D.T.E. 01-20-Part A-A January 14, 2003

Investigation by the Department of Telecommunications and Energy on its own Motion into the Appropriate Pricing, based upon Total Element Long-Run Incremental Costs, for Unbundled Network Elements and Combinations of Unbundled Network Elements, and the Appropriate Avoided Cost Discount for Verizon New England, Inc. d/b/a Verizon Massachusetts' Resale Services in the Commonwealth of Massachusetts.

ORDER ON MOTIONS BY VERIZON MASSACHUSETTS, AT&T COMMUNICATIONS OF NEW ENGLAND, INC., AND CLEC COALITION FOR PARTIAL RECONSIDERATION AND CLARIFICATION AND ON MOTIONS BY WORLDCOM, INC. AND Z-TEL COMMUNICATIONS FOR PARTIAL RECONSIDERATION

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I. INTRODUCTION

On July 11, 2002, after a comprehensive 18-month investigation, the Department of Telecommunications and Energy ("Department") issued an order in D.T.E. 01-20 Part A ("Order" or "UNE Rates Order"), establishing new rates for unbundled network elements ("UNEs") and interconnection offered by Verizon New England, Inc. d/b/a Verizon Massachusetts ("Verizon") to competitive local exchange carriers ("CLECs"). In the Order, the Department made determinations, using the Federal Communications Commission ("FCC") Total Element Long-Run Incremental Cost ("TELRIC") standard, on the development of recurring and nonrecurring rates for CLECs' use of Verizon elements. The Order did not contain specific rates; thus, Verizon must submit a compliance filing. The Department hereby directs Verizon to submit this compliance filing within 30 days of the issuance of this order.[1]

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[1] The compliance filing is to contain new rates based on the findings in the Order and in this reconsideration order. The Order directed a compliance filing within 25 days, but the Department subsequently issued a Letter Order (August 23, 2002), stating that the date for the compliance filing would be set in the order on motions for reconsideration. The compliance filing date does not affect the effective date of Verizon's new tariff, established as August 5, 2002 in the Order and in an additional July 30, 2002 order ("Extension Order"). Verizon filed interim switching rates on August 5, 2002, and will retroactively true-up rates submitted in its compliance filing to that effective date.

On August 14, 2002, Verizon filed a Motion for Reconsideration and Clarification ("Verizon Motion") of the Order.[2] CLEC parties also filed motions as follows. AT&T Communications of New England, Inc. ("AT&T") and the "CLEC Coalition," composed of Allegiance Telecom of Massachusetts, Inc. ("Allegiance"), and Conversent Communications of Massachusetts, LCC ("Conversent"), filed motions for partial reconsideration and clarification ("AT&T Motion" and "CLEC Coalition Motion," respectively). WorldCom Inc. ("WorldCom") and Z-Tel Communications, Inc. ("Z-Tel") filed motions for partial reconsideration ("WorldCom Motion" and "Z-Tel Motion," respectively). The same parties filed comments on the motions on August 29, 2002 ("Comments"). Verizon, AT&T, WorldCom, Allegiance, and Conversent filed reply comments on September 6, 2002 ("Reply Comments").[3]

On September 24, 2002, the Department issued an Order Granting Verizon and AT&T Motions for Reconsideration, In Part, and Requesting Additional Evidence ("Additional Evidence Order") on four issues raised in Verizon's and AT&T's motions for reconsideration: right to use ("RTU") fees; the ratio of new to existing switches; the switch discount; and DC power distribution cable length. The Additional Evidence Order scheduled discovery, pre-filed testimony, and evidentiary hearings on those issues, which were held October 22 and 23, 2002.

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[2] Pursuant to 220 C.M.R. § 1.11(10), parties had until July 31, 2002 to file petitions for reconsideration of the July 11 Order. This deadline was extended to August 14, upon motions of several parties, in the Extension Order. The Extension Order also granted an extension of the judicial appeal period until 20 days after the Department issues this decision on motions for reconsideration and clarification. Extension Order at 16.

[3] Allegiance and Conversent filed a motion and comments jointly as the CLEC Coalition, but they filed separate reply comments.

At the hearings, the hearing officer granted Verizon's and AT&T's motions for confidential treatment (Tr. 20, at 3832-3840).[4] Pre-filed testimony of Verizon and AT&T/WorldCom[5] and other exhibits of Verizon and AT&T, plus all responses to information requests from the additional evidentiary phase, were admitted into evidence (id. at 3831-3832). Also, the Department issued three additional record requests. Verizon, AT&T, and WorldCom filed initial briefs on October 30, 2002, and reply briefs on November 5, 2002.[6]

This order addresses all of the issues raised in the parties' motions for reconsideration and clarification.

II. MOTIONS FOR RECONSIDERATION AND CLARIFICATION

A. Standard of Review

The Department's policy on reconsideration is well settled. Reconsideration of previously decided issues is granted only when extraordinary circumstances dictate that we take a fresh look at the record for the express purpose of substantively modifying a decision reached after review and deliberation. North Attleboro Gas Company, D.P.U. 94-130-B at 2 (1995); Boston Edison Company, D.P.U. 90-270-A at 2-3 (1991); Western Massachusetts Electric Company, D.P.U. 558-A at 2 (1987).

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4 A $36 per line figure Verizon reported as the price it paid for a particular switch was excepted from confidential treatment because it is already on the public record. See Additional Evidence Order at 10, 10 n.5; Tr. 20, at 3835, 3838-3839.

5 AT&T and WorldCom jointly sponsored direct and rebuttal testimony. Verizon was the only other party to file testimony.

6 These briefs are referred to herein as "Reconsideration Brief" and "Reconsideration Reply Brief" to distinguish them from the original post-hearing briefs.

A motion for reconsideration should bring to light previously unknown or undisclosed facts that would have a significant impact upon the decision already rendered. It should not attempt to reargue issues considered and decided in the main case. Commonwealth Electric Company, D.P.U. 92-3C-1A at 3-6 (1995); Boston Edison Company, D.P.U. 90-270-A at 3 (1991); Boston Edison Company, D.P.U. 1350-A at 4 (1983). The Department has denied reconsideration when the request rests on an issue or updated information presented for the first time in the motion for reconsideration. Western Massachusetts Electric Company, D.P.U. 85-270-C at 18-20 (1987); but see Western Massachusetts Electric Company, D.P.U. 86-280-A at 16-18 (1987). Alternatively, a motion for reconsideration may be based on the argument that the Department's treatment of an issue was the result of mistake or inadvertence. Massachusetts Electric Company, D.P.U. 90-261-B at 7 (1991); New England Telephone and Telegraph Company, D.P.U. 86-33-J at 2 (1989); Boston Edison Company, D.P.U. 1350-A at 5 (1983).

Clarification of previously issued orders may be granted when an order is silent as to the disposition of a specific issue requiring determination in the order, or when the order contains language that is so ambiguous so as to leave doubt as to its meaning. Boston Edison Company, D.P.U. 92-1A-B at 4 (1993); Whitinsville Water Company, D.P.U. 89-67-A at 1-2 (1989). Clarification does not involve reexamining the record for the purpose of substantively modifying a decision. Boston Edison Company, D.P.U. 90-335-A at 3 (1992), citing Fitchburg Gas & Electric Light Company, D.P.U. 18296/18297, at 2 (1976).

B. Verizon Motions

1. Switching

a. Right to Use ("RTU") Fees

i. Positions of the Parties[7]

(A) Verizon

Verizon advises the Department to apply TELRIC consistently and to "adopt cost assumptions for the TELRIC construct that could be reasonably expected in the hypothesized TELRIC environment" (Verizon Reconsideration Brief at 1-2). According to Verizon, because the Department directed Verizon to assume that 90 percent of its switching investment is purchased at the "new" switch discount level, the Department should also modify the switching cost study to include initial RTU fees (id. at 4; Verizon Reconsideration Reply Brief at 13). Verizon states that the "initial" RTU fee, although sometimes paid when a switch is installed, does not typically represent Verizon's total costs for making a switch operational, because Verizon has already paid the vendor through preexisting buyout arrangements (Verizon Reconsideration Brief at 5).

Verizon avers that the Department should conclude that the "new" switches will require an initial software load, and furthermore, that there are no preexisting buyout arrangements or prepaid software arrangements (id. at 6-7). Verizon explains that it lacks a specific document

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[7] We summarize here parties' positions in their briefs on reconsideration. The briefs expand upon their positions in motions for reconsideration and subsequent comments, which were previously summarized in the Additional Evidence Order, and which are not repeated here. See Additional Evidence Order at 3-5 for parties' positions on RTU fees.

that includes a "complete initial RTU fee" because "Verizon has not incurred its past switching costs through a purchasing process that remotely resembles the 'dropped in place' assumption" (id. at 7). Because Verizon purchases new switches based on preexisting buyout arrangements and based on its ongoing relationships with switch vendors, Verizon asserts that there are no "'actual' specific data from a recent switch contract showing the initial RTU fees that would be appropriate" for the 90 percent new switching assumption the Department ordered (id.). Furthermore, Verizon contends that the RTU fees that Verizon incurred when it purchased the switches that AT&T references were "substantially reduced from what they necessarily would have been if buyouts had not occurred" (Verizon Reconsideration Reply Brief at 14).

In support of its proposed $1.88-million cost per new switch for initial fees, Verizon relies on: (1) four recent Nortel bid submissions; (2) a cost estimate that Lucent prepared for the Franklin Street switch; and (3) a recent contract between AT&T and Lucent for 5ESS switching equipment (Verizon Reconsideration Brief at 8-9, citing Exh. VZ-60, at 4-5). According to Verizon, all four Nortel bids are "instructive," although Verizon did not award Nortel the contract for two of the four switches (id. at 8). Verizon avers that the reason the purchase documents from Lucent do not identify initial RTU fees is that they assume that generic 5E14 software has been prepaid in prior buyouts. To enable it to estimate the initial RTU fees that would be associated with the "dropped in place" construct that the Department directed, and, assuming that preexisting buyout arrangements do not exist, Verizon requested that Lucent prepare an initial RTU fee estimate (id. at 9, citing Exh. VZ-60, at 4-5). AT&T's contract with Lucent is relevant, according to Verizon, because the "scope of the contract

reaches far beyond a single state, and reflects AT&T's considerable purchasing power and leverage" (id.).

Verizon states that CLECs' recommendations are inconsistent because they propose negligible RTU fees while disregarding the link between these low costs and the embedded costs that made them possible (Verizon Reconsideration Reply Brief at 15). Countering AT&T's assertions, Verizon contends that the Lucent analysis, which yields an estimate of RTU fees, substantiates Verizon's proposed RTU fees. Verizon also refutes AT&T's criticisms of Verizon's reliance on Nortel's initial RTU fee proposals, and asserts that the bids' meaning does not depend on the bids' acceptance. Verizon also defends the relevance of the New York City Pearl Street bid. According to Verizon, the very characteristic that AT&T claimed rendered the bid irrelevant – its acquisition on short notice – makes that bid a realistic TELRIC price, because it represents the price "that would be charged where there is immediate demand for switching equipment and a supplier can dictate the terms under which it chooses to offer its equipment" (id. at 16) (emphasis in original).

Verizon further faults the analysis in attachments to AT&T's initial brief on reconsideration, because: (1) it includes references to switches that Verizon did not purchase; (2) it selectively excludes another switch because the cost per line was "unusually high"; (3) it ignores the fact that the so-called "initial" fees are low because of preexisting buyout arrangements; and (4) it does not recognize that the initial RTU fees supplement the ongoing RTU fees included in Verizon's cost study (id. at 17).

Verizon contends that WorldCom's claim that Verizon's switch material cost estimate already recovers RTUs "is based upon a misunderstanding of the SCIS Model" (id.). Verizon

explains that the SCIS model yields a material-only investment amount and that other costs, such as EF&I and RTU fees, are then added to the SCIS results (id. at 18). Verizon asserts that the proper treatment of RTU fees requires an adjustment of $1.88-million per new switch (id.).

(B) AT&T

AT&T asserts that Verizon has not met its burden of proving that the Department should increase the RTU factor, and that, furthermore, the evidence actually supports a reduction in the RTU factor (AT&T Reconsideration Brief at 13). Regarding RTU fees associated with Nortel switches, AT&T opposes reliance on the two Nortel bids that Verizon rejected and also opposes reliance on the Pearl Street estimate because it occurred on an emergency, non-competitive bid basis (id. at 14). Although AT&T considers the fourth switch estimate (Dulles Corner) to be accurate, it observes that the level is "materially higher than the average RTU fee charged by Nortel for new switches" (id.).

AT&T characterizes the single figure that Verizon provided regarding RTU fees for Lucent as "concocted for litigation," because Verizon never paid the amount to Lucent and instead has conceded that Lucent charges little or zero for the initial software associated with a new switch (id., citing Tr. 20, at 3696). AT&T, in a proprietary attachment to its brief, summarizes, among other cost data, the initial RTU fees for Nortel and Lucent switches that Verizon actually paid, and uses an average of these fees to compute a revised RTU factor based on the Department-approved ongoing RTU fees and a separate adjustment for initial RTU fees (id. at Tab 1).

AT&T asserts that Verizon's RTU recommendation relies on "backward-looking costs" rather than the low prices that Verizon pays today (AT&T Reconsideration Reply Brief at 6). Furthermore, according to AT&T, vendors have already recovered software development costs fully (id.). Contrary to Verizon's assertion, AT&T argues, Nortel price quotes that were not paid are irrelevant (id. at 7). AT&T also contends that Verizon's assertion about initial RTU fees is irrelevant, because Verizon never paid Lucent the claimed fee, but rather received the illustrative information from Lucent based on Verizon's request that it price out new switch software (id. at 7-8). Instead, AT&T asserts that the relevant price is the one that Verizon has paid, which, based on competitive bids, is zero dollars (id. at 8, citing Tr. 20, at 3696). Furthermore, AT&T indicates that, contrary to Verizon's assertion that the cost is zero dollars because generic 5E14 software has been prepaid in prior buyouts, Verizon obtains generic 5E15 software that was not subject to any prior buyout (id. at 8, citing Exh. ATT-VZ 31-1-P, as excerpted in Exh. ATT-33-P, Tab 10).

AT&T contends that its switching software contract with Lucent is irrelevant to the determination of the forward-looking initial RTU fees for Verizon's cost study because: (1) the contract terms do not apply to local switches and thus do not involve the software at issue in this proceeding; (2) the figures that Verizon cites resolve issues that are not in evidence in this proceeding; and (3) even if Verizon had proven that AT&T had paid the asserted amounts in connection with local switches (a proof which AT&T claims Verizon did not make), it would simply indicate AT&T's inability to obtain the same pricing as Verizon (id. at 8-9).

(C) WorldCom

WorldCom contends that Verizon has "again" failed to substantiate its proposed inclusion of initial RTU fees in addition to the estimated switch material costs (WorldCom Reconsideration Brief at 3). Because switch material cost estimates already include initial RTU fees, no additional costs need be assumed, according to WorldCom (id.). Referring to the Frederick, Maryland switch purchase, WorldCom observes that Verizon rejected the Nortel bid, and that the Lucent bid, which Verizon accepted, included RTU fees for the base software (id. at 3-4, citing Exh. ATT-33-P at 3). WorldCom contends that the bid information for the Moorestown, New Jersey and Dulles Corner, Virginia switches yield similar results, and that the Department should not rely on the Pearl Street, New York switch documentation because it does not include any competitive bid analysis (id. at 4).

Rejecting the Lucent estimate for the Franklin Street switch, WorldCom argues that the relevant Lucent cost information in Exhibit ATT-33-P shows substantially lower RTU costs and that, furthermore, the cost per line, to which Verizon agreed, includes software costs (id., citing Exh. ATT-33-P at 6-7). Because the per-line switch material prices that Verizon paid for recent switches already includes initial RTU fees, WorldCom contends that the Department should not add another cost category (id.).

WorldCom asserts that Verizon had the opportunity to estimate initial RTU fees on a per-switch basis on the assumption that no software buyout arrangements were in place, but it "failed to offer reliable evidence on this point" (WorldCom Reconsideration Reply Brief at 2). Also, WorldCom contends, Verizon did not make any attempt to counter Ms. Pitts' analysis, which demonstrated that the initial RTU fees are already included in the per-line bid price for

the switch purchases to which Verizon cited (id. at 2-3). Furthermore, WorldCom finds Verizon's reliance on the Lucent bid unpersuasive because the "estimate was created solely for the purpose of this litigation" (id. at 3).

According to WorldCom, even if Verizon were correct that its TELRIC study should include additional costs (a point which WorldCom maintains the record does not support), "there is no reliable, credible record evidence from Verizon as to what those costs would be in a forward looking environment, and there is no evidence showing that this new category of software costs has not already been accounted for in its original cost study" (id.). WorldCom also observes that although the allocation of switch investment between new and growth equipment has been litigated in many different UNE costing cases, Verizon has never sought an adjustment of its software costs depending on the investment allocation directed (id., citing Tr. 20, at 3727-3728).

ii. Analysis and Findings

The Department directed in the Order that Verizon assume 90 percent new switching investment and ten percent growth switching investment, rather than the predominantly growth investment modeled in Verizon's proposed switching cost study. Based on that directive, Verizon's motion for reconsideration sought, among other things, the inclusion of "initial" RTU fees in its TELRIC study, and specifically sought $1,880,663 per new switch modeled (Verizon Motion at 13-14). In its Additional Evidence Order, the Department directed parties "to address the merits of the category of RTU costs as a general matter" and, to enable the Department to "rely on more recent data," directed Verizon "to provide updated cost information . . . regarding estimates of the cost of RTU fees associated with initial switches,

based on Verizon's recent purchases of software packages associated with Nortel and Lucent switches (i.e., from 2000 and 2001)." Additional Evidence Order at 4.

Verizon pays RTU fees to switch vendors for the license to use the software required to operate and maintain digital switches (Exh. VZ-60, at 2). According to Verizon, it incurs two types of RTU fees: (1) the "initial" RTU fee, which covers the software necessary to make the switch operational "excluding buyouts or other prepaid software costs," and (2) "ongoing" RTU fees, which occur annually or semi-annually, to purchase software updates that provide enhanced functionality, such as new services, and increased operating, administrative, or maintenance efficiency (id.; Tr. 20, at 3696).[8]

Verizon's proposed switching cost study assumed that the majority of its switching equipment purchases would be for "add-ons," and, consequently, according to Verizon, the RTU fees that it included "consisted almost exclusively of 'ongoing' upgrade RTUs" with only an "extremely small portion of RTU fees in the cost study" for "initial fees associated with a new switch deployment" (Exh. VZ-60, at 3). Thus, Verizon's original TELRIC study does not include any specific separate adjustment for initial RTU fees (Tr. 20, at 3695).

The Department found in the Order that Verizon "failed to substantiate its assertion that the assumption of 90 percent new switches requires any increase in RTU costs." Order at 308. Based on Verizon's motion for reconsideration, however, the Department allowed additional evidence and argument on initial RTU fees. Additional Evidence Order at 4. The Department has now afforded Verizon ample opportunity to substantiate its proposed initial RTU fees, but

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[8] No party requested reconsideration of ongoing RTU fees, which the Department addressed in the Order at 333-335.

we find, as discussed in more detail below, that Verizon failed to supply persuasive and sufficient record evidence to support the assumed payment of initial RTU fees by Verizon to its switch suppliers in the magnitude of $1.88 million per switch (see, e.g., Tr. 20, at 3698-3711). However, there is sufficient record evidence to justify initial RTU fees of a considerably smaller magnitude (Exh. ATT-VZ 31-1; Exh. ATT-33-P, exhs. 5, 6, 10; Exh. VZ-60-P at 4; RR-DTE-102; RR-ATT-3). Accordingly, we grant Verizon's motion in part and direct a specific, separate adjustment for initial RTU fees. In so doing, we rely on the evidence in the record about competitively bid switches. Furthermore, Verizon states that initial RTU fees do not vary whether the assumed new switching investment/growth switching investment ratio is 90/10 or 50/50, and thus our analysis of the per-switch RTU fees is distinct from our analysis of the specific ratio of new to growth equipment (Tr. 20, at 3695).

According to Verizon, its inability to identify specific recent initial RTU fees is attributable to the fact that, in recent history, it purchased relatively few switches. Nonetheless, although the switch purchases may have been few, we find that they provide a more credible source of cost data than the RTU data upon which Verizon relies because they represent actual market conditions. We are not persuaded by Verizon's argument that examining the limited data that are available is misleading because it overlooks the "value" of the initial RTU fees that Verizon has paid over a long period of time (Tr. 20, at 3710-3711). Verizon attempts to "value" initial software, with its witness testifying that "the 1.88 million is a reasonable estimate for valuing the software of switches installed under the TELRIC premise that 90 percent of switches in the network will be bought at one time" (id. at 3727).

In this proceeding we seek the most relevant data concerning the costs that would best apply in the theoretical TELRIC construct. Having considered the additional record evidence – or lack thereof – provided in this phase of the proceeding, we find, as we did in the Order, that Verizon has failed to meet its burden of substantiating its assertion that the assumption of 90 percent new switches would increase initial RTU fees by $1.88 million per switch, and we find that instead, an analysis of actual market transactions, as set forth in the record, provides the best available information to determine the forward-looking RTU costs that Verizon would incur were it to construct a dropped-in-place network. See Order at 308. For this reason, we disagree with Verizon about the relevance of three of the four Nortel bids that it includes in Mr. Gansert's direct testimony (Exh. VZ-60-P at 4).[9] Verizon did not award the contract to Nortel for two of the four switches, and the third bid was not submitted through a competitive bid process (RR-DTE-102; RR-DTE-103; Exh. ATT-33-P at 3-4). Accordingly, we shall afford weight only to the fourth bid, which Verizon did award to Nortel (see RR-DTE-102). Further, the contract between AT&T and Lucent is not relevant to our assessment of Verizon's cost because it does not represent the prices that Verizon actually pays to its vendors (Exh. VZ-ATT/WC 3-1). As we discuss in more detail below, however, there are other data in the record which we may appropriately rely upon in order to make our finding as to the appropriate level of initial RTU fees to incorporate in Verizon's TELRIC study.

According to Verizon, there are no "actual" RTU data from a recent switch contract because Verizon's switch purchases have been made in the context of preexisting software

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[9] At the hearing, Mr. Gansert adopted the pre-filed testimony of Thomas J. Mazziotti.

buyout arrangements. Likewise, according to Verizon's witness, examining bids in isolation is misleading; instead,

> the bottom-line answer is how many dollars did I bring in this year and what's my cost of goods sold. This is just a classic problem in pricing and manufacturing pricing. And so you can't take any one of these bids and suggest that that price somehow represents the forward value of this equipment (Tr. 20, at 3703).

Contrary to Verizon's argument, we find that there may be a whole myriad of reasons that vendors offer low initial RTU fees, including the possibility that they have already recovered their research and development costs for software, and thus their incremental costs may indeed be low. Accordingly, we are not persuaded by Verizon's argument, and find that the vendor switch bid comparison sheets, which Verizon itself prepared to assist it in selecting among competing bids, include relevant, reliable, and credible RTU cost data (see Exh. ATT-VZ 31-1-P). The vendor switch bid comparison sheets were prepared and relied upon by Verizon in order to assist it in comparing competing vendors' bids for switches, and these sheets include bid information about the hardware and software components of the switch (Exh. ATT-33-P at 6; Exh. ATT-33-P, Tabs 5, 6, and 10 (excerpts from Exh. ATT-VZ 31-1-P); RR-ATT-3). Specifically, we rely on the data in these bid sheets that correspond with the prices of the winning vendor, and on Verizon's testimony on the RTU fee associated with a particular switch purchase (Exh. VZ-60, at 4).

Similarly, other than the information included in the vendor bid documents, Verizon did not provide evidence of actual initial RTU fees paid to Lucent (id.; Exh. VZ-60, at 4). Verizon avers that the reason that the purchase documents from Lucent do not identify initial RTU fees is that they assume that generic 5E14 software has been prepaid in prior buyouts

(Verizon Reconsideration Brief at 9, citing Exh. VZ-60, at 4-5). The vendor switch bid comparison sheets, however, do not substantiate this assertion. Instead, as AT&T observes, these documents refer to 5E15 base software, which Lucent offered at the amount shown in the proprietary documents AT&T references (Exh. ATT-33-P at 6; Exh. ATT-33-P, Tab 10 (an excerpt from Exh. ATT-VZ 31-1-P and RR-ATT-3)).

Verizon's witness testified:

> Q. On Page 4 of your direct, Lines 18 through 21 you indicate that you did not find any updated RTU fees in any recent Lucent bid documents; correct? …
>
> A. That's correct. In the actual bids – and I don't recall all of the sheets. But in the majority of them, in fact, Lucent charged either nothing or a very, very small buy-in fee for their software, basically recognizing that either it had been bought in a previous purchase or it was part of a bidding strategy that recognized that we'd already bought RT[U] fees in several hundred other switches and that they were using that as a competitive device to keep their prices low.
>
> Q. When you say "recent," how far back does that encompass?
>
> A. I'm thinking now of the really eight major bids that we've talked about in the filing in previous – really, it's ten, I guess, the six from 2000 and the more recent four for, I guess it was 2001. In general, there's zero software costs indicated in the bid sheets themselves (Tr. 20, at 3695-3696).

In determining the initial RTU cost that Verizon should use in its TELRIC study, we afford little weight to the Franklin Street estimate, as it does not correspond to a price actually paid by Verizon to Lucent. Instead, for Nortel and Lucent switches, we shall rely on fees associated with purchases actually made by Verizon, where such information exists in the record, as we describe in more detail below.

WorldCom contends that material costs, such as the $36 per line, include not only the cost of switching hardware, but also switch software costs, and thus, it asserts that no specific adjustment is needed (see Exh. ATT-33-P at 1). However, SCIS does not include software costs (Tr. 20, at 3761). Because we decide in Section II.C.4, below, to direct a specific new switch discount rather than an effective cost per line, contrary to WorldCom's assertion, we must develop an estimate of initial RTU fees that Verizon shall add to its TELRIC switching study.

Throughout its footprint,[10] Verizon installed relatively few new switches in the first three years of the four-year time period[11] spanned by Part G-9[12] of its recurring cost study (see Exh. VZ-37, Part G; Exh. DTE-VZ 3-2; Exh. DTE-VZ 3-7, Workpaper B; RR-DTE-102; RR-DTE-103). Therefore, in setting forth a separate and specific adjustment for initial RTU fees, there is limited opportunity for double recovery of initial RTU fees. The cost adjustment we direct is intended to be accurate; however the evidence does not allow pinpoint precision. For example, the cost data in Part G-9 could include some buyouts and prepaid software costs (Tr. 20, at 3776).

In its initial brief on reconsideration, AT&T presents a "corrected" version of the cost calculations that Verizon submitted in Exhibit DTE-VZ 3-4, and the following discussion refers

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10 The "Verizon East" regional footprint consists of (former Bell Atlantic states) Massachusetts, Delaware, Maine, Maryland, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Washington D.C., and West Virginia.

11 The record includes data about Verizon's switch purchases for 1999 through 2001, but not for 2002.

12 Part G-9 is the portion of Verizon's TELRIC study in which it computes right to use costs.

to both of these documents. AT&T includes, as Tab 1 to its reconsideration brief ("Tab 1"), a summary of the initial RTU fees that AT&T asserts Verizon paid to Nortel and to Lucent (AT&T Reconsideration Brief at 15). With minor exceptions, Verizon does not dispute the cost figures, per se (although it clearly disputes their validity as proxies for estimates of initial fees) (Verizon Reconsideration Reply Brief at 17 n.12). Furthermore, these data correspond with and are corroborated by evidence in the record (Exh. ATT-VZ 31-1; RR-ATT-3; see also (for Nortel switches) Exh. ATT-33-P, exh.10; Exh. VZ-60-P at 4; see also (for Lucent switches) Exh. ATT-33-P, exhs. 5, 6, 10). Accordingly, for ease of reference, we shall direct modifications to AT&T's table for purposes of Verizon's compliance filing.

AT&T states that the proprietary spreadsheet that it attached to its brief at Tab 1 "compiles the initial RTU fees that Verizon has actually paid for new switches" (AT&T Reconsideration Brief at 15). However, the information that Verizon provided in response to RR-DTE-102 (which, among other things, directed Verizon to indicate the winning vendor for 16 switches) demonstrates that AT&T included cost data for many switches that correspond with the losing vendor's bid rather than the winning vendor's bid. Thus, the table that AT&T provides in Tab 1 includes a combination of pricing information that, in some instances, corresponds with the winning vendor, and, in other instances, with the losing vendor.

In preparing a compliance spreadsheet, Verizon shall only include the bids that correspond with the winning vendor (RR-DTE-102; Exh. ATT-VZ 31-1; RR-ATT-3; see also Exh. ATT-33-P, exh.10; Exh. VZ-60-P at 4; see also Exh. ATT-33-P, exhs. 5, 6). Verizon contends that AT&T's table erroneously includes three switches in Virginia that Verizon did not purchase, yet excludes the Franklin Street switch in Massachusetts, which Verizon did

purchase (Verizon Reconsideration Reply Brief at 17 n.12). Before calculating a new RTU factor, we direct Verizon to remove the three Virginia switches that it did not purchase from the table presented in Tab 1 (see RR-DTE-102, RR-DTE-103). We find that the table appropriately excludes Pearl Street because this switch was not competitively bid (see RR-DTE-103). As stated above, we are not relying on Lucent's estimate of the initial RTU fee for the Franklin Street switch, and, therefore, no adjustment is necessary to the analysis for this switch. Furthermore, in its compliance filing, we direct Verizon to submit a table that includes information only about the 13 switches and the RTU fees, and the average RTU fee, and excludes the other information that AT&T summarizes in its table.

Using the newly calculated average initial RTU fees for Nortel and Lucent, based on a revised version of the table that appears in Tab 1, Verizon shall replicate the methodology it describes in Exhibit DTE-VZ 3-4(a), with one clarification. Verizon indicates, in this response, that it proposes to expand the analysis from four to twelve years to cover the life span of the switch, and furthermore that years "beyond 2001 will assume expenditures at the 2001 level" (Exh. DTE-VZ 3-4(a)) (emphasis added). Thus, in its description of its proposed methodology, Verizon does not specify whether it intends to use actual or budgeted 2001 expenditures for the years beyond 2001. However, the illustrative calculation that Verizon provided uses actual 2001 expenditures for 2001 and uses budgeted expenditures for years beyond 2001. Consistent with this illustrative calculation, Verizon shall use the budgeted 2002 expenditures for years beyond 2001.

In relying on the best available cost data derived from Verizon's vendor switch bid comparison sheets, we recognize that we may not be precisely capturing the initial RTU fee

component of the prices that Verizon ultimately paid to its switch vendors, because it is possible that Verizon did not pay exactly the figures that appear in its vendor switch bid comparison sheets for software. AT&T witness Ms. Pitts testified that "unfortunately, we just don't have, that I've found, a very clear, firm number from any documentation that Verizon has provided that we can use to somehow separately identify what an initial right-to-use fee would be" (Tr. 20, at 3788). In the absence of any other information about Verizon's payments for RTU fees, we shall rely on the switch vendor comparison sheets. The approach we direct replicates, with modification, Verizon's proposed method of computing the RTU factor, and supplements the already-approved ongoing RTU costs with a separate specific adjustment for initial RTU costs. As stated in the Order, Verizon shall assign these costs to non-traffic-sensitive UNEs. Order at 335.

AT&T asserts that its proposal would lower the RTU factor from Verizon's originally proposed level of 0.0197 to 0.0179 (AT&T Reconsideration Brief at 13). The elimination of the 1999 RTU "spike," pursuant to the Department's Order, explains the reduction from Verizon's originally proposed RTU factor. Order at 334. Also, by adopting the methodology that Verizon presents in Exhibit DTE-VZ 3-4, we acknowledge that the initial RTU fees should be recovered over the anticipated twelve-year life of the digital switches.

In summary, we have applied our administrative expertise and judgment to determine which measure of RTU costs best corresponds to the costs that Verizon would "actually" incur in the hypothetical TELRIC construct. We acknowledge, as Verizon explains, that the actual switching cost evidence that Verizon has provided does not yield the magnitude of RTU costs that Verizon asserts it would actually incur should it replace 130 switches in Massachusetts

simultaneously. Verizon contends that vendors' pricing strategies; Verizon's past, present, and future relationships with its suppliers; and other factors contribute to Verizon's inability to point to specific initial RTU costs, associated with an actual purchase, of the magnitude that it contends is appropriate. Nonetheless, we find that Verizon failed to substantiate the magnitude of initial RTU fees it proposes. Instead, for the reasons stated, we conclude that the record evidence on RTU fees associated with actual switch purchases provides the best available information in the record for the TELRIC switching study.

b. Ratio of "New" Switches to "Existing" Switches

i. Positions of the Parties[13]

(A) Verizon

Verizon frames the new/growth ratio issue as "how most accurately to estimate the cost of switches in such a 'dropped in place' network" and contends that the "'effective' discount proposal based upon anticipated purchases and the life cycle type analyses presented by Verizon MA more accurately reflect long run 'dropped in place' costs than AT&T's arbitrary snapshot of the switching network based upon a speculative growth assumption" (Verizon Reconsideration Brief at 10-11). Verizon characterizes AT&T's analysis as "simplistic" because, according to Verizon, assuming that all switching equipment is procured in a single transaction "defeats the study's purpose of attempting to establish costs that would be expected to be incurred over the long-run" (id. at 11).

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[13] See also Additional Evidence Order at 5-8 for positions on the parties on the ratio of "new" switches to "existing" switches.

Verizon contends that its "'life-cycle' type" approach is more reasonable, and recommends that the Department adopt either Verizon's five-year or twelve-year analysis, which, Verizon contends, "would enable the Department to more realistically replicate the long-run costs of switching investment" (id. at 12). Verizon states its analysis provides "meaningful information about the evolution of a substantial portion of Verizon's digital switch equipment network" (Verizon Reconsideration Reply Brief at 19). Verizon asserts that if the Department does not adopt the discount that Verizon proposes, the Department should then reject the 90/10 ratio and adopt the ratio that results from either the five-year or twelve-year analysis that Verizon submitted (id. at 20).

Verizon also argues that it is procedurally inappropriate that AT&T briefed the EF&I factor, a topic on which the Department did not seek supplemental information, and further asserts that AT&T's argument should be rejected on its merits because, according to Verizon, evidence demonstrates that EF&I dollar costs do not change when equipment prices change (id. at 20-21).

(B) AT&T

According to AT&T, Verizon's new-to-growth analyses are not "meaningful, accurate, or at all relevant to a TELRIC analysis" (AT&T Reconsideration Brief at 15). AT&T contends that the Department's 90/10 finding is consistent with the testimony of Verizon's own witnesses, and furthermore, if AT&T modified its analysis to incorporate the Department's decision regarding cost of capital, depreciation lives, and projected annual line growth, the ratio would be approximately 92/8 (id. at 16-17). AT&T finds fault with Verizon's "life-cycle" analyses for a number of reasons. For one, the starting point of the five-year analysis is later

than the period when Verizon had replaced the majority of its analog switches with digital switches, and thus the analysis, according to AT&T, is simply an arbitrary snapshot of Verizon's embedded network (id. at 18).

AT&T contends that Verizon's longer analysis, which spans the twelve-year period from 1990 through 2001, is also flawed (id. at 19-20).[14] According to AT&T, Verizon's analysis understates the ratio of new to growth equipment because (1) the analysis only includes the total number of "lines at cut" but ignores the full capacity of the new switches, and (2) the analysis attributes "growth" equipment to lines added during the time period examined, although the lines also may have been served through spare capacity from new equipment (id. at 19, citing Exh. DTE-VZ 3-7, Workpaper B). Also, AT&T faults both of Verizon's life-cycle analyses because the "snapshots" exclude most of the new switches purchased during Verizon's conversion from analog to digital switches (id. at 20).

AT&T also asserts that Verizon's characterization of its calculations as representing "a significant portion of the technological life of those switches" is a change from its earlier characterization of its analysis as being "over the actual life of a switching technology," which, according to AT&T, demonstrates that Verizon has not met its burden of proof (AT&T Reconsideration Reply Brief at 9, citing Verizon Reconsideration Brief at 12; Exh. VZ-60, at 9). This re-characterization occurred, according to AT&T, because Verizon was

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[14] AT&T refers to Verizon's longer analysis as a ten-year analysis (AT&T Reconsideration Brief at 19-20). In its initial reconsideration brief, Verizon refers to its expansion of its original five year analysis to include an additional six years, and in its reply brief, Verizon refers to the same analysis as a twelve-year life cycle analysis (Verizon Initial Brief at 12; Verizon Reconsideration Reply Brief at 19).

"confronted with the inconvenient fact that its analyses ignore the period of time in which Verizon installed the majority of its digital switches" (id. at 9-10). AT&T also dismisses Verizon's other argument, regarding the level of discounts available to Verizon, as irrelevant to the specific issue of determining the appropriate mix of new and growth switch equipment (id. at 10).

(C) WorldCom

WorldCom contends that Verizon's reliance on its current mix of new and growth sales is irrelevant to the prices that would be paid assuming a "dropped in place" network (WorldCom Reconsideration Brief at 6). WorldCom contends that AT&T's analysis, even as modified to incorporate the Department's relevant input decisions, "shows that the Department's 90/10 ratio is, in fact, conservative" (id.). According to WorldCom, Verizon's life cycle analysis is an attempt by Verizon to model its embedded switching investment in a forward-looking TELRIC study (WorldCom Reconsideration Reply Brief at 4). Stating that Verizon has not offered any evidence to suggest that it would not or could not negotiate high-volume contracts with its switch vendors, and contending that Verizon's analysis is "inconsistent with the 'dropped in place' network that is assumed as part of a TELRIC study," WorldCom recommends that the Department reaffirm the 90/10 ratio and reject Verizon's life cycle analysis (id. at 5; WorldCom Reconsideration Brief at 7).

ii. Analysis and Findings

Discounts for new switching equipment differ from those for growth equipment and, thus, the relative percentages of new and growth equipment that a switching cost study models affect the level of the switching investment modeled. The Department, in response to Verizon's request for reconsideration of the 90 percent new/10 percent growth equipment split set forth in the Order, directed parties "to supplement and justify the analyses that they submitted in response to Department Record Requests 56 and 66 with the specific and limited purpose of quantifying the split between new and growth equipment that is appropriate in a TELRIC model." Additional Evidence Order at 8.

The Department previously rejected Verizon's "life cycle" analysis, which Verizon provided in response to RR-DTE-66, because it captured "a five-year snapshot" of its embedded network and because the first year of Verizon's study period included "a combination of new and growth switches rather than entirely new switches." Instead, the Department determined that the analysis that AT&T presented in its response to RR-DTE-56 was "based on a more appropriate foundation for a TELRIC analysis" because it assumed "that in the first year, the model deploys all new switches and then, in subsequent years, growth is added to accommodate forecast demand." The Department found that AT&T's analysis described the "'dropped in place' nature of a TELRIC-modeled network." Based on this analysis, the Department directed Verizon to use a blend of 90 percent new switches and ten percent growth switches. Order at 301-302.

We affirm our finding that Verizon's life-cycle analyses are inappropriate for a TELRIC study. The digital switch life cycle began in the mid-1980s, and Verizon replaced

approximately two-thirds of its analog switches with digital ones before 1993 (Tr. 20, at 3739, 3693-3694). Thus Verizon's "snapshots" exclude many of the years in which it deployed new digital switches. Furthermore, we concur with AT&T that Verizon's methodology likely overstates growth equipment and understates new equipment. By including only the total number of "lines at cut" rather than the full capacity of the new switches, and by consistently attributing "growth" equipment to lines added during the time period examined when the so-called "growth" lines may instead have been served through spare capacity from "new" equipment, Verizon likely overestimates growth equipment (Exh. DTE-VZ 3-7, Workpaper B). Also, as stated above, the particular time periods examined by Verizon exclude many of its new switch purchases associated with the analog-to-digital switch conversion (Tr. 20, at 3694). Accordingly, we deny Verizon's motion for reconsideration of our findings on the new/growth ratio, and we affirm our finding that Verizon shall assume 90 percent new switch equipment and ten percent growth equipment.

c. Engineering, Furnishing, and Installation ("EF&I") Factor

i. Positions of the Parties

(A) Verizon

Verizon contends that the Department should increase the EF&I factor[15] because the Department's reduction of Verizon's proposed EF&I factor to 29 percent "inadvertently neglected to take into account its simultaneous decision to reduce switch investment levels" (Verizon Motion at 5). According to Verizon, the Department did not consider the impact of

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[15] Verizon's EF&I factor for switching equipment translates materials-only investment into installed investment (Exh. VZ-37, Part G-3, at 1, Workpaper 8). See Order at 272.

the switch discounts in its analysis of the EF&I factor (id.). Verizon states that a decrease in investment does not lead to a commensurate decrease in engineering, installation, and furnishing costs (id. at 6-7). Verizon asserts that the Department's rejection of the "probative, unchallenged, reliable data" it provided in response to RR-DTE-49 – which, according to Verizon, supports its position that the EF&I factor is approximately 50 percent higher for all new switches – "is the result of mistake or inadvertence" (id. at 7). Verizon also contends that, in their opposing comments, neither AT&T nor WorldCom "addressed the substance of the Department's clear methodological mistake" (Verizon Reply Comments at 2). Verizon contends that the Department failed to consider that "the extent of the switch discount assumed has an enormous effect on the EF&I factor" (id. at 3).

Verizon therefore asks the Department to reconsider its decision and to increase the EF&I factor to those levels that have occurred in the most recent Verizon switch purchases and states that the Department should, at minimum, "increase the EF&I factor by the ratio of Verizon MA's proposed switch investment costs to the switch investment costs ordered by the Department" (Verizon Motion at 5).

(B) AT&T

AT&T disagrees with Verizon's assumption that "the Department made a finding that there is a fixed total installation cost" (AT&T Comments at 7). AT&T argues that the Department instead found that "Verizon had failed to prove the total amount of switching installation costs that occur in a forward-looking network, and, instead relied upon the best available evidence to set the EF&I factor directly" (AT&T Comments at 7). AT&T asserts that in determining that Verizon had failed to support its EF&I factor, the Department specifically

considered and rejected the data in RR-DTE-49, concerning installation costs associated with six new switches installed in 2000 (id. at 8).

AT&T contends that Verizon is simply rearguing the issue, and, furthermore, that its claim "is not correct even conceptually" (id. at 9). AT&T states that the twelve percent vendor component that the Department adopted resulted from AT&T's running of Verizon's SCIS model, both with material only and in an EF&I mode (id.). AT&T observes that "Verizon did not challenge this 12 percent figure" or present contrary evidence (id., citing Order at 319). AT&T also notes that the twelve percent incumbent local exchange carrier ("ILEC") portion directed by the Department is based on 1992 data, which was based on older technology and older methods for switch installation, and thus is likely overstated (id. at 9-10).

(C) WorldCom

WorldCom opposes Verizon's motion for reconsideration of the EF&I factor for several reasons. Observing that "the Department found that Verizon 'failed to meet its burden of proof' and 'failed to justify its proposed factor,'" WorldCom states that "the Department did not 'reduce' Verizon's proposed EF&I factor, it created a new EF&I factor without reference to Verizon's proposal, making the adjustments that Verizon now requests unnecessary and inappropriate" (WorldCom Comments at 3, citing Order at 317, 319) (emphasis in original). WorldCom maintains that the Department should not alter its reliance on the vendor results that AT&T witness Ms. Pitts derived by running the SCIS model in the material-only mode and in the EF&I mode, and that Verizon "can hardly fault the Department's ultimate choice of 12 percent" for the ILEC component (id. at 3-4). WorldCom observes that although the Department could have relied on the "more recent, and arguably more relevant value of 8

percent as found by the FCC in its USF proceeding in 1999," the Department relied on 1992 data, "which resulted in a higher incumbent LEC cost component of 12 percent" (id. at 4) (emphasis in original).

WorldCom also asserts that the EF&I data in RR-DTE-49 "are all over the map" and that there "was no evidence to suggest that the six switch installations identified therein were typical or in any way representative of the work that would be required or the costs that would be incurred by a new entrant installing new digital switching equipment in central offices ["COs"] in Massachusetts" (id.). Quoting the Department's finding that "Verizon had ample opportunity to meet its burden of proof" regarding EF&I costs, WorldCom recommends that the Department reject Verizon's motion (id. at 5, citing Order at 317).

ii. Analysis and Findings

Verizon requests that the Department "increase the EF&I factor to the levels that have occurred in the most recent Verizon switch purchases" (Verizon Motion at 7-8). Alternatively, Verizon asks that we increase the EF&I factor by the ratio of Verizon's proposed switch investment costs to the switch investment costs ordered by the Department (id. at 8). In any case, Verizon questions our rejection of the data it provided in response to RR-DTE-49.

Verizon's proposed switch investment assumes, for the purpose of the Lucent discount, more than 99 percent existing equipment, with the residual amount corresponding to new switch equipment (Tr. 11, at 2068). In the same TELRIC switching study, Verizon proposed an EF&I factor of 40.27 percent. Order at 272. By contrast, the Department ordered Verizon to assume 10 percent existing equipment and 90 percent new equipment. Id. at 302. The Department also found that Verizon failed to meet its burden of proving the reasonableness of

its proposed EF&I factor and adopted a factor of 29 percent. Id. at 321. Verizon now contends that the Department's directives failed to consider the implications of its investment directive on the EF&I factor, and that a decline in switching investment does not translate into a proportional decline in the engineering, furnishing, and installation costs. The question that Verizon's motion raises is, even if 29 percent is an appropriate EF&I factor for the switch investment that Verizon filed in its original cost study, would the same factor be appropriate for the significantly different switching investment that the Department ordered?

To evaluate Verizon's motion for reconsideration, we first address whether we inadvertently failed to consider our directive regarding switching investment. Verizon filed its proposed EF&I factor in a cost study with switching discounts substantially different from those ordered by the Department. The Department's analysis of the EF&I factor focused primarily on the validity of the EF&I factor as Verizon proposed it within the context of Verizon's proposed switching cost study. Thus, by directing the adoption of a 29 percent factor, the Department sought to remedy the flaws in Verizon's EF&I analysis. However, upon reexamination of the evidence, and for the reasons discussed below, we agree with Verizon that we inadvertently failed to consider adequately the relationship between the EF&I factor and the effect of our switch discount directive on the magnitude of the switching investment that Verizon will model in its compliance filing.

In our findings on the EF&I factor, the Department considered relying on the data provided in RR-DTE-49, but stated the following:

> In support of its proposed factor, Verizon refers to proprietary cost data about its six most recent switch replacement jobs, and contends that this analysis yields an EF&I factor substantially higher than Verizon's proposed factor in this proceeding

> (see RR-DTE-49). Rather than supporting Verizon's proposed factor, we find that this evidence underscores the sensitivity of the EF&I calculation to the nature and size of the particular projects undertaken.

Order at 318. To address Verizon's motion for reconsideration, we have again examined these data, which have been afforded proprietary treatment; for that reason, our discussion is necessarily general.

First, the EF&I factors included in Verizon's response to RR-DTE-49 correspond, in part, with switch purchases that incorporate the same steep Nortel discounts that Verizon cautioned the Department against relying on, and which are the subject of the Department's reconsideration of the three switching issues on which we requested supplemental evidence. See Additional Evidence Order and Sections II.B.1.a, II.B.1.b, and II.C.4 of this order. We have considered the data in RR-DTE-49 both with and without the Nortel discounts. Because the sample size is small, we find it informative but not definitive. Further, we note that if we exclude the EF&I data corresponding to these Nortel discounts, the sample size in RR-DTE-49 is very small (RR-DTE-49, FCC Request VZVA-32). Similarly, one might also exclude the EF&I information corresponding to any switch purchases with discounts significantly lower than that directed by the Department, yielding an even smaller relevant sample. With these caveats in mind, we have examined specifically the EF&I factors associated with the various switch contracts for Verizon's recent switch purchases (RR-DTE-49, FCC Request VZVA-40). These EF&I factors also do not include the five percent sales tax, and thus we take that into consideration as well in our analysis.

In Section II.B.1.b, above, we determined that Verizon shall assume 90 percent new switch investment and ten percent growth investment, which, all else being equal, will lower

the magnitude of the switch investment costs that Verizon models in its TELRIC study. However, the data in RR-DTE-49 support Verizon's argument that a decrease in aggregate switch investment costs does not lead to a proportional decline in EF&I costs. Therefore, we find that, contrary to the approach in our Order, we cannot divorce our decision on the EF&I factor from our decision on switch investment. Accordingly, to recognize the interrelatedness of these two components of Verizon's cost study, we shall increase the 0.29 factor that we directed. However, the data in RR-DTE-49, while supporting an increase, do not permit a conclusive determination of the specific EF&I factor.[16] Accordingly, based on our closer examination of the information provided in RR-DTE-49, and taking into account various factors (an allowance of five percent for sales tax, which is not included in the EF&I table provided in RR-DTE-49, and the limited size of the relevant sample), we grant, in part, Verizon's alternative request. We direct Verizon, in its compliance filing, to increase the sum of the vendor portion and the Verizon portion of the Department-directed EF&I factor (i.e., 0.24) by the ratio of Verizon's proposed switch investment to the switch investment that corresponds with the Department's directives in this order, and to then add the five percent sales tax for the final EF&I factor.[17]

d. Busy Hour to Annual Conversion ("BHAC") Factor

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[16] The data in RR-DTE-49 support Verizon's general proposition that EF&I costs do not change in direct proportion to changes in switching costs, but we do not rely on the data to quantify the specific adjustment that we direct herein. Therefore, our findings herein on the three switching issues considered in the additional evidentiary hearings do not bear on the findings we render here about the appropriate EF&I cost methodology.

[17] Verizon's alternative proposal appears to recommend using 29 percent as the basis for the adjustment. Because, indisputably, the sales tax is a percentage of investment, we have directed a slight modification to Verizon's proposed methodology.

i. Positions of the Parties

(A) Verizon

Verizon contends that the Department misunderstood Verizon's calculation of its proposed BHAC factor and mistakenly determined the two components of that factor (Verizon Motion at 8). Verizon uses the BHAC to estimate the total annual minutes of use ("MOUs"), which, in turn, is the basis of the calculation of the TELRIC of an average MOU. Verizon states that it computed the busy hour to annual ratio ("BHAR") by dividing 0.083 (which Verizon calls the busy hour to day ratio ("BHDR") or the busy hour to all hours of the day ("BH/AHD") ratio) by 251 days (id. at 9). Verizon states that the BHDR represents the percentage of traffic within a 24-hour period (during the busy season) that the busiest hour comprises and that it necessarily exceeds 1/24 or 0.042 (id.). Meanwhile, Verizon explains, the BHAR "represents the relationship between traffic in the busy hour of one business day in the busy season to total traffic in the year" (id.) (emphasis in original).

Verizon objects to the Department's directive to use 0.070 rather than 0.083 for the BHDR because, according to Verizon: (1) the figure is based on "pure speculation," (2) the leveling trend, to the extent it may exist, is not necessarily occurring during the busiest days of the year, and (3) total Dial Equipment Minutes ("DEMs") for the year 2000 are significantly less than the MOUs that result from the BHAR conversion factor that the Department directed (id. at 11-12). Verizon considers DEMs, although they are not equivalent to MOUs, to "provide[] a useful benchmark" (id. at 12 n.12).

Verizon disagrees with the CLECs' assertion that the record evidence supports the Department's adoption of 0.070 for the BHDR factor, and states that there "was no study or

data presented by any party showing that the Internet has had such an effect, or that such a purported [levelizing] effect could be expected to continue" (Verizon Reply Comments at 6). Verizon states that there "is insufficient evidence" to support 0.070, but it presented "clear evidence" from 1997 to support 0.083 (id. at 7). Verizon further observes that its proposed factor is less than the 0.10 ratio in the Synthesis Model, which, Verizon contends, AT&T and WorldCom have sponsored "as recently as 2001" (id.).

Verizon also seeks reconsideration of the directive to use 308 days in the denominator of the BHAR calculation. Verizon contends that the Department erroneously determined that Verizon assumed that total switching costs "should be spread only over business days" (Verizon Motion at 9). Rather, Verizon states, it "is fully aware that the usage rate must be based on the ratio of total switching costs to total billable [MOUs] whenever those MOUs occur and its methodology is designed to accomplish that goal" (id. at 9-10). Verizon indicates that busy hour traffic represents traffic of the busiest hour during "a particularly busy" month rather than during a typical business day (id. at 10). In support of its motion, Verizon observes that the HAI Model and the Synthesis Model use 270 days (id.).

Verizon contends that the CLECs misunderstand the premise of Verizon's selection of 251 days, and that, contrary to the CLECs' apparent interpretation, it did not select 251 "because it represents the number of business days in the year and the busy hour sample was taken on a typical business day" (Verizon Reply Comments at 4). Instead, Verizon counters, the use of 251 days is intended to "convert[] the business day selected for the MOU sample – which is always a particularly busy day – to an average day of the year" (id. at 5) (emphasis in original). According to Verizon, the use of 308 days only makes sense if one believes that

Verizon and those supporting the HAI Model and the Synthesis Model "have all forgotten that there is traffic every day of the year" (id. at 5-6).

Verizon requests that the Department order 0.083 as the BHDR factor (the numerator) and 251 days (the denominator) in the BHAR calculation. Verizon states that "[a]t a minimum, the Department should order use of 270 days in the formula" (Verizon Motion at 12).

(B) AT&T

AT&T opposes Verizon's motion for reconsideration of the calculation of the BHAR factor. AT&T disagrees with Verizon's assertion that the 0.070 BHDR is not supported by any record evidence (AT&T Comments at 11). AT&T refers to testimony of its witness in support of the Department's finding (id. at 11-12, citing Exh. ATT-21, at 7-8; Tr. 11, at 2046-2047), and further indicates that "Verizon's own switch cost witness conceded that 'Internet traffic has flattened out the busy hour'" (id. at 11, citing Tr. 12, at 2334-2335). AT&T observes that Verizon failed to substantiate its proposed 0.083 factor "with anything other than its outdated 1997 traffic study" (id. at 12). Responding to Verizon's concern that even if traffic is flattening out, such flattening may not be occurring during the busiest business days, AT&T counters that Verizon failed to provide any record evidence to suggest that such a trend is occurring only on "non-busy" days (id.). AT&T also objects to Verizon's reliance on DEMs from 2000 as a way to assess the reasonableness of the Department's findings, because "there is no proof that the DEMs for 2000 have any relevance to the selection of a forward-looking conversion factor" (id. at 13).

Furthermore, according to AT&T, the Department did not misunderstand the record evidence, which supports the Department's adoption of 308 days (id. at 10). AT&T contends

that, based on the Department's findings that traffic patterns have likely evolved and that growth in dial-up access is consistent with growth in digital subscriber line and cable modem use, the "Department's decision to spread switching costs over 308 days reasonably accounts for the present use of UNE switching (for both voice and data) by business and residential customers on more than the 251 days of the year proposed by Verizon" (id. at 11).

(C) WorldCom

WorldCom recommends that the Department reject Verizon's motion for reconsideration of the BHAR factor because "Verizon has presented no argument or evidence to warrant a change" to the Department's decision (WorldCom Comments at 5). According to WorldCom, Verizon's argument that the Department's adoption of 0.070 is based on "pure speculation" is "ironic," considering that Verizon did not support its proposal with recent data (id. at 7-8). WorldCom cautions that if the Department were "to rule in Verizon's favor on this issue, it would signal to Verizon that it can avoid the adverse (i.e., cost lowering) consequences of recent, reliable data simply by reaching back to old, cost-inflating studies that do not reflect the realities of today's telecommunications market" (id. at 8).

Furthermore, WorldCom contends that, contrary to Verizon's assertion that the Department erroneously assumed that Verizon spread its costs only over business days, the "Department instead concluded that dividing the BHDR only by the number of business days was no longer appropriate because 'traffic patterns have likely evolved since 1997'" (id. at 6, citing Order at 327) (emphasis in original). WorldCom adds that although historically the use of 251 days may have yielded an approximate correlation to the actual relationship between a busy season's business day busy hour and total annual traffic, changing traffic patterns no

longer warrant the use of 251 days, and, thus, the Department's findings are appropriate (id. at 7). WorldCom further asserts that because Verizon failed to submit any empirical support for its use of 251 days it "cannot fault the Department for estimating what an appropriate adjustment should be" (id.).

(D) Z-Tel

Z-Tel opposes Verizon's motion for reconsideration with respect to the two components of the BHAC (Z-Tel Comments at 1-7). Z-Tel asserts that, contrary to Verizon's argument opposing the Department's directive to use 0.070 for the BH/AHD factor, "there is nothing speculative about a trend analysis," and, further, the Department did not do a "simple" trending analysis (id. at 5, citing Order at 328-329). Z-Tel also contends that year 2000 DEMs "are irrelevant to the forward-looking cost model" (id. at 6).

Observing that the telephone system is used on all days of the year, Z-Tel also contends that "Verizon has attempted to obfuscate the issue" of the number of days to use to estimate total MOUs "with a number of irrelevant, specious, or incorrect arguments" (id. at 2). Z-Tel asserts that "Verizon now argues that its calculation of MOUs is entirely arbitrary" (id., citing Verizon Motion at 8-9) (emphasis in original). According to Z-Tel, the reply testimony of its witness, Dr. Ford, demonstrates that Verizon's calculation of the annual number of MOUs assumes that the traffic that Verizon experiences during the busy hour of the busy season is representative of the traffic that occurs 251 business days of the year (id. at 3). Furthermore, Z-Tel characterizes Verizon's reference to the FCC's Synthesis Model as "disingenuous," because, among other things, if "Verizon wanted to have its costs determined with the FCC's

Synthesis Model, then Verizon should have filed that model with its Direct Testimony" (id. at 4).

Z-Tel contends that Verizon's reference to the 2000 DEMs data is misplaced because: (1) Verizon determined usage investment based on MOU capacity at the planning cycle midpoint, which does not coincide with the year 2000, and (2) using Verizon's proposed traffic assumptions (i.e., a BHDR of 0.083 and 251 days) yields approximately 88 billion MOUs, which is fifteen percent less than the 2000 DEMs (id.). By contrast, Z-Tel observes, even using Verizon's benchmark of the year 2000 DEMs, the 308-day assumption yields a difference of only five percent (id.). Finally, Z-Tel questions the need for Verizon to estimate MOUs rather than to measure them directly (id.).

ii. Analysis and Findings

Ruling on Verizon's motion for reconsideration on the BHAC factor requires us to address its concerns regarding two components of the BHAC: the BHDR, and the number of days over which Verizon should recover switching-related costs. These components are, respectively, the numerator and the denominator of the BHAC calculation.

Verizon bases its request for reconsideration of the BHDR findings, in part, on its concern that the Department's directive is based on "pure speculation." We concur with the spirit of Verizon's motion; that is, that it would be preferable to rely on more relevant data in order to make our finding. We disagree with Verizon's conclusion, however, that unadjusted data from 1997 is somehow more accurate than the same source data, modified to correspond with changing traffic patterns. The Department's need to estimate the BHDR is a consequence of the absence in the evidentiary record of a recent study on the usage of Verizon's network.

The Department stated, "[b]ased on the evidence in this case, the Department cannot reasonably conclude that a five-year-old study provides evidence of the accuracy of Verizon's proposed BH/AHD factor (RR-DTE-61; Exh. ATT-VZ 4-48-S; Tr. 12, at 2335)." Order at 306. The Department therefore found that "a reasonable number is bounded below by 0.042 and, based on changing traffic patterns, is bounded above by the 0.083 that Verizon measured five years ago." Id. at 305. The Department directed Verizon to use a factor of 0.07. For the reasons set forth in the Order, we determined that changing traffic patterns requires a downward-adjustment to the proposed factor of 0.083. Id. at 306. We affirm here that an adjustment is required, but we increase the factor to 0.075 because we find that our original directive of 0.07 adjusts excessively for the changes in the traffic patterns that have occurred during the last five years.

Verizon further states that even if there were a "leveling" trend, which Verizon does not concede, "there is no basis for assuming that such a [leveling] trend characterizes usage during the busiest business days of the year" (Verizon Motion at 11) (emphasis in original). However, there is also no evidence to suggest that the flattening of usage is occurring to a lesser degree on the busy business days. Furthermore, we are not persuaded by Verizon's reliance on DEMs from the 2000 ARMIS report as a way to attempt to "validate" the BH/AHD conversion factor, because Verizon has failed to demonstrate that these data are comparable to the usage modeled in its switching cost study. Thus we afford little weight to the "DEMs" argument.

Regarding the quantity of days to use in the calculation of the BHAC, the Department stated:

> We are persuaded by Verizon's contention that traffic is not identical on all days, so use of a 365-day division would overstate the number of minutes over which Verizon could recover switching-related costs and thus would be inappropriate. However, we are not persuaded that 251 days is appropriate. Traffic patterns have likely evolved since 1997. Therefore, it is reasonable to assume that the weekend days and holidays, which Verizon excluded, should be counted each as a half-business day, yielding 251 days plus 0.5 times 114 days or 308 days. Accordingly, Verizon should use 308 days as a basis for computing MOU costs.

Order at 326-327. In its switching cost study, Verizon subtracts weekends and holidays from 365 days to derive 251 days (Exh. VZ-37, Workpaper Part C-3, Section 7). According to Verizon, the difference between the business day traffic that occurs during the three months that it states are the busiest and the business day traffic that occurs during the other nine months covers the weekend and holiday traffic (Tr. 12, at 2328-2330). The calculation of the annual MOU is based upon traffic during the busy season and thus, to the extent that traffic during the "busy season" is greater than traffic during the "non-busy season," this calculation would, all else being equal, overstate annual MOU. However, by excluding holidays and weekends in the determination of the 251-day multiplier, Verizon seeks to offset this overstatement, thus yielding an approximation of annual MOU (id.).

With its directive to use 308 days rather than 251 days, the Department sought to address Verizon's failure to account adequately for changes in traffic patterns since 1997 and for traffic on weekends and holidays. Verizon did not support its assumptions about traffic patterns (business day relative to weekends and holidays, and busy season relative to non-busy season) with recent studies. As we stated in the above-quoted excerpt, traffic patterns have likely evolved since 1997, but Verizon was unable to provide any information about any recent evaluation of the "industry standard" of using 251 days in its calculation (id. at 2228-2229).

Thus, absent recent traffic data, the Department cannot determine the relationship between busy season usage and non-busy season usage, nor between business day usage and holidays and weekends – and thus cannot determine whether Verizon's assumptions about traffic patterns apply to today's network (id. at 2331-2332).

Verizon asserts that the MOUs that its network handles during the busy hour of the busy season are not representative of the 251 business days of the year, but rather are "far greater" than the MOUs it experiences on an average business day (Verizon Motion at 10, citing Tr. 12, at 2329-2332) (emphasis in original). Verizon did not provide any data or studies to demonstrate the magnitude by which the busy hour/busy season traffic exceeds the average business traffic, nor the relationship of business traffic to weekend/holiday traffic, and thus we are not persuaded that 251 days is an appropriate multiplier.

In its Motion, Verizon includes an example of how its multiplier yields an estimate of annual traffic (id. at 10 n.9). We will modify Verizon's example to illustrate the concerns we have about the sensitivity of Verizon's methodology to the underlying assumptions about the relative distribution of traffic during different times of the year and different days of the week. Consider an office that experiences a BS/BH (busy season/busy hour) demand of four MOU per line three months of the year and a demand of 3.5 MOU per business day in the rest of the year (i.e., on the "average" business day). Assume that the BHDR is 0.083. Then, in this example, the total business day demand for each line is approximately 48 MOU in the busy season (that is, 4/0.083) and approximately 42 MOU in the other months (that is, 3.5/0.083). Further assume that the weekend and holiday demand is one-half the business day demand during the busy season (or approximately 24 MOU per line). The busy season is assumed to

be three months, i.e., 25 percent of the business days (approximately 63 days). Then the total average annual demand of the office is (63*48) + (188*42) + (114*24) = 13,656 MOU. Dividing this by 48 MOU (that is, by the BS/BH demand) yields 286. This example demonstrates that the 251 multiplier would significantly understate the total minutes per year. In other words, if a multiplier of 251 days were used to translate BS/BH minutes to annual minutes, total annual minutes of 12,048 (251*48) would be assumed erroneously because in this example, the actual total minutes are 13,656. The use of 286 as a multiplier would, in this example, more accurately replicate the actual minutes. Just as we changed the numbers in Verizon's example, so too could others modify our example. We emphasize, therefore, that the purpose of including another example here is to illustrate that the lack of recent relevant traffic data requires the Department ultimately to exercise its administrative judgment.

Verizon did not provide recent data on the relevant traffic characteristics that would allow a more precise calculation of the type that Verizon provides for the first time in its Motion. Absent more comprehensive and recent data, we apply administrative judgment. Having considered Verizon's Motion, we do not alter our original findings that Verizon failed to support the proposed components of its BHAR factor with recent studies, and that traffic patterns have changed since 1997. As was the case in the Order, our findings herein are necessarily constrained by Verizon's inability to provide comprehensive, recent data. However, we agree with Verizon that, contrary to the CLECs' implication, Verizon did not select 251 because it represents the number of business days in a year, but rather Verizon selected 251 days as an attempt to translate the sampled traffic into an annual amount (Exh. VZ-37, Workpaper Part C-3, Section 7; Tr. 12, at 2328-2330). Similarly, we do not believe that

Verizon somehow forgot "that there is traffic every day of the year" (Verizon Reply Comments at 6). The concern we addressed in our Order is that Verizon, by using 251 days in its calculation, overestimated its annual traffic. Upon reexamination of the evidence, we are now concerned that the use of 308 days, combined with our directive to decrease the BHDR to 0.07, would lead to an underestimate of Verizon's annual traffic. Accordingly, in order to remedy this over-adjustment for changing traffic patterns, we grant Verizon's Motion in part and direct Verizon to use 270 days, since that figure is corroborated by use in other models, and 0.075 in its calculation of the BHAR, because we find that 0.07 adjusts excessively for changes in Verizon's traffic patterns.

e. Intra-Switch Calls

i. Positions of the Parties

(A) Verizon

Verizon explains that every call includes originating switching activities (to provide dial tone to the caller, collect the dialed digits from the caller, and route the call to the called party) and terminating switching activities (to provide ringing to the customer, detect the off-hook from the customer, and connect the terminating customer to the originating customer) (Verizon Motion at 15). Verizon seeks reconsideration of the Department's rejection of Verizon's proposal to implement separate originating and terminating charges for intra-switch calls because, according to Verizon, the Department "inadvertently failed to consider and specifically address the fact that application of both an originating and terminating local switching charge to intra-switch calls is appropriate because these charges recover completely separate and distinct costs" (id.).

According to Verizon, the "Department mistakenly found that 'Verizon has not presented new evidence . . . that intra-office and inter-office switching costs are different'" (id. at 16, citing Order at 320). Verizon states that its cost study computes separate costs for originating and terminating calls, including intra-switch calls (id. at 16-17). Verizon also contends that if the Department decides against allowing separate originating and terminating charges in intra-switch call cost calculations, then the Department should direct Verizon to remove intra-switch terminating MOUs from the per-MOU cost calculation (id. at 17). In support of its motion, Verizon also observes that the FCC and the New Jersey Board of Public Utilities recently found that Verizon's method is TELRIC compliant (id. at 15).

Verizon contends that neither AT&T nor WorldCom dispute that Verizon incurs separate costs for originating and terminating intra-switch calls (Verizon Reply Comments at 11). Also, Verizon states that, contrary to WorldCom's assertion, the local switching UNE does not include any interoffice port costs (id. at 11-12). While AT&T and WorldCom argue that the Department should not correct the calculation because Verizon did not raise the issue of also removing the intra-switch terminating MOUs from the per-MOU cost calculation during the hearing, Verizon counters that the request is necessitated by the Department's findings.

(B) AT&T

AT&T opposes Verizon's motion for reconsideration because, in its Order, "the Department expressly considered and rejected" the "very point" that Verizon raises again in its motion (AT&T Comments at 13-14). AT&T also contends that Verizon's references to other regulatory proceedings "are not helpful to Verizon's motion for reconsideration" because findings in other jurisdictions do "not negate Verizon's failure to meet its burden of proof in this proceeding" (id. at 14). Furthermore, according to AT&T, there is no record evidence to support Verizon's "fallback position" that if the Department denies Verizon's motion to apply two switching charges then Verizon should exclude terminating minutes from the calculation of MOU costs (id. at 15).

(C) WorldCom

According to WorldCom, because an intra-switch call passes through the switch only once, and because Verizon is already paid for the call through the originating switching charge, the Department correctly ruled that Verizon should not impose two switching charges on an intra-switch call (WorldCom Comments at 11). WorldCom observes that Verizon does not

charge CLECs less for originating switching of intra-switch calls even though, unlike for inter-switch calls, "no trunks need to be seized" (id.). WorldCom contends that, therefore, Verizon should not be allowed to charge CLECs more than the originating switching cost for an intra-switch call "because it has not been proven that the actual (originating and terminating) costs for an intra-switch call are any greater than the actual (originating) costs for an inter-switch call" (id.). WorldCom also opposes Verizon's alternative request for relief, stating that there is no evidence to support it (id. at 11-12).

ii. Analysis and Findings

We concur with AT&T that the FCC's and the New Jersey Board of Public Utilities' findings are not dispositive. Knowledge of the specific cost or tariff treatment that another agency determines to be reasonable is not itself useful to the Department although the rationale and supporting evidence that led the agency to reach a particular finding may be informative.[18]

Based on Verizon's reference to its own cost study, however, we find that we inadvertently relied on information in the Consolidated Arbitrations rather than the actual cost

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[18] As we stated in the Order, the Department "ordinarily place[s] little weight on the decisions reached in other states, since we rely for our decisions on the record presented here." Order at 24 n.25, citing Consolidated Arbitrations, D.P.U. 96-73/74,96-75,96-80/81,96-83,96-94 Phase 4, at 23 (December 4, 1996) ("Phase 4 Order"). The Department

> will not make findings on any issue based solely on the fact that another state (or any number of other states) made a similar finding, however useful or instructive other states' actions may be. . . . [A]ny reliance on outcomes from other states or the FCC will be based on the reasoning that led to the outcome, but not on the outcome itself.

Id. at 24.

study that Verizon submitted in this proceeding. In its switching cost study (which, with modifications, the Department adopted), Verizon computes separate costs for the originating and terminating portions of intra-switch costs, and, furthermore, includes originating and terminating minutes in its calculation of per-MOU costs. Accordingly, we grant Verizon's motion for reconsideration of our directives regarding intra-switch costs. Verizon shall implement separate originating and terminating charges for intra-switch calls.

f. Feature Port Additive Costs

i. Positions of the Parties

(A) Verizon

Verizon seeks reconsideration of the Department's disallowance of costs for the optional features that it offers to CLECs because the Department "mistakenly overlooked and/or misconstrued the nature of the record evidence," which, according to Verizon establishes that there are costs for the features (Verizon Motion at 18). In support of its motion, Verizon argues that: (1) the Department has accepted expert opinion testimony on numerous issues, such as nonrecurring work time estimates (id. at 18-19); (2) the Department has previously approved costs for the same features in a proceeding in which Verizon also "had no 'study' of feature port additive inputs" (id. at 19); (3) the Department's findings are inconsistent with the record because Verizon does incur costs for providing these features (id.); and (4) there are feature-related costs that do not depend on the inputs that the Department questioned (id. at 19-21). Verizon requests that "the Department reconsider each of the feature port additive elements with respect to the inherent reasonableness of the estimate, together with those elements of the cost study not dependent upon product management" (id. at 21).

Verizon contends that no "party to this proceeding has taken issue with the extremely low monthly costs ($0.03 to $1.48) that Verizon has proposed" (Verizon Reply Comments at 14) (footnotes omitted). Verizon asserts that "the Department's categorical rejection of Verizon MA's product managers' expert opinions is in error" (id. at 15). Verizon observes that the Department relies on opinion evidence for other aspects of Verizon's TELRIC studies, such as nonrecurring cost task time estimates, forward-looking adjustment factors ("FLAFs"), and fill factors (id.). Verizon states that "[w]here competing positions have been espoused by various parties in this proceeding, the Department has sometimes applied a numerical weighting in order to arrive at its decision" and contends that the Department "at a bare minimum should have applied that method here, weighting an uncontroverted usage estimate provided by a manager with decades of experience against an assumption of no usage at all." According to Verizon, "[s]uch weighting, although inadequate, at least would have avoided the manifest injustice imposed on Verizon MA here" (id. at 15-16) (citing Order at 72-73, 82, 111-113) (emphasis in original).

(B) AT&T

AT&T opposes Verizon's motion for reconsideration of the Department's treatment of feature port additive costs because, according to AT&T: (1) Verizon is simply rearguing points that the Department already addressed; (2) Verizon failed to substantiate its proposed inputs after the Department "specifically ordered Verizon" to do so; and (3) the product management estimates that "form the foundation for each feature port additive cost, including the four which Verizon cites in its motion" were unsupported (AT&T Comments at 5-7).

(C) WorldCom

Countering Verizon's observation that the Department has accepted expert opinion testimony on many issues, WorldCom states that the "so-called 'experts' to which Verizon refers are unnamed, unsworn, non-witness 'product managers' whose entire contribution to the process was they 'estimated each input value'" (WorldCom Comments at 12, citing Exh. ATT-VZ 4-1-S). Furthermore, according to WorldCom, although the Department directed Verizon to provide a detailed description of the process by which product managers derived their estimates, "the entirety of Verizon's substantive response on the subject amounted to . . . the product managers 'estimated each input value'" (id., citing Interlocutory Order[19] at 27).

WorldCom opposes Verizon's motion "to the extent that it seeks to recover feature port additive costs based on the usage estimates of Verizon's 'experts,'" but does not oppose Verizon's motion "to the extent that it seeks to recover equipment investment costs so long as (a) the amount of equipment required is not dependent on Verizon's unsupported usage estimates, and (b) the investment costs themselves comport with the Department's decision concerning the appropriate discount to be applied" (id. at 12-13).

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[19] Interlocutory Order on AT&T's Motion for Relief, Motions to Compel Verizon Responses to AT&T Information Requests, and Conditional Motion to Strike Verizon's Recurring Cost Model (October 18, 2001) ("Interlocutory Order").

ii. Analysis and Findings

Part C-1 of Verizon's recurring TELRIC study develops the costs for, among other things, monthly optional features (Exh. VZ-37, Part C-1). Verizon proposes monthly costs for eight unbundled individual line port features; twelve unbundled Centrex features; and six unbundled ISDN features (Exh. VZ-39, Part A, Results). In the development of the costs of some, but not all, of the feature port additives, Verizon relies on inputs provided by "product management;" for example, in the development of the cost of the Centrex intercom feature (Exh. VZ-37, Part C-1, Workpaper Section 9, line 1). AT&T sought "supporting documentation and explanations for all inputs used in Part C of the Cost Study that were sourced to Product Management" (Exh. ATT-VZ 4-1-S). Based on the lack of information provided in Verizon's response to AT&T's information request, the Department revised the question to instruct Verizon to "provide a step-by-step delineation of the process product managers used to derive the estimate" (Exh. ATT-VZ 4-1-S; Interlocutory Order at 27).

The Department determined that Verizon's response provided minimal support. Order at 316. We found that, although Verizon "was afforded ample opportunity to explain and justify the basis of the input values that it used to compute feature port additives" Verizon "failed to substantiate these inputs," and therefore we directed Verizon to eliminate the feature port additive costs. Id. Upon reexamination of the evidence, however, we determine that we erred in our finding for two reasons: (1) Verizon's development of costs for some features do not depend upon product managers' opinions; and (2) in those instances where Verizon's cost study does rely on product managers' opinions, we should have reduced, rather than eliminated, Verizon's proposed costs.

Accordingly, to remedy the first error, we approve Verizon's proposed costs for those features that do not rely on "product management" (e.g., automatic callback for Centrex lines, simplified message desk interface, etc.) with the incorporation of those modifications necessary to comply with all other relevant directives (e.g., regarding material investment, EF&I factors, etc.).

The Department's mistake concerning the second category of feature costs requires us to determine the appropriate remedy to address Verizon's failure to substantiate adequately inputs to its cost development. Ms. Pitts conceded that there could be some minimal cost associated with feature port additives, and, furthermore, the workpapers in Verizon's cost study identify cost elements (Exh. VZ-37, Part C-1; Tr. at 2079-2080). However, as we found previously, Verizon failed to substantiate its inputs. Relying on product managers' opinions is not troubling, per se, but we are unwilling to afford them much weight in this instance because Verizon was unable to provide more than a negligible amount of support for and description of the process by which "product management" selected specific inputs (Exh. ATT-VZ-4-1-S).

At Verizon's request, we have examined each of the features that rely on "product management." For the reasons discussed above and in the Order, we can only grant the product managers' opinions some weight, and, using the numerical weighting method suggested by Verizon, we conclude based on our administrative judgment that 40 percent is appropriate. Hence, we direct Verizon to reduce the following inputs in the workpapers in Part C-1 by 60 percent: Section 9, line 1; Sections 16 through 18, page 2, line 1; Section 24, page 2, line 1; Section 29, line 1; and Section 34, page 2, line 1. Verizon shall increase the following inputs in the workpapers in Part C-1 by 60 percent: Section 10, line 2; Section 30, line 2 and Section

34, page 2, line 4. Verizon also shall incorporate those modifications necessary to comply with all other relevant directives (e.g., regarding investment, annual to busy hour ratio, etc.).

With the analyses summarized above, we have, at Verizon's request, reconsidered the reasonableness of each of the feature port additive elements, and have separately analyzed those that rely on product management estimates. Our modifications to Verizon's inputs seek to balance our findings that Verizon does incur costs in order to provide features to CLECs, but that it failed to substantiate its inputs, although afforded ample opportunity to do so, leaving us no choice but to apply a subjective weighting to Verizon's unsubstantiated estimates.

g. Getting Started and Equivalent POTS Half Calls ("EPHC") Costs

i. Positions of the Parties

(A) Verizon

In "the interest of fairness and the promotion of competition," Verizon seeks reconsideration of the Department's decision to recover all "getting started" and equivalent "POTS" (plain old telephone service) half calls ("EPHC") from the non-traffic-sensitive monthly port rate rather than the traffic-sensitive end-office switching per MOU charge (Verizon Motion at 21-22). Verizon contends that the Department erroneously concluded that getting started and EPHC costs do not vary with usage and therefore mistakenly determined that these costs should not be recovered through traffic-sensitive charges (id. at 22). Verizon contends that "getting started costs and EHPC costs are traffic sensitive because, even though they are incurred generally at the time of switch installation, the amount of these costs is affected by anticipated switch usage volumes" (id., citing Tr. 12, at 2339-2340; Tr. 11, at 2085-2086). Verizon also requests that "even if the Department does not reconsider its

conclusion that getting started and EPHC costs are not related to usage volumes, as a matter of policy, the Department should recognize that these costs are 'shared' and, as such, should not be allocated exclusively to non-traffic sensitive rates" (id. at 23).

Verizon asserts that the Department erred in not directly considering and giving weight to Mr. Garfield's testimony (id.). Verizon states that "the size and cost of those resources increases with the level of expected use" (id. at 24). Verizon also raises the concern that the Department's decision shifts the burden of shared costs to the low volume (residential) customers rather than the high volume users "that are ultimately causing the Company to increase its switch capacity" (id.). Responding to AT&T's and WorldCom's oppositions, Verizon contends that (1) it showed that the Department failed to consider Mr. Garfield's testimony, and (2) AT&T and WorldCom mistakenly interpreted Verizon's argument that the Department should use its discretion as "an 'admission' by Verizon" that the Department was justified in its decision (Verizon Reply Comments at 16-17). Verizon also asserts that WorldCom "misunderstands how and why 'getting started' and EPHC costs are incurred" and that the level of these costs are "affected by anticipated switch usage volumes" (id. at 17-18).

(B) AT&T

AT&T contends that Verizon is simply reiterating the same points that the Department considered and rejected (AT&T Comments at 4-5). AT&T also asserts that Verizon does not allege any mistake or inadvertence regarding the Department's concern that under Verizon's proposal, all users would subsidize Verizon for the time beyond three years that rates are effective (id. at 5, citing Order at 311).

(C) WorldCom

WorldCom contends that Verizon's motion does not "remotely resemble[] a valid request for reconsideration" and that "Verizon simply does not like the outcome" (WorldCom Comments at 13). Also, WorldCom states that Verizon is incorrect in its assertion that WorldCom recommended that 75 percent of EPHC costs be assigned to the non-traffic-sensitive UNEs (id.). WorldCom disagrees with Verizon's assertion that usage ultimately limits switch processing because "in practice, they are port limited, not minute-of-use capacity constrained" (id. at 14, citing Exh. ATT-20, exh. CP-4). According to WorldCom, "because the processing capacity of switches is so vast, the only thing that will trigger the purchase of a second switch is reaching port capacity" (id.).

ii. Analysis and Findings

The level of EPHC and getting started costs is related to anticipated traffic volume because usage is one of the criteria affecting the switch processor design (Exh. VZ-42, at 10-11). The processor has evolved to "stay one step ahead of realtime demand" (id. at 17-18). However, once these costs have been incurred, usage does not drive the need for additional getting started and EPHC costs to be incurred, and, thus, they are fixed (Exh. ATT-20-P, exh. CP-4). Verizon uses a three-year planning period to compute MOU costs. Order at 309, citing Exh. VZ-37, Part C-2, Section 4, Workpaper; Tr. 12, at 2351. Increasing that planning period to five years would not alter the amount of getting started costs. Id., citing Exh. VZ-37, Part C-2, Section 1, Workpaper at 1, line 1; Tr. 12, at 2351-2355. Thus, had Verizon instead used a five-year planning period, usage at the midpoint of the planning cycle would very likely have been greater than that estimated for the midpoint of the three-year planning cycle, yet the

getting started costs would not have been greater, as confirmed by the testimony of Verizon's witness:

> Q. And the midpoint – we talked about this a week ago – that's halfway between 2001 and 2003?
> A. [MATT] 2000 and 2003; correct.
> Q. And if I designed further out, if I designed out five, then would the number increase?
> A. [MATT] All things being equal, if you designed out five years, we'd have to increase the CCS – the busy-hour CCS in the SCIS model, and you'd have different investments.
> Q. Would I need to increase the getting-started costs?
> A. [MATT] Would you need to increase the getting-started costs? Would the getting-started costs increase?
> Q. Yes.
> A. [MATT] Probably not, unless you added more switches.
> Q. Would I need to?
> A. [MATT] Wait a minute. The getting-started – Would you need to? No, probably SCIS would be steady.
> Q. So the getting-started costs would not increase if I went out five years.
> A. [MATT] No. (Tr. 12, at 2351-2352).

Thus, although Verizon considers the processor to be "inherently traffic sensitive," within the planning period that Verizon actually uses in its switching cost study, the getting started and EPHC costs are fixed (Exh. VZ-42, at 11). The Department stated:

> The widespread deployment of digital switches, equipment that is similar to computers, with vast processor capacity, has changed the nature of switching costs. We are not persuaded by Verizon's argument that the reason that usage does not cause the need for additional getting started investment results from the evolution of the switch. Switches may well have evolved specifically to accommodate capacity with sufficient processor capacity for the anticipated usage, but in a forward-looking cost study, contrary to Verizon's assertion, usage is not truly the cost driver for getting started and EPHC investments. The average processor utilization of Lucent 5ESS and Nortel DMS switches demonstrates that ports rather than processing capacity limit digital switches (Exh. ATT-20-P, exh. CP-4).

Order at 310. The question for us to consider is whether these fixed costs should be treated, in part, as "shared" with some portion being assigned to non-traffic-sensitive costs and the balance

being assigned to traffic-sensitive costs. As discussed above, anticipated usage does affect processor design, and, for that reason, we find that the costs should be treated, in part, as shared costs. However, it would be inappropriate to assign the entire category of costs to the traffic-sensitive UNEs. In its Motion and Reply Comments, Verizon fails to address fully the concern that the Department discusses regarding users subsidizing Verizon, in the event that fixed costs are assigned to MOUs:

> Neither the evidence nor common sense would suggest that growth in switching demand will cease after the end of the three years modeled in Verizon's cost study. Therefore, if the costs that the Department establishes in this proceeding serve as the foundation for rates that are effective for five years (i.e., until such time as the Department examines TELRIC studies for UNEs again), for the period of time between the end of the three years, and the completion of the next review of UNE rates, Verizon's proposed MOU costs would be based upon a mismatch of costs and demand. By assigning the getting started costs, which do not vary with usage, to the traffic-sensitive category, and then dividing those costs by three years of demand, Verizon would, after three years have ended, still be charging MOU costs for demand that it excluded from its calculations. This outcome is economically inefficient and unfair.

Order at 309.

Verizon does not explain how granting its motion would address these concerns nor how it would address the Department's similar finding that:

> Verizon's concern that low-volume users will then subsidize high-volume users is unpersuasive; and it is certainly of far less concern than that under Verizon's proposal, wherein all users would subsidize Verizon for the entire period of time that the rates are in effect beyond three years.

Id. at 311.

Ultimately, as Verizon recognizes, the allocation issue "is a policy issue that rests within the discretion of the state commission establishing UNE rates" (Verizon Motion at 24) (footnote omitted). Our intent is that the TELRIC studies we approve in this proceeding will lead to

cost-based rates that encourage economically efficient demand for Verizon's telecommunications network and the economically efficient deployment of rival networks. Unlike Verizon's motion for reconsideration of the Department's findings on feature port additive charges, Verizon's motion regarding getting started and EPHC costs does not contend that the Department's decision ignores costs. Verizon's getting started and EPHC costs are all allocated under the Department's decision; they are simply not allocated in a way that corresponds to the shared characteristic of these costs.

Based on a reexamination of the evidence,[20] we find that we erred, not in principle, but in magnitude, in our decision to assign 100 percent of getting started and EPHC costs to non-traffic-sensitive UNEs. We find it appropriate to treat getting started and EPHC costs as, in part, shared costs, and thus traffic-sensitive MOUs should bear an equal portion of these costs. Accordingly, Verizon shall assign 50 percent of getting started and EPHC costs to non-traffic-sensitive UNEs and 50 percent to traffic-sensitive UNEs. Again, the absence of direct evidence to support any specific allocation requires us to use a subjective weighting. Also, as discussed above, Verizon did not address fully our concern that users may subsidize Verizon for the entire period of time that the rates are in effect beyond three years. When Verizon submits its

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[20] Verizon raises the concern that we neglected to consider or did not give proper weight to Mr. Garfield's testimony. Although we cited infrequently to his testimony (e.g., on page 308), we did consider both his written testimony and the transcripts of his oral testimony in determining how to allocate getting started and EPHC costs between traffic sensitive and non-traffic-sensitive UNEs. The fact that any particular evidence is not cited in a Department order does not mean that the Department has not considered the evidence. Nonetheless, given the relevance of Mr. Garfield's testimony to the substance of Verizon's motion, we have reexamined his testimony as part of our reconsideration of the getting started and EPHC costs.

switching cost study in the next UNE proceeding, in five years, Verizon shall address this concern, and include supporting data, as applicable.

2. Interoffice Facilities ("IOF")

a. Positions of the Parties

i. Verizon

Verizon seeks reconsideration or, in the alternative, clarification of the Department's ruling on the circumstances under which it is appropriate to include digital cross-connect system ("DCS") costs in Verizon's DS1 transport UNE study (Verizon Motion at 38). Verizon moves that the Department eliminate the requirement that Verizon provide a separate dedicated transport option that excludes the costs of DCS equipment used at the terminating ends of certain DS1 circuits (id.).

Verizon claims that the Department's ruling represents a misunderstanding of the design of Verizon's cost studies and the role of DCS systems in a transport network (id. at 38-39). Verizon asserts that the Department mistakenly concluded that, because Verizon's DS1 transport includes some DCS costs, those costs were associated with optional functions (id. at 39). Verizon states that its cost studies do not include the costs of the additional DCS functionality that CLECs contend should be optional (id. at 40). Verizon further asserts that the Department was mistaken in concluding that all of the costs of DCS associated with its Enterprise Network Reconfiguration Service had been included in the costs of interoffice facilities (id. at 39). According to Verizon, only a portion of those DCS costs had been included (id.).

Verizon contends that the Department's requirement that it create two DS1 transport options would be impossible to implement as a practical manner (id. at 40). First, Verizon argues that there is no way to provide DS1 transport without using the DCS in locations where Verizon has installed a wideband DCS system, because Verizon does not install redundant multiplexers and manual cross-connection systems in addition to the wideband DCS system (id.). Further, Verizon states that it cannot provide DS1 transport through a DCS system at a location where Verizon has not installed a wideband DCS system (id.).

Verizon asserts that the CLECs are wrong that DCS equipment could be bypassed altogether, and that neither AT&T nor WorldCom have offered any basis for the Department to deny reconsideration (Verizon Reply Comments at 35). According to Verizon, while it can provide transport without DCS, providing transport with DCS is the most efficient, cost-effective option in many cases (id. at 37). Verizon further argues that the Department's ruling fails to account for the fact that Verizon did not include the costs of optional DCS functionality in its IOF cost studies (id. at 35). Verizon states that the Department's Order will result in a significant underrecovery of Verizon's costs of providing the transport UNEs to CLECs (id. at 38).

In addition, Verizon seeks clarification that the Department did not intend to require Verizon to provide unbundled DCS as a standalone UNE (Verizon Motion at 41). Verizon claims that, while the ordering clause might be read to create such an obligation, that language does not appear to follow from the Department's reasoning or to relate to any of the evidence or arguments presented to the Department (id., citing Order at 364). Thus, Verizon asks the Department to clarify whether it intended to require Verizon to provide (1) unbundled access to

DCS functionality as a separate UNE even where a CLEC does not order unbundled dedicated transport, or (2) DCS functionality together with unbundled transport, even at locations where Verizon has not installed a DCS (id.).

ii. AT&T

AT&T opposes Verizon's motion to reconsider or clarify the Department's order to unbundle the cost of DCS functionality at the terminating end from other IOF costs as without merit (AT&T Comments at 16). According to AT&T, Verizon's assertion that not all DCS costs are included in its IOF calculations is beside the point. Even if Verizon's assertion is true, Verizon's IOF charges include the cost of DCS equipment that CLECs will not use at the terminating end if they chose to perform the cross-connection functions provided by DCS equipment in some other way (id. at 17). Therefore, in pricing IOF as an option without DCS at the terminating end, Verizon must exclude all DCS costs, as the Department has ruled, AT&T states (id.).

AT&T argues that Verizon's claim that the inclusion of some DCS costs is consistent with a forward-looking design is irrelevant to the Department's decision (id.). Verizon's assertions relate primarily to the interconnection portion of the IOF cost study, not to the terminating end to which the Department's Order is directed, AT&T states (id. at 18). AT&T further contends that Verizon is incorrect that the Department's decision constitutes a finding that DCS is not efficient (id.).

According to AT&T, Verizon's claim that it cannot implement a DS1 transport option that excludes DCS at the terminating end is unsupported and contradicted by the record (id. at 19, citing Exh. VZ-38-A at 91; Tr. 8, at 1528-1529). AT&T asserts that Verizon's own

cost study and the diagrams contained in it show that Verizon does not use DCS in all instances (id., citing Exh. ATT-16, at 13). Therefore, given Verizon's own testimony and the variety of options that Verizon's cost study assumes, which includes IOF both with and without DCS, AT&T urges the Department to reject Verizon's assertion that it could not possibly offer IOF without DCS (id.).

iii. WorldCom

WorldCom states that the Department decided this issue correctly and therefore should deny Verizon's reconsideration motion with respect to DCS (WorldCom Comments at 23). WorldCom contends that Verizon's statements in its motion for reconsideration contradict Verizon's sworn surrebuttal testimony (id. at 21-22, citing Exh. VZ-38-A at 91). In response to Verizon's claim that creating two DS1 transport options would be impossible to implement, WorldCom cites a Verizon witness who testified that DCS could be removed from dedicated transport (id. at 22, citing Exh. VZ-38-A at 91).

b. Analysis and Findings

We find that Verizon's motion for reconsideration of the IOF portion of the UNE Rates Order does not meet the standard of review for reconsideration. Verizon's motion, as it pertains to IOF, does not bring to light any previously unknown or undisclosed facts, nor does it expose any Department findings based on inadvertence or mistake, but merely reargues issues considered and decided in the main case. Therefore, we deny the motion.

In response to Verizon's motion for clarification, the Department clarifies that the Order did not intend to require Verizon to provide unbundled DCS as a standalone UNE.

The Department intends that Verizon offer DCS as an option at the termination end of IOF circuits, only at those locations where Verizon has installed DCS.

3. Collocation: DC Power Cable

a. Positions of the Parties

i. Verizon

Verizon states that it has provided an extensive study of power cable lengths representing 70 percent of the collocation jobs performed in 2000 (Verizon Reconsideration Brief at 18). In response to AT&T and WorldCom's assertion that Verizon failed to provide additional data supporting its proposed cable lengths, Verizon counters that the Department requested additional testimony and hearings on reconsideration to allow the Department and other parties an "opportunity to examine the support for Verizon's original [proposal]" (Verizon Reconsideration Reply Brief at 22) (emphasis in original). According to Verizon, the Department has already found its cable length study reliable, and AT&T and WorldCom provided no credible evidence to undermine this finding (Verizon Reconsideration Brief at 18; Verizon Reconsideration Reply Brief at 22). Verizon contends that a Texas Public Utilities Commission finding of an average cable length of 55 feet, cited by AT&T, cannot be compared to Verizon's data, because the Texas finding is based on an entirely different study and involved a different party (Verizon Reconsideration Brief at 18).

According to Verizon, AT&T claims that an efficient CO design would place a BDFB every three rows to serve the equipment, which would result in average power cable lengths of 40 feet (id. at 19). Verizon maintains that AT&T's assertions that Verizon's designs are inefficient and its cables intentionally over-sized are "entirely inappropriate and unfounded"

(id.). Verizon states that in addition to cable length, it considers the cost of installing more BDFBs, batteries and rectifiers and the value of CO space when provisioning power to collocators (id.). Further, Verizon asserts that it applies the same engineering judgment and considers the same factors regardless of whether it is provisioning power to collocators' equipment or to its own (id. at 20).

Moreover, Verizon insists that AT&T's proposed design, with its "myopic focus on cable lengths alone," ignores increased costs and constitutes inefficient and irresponsible engineering (id.). Verizon claims that the cable lengths proposed by AT&T in this proceeding are inconsistent with cabling assumptions made in other proceedings (id.). AT&T argues that the average distance from the BDFB to the power plant should be the same as that from a collocation arrangement to the power plant, but Verizon contends the cabling would be longer for collocators cabled directly to the power plant (id. at 21). Verizon states that because cable racking does not run directly from a collocation cage to the power plant, AT&T's distance is understated (id.).

AT&T's claim that Verizon assumed in its cost study the provisioning of longer than necessary cable lengths "is even more absurd than [its] design proposals," Verizon argues, and AT&T has provided no evidence that Verizon ever provisioned a longer than necessary power cable to any CLEC (id. at 21-22). Verizon states that it had every reason to minimize cable lengths in its cost study: first, it has no incentive to provision longer than necessary cables because its pays for these costs itself; and in addition, at the time of its cable study Verizon did not have a separate charge for power distribution, nor did it intend to create one (id. at 22).

In response to AT&T's assertion (based on the cabling distances AT&T provisions for itself, that Verizon's provisioning of longer power cables to CLECs is discriminatory) Verizon contends that there are fundamental differences in how it provisions cabling to collocation arrangements versus cabling to its equipment (id.). Verizon asserts that because of the demand for floor space associated with collocation, CLEC equipment is not lined up as densely as Verizon's equipment, requiring that longer cable lengths be provisioned for CLECs (id. at 23). In addition, CLECs refuse to reveal the precise location within their cages where the power cables will be terminated; hence, Verizon states, it must provide extra cable "slack" to enable CLECs to "terminate the cable to any location within their collocation cage" (id. at 24) (emphasis in original). Verizon contends that AT&T "does not even attempt to address the unavoidable and nondiscriminatory reasons for these discrepancies" (Verizon Reconsideration Reply Brief at 24). Although AT&T claims to have accounted for this slack by increasing its recommended cable lengths by an estimated 37.5 percent, Verizon asserts that there is no record evidence to support this claim (Verizon Reconsideration Brief at 24).

Verizon states that the cable lengths provided in its study are TELRIC-compliant, as defined by the Department[21] (id. at 26). Despite AT&T's claim that Verizon's study is not compliant with TELRIC because it is based on year 2000 data, there is no evidence to suggest that power cable lengths in a redesigned CO would be shorter than those included in Verizon's cost study, Verizon contends (Verizon Reconsideration Reply Brief at 22). Furthermore, Verizon argues that the assumption of a remodeled CO would not affect power cabling lengths

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[21] The Department defines TELRIC principles with respect to collocation to assume existing CO locations and structures, but with efficiently reconfigured interior layouts. Order at 20-27, 385.

because the placement of CLEC equipment in relation to the BDFB, especially one placed in the collocation area, would not substantially change (Verizon Reconsideration Brief at 26; Verizon Reconsideration Reply Brief at 23). Therefore, Verizon contends that redesigning a CO would not materially reduce the average power cable lengths (Verizon Reconsideration Brief at 26).

Verizon asserts that AT&T's claim that the Power Distribution charge and Power Consumption charge double recover cabling costs "is procedurally improper and should be stricken" (id.). AT&T raises this issue for the first time in its rebuttal testimony on reconsideration, Verizon states, but the Department limited its request to reexamine the record to the issue of appropriate power cable lengths. In any case, Verizon adds, AT&T's assertion is incorrect (id. at 27). Verizon states that its Power Consumption rate element recovers the costs of the power cabling from the BDFB to the power plant, whereas its Power Distribution charge recovers the costs of cabling from the collocation arrangement to either the BDFB or the power plant (id.). Verizon acknowledges that in the Power Consumption charge CLECs may bear part of the cost for the BDFB that they may not be using, but that is a matter of rate structure, not double recovery (id.; Verizon Reconsideration Reply Brief at 24). Verizon states that it chose a "blended rate design" for "administrative convenience," as the cost difference is only 84 cents (Verizon Reconsideration Brief at 27-28). According to Verizon, weighting the Power Distribution rate element to account for CLECs that power back to Verizon's BDFB, as AT&T advocates, is unnecessary (id. at 28). An unblended rate for CLECs ordering less than 60 amps and one for CLECs ordering greater than 60 amps would address AT&T's concern, Verizon states (id.; Verizon Reconsideration Reply Brief at 25).

Finally, Verizon states that it developed cable lengths in its cost study by cable gauge, not average cable length per density zone for all gauges of cable as AT&T proposes (Verizon Reconsideration Brief at 28). Verizon contends that adoption of AT&T's approach would result in under-recovery of its costs, because costs increase exponentially as the cable gauge gets thicker (id.). Adopting an average cable length per density zone would disproportionately benefit AT&T and WorldCom, Verizon asserts, because their power requirements typically demand large cables (id. at 29). Verizon therefore recommends that the Department reject this "one-size-fits-all" approach, and adopt cable lengths according to the different gauges typically ordered by CLECs (id.).

ii. AT&T

According to AT&T, the Department scheduled additional evidentiary hearings on reconsideration of this issue so that the Department and other parties could "examine the support for Verizon's original 121-feet proposal," but Verizon failed to provide any additional data to support its proposed average power cable lengths (AT&T Reconsideration Brief at 20-21, citing Additional Evidence Order at 14). AT&T asserts that Verizon has not met its burden of proof because it did not produce, in either the original or the reconsideration proceeding, any evidence that its proposed cable lengths are forward-looking (id. at 21). AT&T recommends that the Department reject Verizon's proposed cable lengths for the following reasons: (1) the lengths are not TELRIC compliant; (2) the provisioning is discriminatory; and (3) the costs are double counted (id. at 22).

AT&T states that TELRIC requires Verizon to determine its costs based on a "scorched node" concept, which assumes existing CO locations but with an "efficiently designed network

dropped in place" (id. at 23). Yet, AT&T asserts, Verizon's proposed power cable lengths are based on inefficiently designed COs in which the BDFBs are placed more closely to Verizon's equipment than to collocation cages; and furthermore, they reflect Verizon's embedded network without the adjustment that a forward-looking, efficiently designed CO would require (id. at 22-23). According to AT&T, because Verizon's assumed cable lengths are based on those in its existing network, Verizon's Power Distribution cost study includes costs associated with "the inefficient layout of BDFBs in Verizon's existing central offices" (id. at 23). Verizon's COs were designed 50 to 60 years ago, before collocation considerations existed, and as a result collocation has been relegated to "leftover space," AT&T states (id. at 23-24). The "historic inefficiencies" of this configuration (i.e., the late addition of CLEC equipment) would not exist in a redesigned forward-looking CO, AT&T contends; rather, a forward-looking CO would be designed on a nondiscriminatory basis, with all carriers placing their equipment at the same time using the same design principles (id. at 24; AT&T Reconsideration Reply Brief at 13). Therefore, AT&T asserts, Verizon's cable length study based on year 2000 data is not TELRIC compliant and should not be used to compute the Power Distribution rate element (AT&T Reconsideration Brief at 24).

AT&T also contends that, due to the inefficient design of Verizon's COs, Verizon's study produces discriminatory cable lengths for CLECs (id.). According to AT&T, for the Metro zone, the cable lengths from Verizon's own equipment to a BDFB are half those for CLEC equipment to a BDFB (id., citing Exh. DTE-VZ 3-8; Tr. 9, at 3610-3611). AT&T asserts that "Verizon consistently places BDFBs in a location central to Verizon's own equipment and, therefore, minimizes the cabling distance between the BDFB and its equipment,

which efficient engineering dictates" (id. at 25). AT&T insists that these same efficiencies be applied to the cable lengths used in Verizon's Power Distribution cost study, because TELRIC requires Verizon to "provide CLECs with the same efficiencies that Verizon enjoys in the placement of the BDFB" (id.).

Verizon cites various factors, such as structural supports and walkways, that affect the placement of BDFBs. Verizon considers the same factors when it places a BDFB for its own equipment; yet, its own cable lengths are approximately half those it claims to need to serve CLEC equipment, AT&T asserts (id. at 25-26). While Verizon argues that demand for collocation space and the way CLECs place their equipment within the cages can lead to longer cable lengths for CLECs, Verizon fails to actually quantify the impact on cable lengths (AT&T Reconsideration Reply Brief at 12). AT&T contends that CLEC equipment lineups may account for slight differences in the cable lengths for CLECs, but certainly would not lead to CLEC cable lengths almost twice Verizon's (id. at 12-13). According to AT&T, an efficiently designed CO would produce cable lengths only slightly longer than Verizon's because of the partitions placed to separate equipment (id. at 13). Moreover, AT&T states that efficiency requires Verizon to terminate power cables at the CLECs' equipment, not to provide extra cable "slack" as Verizon contends (id.). Therefore, AT&T states that because the distance between a BDFB and Verizon's equipment is half of that for a CLEC, Verizon's cable length study produces results that are discriminatory and do not represent the distances or costs achieved in an efficiently engineered CO (AT&T Reconsideration Brief at 26-27).

AT&T also contends that Verizon double recovers the cost of power cable in both its Power Distribution and Power Consumption rate elements (id. at 27). According to AT&T,

the Power Consumption rate element recovers the cost of the BDFB and the cable that extends from the BDFB to the power plant. Verizon has weighted these costs based upon the percentage of time that CLECs connect to the BDFB rather than directly to the power plant. The Power Distribution rate element, according to AT&T, recovers the costs of the cabling between CLEC equipment and the power plant as well as between CLEC equipment and the BDFB. AT&T argues that the distance between CLEC equipment and the power plant is, on average, the same as the distance between the BDFB and the power plant (id. at 28). Therefore, AT&T states, some CLECs will be paying twice for separate power cables that cover the same distances, resulting in double recovery for Verizon (id.). In response to Verizon's procedural argument that AT&T's double recovery claim should not be considered because AT&T did not raise it prior to reconsideration, AT&T states it was previously unaware of the double recovery because Verizon "kept this key fact hidden" (AT&T Reconsideration Reply Brief at 16). AT&T recommends that to remedy the double recovery the Department should require Verizon to apply the same weighting from the Power Consumption cost study to the Power Distribution cost study (AT&T Reconsideration Brief at 28-29).

Finally, AT&T argues that it would be inappropriate to adopt an average cable length per gauge rather than per density zone, as Verizon proposes (AT&T Reconsideration Reply Brief at 15). According to AT&T, Verizon has already recommended that the Department adopt its proposed average cable length of 121 feet (id.). In addition, AT&T contends that a forward-looking, efficiently engineered CO would not require lengthy and expensive high-gauged cabling; thus, to adopt Verizon's proposal of an average cable length per gauge based on its existing network would be inconsistent with TELRIC requirements (id. at 16).

iii. WorldCom

WorldCom states that the Department ordered reexamination of Verizon's collocation power cable length to allow Verizon an opportunity "to supplement the record to repair the mistake that it admits it made in developing the record" (WorldCom Reconsideration Brief at 10). However, WorldCom asserts that Verizon provides no additional evidence to support its proposed average cable length of 121 feet (id.; WorldCom Reconsideration Reply Brief at 7). WorldCom contends that the record does support AT&T's finding of 40 feet as an efficient cable length (WorldCom Reconsideration Brief at 10; WorldCom Reconsideration Reply Brief at 7). Therefore, WorldCom recommends the Department, at a minimum, affirm its finding in the Order (WorldCom Reconsideration Brief at 10; WorldCom Reconsideration Reply Brief at 7).

b. Analysis and Findings

In the Additional Evidence Order, the Department stated that reconsideration of the appropriate DC power cable length was warranted, because the Department's treatment of the issue was affected by statements on the record that Verizon later claimed were mistaken, and we failed to address other contradictory evidence of record in the original proceeding. Additional Evidence Order at 13. We ordered additional evidentiary hearings to enable the Department and other parties to examine the support for Verizon's original 121-feet proposal.

As an initial matter, the Department finds that AT&T's argument regarding double recovery falls outside of the scope of the limited investigation ordered in the Additional Evidence Order. In that order, we stated that "the Department will allow further investigation of Verizon's proposed power distribution cable length." Id. We agree with Verizon that

AT&T's double recovery argument pertains to the rate design of the Power Consumption cost study rather than Verizon's proposed average cable lengths used in the Power Distribution cost study. Hence, AT&T's argument is procedurally improper and will not be considered.

AT&T argues that the cable length study Verizon submitted to support its Power Distribution cost study is based on its existing network design and therefore is not compliant with TELRIC (AT&T Reconsideration Brief at 24). Verizon counters that even in a forward-looking CO, the placement of BDFBs in relation to collocation arrangements would not materially change so as to substantially reduce the cable lengths between them (id. at 26; Verizon Reconsideration Reply Brief at 23). CLECs may "power back" either to a BDFB or to the power plant itself, depending upon the power requirements for their equipment. Therefore, it is necessary to examine separately these two cabling configurations and the corresponding cable lengths to determine their compliance with TELRIC.

Regarding the cable lengths between CLEC equipment and a BDFB, the Department agrees with Verizon that the placement of its BDFBs within the collocation areas is efficient. Although AT&T argues that Verizon's existing study does not represent a "scorched node" approach, there is no evidence that the existing layout of Verizon's collocation areas would change in a forward-looking CO. As we stated in our Order, "the Department will attempt to estimate the costs of a new network 'dropped in place' to serve current demand and reasonably foreseeable capacity requirements." Order at 22. Further, "[t]o the extent we conclude that current technology or practices represent efficient practices that would be replicated by Verizon in reconstructing its network, that technology or practice is sound evidence to be used in a TELRIC analysis." Id. at 23.

Verizon centrally placed the BDFBs to serve its collocation areas based on having "to assume what [it] thought was going to happen" (Tr. 19, at 3598-3599); but because of unexpected increases or decreases in demand for Verizon's CO space, what had been anticipated as central placement of its BDFBs would now appear inefficient (id. at 3598). Verizon states that BDFBs in collocation areas were "placed centrally at that time . . . with the information that we knew at that time" and for the use it could foresee (id. at 3598, 3600). However, in some COs, Verizon needed to expand collocation areas based on increased demand, while in others the areas were underutilized (id. at 3598). Because Verizon placed its BDFBs within the collocation areas based on forecasted use, the Department finds that the placement is consistent with TELRIC requirements and results in reasonable cable lengths from the BDFB to CLEC equipment.

However, the Department further finds that Verizon's assignment of collocation areas does not reflect the efficiencies that could be achieved in a forward-looking CO. We stated in our Order that "the FCC's TELRIC principles require us to assume existing CO locations and structures, but with efficiently reconfigured interior layouts." Order at 385. Most of Verizon's existing COs were constructed 50 or 60 years ago to house its own telecommunications equipment (Tr. 6, at 1088). Over the years, Verizon has expanded its equipment lineups to accommodate growing demand for telecommunications services. Recent FCC requirements that incumbents provide for physical collocation and remove obsolete unused equipment from space that could be used for collocation, combined with existing locations of Verizon's own

equipment, have resulted in the provisioning of collocation areas in "leftover space" within Verizon COs.[22]

We agree with AT&T that the current configuration of Verizon's COs is not representative of a forward-looking CO in which collocation space would be assigned in a more efficient manner. Contrary to Verizon's current practice of assigning collocation space to existing available space, in a forward-looking environment, collocation space would be assigned at the same time that Verizon would be building out its own space, and, thus, collocation space could be engineered more closely to the power plant. The Department concludes that the cable lengths for cables that power directly back to Verizon's power plant contained in Verizon's study are not representative of cable lengths that would be found in a forward-looking CO. Further, the Department finds a 20 percent reduction in cable lengths that extend directly to Verizon's power plant to be a reasonable approximation of the efficiencies gained in a forward-looking CO, and directs Verizon to reduce the cable lengths contained in its study accordingly.[23]

We determined above that the cable lengths between CLEC equipment and BDFBs are representative of what would be found in a forward-looking CO. AT&T contends that "the

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22 47 U.S.C. 251(c)(6); In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147, First Report and Order and Further Notice of Proposed Rulemaking, FCC 99-48, at ¶60 (rel. March 31, 1999).

23 Verizon acknowledges that in a redesigned CO the cable lengths "possibly could change somewhat, but not enormously, because . . . in terms of what it takes to place the power cable . . . you still have the same constraints that you have in a brand-new building," such as overhead structures and columns that affect the placement of cable racking (Tr. 19, at 3602). Our 20 percent reduction is the result of our judgment as to what constitutes a "somewhat" but not "enormous" adjustment.

CLEC-to-BDFB cabling distances are consistently longer, and therefore discriminatory, to those distances that Verizon has shown here for its equipment to a BDFB" (Tr. 19, at 3612). The Department does not find that AT&T's comparison of the cable lengths to BDFBs from Verizon and CLEC equipment proves that these cable lengths are discriminatory for CLECs.

To begin with, there are substantial differences in how Verizon and CLECs place their equipment. AT&T presented a diagram of what it contends is a typical ILEC CO equipment rack layout. In the layout AT&T proposes, BDFBs are placed at the end of telecommunications equipment rows "approximately every three rows throughout the central office," and the average cable length is 40 feet (id. at 3629; Exh. ATT-30, at 10-11). AT&T argues that "CLECs should not be treated in a discriminatory manner to how incumbents treat themselves from a cost standpoint" and, based on this layout, recommends the average cable length for CLECs be adjusted to 55 feet to account for the partitions between CLEC cages (Exh. ATT-30, at 11; Tr. 19, at 3630).

The Department is unpersuaded by the support AT&T advances for its proposed average cable length for CLECs. We find that the difference in cabling distances for CLECs and Verizon would be greater than 15 feet, in part because CLEC equipment is not placed side by side, separated by a partition only. Rather, CLEC equipment is placed anywhere within a CLEC's cage, leaving a potentially wide range of floor space separating CLEC equipment racks, which results in longer cable runs to the power source. The Department agrees with Verizon that CLECs' demand for floor space adds to their cable lengths. According to Verizon, "[c]ompared to our own equipment, where we would have higher-density fuse positions, they require[] . . . one fuse here, in 20 feet, another fuse another 40 or 60 feet

down. You could have three fuses spanning up to 60 feet just in cable length" (Tr. 19, at 3601). We are not convinced that this situation would change in a forward-looking environment, because the amount of collocation space CLECs demand will continue to vary.

The Department finds acceptable Verizon's practice of provisioning extra cable "slack" in order to ensure that CLECs fully utilize their collocation areas. If CLECs provided a diagram to Verizon depicting the location of their equipment within the cage prior to power cable provisioning, the extra cable "slack" would be deemed an inefficient practice; but CLECs do not do so. Additionally, while Verizon must install BDFBs approximately every three rows in order to meet its power needs because its own equipment is densely packed, the Department agrees with Verizon that, by comparison, installing BDFBs more commonly throughout a collocation area in order to minimize CLEC cable lengths would be inefficient and more costly (id. at 3604-3605).

AT&T also claims that Verizon has an incentive to provision inefficient and lengthy power cables to CLECs. According to AT&T, "[t]here's absolutely an incentive to increase the cable length, because that's what they then get to charge to the CLEC for collocation rates" (id. at 3613). In the Consolidated Arbitrations Phase 4-G, Verizon stated that its proposed DC Power rate element was "based on assumptions concerning the investment costs for a DC Power Plant, including micro-processor plant, rectifiers, batteries, automatic breakers, the power distribution cabinet, and the emergency diesel/turbine." Phase 4-G Order at 17. In this proceeding, Verizon states that it developed its DC Power consumption rate element using "the same methodology to develop DC power costs per amp, which was approved by the Department in the Consolidated Arbitrations" (Exh. VZ-28, at 20). Further, Verizon states that

at the time of the cable length study, it did not charge CLECs on a per-foot length for power cable (Tr. 19, at 3607). Because Verizon's cable length study is based on year 2000 data, and because at that time Verizon's cost study did not charge CLECs for power distribution cables but rather Verizon itself paid for the cost of power distribution cables to the CLECs, the Department finds that Verizon did not have an incentive to substantially increase the lengths of these cables (id. at 3606). Therefore, the Department determines that the power cable lengths used to determine Verizon's DC Power Distribution rate element are not discriminatory.

Finally, we agree with Verizon that the Department erred in finding that an average cable length should be determined by density zone. Verizon's DC Power Distribution study is designed to recover the average costs per fused grouping, which are determined from the average cable length per gauge. Thus, determining cable length by density zone is inconsistent with the way that Verizon developed its cost study, and would require small power users to subsidize large power users. Further, the Department disagrees with AT&T's argument that Verizon's proposed cost study, based on an average cable length per gauge, is inconsistent with TELRIC because a forward-looking CO would not result in any high-gauged cabling. The cable length survey Verizon relied upon for its DC Power Distribution cost study consists of some high-gauged cabling (Exh. CC-VZ 4-26). In the section above, the Department has found that, with some modifications, Verizon's proposed average cable lengths are forward-looking. No party, including AT&T, presented evidence (as opposed to argument) that high-gauge cabling would not be found in a forward-looking CO. Therefore, we find that an average cable length per gauge is the appropriate measure to use to determine Verizon's Power Distribution rate element.

The Department determined that evidence regarding DC power cable lengths warranted reexamination because Verizon indicated in its motion for reconsideration that the Department relied on misstatements of Verizon's witness when we concluded in our Order that 60.5 feet was an appropriate one-way average power distribution cable length. After further investigation, we find Verizon has adequately supported the cable lengths it presented in its original cost study for its DC Power Distribution rate element, with the exception of cable lengths between the power plant and CLEC equipment. As noted above, Verizon is ordered to reduce these lengths by 20 percent.

4. Nonrecurring Costs ("NRCs")

a. Statistical Method for Reducing NRC Task Times

i. Positions of the Parties

(A) Verizon

Verizon asserts that the Department's statistical method for reducing Verizon's NRC work times is flawed and does not fully address the Department's concerns (Verizon Motion at 30). Although Verizon disagrees that its proposed work times were not sufficiently representative of the sample, it is not seeking reconsideration of this issue (id. at 31). Instead, Verizon seeks reconsideration of the Department's solution – that Verizon use the low end of the 95 percent confidence interval for the task times that it uses in its nonrecurring cost model ("NRCM") – because it would result in times that are below the minimum reported work time in some cases, and fails to consider that Verizon's work times may also be understated (id.). In accounting for general uncertainty about the representativeness of the sample, Verizon states,

the Department should have treated the possibility that the work times may be overstated symmetrically with the possibility that the work times may be understated (id. at 32).

Verizon proposes a "trimmed mean" approach under which Verizon would rank the survey responses for each work activity from lowest to highest, eliminate or "trim" the highest 10 percent of work times and the lowest 10 percent of work times for each activity, and calculate the new average work time using the remaining responses (id. at 33). According to Verizon, this approach reduces significantly the risk that the sample produced disproportionate numbers of high work times or low work times (id.).

In the alternative, Verizon asks the Department to make certain adjustments in its solution, should the Department determine that it is still necessary to construct confidence intervals (id.). Verizon explains that the lower bound of the 95 percent confidence interval is a negative number in at least two cases, and the lower bound is less than the minimum work time reported by Verizon's survey respondents in a significant number of other cases (id.). Verizon contends that both of these are inappropriate for use in calculating NRCs (id. at 33-34). Verizon thus concludes that it would be appropriate for the Department to require Verizon to calculate intervals that are something less than two standard deviations away from the mean, such as 90 percent confidence intervals (id. at 34).

According to Verizon, the CLECs' oppositions to its motion rest on a misunderstanding of the Department's mandate: that the Department ordered the use of the low end of the confidence intervals to account for an alleged upward bias, not to account for concerns about the statistical reliability of Verizon's survey (Verizon Reply Comments at 23). Verizon argues that the Department never found Verizon's task times to be overstated or that Verizon

conducted its survey in a biased manner (id. at 24). Verizon contends that both its trimmed mean approach and its 90 percent confidence interval proposal address the Department's concerns (id.). Indeed, Verizon adds, a 90 percent confidence interval is necessary to remedy a fundamental flaw in the Department's approach (id. at 25-26).

(B) AT&T

AT&T contends that Verizon presents no valid basis for reconsideration of the Department's order regarding NRC task times, and that Verizon's motion ignores the Department's finding regarding bias in Verizon's work time surveys (AT&T Comments at 23). AT&T contends that the Department directed use of the low end of the 95 percent confidence interval for each task time not only because Verizon's task time surveys lacked a statistically valid sample, but also to address the likelihood of upward bias and the lack of independent oversight of the process (id. at 24).

According to AT&T, the Department's directive is a well-reasoned approach that will counteract the inflationary effect of Verizon's overstated task times and produce NRCs that come closer to achieving a true TELRIC cost (id.). Verizon's trimmed mean approach will not appropriately address the bias within Verizon's survey results, AT&T asserts (id.). Furthermore, AT&T contends, if trimming the mean resulted in eliminating a number of lower time entries, it could result in higher task times, which would be at odds with the Department's findings concerning upward bias (id. at 25).

AT&T argues that there is also no basis for Verizon's alternative proposal that its work times be adjusted based on a 90 percent confidence interval (id.). Verizon is on record supporting the appropriateness of the use of the 95 percent confidence interval to test for

sample validity, and therefore its after the fact proposal for a much more lenient 90 percent confidence interval should be rejected, AT&T states (id. at 26). AT&T concludes that Verizon failed to meet its burden of proving the reliability of its task time data, and the Department responded with a clear, reasoned decision that addresses the specific flaws in Verizon's task time study (id.).

(C) WorldCom

WorldCom urges the Department to reject Verizon's proposal to alter the calculation of NRC work times (WorldCom Comments at 16). However, WorldCom suggests that the Department's attempt to remedy the flaws in Verizon's NRC work time study may need modification (id.). If the Department's solution results in two examples of negative work times, as Verizon claims, then Verizon is correct that the Department's solution is inappropriate for those tasks, WorldCom states (id. at 17). WorldCom therefore recommends that, where the Department's methodology results in either a negative number or a work time that is less than the minimum reported time in Verizon's survey, the Department direct Verizon to substitute the minimum reported time in calculating NRCs (id.). For all other work times, the Department's methodology should apply, WorldCom concludes (id.).

(D) CLEC Coalition

The CLEC Coalition asserts that Verizon's motion for reconsideration is based on a faulty notion that the Department did not consider understated work times (CLEC Coalition Comments at 5). The Department found that, due to bias associated with the survey, task times were overstated, not understated, the CLEC Coalition states (id. at 4).

According to the CLEC Coalition, Verizon's proposed trimmed mean approach fails to take into account the Department's findings that the task times are overstated and, therefore, it does not warrant further consideration (id. at 6). The CLEC Coalition explains that trimming the lowest ten percent of the work times would result in trimming the task times that are the most efficient and reliable and least likely to be biased and overstated (id.).

The CLEC Coalition further argues that, should the Department determine that it is still necessary to use confidence intervals, Verizon's proposal to use a 90 percent rather than a 95 percent confidence interval highlights the unreliability of Verizon's data sample (id. at 6-7). The CLEC Coalition claims that the anomalies to which Verizon refers result from having small samples with wide variance between reporting times (id. at 7). Hence, Verizon's data sample of task times is completely unreliable and should not be given credence, the CLEC Coalition argues (id.). The CLEC Coalition suggests that Verizon instead use time and motion studies or, if it wishes to use employee surveys, must take care to avoid bias in their results (id. at 8; CLEC Coalition Motion at 17).

The CLEC Coalition asserts that the problems Verizon identifies further support rejection of Verizon's cost model and data until Verizon provides a model that is reliable and credible (CLEC Coalition Motion at 17; CLEC Coalition Comments at 8). Until a new study is completed, reviewed, and approved, Verizon's present NRCs should remain in effect, the CLEC Coalition urges (CLEC Coalition Comments at 8). Further, if the Department does not want to reject Verizon's cost model and task times outright, the CLEC Coalition adds, the Department should order Verizon to use minimum times, at least as an interim measure (id.).

ii. Analysis and Findings

Regarding the statistical method for reducing Verizon's NRC task time estimates, the Department stated:

> If the survey were not flawed, the sample mean would clearly be the best estimator of the population. However, having found flaws, we direct Verizon to use instead the low end of the 95 percent confidence interval for the task times that it uses in its NRCM to account for these flaws.

Order at 470. The Department concluded that Verizon's "survey is more likely to result in over-estimates of task times because the results are used to compute costs that Verizon will charge to its competitors." Id. at 462. Therefore, the Department's decision to reduce task times by using the low end of the 95 percent confidence interval was intentionally asymmetric. In arguing that the Department should have treated the possibility that the work time may be overstated symmetrically to the possibility that the work times may be understated, Verizon ignores the Department's stated findings and implied intent. Verizon's proposal to use a trimmed mean approach, which is based on this misapprehension, is therefore denied.

Verizon argues that the Department's decision to use the low end of the 95 percent confidence interval is flawed because the lower bound of the 95 percent confidence interval is a negative number in at least two cases, and the lower bound is less than the minimum work time reported by Verizon's survey respondents in a significant number of other cases. While negative task times are inappropriate for use in calculating NRCs, the Department is not persuaded that task times below the minimum reported time in Verizon's survey are also inappropriate. The lower bound of a sample would not necessarily have coincided with the lower bound of the larger population. In other words, it is entirely possible to select samples of employees (i.e., subsets of the larger population) that do not happen to include the employee within the larger population (i.e., all Verizon employees who perform the task in question) who

performs the task in the least amount of time. Thus, the fact that the lower bound of the confidence interval is less than the least time reported by the sample is not, per se, troubling. Indeed, unless one surveyed the entire population, one could not determine whether the lower bound of the confidence interval is less than the lowest time of any employee.

In light of the above analysis, the Department adopts WorldCom's solution in part and orders Verizon to substitute the minimum reported task time in only those few cases where the Department's methodology results in a negative time. For all other work times, our stated methodology shall apply.

b. Field Dispatch Charges

i. Positions of the Parties

(A) Verizon

Verizon asks the Department to clarify that, while it recovers the costs of field dispatches necessary to provision a loop through recurring charges, Verizon may assess an nonrecurring field dispatch charge for optional field dispatches requested by CLECs (e.g., to place identification tags at the network interface device ("NID")) (Verizon Motion at 42; Verizon Reply Comments at 38-40). Verizon argues that, if it is not permitted to assess an NRC for optional field dispatch tasks, CLECs will have the incentive to request unwarranted and inefficient dispatches (Verizon Motion at 42; Verizon Reply Comments at 39). Verizon further contends that requiring it to recover these costs in its Annual Cost Factors ("ACFs") would unfairly penalize some CLECs, who would bear a portion of the costs associated with unreasonable demands and inefficiencies of other CLECs (Verizon Motion at 42-43). Verizon requests that the Department confirm that it intended to disallow Verizon's proposed NRCs

only when a field dispatch is necessary to provision a loop (Verizon Reply Comments at 38-39).

(B) AT&T

AT&T claims that no clarification is warranted regarding the Department's order to include field dispatch charges within Verizon's recurring ACF (AT&T Comments at 22). According to AT&T, the Department made a clear decision that any field dispatch charges associated with a CLEC's order or UNEs should be recovered in the recurring rate (id. at 23, citing Order at 452). The Department made no distinction based on the reason for the field dispatch, and Verizon should not be allowed to introduce one now, AT&T argues (id. at 22). Verizon's argument is "an invitation to travel down an unproductive and dangerous path, whereby Verizon invents exceptions to the Department's rule, requiring future rounds of litigation and uncertainty," AT&T states (id.).

AT&T further argues that allowing Verizon to recover an NRC for any category of field dispatches would result in double recovery for Verizon, because the Department already has ordered Verizon to adjust its ACF to recover the costs for all field dispatches (id. at 22-23). AT&T therefore concludes that the Department should maintain the rule that field dispatch charges should be recovered through the ACF in Verizon's recurring rates (id. at 23).

(C) WorldCom

WorldCom states that Verizon should be permitted to charge for field dispatches only to the extent such dispatches would be required in the forward-looking network (WorldCom Comments at 23). According to WorldCom, the costs associated with a field dispatch should not be chargeable to the CLEC if the task to be performed would be unnecessary, or could be performed remotely, in the efficient forward-looking TELRIC network (id.). WorldCom concedes that if a CLEC requests a task be performed to an extent beyond that which would be necessary in the forward-looking network, the CLEC should pay (id. at 23-24).

(D) CLEC Coalition

The CLEC Coalition asserts that Verizon's request for clarification on this issue is not supported by the record and the suggested clarification inappropriately "dilutes" the Department's decision that NRC costs be recovered through recurring charges (CLEC Coalition Comments at 11-12). According to the CLEC Coalition, Verizon's request for clarification raises significant new controversial issues and its assertions are untested, which makes clarification inappropriate (id. at 12). Should the Department find that it is appropriate to reconsider its decision, the CLEC Coalition states, the Department should further clarify that Verizon may not assess an NRC for a field dispatch if Verizon would have had to dispatch a technician were it providing service to the end user (e.g., locating the loops a CLEC has purchased, finding dial tone on the lines, fixing defective outside plant, or rectifying problems at a pole or NID) (id.). According to the CLEC Coalition, such field dispatches should be recovered through the ACF (id. at 13).

ii. Analysis and Findings

The Department ordered Verizon to recover field dispatch costs through the ACF by leaving intact the approximate $35 million associated with nonrecurring revenues in its calculation of the ACF. Order at 453. Our decision ordered Verizon to recover all field dispatch costs through recurring rates, regardless of whether the field dispatch costs are, by Verizon's dichotomy, "necessary" or "optional" (see Verizon Motion at 38). The Department intended, however, to disallow Verizon's proposed NRCs only when a field dispatch is necessary to provision a loop. Accordingly, the Department grants Verizon's motion and clarifies that Verizon may assess a nonrecurring field dispatch charge for optional field dispatches requested by CLECs.

Further, we direct Verizon to remove all costs associated with optional (i.e., not necessary to provision a loop) field dispatches from its ACF to avoid double recovery. We find the CLEC Coalition's recommendation to be consistent with our intent; that is, if the field dispatch task would not have been performed by Verizon in order to provide service to its own end user, Verizon shall recover the cost of such a task through its recurring rates. Verizon is also directed to specify in its compliance filing those instances where a CLEC would be charged a field dispatch NRC for optional tasks and the corresponding costs for each instance.

5. Operations Support Systems ("OSS")

a. Access to OSS

i. Positions of the Parties

(A) Verizon

Regarding the Department's determinations on OSS, Verizon asserts that the Department "mistakenly interpreted" the Telecommunications Act of 1996 ("Telecom Act" or "Act")[24] and TELRIC rules in denying computer hardware costs as "historical in nature"[25] (Verizon Motion at 36). "The mere fact that the costs have already been incurred does not mean that they are not forward-looking, and thus properly recoverable costs," Verizon contends (Verizon Reply Comments at 31). Computer hardware must be replaced with newer equipment at the end of its useful life, and thus, recovering depreciation costs is necessary, Verizon states (id.). Verizon argues that it is appropriate that it used past expenditures, with adjustments, as a proxy for forward-looking hardware costs, because, in setting rates after the costs are incurred, the Department "need not guess at the appropriate costs" because it can see the computer equipment and expenses Verizon actually incurred to provide access to OSS (Verizon Motion at 37, 37 n.35; Verizon Reply Comments at 32). In sum, Verizon contends, "no party here disputes that a forward-looking network requires expenditures for computer hardware. . . . Thus, the only question is the appropriate measure of forward-looking computer hardware costs" (Verizon Reply Comments at 32).

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[24] 47 U.S.C. §§ 151 et seq.

[25] Verizon argues that the costs are "historical" only because this proceeding happens to be taking place after the expenses were incurred to implement, as required by the Act, CLECs' access to OSS (Verizon Motion at 36).

Regarding software maintenance expenses, Verizon argues that the Department's determination is based on a mistaken understanding of the record and is not supported by the applicable law. The "improper allocation" of software maintenance expenses will cause Verizon, or its end users, to incur the "overwhelming majority" of these costs (Verizon Motion at 37). Verizon asserts that there is "absolutely no evidence in the record" that Verizon benefits from OSS, even to win back customers, as CLECs contended (id.). The only evidence in the record, Verizon counters, is that OSS expenditures do not benefit Verizon's retail operations in any way, and that they are incurred "solely to benefit CLECs" (Verizon Reply Comments at 32, 33) (emphasis in original).

In response to WorldCom's argument that the costs are properly allocated to all end users because all end users benefit from competition in local phone service, Verizon replies that the same argument could be advanced for requiring Verizon to pay a CLEC's costs for any UNE, but the Telecom Act requires CLECs, not ILECs, to pay to costs of Access to OSS and other UNEs (id. at 33, citing 47 U.S.C. § 252(d)(1); Local Competition Order[26] at ¶ 314).

(B) AT&T

According to AT&T, the Department correctly found that Verizon failed to meet its burden of proof with respect to computer hardware costs "because it presented purely historical costs without any evidence that they would have any relation whatsoever to forward-looking costs" (AT&T Comments at 26-27). Verizon's claim that its computer hardware costs are forward-looking, because it "adjusted" its expenditures from previous years, is contrary to the

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[26] In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order, FCC 96-325, rel. August 8, 1996) ("Local Competition Order").

evidence, AT&T states, because Verizon sought recovery only for its historical costs and "insisted that it did not and should not" adjust them to make them forward-looking (id. at 26). Verizon has no basis for its claim that the Department mistakenly interpreted the Act and TELRIC rules, AT&T adds, because the Department properly noted that TELRIC is not an exercise in cost recovery (id. at 27).

Verizon's motion for reconsideration of the allocation of software maintenance costs reargues a point that the Department has considered and rejected, AT&T asserts (id. at 28). The Department relied on ample evidence to make its 1999 findings in the Consolidated Arbitrations Phase 4-L Order[27] that Verizon benefits from improvements to OSS (id. at 27). In this proceeding, the Department considered Verizon's statement that it would discontinue support for OSS if it were not required to provide access to CLECs, and found it insufficient evidence to merit departure from the Phase 4-L determination that Verizon benefits from OSS functionality. On the contrary, AT&T argues:

> In a world in which Verizon retains a legal obligation to make UNEs available to CLECs, all retail customers share the benefits of competition whether they continue to get service from Verizon or choose to sign up with a CLEC, and Verizon benefits from being able efficiently to transfer customers either to or from a CLEC (id.).

(C) WorldCom

WorldCom states that the Department correctly denied Verizon recovery of embedded OSS computer hardware costs because TELRIC "'is not an exercise in cost recovery,'" and "Verizon made no attempt to estimate" future hardware costs of a "new, efficient entrant" (WorldCom Comments at 20, citing Order at 510 n.190; Phase 4-L Order at 46). Should the

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[27] Consolidated Arbitrations, D.P.U. 96-73/74,96-75,96-80/81,96-83,96-94 Phase 4-L (October 14, 1999) ("Phase 4-L Order")

Department permit Verizon some level of recovery for OSS hardware costs, it should reject Verizon's proposed costs as too high, and consider AT&T's proposal for a 75 percent reduction in those costs, WorldCom adds (id. at 20 n.7).

Regarding allocation of software maintenance costs, WorldCom asserts that the debate over whether Verizon "benefits" from the existence of OSS should "shift from the carriers to consumers" (WorldCom Comments at 21). WorldCom reasons that "[b]ecause the benefits of competition are shared by all consumers, OSS-related costs that facilitate competition should also be shared by all consumers" (id.). The Department has accomplished this goal by spreading the OSS costs over the total number of access lines, and, thus, Verizon's motion for reconsideration of that allocation should be denied, WorldCom states (id.).

ii. Analysis and Findings

(A) Computer Hardware Costs

The Department rejected Verizon's proposed computer hardware costs as historical, rather than forward-looking, in nature. Order at 510. As we noted in the Order, and found previously at the time of the October 1999 Consolidated Arbitrations Phase 4-L Order, Verizon largely completed purchases for computer hardware to provide the Access to OSS UNE between 1996 and 1999. Id. at 507, 510. Verizon indicated in this proceeding that these purchases were unlikely to be duplicated. Id. Our denial of Verizon's proposed computer hardware costs is not an oversight due to "regulatory timing" as Verizon now protests, but was based on Verizon's own acknowledgment that the initial 1996-1999 computer hardware purchases would not be repeated; thus, we found that the initial investment is not illustrative of forward-looking expenses. Further, Verizon stated that using 2002 computer prices as a

benchmark would not be sensible and would not compensate Verizon for its costs. Id. at 506-507.

We noted in the Order that:

> [t]he pricing of UNEs, per the TELRIC method, is not an exercise in cost recovery. Its purpose, as stated by the FCC, i[s] to provide an estimate of forward-looking costs of a hypothetical telecommunications network using efficient technology to serve current and reasonably expected levels of demand and customers.

Id. at 510 n.190, citing Phase 4-L Order at 46. After review of Verizon's proposed computer hardware costs in this case, the Department found no evidence to support an adjustment to Verizon's historical costs nor any effort to provide such an estimate of forward-looking costs. Hence, Verizon's motion for reconsideration regarding computer hardware costs is denied. However, Verizon may provide, in its filing in the next UNE rates proceeding, proposed forward-looking computer hardware costs, allocated in the same manner as software maintenance expenses, discussed in the following section.

(B) Software Maintenance Expenses

The Department allowed recovery of OSS software maintenance expenses, which it found to be recurring and forward-looking, and further found that Verizon benefits from OSS improvements, and thus should bear a portion of OSS software maintenance costs, allocated based on the total number of access lines projected from 2002 to 2007. Order at 510-511. Verizon requests reconsideration on grounds that this allocation causes it, or its end users, to bear a disproportionate share of the costs, because Verizon does not benefit from the OSS function. However, the Department found, in the Phase 4-L Order, that OSS improvements resulted in "shared benefits," including, for Verizon, operating efficiency and competitiveness (for example, by improving its ability to win back customers). Phase 4-L Order at 52. In this

proceeding, the Department's rejection of Verizon's proposed Access to OSS costs is not based on a mistaken understanding of the record, because the Department considered Verizon's claim that it does not benefit from OSS, and was unpersuaded. See Order at 511. We remain unpersuaded. The Department is not requiring Verizon to prove a negative, as Verizon asserts; rather, the Department relied on the reasoning of the Phase 4-L decision with regard to the shared benefits of OSS, and found no evidence in the record of this proceeding refuting, or suggesting we should depart from, that precedent. Thus, as determined in Phase 4-L and as AT&T and WorldCom note, we affirm our finding that Verizon, CLECs, and end users all benefit from the availability of the OSS function, and the OSS expenditures are fairly allocated based on the total number of access lines.[28] For the reasons stated above, Verizon's motion for reconsideration regarding OSS software maintenance expenses is hereby denied.

b. Daily Usage Files ("DUF")

i. Positions of the Parties

(A) Verizon

The Department rejected Verizon's proposed DUF costs, just as it did in the Consolidated Arbitrations Phase 4-O, finding that Verizon did not demonstrate the reasonableness of its proposed DUF charge in its cost study or testimony, and failed to demonstrate the absence of double recovery. Order at 515-517. Requesting that the Department reconsider denying DUF charges, Verizon states that the Department "mistakenly"

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[28] Verizon's argument that the Department's rejection of Access to OSS costs violates the Telecom Act and Local Competition Order's mandate that incumbent LECs be "fully compensated" for efforts to "increase the quality of access . . . within their own network" is not correct, because CLECs bear their proportionate burden based on the number of access lines (Verizon Reply Comments at 33 n.25).

ignored "clear record evidence" that, to address double recovery concerns, Verizon "completely removed" DUF costs from its calculation of the Other Support Factor and the Common Overhead ACF (Verizon Motion at 35). Further, Verizon states, if the Department still finds that DUF costs are recovered in ACFs, the appropriate response is to adjust the ACFs "to remove DUF costs" and approve a separate DUF rate, charged only to the 60 percent of CLECs who utilize the optional service (id.; Verizon Reply Comments at 30).

Nevertheless, Verizon maintains that it has already removed DUF costs from the ACFs; that it will "delineate, in its compliance filing, the process" by which DUF costs were removed; and that the Department should have asked for additional information before it denied the costs (Verizon Motion at 35 n. 33, 36 n.34; Verizon Reply Comments at 29 n.20). Refuting AT&T and WorldCom's comments that it is attempting to relitigate DUF costs by supplementing the record, Verizon states that it takes issue "only with the Department's belief that any reasonable costs are recovered" through ACFs, and that it merely seeks to "point the Department to its mistake in declining all DUF costs" on that basis (Verizon Reply Comments at 29-30).

(B) AT&T

AT&T notes that the Department denied the DUF costs for two independent reasons: Verizon's failure to meet its burden of proving the reasonableness of the DUF charge, and Verizon's failure to show the absence of double recovery (AT&T Comments at 28). Verizon must demonstrate that both findings were the result of mistake or inadvertence; yet Verizon's motion does not address the first finding, and thus it should be rejected on this ground alone, AT&T asserts (id. at 29). Further, AT&T states, Verizon's claim that the Department ignored record evidence showing avoidance of double recovery is a mere reargument of points that the

Department considered and decided in the Order (id.). AT&T concludes that Verizon failed to prove that its proposed DUF charge was justified, and it should not now have the opportunity to submit additional evidence, as Verizon suggests in its motion (id. at 30, citing Verizon Motion at 35 n.33, 36 n.34).

(C) WorldCom

WorldCom urges that Verizon's motion regarding DUF be denied as it is "not really a request to reconsider the evidence, it is a request to continue litigation so that Verizon can supplement the record" (WorldCom Comments at 20). Verizon had the burden of proving its costs, WorldCom states, and cannot now ask reconsideration because the Department should have requested additional information on these charges; nor should it be allowed to "essentially supplement the record" to prove its case in its compliance filing (id. at 19-20).

ii. Analysis and Findings

Contrary to Verizon's assertion that the Department ignored the record evidence that Verizon removed DUF costs from its calculation of the Other Support Factor and the Common Overhead ACF, the Department searched for, and failed to find, any such evidence; nor did we find any evidence as to the reasonableness of the proposed DUF charge, as explained in the Order at 515-517. Verizon had the burden to provide such evidence, regardless of whether the Department specifically requested additional explanation or whether Verizon can, as it now claims, prove its assertion in its compliance filing. Verizon fails to show mistake or inadvertence by the Department, and cannot be permitted to supplement the record on reconsideration. Verizon's motion for reconsideration of the DUF charge merely restates points that the Department considered and decided in the Order and is therefore denied.

C. CLEC Motions

1. Cost of Capital

a. Positions of the Parties

i. AT&T

AT&T contends that the Department should consider the cost of capital of 9.73 percent it found reasonable for the retail monopoly in 1995, in the absence of stranded investment, and then determine whether there is any basis in the record evidence for increasing the cost of capital above this neutral starting point (AT&T Motion at 8). AT&T agrees with the Department's finding that heightened retail competition would not increase Verizon's cost of capital unless it resulted in stranded investment, but it disagrees with the Department's conclusion that the level of competition in the retail market would necessarily result in stranded investment (id. at 2, 3 n.1). AT&T argues that the Department's assumption that there could be material levels of stranded investment in the telecommunications industry has not been proven (id. at 4). AT&T claims that Verizon made no showing nor identified any evidence of likely stranded investment, and Verizon's own forecasts of 1.5 percent growth in access lines rebut any such assumption (id. at 5; AT&T Reply Comments at 1, 3).

An increase of the cost of capital substantially above the level that would be appropriate in the absence of a risk of stranded investment cannot be based on speculation, AT&T contends (AT&T Reply Comments at 7). Verizon's assertion that it faces the risk that it may invest in facilities to provide UNEs only to see CLECs abandon those facilities is merely theoretical, AT&T asserts, and Verizon is unable to point to any evidence that it faces a meaningful risk of stranded investment (id. at 3). Moreover, the Department allowed a three percent adjustment in

the fill factor and shorter depreciation lives to account for competitive loss, AT&T adds (AT&T Motion at 7).

ii. WorldCom

WorldCom argues that the Department's conclusion regarding cost of capital is the result of mistake or inadvertence because the record evidence does not support the Department's predictions regarding the future level of competition in the state (WorldCom Motion at 6). WorldCom asserts that none of the exhibits cited by the Department is or purports to be a forecast of future CLEC competition; at best, they provide current and historical data only (id. at 7).

WorldCom contends that if RR-DTE-1, on which the Department relied in making its assessment regarding competition, displays any trend, it shows that CLEC collocation of equipment at Verizon facilities is collapsing, not expanding (id. at 9-10).[29] Moreover, WorldCom contends that Verizon's claim that its actual line count has declined sidesteps the fact that most of the customers that have migrated to CLECs have done so via UNE-based connectivity or special access circuits, both of which result in the continued use of Verizon's facilities (WorldCom Reply Comments at 2).

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[29] WorldCom also requests that the Department take administrative notice of the recent acknowledgment by Verizon's witness in the Department's collocation security proceeding that Verizon had been receiving frequent termination notices (WorldCom Motion at 10 n.6, citing D.T.E. 02-8, Tr. at 154 (July 10, 2002)). The proper procedure for noticing the evidence in another Department proceeding is incorporation by reference, pursuant to 220 C.M.R. § 1.10(3). However, we find that no such incorporation is warranted in this instance, as the request is procedurally inappropriate when the record in this proceeding is closed, leaving no opportunity to examine this evidence or its relevance to this case.

WorldCom argues that, even if the level of competition the Department perceived were supported by the record, it still would not justify the uniformly high level of risk that the Department assigned to all UNEs, and loops in particular (WorldCom Motion at 11). WorldCom claims that low risk should be reflected in all components of Verizon's cost of capital, including, but not limited to, the return on equity (id.).

Like AT&T, WorldCom argues that, if Verizon faces a significant risk of stranded plant, then it also faces negative growth for both loops and switches (id. at 11 n.7). On the other hand, WorldCom claims that, if the Department permits Verizon to assume a high growth factor, then the risk of stranded plant is zero, and the cost of equity must drop and the debt ratio rise (id.).

iii. Verizon

Verizon requests that the Department reject AT&T's newly-proposed 9.56 percent cost of capital because AT&T has presented no arguments warranting reexamination of this issue, nor has it demonstrated that the Department's decision is the product of mistake or inadvertence (Verizon Comments at 10-12). Likewise, Verizon requests that the Department reject WorldCom's argument that the Department adopt a lower cost of capital for loops alone. To the extent WorldCom's concerns are legitimate, Verizon asserts, the Department has already taken them into account by tempering the degree to which it predicted future competitive growth (id. at 5).

In response to AT&T's contention that Verizon does not risk material levels of stranded investment, Verizon asserts that it faces the unique risk of providing UNEs, and that it must make large sunk investments in its network, in part for CLECs who lease UNEs on a monthly

basis, and who may abandon those facilities (id. at 8). Verizon argues that it must price UNEs based on the assumption of a reconstructed network using today's most efficient technology, even though it will never actually build such a network, and thus will obtain a significantly lower return on its capital than it otherwise would (id. at 7-8). According to Verizon, those prices will be reset every few years based on an all new network, further exacerbating the risk that the cost of capital must take into account (id. at 8).

Verizon states that, although its switching cost study forecast was in the record, AT&T failed to raise, during the evidentiary phase of this proceeding, the argument that the 1.5 percent growth in access lines undercuts the risk of stranded investment (id.). Accordingly, AT&T should be foreclosed from raising this argument now, Verizon contends, because motions for reconsideration are not an opportunity to present entirely new arguments (id. at 8-9). Moreover, Verizon argues that the fact that lines might grow does not mean that lines will grow in all parts of the network. Lines will grow in some areas, while in others, CLECs will capture more customers or customers will opt for wireless or other facilities, leaving Verizon with stranded investment (id. at 9).

Verizon also argues that, contrary to AT&T's claim, the network fill factor accounts for the spare capacity that must be available for the network to function properly and efficiently; it is not stranded capacity (id.). Furthermore, Verizon asserts, contrary to AT&T's claim, accounting for technological change and competition in estimating the forward-looking lives of Verizon's assets does not and cannot perform the same function as determining a forward-looking cost of capital that accounts for the risks of a fully competitive market (id.). According to Verizon, depreciation lives are designed to estimate the expected time period over which

network assets will produce economic benefit to the company, and cost of capital is designed to capture, among other things, the risks of unanticipated changes in technology and in demand (id.).

b. Analysis and Findings

In the Order, the Department found that a return on equity of 12.75 percent was reasonable, and we approved a weighted cost of capital of 11.45 percent, resulting from a capital structure of 25 percent debt and 75 percent equity, a 7.55 percent cost of debt, and a 12.75 percent cost of equity.

Contrary to AT&T's and WorldCom's claim, the Department's assessment of the state of competition that Verizon faces from the CLECs is not mistaken. The Department considered not only the record evidence presented at the time but also applied to the record evidence and argument "considerable judgment and agency expertise to determine the appropriate use of the empirical results." Order at 77. As the Department clearly stated in the Order, "while the results of analytical models are useful, the Department must ultimately apply its own judgment to the evidence to determine an appropriate rate of return." Id. We find that AT&T's and WorldCom's motions for reconsideration of the Department's UNE Rates Order do not meet the standard of review for reconsideration. AT&T and WorldCom do not bring to light any previously unknown or undisclosed facts, nor do they expose any Department findings based on inadvertence or mistake, but merely reargue issues considered and decided in the main case. Therefore, we deny the motions.

2. Other General Inputs

a. Positions of the Parties

i. WorldCom

WorldCom requests that the Department grant Z-Tel's motion, discussed below, for the Department to reconsider its decision on the Forward-Looking to Current Conversion ("FLC") factor (WorldCom Comments at 26).

ii. CLEC Coalition

The CLEC Coalition contends that any legal fees a monopoly provider incurs in protecting its own market power and thwarting competition should not be included in UNE rates (CLEC Coalition Motion at 32-34). Because Verizon has monopoly power in the local service market, the CLEC Coalition contends, the Department should reconsider its decision that "a reasonable level of such expenses" may be included in UNE rates, and should clarify that such expenses do not include any litigation or legal expenses that serve to limit CLEC competition (id.).

The CLEC Coalition further requests that the Department reconsider its decision on wholesale advertising expenses (id. at 35). The CLEC Coalition argues that "because Verizon is vigorously advocating before the FCC that its obligation to provide UNEs should be abolished, and it is virtually the sole wholesale UNE provider, Verizon's wholesale UNE advertising that serves to attract wholesale customers and dissuade facilities-based competition is entirely fallacious and unnecessary" (id.). The CLEC Coalition also contends that the FCC's pricing methodology assumes a competitive retail market, not a competitive wholesale market as the Department assumed in its decision, and thus wholesale advertising expenses should not be included in UNE rates (id. at 35-37).

iii. Z-Tel

Z-Tel requests that the Department reconsider its decision on the FLC factor and purge it entirely from Verizon's cost study (Z-Tel Motion at 2, 12). Z-Tel argues that the numerators of the ACFs are current expenses, and thus the denominators should not be adjusted by the FLC (id. at 4-5). According to Z-Tel, the FLC merely ensures that forward-looking expenses are equal to current booked expenses, and thus it violates TELRIC principles, which do not allow the recovery of embedded costs (id. at 5-6). Z-Tel contends that although expenses should be related to the level of investment, the FLC makes forward-looking expenses independent of forward-looking investment (id. at 7-8). Z-Tel also asserts that the FLC artificially increases UNE rates across the board by relying upon historical costs, which would, in turn, reduce competition (id. at 4, 11-12).

iv. Verizon

In response to the CLEC Coalition's motion for reconsideration, Verizon asserts that the Department correctly found that Verizon should recover legal expenses and wholesale advertising expenses from UNE rates charged to CLECs (Verizon Comments at 32-37). Verizon argues that under the Act, it is permitted to recover the legitimate, forward-looking costs, including legal expenses, that it incurs in providing UNEs, and that whether or not the CLEC Coalition believes that the telecommunications industry is competitive is beside the point (id. at 33). Verizon argues that the CLEC Coalition's proposal that the Department disallow at least "any legal expenses that serve to limit CLEC competition" is a vague standard of questionable applicability (id. at 35). Verizon contends that, as the Department determined, UNE rates should be based on the assumption of a competitive market, and that the

Department's directive to use Verizon's actual wholesale advertising budget for the year 2002 should alleviate the CLEC Coalition's concern (id. at 37).

Verizon also requests that the Department deny Z-Tel's motion to eliminate the FLC factor, contending that Z-Tel misrepresents the FLC by arguing that the numerators of ACFs (i.e., the expenses) are embedded historical costs, and thus the ACFs denominators need not be adjusted by the FLC (id. at 28). Verizon reiterates that, as the Department found, the expenses are adjusted to be forward-looking, and thus the FLC is necessary to make the ACF denominators forward-looking (id. at 28-32). Contrary to Z-Tel's claim, Verizon asserts, the FLC is necessary for calculating forward-looking costs, not embedded costs (id.).

b. Analysis and Findings

i. Legal Expenses and Advertising Expenses

The CLEC Coalition maintains that Verizon should not be allowed to recover legal and advertising expenses based on Verizon's monopoly status. In our Order, we emphasized the critical importance of consistent assumptions in determining UNE rates. The CLEC Coalition is silent on the Department's competitive market assumption where that assumption results in a decrease in UNE rates (see, e.g., Order at 172), although it opposes the assumption when it increases UNE rates. As we explained in the Order, the competitive market assumption in determining cost elements of UNEs must be consistently applied. Order at 131. Because the CLEC Coalition does not bring new evidence to light nor show that the Department made a mistake, the CLEC Coalition's motion is denied.

Additionally, we agree with Verizon that the CLEC Coalition's motion to clarify that a reasonable level of legal expenses does not include any expenses that serve to limit CLEC

competition is too broad for practical applicability, and is inappropriately based on an assumption that Verizon retains monopoly status in the local service market. Accordingly, we also deny the CLEC Coalition's request for clarification.

ii. Forward-Looking to Current Conversion ("FLC") Factor

In our Order, the Department rejected the same argument Z-Tel makes in its motion that the numerators of ACFs are current expenses, and therefore the denominators need not be adjusted by the FLC. Order at 95-98. We concluded, based on record evidence, that the numerators of ACFs are forward-looking, and thus we found that the FLC is necessary to make the denominators forward-looking. Z-Tel has not provided any previously unknown facts that warrant a change in that decision, and simply reiterates arguments already considered and decided. Accordingly, Z-Tel's motion is denied.

3. Outside Plant Inputs

a. Positions of the Parties

i. AT&T

AT&T requests that the Department reconsider its decision regarding the proportion of Universal Digital Loop Carrier ("UDLC") in a forward-looking network and decrease UDLC proportion to 15 percent of total fiber loops (i.e., 8.8 percent of total loops) (AT&T Motion at 11-15). AT&T claims that the current 2:1 ratio of Integrated Digital Loop Carrier ("IDLC") to UDLC does not necessarily reflect forward-looking practice, and that the UDLC proportion the Department adopted is more than twice the maximum level that Verizon's own evidence indicates (id.). AT&T also argues that the Department shifted the burden of proof by erroneously treating AT&T's "observations" as its "proposal" (id. at 12-13). AT&T claims

that its suggestion to use ten percent UDLC is an "observation" regarding the inconsistency between the record evidence and Verizon's UDLC assumptions (id.). AT&T contends its observations do not constitute an affirmative proposal that it must prove; rather, Verizon has the burden to prove that more than 15 percent UDLC is needed in the forward-looking network, and Verizon has failed to do so (id. at 11-15).

AT&T also contends that the Department erred in not requiring Verizon to incorporate 1.5 percent annual growth in demand into the calculation of per-unit loop costs, although it agreed with this point in principle. Thus, the Department should require Verizon to recalculate the loop costs accordingly, AT&T asserts (id. at 15-16, citing Order at 183).

ii. WorldCom

WorldCom requests that the Department reconsider the UDLC assumption in the forward-looking network and instead use 100 percent IDLC (WorldCom Motion at 15-21). WorldCom contends that the Department's conclusion is based on an erroneous interpretation of the FCC's Local Competition Order ¶¶ 683-685 (id. at 15). According to WorldCom, GR-303 with unbundling capacity at the DS0 level is the most efficient technology currently available in the industry and meets the definition of a TELRIC-compliant technology set forth in the Local Competition Order (id.). WorldCom argues that, in contrast to the Department's narrow definition of a TELRIC-compliant technology as one "currently being deployed in ILECs' network," the FCC's definition is extremely broad, characterizing technical feasibility as "capable of being accomplished or brought about; possible" (id. at 16-19). WorldCom asserts that GR-303 technology falls under the FCC's definition of technical feasibility, and the existence and commercial availability of systems to operate GR-303 and its operational

feasibility are not relevant to determining the TELRIC compliance of the technology (id. at 16-19, citing Local Competition Order at ¶ 203). WorldCom also contends that Verizon's claim that UDLC is necessary for non-switched circuits is belied by its own engineering guidelines, which are geared toward the existing network, not the forward-looking network (id. at 23-25, citing Exh. ATT-VZ 3-5).

According to WorldCom, Alcatel's Litespan 2000 IDLC equipment has been deployed and is clearly commercially available; what has yet to be developed are the business rules and software packages necessary for applying the existing functionality of that equipment in a multi-carrier environment (WorldCom Reply Comments at 8). WorldCom contends that Verizon's own internal documents demonstrate that IDLC loop unbundling is beyond the "idea" stage and that the technical feasibility of IDLC loop unbundling is clear (id. at 7-11, citing Tr. 17, at 3527; Exh. ATT-VZ 3-5). WorldCom claims that because UDLC is not necessary in a forward-looking network, AT&T's motion to reduce the amount of UDLC is moot (WorldCom Comments at 24-25).

In addition, WorldCom supports AT&T's motion on per-unit loop costs and asks the Department to grant AT&T's request that UNE loop costs be offset by future demand growth projection (id. at 24-25).

iii. CLEC Coalition

The CLEC Coalition requests that the Department clarify the copper-fiber crossover point for the consolidated zone (CLEC Coalition Motion at 32). The CLEC Coalition suggests that the crossover point for the consolidated zone should be 7,600 feet, a weighted average based on the proportional split of lines in each of the zones and the copper to fiber crossover point for each zone (id.).

iv. Verizon

Verizon asserts that the Department correctly interpreted and applied record evidence in rendering a decision to include UDLC technology in a forward-looking network (Verizon Comments at 17-18). Verizon asserts that the Department correctly found that the term "technically feasible" refers to operational as well as technological concerns and properly concluded that GR-303, which still has unresolved operational concerns, is not TELRIC-compliant (id. at 18-19). Verizon also argues that technology that is "theoretically deployable at some point in the future," such as GR-303 with unbundling capability at the DS0 level, cannot be considered "currently available" in the industry (id.). Verizon asserts that WorldCom's claim that UDLC is not needed for non-switched services applies to only a subset of non-switched services and that the bulk of non-switched services require UDLC (id. at 21-23). In addition, Verizon argues that AT&T's proposal to decrease the proportion of UDLC to 8.8 percent of total loops is entirely arbitrary and does not meet the Department's standard for reconsideration (id. at 23-25).

With respect to AT&T's claim that the Department failed to incorporate 1.5 percent annual growth in demand into the calculation of per-unit loop costs, Verizon contends that

AT&T seeks to undermine the fill factors approved by the Department by proposing that demand be increased without changing the investment necessary to serve the increased demand (id. at 25-27). Verizon contends that its TELRIC study does not assume projected levels of increased investment and expenses necessary to serve projected increased demand, and thus there is no rational basis to spread the study's investment and expenses over projected demand (id.).

Verizon requests that the Department clarify that loop costs for the consolidated zone in the three-zone approach[30] should be calculated based on a weighted average cost using the zero crossover point for the Metro zone and the 9,000 feet crossover point for the Urban zone (id. at 27-28). Responding to the CLEC Coalition's request to use a weighted average crossover point for the consolidated zone, Verizon asserts that there is no support in the record or the Department's Order for this approach (id.).

b. Analysis and Findings

i. UDLC vs. IDLC

Upon reexamination of the Local Competition Order ¶¶ 683-685, we agree with WorldCom that the Department's determination that a TELRIC-compliant technology is the technology that is currently deployed at the ILEC's wire centers was a mistaken interpretation of the Local Competition Order. The correct interpretation is that TELRIC-compliant technology is the most efficient technology currently available to the industry. However, even this broader standard of what constitutes a TELRIC-compliant technology does not affect the

30 The Department directed Verizon to submit, in its compliance filing, two sets of cost results for those portions of Part B of its cost study affected by geographic density zones: one set for the existing four density zones, and another set for three zones, in which the current Urban and Metro Zones would be consolidated. Order at 218-220.

Department's previous decision on GR-303 with unbundling capacity at the DS0 level, and, therefore, for the following reasons, reconsideration is not warranted.

First, the FCC states that UNE rates should be based on the most efficient technology that is "operationally feasible and currently available to the industry." Local Competition Order at ¶ 683. Therefore, contrary to WorldCom's assertion, operational feasibility is a criterion that a TELRIC-compliant technology must meet, and we concluded that GR-303 with unbundling capacity at the DS0 level has not met this criterion. Order at 155-156. In addition, "currently available" should be read as "being ready for immediate use." Merely being "technically feasible" or beyond "the idea stage" is not sufficient to make a technology currently available and thus TELRIC compliant. According to WorldCom, IDLC with unbundling capacity at the DS0 level meets the current availability to the industry standard, and thus it is TELRIC-compliant. However, in the Order, we concluded that IDLC with unbundling capacity at the DS0 level is not a technology currently available to the industry. Id. at 155. The FCC also indicates that, for a technology to be TELRIC compliant, systems to operate the technology should be available for purchase. See Local Competition Order at ¶ 683. Such systems are not yet in place for GR-303 with unbundling capability at the DS0 level. See Order at 152-160. Accordingly, WorldCom's motion to reconsider the Department's decision on UDLC is denied, because GR-303 with unbundling capacity at the DS0 level does not meet the definition of a TELRIC-compliant technology (i.e., a technology currently available to the industry).

We also disagree with AT&T's assertion that it does not have the burden to prove the reasonableness of a suggested "10 percent UDLC" proportion because it is not a proposal, but

an observation. AT&T is in fact proposing that the UDLC proportion be based solely on wholesale demand growth, a proposal with which we disagreed in the Order. Contrary to AT&T's assertion, we did not shift the burden of proof from Verizon to AT&T. Verizon had the burden of proving the reasonableness of its own proposal, not the burden of proving the unreasonableness of AT&T's proposal. We found that Verizon failed to prove the reasonableness of its proposed 25 IDLC/55 UDLC proportions. We also found unpersuasive AT&T's claim that wholesale demand growth is the sole determinant of the proportion of UDLC. Accordingly, the Department independently determined a 2:1 ratio based on the record evidence. AT&T relies on the Department's statement that Verizon's current practice does not necessarily reflect forward-looking practice, and, thus, AT&T asserts that using the current 2:1 ratio is not efficient. However, we also stated that the practice of a carrier does not necessarily change if the relevant cost drivers remain the same in the future. Order at 171. Currently, IDLC technology cannot provide all the functions that UDLC provides. Therefore, it is reasonable to assume that the relevant cost drivers will remain the same and that the existing IDLC/UDLC ratio will continue into the future. In addition, AT&T did not provide any previously unknown or undisclosed facts that would affect our previous decision on the proportion of UDLC, and is merely rearguing the issue. Accordingly, AT&T's motion is denied.

ii. Per Unit Cost of Loop

AT&T claims that the Department mistakenly failed to incorporate 1.5 percent annual growth in demand into the calculation of the distribution fill factor for determining per-unit loop costs, and thus should reconsider its decision on the distribution fill factor. In determining the

distribution fill factor, the Department used a top-down approach by starting with a 100 percent fill factor, then reducing it by making relevant adjustments. Order at 174-185. Contrary to AT&T's assertion, however, we did incorporate potential demand growth (i.e., ultimate demand) into the calculation of the distribution fill factor by reducing the growth adjustment for potential units from ten to three percent. In other words, we assumed that at any single point in time, only three percent of potential units have loops already in place but do not generate revenue for Verizon. As the Department was not mistaken in its treatment of this issue, no further adjustment is necessary, and therefore AT&T's motion is denied.

iii. Copper-Fiber Crossover Points for Consolidated Zone

For the reasons stated below, we find that the copper-fiber crossover points for the Urban and Metro zones (i.e., the zero crossover point for the Metro zone and the 9,000 feet crossover point for the Urban zone) should be applied separately to the Metro and Urban zones before merging them rather than applying a weighted average crossover point to the two zones as the CLEC Coalition suggests. In the Order, we directed Verizon to file loop costs based on the three-zone approach in order to determine whether there is so little difference between the Metro and Urban zones in terms of final loop costs as to warrant merging the two zones after incorporating factors that affect loop costs. The CLEC Coalition argues that we should merge the factors that affect loop costs, not the loop costs themselves. There is no reason to do so. As both zones in the consolidated zone have different characteristics (e.g., loop length, crossover points) that determine loop costs, adopting the CLEC Coalition's proposal would nullify the most economical individual forward-looking crossover point that we determined for both zones. Therefore, we deny the CLEC Coalition's motion for clarification.

On the other hand, we agree with Verizon that the Department was silent as to how loop costs should be calculated for the consolidated zone in the three-zone approach, and, therefore, we grant Verizon's motion for clarification. We find that loop costs for the consolidated zone should be calculated based on the weighted average cost for the Urban and Metro zones, because the two zones account for a different proportion of the costs for the consolidated zone. Loop costs for the consolidated zone based on the weighted average cost of the two zones will more accurately reflect loop costs in the consolidated zone.

4. Switching: Switch Discount

a. Positions of the Parties[31]

i. AT&T

AT&T asserts that the supplemental evidence in the reconsideration phase of this proceeding corroborates AT&T's motion for reconsideration of the prices that the Department assumes for new Nortel and new Lucent switches. Specifically, AT&T contends that the evidence demonstrates that the forward-looking new switch price is approximately 20 percent of the level that the Department assumed (AT&T Reconsideration Brief at 1). AT&T recommends that the Department direct Verizon either to use a specific price discount assumption in SCIS, or to assume a particular switch hardware price per line and then run SCIS with whatever price discount assumption will result in that price per line (id. at 2-3). AT&T states that vendors bid prices that Verizon evaluates on a per-line basis, and, therefore, much of the evidence has been expressed in this form; however, the evidence regarding per-

[31] See also Additional Evidence Order at 9-12 for positions of the parties on the switch discount.

line costs is consistent with the available evidence on price discounts, AT&T also states (id. at 3).

AT&T observes that the discount that the Department directed for new Nortel switches yields an uninstalled switch hardware price of $82.62 per line, which significantly exceeds the $17.35 per line that results from using the lower of the switch discounts set forth in RR-DTE-49-S (id. at 4). AT&T asserts that because the Nortel contract applies only to growth equipment, it "has no probative value regarding what Verizon pays for new switches" (id. at 5). AT&T also dismisses as irrelevant the first three of four Nortel discounts that Verizon included in its direct testimony, the first two because Verizon did not accept them, and the third because it was purchased under emergency circumstances (id. at 5-6). AT&T indicates that the fourth bid and the two Nortel bids included in RR-DTE-49-S, all of which Verizon accepted, demonstrate that the Department erred in relying on the Nortel contract discount (id. at 6).

Responding to Verizon's claim that AT&T failed to consider the various additional costs associated with purchasing a switch, AT&T responds by explaining that Verizon recovers these "additional" costs in other parts of its cost study (id. at 8). Countering Verizon's assertion that AT&T misconstrued price discount information, AT&T states that its proposed discounts accurately reflect the prices that Verizon pays for new switch hardware, excluding those costs that Verizon accounts for elsewhere in its cost study (id. at 8-9).

AT&T also states that Verizon's testimony and its vendor switch bid comparison sheets demonstrate that Verizon is able to obtain lower per-line switch prices when it purchases more switches. Yet, according to AT&T, in an attempt to distance itself from this evidence, Verizon

"repeats yet again its tired argument that switch vendors could not possibly supply roughly 130 new switches all at once for Massachusetts" (id. at 10). AT&T states that Verizon has provided no evidence that the switch vendors would be unable to fulfill such an order, and observes that the Department has already rejected Verizon's analogy to the Bridgestone/Firestone recall (id.).

AT&T characterizes Verizon's opposition to the use of the prices that Verizon pays for new switches as "yet another attempt by Verizon to invoke some pricing methodology other than TELRIC" (AT&T Reconsideration Reply Brief at 1). AT&T asserts that, even if current new switch prices are lower than they were in the past because digital switching is a mature technology approaching the end of its life cycle, these attributes would not render the prices meaningless, but rather further confirm that telecommunications is a declining cost technology (id. at 2-3). AT&T considers historical prices for new switches irrelevant to the determination of prices for a TELRIC study (id. at 3). AT&T challenges Verizon's claim that vendors have been selling digital switches "at a loss" causing them "serious financial difficulties" as vague conjecture about vendors' business strategy (id., citing Exh. VZ-61, at 9; Exh. VZ-60, at 13).

AT&T considers irrelevant Verizon's comparison of switch cost estimates with those yielded by the HAI 5.2a-MA, because the HAI Model's investment is based on outdated switch prices (id. at 4). AT&T also considers Verizon's comparison of new switch prices with the level of growth equipment Verizon intends to purchase from Nortel to be invalid because (1) Verizon has not demonstrated that these contracted purchases "are a reasonable proxy for the forward-looking cost of switching under TELRIC," and (2) the vast majority of the equipment supports Verizon's long-distance entry (id. at 4-5, citing Exh. VZ-37, Part C-P3).

AT&T disputes Verizon's contention that if it were to install all new switches, vendors would then charge higher prices because the vendors, in this scenario, would be forgoing sales of growth equipment. According to AT&T: (1) Verizon's argument constitutes speculation and is unproven; (2) Verizon testified that switch vendors have already recovered their development costs; (3) even though line growth has been slowing, vendors continue to offer competitive prices for new switches; (4) if Verizon's speculation were accurate, then after Verizon had completed its analog-to-digital switch conversion in 1993, prices for growth equipment should have increased, but instead they declined; and (5) the evidence indicates that prices decline when switch purchases increase (id. at 5-6).

AT&T also contends that EF&I factors and new switch prices are linked. Observing that the EF&I factor of 0.6376 that Verizon advocates is derived from the same data as the price discounts for new switches that AT&T advocates, AT&T argues that if the Department adopts Verizon's higher EF&I factor, then, to be consistent, the Department should adopt the corresponding switch discount (AT&T Reconsideration Brief at 11). AT&T also states that the combination of the $82.62 switch cost per line with the EF&I factor of 0.29 that the Department directed yields EF&I costs per line equal to $23.96, which is substantially greater than the cost per line of $11.06 yielded by the combination of the new switch hardware cost of $17.35 and the EF&I factor of 0.6376 (id. at 12).

Finally, AT&T avers that it would be "unreasonable for the Department to assume that Verizon would pay more for new switches from Lucent on a per line basis than it pays for new switches from Nortel," and that, therefore, the discounted new switch prices for Lucent and Nortel are comparable (id. at 13).

ii. WorldCom

WorldCom recommends that the Department "set a new switch per line cost of $17.35 for Nortel switches" (WorldCom Reconsideration Brief at 7-9). Worldcom bases this recommendation on the competitive price information in RR-DTE-49-S, the direct and rebuttal testimony of AT&T/WorldCom witness, Ms. Pitts, including exhibit 11 to her rebuttal testimony which reproduces Verizon's correspondence with its vendors. WorldCom asserts that Verizon has not effectively rebutted or challenged Ms. Pitts' analysis (id. at 9).

WorldCom points out that, although Verizon "relies on 'vendor pricing strategy' in support of its argument that Nortel and Lucent would never offer to replace Verizon's digital switches at the prices contained in recent prices," Verizon did not provide evidence to support that assertion (WorldCom Reconsideration Reply Brief at 5-6). Opposing Verizon's unsubstantiated conjecture about vendors' pricing behavior, WorldCom urges the Department to rely on recent sales prices, which correspond with "what Verizon is actually paying today for new digital switches" as "contained in the proprietary attachment to RR-DTE-49S" (id. at 6).

iii. Verizon

According to Verizon, using the "extreme discount levels" that AT&T proposes would substantially understate the forward-looking investment that is necessary to serve switching demand (Verizon Reconsideration Brief at 13). Verizon asserts that the vendor bid discounts upon which AT&T recommends that the Department rely are only available because: (1) the vendors' pricing strategy allows the vendors to recover their costs through "growth" sales; (2) digital switching is at the end of its life cycle; (3) Verizon is purchasing few new switches

each year; and (4) Verizon's investment in "new" switches represents a small portion of Verizon's annual switch expenditures (id.). Verizon avers that basing the entire switch investment on the discounts that it obtains in specific bids "totally ignores the vendor pricing strategies that are half of the equation of any purchase and would likely result in insufficient revenues for vendors to cover their cost of goods sold" (id. at 13-14). Verizon also disputes Ms. Pitts' testimony that vendors have increased list prices, and that such behavior could explain the magnitude of the discount that she recommends (id. at 14 n.10). Comparing the switch investment of $76.5 million that Verizon contends would result from AT&T's recommendation with Verizon's actual digital switching investment of $1.9 billion, Verizon asserts that AT&T's recommendation "has no basis in reality" (id. at 14).

Verizon characterizes AT&T's recommendation as irrational, because it would yield a total investment level for entirely new switches (which would accommodate growth for three years) that is significantly less than the approximate Massachusetts share of the total purchase level to which Verizon has committed to Nortel for "add-on" equipment (id. at 15). Verizon argues that it would not have negotiated a higher-cost contract with Nortel if the prices that AT&T proposes were available on a wide-scale basis (id.).

According to Verizon, Nortel's and Lucent's bids vary depending upon the various aspects of the bid (available capacity, possibility of cancellation, etc.), and bid data for a four-year period for a small percentage of Verizon's network should not be afforded the predictive value that AT&T assigns to them (id. at 16). Verizon contends that the contract discount level "is a superior estimate of switch costs (assuming widespread deployment) because the contract

reflects an agreement by Nortel to make equipment available at a fixed discount, regardless of the particular circumstances of the purchase" (id. at 17).

Countering AT&T's allegation that Verizon "abandoned its original discount proposal," Verizon asserts that the Department should have adopted the switch equipment discount that Verizon originally proposed, because the analysis that accompanied its cost study recognized that Verizon obtains different discounts for its various switching equipment, and that these discounts also differ depending on whether the equipment is "growth" or "new" (Verizon Reconsideration Reply Brief at 4). Verizon explains that its testimony in this phase of the proceeding did not re-argue previously determined switch discount issues, but that its limiting its testimony and argument should not be construed as wavering from its original position (id. at 4-5).

Verizon opposes CLECs' extrapolation from "limited bid information" for a "minuscule portion of Verizon's switch investment" to determine the prices that vendors would charge for new switches in a hypothetical network (id. at 5). Verizon distinguishes between the contract discount level at which Nortel has agreed to offer new switch equipment to Verizon and the prices that Nortel offers in specific circumstances, arguing that the former is applicable to the TELRIC study, but that the latter is not (id. at 6, 8-9). Verizon contends that CLECs' reliance on actual, but "isolated" 1998 bid information as the basis of new switch prices is inconsistent with the hypothetical situation whereby Verizon would replace its entire switch network, because the CLECs' pricing proposal ignores the context in which vendors offer the discounts (id. at 10).

According to Verizon, if CLECs were consistent in their recommendations, they would have argued that Verizon could purchase all of its outside plant equipment at the same time and that vendors would have provided volume discounts on these purchases. CLECs' failure to advance such a position in the outside plant context undermines their switching position, Verizon argues (id. at 5-6). Furthermore, Verizon contends that vendors' ability to offer highly discounted prices is linked to the nearly full penetration of the digital switch market; according to Verizon, because vendors know that future sales will consist largely of growth equipment, they offer deep discounts on new switches (id. at 10). If vendors could not anticipate growth sales, Verizon claims, they would price new switches in order to derive the same profit as the vendors now derive from the current combination of new and growth equipment (id. at 11).

Furthermore, Verizon asserts that bids submitted by Nortel in 2001 correspond to an average per-line cost that exceeds AT&T's proposed cost per line by more than 350 percent, and that, therefore, the 1998 Nortel bids are not representative of "actual current bid information" (id. at 12). Verizon also opposes AT&T's attempt to revisit the Department's determination that it is reasonable for Verizon to purchase switch equipment from multiple vendors (id. at 13). Finally, Verizon recommends that the Department adopt discounts rather than prices per line so that the discount "can then be used in the SCIS model to estimate the forward-looking costs for switching equipment based upon the unique characteristics of each wire center in Massachusetts" (id. at 9-10, 10 n.2).

b. Analysis and Findings

The switch discounts, as proposed by Verizon, and as modified by the Department, differ for Lucent and Nortel equipment. Verizon's cost study includes 71 Lucent 5ESS and 62 Nortel DMS-100 switches[32] (Exh. VZ-60, at 5). AT&T, in its motion for reconsideration, asserts that the Department erred by not adopting the switch discount shown in Verizon's response to RR-DTE-49-S, for both the Nortel and the Lucent switch discounts (AT&T Motion at 20-21). The Department directed parties "to address specifically the relevance of the discount data incorporated in RR-DTE-49-S to the determination of the appropriate switch discount to assume in Verizon's TELRIC study" and also directed Verizon to provide 2001 information. Additional Evidence Order at 12. As this language does not limit the directive to Nortel switches, we shall address the parties' evidence and arguments regarding the relevance of the discount data in RR-DTE-49-S to the appropriate new Nortel and Lucent switch discounts.

During the supplemental evidentiary hearings, the Department sought witnesses' recommendation as to whether the Department should adopt specific price discounts for new switching, as it did in the Order, or whether it should adopt specific costs per line (Tr. 20, at 3803). Parties also addressed this methodological issue in their briefs.

Vendors' list prices for switching equipment are built into SCIS, and vendor discounts for the particular suppliers are specified by SCIS users when they run the switching model (Exh. VZ-37, at 133). List prices are the "undiscounted published list prices offered by each

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[32] Although Verizon designates the quantity of Nortel switches as proprietary in its reconsideration reply brief, this same quantity appears in the public version of Mr. Gansert's direct testimony (Exh. VZ-60, at 5).

vendor to the general public as their prices for the equipment" (id. at 151-152). AT&T seeks reconsideration of our findings on new switch discounts. The Department was "not persuaded by Verizon's argument that . . . its contract price for Nortel switching equipment [is] reasonably representative of forward-looking efficient switching costs." Order at 302. Nonetheless, in part, because of the ambiguity of the information that Verizon submitted in response to RR-DTE-49-S, the Department relied on the Nortel contract discount for both new and growth Nortel switching equipment. Id. at 306-307. Although the supplemental evidentiary phase of this proceeding has dispelled much of the ambiguity, parties continue to dispute the relevance of recent competitive bid switch information to a TELRIC study.

The Nortel contract, signed in December 2000, includes an Attachment "C" that contains the equipment prices that Verizon is to pay for equipment, as well as the estimated quantity of each equipment type that Verizon anticipates purchasing throughout its footprint (Exh. VZ-37, at 153, CP-3). Verizon's switch planners determined the types of equipment and the quantities to be purchased, and those estimates represent "their best estimate as to what the Company will be purchasing over the next three years from Nortel" (id. at 154). The proposed discount that Verizon calculated based on these projected purchases under the Nortel contract is greater than the discount that Verizon computed based on its actual Nortel purchases in 2000 (id.). Attachment CP-3 to Exhibit VZ-37 itemizes numerous types of equipment with a range of discounts, depending on the particular equipment. The final average discount is based on the ratio of the total net price for all the diverse equipment to the total list price (id. at CP-3). However, for the past few years, with the exception of the Pearl Street switch in Manhattan purchased on an emergency basis, Verizon has purchased new Nortel switches

through a competitive bid process, and not pursuant to its contract with Nortel, and this remains Verizon's business practice (Tr. 20, at 3659-3660, 3735).

The discount that the Department directed for new and growth Nortel equipment, which is based on the Nortel contract, yields an uninstalled switch hardware price of $82.62 per line, which significantly exceeds the $17.35 per line that results from using the lower of the new switch discounts set forth in RR-DTE-49-S.[33] Order at 305; Exh. ATT-32, at 10-11. AT&T recommends that we rely on the latter price in order to establish new switch discounts.

Verizon raises several arguments opposing reliance on the discount set forth in Verizon's response to RR-DTE-49-S. As we discuss below, we find these persuasive. First, Verizon argues that if it could actually obtain as deep a discount for all of its switches as the one in RR-DTE-49-S, Verizon would never have negotiated a contract with Nortel to "add on" switching equipment, but instead would replace all of its equipment at these substantially lower prices (Verizon Reconsideration Brief at 15). Verizon persuasively argues that the fact that it has a contract to buy from Nortel an amount of growth equipment that far exceeds the new switch investment that would result from AT&T's proposed discount level renders AT&T's result nonsensical. In Exhibit VZ-37, Part C-P3, Verizon itemizes the materials included in its three-year contract with Nortel. AT&T observes that among the substantial components of Verizon's Nortel contract are materials related to trunking (Exh. VZ-37, Part C-P3; see www.nortelnetworks.com/products). Although the inclusion of trunking products in the total investment level for the Nortel contract diminishes the significance of Verizon's comparison of

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[33] The record includes references to $36 per line; the figure of $17.35 is for material only and thus excludes other costs such as software and EF&I costs (Exh. ATT-VZ-32, at 10).

the magnitude of its "growth" investment level with the magnitude of its "new" switching investment level that the use of recent Nortel prices would yield, it does not undermine the validity of the discount in the contract. We recognize that Verizon is not currently purchasing its new switches under contract, and thus the contractual discount is not applicable to new equipment in today's environment. However, the issue we must address is the determination of the discount that would apply to the hypothetical situation whereby Verizon would replace all of its switches at one time for construction of a "dropped in place" network. The discount that AT&T requests the Department adopt is based on Verizon's purchase of only approximately 30 switches in its regional footprint, although Verizon maintains approximately 1300 switches in this territory (Tr. 20, at 3757). Because the recent switch purchases represent such a small percentage of Verizon's entire switching network, we do not find them representative of the prices that would likely prevail in the TELRIC scenario. Thus, the discount levels obtained for these relatively few switches are not reliable for a TELRIC study under which the vast majority of its switches are assumed to be replaced. We concur with Verizon that the bids that Nortel has made in recent years are uniquely related to specific circumstances, and, accordingly, are not germane to an assessment of the prices that vendors would likely offer were Verizon to deploy all new switches in its network.

The price derived from these 30 switch purchases does provide the best available information in the record as to the competitive price of a new switch purchased by Verizon in today's environment, where new switch purchases are infrequent and thus comprise a small percentage of Verizon's aggregate switching investment. But we are not persuaded that it is logical to take the next step; that is, to conclude from this limited evidence that these prices

would prevail if Verizon were to purchase more than 1000 switches simultaneously. Any conclusion inevitably entails speculation, and, accordingly, the Department must necessarily exercise its administrative expertise to reconcile the parties' contradictory positions. Verizon recommends that we ignore the competitively bid pricing information, while the CLECs recommend that we rely exclusively on the competitively bid information.

Verizon raises the reasonable concern that vendors' pricing strategy for the 30-plus switches may be only a part of a larger, overall strategy that enables the vendors to derive revenues elsewhere (e.g., from growth). We are persuaded by Verizon that the CLECs' analysis is a bit too simplistic in its unmitigated confidence in recent competitive bids as the sole guide for the TELRIC of Verizon's switches. As Verizon indicates, it is likely that vendors would not charge these rock-bottom prices in a TELRIC environment because, with an assumption of 90 percent new equipment, vendors would not be able to recover their costs through sales of growth equipment, and thus would need to charge higher new equipment prices.

Verizon also contends that vendors' deep discounts are linked to what it characterizes as full penetration of a product that is near the end of its life cycle. Absent the potential for sales of growth equipment, Verizon argues, vendors' pricing strategies would differ significantly. We are persuaded in part by this reasoning in reaching our finding that we cannot determine from the limited evidence whether the general magnitude of the recent market-based prices would apply equally to 1300 new switches.

In the Order, we found that it would be inappropriate to rely on the information set forth in Verizon's response to RR-DTE-49-S because "the discount that AT&T recommends is

not the effective overall discount achieved in the bid" and because we concurred with Verizon's explanation "that 'the bid result cannot be used as the basis for a forward-looking valuation of Verizon MA's entire local switching investment.'" Order at 307, citing Verizon Reply Brief at 68. Regarding our first concern, the additional evidentiary phase removed the ambiguity about the discount, which is undisputed. Our second concern, the relevance of that discount, remains in dispute. Verizon maintains that the pricing information in the competitive bid is not relevant for TELRIC and continues to assert that these prices, though offered by vendors today, would not be available should Verizon seek to purchase 71 Lucent switches and 62 Nortel switches all at once.

These discounts are not isolated, as Verizon obtained similar discounts for switch purchases in 1999 through 2001 (see RR-ATT-3; Exh. ATT-VZ 31-1-P; Exh. ATT-32-P; Exh. ATT-33-P). However, we find that they are isolated in the sense that they correspond with only 30 switch purchases, over a four-year period, rather than 1200 simultaneous switch purchases (i.e., approximately 90 percent of the 1300 switches in the Verizon footprint). Therefore we must continue to evaluate the merits of Verizon's and the CLECs' disparate speculations about the prices that would "actually" prevail in a hypothetical world.

We stated in the Order that the Nortel contracts "may overstate the price that Verizon actually pays for Nortel switches," but we did not adjust the Nortel discount because of the disputed interpretations and relatively unexamined nature of the late-filed information. Order at 305. We have now had the opportunity to obtain additional evidence, and to place this evidence in the context of the TELRIC proceeding. Although the evidence clearly indicates that the Nortel contract discount overstates the price that Verizon pays for new Nortel

equipment in today's marketplace, we are not persuaded that these market-based prices are representative of those that would prevail in a TELRIC construct where Verizon would purchase approximately 1200 switches simultaneously based on the assumed 90/10 new-to-growth ratio.

For the reasons set forth above, and based on the additional evidence in this phase of the proceeding, we affirm our original decision to rely exclusively on the Nortel contract for the purpose of determining the discount that should be applied to new switches in Verizon's TELRIC study. AT&T maintains that the discount adopted for new Nortel equipment should be applied to Lucent equipment as well. Verizon purchases equipment in Massachusetts from more than one vendor, and we will not second-guess this business decision to ensure supplier diversity. Accordingly, we affirm our approval of Verizon's reliance on Nortel and Lucent as suppliers. Id. at 303-304.

The Lucent discount data in RR-DTE-49-S (specifically, FCC-VZVA-32) for new switches is identical to that directed in the Order, and thus we find no reason to depart from the original finding regarding the appropriate discount for new Lucent switches. Therefore, in sum, as set forth in the Order, Verizon shall use, for new Lucent switch equipment, the discount shown in Attachment 1, line 2 of RR-DTE-66, which consists of analysis that Verizon prepared. In reaching this finding, the Department observed that this discount "is consistent with the prices that Verizon paid for new Lucent switches in the year 2000 (RR-DTE-65-P)." Order at 305. Also as set forth in the Order, Verizon shall use, for growth Lucent switch equipment, the discount shown in Exh. VZ-37, Parts CP-1 and CP-2. Order at 305. For new

and growth Nortel switching equipment, Verizon shall use the discount set forth in the Nortel contract, which appears in Exhibit VZ-37, Part CP-3.

We do not choose to direct a cost per line. Wherever possible, a TELRIC outcome should be derived from an analysis of specific inputs, rather than a results-oriented estimate of the final outcome. SCIS yields material investment to which Verizon then separately adds other costs, such as EF&I costs. Accordingly, AT&T's concern about possible double-counting of the EF&I costs is moot. We address EF&I issues in Section II.B.1.c, below.

5. Collocation

a. Cost Recovery Transition Plan

i. Positions of the Parties

(A) CLEC Coalition

The CLEC Coalition argues that the Department must reconsider allowing Verizon to file a cost recovery transition plan because such a plan will result in retroactive ratemaking, which is impermissible under Massachusetts law (CLEC Coalition Motion at 26). According to the CLEC Coalition, the Department's ruling will allow Verizon to recover costs it has already incurred for previously ordered cross-connects by moving from a recurring cost structure to a nonrecurring cost structure. Although Verizon "cavalierly clarifies that it has 'agreed to waive the NRCs for all cross connects in use prior to the transition date,'" Allegiance maintains that the transition plan will result in retroactive ratemaking for cross-connects that are in place but not in use (Allegiance Reply Comments at 11) (emphasis in original).

In sum, the CLEC Coalition requests that the Department reconsider and find that Verizon's cost recovery transition plan pertains only to new cross-connects ordered and not to

those already in place, whether they are in use or not. In addition, the CLEC Coalition requests that the Department clarify that Verizon's collocation rate restructuring pertains to its intrastate tariff and not to its FCC interstate tariff (CLEC Coalition Motion at 29-30).

(B) Conversent

Conversent asserts that Verizon's waiver of NRCs for cross-connects in use prior to the transition date "is tantamount to offering the sleeves off of VZ-MA's vest" (Conversent Reply Comments at 5). According to Conversent, there is nothing to waive because there are no approved cross-connect NRCs in Verizon's current tariff. In addition, although Verizon offers to allow CLECs to return any unused cross-connects without charge within 30 days of the effective date, Conversent notes these cross-connects have already been provisioned. Conversent insists that the tariff from which the provisioned but unused cross-connects were ordered must remain in effect (id. at 7). Because Verizon did not have tariff language regarding the application of NRCs to cross-connects at the time the equipment was installed, Conversent argues, the Department must not allow Verizon's cost recovery transition plan to apply this charge retroactively. Conversent acknowledges that the Department's granting of the CLEC Coalition's Motion would allow CLECs to obtain some cross-connects for free (id. at 8).

(C) Verizon

Verizon asserts that the CLEC Coalition's criticisms of its cost recovery transition plan fail on several fronts. First, Verizon notes that the Department only required a transition plan to be filed, and the CLEC Coalition will be able to comment on this plan during the compliance stage of this proceeding; therefore, according to Verizon, "any opposition to it is premature"

(Verizon Comments at 49). Second, Verizon claims the CLEC Coalition's concerns are "unfounded" because it "has agreed to waive the NRCs for all cross connects in use prior to the transition date" (id.) (emphasis in original). Verizon states that CLECs can return unused cross-connects at no charge 30 days after the effective date of the compliance tariff. Therefore, according to Verizon, the CLEC Coalition's retroactive ratemaking claim "rings hollow" (id. at 50).

Finally, Verizon recommends that the Department reject the CLEC Coalition's "misleading and baseless request" to specify that the cross-connect rate structure pertains only to those ordered out of the intrastate tariff. Verizon states that ordinarily this would be an unnecessary request except that this "is designed to set up an argument the CLEC Coalition has made in other states: that cross connects ordered out of the state tariffs should be treated as 'federal' cross connects" (id.). Verizon argues that this would result in cross-connects not "subject to any rate, term or condition (or, for that matter, transition plan)" (id. at 51) (emphasis in original).

ii. Analysis and Findings

The CLEC Coalition argues that Verizon's cost recovery transition plan will result in retroactive ratemaking, and that, therefore, the Department should reconsider allowing Verizon to file such a plan. However, until Verizon files its proposed cost recovery transition plan, the Department cannot weigh the merits of the CLEC Coalition's arguments. Once this plan is filed, the CLEC Coalition will have an opportunity to comment. Hence, we deny the CLEC Coalition's motion for reconsideration. Until Verizon files its plan, and it is reviewed and approved by the Department, the current cross-connect rate will remain in effect.

Our findings regarding Verizon's cost recovery transition plan require no clarification, in that there is no ambiguity as to its application. Therefore, the CLEC Coalition's motion for clarification is also denied.

b. DC Power Consumption

i. Positions of the Parties

(A) CLEC Coalition

The CLEC Coalition requests that the Department reconsider permitting Verizon to assess power consumption charges when collocators are not draining power. According to the CLEC Coalition, the Department's findings "are flawed and overlook significant issues" (CLEC Coalition Motion at 38). The Department's comparison of the way Verizon's Building Expense charge is recovered to its DC Power Consumption charge "is not factually or legally correct," because the types of expenses are entirely different, the CLEC Coalition asserts (id.). The Building Expense charge is "rent," because Verizon is prohibited from using that space once it is turned over to a CLEC, making it "logical that CLECs begin paying the charge as soon as the space is turned over," the CLEC Coalition states. However, DC Power Consumption is a different circumstance, the CLEC Coalition contends, because CLECs order "drained" amps (id.). Because Verizon incurs no power consumption costs when collocators are not draining power, and because Verizon is not restricted as to the power it can use, it is unnecessary for Verizon to allocate any power amperage to CLEC equipment until that CLEC begins to consume DC power, the CLEC Coalition argues (id. at 39).

Further, the CLEC Coalition states that assessment of the DC Power Consumption charge "is not needed as an 'incentive for CLECs to be prudent in seeking to collocate'" (id.

at 40, citing Order at 420). For these reasons, the CLEC Coalition requests the Department reconsider its findings and order Verizon to charge only for power actually consumed by collocators.

(B) Verizon

Verizon argues the Department should reject the CLEC Coalition's motion that power charges be assessed only when CLECs draw power. According to Verizon, the CLEC Coalition's motion does not meet the standard for reconsideration because it provides "nothing new on the subject" and attempts to reargue an issue already decided (Verizon Comments at 51-52).

ii. Analysis and Findings

The Department finds that the CLEC Coalition's motion for reconsideration does not provide any new information, but rather reargues issues considered and decided in the initial proceeding. We disagree with the CLEC Coalition that the Department's comparison of the way Verizon recovers its Building Expense charge to the DC Power Consumption charge is flawed. Upon turning collocation space over to a CLEC, Verizon must ensure that the CLEC-requested power requirement, as stated on its collocation application, is readily available when a CLEC decides to turn up its equipment. Therefore, contrary to the CLEC Coalition's assertion, Verizon is restricted as to the power it can use.

c. Collocation Hotels

i. Positions of the Parties

(A) CLEC Coalition

The CLEC Coalition requests that the Department reconsider its rejection of the CLEC Coalition's argument that collocation hotels are an adequate measure of competitive markets and, upon reconsideration, reduce Verizon's Building Expense charges (CLEC Coalition Motion at 41). The CLEC Coalition argues that the Department based its findings on Verizon's argument that a comparison of its COs to collocation hotels is "'not only irrelevant' but also 'inaccurate and misleading'" (id., citing Order at 381, citing Verizon Brief at 251); yet, Verizon has contradictorily argued before the FCC[34] that collocation hotels are a viable alternative to its COs (id. at 42). The CLEC Coalition cites Verizon as stating before the FCC that not only are collocation hotel facilities comparable to its COs, they also provide access to both high capacity loop and transport facilities (id. at 43). Therefore, the CLEC Coalition asserts that Verizon's representations to the FCC "foreclose its arguments in this case and undermine the ruling it urged of the Department" by demonstrating that, "for pricing purposes only, a collocation hotel provides a more than adequate frame of reference in regard to Verizon's collocation pricing" (id. at 44). The CLEC Coalition requests that, on reconsideration, the Department modify Verizon's Building Expense charges to be more in line with the rates charged by Universal Access, a Boston collocation hotel (id. at 44).

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[34] See In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, CC Docket No. 01-338, FCC 01-361, Comments and Contingent Petition for Forbearance of the Verizon Telephone Companies (April 5, 2002) ("Verizon Triennial Review Comments").

(B) Verizon

Verizon states that the Department properly rejected the CLEC Coalition's comparison of rates charged by Verizon's COs to those by collocation hotels. According to Verizon, the CLEC Coalition's introduction of Verizon's statements to the FCC "is nothing but a red herring" (Verizon Comments at 54). Verizon maintains that although collocation hotels may provide a viable substitute for its COs, the costs for each may not be comparable (id.). For example, Verizon states, costs between its COs and collocation hotels differ for such services as environmental conditioning and interconnection (id.). In addition, Verizon asserts that the CLEC Coalition is inconsistent in its position, stating on the one hand that collocation hotels do not provide a viable alternative, yet also claiming the costs are comparable (id. at 55).

ii. Analysis and Findings

The CLEC Coalition argues that the Department should reconsider its determination of the Building Expense charge because information regarding collocation hotels that Verizon presented to the FCC subsequent to the hearings in this proceeding contradicts and forecloses the arguments it made to the Department (CLEC Coalition Motion at 42). We find that the CLEC Coalition's argument has no merit, because it is both untimely and inaccurate, and does not meet the Department's requirement that a motion for reconsideration bring to light previously unknown or undisclosed facts that would have a significant impact on the decision already rendered.

First, Verizon filed the comments to which the CLEC Coalition refers with the FCC on April 5, 2002, subsequent to the evidentiary hearings in this proceeding but prior to issue of our Order. The CLEC Coalition was in possession of Verizon's comments since April 2002,

yet it waited to present this information until filing its motion for reconsideration in August 2002, rather than bringing it to light upon its immediate acquisition.[35] The Department has denied reconsideration requested due to information presented for the first time in a motion for reconsideration "on the principle that the parties should be made aware of and respond to potential issues as early as possible in a case." See Stow Municipal Electric Department, D.P.U. 94-176-E, at 22 (2001), and cases cited. Such information, i.e., information in a party's possession prior to issuance of the Order but raised for the first time in a motion for reconsideration, cannot be construed as "previously unknown" or "undisclosed," as required by our standard of review. Id.

Second, while the CLEC Coalition presents Verizon's FCC comments as new information that corroborates the CLEC Coalition's position that collocation hotels provide an "adequate frame of reference in regard to Verizon's collocation pricing," Verizon does not argue in this proceeding or in the FCC proceeding that collocation hotels provide a reasonable indicator for the pricing of Verizon's collocation offerings.[36] The CLEC Coalition has misconstrued Verizon's statements to the FCC, and thus its claim that Verizon has taken a contradictory position subsequent to the close of the record in this proceeding has no merit.

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35 The proper avenue for informing the Department, prior to our issuance of the Order, would have been a motion to reopen the record. See 220 C.M.R. § 1.05(12).

36 Verizon states that it does not argue in its FCC Triennial Review Comments that the facilities in collocation hotels are identical to those in its own COs or that the costs incurred by collocation hotels are the same. Rather, in advocating that collocation be removed from the FCC's unbundling requirements, Verizon states that the number of collocation hotels is increasing and that independent collocation providers offer alternative collocation facilities to CLECs (see CLEC Coalition Motion at 42, citing Verizon Triennial Review Comments at 101; In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, CC Docket No. 01-338, UNE Fact Report 2002, at II-16 (April 2002)).

Hence, Verizon's subsequent statements do not constitute new information, nor do they impact our findings. Because the CLEC Coalition has not presented any previously unknown or undisclosed facts that would have a significant impact on the decision already rendered, it has not met the Department's threshold requirements for reconsideration; therefore, the CLEC Coalition's motion is denied.

d. Administration and Engineering

i. Positions of the Parties

(A) CLEC Coalition

The CLEC Coalition requests that the Department reconsider its ruling of a 20 percent reduction to Verizon's Administration and Engineering charge (CLEC Coalition Motion at 44). The CLEC Coalition argues that collocation hotels represent a competitive environment and, in order to attract customers, "they avoid charging for activities that can be avoided or that may never take place if space planning is done in an efficient manner" (id. at 45). Because, as discussed above, Verizon has acknowledged collocation hotels to be a comparable substitute for its COs, the CLEC Coalition recommends that the Department reduce the Administration and Engineering fee by a total 75 percent (id. at 46).

(B) Verizon

Verizon states that the CLEC Coalition's proposed 75 percent reduction in Administration and Engineering fees is "made for the first time in its Motion, is completely unsupported by any record evidence or testimony and was apparently pulled out of thin air" (Verizon Comments at 56). According to Verizon, the CLEC Coalition advances this

recommendation with the same arguments it made during the proceeding. Verizon urges that the CLEC Coalition's "completely arbitrary proposal" be rejected (id.).

ii. Analysis and Findings

The CLEC Coalition has not provided any new information in its motion for reconsideration. Our decision was based on the evidentiary record, and Verizon's subsequent statements to the FCC do not alter these findings. Accordingly, the CLEC Coalition's motion is denied.

6. Nonrecurring Costs

a. Forward-Looking Adjustment Factors ("FLAFs")

i. Positions of the Parties

(A) AT&T

AT&T claims that additional reductions to Verizon's FLAFs are necessary to reflect the efficiencies that the Department found would be expected in a forward-looking environment (AT&T Motion at 24, AT&T Reply Comments at 14). According to AT&T, a close analysis of the alleged work activities detailed in Verizon's hot cut analysis, in light of the specific adjustments ordered by the Department, demonstrates that significant additional reductions in the FLAFs should be made in order to establish a proper TELRIC hot cut rate (AT&T Motion at 24). AT&T asks the Department to adjust numerous FLAFs, including: CO Frame tasks 1, 2, 5, 7, 15, and 22; RCCC tasks 1-6, 18-23, 25, 26, 33, 34, 37, and 38; RCMAC Activities 1, 2, and 5 (id. at 24-28).

AT&T claims that Verizon failed to rebut, or, in 25 of 27 instances, even respond to, AT&T's demonstration that further FLAF reductions are needed to make the hot cut charge

consistent with the Department's finding regarding forward-looking NRCs (AT&T Reply Comments at 13). Verizon explains that its proposed reductions are based directly on the Department's express findings regarding the need to reflect more efficient OSS and a more automated environment in setting appropriate FLAFs (id. at 14).

(B) CLEC Coalition

The CLEC Coalition claims that the Department's decision that Verizon reduce its FLAFs by 20 percent for all NRC tasks across the board is arbitrary and capricious (CLEC Coalition Motion at 22). The CLEC Coalition contends that a 50 percent reduction is more just and reasonable, and that support for a 50 percent reduction may be found in the Department's detailed analysis of Verizon's hot cut FLAFs (id. at 22-23).

(C) Allegiance

Allegiance states that there is no record evidence that demonstrates that a 20 percent downward adjustment of the FLAFs is sufficient as a general matter, yet there is support for a 50 percent reduction across the board (Allegiance Reply Comments at 9). Allegiance further asserts that Verizon failed to reconcile the arbitrary and capricious nature of the Department's Order and overlooks the fact that the Department never closely inspected every FLAF for every task when it reduced them by 20 percent (id.).

(D) Verizon

Verizon claims that the CLEC Coalition's arguments for rejecting Verizon's NRCM or mandating a greater across-the-board reduction to the FLAFs are easily refuted (Verizon Comments at 44). According to Verizon, the Department considered the details of Verizon's NRCM and determined from the record that the model, with certain adjustments, could be

relied on to produce accurate, forward-looking costs (id. at 45). Further, Verizon characterizes the CLEC Coalition's proposed across-the-board reduction of Verizon's FLAFs by 50 percent, instead of the 20 percent reduction adopted, as arbitrary and capricious (id. at 46). According to Verizon, the CLEC Coalition's contention that a 50 percent reduction to all FLAFs is appropriate because the Department found that some FLAFs related to hot cuts should be reduced by 50 percent is a non sequitur. The reduction in the hot cut-related FLAFs is in no way indicative that Verizon's FLAFs for the hundreds of other unrelated tasks were too low, let alone that they were all too low by a factor of 50 percent, Verizon counters (id.).

ii. Analysis and Findings

AT&T petitions the Department to adjust 27 FLAFs, contending that further reductions are necessary to make Verizon's hot cut NRC compliant with TELRIC. Among the hot cut FLAFs for which AT&T seeks adjustment are FLAFs for three tasks that are associated with service ordering and provisioning. The Department concurs with AT&T that these three FLAFs, even after accounting for the adjustments made by the Department in its Order, are inconsistent with the Department-ordered two percent fallout rate. RCCC Activity 3 is to "eliminate roadblocks from the order." The Department originally directed Verizon to apply a FLAF of 50 percent (rather than the 100 percent that Verizon proposed), which, when combined with the task occurrence factor of 25 percent, results in an assumption that Verizon would need to remove roadblocks on hot cut orders more than 10 percent of the time in a forward-looking environment. AT&T persuades us that this FLAF yields an outcome that is inconsistent with the two percent fallout we assume. Accordingly, Verizon shall use a FLAF of 10 percent for RCCC Activity 3, which yields an outcome that is better aligned with the

level of automation that we assume in a forward-looking environment. RCMAC Activities 2 and 5 entail the receipt of notification of the need to perform a manual translation change on working service (Activity 2) and obtaining notification of trouble conditions on a CLEC end user's line requiring RCMAC analysis and translation charges (Activity 5). Verizon assumed that these two tasks occurred five percent of the time and, by assuming a 100 percent FLAF, assumed no change in the frequency or duration of these tasks in its NRC. The Department did not direct specific adjustments to the FLAFs for these two tasks. We find that we erred in our original order because our across-the-board FLAF adjustment of 20 percent (yielding a revised FLAF of 80 percent) would lead to these two tasks occurring twice as often as the two percent fallout we assume. Accordingly, Verizon shall use FLAFs of 40 percent for RCMAC Activities 2 and 5, which, when combined with Verizon's typical occurrence factor of five percent, will yield the result that these levels of intervention occur two percent of the time.

The Department also ordered specific adjustments to RCCC Tasks 3, 6, 18, 19, 20, 21, 33, and 34. Order at 497-499. AT&T seeks reconsideration of our adjustments to these eight RCCC tasks and also seeks specific adjustments to RCCC Tasks 1, 2, 4, 5, 22, 23, 25, 26, 37, and 38 (AT&T Motion at 24-28). The Department ordered specific adjustments to CO Frame Tasks 1, 2, 3, and 15. Order at 497-499. AT&T seeks reconsideration of our adjustments to CO Frame Tasks 1 and 2 and also seeks specific adjustments to CO Frame Tasks 5, 7, 15, and 22 (AT&T Motion at 24-28). The Department ordered specific adjustments to RCMAC Task 1. Id. at 498-499. AT&T seeks reconsideration of our adjustment to this task and also seeks specific adjustments to RCMAC Tasks 2 and 5 (AT&T Motion at 24-28). However,

with the exception of the three FLAFs we address above, we determine that AT&T's and the CLEC Coalition's motions for reconsideration of the Department's Order, as they pertain to further reductions of FLAFs, fail to meet the standard of review for reconsideration. Neither motion on these points brings to light any previously unknown or undisclosed facts, nor do they expose any Department findings based on inadvertence or mistake, but merely reargue issues considered and decided in the main case. Therefore, we deny the remainder of AT&T's motion as it pertains to FLAFs, and we deny the CLEC Coalition's motion for reconsideration to reduce Verizon's FLAFs by 50 percent rather than 20 percent.

b. Hot Cuts

i. Positions of the Parties

(A) AT&T

AT&T asks the Department to clarify its directive that Verizon explore less costly hot cut process alternatives for CLECs (AT&T Motion at 29). AT&T proposes that the Department establish a timely collaborative process involving Verizon and interested parties to work out the details of alternative processes and their costs (id.). AT&T requests that alternatives to the current hot cut process not be limited to the "frame due time" process employed by SBC in Texas, but include other more efficient options (id.). To this end, AT&T proposes that the Department order Verizon to implement a high volume customer cutover process at forward-looking TELRIC-based prices, which AT&T claims would offer a much more efficient alternative to the individual provisioning of hot cut loops (id. at 29-31).

AT&T claims that neither Verizon nor any other party identifies a single substantive reason for the Department to reject AT&T's suggestion that this alternative be formalized and

properly priced (AT&T Reply Comments at 17-18). In response to Verizon's position that clarification regarding an alternative hot cut process is outside the scope of this proceeding, AT&T states that formalizing the high volume process that is already in place in Massachusetts and other Verizon states, and developing and obtaining approval of TELRIC-based pricing for that alternative, goes to the core of this proceeding (id. at 16). In response to Verizon's claim that AT&T's request is not properly styled as one for clarification of the Order, AT&T disagrees, yet offers its request as one for reconsideration (id. at 17). In response to the CLEC Coalition's concern that AT&T's proposal asks the Department to consider the high volume customer cutover process in lieu of a "frame due time" option, AT&T emphasizes that it expressly identified the high volume approach as an additional alternative to the "frame due time" option (id.).

AT&T proposes that the Department order Verizon to offer its current hot cut process at $35 as an interim measure until such time as commercially viable alternatives are in place with TELRIC based-rates (AT&T Motion at 31). AT&T claims that a $35 interim hot cut rate would encourage Verizon to complete the needed collaboration with AT&T and other CLECs expeditiously (id. at 31-32). AT&T emphasizes that Verizon voluntarily accepted the $35 hot cut rate in New York and New Jersey, and thus, an equivalent hot cut rate in Massachusetts would not unfairly prejudice Verizon (id. at 32). AT&T further stipulates that its proposal is a generous compromise, given that at present a CLEC may order a single hot cut for only $15.26 if no field dispatch is involved (AT&T Reply Comments at 18, citing Verizon's Tariff 17, Part M, § 1.3.1). AT&T asks that the Department clarify that its Extension Order requirement that no new hot cut rate may take effect until the less costly alternatives selected by

the Department are made available to CLECs at TELRIC prices (see Extension Order at 14, 17) applies to not only the "frame due time" alternative, but also to the high volume customer cutover alternative (id. at 18-19).

(B) WorldCom

WorldCom agrees with both AT&T and the CLEC Coalition that the Department must resolve all outstanding issues concerning the hot cut process and rates expeditiously, and that hot cut and other NRCs be set at levels that permit Verizon's competitors to remain in the marketplace and vie for end user customers (WorldCom Comments at 26).

(C) CLEC Coalition

The CLEC Coalition asks the Department to reconsider its decision to make hot cut rates effective, until the Department completes a public interest inquiry or establishes a coordinated hot cut NRC that is no higher than $35 (CLEC Coalition Motion at 16). The CLEC Coalition claims that the Department erred by overlooking Verizon's continuing Section 271[37] obligations that require that final rates comply with section 271(d)(3)(C) of the Act and be in the public interest (id. at 6). According to the CLEC Coalition, the basis for Verizon's Section 271 authority will be jeopardized if the Department greatly increases Verizon's hot cut NRCs above the rates upon which Verizon's Section 271 authority is based (id. at 22-23). The CLEC Coalition argues that "if the cost of the inputs that Verizon charges CLECs is too high, such as Verizon's coordinated hot cut rates, they could preclude the development of competition, which would not be in the public interest" (id. at 11).

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[37] "Section 271" authorization refers to authority to provide in-region, interLATA service pursuant to 47 U.S.C. § 271.

The CLEC Coalition asserts that the public interest dictates that a coordinated hot cut rate no higher than the $35 rate recently approved in New York and New Jersey be ordered (id. at 7, 12-13). The CLEC Coalition claims that reconsideration for hot cuts is justified because the Department's finding that the hot cut rates in Massachusetts should be far greater than $35 is based on the mistaken and unsupported conclusion that the hot cut process in Massachusetts is somehow different from the $35 hot cut process used in New York and New Jersey (id. at 7). The CLEC Coalition instead asks the Department to view the rates in New York and New Jersey as a "benchmark ceiling" for a coordinated hot cut NRC that can be imposed in Massachusetts (id. at 13). The CLEC Coalition further suggests that the Department use the hot cut rates in Maine, New Hampshire, and Vermont as other benchmarks for establishing hot cut rates in Massachusetts (id.).

The CLEC Coalition asks the Department to clarify that Verizon cannot assess its coordinated hot cut rates until Verizon has a less costly process in place that works, is a practical and reliable alternative for CLECs, and is available at a rate less than $35 (id. at 23-24). The CLEC Coalition proposes that the Department establish a pilot program or a collaborative process in which Verizon works with CLECs to ensure that Verizon's less costly alternative offering is "a truly viable, tried and tested alternative that CLECs can employ" (id. at 24). The CLEC Coalition emphasizes that the coordinated hot cut rate should not exceed $35 for the public interest reasons discussed above (id. at 25). The CLEC Coalition further states that the Department must clarify that Verizon's carrier-to-carrier ("C2C") metrics and performance assurance plan ("PAP") must be modified to include the new less costly process before Verizon assesses any coordinated hot cut rates (id. at 23-24).

The CLEC Coalition further requests that the Department deny AT&T's motion to establish a high volume hot cut process instead of a process that is fashioned after the SBC model (see AT&T Comments at 3). The CLEC Coalition explains that a process that only encompasses high volume UNE-P cutovers to UNE-L will not be a suitable less expensive alternative to the coordinated hot cut process used by Allegiance and Conversent (CLEC Coalition Comments at 3).

(D) Conversent

Conversent claims that if the Department does not modify its Order and adopt a $35 ceiling for the hot cut charge, as other jurisdictions have done, the hot cut NRC that Verizon will assess Conversent will increase to a level at which Conversent cannot compete for small business customers in Massachusetts (Conversent Reply Comments at 10). Conversent contends that the Department did not consider this matter in its Order (id.). Conversent acknowledges that if Verizon's alternative hot cut process is priced at a rate that is at or near the $35 benchmark that other jurisdictions have set, "the concerns that Conversent has over the fully coordinated hot cut NRC, as a practical matter, are less problematic" (id.). Conversent emphasizes, however, that its ability to continue to compete for small business customers in Massachusetts depends on this alternative process being available at a rate that is at or near $35 and that "results in no or very little disruption" to a migrating end-user (id.).

(E) Allegiance

Allegiance argues that, contrary to Verizon's criticism, reconsideration of the Department's decision regarding hot cut NRCs is appropriate because the Department failed to consider Verizon's Section 271 public interest obligations, and its decision is based on the

erroneous conclusion that Verizon's hot cut process in Massachusetts differs from its hot cut process in New York and New Jersey (Allegiance Reply Comments at 2). According to Allegiance, the Department must find that newly established UNE rates are in the public interest as Section 271 mandates (id. at 4). Allegiance states that, contrary to Verizon's assertions, the Department never expressly addressed or considered the Section 271 public interest concerns in the Order (id. at 2).

(F) Verizon

Verizon states that no further reductions to its fully-coordinated hot cut costs are necessary or desirable (Verizon Comments at 38). Verizon argues that AT&T's assertions about appropriate task times and FLAFs are not based on any record evidence and "appear to be pulled out of thin air" (e.g., AT&T does not support its various recommendations that particular FLAFs be set at certain percents with cites to any supporting evidence) (id. at 38-39). Verizon asserts that AT&T's argument is based on the mistaken notion that the Department found that Verizon's hot cut rate was too high and could discourage competition, but failed to take sufficient steps to remedy that failing (id. at 38). According to Verizon, the Department mandated adjustments that slashed Verizon's proposed hot cut rate nearly in half, while ordering Verizon to develop an even less costly alternative hot cut process (id. at 39). Verizon asserts that AT&T fails to explain how the Department could have engaged in such a hard look at Verizon's hot cut costs, yet missed the adjustments to hot cuts that AT&T proposes (id.). In conclusion, Verizon states that AT&T has offered the Department no basis to revisit its close and careful analysis of the hot cut costs (id. at 40).

Verizon also contends that neither AT&T nor the CLEC Coalition offers any reason for the Department to reconsider its decision to reject the $35 hot cut rate (id.). Verizon states that both AT&T and the CLEC Coalition repeat arguments presented in their post-hearing briefs that have already been acknowledged and rejected by the Department (id. at 40-41, citing Order at 492, 499). Verizon states that the Department properly recognized that $35 is not a TELRIC-based rate, and instead opted to make adjustments to Verizon's model to arrive at what it viewed as a TELRIC rate (id. at 41).

Verizon states that the CLEC Coalition offers no new facts or arguments to support a contrary conclusion here, and therefore fails to meet the Department's standard for reconsideration (id. at 42). Verizon further dismisses the CLEC Coalition's Section 271 "public interest" arguments as meritless (id.). According to Verizon, sections 251 and 252 of the Act, as well as FCC regulations, require that UNE rates be based on the forward-looking costs of providing network elements, regardless of whether the incumbent has Section 271 approval (id.).

Verizon contends that AT&T and the CLEC Coalition's proposal of a $35 rate as an incentive to encourage Verizon to offer a functional, less costly hot cut alternative in a timely manner is an inappropriate consideration for setting UNE rates (id.). Verizon further states that it will comply fully with the Order and submit in its compliance filing a less costly hot cut alternative that will be available immediately to CLECs who desire it, rendering an interim hot cut rate of $35 unnecessary (id. at 43). In response to the CLEC Coalition's motion for clarification that any less costly alternative Verizon introduces will be less than $35, Verizon states that such a rate is not cost based and is not required by the Order (id.).

In response to AT&T's proposal for the development of a new high volume cutover process, Verizon states it is well outside the scope of this UNE pricing proceeding, especially at this late date, to require the industry-wide development of a new hot cut process, and therefore the proposal should be rejected (id. at 43-44). Verizon claims that AT&T never presented this option to the Department before, and by AT&T's own admission it "is very different" from the hot cut process for which Verizon's model estimates costs (id. at 44, citing AT&T Motion at 29-30).

ii. Analysis and Findings

AT&T requests that the Department order Verizon to implement a high volume hot cut process in response to the Department's directive that Verizon explore a less costly hot cut alternative. The Department's finding on an alternative hot cut process concerned only the SBC "frame due time" process, not the high volume hot cut process proposed by AT&T or any other process. The record did not allow for consideration of alternative processes other than the SBC "frame due time" process.[38]

The Department also clarifies that Verizon's new hot cut rates will not go into effect until the alternative hot cut process, based on the SBC frame due time process, is operational to our satisfaction. Accordingly, the Department rejects as unnecessary the CLEC Coalition's proposal for the Department to adopt a pilot program or collaboration program before hot cuts go into effect. The Department further rejects the CLEC Coalition's motion that C2C metrics and the PAP must be modified to include the new less costly process before it can be

[38] As always, AT&T is free to petition the Department to investigate its high volume hot cut process in a separate proceeding.

implemented. While a CLEC can petition the Department to modify either the C2C or the PAP at any time, there is insufficient evidence that such modifications are necessary at this time.

In addition, the Department denies AT&T's motion requesting for a $35 hot cut rate until commercially viable alternative hot cut processes are available and rejects the CLEC Coalition's argument that the Department failed to conduct a public interest inquiry under Section 271, which would have shown that a $35 rate is appropriate. Both motions fail to meet our standard of review. Moreover, the Section 271 public interest requirement is not part of the legal standard of review for a TELRIC case.

We do, however, address the CLEC Coalition's claim that the Department's hot cut finding is based on the mistaken and unsupported conclusion that the hot cut process in Massachusetts is somehow different from the $35 hot cut process used in New York and New Jersey. The Department reached no such conclusion. The Department's intent was not to determine whether the hot cut process in Massachusetts differs from the hot cut process in New York, New Jersey, or any other state, but rather to "set UNE rates that most accurately reflect the TELRIC costs of particular UNEs." Order at 20. The Department's explanation that the "hot cut process includes tasks that the CLECs have specifically requested in order to ensure trouble-free migration of customers from Verizon to other carriers" refers only to the hot cut process in Massachusetts and makes no conclusion as to whether hot cuts in any other state would include similar or identical tasks. Id. Accordingly, the Department's conclusion that the hot cut rates in Massachusetts will "likely significantly exceed the $35.00 charge that exists in certain other Verizon jurisdictions" is based only on the TELRIC costs of a hot cut offered in Massachusetts. Id.

c. Task Times

i. Positions of the Parties

(A) CLEC Coalition

The CLEC Coalition states that the Department should fully reject Verizon's NRCM and order Verizon to keep its current nonrecurring rates in effect (CLEC Coalition Motion at 21). The CLEC Coalition claims that reconsideration is necessary because the task times gathered from Verizon's survey and used in the NRCM are unreliable and cannot be rehabilitated (id. at 17). "No matter how the Department tries to cure the infirmities associated with the survey and the task times that were gathered from it," the resulting data from the NRCM are "no better than the data that went in," the CLEC Coalition asserts (id.). The CLEC Coalition proposes that, should the Department choose not to reject Verizon's NRCM and data, the Department should attempt to remedy the problems with the data by establishing task times that are far less than the low end of the 95 percent confidence interval (id. at 18). To this end, the CLEC Coalition proposes a "bifurcated approach" by which Verizon's task times would be based on minimum times for observations with 30 or more responses and reduced by 79 percent for observations with fewer than 30 responses (id. at 18-21). The CLEC Coalition requests that, should the Department deny reconsideration on this issue, the Department should clarify what it means by the statement that Verizon's NRCM should reflect the task times that are on the "low end of the 95 percent confidence interval" (id. at 23, citing Order at 470). The CLEC Coalition claims that in context, the low end of the 95 percent confidence interval should mean that Verizon use the fastest five percent of the task times for

each task in its NRCM (id.). The CLEC Coalition also asks that the Department reduce task times where there was only one response (id.).

(B) Allegiance

Allegiance contends that because Verizon failed to meet its burden of proof regarding the accuracy of its sample, there is no proof that using minimum task time estimates would be inappropriate (Allegiance Reply Comments at 7). Allegiance further states that Verizon's argument against the CLEC Coalition's bifurcated approach is unavailing because the Department found that Verizon's survey resulted in task times that are upwardly biased and overstated (id. at 8).

(C) Verizon

Verizon states the CLEC Coalition's motion to use the minimum survey times to address bias and unreliability in Verizon's study repeats an argument that the CLEC Coalition raised in its initial post-hearing brief, and that the Department has already properly rejected (Verizon Comments at 45, citing Order at 464). Notwithstanding, Verizon contends that the minimum time does not represent the most efficient time, as the CLEC Coalition assumes (id.). Verizon characterizes the CLEC Coalition's "bifurcated approach" as nonsensical (id. at 46). Verizon asserts that the 79 percent reduction is arbitrary and would in many cases lead to work times that are even less than the minimum time reported on the survey (id.).

Verizon claims that the CLEC Coalition's motion for clarification of the meaning of the 95 percent confidence interval demonstrates its failure to understand what the Department ordered (Verizon Comments at 47). According to Verizon, the Department did not direct Verizon to use the lowest five percent of times captured for each activity as the CLEC

Coalition seems to suggest, but instead ordered Verizon to use the low end of the 95 percent confidence interval range (e.g., if the mean time for a given activity is 15 minutes and the 95 percent confidence interval is 12 to 18 minutes, then the Department's order would require Verizon to use a time of 12 minutes) (id. at 47).

ii. Analysis and Findings

The CLEC Coalition's motion for clarification of the Department's directive that Verizon use the "low end of the 95 percent confidence interval for the task times that Verizon uses in its NRCM" highlights a misunderstanding on the part of the CLEC Coalition. Order at 470. The CLEC Coalition is incorrect in its interpretation of the directive to mean that Verizon should use the fastest five percent of the task times for each task in its NRCM. As Verizon correctly explains in response to the CLEC Coalition's motion:

> A 95 percent confidence interval is the range of times within which it is 95 percent likely that the 'true' time lies. The Department ordered Verizon MA to use the low end of that range for each task time. Thus, for example, if the mean time for a given activity is 15 minutes, and the 95 percent confidence interval is 12 to 18 minutes, then the Department's approach would require Verizon MA to use a time of 12 minutes (Verizon Comments at 47).

We find that the motions for reconsideration of the CLEC Coalition and Allegiance concerning task times fail to meet the standard of review for reconsideration. The motions fail to bring to light any previously unknown or undisclosed facts, nor do they expose any Department findings based on inadvertence or mistake, but merely reargue issues considered and decided in the main case. Therefore, the motions are denied.

III. ORDER

Accordingly, after due consideration, it is

ORDERED: That Verizon Massachusetts shall determine the costs of unbundled network elements and interconnection based on the findings in the UNE Rates Order, issued July 11, 2002, and in this Order and submit those calculations, along with supporting documentation, in a compliance filing, to be filed with the Department within 30 days of the date of this Order; and it is

FURTHER ORDERED: That the August 14, 2002, motion of Verizon Massachusetts for partial reconsideration and clarification of the UNE Rates Order be and hereby is granted, in part, and denied, in part, as discussed herein; and it is

FURTHER ORDERED: That the August 14, 2002, motion of AT&T Communications of New England, Inc., for partial reconsideration and clarification of the UNE Rates Order, be and hereby is granted, in part, and denied, in part, as discussed herein; and it is

FURTHER ORDERED: That the August 14, 2002, motion of the CLEC Coalition for partial reconsideration and clarification of the UNE Rates Order, be and hereby is denied, as discussed herein; and it is

FURTHER ORDERED: That the August 14, 2002, motion of WorldCom, Inc. for partial reconsideration of the UNE Rates Order, be and hereby is denied, as discussed herein; and it is

FURTHER ORDERED: That the August 14, 2002, motion of Z-Tel Communications, Inc. for partial reconsideration of the UNE Rates Order, be and hereby is denied, as discussed herein.

By Order of the Department,

_____/s/_____
Paul B. Vasington, Chairman

_____/s/_____
Eugene J. Sullivan, Jr., Commissioner

_____/s/_____
Deirdre K. Manning, Commissioner

COMMISSIONER CONNELLY, concurring in part and dissenting in part.

The Department's two-year effort to set UNE rates leads today to an outcome marred, in part, by legal error and unsound policy. I fear, as a result, that economic uncertainty over fundamental UNE pricing rules will persist and that other deleterious consequences may arise. Such an upshot would dampen development in the Commonwealth's telecommunications sector. The cost to consumers and to the state's economy, though hard to estimate, could be considerable. Regretfully but respectfully, I must dissent, in part, from today's outcome.[39]

Unbundled Network Elements, D.T.E. 01-20 Part A (2002) ("11 July Order") has been the subject of a number of motions for reconsideration and clarification. Dealing with those motions has focused our attention on further argument and new evidence involving critical parts of a rather large record. Although I too signed the 11 July Order, I now, after considering the motions, see that grave errors were made in disposing of certain important issues. Today's order on the motions (hereinafter, "today's order") corrects some of these errors, but leaves others uncorrected. This failure to correct all of the errors in the 11 July Order misses an opportunity to make that order a true spur to competition and leaves in place a *superficially appealing* result that time will show is *not really consumer-friendly*, however well-intended it may have been. Hence, the dissent.

In summary (but more particularly described below), I conclude, after hearing further argument and reviewing additional evidence, as follows: (1) that several of the 11 July Order's rulings on key points seriously erred; (2) that persistence in those erroneous rulings would likely result in rates *not*

[39]I also join in Commissioner Keating's separate opinion.

compliant with the TELRIC principles articulated by the Federal Communications Commission ("FCC") under the 1996 Telecommunications Act and suggested to state commissions for implementation; (3) that today's order misses the opportunity to correct some of the more important errors raised by the motions; (4) that the UNE rates, likely to result from not correcting those errors, will *undermine the Department's ultimate goal* in telephone deregulation, for the rates will likely defeat efforts to promote *facilities-based* competition by creating leasing arrangements that a rational CLEC would be loath to abandon for the riskier course (but ultimately the better course *and* the one intended by the 1996 Telecommunications Act) of increasing reliance on its own facilities; and (5) that the resulting rates, in addition to being *non*compliant with TELRIC principles, run the risk of having a confiscatory and thus unconstitutional effect by improperly depriving Verizon-Massachusetts of an opportunity to recover, through rates, reasonable costs prudently incurred to provide service to customers and hence denying "the opportuity to earn a fair and reasonable return on its investment." *Massachusetts Electric Company* v. *Department of Public Utilities*, 376 Mass. 294, 299 (1978).

TELRIC is a radical departure from traditional cost of service regulation and rests on some highly questionable thinking; but fully do I recognize that TELRIC is the current law and must, at least in some form, be applied in Massachusetts. Like the 11 July Order, however, today's motions order needlessly compounds some of TELRIC's more objectionable tendencies. For these reasons, I depart from several of today's rulings on the motions. Before dealing with those rulings in detail, however, some context is useful. A larger picture needs be drawn. We need to lift our heads from the details (as important as they are) and focus on our primary goal.

I.

A.

Just what was the Department's primary goal in issuing its 11 July Order on assumptions and inputs to the switching model for TELRIC UNE rates calculation? The goal was to set the stage for bringing the benefits of a competitive telecommunications market to Massachusetts consumers by means of offering CLECs efficient leasing rates for the several parts of Verizon-Massachusetts' system. These rates have to be set with an eye both to the genuine, workaday realities of a complex business and to what a hypothetical (i.e., nonexistent), efficient, "dropped-in-place" telephone system *might* cost. TELRIC UNE rates would be but the means to stimulate rapid movement toward innovative, efficient *facilities-based* competition. The rates, in short, are to promote rapid competitive entry into the market, but also (and even more important for the long run) to give an incentive to achieve ever greater efficiencies. TELRIC rates are not themselves supposed to produce an end state of a semi-permanent, dependency relationship between BOC and CLEC. There would be no welfare gain in that arrangement.

B.

Did the 11 July Order, taken as a whole, effectively set about achieving that goal? No, it did not. Without access to all of Verizon's cost models or some comparable means to test the net effect of the 11 July Order's many decisions–based, as they necessarily were, partly on recent business experience (much of it and its significance, the subject of intense debate) and partly on extrapolation from that experience to hypothesized levels of efficiency of a nonexistent, indeed an imaginary system–one cannot say with certainty or precision what the net effect of the 11 July Order

will be on final rates. The fundamental dilemma of applying TELRIC in the real world is that "we know in part, and we prophesy in part," but in the end we can see only "as through a glass, darkly," 1 *Corinthians* 13:9, 12. Yet, on this scanty basis, the TELRIC construct requires that we make decisions of enormous importance to our economy and its infrastructure. Supreme Court Justice Stephen Breyer struck at the heart of the problem with the TELRIC method when he observed: "Assumptions are inevitable. And the resulting uncertainties mean a somewhat *random* sort of rate that can either exacerbate the incentive problems . . . or alleviate those problems by a kind of regulatory coincidence." *Verizon Communications Inc.* v. *Federal Communications Commission*, 535 U.S. 467, 122 S.Ct. 1653, 1695 (2002), (Breyer, J., concurring in part and dissenting in part) (emphasis added). This cautionary note from a preeminent observer of economic regulation is arresting. When an agency's best hope for a ratesetting method is "a kind of regulatory coincidence" whereby dubious decisions tending one erroneous direction may *randomly* counterpoise doubtful decisions tending some other errant way, then some skepticism in applying the method is urgently needed. TELRIC is just such a method.

Our 11 July Order suffered from this randomness; but the hope of "regulatory coincidence" cancelling out errors was not realized. Judging from the briefs and additional evidence presented since the motions were filed in August, it appears that the 11 July Order's effect may well be to set rates so low that no rational CLEC would find it in its interest to move from UNE leasing, any time soon, to innovative, efficient, *facilities-based* competition. That effect will defeat our principal regulatory goal and deny Massachusetts consumers the increase in economic welfare that is the underlying rationale of the 1996 Telecommunications Act. Of course, as already noted, one cannot with certainty say what

the results will be until the switching model yields its answers. But the 11 July Order's net effect, unless modified by rulings on the August motions, could produce UNE rates that will thwart movement toward *facilities-based* competition, for so long as the resulting rates remain in effect. The rates will likely be a featherbed, rather than a spur to competition through alternative CLEC facilities.

As a prominent national figure recently observed in a different context, one can make what seems to be "a perfectly responsible, isolated decision, but if you make a series of them, they end up *random*; they don't end up with coherence." Secretary of Defense Donald Rumsfeld, quoted in Bob Woodward, *Bush at War*, at 322 (2002) (emphasis added). This comment is curiously consistent with Justice Breyer's observation about TELRIC's propensity for randomness in complex ratesetting. The defect appears to be inherent in TELRIC itself: "The speculative nature of this enterprise, the critics say, will lead to a battle of experts, each asking a [state] commission to favor what can amount to little more than a guess." *Verizon*, 535 U.S. at ___, 122 S.Ct. at 1695 (Breyer, J.). Our 11 July Order intensified TELRIC's inherent flaws.

The way the 11 July Order applied the method compounded TELRIC's worst tendencies. Each rate element was mechanically considered in isolation from its synthetic effect, in combination with other rate elements, upon "the whole", viz., the final rate calculation and its effect on competition. In retrospect, this fragmented approach was the fundamental mistake of the 11 July Order. The approach of conducting what purported to be a "pure" element-by-element analysis, without regard to overall outcome, may have been well intended.[40] But that "whole" (i.e., the final rates and their effect on

[40]On the other hand, one report on the 11 July Order suggests that New York State's loop and switching rates may have been, if not the explicit target, then at least a tacit reference point for the Department's effort. See *The Boston Globe*, 12 July 2002, at C3. However that may be, the chance

(continued…)

competition overall) is more important by far than the parts (i.e., individual rate elements) considered discretely. It is to the final rates and their effects that the Department's ultimate policy judgment must be reserved and applied. The 11 July Order abdicated our ultimate policy judgment to a mechanical compilation of model inputs–the very randomness in decision making that both Breyer and Rumsfeld critiqued. I did not see that in July, but I do see it now. By attending only to the bits and pieces, to use an analogy, the 11 July Order lost sight and control of the ultimate form or pattern that the switching model "kaleidoscope" will end up producing. Whether that form will prove consonant with the primary goal of UNE rates that promote facilities-based combination is, after reconsideration of some of its major components, very much to be doubted. Very much.

Again, in retrospect, the Department might have, probably ought to have, included in the record the actual UNE rates that result from the sundry decisions, or combinations of decisions, in order to consider whether the resultant rates comport with our policy goal. That is, not merely looking at the rates for mechanical consistency with the 11 July Order, but also assessing the filing for the much larger and fundamental question whether the resulting UNE rates, once produced by the switching model, conduce to promoting *facilities-based* competition. It is not too late to do so, and we really should have a follow-on phase to consider what we have wrought. When employing a method as speculative as TELRIC *and* when applying that speculative method to a record that here and there is inevitably

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[40](…continued)
to reconsider certain key rulings in the 11 July Order prompts the realization that the Department may have inadvertently and incautiously (if an analogy be permitted) set the UNE "limbo bar" not just slightly, but drastically lower, than the NYPSC did. If so, then while New York providers' investment in telecommunications technologies and services may perhaps grow (and with it, consumer welfare), our providers likely will (to mix the metaphor) just be cutting up more or less the same market pie into different size pieces.

sketchy when it comes to divining the future, it is wrong to arrogate a prescience that no regulator can have, that is, to blindly assume that the application of the TELRIC method will necessarily lead to a reasonable result.

We urgently need another step in our proceeding, expressly to look at the compliance-filing rates to see whether they promote our overall goal, not just that the rates comply with the piecemeal directives of 11 July. There is reason to suppose that the FCC would not regard such a step as unacceptably deviant from its TELRIC rules, which it described to the Supreme Court as "simply suggestive, leaving States free to depart." *Verizon*, 535 U.S. at ___, 122 S.Ct. at 1698 (as related by Breyer, J.).[41] Otherwise, we may end up with "a system in which regulatory price setting would *supplant*, not *promote*, competition." *Id.* (emphasis in original). Consumers' long-run interests will not be well served by such a UNE rate regime. Nor would the interests of the Commonwealth's economy or its telecommunications infrastructure be advanced.

In short, we need another evaluative phase to our proceedings before we declare the rates resulting from the 11 July Order and from today's order to be final rates. The stakes are just too high to abdicate judgment to a computer model and a congeries of uncertain inputs. Otherwise, we are buying–nay, insisting on selling ourselves–a classic pig-in-a-poke.

C.

Does today's order on the motions for reconsideration and clarification correct our course and redirect the practical terms of our rate policy toward the goal of *facilities-based* competition? Today's order does correct a number of the errors that the movants have pointed out in

[41]UNE rates in New York State, for example, were set by the regulator's acceptance of a negotiated settlement. So, apparently, there is more than one way to satisfy the FCC's rules.

the 11 July Order; but it leaves several critical errors uncorrected.[42] Today's order misses the opportunity to correct error (certainly appealable and probably reversible error) in the following areas of the 11 July Order: RTU fees; the ratio of new switches to growth switches and the switch discount; the EF&I briefing record; feature port additive costs; and articulating a clear evidentiary basis for an otherwise correct even-allocation of getting started and EPHC costs. The net effect of some of these uncorrected critical errors will likely be UNE rates that may allow CLECs rapidly to establish a burgeoning customer base (at least initially, this may be a good outcome) but offer no real incentive to move toward *facilities-based* competition for the life of the rates (decidedly not a good long-run outcome, given its tendency to thwart the Department's overall policy goal[43]). If a colorful simile may be allowed, offering such rates to a BOC's competitor will be like moving a substance-dependent patient *not to greater self-reliance*, but from methadone to heroin: he may never get off it.[44]

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[42]On a procedural point, today's order at 1 accords only 30 days for the compliance filing. Like King Canute, the order asks for something probably not achievable. Sixty days is more reasonable, given the volume and complexity of the task.

[43]And, it may be added, to thwart the express purpose of the 1996 Telecommunications Act: ". . . to provide for a pro-competitive, deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition . . . ." Conference Report for S. 625, 31 January 1996, at 1. Lease rates that are too attractive (i.e., not efficient) will undercut deployment of new, efficient technologies and services and be no boon to the state's economy over the life of such rates, whether that be three years, five years, or longer. Resellers of services and lessees of network elements at overly attractive lease rates will not bring pressure on the incumbent BOC, to reduce costs and improve services, to anywhere near the extent that *facilities-based* competitors can. The major effect that a UNE lessee may bring is pressure on the BOC's retail pricing through cost-cutting in the selected functions the lessee itself chooses to provide.

[44]Or, to put the matter differently, let us suppose, by way of analogy, that **A**, a major, established, commercial landlord owning a very large number of rental units, were to be required by law to lease, indefinitely, any number of his units to **B** (or to **C**, or to **D**, etc.), a second but start-up, commercial

(continued…)

Consumers will not be well served in the long run, whatever short term advantages may accrue to them. Over the life of the rates, new investment by both BOC and CLECs will likely suffer–and with it, technical innovation. The net effect of today's order will be "sacrificing the end to the means." David Hume, *Essays Moral, Political, and Literary*, Part II, Essay xiii ("Of Passive Obedience"), ed. E.F. Miller (rev. edn. Indianapolis, 1987). Society and the economy will not benefit; and the opportunity to confer benefit through more thoughtful and effective regulation will be squandered.

II.

RTU Fees

TELRIC, as practiced by the FCC, requires a regulator to hypothesize a new, efficient telephone system, designed from scratch and then dropped in place, fully operational. Under the dictates of this regulatory construct, the cost characteristics of the hypothesized system cannot really be known (even with the crude accuracy of conventional rate making), but must nevertheless be supposed or estimated in order to comply with Federal law. A regulator's best, though not his only, guide is recent, actual experience from the telecommunications business world–admittedly not a TELRIC world, but known to most people as the real world. In that world, buyers and sellers transact with one another

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[44](…continued)
landlord, at government-set, below-cost leasing rates; and let us suppose further that **B** was entitled by law to sublease those units to tenants of his choosing at whatever rates the then-prevailing real estate market conditions permitted him to exact from his sublessees. In such a relationship–i.e., one, practically speaking, unlimited in duration and scope–would there be any *real* (as distinct from theoretical) incentive for **B** ever to risk his own capital, build his *own* buildings, and attract direct-lease (rather than sublease) tenants to fill them? Moreover, what incentive would there be for **A** to continue to construct and bring new units on the rental market? The analogy is, of course, a simple one drawn from a different industry with different economics; and like all analogies (which, by definition, are offered as illuminating comparisons and not as identities or equivalents), it breaks down if pressed too hard or too far. But even though no analogy can capture the full complexity of the TELRIC-UNE relationship, this analogy does, I think, more than hint at the fundamental problem with today's order.

to satisfy their present commercial needs, heedless of the evidentiary demands of a future TELRIC proceeding and analysis.

Is it any wonder, then, that evidence drawn from real-world transactions and used to support a TELRIC analysis may exhibit imperfections and gaps, may not be utterly "conclusive" but may still be "substantial" as that term is used in administrative law? The evidence in Exhibit VZ-60 at 4 shows prices at which a willing seller, Nortel, was offering RTU at four separate locations. This exhibit presents the most recent evidence of the very market transactions that provide the best available information to determine the forward-looking RTU costs that today's order claims to seek. Merely because not all four bids resulted in actual contract awards, is no reasonable basis to regard them as "not relevant". Similarly, the Pearl Street bid represents how businesses, facing exigent or emergent need, sometimes act to meet customer service requirements: they are forced to accept sole-source procurements. Such noncompetitive procurements may not, alone, characterize overall costs. But they are not irrelevant, as has been suggested: they are probative.

Although an appellate court gives due weight to the experience and specialized competence of an administrative agency such as the Department, *Flint* v. *Commissioner of Public Welfare*, 412 Mass. 416, 420 (1992), it is appealable and not harmless error to dismiss such bid and sole-source evidence and related buy-out evidence out of hand and to substitute for it "our administrative judgment," *New Boston Garden Corporation* v. *Assessors of Boston*, 383 Mass. 456, 466 (1981). Under G.L. c. 30A, § 11(5), "[a]gencies may *utilize* their experience, technical competence, and specialized knowledge *in the evaluation of the evidence presented* to them [emphasis added]"; and under § 14, a reviewing court will give due weight to that experience, competence, and knowledge.

Discretion and expertise may not, however, substitute for record evidence. The information drawn from recent vendor offerings may not be as abundant as one might wish; but that information, taken in its totality, i.e., together with fees paid in fact, is nonetheless a better guide than limiting reliance only to "actual RTU fees Verizon paid" in order to hypothesize the RTU TELRIC value. The Supreme Judicial Court has recognized that "the difficulties and uncertainties" of applying the substantial evidence test are "[n]owhere more apparent than where, as here, a determination must be made as to the true nature of future relationships and conduct." *Cohen* v. *Board of Registration in Pharmacy*, 350 Mass. 246, 251 (1966). Under the substantial evidence test, a regulatory agency must address (not merely dismiss, as today's order does) record evidence that derogates from its conclusion. *Id.* An agency must, like its reviewing court, base its decision "upon consideration of the entire record," G.L. c. 30A, § 14, and "[t]he substantiality of evidence must take into account whatever in the record fairly detracts from its weight." *Universal Camera Corporation* v. *National Labor Relations Board*, 340 U.S. 474, 488, quoted in *Cohen*, 350 Mass. at 253; *Salaam* v. *Commissioner of Transitional Assistance*, 43 Mass. App. Ct. 38, 39 (1997).

In evidence presented in this docket (some of it incorporated by reference from the earlier Consolidated Arbitrations, Exh. VZ-38A, at 73), Verizon has made a persuasive case for the need for a $1.88 million per switch adjustment–if the Department is determined to retain its assumed 90:10 ratio of new to growth switches (itself an arbitrary assumption). Exhibit VZ-60, at 2-6, assumed that RTU fees would be incurred at a level associated with maintenance and upgrading of switch software; and that assumption, if unadjusted for the 90-percent-new-switch decision taken in the 11 July Order and regrettably reaffirmed today, would result in a substantial understatement and under-recovery of

forward-looking RTU costs. Given the evidence on this point, taken as a whole, failure to make the requested per-switch adjustment–again given retention of the 90:10 ratio assumption–does not comport with the substantial evidence test of G.L. c. 30A, § 1(6).

The rate effect of declining to apply the RTU adjustment appears confiscatory; and if raised on appeal, such a claim would be accorded particular scrutiny. See, e.g., *Opinion of the Justices,* 328 Mass. 679, 685-86 (1952). To be sure, *Verizon Communications Inc.* v. *Federal Communications Commission*, 535 U.S. 467, 122 S.Ct. 1653 (2002) upheld the Federal Communications Commission's exercise of its discretion as to the TELRIC method chosen to implement § 252(d)(1) of the 1996 Telecommunications Act. But the Court hastened to note that, because there was no particular *rate* before it on appeal, it would not declare that the agency's TELRIC rules were confiscatory on their face. The Court summarized its narrow holding thus: "In short, the incumbents [appellant Verizon] have *failed to defeat the deference due to the Commission*." *Id.*, at ___, 122 S.Ct., at 1679 (emphasis added). The Court went on, however, to point out that the "*want of any rate to be reviewed is significant*, given that this Court has never considered a taking challenge on a ratesetting methodology without being presented with specific rate orders alleged to be confiscatory." *Id.* (emphasis added). The Court faced a question not of rates, but of method and simply declined "to anticipate a rate-order taking claim." *Id.* at ___, 122 S.Ct., at 1679-80, 1681. Thus, the question whether the FCC's TELRIC method has, as applied by a state commission, resulted in confiscatory effects remains an open one. *Id.* at ___, 122 S.Ct., at 1681 n. 39, citing the FCC's First Report and Order Para. 739.

The RTU ruling in today's order on reconsideration, especially in the context of the overall level of rates that may result in concert with other of today's rulings, is susceptible of just such a confiscation challenge. I think that, if mounted, such a challenge would succeed. And the same may be said of other of today's rulings discussed below.

III.

Switch Discount

The 11 July Order's treatment of the switch discount merited real reconsideration but received short shrift today. The switch discount assumption is a critical input to the switching model, in that it leads to a judgment about the major investment presumed needed for UNEs. Verizon has presented an analysis, based on recent Lucent purchases, that convincingly shows that discounts from vendors can vary with equipment type and with equipment categorization as either new or growth equipment. Exhs. VZ-36, at 152; VZ-38A, at 60. This "effective" switch discount is based on actual business experience in numerous arm's-length transactions. RR-DTE-66. The evidence, substantially overlooked today, comes from commercial reality over a five-year period, 1996-2000; and its substantial evidentiary weight should count for more than the arbitrary assumption that the hypothesized 90 percent of new switches could ever be purchased, all at once, at the substantial new discount levels seen in recent years. It is error effectively to ignore the real-world experience summarized in Exhibit VZ-36, at 21, 150-54. The behavior of a real firm offering discounts on equipment incrementally purchased cannot be translated without adjustment to a hypothesized TELRIC system, arbitrarily characterized by 90 percent new switch/10 percent growth switch assumption. A vendor, as Verizon has persuasively

argued, would not behave the same way in so different a market (i.e., offer such deep discounts intended for a robust "growth" market that would, in fact, not exist).

Verizon was correct to point out that the Department's 11 July Order stated no adequate reason or evidence to support its departure from the Consolidated Arbitrations Phase 4 Order's statement that assumptions of manufacturers' discounts to a TELRIC network would be speculative and that discounts are a function of marketplace supply and demand. Verizon Motion for Reconsideration and Clarification, at 26-27. Today's order on reconsideration provides no coherent response. It is not even plausible that vendor discounts for switches, available in recent years in the expectation of growth sales, would apply *pari passu* to the instantaneous purchase of 90-percent-new switches assumed for a hypothetical, dropped-in-place system. *The market would be an entirely different market*; and there is no tenable–and certainly no coherently articulated basis–for assuming past vendor behavior for growth switches would obtain in that hypothesized new-switch market. Neither experience nor logic supports a conclusion that the equipment market and vendor discounting behavior with respect to growth in a mature system will remain essentially unchanged, with respect to available discounts, where an entire system is assumed to be instantaneously replaced. If the 90:10 ratio of new-to-growth switches remains in place, then the alternatives Verizon has argued for are rational and necessary adjustments. Refusal to make these adjustments flies in the face of the record and will likely have confiscatory effect.

Verizon earlier argued for an approximately 50/50 split of new to growth switches, based on the five years of data, contained in Exhibit VZ-60, RR-DTE-66, and RR-DTE-49 (VZ-VA 29). Verizon now suggests that an approximately 65/35 ratio, based on a longer, 11-year life-cycle analysis,

see Exh. VZ-60, at 12, would also be an acceptably reasonable assumption. Either of these assumptions is more rational than the 90:10 ratio in the 11 July Order. Verizon would have the Department rely on complete (not selective) and actual, switch-cost information for TELRIC purposes. Verizon's cost study uses actual purchases, TELRIC-adjusted, to estimate equipment costs. Exh. VZ-36, at 21-22. Purchases are assumed to vary in size and price. Actual discounted purchases were used to calculate an "effective" vendor discount for all of the company's switch equipment purchases. The crude assumption made in the 11 July Order lacks the persuasiveness and subtlety of the company's proposed method, which Verizon fairly characterizes as "yield[ing] a meaningful measure of the true discount because it captures the complete vendor/customer relationship." Verizon Reply Brief on Reconsideration Issues, at 7. In short, based as it is on a longer and therefore more likely to be reliable 11-year (versus the earlier-proposed five-year) life-cycle analysis, Verizon's alternative 65:35 ratio of new to growth switches more accurately captures investment levels for TELRIC-compliant rates and should have been adopted. Upon reconsideration, the ratio set in the 11 July Order has been convincingly shown to be out of compliance with the TELRIC method and will likely result in legally erroneous and, in practice, confiscatory rates.

IV.

EF&I Factor

The Department's 24 September Order limited the reopening of the evidentiary record to four specified subjects, in order to augment the basis in evidence and argument for ruling on the motions for reconsideration. The engineering, furnishing, and installation factor (EF&I) was not one of the four. The clear implication of that 24 September ruling on reopening was that when reply comments were

filed on other topics covered by the motions for reconsideration, that reply filing event closed the record as to all other topics, save the four specified on 24 September. AT&T's Initial Brief of 30 October, at 11-12, goes beyond the scope of the 24 September Order. Striking those pages of the brief, filed without leave, is an outcome warranted by Boston Gas Company, D.P.U. 88-67 (Phase II), at 6-8 (1989). Today's order fails to rule on the motion to strike, which should have been granted.

V.

Feature Port Additive Costs

Expert testimony is a feature of the evidentiary record of many proceedings, whether judicial, legislative, or administrative–and in no case perhaps more so than in utility regulatory proceedings. The record evidence on feature port additive costs establishes that systems do not exist to measure cost inputs on this topic and that it would not be cost-effective to develop such systems. Tr. 12 at 2447. The business world has not felt the need to adjust its workaday practices just to fill an information gap in the systematic way that exponents of TELRIC method might find requisite. The real world's information-gathering practices are sometimes imperfect; and decisions taken on a TELRIC evidentiary record must cope with that imperfection. Where evidence of facts is scanty or incomplete, expert opinion testimony is a recognized way of coping, so long as such testimony comes with indicia of credibility and reliability, or is corroborated, or survives the cauldron of cross-examination.

Accepting expert testimony on an issue for decision (even from a petitioner's manager/witnesses, who daily deal with a matter in the ordinary course of business) is not a radical departure from accepted practice–whereas, arbitrarily declining to accept such testimony may be. "At bottom, battles of experts are bound to be part of any ratesetting scheme . . . ." *Verizon*, 535 U.S.

467, 122 S.Ct. at 1678. To be sure, the question of what credence to accord expert testimony can be more confidently answered where the way in which experts' or managers' opinion has been formed, is transparently documented. But even questions as to the reliability of expert opinion, arising from deficiencies in documentation, can be addressed by close cross-questioning of an expert witness to assess his credibility and the validity of his views. If the expert testimony is still found wanting, then the administrative-law trier of fact should be prepared to say, with some particularity, why he chose to give it little or no credence. If direct, expert witness testimony withstands such cross-examination, then it may, as here, be fairly relied upon and should not be dismissed.

As to today's order, how or why the 40 percent credence factor, appearing at page 51, was settled upon is anything but evident. At bottom, it is nothing more than a bald conclusion without persuasive rationale (". . . we can only grant the product managers' opinions some weight, and . . . 40 percent is appropriate. . .[emphasis in original]"). Spurious quantification of credibility is mysterious, not transparent, decision-making. Moreover, today's treatment of the subject does not square with established Department practice in Consolidated Arbitrations and elsewhere in the 11 July Order itself (*see* Verizon's 14 August Motion at 15, 19 n.16). The 11 July Order erred in its handling of this question by "arbitrarily switching back and forth" on how to handle expert testimony. *Duquesne Light Company* v. *Barasch*, 488 U.S. 299, 315 (1989). The evidence of the product managers' opinions remained credible even after cross examination and may safely be relied upon without resort to some fiction that it is 40 percent credible and 60 percent (I guess) incredible–whatever that formulation may mean. On the whole, resort to a 40 percent credibility weighting factor (never mind just how the resulting evidence, once that factor is applied to it, affects the scales of decision) is reminiscent of the

pseudo-quantitative and ultimately arbitrary approach for which the Department was justly rebuked in *Massachusetts Institute of Technology* v. *Department of Public Utilities*, 425 Mass. 856, 871 (1997). As a stratagem for ferreting out the truth from claimants, King Solomon could get away with ordering that the baby be cut in half, 1 *Kings* 3:16-28; but an administrative agency cannot do such things. It was error categorically to reject tested, expert opinion testimony on this subject; it is compounded error on the agency's part to apply a mysterious and arbitrary discount or credence factor to that evidence on reconsideration–even though the movant itself may have suggested such an approach, if only to salvage something from that original error. It is not a good practice in this case; nor is it a good precedent for future cases.

VI.

Getting Started and EPHC Costs

Today's order correctly recognizes that our 11 July Order overlooked some important argument and evidence and that, in doing so, it failed residential consumers by not promoting CLEC competition for those smaller, Verizon customers' business. The correction today's order would make to SCIS model inputs arrives at the right answer, perhaps by randomness or regulatory coincidence; but it fails to ground an otherwise valid conclusion in a perfectly sound and supportive evidentiary record, preferring instead to rely on subjectivity of judgment. Although I concur in the conclusion, I write separately on this point to show, in the event of an appeal, that the conclusion–if not the lack of rationale–is sustainable.

Beyond reciting elements of Mr. Garfield's testimony (Exh. VZ-42), the 11 July Order did not really engage the evidence presented on this cost allocation question. Mere recitation of the evidence is

not enough to allow an appellate court to conduct a meaningful review of what the Department made of that evidence. *See, e.g., Massachusetts Institute of Technology*, 425 Mass. at 872-73. Merely reciting a party's evidence or argument is no substitute for agency findings under G.L. c. 30A. Today's order at 57 n.20 asserts that Mr. Garfield's prefiled and oral testimony were considered. But the only trace of that consideration is three consecutive citations to Exhibit VZ-42 in a mere recitation of some very basic points of Verizon's claim. There is no substantial engagement or evaluation whatsoever of Mr. Garfield's testimony in either order.[45]

Even though one may agree with allocating equally between traffic-sensitive and non-traffic-sensitive UNEs, today's order misses a second opportunity to grapple with Verizon's evidence and to foot the reconsidered allocation on what really is a firm basis in the record. The order at 57 asserts that "the absence of direct evidence to support any specific allocation requires us to use a subjective weighting." This resort to subjectivity is unnecessary, unwarranted, and untenable. There is credible record evidence to support an allocation of 50.59 percent to traffic-sensitive rates and 49.41 percent to non-traffic-sensitive flat rate port charges. See Exh. VZ-38 at 69, citing Rev. Work Papers, Part C-2, Section 4, Page 1, lines 23-25. In fact, the Verizon panel testimony in Exhibit VZ-38 at 68-71 (together with the panel's cross-examination on getting started and EPHC costs) and Mr. Garfield's testimony (Exh. VZ-42) both provide on-point evidence. The weight of the evidence, in fact, lies with such an allocation. Now, an agency may, upon doing an explicit evaluation, disagree with and disregard such evidence; but usually it may not do so merely with a dismissive comment. No appellate

[45]Whatever discretion there may be to dismiss evidence "implicitly", *Attorney General* v. *Department of Telecommunications and Energy*, 438 Mass. 256, 270 (2002), it is ill-advised to do so on so important a point as this, especially where our hearing and ruling on a motion of the party proffering the evidence has presented a second opportunity for substantive engagement.

court will be able to tell why this evidence did not find favor with the Department on the face either of the 11 July Order or of today's order. Whatever defects an analysis, if undertaken and expressed, might disclose in any of these sources of evidence, taken one by one, the sources have a cumulative and persuasive effect and establish that Verizon has quite sustained its burden of proof [46] on this cost item.

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[46]The notion of "burden of proof" has been bandied about quite often in this proceeding; and there may be some value in a general comment on the notion in the TELRIC context. When it comes to proving the economic and technical details of a future, hypothetical, efficient, telecommunications system, the very notion of "burden of proof" seems strained to an attorney–and even a bit surreal perhaps.

To be sure, in a conventional, cost-of-service rate case, the petitioner and the regulator try to predict both future revenue requirements and future ROE need. They do so by projecting, with necessary adjustments, provable experience from a known test year, that is, from events that really did happen to the rate-charging entity in the real world in the recent past. The burden of proof properly rests on the petitioner, which has the greatest command of the best information available about its own business. And, as a matter of fairness, it lies with the petitioner in a cost-of-service rate case to prove the propriety of the changes in rates from which it seeks to benefit.

But in the TELRIC realm, the regulator sets rates by hypothesizing, rate-element-by-rate-element, the unknown–and, if the blunt truth be spoken, quite unknowable–future conditions of a supposedly efficient, complex and dynamic technology and industry. In this futuristic context, what does it really mean to "bear the burden of proof" or to "fail to sustain one's burden of proof"? Of course, the proof must be produced by some one, and the petitioner-incumbent is *a* logical and certainly *the* statutorily designated candidate. But what can it really mean to say that one has failed to meet his burden of proof as to the complexities of an ultimately unknowable, future state of a complex business enterprise and its interactions with competitors that are using its very own system? Proof rises to an astonishing level of uncertainty, when the regulator must make numerous, debatable assumptions and findings on a record largely drawn from pre-TELRIC conduct, when any one of the assumptions or findings the regulator must make may be quite wrong, and when, given the sheer number of necessary assumptions and findings, some of them (perhaps very significant ones) are very likely (perhaps almost certain) to be wrong? What you get is the very randomness and guessing that Justice Breyer warned of. *Verizon*, 535 U.S. at ___, 122 S.Ct. at 1695.

The stakes and risks in the TELRIC exercise are, nonetheless, very high. They are high for the incumbent, for its would-be competitors, and for society at large. The 1996 Act's mandate makes putting such stakes at risk unavoidable, but the risk is not immune to mitigation. In the role of TELRIC prophet assigned to him by Federal law, the state regulator (and here is where our 11 July Order and today's order have floated off untethered to reality) needs to approach the question of burden of proof with a realism grounded in the real-world's, i.e., the business-world's arts of the practicable and provable–to be at least ballasted by a recognition of the severe limits of "proving" the features of an imagined world that not only does not but probably never will exist. Otherwise, the regulator, in his role

(continued…)

"Each of these proofs [may be] singly weak and defective; but their concurrence has great weight." Edward Gibbon, *The Decline and Fall of the Roman Empire*, ch. XX, n. 40, ed. D.J. Womersley [London, 1994]. Sometimes, that is how a proof must be made.

Nor could an appellate court tell from today's order what reasoned basis there may be for the 50:50 allocation ratio directed at page 57. Appellate courts may defer to articulated, reasoned judgments of administrative agencies, but not to sweeping, unsupported judgments–as the Department found to its chagrin in *Massachusetts Institute of Technology*, 425 Mass. at 871. In the MIT appeal, equally unsupported, stranded-cost-allocation ratios of 75:25 by the Department's majority and 60:40 by its minority were equally faulted on appeal. By contrast, Verizon's 50.59 **:** 49.41 ratio has a persuasive basis in the record–surely more than the "subjective weighting" advanced by today's order–to support a sustainable conclusion that "there is a much stronger link to usage as a measure of cost causation than to ports for 'getting started' investment and Equivalent POTS Half Call (EPHC) investment, making usage the more appropriate driver" (Exh. VZ-42 at 21). Usage in real time has been shown to be the "ultimate limiting resource of the processor unit[,] . . . since usage determines ultimate exhaust" and thereby drives investment in switch capacity (Exh. VZ-42 at 10-11, 12, 12 n.7; Tr. 8 at 1616). Because expected usage is the driver in switch investment level and hence in cost, it follows that usage should be the principle criterion in cost causation and allocation decisions with

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[46](…continued)
as seer of TELRIC's "alternative reality", becomes something like the priests of Zeus at ancient Dodona, who read the future by listening to the wind rustling through the shrine's sacred oak grove. *Iliad* 16:235; *Odyssey* 14:327 f, 19:296 f. Who could gainsay the priests' oracles? Who could say whether they were right or wrong about an imagined reality or an as-yet undisclosed future?

Likewise, nothing but future events can say, for sure, whether a regulator's TELRIC judgments are right or wrong. By then, the damage may be done, and the opportunity for real, *facilities-based* competition lost for years to come.

respect to getting started investments. Verizon has also shown that ability to handle half-calls is a function of the capacity limits of its SM 2000 platform and of each switching module and has thereby shown why the SCIS's EPHC categories are properly traffic-sensitive (Exh. VZ-42 at 15-21).

Verizon has presented real-world evidence by experts (e.g., Mr. Garfield and Ms. Matt) on the workings of its SCIS model, which both the 11 July Order and today's order fail to engage adequately. In place of engaging the evidence, the orders indulge the impulse of substituting an unexplained and unsupported "subjective weighting". The Department is, of course, not required to accept the testimony of an expert called by a litigant, but non-acceptance does not mean that "subjective" exercise of agency judgment creates an alternative basis of substantial evidence. *Salisbury Water Company* v. *Department of Public Utilities*, 344 Mass. 716, 721 (1962). Even in so "through a glass, darkly" exercise as TELRIC, where an incumbent-BOC, proposing UNE rates, has the burden of proving the material features of an imagined or hypothetical, "efficient" world, Verizon has, in fact, given the Department substantial evidence on which to base a valid judgment that the company's TELRIC "switching costs, as calculated in the switching cost studies, are 49.41 % non-traffic-sensitive and 50.59 % traffic-sensitive" (Exh. VZ-38 at 69). Subjectivity need not be resorted to: there is credible, reliable, reasoned testimony (Exh. VZ-38 at 69-70), amounting to substantial evidence, on which to establish our reconsidered allocation.

VII.

In sum, both today's order and the 11 July Order fail to satisfy administrative law's expectations of a regulatory agency on the points that I have described. *See* G.L. c. 30A, § 14(7)(a), (c), (e), and (g). The orders will, I fear, lead to UNE rates that risk unconstitutionally denying Verizon a reasonable opportunity for recovery of costs prudently incurred to serve customers. *Massachusetts Electric Company*, 376 Mass. at 299.

For these reasons and on these points, I must dissent. I concur, however, in the bulk of the rulings made in the 11 July Order and in other parts of today's order.

_____/s/_____

James Connelly, Commissioner

SEPARATE OPINION OF COMMISSIONER KEATING CONCURRING IN PART, AND DISSENTING IN PART

I am writing a separate opinion in this case because I believe the opinion issued by the majority of the Commission fails to consider adequately whether the cumulative impact of the conclusions in this Reconsideration Order will result in equitable rates for Verizon's UNEs that will promote competition, particularly facilities-based competition, in the Massachusetts telecommunications market. It is undisputed that the TELRIC pricing model, which we are required by Federal law to apply when reaching our UNE pricing decisions, relies on projections and assumptions about the configuration and cost of a hypothetical telecommunications network. The majority's conclusions in this Reconsideration Order regarding individual hypothetical propositions may be well-intended, however, there is considerable controversy surrounding the appropriate assumptions on which to base these conclusions, and, therefore, there remains considerable uncertainty as to whether the cumulative impact of these positions will produce an equitable result.

The separate opinion issued by Commissioner Connelly raises a number of concerns regarding the way in which the majority has decided to weigh various pieces of evidence. I share the concerns expressed in Commissioner Connelly's opinion relating to the majority's findings on two issues in particular: 1) initial RTU fees; and 2) the appropriate ratio of new to growth switching equipment. Based on my review of and deliberations on the record in this proceeding, as well as my review of the majority opinion and the separate opinion of Commissioner Connelly, I conclude that additional information is necessary before we rule on the motions for reconsideration concerning these two issues.

The intention of this investigation has always been to apply the TELRIC methodology to each individual issue and "let the chips fall where they may." We have been operating under the assumption that costs would be calculated in a subsequent compliance filing, and would necessarily be "correct" based on our application of hypothetical, future network conditions. In retrospect, I believe that this approach, particularly with regard to the two above-mentioned issues, will result in a decision which will likely have unpredictable, and possibly inequitable, consequences affecting competition in Massachusetts. If the TELRIC methodology requires regulators to make decisions, then as policy-makers and economic regulators we need as solid a base as possible on which to make and evaluate those decisions. Yet I have not seen sufficient record evidence in this proceeding to indicate how the decisions that we are making will be converted to actual UNE prices. Therefore, I advocate that no final decision be rendered in this case until the parties provide information on the impact and policy implications of reasonable alternative outcomes.

For the reasons set forth above, I respectfully dissent.

_____/s/_____
W. Robert Keating, Commissioner

Appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part.

Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. (Sec. 5, Chapter 25, G.L. Ter. Ed., as most recently amended by Chapter 485 of the Acts of 1971).