a recent case in Minnesota, (OAH Docket No. 12-2500-12631-2, MPUC Docket No. P-999/Cl-99-1665 dated May 18, 2000),[152] it was determined that the prices

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flavors of xDSL and also promotes the deployment of switch-based functionality farther into the field to remote terminals. The provisioning of DLCs reduces, if not eliminates, the need for copper in the feeder portion of the loop. *See also In the Matter, on the Commission's Own Motion, to Consider the Total Service Long Run Incremental Costs for All Access, Toll, and Local Exchange Services by Ameritech Michigan*, Case No. U-11831, Opinion and Order, at 2 (Mich. P.S.C. May 3, 2000); Opinion and Order, at 2 (Mich. P.S.C. Aug. 31, 2000).

[152] A copy of the order can be found at: http://www.puc.state.mn.us/docs/orders/00-36.pdf

set for loops cover the costs for conditioning loops, and that, through those loop prices, the ILEC (U S WEST) is being compensated for the loop conditioning costs. Even more recently, in an Order issued on September 29, 2000 (Docket No. 98-57 Phase III), the Massachusetts Department of Telecommunications and Energy rejected Verizon's tariff charges for loop conditioning.[153] If CLECs are already paying for a forward-looking network through monthly charges, they should not be subject to additional up-front charges to remedy the fact that the embedded Verizon network is not up to those forward-looking standards.

Hence, the only rate for loop conditioning that would avoid double recovery is a rate of zero. Moreover, a zero rate is supported by (1) Verizon-NH's current network design and rate design for recurring loops, (2) determinations of other state commissions, (3) forward-looking network design guidelines reflective of Verizon's NGDLC network architecture, and (4) anti-discrimination principles.

Importantly, the recurring rates for UNE loops are based upon the assumption of a mixed fiber/copper network that would not contain copper loops longer than 12,000 feet.[154] Verizon-NH's loop model did not use any copper

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153 *MA DTE (Phase III) Order* at 101-102.

154 NH PSC Docket No. 97-171, *Bell Atlantic Petition for Approval of Statement of Generally Available Terms Pursuant to the Telecommunications Act of 1996*, Order Granting In Part and Denying in Part, Order No. 23,738 at 94 (Copper/Fiber Breakpoint is 12,000 feet); *see also*, NH PSC, *Verizon-NH UNE Remand Tariffs*, Technical Session Transcript at 135 (Verizon-NH Recurring Loop Study presumes that loops would not have more than 12,000 feet of copper and therefore would not have any load coils.).

feeder.[155] Such loops do not require conditioning. For example, Verizon-NH's network design assumes that load coils will not be present because they are unnecessary and that use of bridged tap would be minimized. Since 1980, Verizon has been following Carrier Serving Area guideline in designing its network.[156] These guidelines will be discussed in more detail below, but the CSA guidelines, per Verizon's admission, contain parameters to minimize the use of bridged tap and load coils.[157] All CSA loops are unloaded and are limited to 2.5kft of bridged tap with no single bridged tap longer than 2.0 kft.[158] The maximum copper cable loop length would be from 9,000 to 12,000 feet depending on the gauge of the cable.[159] Given that Verizon-NH's model establishes that copper loops will not exceed 12,000 feet, it is clear that a network configuration as currently deployed by Verizon-NH does not include inhibiting devices. Therefore, to be consistent with TELRIC principles, Verizon-NH should not be permitted to assess nonrecurring charges on CLECs to remove these devices. In fact, Verizon concedes that its argument for seeking recovery of loop conditioning costs is not based on TELRIC principles.[160] Verizon has admitted that a forward-looking network would not require "conditioning" to

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155 Verizon-NH Response to Joint CLEC Information Request No. 71.

156 Verizon-NH Response to Joint CLEC Information Request No. 112.

157 Verizon-NH Response to Joint CLEC Information Request No. 113.

158 *Id.*

159 *Id.*

160 *See* Technical Sesstion Tr. At 135.

provision DSL-capable loops. Indeed, Verizon witness Francis J. Murphy argued in the recent Maryland universal service proceeding that minimization of "conditioning" costs is a critical attribute of a forward-looking network. According to Mr. Murphy:

In its First Report and Order, the FCC mandated that ILECs condition loops for data transmission if technically feasible. Therefore, it is in the interest of both ILECs and their competitors that the forward-looking network used to provide both UNEs and basic service be constructed in a manner that will minimize conditioning costs.[161]

Verizon can only justify non-recurring "conditioning" charges by proposing that its non-recurring charges be based on a different network architecture that is not forward-looking and does not "minimize conditioning costs" in the way that its own witness has advocated.

Verizon's argument for recovery of loop conditioning costs is based on its out-of-context interpretation of the FCC's UNE Remand Order.[162] Indeed, if read in the proper context, the UNE Remand Order does not give Verizon-NH the free right to assess extremely excessive loop conditioning charges as it proposes. While under ¶ 193 of the UNE Remand Order the FCC indicated that incumbents are entitled to recover the costs of loop conditioning, the FCC added in ¶ 194 that "[w]e defer to the states to ensure that the costs incumbents impose

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161 Rebuttal Testimony of Francis J. Murphy on behalf of Verizon Maryland in Case No. 8745, May 21, 2001, at 22.

162 Technical Session Tr. At 135-136.

on competitors for line conditioning are in compliance with our pricing rules for nonrecurring costs."[163] The FCC recognized that ILEC loop conditioning charges may "constitute a barrier to offering xDSL services" – which Verizon-NH's proposed charges are. These pronouncements make it clear that the incumbent has no right to double recovery, as the FCC specified that "nonrecurring charges shall . . . not permit an incumbent LEC to recover more than the total forward-looking economic cost of providing the applicable element."[164] The FCC also has explicitly warned state commissions not to allow double recovery of nonrecurring costs: "We require, however, that state commissions take steps to ensure that incumbent LECs do not recover nonrecurring costs twice"[165]

Moreover, the FCC, in its UNE Remand Order, did not address the possibility that the ILEC's recurring charges for unbundled loops completely capture the forward-looking costs of providing loops free of inhibiting devices such as load coils and bridged taps. Nor did the FCC address situations in which TELRIC prices for loops would presume use of fiber feeder or excess capacity designed to serve future demand for DSL-capable loops, such as Verizon-NH's fiber-fed network architecture. In fact, the Massachusetts DTE squarely rejected the argument raised here by Verizon-NH that an ILEC should be permitted to

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163 *UNE Remand Order* ¶ 194.

164 47 C.F.R. § 51.507(e).

165 *Local Competition Order* at ¶ 750.

recover loop conditioning charges because the FCC has explicitly allowed ILECs to recover their costs for line qualification and conditioning, stating:

Concerning Verizon's argument the FCC has explicitly allowed it to recover its costs for line qualification and conditioning related to recovery of loop conditioning costs, we find that this is not a correct interpretation of the FCC's Order. We believe that the FCC's directives related to recovery of loop qualification and conditioning costs are only relevant to states that have assumed copper feeder for purposes of calculating TELRIC. The FCC has not directed states to assume copper feeder in calculating TELRIC, and, without such a directive, it would be illogical for the FCC to mandate the recovery of costs that are relevant only to a network assumption that may not have been approved in a particular state.[166]

Therefore, the FCC could not possibly have contemplated use of a network design based on fiber feeder and IDLC,[167] for, at the time, the FCC was of the belief that xDSL could not work over fiber.[168]

The Massachusetts DTE rejected a similar attempt by Verizon to recover for conditioning of loops, setting a rate of zero. The DTE reasoned that:

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166 *See Investigation as to Propriety of the Rates and Charges set forth in M.D.T.E No. 17, etc.*, D.T.E. 98-57-Phase III, at 103 (Mass. D.T.E. Sep. 29, 2000) ("*Massachusetts DTE (Phase III) Order*").

167 Indeed, the FCC noted that at the time that CLECs "were not yet able economically to separate and access IDLC customers' traffic on the wire-center side of the IDLC multiplexing devices." See *UNE Remand Order* at ¶ 217 n.418.

168 *UNE Remand Order* ¶ 204 n.390.

It would be inappropriate and inconsistent for the Department to allow Verizon to base its loop rates on the costs of a fiber feeder, which may be greater than the costs of copper feeder in that context, while it bases its line sharing rates on the costs of a copper feeder, which are greater than the costs of fiber in the context of line sharing. If the FCC in fact were to require the Department to assume the use of copper feeder for calculating TELRIC for line sharing, we would allow Verizon to charge for both loop qualification and loop conditioning, but we also would have to direct Verizon to recalculate its loop costs in order to maintain consistency among our various TELRIC analyses. Otherwise, Verizon would be able to tack back and forth between different network assumptions based solely on whether the network assumption produced higher rates for Verizon in each instance.[169]

The Maryland Commission likewise set an interim rate of zero for loop conditioning based, on among other things, "Verizon's network architecture as established by Verizon in the Commission's prior UNE proceedings."[170] The Maryland Commission added that:

> Verizon defined its network architecture in the last UNE proceeding, and it was not an all copper network. Absent a specific FCC directive that states are required to assume 100% copper feeder networks in calculating these costs, the Commission correctly

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169 *Massachusetts DTE (Phase III) Order* at 115 (emphasis added).

170 *In The Matter Of The Arbitration Of Rhythms Links, Inc. And Covad Communications Company Vs. Bell Atlantic-Maryland, Inc. Pursuant To Section 252(B) Of The Telecommunications Act Of 1996*, Maryland PSC Case No. 8842, Phase II, Order No. 77074 at 6-7 (June 29, 2001). A copy of the order may be located at: http://www.psc.state.md.us/psc/

utilized the same Verizon network architecture that was advanced by Verizon and is the basis of current UNEs.[171]

This Commission should follow the course laid out by the Massachusetts DTE, and not permit Verizon-NH to "tack back and forth" between different network assumptions based solely upon whether the particular network assumption produces higher rates for Verizon-NH in each instance. Having selected a fiber-fed network that does not require conditioning for the purposes of calculating its recurring loop rates, Verizon-NH should be required to use the same network assumptions for the purposes of calculating its nonrecurring loop rates. The application of such consistent network assumptions here results in a network that does not need conditioning, and hence a conditioning rate of zero is mandated.

Notably, failure to compute recurring and non-recurring costs based upon a consistent network design results in a systematic upward bias in the resulting loop costs that should not be re-recovered through non-recurring loop conditioning costs. Indeed, the Michigan Public Service Commission ("Michigan PSC") recently concluded that the "use of IDLC technology should be assumed for the purpose of determining the cost of bundled and unbundled loops and the unbundled network element (UNE) platform,"[172] based in large part on Ameritech's recent deployment of its fiber-fed Project Pronto NGDLC

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171 *Id.*

172 *In the Matter, on the Commission's Own Motion, to Consider the Total Service Long Run Incremental Costs for all Access Toll, and Local Exchange Services by Ameritech IL*, Case No. U-11831, Opinion and Order, at 3 (Mich. P.S.C. Aug. 31, 2000) ("*MI 8/31/00 IDLC Order*").

network architecture and its determination that such a network architecture is the least-cost, forward-looking technology for unbundled loops.[173]

Double recovery results inexorably from Verizon New Hamphsire's attempts at methodological bait-and-switch in developing recurring versus nonrecurring charges. Prices that recover the total cost of building a new, fully modern network and also recover selected additional costs associated with an older network design will always exceed TERLRIC-based prices, which include only the total recurring and nonrecurring cost of providing service using the least-cost network configuration of modern equipment. A least cost forward looking methodology would calculate recurring and nonrecurring costs using the same network design, one that incorporates the crossover point at which it becomes more efficient to use fiber feeder and DLC, instead of an all copper loop.

In contrast to the assumptions underlying its calculation of recurring rates, Verizon-NH's proposed nonrecurring rates are, inconsistently, based upon an assumption of a network containing long copper loops that do require conditioning. Given that the recurring charge for unbundled loops are based upon a mixed fiber/copper network with a fiber/copper fiber cutover point of approximately 12,000 feet, the cost of providing such loops should not require conditioning. As a result, permitting an additional nonrecurring charge for such

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173 *Id.*

"conditioning" would conflict with the economic principles that the FCC has adopted for developing UNE prices.

The significance of this contradictory inconsistency between the network design underlying loop rates and the network design underlying its nonrecurring conditioning charges for xDSL loops cannot be overstated. Having won the right to charge recurring loop prices based upon a design that would make conditioning unnecessary, Verizon-NH now seeks to recover on a nonrecurring basis the conditioning charges that are avoided under its assumed network.[174] This mixture of conflicting assumptions would saddle CLECs with the worst of both worlds, and is contrary both to the need for methodological consistency in determining recurring and non-recurring charges, and the avoidance of double counting.

Importantly, Verizon-NH's loop network has been constructed over several decades and much of it may be over thirty or forty years old. This means that a large and significant portion of Verizon's loop facilities is fully or almost fully depreciated. For these facilities, Verizon-NH incurs little or capital related costs. Naturally, this observation is irrelevant to a TELRIC study, in which it is assumed that facilities are newly constructed. However, this observation is important if the Commission permits Verizon-NH to vacillate – to tack back and

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[174] See *In the Matter of the Review of Ameritech's Ohio's Economic Costs for Interconnection, Unbundled Network Elements and Reciprocal Compensation for Transport and Termination of Local Telecommunications Traffic*, Docket No. 96-922-TP-UNC, Order, at 68-70 (Ohio P.U.C. June 19, 1997).

forth -- between mutually inconsistent sets of assumptions in its recurring and non-recurring cost studies.

If the Commission allows Verizon-NH to base nonrecurring charges for loop conditioning upon the assumption that Verizon-NH operates old, copper based loop facilities in need of conditioning, then the Commission should be consistent. In that case, the Commission should also recognize that those very loops that require conditioning are the loops most likely to be fully or almost fully depreciated. The table below summarizes the four possible permutations of costing methodologies that are before the Commission:

	TELRIC	Embedded/historic
Recurring Costs	New loop facilities with longer loops assumed to be fiber based.	Old copper based facilities with little capital costs because facilities are depreciated.
Nonrecurring Costs	No loop conditioning because longer loops are fiber based and shorter loops, while	Loop conditioning is necessary to make old copper loop operational.

	copper based, are new.	

As shown in this matrix, there are four possible combinations of costing methodologies for recurring and non-recurring studies. Verizon-NH has obviously chosen the least favorable (most costly) combination for CLECs. Specifically, Verizon-NH is proposing to assess recurring loop charges based on the TELRIC methodology, which postulates newly constructed loop facilities with fiber for the longer loops. Under this method, there is no recognition that many of Verizon-NH's loop facilities are actually fully depreciated. Then, for the nonrecurring charges, Verizon-NH ignores the loop cost studies for its recurring charges, and points toward all the loop conditioning it needs to do for longer loops. It should be clear that -- if approved -- this practice of vacillating between assumptions and cost methodologies would encumber the CLECs with the worst of both worlds.

In addition, by upholding Verizon-NH's "mix and match" methodology for cost recovery, the Commission would be implicitly encouraging Verizon-NH to conduct itself in a manner that truly impedes competition. Currently, Verizon-NH seeks to reserve for the use of CLECs this largely depreciated network, consisting of decades-old technology, while allowing Verizon to be compensated again for the operations and maintenance expenses and capital additions necessary to make that existing network function like a brand-new network. To send Verizon-NH the correct price signal concerning whether and when to invest in such network improvements, the Commission should limit the

prices that Verizon-NH is allowed to charge for unbundled network elements to the total cost of providing those elements over a consistent, forward-looking network architecture.

Several state commissions – including those in Massachusetts, California, Minnesota, Utah and Illinois – have recognized methodological consistency and the avoidance of double counting, as discussed above, as a sine qua non of TELRIC pricing.[175] The Massachusetts DTE, for example, has stated that,

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[175] *Consolidated Petitions of New England Telephone and Telegraph, et al.*, DPU/DTE 96-73/74, Phase 4-L, at 19-20, 1999 WL 1427430 *4 (Mass. D.T.E. Oct. 14, 1999) ("*Massachusetts DTE Phase 4-L Order*"); *see also Petition of Accelerated Connections, Inc., d/b/a ACI Corp. for Arbitration to Establish an Interconnection Agreement with Southwestern Bell Telephone Company and Petition of Dieca Communications, Inc., d/b/a Covad Communications Company for Arbitration of interconnection Rates, Terms, Conditions and Related Arrangements with Southwestern Bell Telephone Company*, PUC Docket Nos. 20272, 20226, Arbitration Award (Tex. .P.U.C. Nov. 30, 1999) ("*Texas Arbitration Award*") ("network design inconsistencies in the recurring and non-recurring cost studies do not result in correct xDSL costs and rates and consequently render the proposed charges invalid")(A copy of the Texas order can be found at http://www.puc.state.tx.us/telecomm/interconn/arbitrations/22165/041100aa.pdf; *Rulemaking on the Commission's Own Motion to Govern Open Access to*

"[o]ur goal . . . is to maintain consistency between the recurring cost TELRIC study and the NRC TELRIC cost study."[176] A number of state commissions, such as those in Minnesota, Wisconsin, and Massachusetts, have expressly recognized this principle in the context of loop conditioning charges where recurring loop prices are based on networks designed to eliminate the need for conditioning.[177]

Indeed, the Massachusetts DTE recently rejected a similar attempt by Verizon to recover for loop conditioning, setting a rate of zero. As mentioned previously, the DTE reasoned that to allow Verizon to impose a non zero rate

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Bottleneck Services and Establish a Framework for Network Architecture Development of Dominant Carrier Networks, Decision 98-12-079, at 34, 1998 WL 988438 *18 (Cal. P.U.C. 1998) ("it makes little sense to model one type of network for unbundled elements and then assume a different network exists for ordering and provisioning the same unbundled elements."); *Rhythms Links, Inc. Proposed Implementation of High Frequency Portion of Loop (HFPL)/Line Sharing*, Docket No. 00-0393, Hearing Examiner's Proposed Order, at 67 (Ill. I.C.C. Jan. 9, 2001) (*"IL Loop Conditioning Decision*") (holding that "Ameritech-IL is seeking to double recover for upgrading its system by means of both recurring and nonrecurring charges").

176 *Massachusetts DTE (Phase III) Order* at 103.

177 *See Massachusetts DTE (Phase III) Order* at 103 (emphasis added); *Petition for Arbitration to Establish an Interconnection Agreement Between Two AT&T Subsidiaries, AT&T Communications of Wisconsin, Inc. and TCG Milwaukee, and*

would permit Verizon "to tack back and forth between different network assumptions based solely on whether the network assumption produced higher rates for Verizon in each instance."[178]

In Texas, the arbitrators also faced a similar situation. In that state, the cost studies for the recurring loop charges were based on forward-looking principles and used a network model that did not contemplate use of load coils and repeaters. SWBT's proposed xDSL non-recurring cost studies for conditioning were based on loops containing such equipment.[179] The arbitrators found that "network design inconsistencies in the recurring and non-recurring cost studies do not result in correct xDSL costs and rates and consequently render the proposed charges invalid."[180] The arbitrators ordered SWBT to file new TELRIC-based cost studies for conditioning rates.[181] Similarly, the Utah Public Service Commission described the situation perfectly:

> A TELRIC model (or a forward-looking, efficient provider) would not design a network that required loops to be conditioned or groomed before services today's customers expect could be provided. It follows, and we so conclude, that the buyer of an unbundled loop should not have to pay for any such upgrading: the price of the loop presupposes sufficient quality, by which is meant a loop capable of meeting not just

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Wisconsin Bell, Inc. (d/b/a Ameritech Wisconsin), Docket No. 05-MA-120, Arbitration Award, at 91-92 (Wis. P.S.C. Oct. 12, 2000).

178 *Massachusetts DTE (Phase III) Order* at 103.

179 *Texas Arbitration Award* at 96.

180 *Texas Arbitration Award* at 96.

181 *Texas Arbitration Award* at 96. The Texas PUC did allow SWBT to charge interim rates for loop conditioning but at very low charges. For instance, the interim rate for removal of bridged tap is $17.62 (initial) and $14.79 (additional). The interim charge for removal of a load coil is $25.66 (initial) and $22.83 (additional). *Id.* at 100.

current demands but demands for advanced services as well. Accordingly, we disallow charges for line conditioning or grooming.[182]

Given Verizon-NH's current practice of preparing its network for digital services, conditioning expenses should already be recovered in the recurring rates for unbundled loops. The Commission should reject Verizon-NH's proposal to adopt a stand-alone loop-conditioning rates since Verizon already recovers the cost of conditioning loops in its monthly recurring charges.

A Carrier Service Area is "a geographical area that is, or could be served by, digital loop carrier ("DLC") from a single remote terminal ("RT") site."[183] Within a CSA, "all loops, without any conditioning or design, are capable of providing conventional voice-grade service, digital data service up to 64 kpbs, digital subscriber lines ("DSLs") for ISDN, and most locally switched 2-wire voice grade special services."[184] Verizon has applied these guidelines since the 1980s.[185] It is indisputable that Carrier Serving Area ("CSA") guidelines followed by Verizon-NH place certain limitations on the use of bridged tap. CSA guidelines limit bridged tap use to a total of 2,500 feet, with no single bridged tap longer than 2,000 feet.[186] This limitation on use of bridged taps is

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182 *Investigation into Collocation and Expanded Interconnection*, Docket No. 94-999-01, Phase III Part C Report and Order, at 8 (Utah P.S.C. June 2, 1999).

183 Verizon-NH Response to CLEC Information Request No. 113.

184 Verizon-NH Response to CLEC Information Request No. 113.

185 Verizon-NH Response to CLEC Information Request Nos. 112-113.

186 Verizon-NH Response to CLEC Information Request No. 113; *see also Phase III-B Clarification Order*, D.T.E. 98-57-Phase III, at 2 & n.3 (Mass. D.T.E. Feb. 21, 2001). A copy of the order can be found at: http://www.state.ma.us/dpu/telecom/98-57phaseiii/recon_order.htm

important because it will allow the equipment to be present at a level that would not interfere with DSL service. In fact, the Massachusetts DTE recently clarified that the only time Verizon is permitted to assess loop conditioning charges on CLECs is if the loop is CSA compliant and the CLEC still requests conditioning.[187] The Massachusetts DTE further held, however, that if the CLEC can prove that Verizon's CSA compliant loop can not support DSL services then Verizon must perform the conditioning at no charge.[188] Verizon-NH admits that while "its goal is to limit bridged tap lengths on all new plants to those specified under Carrier Service Area criteria," "there may be some instances where plant is still administered under the resistance design rule."[189] Unlike the CSA guidelines, the Resistance Design guidelines are not as restrictive and thus have bridged taps that are located too far from each other over a loop which, as a result, causes interference with xDSL services. Importantly, Verizon is conceding that the CSA network design is the forward-looking network design and that any deviations from these principles are due to Verizon's failure to follow these guidelines.

Thus, CSA guidelines are forward looking and contemplate a network that can provide both voice and data services. Presumably, if Verizon-NH designed its plant to conform with CSA guidelines, as it should have started doing so over

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187 *See Phase III-B Clarification Order*, D.T.E. 98-57-Phase III, at 2 (Mass. D.T.E. Feb. 21, 2001).

188 *See Phase III-B Clarification Order*, D.T.E. 98-57-Phase III, at 2 (Mass. D.T.E. Feb. 21, 2001).

189 Verizon-NH Response to CLEC Information Request No. 109.

20 years ago, it would not need to remove the equipment to facilitate the provisioning of xDSL service. Thus, excessive bridged tap exists only because Verizon-NH failed to abide by forward looking CSA industry standards. As Verizon admits:

> Since the 1980s, the CSA guidelines have generally been applied to Outside Plant loop design to define CSAs across the local loop network. The application of these guidelines is an evolutionary process. Some plant, even that which is contained within the bounds of a defined CSA, may not meet the design requirements since no work may have been performed in the CSA since its designation as such.[190]

What Verizon characterizes as "evolutionary" is really just its lax application of governing network design and engineering principles. CSA principles are emblematic of the best engineering practices as specified by Bellcore twenty years ago, long before the advances in telecommunications technology and architecture that have occurred since. To the extent that Verizon-NH departed from these principles with less prudent design scenarios more than two decades ago, and has failed to bring its network up to modern specifications in the interim, CLECs should not now be penalized for design flaws and deferred maintenance caused by Verizon-NH. In fact, Verizon has a capital account for operating expenses associated with outside plant rearrangements.[191] Presumably these costs would be recovered through recurring charges as most capital costs are. Thus, Verizon would have been compensated for upgrading its plant, but it never undertook the proper upgrades. Verizon objected to providing information as to whether these costs are

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190 Verizon-NH Response to CLEC Information Request No. 112.

191 Verizon-NH Response to Joint CLEC Information Request No. 103.

recovered in their retail local rates.[192] The Commission should determine if the costs have been already recovered because this would be another source of double recovery for Verizon.

That Verizon-NH has been dilatory in implementing network architectures and has maintained its existing network at variance with its own guidelines does not warrant Commission support of Verizon-NH's effort to erect an entry barrier in the form of non-recurring costs designed to subsidize Verizon-NH's own imprudence and impede competition. Verizon admits that when designing "new outside plant loop facilities, the predominant criterion is support for known and forecasted requirements for those types of services identified in the description of the Carrier Service Area Concept."[193] Thus, Verizon should have been conditioning these facilities as a matter of course, but it admits that the installation of Digital Loop Carrier ("DLC") does not automatically trigger the rebuild or upgrade of all plant in the area."[194] This does not conform to the practices of other ILECs. Nevada Bell represents that it is removing some line impediments as part of network upgrades, without a request to do so.[195] That

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192 Verizon New Hamphsire Response to Joint CLEC Information Request No. 104.

193 Verizon-NH Response to Joint CLEC Information Request No. 108.

194 Verizon-NH Response to Joint CLEC Information Request No. 107.

195 *Filing by NEVADA BELL of its unbundled Network Element (UNE) Nonrecurring Cost Study Pursuant to the Order Issued in Docket No. 98-6004; Petition of NEVADFA BELL for Review and Approval of its Cost Study and Proposed Rates for Conditioning Digital Subscriber Line (DSL) Loops*, CC Docket Nos. 99-12033, 00-4001, Order, at 10 (Nev. P.U.C. Nov. 20, 2000) ("*Nev. Loop Conditioning Decision*") A copy of the order can be found at: http://puc.state.nv.us/telcom/912033o7.htm

the CSA and SAC guidelines have been in place for longer than the approximate twenty year service lives established by many state commissions for outside plant categories of aerial, buried, and underground copper cables, demonstrates the ease with which Verizon-NH could properly have maintained its network to the applicable specifications. Verizon clearly recognizes the inconsistency of loop conditioning charges with TELRIC principles in offering to deload loops of less than 18,000 feet at no charge.[196] A true forward-looking network design would not include the need for loop conditioning.

The network "modernization" entailed in upgrades to network architecture and removal of load coils, bridged tap, and other disturbers thus accrues to the benefit of Verizon-NH, perhaps more so than to CLECs. The qualification and conditioning of loops is necessary for Verizon-NH to provide its own retail services, such as xDSL or ISDN service. In fact it appears that Verizon's affiliate, VADI, is restricting its provisioning of DSL service to those customers that are within 18,000 feet of its central offices so that it will not have to either condition the loops it utilizes to provide service to such customers or provide DSL service over its fiber-fed loops.[197] It can be inferred that Verizon's underlying motivation is that it if it conditions the loops and subsequently loses the customer, the conditioning cost is a sunk cost. Verizon is undoubtedly aware that its inflated proposed loop conditioning prices would act as a barrier

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196 See, *e.g.*, *Massachusetts DTE (Phase III) Order* at 93.

197 Verizon-NH Response to Joint CLEC Information Request No. 101.

to the CLEC serving those customers. Thus, numerous customers are being denied access to DSL service. They would have had such access if Verizon had properly upgraded its network as required. For years, customers would have been paying the prices for Verizon to deploy a forward-looking network, but they are being denied the full array of services that such a network will provide. While Verizon claims it would impose "a special assembly charge" on its retail customers if Verizon needed to condition a loop to provide ISDN service, it does not appear that Verizon actually assesses the charge.[198] Verizon New Hampshire's special assembly charge for ISDN Total Reach electronics and pair conditioning is $2,200.[199] This, along with proprietary data, suggests that the actual costs of conditioning are being recovered elsewhere by Verizon. Clearly, anti-discrimination principles compel a zero rate here.

If the Commission decides that Verizon-NH should be compensated separately for conditioning loops -- which it should not -- the Commission should reject the rates proposed by Verizon-NH in this proceeding. Verizon-NH's proposed rates are unsupported and overstated.

Verizon-NH's proposed rates for loop conditioning should be rejected because most, if not all, of the costs which it seeks to recover are unsupported and are not state specific. As this Commission is well aware, Verizon-NH bears

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198 *See* Verizon-NH Response to Joint CLEC Information Request No. 101.

199 Verizon New Hampshire Response to Joint CLEC Information Request No. 102.

the burden of proving the appropriateness of its proposed loop conditioning charges[200] and has failed to do so for a number of reasons.

First, it is important to note that the proposed loop conditioning charges are based on the subjective time estimates of anonymous "subject matter experts." Verizon simply asked the respondent to provide his/her estimate of the time required for an activity.[201] While the this Commission has recommended reducing the time estimates by 36% to account for the built-in bias of the surveys, the resulting NRCs for New Hampshire are still much higher than NRCs in New York and the NRCs for the removal of load coils in Massachusetts.[202] The following rates are derived from the comparison of UNE rates submitted by Verizon-NH and represent the nonrecurring charges for loop conditioning activities.

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200 N.H. Rev. Stat. § 378:8.

201 Verizon-NH Response to Joint CLEC Information Request No. 123.

202 Verizon attempted to impose much higher NRCs for loop conditioning by failing to reduce its time estimates bt 36% as ordered by the Commission. Verizon did subsequently file conforming NRCs, but only after the Facilitator required it to do so.

Task		A pproved	Y approved	A proposed
Removal of Load Coil (<21k ft)		.00	18.71	71.27
Removal of Load Coil (<27 k ft)		.00	23.00	59.57
Removal of one bridged tap		50.6	03.4	57.79

		0	6	
Removal of multiple bridged tap		09 .9 2	49 .9 1	78. 80

These disparities suggest that Verizon-NH's work times are still over-inflated. If this was a proper evidentiary proceeding, Joint CLECs/OCA would have had an opportunity to cross-examine Verizon's SMEs and put on their own testimony as to efficient work times and practices. Even given the absence of such a record here, it is clear that the Commission should order reductions in Verizon's nonrecurring rates. The Commission Staff has recommended reducing Verizon's proposed SME time estimates by 50%, and Joint CLECs/OCA suggest that if the Commission declines to adopt the charges proposed by Joint CLECs and OCA, it should at the very least reduce the SME time estimates by 50%.[203]

Second, other state commission decisions support the rejection of Verizon's loop conditioning rates and its arbitrary and capricious costing approach. For

[203] *SGAT Order* at 64.

instance, the New York commission found that Bell Atlantic had failed to justify the work functions underlying its proposed estimates, instead relying "almost exclusively on the judgments of a small number of engineers."[204] In compliance with the New York commission's order, Verizon then produced new studies based on detailed surveys of employees who actually performed the tasks. These surveys were corroborated by third-party statistical tests and productivity analysis conducted by an industrial engineering firm.[205] For example, the NY PSC rejected even lower loop conditioning charges proposed by Verizon, reducing them by 70 percent across the board.[206]

Even if the Commission accepts the methodological validity of Verizon's proposed charges for loop qualification and conditioning -- which it should not-- the underlying cost data supporting those proposed charges are vastly inflated. First, as a benchmark measure of the unreasonableness of the loop conditioning charges proposed by Verizon-NH, it is worth comparing those rates to those approved by commissions in other states. In Texas, the commission approved an

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204 *Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, Case No. 98-C-1357, Opinion and Order Concerning DSL Charges, at 39 (N.Y. P.S.C. Dec. 17, 1999) ("*NY DSL Order*")

205 Verizon has not undertaken such validation activities in regard to its survey of SMEs used to support its NRCs in this proceeding.

206 The New York PSC reduced Verizon's proposed total charge of $1062.36 to $318.71 *for loops in excess of 18,000 feet*, pending further review. Similarly, where, as Ameritech- has proposed a bridged tap removal charge of $487.21 (for removal of two (2) bridged taps for loops between 12,000 and 17,500 feet) and $243.62 for removal of each bridged tap for loops longer than 17,500 feet, the NY PSC reduced Verizon's proposed total charge of $833.01 for multiple taps to $249.91 and $344.87 for single bridged tap to $103.46, pending further review. *See NY DSL Order* at 39-41 & App. B.

interim $25.66 charge for the removal of load coils on loops in excess of 12,000 feet but less than 18,000 feet and $17.62 for the removal of bridged tap.[207] Notably, these amounts are less than 3% of what SWBT originally requested.[208] In Nevada, the commission only permitted a loop conditioning charge of $83.67, which is less that 4% of the loop conditioning amount that was originally sought by Nevada Bell.[209] Moreover, the Wisconsin Public Service Commission and Massachusetts DTE completely denied Ameritech Wisconsin and Verizon Massachusetts' requests for recovery of costs for the removal of load coils and bridged taps .[210]

These decisions relating to the loop conditioning proposals of ILECs demonstrate that ILECs have the propensity to propose inflated loop conditioning rates that are outrageously high and which must be slashed substantially In this case, the Commission does not need to look very closely at

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207 *TX Arbitration Award* at 100.

208 *TX Arbitration Award* at 100 (rejecting SBC's request in Texas to assess CLECs $900.00 loop conditioning charges and instead only permitting charges for various loop conditioning activities that amount to a small fraction of $900 across the board charge initially requested).

209 *Filing by NEVADA BELL of its unbundled Network Element (UNE) Nonrecurring Cost Study Pursuant to the Order Issued in Docket No. 98-6004; Petition of NEVADFA BELL for Review and Approval of its Cost Study and Proposed Rates for Conditioning Digital Subscriber Line (DSL) Loops*, CC Docket Nos. 99-12033, 00-4001, Order, at 10 (Nev. P.U.C. Nov. 20, 2000) ("*Nev. Loop Conditioning Decision*") (Nevada Bell requested the permission to assess CLECs loop conditioning charges of $2,215.99 and Commission ordered that it could only charge $83.67).

210 *See Massachusetts DTE (Phase III) Order* at 102; *Petition for Arbitration to Establish an Interconnection Agreement Between Two AT&T Subsidiaries, AT&T Communications of Wisconsin, Inc. and TCG Milwaukee, and Wisconsin Bell, Inc. (d/b/a Ameritech Wisconsin)*, Docket No. 05-MA-120, Arbitration Award, at 91-92 (Wis. P.S.C. Oct. 12, 2000).

the rate design to find that Verizon's proposed charges deserve to be rejected because they are ridiculously based both upon conditioning one loop at a time and reinstalling the bridged tap.

The most glaring omission by Verizon is its failure even to consider in its cost study the possibility of conditioning more than one loop per field dispatch. Verizon does not condition multiple loops at a time and has not even analyzed the cost of such an approach.[211] Stated differently, Verizon-NH's proposed rates for conditioning loops assume that, unless its technician has in hand a work order from a CLEC that requests the conditioning of more than one loop in the same cable or location, the technician will condition only one loop during that trip. As a result, Verizon-NH seeks to charge a CLEC for the entire cost of accessing plant records, traveling to the loop location, setting up a work protection area, accessing the cable, closing down the work area, traveling back to the office, and updating its records for every single loop that it conditions. If a Verizon-NH network technician is deployed to a location for purposes of conditioning a loop, it makes common sense that multiple loops would be conditioned to save that technician from making the same trip for the same purpose in the near future. Deploying a technician to condition a single loop on a per request basis would be similar to writing out a shopping list and then making a separate trip to the grocery store for each item on the list. Any reasonable individual would recognize that doing so would not be an efficient

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[211] Verizon-NH Response to Joint CLEC Information Requests Nos. 118 and 120.

use of time or resources, and the Commission should expect that Verizon-NH would reach the same conclusion with regard to multiple loop conditioning. Besides being the economically sensible approach to conditioning loops, conditioning multiple loops is justified for a number reasons.

First, it appears that Verizon's practice is to condition multiple ISDN loops at one time. Its Outside Plant Engineering specifications for its Total Reach ISDN (TRI) System specifies that [BEGIN PROPRIETARY] [END PROPRIETARY] VZ-NH's alleged policy of conditioning only one loop at time is inconsistent with the following statement in its Plant Engineering Guidelines [BEGIN PROPRIETARY] [END PROPRIETARY]

The assertion that Verizon has never conducted a cost study for removing bridged tap from multiple loops (reference JC-VZ-120) is not consistent with the following statement:

[BEGIN PROPRIETARY] [END PROPRIETARY] Verizon also goes on to add that [BEGIN PROPRIETARY] [END PROPRIETARY] Limiting facility modifications will reduce wear and tear on wires. Accessing the same facilities over and over again can degrade these wires and result in additional repair and maintenance expenses.

Second, conditioning multiple pairs is consistent with the practices of other ILECs, including BellSouth and Sprint,[212] and findings by the Texas, Illinois,

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212 *See Investigation Into Pricing of Unbundled Network Elements*, Florida Public Service Commission Docket No. 990649-TP, PSC-01-1181-FOF-TP, Order, 2001 WL 640804, *242 (2001).

and Nevada commissions. In Texas[213] and Nevada,[214] for example, the state commissions recently ordered that loop conditioning costs be developed assuming that 50 loops are conditioned at a time. Similarly, the Illinois Commerce Commission ordered that loop conditioning costs be developed assuming that 25 loops are conditioned at a time.[215] The New York ALJ found that "deloading only one loop at a time does not appear absolutely essential to system integrity or cost minimization, and might itself jeopardize system integrity by requiring more frequent opening of enclosures."[216] Based on this determination, the NY ALJ recommended that Verizon recompute its costs based on the premise that 10 loops would be deloaded at the time.[217]

Third, not only does the conditioning of multiple loops at a time save costs, it makes sense to do so in anticipation of the dramatic increase in the demand for DSL capable loops. The anticipated growth in DSL demand is supported by FCC's second report on broadband access, issued in August, which cites analysts' predictions that, within five years, the number of households online will double, covering two-thirds of all residences.[218] The number of households

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213 *Texas Arbitration Order* at 98.

214 *Nev. Loop Conditioning Decision* at 10.

215 *Proposed Implementation of High Frequency Portion of Loop (HFPL)/ Line Sharing Service*, Docket No. 00-0393, Order, at 82 (Ill. C.C. March 15, 2001).

216 *NY PSC UNE Decision* at 194.

217 *Id.* At 195.

218 *Deployment of Advanced Telecommunications Capability*, CC Docket No. 98-146, Second Report, FCC 00-290, ¶¶185-190 (2001). A copy of the report may be found at:

with high-speed Internet connections is expected to leap to 35 million at the end of 2004 from about 2 million at the beginning of 2000. Verizon's forecasts for increased demand in DSL corroborate these figures.[219] With the anticipated growth in demand for DSL in New Hampshire, which is validated by what has already been experienced nationwide, Verizon should be conditioning as many lines as are available to avoid dissatisfied customers who would otherwise have to wait for lines to be conditioned before their DSL service could be activated, not to mention the additional cost involved in repeated trips to condition multiple lines in the same location. Instead, Verizon is unreasonably refusing to condition multiple lines at a time.

Obviously, the aggressive marketing of DSL service by Verizon-NH, its affiliates, and other DSL providers will contribute to greater demand for DSL services and DSL capable lines. Therefore, conditioning pairs one at a time would not make sense even if it did not increase wear and tear on facilities.

Fourth, despite the compelling logic that efficient practices require an assumption that multiple loops be conditioned at a time, Verizon-NH employs assumptions that would lead to vastly increased costs. Verizon-NH's assumptions defy forward looking conditioning practice by ignoring the efficiency of multiple pair conditioning.

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http://www.fcc.gov/Bureaus/Common_Carrier/News_Releases/2000/nrcc0040.html/

[219] Verizon-NH Response to Joint CLEC Information Request Nos. 131 and 132; Verizon-NH Response to Record Request No. 5.

Despite all of the efficiencies associated with multiple loop conditioning, it is conspicuously clear that Verizon-NH's underlying reason for resisting multiple loop assumption is that it would reduce nonrecurring charges and, therefore, the revenue stream from CLECs requesting DSL-capable loops. Clearly, by overstating costs associated with loop conditioning, Verizon-NH can erect a significant barrier to entry by CLECs into the emerging DSL market. This is especially the case given the fact that Verizon's affiliate limits the availability of DSL service to those customers served on loops less than 18,000. This restriction, coupled with the high price of conditioning means that Verizon gets to dictate which customers can receive DSL service in New Hampshire.

Aside from these profit maximizing and market protection objectives, Verizon-NH's ostensible argument is that because its main purpose is to provide plain old telephone service ("POTS") to its customers, conditioning lines is done on a per-order basis so that multiple loop conditioning activities will not degrade existing voice services. This concern is entirely invalid and patently transparent. First and foremost, Joint CLECs/OCA are not suggesting that any of the loops currently in use by POTS customers should be part of the multiple loops conditioned. The only pairs that are of concern are a portion of the spare pairs, or pairs not currently in use. Since Joint CLECs/OCA are suggesting that only these spare pairs be considered as candidates for conditioning, existing customers would not be impacted in any way. In addition, because spare pairs are typically plentiful, the provisioning of POTS services well into the future would not be impacted. Average loops available for conditioning can be

calculated by using the average number of pairs per cable and the average number of cables per location for loops of greater than 18,000 feet, the appropriate fill factor, and the expected growth in demand for new voice service as inputs. With this information, it is possible to calculate the average spare pairs (loops not currently in use) and filled pairs (loops currently assigned to customers).[220]

It is then necessary to set aside a portion of the remaining (spare) pairs to accommodate future demand for voice service.[221] The appropriate number of spare pairs to "set aside" for future voice use can be derived by applying the estimated rate of growth in voice service to the existing pairs. Adding the number of "set aside" pairs to the filled pairs and subtracting that sum from the total pairs yields the number of pairs that are available for conditioning without impairing the ability to provide voice service to current or future customers.

Attached as Exhibit C is an example of this analysis conducted in New Jersey by the Joint CLECs' consultant, QSI Consulting. Using this method, the average number of pairs available for conditioning in New Jersey is calculated to be 57 per location for loops greater than 18,000 feet. In other words, on average, at each location visited by a Verizon New Jersey technician dispatched to condition one loop, 56 additional loops in excess of 18,000 feet could be

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220 Filled pairs are obviously not candidates for conditioning, as conditioning these loops, if they are in excess of 18,000 feet, may result in a degradation of voice service.

221 This is necessary since loop conditioning may degrade voice service on the longer loops.

conditioned without impairing current or future voice service. The calculations made to derive the average numbers of loops available for conditioning were made based on conservative estimates of cable size, number of cables, fill factor, and estimated growth rates. Since the Verizon New Hampshire loop cost model reflects a 100% fiber network, there is no Commission-approved copper fill factor.[222] Actual fill factors for copper distribution and feeder facilities are usually in the 60-75% range. Thus, running the same analysis in New Hampshire should produce results showing that 40 to 60 pairs should be available for conditioning. Conditioning 25 loops at a time, therefore, would still leave numerous spare pairs for voice service. Furthermore, existing service on a line that is being conditioned will not be disrupted if the proper procedures are taken.

Thus, Verizon-NH's refusal to condition multiple loops as requested by the Joint CLECs/OCA is unjustified. Accordingly, if the Commission permits Verizon New Hamshire to assess a loop conditioning rate above zero, the Commission should order a loop conditioning rate that spreads Verizon-NH's conditioning cost over multiple loops. Attached as Exhibits D and E, is an analysis that shows how the cost of loop conditioning can be reduced significantly if reasonable task times are assumed, and if multiple loops are conditioned at a time.[223]

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[222] Verizon New Hampshire Response to Joint CLEC Information Request No. 133.

[223] Exhibit E contains the inputs used to arrive at the charges in Exhibit D. Exhibits C, D and E were prepared by Mark Stacy of QSI Consulting. Mr. Stacy received a M.S. in Public Utility and Regulatory Economics from University of Wyoming

If the Commission determines that Verizon-NH is entitled to the recovery of alleged costs for loop conditioning– which it should not, based on the overwhelming weight of evidence, the increasing skepticism of other state commissions, and the need for methodological consistency in rate making – the Commission could reduce the potential for barriers to entry associated with the lumpiness of large, up front, non-recurring costs, by requiring Verizon-NH to recover the alleged costs of conditioning through recurring charges. In its UNE Remand Order,[224] the FCC expressly cautioned state commissions that nonrecurring charges associated with loop conditioning could raise barriers to entry, and thus advised states to be vigilant of attempts by incumbent LECs to inflate those charges. The use of recurring charges where appropriate is another way to minimize such barriers, as they result in lower average monthly charges that would allow Verizon-NH to recover any costs associated with conditioning over the same time period, during which CLECs would collect revenues from their DSL customers to cover those charges.

In fact, on November 15, 2000, Ameritech announced to its intention to adopt monthly recurring charges for loop conditioning to "minimize the impact of the price to condition loops."[225] Under Ameritech's plan, existing non-

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and a B.S. in Geology from the University of Wyoming in 1985. Mr. Stacy has provided testimony or other advocacy on a broad spectrum of issues on behalf of telecommunications clients in several regulatory jurisdictions in the western United States and has occasionally been called upon by clients to comment on proceedings to both print and television media.

224 *UNE Remand Order* at ¶ 194.

225 *Id.*

recurring charges for conditioning xDSL capable loops would be replaced with a monthly recurring charge of $1.67 per loop for all xDSL qualified loops between 12,000 and 17,500 feet in length.[226] A recurring charge of $1.67 per loop would be extremely high, even in light of the loop conditioning and qualification costs claimed by Verizon New Hampshire in this proceeding. In light of the fact that merely a fraction of Verizon New Hampshire's loops in New Hampshire should require loop conditioning, the Commission should adopt the non-recurring cost to condition loops proposed in Exhibit D and calculate recurring charges based on an allocation of the resulting charge over all of DSL capable loops made available to CLECs.

A rate design employing recurring, rather than nonrecurring, charges would reduce the opportunity for Verizon-NH to use loop conditioning charges as a barrier to entry. Moreover, monthly recurring charges would provide for recovery of the cost of correcting the deficiencies in Verizon-NH's network over the economic life of the correction. When a carrier seeks to recover the costs of its efforts to serve a particular customer, it recovers those costs by imposing an up-front nonrecurring charge. On the other hand, when, as in this instance, a carrier will have the opportunity, over time, to serve multiple customers with the same set of facilities, it should be required to seek to recover its costs through recurring charges. In this case, there is both the possibility that more than one end user will take advantage of a given conditioned loop, and the strong

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[226] *Id*.

possibility that more than one carrier will provide service over that conditioned loop. It would be patently unfair to force the first carrier and/or the first end user to bear the full brunt of the ILEC's conditioning charges. Through the use of recurring rates, the Commission can ensure that the burden of any permissible loop conditioning charge falls fairly upon all who benefit from the conditioned facility.

Such an approach also appears to be consistent with Verizon-NH's accounting practices. Verizon-NH captures operating expenses associated with outside plant rearrangements in its Plant Specific Operations Expense Account.[227] Presumably these capital expenses would be recovered through Verizon's recurring loop charges. Conditioning expenses, which render a loop DSL-compatible indefinitely, should be treated as a capital expense no different than the initial installation of the loop, and should be recovered on a recurring basis.

Verizon-NH may contend that there is no guarantee that it will be able to fully recover its investment. This concern is largely misplaced and clearly superficial because, as Verizon-NH is well aware, a conditioned loop can be used by any carrier to provide DSL service. When a CLEC pays the entire cost associated with loop conditioning up front, that payment may end up benefiting another carrier, including Verizon-NH. In other words, through its up front charges, Verizon would be getting its network upgraded at the CLEC's

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[227] Verizon-NH Response to Joint CLEC Information Request 103.

expense. For example, a CLEC may pay Verizon-NH to condition a loop and, 12 months later, Verizon-NH may win the customer back. Since the CLEC paid the entire cost of upgrading the network up front, Verizon-NH would avoid all of those costs and have access to a conditioned loop (paid for by the CLEC) to serve the new customer more cheaply. Loop conditioning rates that are charged monthly, and that recover the costs of loop conditioning over the life of the facility rather than in a one-time nonrecurring cost, would ensure that the beneficiary (and the cost-causer) of the conditioned loop pays for the conditioned loop during the time it is use, even if customers migrate from carrier to carrier.

Furthermore, if any allowable loop conditioning charges are assessed upon a recurring basis, and if the customer switches to another advanced services provider, for example to another CLEC, Verizon-NH will continue to receive a recurring charge for the conditioned loop. Using a recurring rate, Verizon-NH would be deprived of a monthly payment only if the customer cancels the service and does not select a different provider of the service, and Verizon-NH is unable to shift the conditioned pair for use by another customer.

Declining to implement a recurring charge would also ignore the current trends that Verizon is experiencing with respect to the demand for digital services. The record is clear that Verizon-NH will experience far greater demand for new digital lines than for analog lines. While the demand for

traditional POTS lines is declining, the demand for DSL is burgeoning.[228] With the anticipated growth in demand for Verizon-NH's digital services, it is reasonable to conclude that Verizon-NH will fully recoup its investment in conditioning its existing plant to accommodate that demand.

Moreover, recovery of certain nonrecurring charges on a recurring basis is consistent with the FCC's invitation that state commissions reduce barriers to entry caused by high nonrecurring charges. In fact, in the Local Competition Order, the Commission stated that:

> States may, but need not, require incumbent LECs in an arbitrated agreement to recover nonrecurring costs, costs that are incurred only once, through recurring charges over a reasonable period of time. The recovery of such nonrecurring charges is a common practice for telecommunications services. Construction of an interconnection's physical collocation cage is an example of a nonrecurring cost. We find that states may, where reasonable, require an incumbent LEC to recover construction costs for an interconnector's physical collocation cage as a recurring charge over a reasonable period of time in lieu of a nonrecurring charge. This arrangement would decrease the size of the entrant's initial capital outlay, thereby reducing financial barriers to entry. At the same time, any such reasonable arrangement would ensure that incumbent LECs are fully compensated for their recurring costs. [229]

If the Commission does find it appropriate to allow for conditioning charges in a nonrecurring charge, in addition to the modifications outlined above, the Commission should either institute Mr. Stacy's proposed recurring rates, which are attached as Exhibit D, for a five year period or order Verizon-NH to redo its cost studies to reflect the arguments raised herein. The Commission could follow the approach taken by the Texas PUC, which imposed interim

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228 Verizon-NH Response to Joint CLEC's Information Requests Nos. 129, 131, and 132; Verizon-NH Response to Record Request No. 5.

229 *Local Competition Order* ¶ 749 (emphasis added).

conditioning rates and ordered SWBT to file new TELRIC studies for loop conditioning. The Texas Arbitrators specifically ordered that:

> [The] cost studies be based on the same network used to calculate xDSL loop rates, incorporate the actual percentage of loops that require conditioning based on actual field experience, utilize efficient conditioning, and include a future discount. The Arbitrators find that evidence in the record suggests that over time, load coils, repeaters, and bridged tap will be migrated out of SWBT's network. Therefore, most loop conditioning will not be necessary in the future. The Arbitrators also order SWBT to take into account any current plans and work in progress to rearchitect its network to push fiber deeper into the network structure, thereby reducing the likelihood that accreted devices, e.g., load coils, would be present on loops. The Arbitrators order that this reduction in the likelihood of conditioning be reflected in the cost studies through a future discount.[230]

In summary, the fact that the forward-looking network on which the prices of loops are based is becoming the reality of Verizon's network necessitates that Verizon-NH's cost studies for loop conditioning utilize consistent network assumptions and efficient conditioning practices.

2. Analysis and Recommendation

These related assertions underscore an observation already noted with dark fiber, namely, inconsistent rulings by the FCC. In this case the issue revolves around the apparent contradiction or at least inconsistencies of advocating a forward-looking network costs in TELRIC and yet allowing the incumbent to charge for conditioning loops of 18,000 feet or less. These are the very loops that the Joint CLECs/OCA assert should not have any conditioning costs in a forward-looking network and yet in uncontested cites to FCC rules, non-TELRIC charges seem to be allowed.

If we opt to do nothing, we have accepted the contradiction as valid. The overriding principle is TELRIC. It appears that the FCC allows this charge

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230 *TX Arbitration Award* at 97.

because of a significant anomaly in the existing network. It is expected that this anomaly will be reduced over time. Therefore, in recognition of this, a phase-out of this charge is appropriate. It is recommended that there be a three-year phase-out period, with a 25% reduction the first year, 50% reduction the second year, 75% reduction the third year, and no charge at the end of the third year, each year to begin on January 1. This appears to be a reasonable time frame, due to Verizon's current factor that presumes approximately 28% of digital loops are new installations. At Attch A, Workpaper I, Page 3, line 15.

Parties who do not believe this is a reasonable time frame can provide statistics regarding the number of pre-qualified loops that require conditioning in their responses to this report or at the January 11th Hearing. Arguably, this could produce a factor that could provide the starting point for a reduced rate, with the rate still to be adjusted downward in future years.

VI. UNBUNDLED SUB-LOOPS

In addition to providing CLECs with access to unbundled loops that extend from Verizon-NH's central office wire center to an end user's premises, Verizon-NH provides access to the distribution portion of a loop in accordance with the FCC's UNE Remand Orders. CLECs desiring to provide DSL services to end user customers served over digital loop carrier systems can obtain interconnection and access to the distribution portion of Verizon-NH's loops at a feeder distribution interface ("FDI"), which is where the feeder and distribution portions of a loop are cross-wired. Section 5.15 of Verizon-NH's SGAT includes provisions for unbundled access to distribution subloops ("Unbundled Sub-Loop Arrangement" or "USLA") and Section 4.5.11 contains provisions for remote terminal collocation ("Collocation at Remote Terminal Enclosures" or "CRTEE"). These offerings provide CLECs with the ability to provide xDSL service over the distribution portion of a loop where the feeder portion of the loop is served by fiber or a digital loop carrier system. The USLA offering covers the distribution sub-loop that extends between the FDI and the end user's premises. The CRTEE offering provides for the possible collocation of CLEC equipment within a Verizon-NH Remote Terminal Equipment Enclosure ("RTEE"). Verizon-NH's USLA and CRTEE offerings comply with the FCC's UNE Remand Order.

To access unbundled subloops in the outside plant environment, a CLEC must install an equipment cabinet or similar structure ("TC Outside Plant Interconnection Cabinet" or "TOPIC") near the Verizon-NH FDI to which it

seeks to gain access. Like a Point of Termination ("POT") Bay in a central office collocation arrangement, a TOPIC provides an interconnection and termination point for Verizon-NH's subloop and a demarcation point separating Verizon-NH's and the CLEC's plant. This requirement is consistent with the FCC's UNE Remand requirements.

A. RECURRING AND NONRECURRING CHARGES

1. Position of the Parties

a. Staff

(1) Recurring Charges

Verizon's sub-loop costs improperly include components for which costs are already recovered through recurring loop UNE charges.

Staff contends that Verizon's own cost study submitted herein, in conjunction with the cost studies it provided in prior dockets, demonstrates that costs for the component parts of the sub-loop are being apportioned to both sub-loop charges and to loop charges, without any appropriate allocation factor to preclude double recovery.

To understand this point, it is necessary to track the components of loops and sub-loops. In the NYNEX-AT&T Arbitration docket, DE 96-252, in Exhibit A, Page 1 of 1, filed October 22, 1996, Verizon provided a "Typical Link Configuration Diagram" showing that a loop consists of feeder cable, distribution cable, and customer premise outside plant elements. In the cost study associated with that docket, Verizon itemized the component parts of those three categories. Workpaper A1, pages 1-4 show investments for: aerial

copper cable, underground copper cable, block copper cable, poles, conduit, and NID. Verizon included all of these component parts in its loop.

The FCC defined sub-loops in its order FCC 00-297, Order on Reconsideration and Second Further Notice of Proposed Rulemaking in CC Docket No. 98-147 and Fifth Further Notice of Proposed Rulemaking in CC Docket No. 96-98, issued August 10, 2000. The FCC found that sub-loops consist of

> "…the portions of the loop that can be accessed at terminals in the incumbent's outside plant, including the feeder, feeder/distribution interface, and distribution components of the loop. The sub-loop element therefore includes, among other possible portions, the portion of the loop between the remote terminal and the customer's premises, as well as the portion of the loop between the CO and the remote terminal (i.e. the feeder portion of the loop), as distinct unbundled network elements." Id at ¶123.

Thus, the sub-loop necessarily contains some, but not all, of the components of the loop.

In the instant, UNE Remand, docket, for sub-loops, Verizon develops monthly costs for the sub-loop UNE using the following components: aerial copper cable, underground copper cable, block copper cable, poles, conduit, and NID. Part C, Workpaper, page 1 of 3. These mirror the components in the loop cost study.

Staff contends that some allocation must occur to account for the overlap. The loop costs were developed with an assumption that all costs for the loop component parts would be recovered via the loop charges. Now that sub-loops are being provided, it seems clear that either the loop costs need to be adjusted to reflect the fact that some component part costs will be recovered via sub-loop charges. Alternatively or co-terminously, sub-loop charges should be adjusted

to reflect the fact that all of the sub-loop investment is being recovered via loop charges. Staff recommends that Verizon's UNE Remand tariff be denied until these adjustments are made and demonstrated.

(2) Non-recurring charges

In direct conflict with the July 6th Order, Verizon used a single time-estimate methodology for determining labor costs and failed to reduce the time-estimates.

The Commission determined that Verizon's non-recurring cost study figures were too high because the survey to determine time estimates used very small samples and were subject to upward bias. July 6th Order at p. 59. The time estimates used in the original SGAT cost studies had been set by surveying employees to obtain a minimum, a most likely, and a maximum estimate for specific work functions; then Verizon calculated a mean by weighting 1/6, 4/6, 1/6 respectively. The Commission ordered Verizon to subject its time estimates to a different weighting, giving 85% weight to the minimum, 10% to the most likely, and 5% to the maximum estimates. Id. at p. 80. Further, the Commission ordered Verizon to reduce its time estimates that were derived from a single SME estimate by the same percentage as resulted from the weighting adjustments just described. Id. Verizon failed to make either adjustment in its UNE Remand filing.

Verizon's failure to file UNE Remand tariffs in compliance with the July 6th Order reflects poorly on Verizon's overall credibility with regard to good faith conformation to the needs of New Hampshire and the orders of the

Commission. The UNE Remand cost study was filed a year prior to the issuance of the July 6th Order, and thus required revision. Verizon either did not perform the necessary revisions at all, by mistake or by plan, or performed the revisions without sufficient care. The Staff recommends that the Commission reject Verizon's non-recurring costs until they are appropriately adjusted pursuant to the July 6th Order's requirements. Appropriate adjustments would (1) reduce single time-estimates by the 36.12% that represents the difference between Verizon's original survey weighted estimates and the 85-10-5 weighted estimates and (2) reduce any survey estimates by weighting them according to the 85-10-5 system ordered by the Commission.

b. Verizon-NH

(1) Recurring Charges

Verizon-NH's USLA cost study reflects the proposed cost for monthly recurring and non-recurring charges. The monthly recurring costs for USLA were developed for 2-wire and 4-wire subloops. See October 30, 2001, Revised UNE Remand Studies (Recurring) Part C – Exhibit and Workpapers. The USLA non-recurring costs consist of service order, service connection – other, and installation dispatch. See December 21, 2001 NH SGAT Compliance Filing, Revised UNE Remand Studies (Non-Recurring) Part Q – Workpapers.

The loop investments for the USLA are the same distribution investments used in Verizon-NH's loop model submitted in the DE 97-171 TELRIC proceeding. There are no feeder investments associated with, or included in, the USLA cost study. Tr. at 183. The investments were converted to annual costs

through the use of the appropriate ACCFs approved in the TELRIC proceeding. See Part C - Workpapers, pg. 1.

Included in the USLA cost is an Operating System ("OS") component required for provisioning USLA elements. Tr. at 184. The annual cost of the capitalized software and maintenance was divided by an amortized five-year forecast to determine the cost per line. See Part C - Workpaper, pg. 3.

The inclusion of an OS cost component in the total monthly recurring USLA charge is consistent with the Commission's July 6 Order. USLA is a new element that was not contemplated or provisioned in Verizon-NH's OS legacy systems. Therefore, it is appropriate to include the incremental OS costs as part of the total USLA costs.[231]

USLA Non-Recurring Costs

The connect costs for Service Order and Service Connection - Other reflect the requirements of the Commission's July 6 Order regarding survey weightings and corresponding SME reductions. See December 21, 2001 NH SGAT Compliance Filing, Revised UNE Remand Studies (Non-Recurring) Part Q – Workpapers. Since USLA is the distribution portion of the outside plant network, the Service Connection – CO wiring NRC is not relevant. Tr. at 190.

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[231] The issue of whether the Commission's July 6, 2001 SGAT Order arguably might prohibit Verizon-NH from recovering the OS costs it has incurred to develop the USLA offering was addressed by Staff at the November 9, 2001 hearing. In response to this line of questioning, Ms. Jackson responded: "As I understand it, that was for the OSS cost for interconnection and the unbundling of the loops that existed then, or unbundling of the elements that were required then. And so, what I'm assuming here is that this OSS system was developed separately to allow you to unbundle subloops." Tr. at 186.

Verizon-NH did not have any relevant NRCs in its August 31, 2001 Compliance Filing for the installation dispatch component of the USLA element. Thus, Verizon-NH relied on the current activity-based cost model to develop those charges. Tr. at 190; Part Q – Workpapers.

2. Analysis and Recommendation

At first reading, this assertion on recurring charges seems to be similar to the double-recovery assertion in the dark fiber discussion above. However, it is unclear that this is the case since in the case of dark fiber the costs themselves were already included in the costs of other UNEs via a series of utilization factors. In this case it appears that the while the underlying components may be the same as an unbundled loop, the per unit costs of an unbundled loop do not include extra or spare costs that are now included in sub loop unbundling elements. This situation seems more analogous to a comparison between 2-wire and 4-wire loop offerings, where many of the loop components are the same for both, but the costs are not double counted because the costs in the numerator of the rate calculation are unique to each and thus match the units in the denominator. Therefore, no adjustment to recurring rates is recommended.

The nonrecurring rates in the UNE Remand study should all comply with the Commission's July 6th Order regarding time estimates. It is recommended that Verizon adjust the nonrecurring rates accordingly, and so state at the January 11 Hearing.

VII. EEL COMBINATIONS

An EEL is a UNE combination that consists of an unbundled loop and unbundled interoffice transport. The IOF portion is sometimes referred to as the backbone facility. Verizon-NH offers various EEL combinations such as DS1 loops combined with DS3 transport.

A. CONVERSION FROM SPECIAL ACCESS TO EELS

1. Position of the Parties

a. Verizon-NH

Verizon-NH's EEL offering complies fully the requirements of the FCC's UNE Remand Orders. No substantive issues concerning Verizon-NH's EEL offering or proposed charges were raised by any party at the November 9th hearing, in subsequent conferences or in information requests. Accordingly, the Commission should find that Verizon-NH's EEL offerings comply with the requirements of the Act, the FCC and this Commission's previous orders.

b. Joint CLECs/OCA

Pursuant to section 251(d)(2) of the Communications Act,[232] the FCC determined that without unbundled loops and transport, CLECs would be impaired in their ability to offer the services they seek to offer, and thus ILECs must make these elements available on an unbundled basis.[233] The FCC also

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232 47 U.S.C. § 251(d)(2).

233 *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996,* CC Docket No. 96-98, *Third Report and Order and Fourth Further Notice of Proposed Rulemaking*, FCC 99-238, 15 FCC Rcd 3696, (rel. Nov. 5, 1999) ("*UNE Remand Order* or *Fourth FNPRM*"); *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996,* CC Docket No.

determined that when loop and transport elements are currently combined in the ILEC network, CLECs may order those elements in combination.[234] The FCC found that the enhanced extended link ("EEL") diminishes the cost of collocation because the EEL allows requesting carriers to aggregate loops at fewer collocation locations and to increase their efficiencies by transporting aggregated loops over efficient-high capacity facilities to their central location.[235] This, in turn, can significantly reduce the costs of deployment in the initial phase of an entry strategy.[236] Without the EEL, CLECs would be impaired in its ability to provide service because it would need numerous additional collocation arrangements. This is precisely the strategy and circumstance that the FCC contemplated for a new market entrant in the UNE Remand Order. Verizon-NH's proposed rates, terms and conditions for EELs, however, create obstacles for this market entry strategy, and must be modified in accordance with the recommendations made herein.

In its UNE Remand Supplemental Order Clarification,[237] the FCC established the procedures by which a requesting carrier may convert special access circuits to unbundled loop-transport combinations. To initiate the

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96-98, *First Report and Order*, FCC 96-325, 11 FCC Rcd 15499 (1996) ("*Local Competition Order*").

234 *UNE Remand Order* at ¶ 480; *See* 47 U.S.C. 315(b).

235 *Id*.

236 *Id*. at ¶ 289.

237 *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Supplemental Order Clarification, FCC 00-183 at paras. 1, 21-23 (rel. June 2, 2000) (*Supplemental Order Clarification*).

process, a requesting carrier must certify to the incumbent LEC that it is providing a significant amount of local exchange service over circuits currently purchased through the incumbent LEC's access tariffs, and specify the local usage option under which the requesting carrier seeks to qualify.[238] Once a requesting carrier properly certifies that it is providing a significant amount of local exchange service, the FCC required that the process by which special access circuits are converted to unbundled loop-transport combinations should be "simple and accomplished without delay."[239]

Verizon has not specified a provisioning interval for conversion of special access arrangements to EELs. In Massachusetts, Verizon has agreed to a 30 day provisioning interval for this conversion.[240] Verizon noted, however, that it was developing a mechanized process to handle special access-to-EEL conversions and that it would have this process in place in Massachusetts by the end of 2001.[241] Once the process is implemented, Verizon stated it would amend the thirty day interval to reflect any efficiencies resulting from the mechanized conversion process.[242] Therefore, the Commission should require such a

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238 *Id.* at ¶¶. 29-30.

239 *Id.* at ¶. 30.

240 *Investigation by the Department on its own motion as to the propriety of the rates and charges set forth in revisions to M.D.T.E. No. 17 filed with the Department by Verizon New England, Inc. d/b/a Verizon-Massachusetts*, MA D.T.E. 98-57 (Phase I-B), Order at 21 (May 24, 2001) ("*MA DTE Phase I-B Order*"). A copy of this order is attached to Verizon-NH Response to Record Request No. 8.

241 *Id.* at 22.

242 *Id.*

mechanized process in New Hampshire and require that Verizon incorporate into the SGAT a provisioning interval that reflects the mechanized process. In Massachusetts, Verizon also stated that even if it is unable to meet the thirty day interval, it will apply the EEL component rates to the facilities in question no later than day 30 of the conversion process. This should be incorporated into the SGAT as well.[243]

2. Analysis and Recommendation

The recommendation would be that the Commission devote a little time on January 11th to query the parties and in particular Verizon-NH on certain particulars. First, since by most accounts 2001 is over, what is the status of the cited mechanized process to convert from special access to EELS? Second, if the Massachusetts process will not be available in New Hampshire, why not?

Alternatively, Verizon-NH could report that the SGAT will/has been adjusted accordingly, including the thirty-day (or less) interval, and no answers would be necessary.

B. ORDERING AND BILLING EELS

1. Position of the Parties

a. Joint CLECs/OCA

The SGAT is silent as to how CLECs will be able to order the EEL arrangement. In Massachusetts, the MA DTE determined that CLECs would be prejudiced if they had to submit separate service orders for each component of

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243 *Id.*

the EEL arrangement. The MA DTE noted that this would lead to potential processing delays and additional service order costs. Therefore, it required that CLECs be able to order all elements of an EEL arrangement in a single service order.[244] For the same reasons, the Commission should require that such a policy be specified in the SGAT.

In Massachusetts, Verizon does not begin provisioning the loop part of the EEL until it has provisioned the backbone elements of the arrangement.[245] Verizon, however, will begin charging for the backbone elements prior to the completion of the provisioning of the loop elements of the EEL.[246] Thus, the CLEC will be charged even though it cannot use the EEL. Verizon's provisioning problems in regard to high-capacity loops compounds this problem.[247] The Commission should require that Verizon provision EEL loops either prior to, or concurrently with, the backbone elements. Verizon should also be precluded from charging for the backbone elements until completion of the entire EEL arrangements. The MA DTE found Verizon's policy of billing for the backbone elements prior to the provisioning of the EEL loops to be at odds with the requirement that the entire order be processed at once.[248] As the MA DTE noted, preventing Verizon from billing CLECs until the entire EEL

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244 *MA DTE (Phase I-B) Order* at 22.

245 *See id.* at 23.

246 *Id.*

247 *See id.*

248 *See Id.* at 25.

arrangement is installed and turned up will give Verizon the incentive to provision the entire EEL arrangement in a timely manner.[249]

2. Analysis and Recommendation

If the SGAT is silent as to how the EEL arrangement will be able to be ordered by the CLEC, then it should be a fairly quick matter to find out more information. Therefore it is recommended that the Commission ask Verizon-NH about the process to order the above referenced EEL arrangements. If the backbone link can only be used for EELs, then it is recommended that charges for the backbone do not begin until the entire EEL arrangement is installed. If, on the other hand, the link can be used in the interim for other backbone combinations, then no change is recommended.

C. TERMINATION LIABILITY

1. Position of the Parties

a. Joint CLECs/OCA

Verizon-NH states that termination liability and minimum service period charges may be applicable to early termination of services that convert to EEL arrangements.[250] Verizon's delayed offering of the EEL product coupled with provisioning delays for high-capacity loops forced many CLECs to purchase special access facilities to provide local exchange service to their customers. The higher recurring and nonrecurring charges that Verizon would have

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249 *Id.*

250 SGAT § 5.10.3 (c).

obtained from the CLEC purchase of special access facilities already provides a windfall to Verizon. The attachment of termination liability will only add to this windfall, Verizon has offered no meaningful justification for the imposition of such charges, and the Commission should not allow them.

2. Analysis and Recommendation

It is unclear from this assertion whether termination liability and minimum service period charges are or are not applicable to early terminations of special access services that convert to EEL arrangements. If the special access service is bought out of the interstate tariff, it would seem reasonable that these term and conditions would be in that tariff. Not enough specifics have been provided to make a recommendation.

D. PRICING/EEL LINK TEST CHARGE

1. Position of the Parties

a. Verizon-NH

Verizon-NH's proposed monthly recurring test charge recovers the cost for testing 2-wire, 4-wire, DS-1 and DS-3 EELs. See August 4, 2000 UNE Remand Requirements, Cost Study Exhibit 1-I and Workpapers 2-I. Applicable recurring and non-recurring rates approved by the Commission in DE 97-171 for the individual loop and IOF transport UNEs that comprise the EEL combination also apply.

In an EEL configuration, Verizon-NH performs the end-to-end testing on behalf of the CLEC. The monthly recurring test charge was developed by

applying a subscriber line test factor to respective loop investments. The subscriber line test factor was developed by dividing the subscriber line maintenance expenses by the booked outside plant investments. Both of these components were included in the DE 97-171 TELRIC proceeding. The subscriber line test expenses were excluded from the development of the maintenance factors used in the TELRIC proceeding. Tr. at 205.

The subscriber line test factor was applied to the same loop investments that were used in Verizon-NH's loop model in the DE 97-171 TELRIC proceeding. Tr. at 206.

b. Joint CLECs/OCA

Verizon-NH proposes an EEL link test charge that is designed to recover the cost associated with testing EEL arrangements.[251] This is a discriminatory charge in that it is not applied to UNE loops, but is only applied to loops used for EELs. Also Verizon includes in the cost the cost of a Smart Jack. A Smart Jack is used to provide loop-back testing, trouble isolation, and performance monitoring, and is installed at the premises of the end user, replacing the 4-wire NID normally associated with the DS-1 Link.[252] The MA DTE charge found the EEL link test charge to be problematic for a number of reasons. First, Verizon

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251 SGAT § 5.10.4.

252 *Investigation by the Department on its own motion as to the propriety of the rates and charges set forth in the following tariffs: M.D.T.E. Nos. 14 and 17, filed with the Department on August 27, 1999, to become effective on September 27, 1999, by New England Telephone Telegraph Company d/b/a Bell Atlantic-Massachusetts*, Massachusetts D.T.E. 98-57, Order at n. 49 (2000) ("*MA DTE Phase I Order*") A copy of the order can be found at: http://www.state.ma.us/dpu/telecom/98-57/FinalOrder.htm

is proposing it as a monthly recurring charge that will apply to evenly to all EEL arrangements. As the MA DTE noted:

> However, this charge is meant to recover the cost of individual testing of EEL loops, a scenario that Bell Atlantic agrees does not apply equally to all EEL arrangements. Consistent with cost causation principles, it is unfair for CLECs to pay a recurring monthly rate for EEL loop testing if their EEL loops are in a condition that does not require them to be tested. Since Bell Atlantic has agreed that a non-recurring charge could be developed, the Department directs Bell Atlantic to submit in its compliance filing a transaction-based non-recurring charge.[253]

Second, the MA DTE found that the cost study for the charge was based on embedded historical data that did not necessarily reflect efficiency gains that may have been experienced since 1995, the year in which Verizon extracted its data.[254] Third, the MA DTE instructed Verizon to exclude the costs of the Smart Jacks from its calculations. The MA DTE noted that Verizon had been placing the Smart Jacks on all DS-1 loops since 1994 but had heretofore not included the recovery of the Smart Jack costs in any previous rates or charges for loops.[255] The MA DTE ruled that if the cost is to be recovered, it should be included in the cost of the loop itself.[256] Verizon did not document saved costs that have resulted from use of the smart jack nor did it sufficiently show that the costs recovered in the cost study for the Smart Jack reflect the actual cost paid for the Smart Jack.[257] The Commission should make similar corrections to the EEL link test charge here.

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253 *MA DTE Phase I Order* at 11.

254 *Id.* at 12.

255 *Id.*

256 *Id.*

257 *Id.*

2. Analysis and Recommendation

On the off chance that there might be differences between Massachusetts and New Hampshire that might be relevant to this assertion, a more complete record needs to be developed. However, this is the issue that should be ripe for the now often proposed intergalactic TELRIC proceeding. This seems especially timely in that it does not appear that this is a relatively new offering.

VIII. UNE-P

The Unbundled Network Element – Platform ("UNE-P") is defined as loop and port combinations previously utilized by Verizon New Hampshire to provide local exchange and associated switched exchange access services.[258] The UNE-P consists of the unbundled local loop, unbundled local switching, unbundled shared trunk port and common (shared) transport, signaling systems and call related databases, optional directory assistance services and operator services, and optional dedicated trunk port.[259] There are two classifications of UNE-P. A "migration" is the transfer of existing retail business or residential service of Verizon New Hampshire to the already combined UNEs that comprise the underlying service.[260] A "new" UNE-P is the connection of an existing loop and port not currently connected (but which is ordinarily combined in Verizon-NH's network) for the provision of local exchange and associated switched exchange access services to a specific business or residence end user.[261] A new UNE-P arrangement would be required when an end user orders an additional line(s) or is moving to a new location.[262]

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258 SGAT § 5.12.1.1.

259 SGAT § 5.12.1.2.

260 SGAT § 5.12.3.1 (A)(1).

261 SGAT § 5.12.3.1 (A)(2).

262 Verizon New Hampshire Response to Joint CLEC Information Request No. 43.

A. UNE-P RECURRING CHARGES

1. Position of the Parties

a. Joint CLECs/OCA

Several of Verizon's proposed rates, terms, and conditions are unjustified and should be modified by the Commission.

The monthly recurring price for the UNE-P is based on the applicable recurring rate for each separate network element of the UNE-P arrangement coupled with applicable usage charges.[263] Two significant cost drivers of the price for the UNE-P will be the recurring charge for the unbundled local loop and unbundled local switching. In Docket No. 97-171, significant challenges were raised to the price Verizon charges for unbundled loops and switching. AT&T noted that the Telecom Model for costing loop rates adopted by the Commission yielded a "statewide average loop rate that is 17.8% higher than the statewide average loop rate provided by the Verizon model, when the Commission-approved 15% common cost factor is applied."[264] AT&T contended that the Telecom Model failed to use of optimally efficient network design assumptions and forward-looking technology. For instance, it failed to include GR-303 DLC technology in its loop design.[265] AT&T was joined in this challenge by BayRing and Network Plus.

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263 SGAT § 5.12.4.

264 DT 97-171, Order Addressing Motions for Reconsideration, Order No. 23,847 at 6 (Nov. 21, 2001) ("*SGAT Reconsideration Order*").

265 *Id.* at 6-7.

AT&T also challenged the recovery of "getting started" switching costs such as switch port investment on a usage-sensitive basis. AT&T proposed that such costs be recovered via a fixed monthly rate that does not vary with actual usage such as in the way line port costs are recovered.[266]

The Commission rejected both challenges. In regard to loop costs, the Commission determined that modeling a forward-looking network requires "some relationship to the reality of the current network world."[267] Thus, the Commission approved the loop rates even though they were significantly higher than even what Verizon's model would support. The Commission did not disturb its findings on switching cost recovery noting that the FCC did not preclude the approach that it took.[268]

Joint CLECs/OCA will not reargue these findings here, but ask that the Commission be cognizant of the impact that such findings have on the UNE-P product. High loop rates coupled with high usage rates will detrimentally impact the viability of the UNE-P product. CLECs will be impacted in their ability to serve both low-volume and high-volume customers via UNE-P. The high loop rates will serve as an impediment to serving the low-volume customer, and the high usage rates will penalize the high-volume customer. Thus, it is all the more vital that the Commission ensure that the nonrecurring charges for the UNE-P be adjusted as described below to protect the commercial viability of the

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266 *Id.* at 26-27.

267 *Id.* at 14.

268 *Id.* at 28-29.

UNE-P product. Since UNE-P is such a vital market entry strategy, particularly in the residential and small business market, it is vital that the product be properly priced to promote competition.

2. Analysis and Recommendation

Nothing was requested so nothing is recommended.

B. UNE-P MIGRATIONS VS. NEW ORDERS

1. Position of the Parties

a. Joint CLECs/OCA

Verizon-NH proposes different nonrecurring charges for new UNE-P orders as opposed to migration UNE-P orders. For instance, Verizon imposes a Service Connection – Central Office Charge for new orders, but not for migration ones.[269] Verizon should be required to charge the same NRCs for new orders as it does for migration orders. New orders are, by Verizon's own definition, combinations which are ordinarily combined in Verizon's network, but for some reason they are not. The CLEC should not have to pay extra for this combination.

If such a customer ordered service from Verizon, Verizon would routinely make the combination and presumably not charge the customer any additional cost. To impose additional costs on the CLEC would place the CLEC at a disadvantage in servicing these customers. New UNE-P arrangements should be limited to those instances where new construction of a new line is necessary,

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[269] SGAT § 5.12.5.

and should not cover instances where second lines have been wired into customer premises, but have not actually been "turned up" yet.

There are also some inexplicable differences in other charges proposed by Verizon. For instance, the service order charge for UNE-P – Migration for 2-9 links is $7.97 while there is no charge for new orders. The Commission should require that terms, conditions and charges for new orders and migration orders be the same and that the lower of the charges for the particular activity be the one that is applied. For instance, for the service order charge for 2-9 links, there should be no charge for either new or migration orders.

The proposed nonrecurring charge for migration orders is also too high. Verizon New Hampshire proposes a Service Order Charge for 2-9 links of $7.97 and a Service Connection – Other of $1.44 per link.[270] This nonrecurring charge for existing combinations is excessive. In Ohio, the Public Utilities Commission of Ohio adopted a total NRC of $0.74 for simple migration UNE-P orders.[271] The Ohio PUC found that:

> [B]ased on the record before us, we believe the NRC for existing combinations is comprised of three cost components: 1) the cost of manual intervention associated with non-flow through orders which represent two percent of the orders on forward-looking basis; 2) the cost of disconnection orders that requires manual intervention associated with the non-flow through disconnection orders on a forward-looking basis; 3) the cost of dial tone activation where facilities are physically connected through but no dial tone is available (according to Ameritech's proposed tariffs for UNE-P reflected in the record) which should not be more than 10% of the total UNE-P service orders.[272]

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270 SGAT § 5.12.5.

271 *In the Matters of the Review of Ameritech Ohio's Economic Cots for Interconnection, Unbundled Network Elements, and Reciprocal Compensation for Transport and Termination of Local Telecommunications Traffic*, Case Nos. 96-922-TP-UNC and 00-1368-TP-ATA, Opinion and Order at 13 (Oct. 4, 2001).

272 *Id.*

Here separate NRCs are specified for Manual Intervention and disconnection so the nonrecurring charge should be even lower than the $0.74 than the combined nonrecurring charge ordered by the Ohio PUC. The Commission has also prescribed a 2% fallout rate so it is unclear why Verizon New Hampshire's nonrecurring charges for simple migrations are so high. The Commission should adjust Verizon's nonrecurring charges for simple migrations downward as did the Ohio PUC .

2. Analysis and Recommendation

It is not clear precisely what adjustment is contemplated other than one that is downward. Therefore this will require further development of the record, which could be rolled into the already recommended TELRIC study.

C. UNE-P FIELD INSTALLATION

1. Position of the Parties

a. Joint CLECs/OCA

Verizon proposes to assess non-recurring charges for field installation for both the initial and migration of the 2-wire UNE Platform. However, any such charges should be captured as recurring costs in recognition of the fact that they reflect ongoing costs to provide the elements (which may be the reason Verizon has not included it in its non-recurring cost studies).[273] The activity performed in the field by the Field Installation technicians and the administrative support organizations (such as the Regional CLEC Control Center or "RCCC") would

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[273] *See*, Verizon New Hampshire Response to Joint CLEC Information Request No. 42.

also be an ongoing cost to provide the elements, and should not be reflected in the presentation of non-recurring cost. The unbundled loop element is defined to include a fully connected loop from the customer's premises to the central office. Field Installation activities are necessary to produce the loop element. Therefore, the cost of Field Installation activities is properly considered a recurring cost.[274]

In addition, the CLEC should not be considered the cost causer of field work where a working combination of elements currently in service is simply being migrated by an electronic order.

2. Analysis and Recommendation

It is not clear how something with the title and apparent function of Field Installation is not associated with installation. It is also not intuitive why installation should be treated more as a maintenance or ongoing expense, when historically installation has been associated with the commencement of service. No specific recommendation is made.

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[274] *Local Competition First Report and Order* at ¶ 675, "The incremental cost of connecting a new residence to its end office, however, is the cost of the loop." *Id*. at ¶ 682, "We conclude that, under a TELRIC methodology, incumbent LECs' prices for interconnection and unbundled network elements shall recover the forward-looking costs *directly attributable to the specified element*, as well as a reasonable allocation of forward-looking common costs" and "The forward-looking costs directly attributable to local loops, for example, shall include not only the cost of the installed copper wire and telephone poles but also the cost of payroll and other back office operations relating to the line technicians, in addition to other attributable costs."

D. INVALID MODELING ASSUMPTIONS

1. Position of the Parties

a. Joint CLECs/OCA

Although Verizon admits that the individual elements that makes up Verizon's network are generally speaking the same elements Verizon is assembling for CLECs,[275] its UNE-P non-recurring cost studies improperly reflect more complex and costly provisioning and installation activities than Verizon uses for retail services. This is particularly true for the RCCC costs that simply do not exist in a retail environment.

Instead of modeling the specific activities required to provision UNE-P combinations, Verizon uses combinations of the stand-alone elements to determine the non-recurring cost and therefore failed to recognize the economies of leaving elements combined. Efficient practices such as Dedicated Inside Plant ("DIP") and Dedicated Outside Plant ("DOP") allow for the network components to be "pre-connected" or to remain "left-in-place" when services disconnect and provide shortened (faster) service activation intervals, because no physical wiring is required. For instance, when disconnects of residential basic exchange service are made they are only performed at the switch, not at the cross connect box.[276] Thus, the network elements should remain "in place." Furthermore, in a forward-looking network using 100% fiber feeder, there

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275 Verizon's Panel Testimony on Unbundled Network Element and Interconnection Costs, July 31, 2001, Virginia Arbitration, CC Docket Nos. 00-218, 00-249 and 00-251, at 233.

276 Verizon New Hampshire Response to Joint CLEC Information Request No. 39.

would be no need for manual cross connection at the main distribution frame. The migration would only require a digital switch translation.[277] In addition, in its unbundled loop cost model, Verizon assumes that the feeder, distribution, sub-distribution, and drop portions of the unbundled loop are connected.[278] Therefore, it is inappropriate to include central office wiring and Field Installation costs as part of the UNE-P non-recurring costs, as Verizon has done.

2. Analysis and recommendation

There is a certain logic in the assertion that, since in its model Verizon-NH assumes that feeder, distribution, sub-distribution, and drop portions of the unbundled loop are connected, that therefore there should be not central office wiring or installation costs as part of the non-recurring charges. One leap of faith that is required is what is included in these central office wiring and installation costs. While assumptions can be made, the record requires more if a specific recommendation is to be made.

Like most assertions these provide yet another reason for a new look at the entire TELRIC study, as recommended at least once before.

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[277] Consolidated Petitions for arbitration of interconnection agreements between Bell Atlantic-Massachusetts and the aforementioned companies, Massachusetts D.P.U./D.T.E. 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4-O, ORDER ON MOTIONS FOR RECONSIDERATION OF MCI WORLDCOM, INC. AND MOTION FOR RECONSIDERATION AND CLARIFICATION OF BELL ATLANTIC-MASSACHUSETTS at 12 (2000) ("*MA DTE (Phase 4-O) Order*"). A copy of the order can be found at: http://www.state.ma.us/dpu/telecom/96-73/Ossnrc_recon.htm

[278] Verizon New Hampshire Response to Joint CLEC Information Request No. 41.

IX. COLLOCATION POWER

A. GENERAL COMMENTS

1. Joint CLECs/OCA

Joint CLECs Covad and CTC[279] and OCA also request that the Commission address an issue regarding collocation power terms and conditions which will have a significant impact on CLEC access to the UNEs at issue in this proceeding. To utilize UNEs such as xDSL-capable loops, dark fiber and UNE-P, CLECs will have to collocate in various Verizon-NH central offices and purchase power from Verizon-NH. Verizon contends that its application of power charges is consistent with the terms of its SGAT and Tariff NH PUC No. 80 ("Tariff 80").[280] Contrary to its assertion, however, Verizon has tariffed penalty provisions for collocation power that are far from appropriate, and which have apparently not yet been reviewed by this Commission. Section E.2.3.5.E of its Tariff 84 states that Verizon "reserves the right to perform random inspections to verify the actual power load being drawn by a collocation arrangement. At any time, without written notice, the Telephone Company may measure the DC power drawn at an arrangement by monitoring the power distribution point." That section further provides that:

> If the inspection reveals that the power being drawn is greater than 100% and up to 110% of the total number of load amps ordered, the Telephone Company will provide the CLEC with written notification . . . that more power is being drawn than was ordered. . . . Failure to reduce the power being drawn or submit a revised application within five

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279 Network Plus does not join in addressing the issue raised in this section.

280 Docket No. DT 01-151, Verizon's Supplemental Declaration at ¶¶ 47, 59.

business days will result in an increase in the amount of power being billed to 110% of the power ordered in the application on file. [emphasis supplied].

For inspections reflecting overdraws of greater than 10%, Section E.2.3.5.E.3 provides Verizon with drastically different recourse:

> If the inspection reveals that the power being drawn is greater than 110% of the total number of load amps ordered, that arrangement is subject to the following treatment. The Telephone Company will provide the CLEC with written notification . . . that it has exceeded its ordered power. The Telephone Company will assess the miscellaneous collocation power service charge for performing this inspection.. The Telephone Company will bill the CLEC to the full fused capacity for each of the next six bill periods following the inspection. [emphasis supplied].

By outward appearance, these provisions mean that Verizon is entitled to be reasonably compensated for slight overdraws of DC power. However, for any overdraw in excess of 10%, Verizon can unilaterally impose a penalty that may amount to nine times one month's normal charges, assuming six months worth of charges on a set of power feeds fused at 2.5 times the requested load amps.[281] In short, Verizon has proposed to collect punitive damages. Put another way, this means that Verizon may unilaterally impose a penalty of 900%, even though the collocator may only have drawn as little as 11 percent more than the requested load -- and could never have drawn more than 150% in excess of the requested load! Moreover, Verizon explains that it fuses circuits at from 25-50% in excess of the capacity ordered because of anticipated "power surges."[282] If Verizon happens to measure a CLEC's usage during such a "power surge," it

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281 Section E.2.2.1.B.1 provides that a collocator may order a fuse size up to 2.5 times the load amps ordered, but will be charged only for the number of load amps ordered.

282 *Verizon Supplemental Declaration* at ¶ 57.

then seeks the right to impose a 900% penalty upon a CLEC that has done nothing wrong.

Clearly, this provision is not intended merely to compensate Verizon for the excess load amps drawn. Instead, it is a punitive measure, which would punish and harass competitors whose equipment may have unexpectedly experienced a momentary power surge that is 11% higher than expected on such equipment. Such tactics are unjust and unreasonable.

These penalties cannot be substantiated by any cost study that was performed or order that issued in the Commission's investigation into Verizon's rates. Additionally, this provision violates Section 374:2 of the New Hampshire Public Utilities Law, which provides that "[a]ll charges made or demanded by any public utility for any service rendered by it or to be rendered in connection therewith, shall be just and reasonable and not more than is allowed by law or by order of the public utilities commission. Every charge that is unjust or unreasonable, or in excess of that allowed by law or by order of the commission, is prohibited."[283]

Under its tariff, Verizon retains for itself the absolute right to inspect CLEC collocation arrangements and determine violations based upon power usage measured by Verizon at a single "snapshot" in time, with equipment that may or may not be providing accurate readings, without any independent supervision from or concurrence by the affected parties or an independent, disinterested

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[283] N.H. Rev. Stat. § 374:2.

third party. Such unchecked power held by a competitor, which already has overwhelming market power, is absolutely unacceptable. Put simply, Verizon is entitled to no such authority. Verizon claims the right to initiate its own audits, using its own employees, without supervision, oversight, or review either by its customer or a third party, and to impose severe punitive damages on its customer/competitors solely on its own, unattested conclusions. Put bluntly, Verizon's competitors have every reason to distrust Verizon's competence and its good will in performing such proposed audits.

Under Section 2.3.5.E.3.a of its Tariff 84, Verizon will impose a "miscellaneous collocation power service charge" for an inspection, if the inspection, in Verizon's opinion, discloses a violation. This charge is referenced in Verizon's proposed SGAT but Verizon does not define the charge in the SGAT.[284] Under the referenced charge, Verizon has given itself the right to charge on an ICB basis. Giving Verizon the right to charge on an ICB basis for unrequested inspections after the fact provides enormous power to Verizon. Verizon is in the position to determine whether a charge applies in the first place, because it decides whether there has been a violation. If Verizon decides that a charge applies, it can then decide how much the charge will be. The CLEC does not, of course, have an opportunity to decline the inspection "service" if it believes the charges are too high, because the inspection has already occurred – an inspection initiated by Verizon for Verizon's benefit. The

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[284] SGAT § 4.5.15.2.11; § 4.5.11.2.3.

Commission should require Verizon to delete all penalties related to overdrawing of collocation power.

2. Analysis and Recommendation

Tariff 84 is not a part of the SGAT and therefore is beyond the scope of this proceeding. Alternative actions might be the filing of charges with the tariff approving authority.

X. OTHER ISSUES

While these assertions discuss different specifics, they share a common issue. These assertions will be analyzed and discussed together and the end of this section, rather than individually. These were assertions that were only addressed by the Joint CLECs/OCA.

A. UNE PRICES DO NOT REFLECT MERGER SAVINGS

1. Joint CLECs/OCA

When Bell Atlantic merged with NYNEX and when Bell Atlantic merged with GTE, the parties made a number of public declarations, often under oath or with penalty for misrepresentations, about the savings that would result – and have resulted – from these mergers.

Verizon has not accounted for operating cost savings it represented to regulators and the public at large that it will enjoy as the result of its efforts at process reengineering and its mergers with NYNEX and GTE.

The Rhode Island Public Utilities Commission ("RI PUC") recently reduced Verizon's UNE rates by 7.11% to reflect the savings from mergers and process re-engineering activities.[285] The RI PUC stated that, "it is entirely appropriate, for purposes of TELRIC-compliant rates…to examine Verizon's initial estimates of forward looking costs with those that might have been estimated after the forward-looking cost savings of the merger are considered."

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[285] *In Re: Review of Bell Atlantic-Rhode Island TELRIC Study*, Docket No. 2681, Report and Order, at 69-73 & 76 (R.I. P.U.C. Nov. 18, 2001) ("*RI PUC Verizon TELRIC Merger Savings Decision*"), *available at* http://www.ripuc.state.ri.us/order/pdfs/VRI2681TELRICord16793.pdf.

In arriving at the 7.11 % across the board UNE rate reduction, the RI PUC noted that the Division used publicly available documents and calculated the annual expense savings as a result of the merger and process re-engineering, as follows:

> BA's cost studies purport to be forward-looking, yet BA has not accounted for operating cost savings it represented to regulators and the public at large that it will enjoy as the result of its efforts at process reengineering and its mergers with NYNEX and with GTE. For example, BA neglected to reflect in its proposed interconnection and UNE prices the on-going cost savings from BA's efforts at process reengineering which, according to Mr. Globerson testifying on behalf of AT&T, is expected to amount to $400 Million annually.

BA did not reflect in its forward-looking cost studies the anticipated annual system-wide savings of $600 Million that it projects will result from the BA-NYNEX (a/k/a "The New Bell Atlantic") merger, and some $2.0 Billion annual system-wide savings that it expects to result from the New Bell Atlantic merger with GTE. These figures are not mere speculation by BA; in fact, the estimates are likely to be somewhat conservative in their magnitude because, under securities law, BA may not include speculative information in its public statements. BA and NYNEX represented the $600 Million annual expense savings to the FCC and other regulators in order to justify the merger. Merger Order at ¶ 160 ("Bell Atlantic and NYNEX contend that the proposed merger will produce substantial cost savings that are 'hard, real, and certain'"); ¶161 ("Applicants expect to achieve annual cost savings that approach $1 billion per year").

The annual expense savings which BA has publicly represented that it will enjoy due to its process reengineering efforts and its merger activities are not reflected in the prices which BA-RI proposes to charge its competitors for interconnection and UNEs. The Division has determined, directly from publicly available documents, that BA-RI's share of the savings from the two mergers discussed above represents 5.60 percent of BA-RI's annual operating expenses, including deprecation and taxes. Also, from publicly available documents, the Division has determined that BA-RI's share of the system-wide savings from process reengineering constitutes an additional 1.51 percent of BA-RI's operating expenses, including depreciation and taxes; the calculations and sources of the information used to develop these savings percentages are shown at Exhibit A, also attached hereto. This total 7.11 percent (5.60 percent plus 1.51 percent) should be deducted from the interconnection and UNE costs that the Commission otherwise finds applicable to the interconnection and unbundled network elements at issue here. More specifically, to effect its recommendation, the Division proposes that the Commission apply a factor of 0.9289 (1 minus 0.0711) to the interconnection and UNE costs determined without recognition of the savings from the mergers and process reengineering activity.[286]

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[286] *RI PUC Verizon TELRIC Merger Savings Decision* at 69-73. Referenced sections of the Division's Initial Brief and Exhibit A are attached hereto as Exhibit A.

Using the same approach taken by the RI PUC and substituting New Hampshire specific expenses for Rhode Island specific expenses, Verizon-NH's share of the savings from the two mergers represents a 5.06% of Verizon's annual operating expenses, including depreciation and taxes.[287] In addition, Verizon's share of system-wide savings from process reengineering constitutes an additional 1.37% of Verizon-NH's operating expenses, including depreciation and taxes. The total being 6.43% (5.06 % plus 1.51 %). Similar to the RI PUC decision to reduce Verizon-RI's UNE rates in this manner and make them forward-looking as required by law and compliant with 271 checklist item 2, the Commission should follow suit and reduce Verizon-NH's UNE rates by 6.43% and, in doing so, multiply UNE rates by .9357 (1 minus 0.0643), which is how the RI PUC applied the savings.

B. UNE PRICES ARE BASED ON AN OVERBLOWN COST OF CAPITAL

1. Joint CLECs/OCA

Over four years ago, the Commission instituted its UNE cost proceeding, DE 97-171, and, on November 21, 2001, rendered an order on reconsideration that established the final UNE rates in that proceeding. Because significant time has past since that proceeding was initiated, the 10.46 % cost of capital used in deriving the UNE rates is backward looking, rather than forward-looking since it is based upon a pre-recessionary and explosive growth cycle where returns on

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[287] See Exhibit B for a breakdown of how the New Hampshire-specific merger savings is calculated. Verizon's operating expenses are derived from 1999 ARMIS data.

investment were far greater than those seen today. With the obvious and prevalent uncertainties in the current financial marketplace, it is common knowledge that stockholder expectations regarding their return on investment have dramatically deflated. Therefore, the UNE recurring rates proposed in this docket are not forward-looking but rather are impermissibly inflated because they are based on an excessive cost of capital. By way of background, the backward looking cost of capital that Verizon's UNE rates are based derives from the following capital structure:

Type of Capital	] ati o	C ost Rate	C ost
Debt	: 9.35%	7 .01 %	2 .758 %
Equity	(0.65%	1 2.70 %	7 .703 %
	: 00.00 %		1 0.461 %

To the disadvantage of CLECs, the 10.46% weighted cost of capital that Verizon currently enjoys in its UNE rates is quite excessive when compared to the 8.8% weighted cost of capital ordered by the New Jersey Board of Public Utilities ("NJ BPU") on November 20, 2001.[288] The updated 8.8% cost of capital adopted by the NJ BPU is based on a sensible 10% cost of equity, whereas the antiquated 10.46% cost capital used by Verizon in this proceeding is based on an overblown and unrealistic 12.7% cost of equity.[289] Unbelievably, Verizon's current cost of equity is 2.7% percentage points (or 27% higher) than the cost of equity recently adopted by the NJ BPU.

Obviously, for UNE prices to be forward looking and TELRIC compliant, the weighted cost of capital that drives the establishment of UNE rates must also be forward looking. In this case, the cost of capital used by Verizon is entirely outmoded and must be revised and updated. Significantly, if Verizon changed its cost of equity from the towering 12.7% to the same 10% cost of equity ordered by the NJ BPU and kept all other factors the same, Verizon's weighted cost of capital would drop to 8.823%, which is almost precisely equal to the rate adopted by the NJ BPU. To further illustrate,

Type of Capital	] ati	C ost	C ost

[288] *In the Matter of the Board's Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic New Jersey, Inc.*, Docket No. TO00060356, Summary Order of Approval, at 5 (N.J. B.P.U. November 20, 2001), *available at* http://www.bpu.state.nj.us.

[289] *See* Verizon-NH Response to Record Request No. 9, page 7.

	o	Rate	
Debt	[illegible]	7	2
	9.3	.01	.758
	5%	%	%
Equity	[illegible]	1	6
	0.6	0.00	.065
	5%	%	%
	[illegible]		8
	00.		.823
	00		%
	%		

Indeed, the 8.8% ordered by the NJ BPU is a good proxy for the Commission to use in determining if Verizon's cost of capital and resulting UNE rates are inflated - which in this case - they unequivocally are. Moreover, the above illustration further demonstrates that Verizon's cost of equity must be reduced at a minimum to 10% for Verizon's rates to be truly forward looking and TELRIC compliant. The Commission should address the problem by taking judicial notice of the NJ BPU's recent decision and ordering that UNE rates be based on a similar 8.8% cost of capital.

C. Analysis and Recommendation

The problems associated with any cost study, especially one as complex as a TELRIC study is that there is the risk that it could be out of date by the time it is implemented, even under ideal conditions. In less than ideal conditions where

the same forward-looking study may be in effect for upwards of 5 years, there is the risk that the forward-looking study will reflect neither forward-looking costs nor backward-looking costs, i.e., historical or actual costs. Unfortunately, little attention has been given to determining the precise date when a once forward-looking study is no longer forward looking. The complexity, time, effort and resources necessary to completely redo a forward-looking study from the most basic assumption upward, is understandably something that few if any parties have the resources or the will to do on a regular basis. In addition, there is clearly no one TELRIC study that has been hailed as the one and only TELRIC study. As in most cost studies, there is usually more than one way to do a study. Often the belief of whether a particular study "truly" comports with a particular methodology is in the eye of the beholder. There are of course instances where a particular methodology is clearly not compliant, but this, perhaps unfortunately is more often the exception rather than the rule.

While these arguments are certainly persuasive, they do not fall within the scope of this hearing. These assertions would be included under the recommended omnibus TELRIC Part Deux.

XI. SUMMARY

Throughout this report specific questions were recommended to be raised by the Commission during the January 11th hearing. These questions were seeking additional limited information that would be pivotal in addressing an assertion. Unless direct questioning is preferred, it would be helpful to have the responses included in the written responses to this report. This is an attempt to expedite the process, not shortchange it.

A. QUESTIONS

1. In an effort to assist the parties in developing answers to specific questions, this list has been developed of requests made within the report. It is not expected that this list is comprehensive or indicative of questions the Commissioners may raise at the January 11th Hearing.
2. Dark Fiber Displacement Is the practice of displacing the user dedicated wide band services a part of Verizon's standard or special construction tariff?
3. Dark Fiber Work Time Estimates Verizon-NH is to identify all of the new time estimate studies that do not conform with the July 6th Order as well as the elements that they impact
4. Fiber Layout Map Address the proposed time limit 6 .
5. Dark Fiber Request Turnaround Verizon-NH to state for the record that SGAT has been revised to show 15-day turnaround on dark fiber requests.
6. Dark Fiber Alternate Routes Verizon-NH to state for the record that SGAT has been revised to show that all reasonable alternative routes are considered for dark fiber application

7. .Check Box on Dark Fiber Request Form Verizon-NH to state for the record that this issue is being addressed.
8. .Dark Fiber Request Response to Include Specific Details Verizon-NH to state for the record that this issue is being addressed.
9. Repair at parity maintenance factor Verizon-NH identify where this maintenance factor originated, and where it has been used in the SGAT cost studies
10. Option A Splitter Costs Verizon-NH to take the opportunity to supplement the record on this issue. Of particular interest would be a numerator/denominator showing that should indicate if there is any double recovery. In addition it would be helpful if Verizon-NH could provide an explanation to counter the conclusion that Verizon-NH should not have any administration and support costs associated with line splitters under Option A. It is anticipated that this discussion will be exceedingly short.
11. Cooperative Testing Provide statistics regarding the ratio of legitimate cooperative testing events versus those events resulting from errors in provisioning.
12. Conditioning Provide statistics regarding the number of pre-qualified loops that require.
13. Sub Loop NRC Verizon-NH to state for the record that SGAT has been revised to show the appropriate nonrecurring rates.
14. EEL Mechanized Order Process

    (a) Verizon-NH to comment on the status of the cited mechanized process to convert from special access to EELS.

    (b) Verizon-NH to confirm that the Massachusetts mechanized EEL process will be available in New Hampshire, or to explain why not, or to state for the record that the

SGAT has been revised to show that the mechanized EEL order process is already in place.

(c) Verizon-NH to state for the record that the SGAT has been revised to show a thirty-day (or less) interval.

15. EEL Arrangement Process (a) Verizon-NH to provide details about the order process for EEL arrangements.

(b) Parties are asked to address whether the backbone link can only be used for EELs, or if the link can be used in the interim for other backbone combinations

B. PARTIAL LIST OF ISSUES TO BE ADDRESSED IN OTHER PROCEEDINGS

1. OMNIBUS TELRIC DOCKET

16. If Verizon-NH prefers, as opposed to the Commission ordering changes based on this report, the Commission to open an all-inclusive TELRIC proceeding.
17. Stranded Fiber, to include a discussion and record regarding how often unused fiber occurs.
18. Revised time studies submitted by Verizon.
19. Dark Fiber Service Order Charges
20. Dark Fiber Billing Measurement Unit
21. Dark Fiber layout maps
22. Dark Fiber, CLEC/Verizon Planning Meetings regarding available routes.
23. Reservation of Dark Fiber
24. Dark Fiber Access Points
25. Line Sharing EF&I
26. Line Sharing Splitter Option C
27. Line Sharing Augment Fee
28. Line Conditioning
29. Manual Line Conditioning Charges
30. Line Conditioning Engineering charges
31. EEL termination liability and minimum service period
32. EEL TEST CHARGE
33. UNE_P migration charges

34. UNE-P MODELING.

35. MERGER SAVINGS

36. Cost of Capital

2. DT 01-271

1. Collocation Power Surcharges