charge would have the CLECs bear those costs as well as costs (in the wholesale marketing ACF) of Verizon's retail advertising in competition with CLECs and litigation expenses that can hardly be deemed marketing costs.

Rhythms/Covad allege further that the charge violates Verizon's own costing method, which is to apply ACFs to its own revenue producing investments; in the case of a splitter, there is no Verizon investment and no Verizon revenue, and the amount of the charge is based on a hypothetical estimate of the costs that Verizon would have incurred had it purchased a splitter. They warn of double recovery, inasmuch as Verizon recovers the costs at issue by applying the wholesale marketing ACF and the support ACF to the collocation space and other investments attributable to line sharing. With respect to the actual maintenance charges that would be imposed in scenario C, Rhythms/Covad contend that splitters are passive devices requiring little if any maintenance and that Verizon has not borne its burden of showing the contrary. Finally, they complain that the charge is anticompetitive, noting that the scenario A charge is $37.32 per month for the very first line sharing customer signed up, compared with Verizon's affiliate's retail line sharing service charge of $39.95.

Verizon responds that the components shifted from the network ACF to the support ACF relate not to maintenance costs as such but to support-related costs incurred even when the splitter is located in the CLEC's cage.[335] It denies any double recovery, explaining that application of the ACFs to collocation space, tie cables, and terminal block investments simply recover the costs associated with those items but not with the splitter. It contends there is no reason to relieve CLECs of the costs they impose on Verizon simply because they incur costs of their own; that the record shows that there are indeed maintenance costs associated with splitters[336]; that Verizon incurs wholesale

[335] Tr. 3,641-3,642.

[336] Tr. 3,250-3,251.

marketing and wholesale product management costs in providing the services that CLECs require and that these services are required for line sharing to at least the same extent as for other UNEs; and that these costs are not recovered through other UNE rates. It reiterates its view that ACFs are intended not to recover a particular incurred level of expense but to identify a relationship between investment level and anticipated expense level and that once the ACF ratio is computed, it should be applied to all forward-looking investment. On that premise, it says, it is reasonable to determine the charge at issue by applying the ACF to splitter investment even if Verizon does not own the splitter--"splitter investment is being used by Verizon not as a cost to be recovered in its own right, but as a base for the estimation of line sharing related [administration and support] cost."[337]

In their reply brief, Rhythms/Covad insist Verizon has shown no basis for recovering historical advertising costs incurred in a retail context, and they reiterate their claim that Verizon's wholesale marketing organization spends considerable resources in opposing competitors in regulatory litigation such as this proceeding, which would not exist in a forward-looking competitive wholesale environment. The costs of such litigation, they say, should not be imposed on the very competitors against whom it is directed.

Many of the arguments on this issue echo more generic concerns about ACFs and, in particular, about whether Verizon has adequately removed costs associated with its own retail activities that are not incurred to benefit--and, indeed, may be incurred to compete against--Verizon's wholesale customers. Those arguments are addressed by the recommended adjustments to ACFs generally, which should be applied here as well.

The question unique to splitters is whether ACFs should be applied to an item of hardware in which Verizon itself has no investment. Verizon maintains the CLEC's splitter

[337] Verizon's Initial Brief p. 202.

investment is simply a surrogate base to which the ACF can be applied, and that it is proper to do so because line sharing entails real costs that should not go unrecovered simply because the principal piece of hardware associated with the service is not owned by Verizon. The CLECs insist that doing so is fundamentally at odds with the theory underlying the construction of ACFs.

It seems to me that the CLECs have the better of this argument. What is at stake is not consistency for its own sake--i.e., the claim that ACFs are applied to Verizon's investment and therefore should not be applied to CLECs' investment--but the possibility that the ACFs would have been calculated differently had the historical investment base included investment other than Verizon's own. In that event, the denominator of the ACF ratio would have been greater and the ACF correspondingly lower. But applying the existing ACFs to investment not owned by Verizon entails a clear risk of overrecovery.

This is not to say that Verizon incurs no costs in connection with line sharing of the sort recovered through the ACFs at issue. Its testimony shows that the costs (once those related to retail activities are properly removed) are real, though care must be taken to eliminate as well all costs related to relationships with equipment vendors. But despite its burden of proof, it has not proposed a reasonable way to identify and recover those costs; and recovery therefore should be disallowed.

Finally, with specific reference to the maintenance costs proposed to be recovered from Scenario C CLECs, Rhythms/Covad have not shown splitter maintenance costs to be de minimis. If Verizon can devise and present on exceptions a better cost estimation and recovery mechanism, those costs should be allowed.

4. Line Sharing SAC Charges

Verizon's collocation service access connection (SAC) charge recovers the cost of providing the physical connection between a CLEC's collocated equipment and Verizon's network, through a connection point in a point of termination (POT) bay. For line sharing scenario A, Verizon proposed to apply two SAC charges, one for each of the connections from the POT bay to its main distribution frame. In scenario C, it initially proposed three charges--one between the POT bay and the splitter's data port and two between the splitter and the frame--but it agreed to apply only two charges, treating the POT-bay-to-splitter-to-frame series of connections as covered by a single SAC charge. In the Line Sharing Order, the Commission noted CLEC arguments that the charges were overstated, in that typical collocation arrangements involve longer cable runs than those required by line sharing, and it held that Verizon's proposed rates might be adjusted here not only on the basis of Module 3 results overall but also on the basis of average cable lengths used in the line sharing connections between Verizon and its DSL affiliate (then BANDI, now VAD).[338]

In support of its proposal to apply two SAC charges, Verizon submitted an analysis of 11 wire centers in which splitters had been provisioned for CLECs and for which cable length data for both VAD and collocators were readily available. It claims the survey to have shown that the average total length of cable needed for a line sharing arrangement was more than double the average cable length associated with a conventional collocation arrangement, and that the relationship applied to both unaffiliated CLECs and VAD.

Rhythms/Covad dispute the significance of the survey, charging that it shows only that Verizon had implemented line sharing in a manner that requires excessive cabling. They see no showing that the installations reflected efficient network design. They note as well that in Phase 3 of the First Proceeding, the Commission rejected Verizon's 258-foot estimate

[338] Line Sharing Order, pp. 36-37.

of the cabling required by a conventional collocation arrangement and instead used a figure of 165 feet, derived from the AT&T/WorldCom collocation cost model that the Commission there determined should be used as a starting point for analysis. They charge on this basis that Verizon's survey results are unreasonable on their face and urge that Verizon be required to price line sharing on the basis of a more efficient arrangement, using shorter cabling. They suggest the SAC charge for line sharing should be equal to a single SAC connection reflecting a cabling distance of 165 feet, the same as the Commission adopted for standard collocation.

Verizon observes that the Commission may have adopted the 165-foot figure for purposes of setting the collocation SAC charge, but that the figure is irrelevant to the comparison of actual line sharing cable length (556 feet) with actual conventional collocation (258 feet).

Verizon has established that line sharing requires enough cabling to warrant the imposition of two SAC charges, but it has shown no basis for modifying the Phase 3 determination that the SAC charge should be premised on 165 feet of cable. The charge here should be computed accordingly--two SAC charges, each set on the basis of 165 feet of cable.

5. Cooperative Testing

Cooperative testing refers to a joint effort by a Verizon technician and a CLEC technician to ensure, on the installation of a line sharing arrangement, that it is properly installed and working. Verizon proposed a charge of $37.15 per loop for cooperative testing, which it contends recovers the legitimate costs associated with the effort.

Rhythms/Covad contend that the charge (and the underlying activity) are attributable to Verizon's inability to deliver a loop properly and that CLECs should not be required to pay for work and then to pay for testing to make sure that the work was actually performed; they contend "that is silly and

certainly results in double recovery for [Verizon]."[339] Asserting that CLECs incur and bear their own costs in connection with cooperative testing and that Verizon's proposed rate requires them to bear Verizon's costs as well, they note that the Massachusetts Commission has adopted a rate of zero for cooperative testing. At a minimum, they suggest, the Commission should require Verizon to waive the charge wherever it is Verizon's fault that a loop fails to work and to bear the burden of identifying those instances in which it may be entitled to recover the charge.

Verizon contends that no party has challenged the level of the charge and that the costs, like others, are necessarily and efficiently incurred in the course of carrying out its obligation to provide access to UNEs. It characterizes cooperative testing as simply another quality assurance procedure and sees no difference between these costs and all others.

In contrast to a stand-alone DSL installation, which involves the installation and testing of a new line, line sharing involves use of a line already known to be carrying dial tone. That tends to negate at least one possible source of trouble that may be attributable to Verizon. In these circumstances, it seems reasonable to allow imposition of the cooperative testing charge; to provide for its waiver if the trouble is attributable to Verizon; but to require the CLEC to bear the burden of showing a waiver to be warranted.

NONRECURRING CHARGES

Introduction

Nonrecurring costs (NRCs; the abbreviation refers as well to the nonrecurring charges intended to recover those costs) have been defined by Verizon as "one time costs that are incurred in responding to a carrier's request for the initiation, change, or disconnection of service."[340] To state the

[339] Rhythms/Covad's Initial Brief, p. 24.

[340] Verizon's Initial Brief, p. 288.

matter most generally, the costs are determined by estimating the work times needed to perform the required activities and multiplying them by the appropriate labor rates. NRCs have been a nettlesome issue since Phase 2 of the First Proceeding and continue to be controversial here; the issues are both complex and important, inasmuch as CLECs regard NRCs as upfront impediments to market entry.

In Phase 2 of the First Proceeding, the Commission found that Verizon had failed to meet its burden of proof with regard to NRCs and that the record could have justified rejecting its NRC presentation in toto. Doing so, however, would have been tantamount to finding that the costs at issue were zero, clearly an incorrect conclusion, and the Commission therefore set reasonable placeholder NRCs at a level approximately 57% below Verizon's proposals.[341] Verizon's failures of proof related to both the forward-looking nature of its study and its method for estimating work times.

In Phase 3, Verizon proposed additional NRCs. The Commission found that Verizon's estimating methods had been improved in some respects, and it approved several of the new NRCs. It rejected others, as to which the new estimating method had not been applied. It also strengthened the procedure used to ensure that NRCs did not double recover costs already recovered through carrying charge factors.

In the present proceeding, Verizon claims to have presented studies designed to satisfy the earlier criticisms. Most of the studies were based on the nonrecurring cost model (NRCM); of the nine studies that did not rely on the NRCM, none are specifically controverted.[342] As a final introductory matter,

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[341] The basis for the 57% adjustment is set forth in the Phase 2 Opinion, pp. 53-54; in general, the adjustment represented the average effect of applying, in each work function for which Verizon had conducted a task oriented costing (TOC) analysis, the minimum rather than the mean TOC data point.

[342] Verizon's Initial Brief, p. 289, n. 689, listing the nine non-NRCM studies.

NRCs related to DSL matters pose separate issues and are discussed below under a separate heading.

Summary of Verizon's Study

Verizon summarizes the operation of its NRCM as follows:

> In order to calculate NRCs, the NRCM used detailed lists of work activities that were developed through careful analysis of work flow in all work groups that are involved in responding to CLEC requests for UNEs. The work flow analyses were developed by Verizon's Service Costs personnel, working closely with personnel from the groups actually involved in performing this work on a day-to-day basis. This effort ensured that the studies provided a comprehensive list of the individual work steps that could be involved in responding to particular types of CLEC requests. The NRCM uses time estimates for the individual work activities that were based upon either surveys or special studies, to arrive at the costs of particular activities. The NCRM allows these time estimates to be adjusted to reflect estimates of the frequency with which particular activities will be performed in both the current and in the future environment. Thus, the NRCM permits identification of forward-looking NRCs.[343]

Verizon said it first determined work times using today's methods of operations and then adjusted those results to reflect the effects of planned mechanization efforts. It therefore contends that the study is forward-looking, resulting in NRCs that often are substantially less than current costs. Verizon explains further, however, that some activities will continue to require manual, rather than mechanized, work effort and that its studies allow for that.

With two exceptions (studies of the telecom industry services operating system [TISOC] and mechanized loop assignment center [MLAC]), Verizon developed the work times in its NRCM studies by surveying personnel involved in the studied activities. It describes the process by which it developed

[343] Verizon's Initial Brief, pp. 289-290.

survey questionnaires on the work activities identified as pertinent and its effort to obtain as many survey responses as possible from throughout the former Bell Atlantic region.[344] The survey results were then reviewed for reasonableness by a panel of 18 experts familiar with the processes involved. The panel of experts also adjusted the survey results to reflect forward-looking OSS and other mechanization efforts. In addition, Verizon engaged NERA to "investigate the precision of the study"[345]; NERA calculated a 95% confidence interval.

For TISOC activities, Verizon used a time-and-motion study developed by Anderson Consulting on the basis of actual observations of the processing of over 800 service orders in the Boston and New York TISOCs. The results were adjusted downward to reflect the forward-looking effects of OSS electronic interfaces. Time estimates for MLAC activities were based on a monthly productivity report, which was used to develop the average time taken by an assignment clerk to resolve cable and pair assignment per line for those assignments that cannot flow through the mechanized loop facility assignment center system (MLFACS). Only 4% of MLAC cost per assignment is reflected in the cost studies, however, on the premise that 96% of orders would flow through on a mechanized basis.

AT&T and the CLEC Alliance challenge various aspects of Verizon's NRC studies. General issues related to TELRIC compliance are considered first, followed by specific concerns regarding study method and components.

Compliance with TELRIC and Network Model

1. Arguments

AT&T sees as the "most glaring flaw" in the NRC study its grounding in Verizon's existing embedded network rather than in the forward-looking network modeled for recurring rates.[346]

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[344] Id., pp. 292-293 and record citations therein.

[345] Tr. 2,684.

[346] AT&T's Initial Brief, p. 178.

AT&T contends that Verizon justifies that approach on reasoning pressed and rejected in Phase 2 of the First Proceeding, citing Verizon's testimony that the starting point for its NRC study was its existing and known network,[347] and it asserts that Verizon's forward-looking adjustments merely pay lip service to TELRIC requirements. It cites the Commission's statement, in the Phase 2 Opinion, that Verizon "insists it has carried that burden [of showing that its claimed costs reflect a least-cost forward-looking system] by showing how its existing processes will be changed by foreseeable mechanization; but it thereby assumes, instead of proving, that the result of that process will be the desired, least-cost forward-looking system."[348] Contending that the Commission has since reaffirmed that rationale, AT&T maintains that it requires rejection of the present study in its entirety as well.

The CLEC Alliance argues to similar effect, characterizing Verizon's forward-looking adjustments to its backward-looking study as "a chimera that cannot possibly salvage the fundamentally flawed assumptions underlying the model," and arguing that to produce TELRIC compliant NRCs, Verizon would have to totally abandon its study and develop a new one using the same forward-looking network construct as is used in studying recurring costs.[349] Among other things, the CLEC Alliance notes that while the recurring costs study assumed 100% fiber feeder with electronics in both the field and the central office, the NRCs for CLEC customers assume manual cross-connections at the main distribution frame.

In response, Verizon contends that the network assumed for purposes of NRC studies differs from the current network in its reflection of the full impact of all planned mechanization efforts and that the resulting costs are below Verizon's current costs. It maintains further that the studies incorporated a

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[347] Tr. 3,539.

[348] Phase 2 Opinion, p. 47.

[349] CLEC Alliance's Initial Brief, p. 121.

forward-looking system, potential cost reductions from which were captured by the use of the panel of experts familiar with Verizon's network modernization plans. It notes that the Commission has recognized that in conducting a TELRIC study, it is reasonable to start the analysis with a firm understanding of current conditions.[350] In reply, AT&T stresses that Verizon has simply adjusted its baseline assumptions to reflect its own planned upgrades to its current network and that this is a different matter from using the forward-looking network design contemplated by Verizon's recurring cost calculations.

In a related, more specific criticism, AT&T and the CLEC Alliance contend that the network construct assumed for purposes of the NRC study is different from the forward-looking network used in the recurring cost study. The forward-looking network contemplates electronic cross-connections in digital form and does not include a main distribution frame requiring costly analog connections. The NRC study, however, entails just such manual analog connections rather than the more efficient electronic cross-connections that would be made in a truly forward-looking network. In its reply testimony, AT&T offers a demonstration of how such a forward-looking network would be configured. In AT&T's view, "no amount of tinkering, or 'adjustments' by Verizon can overcome this fundamental violation of TELRIC."[351]

Verizon contends that its cost studies properly reflect the continuation into the TELRIC future of a variety of different technologies and that it is necessary to recognize the coexistence with IDLC-based architecture of UDLC-based architecture incorporating copper. The NRCs associated with the latter will require manual, copper interconnections, imposing higher costs; and a failure to allow for their recovery "would deny Verizon its right to recover the costs that it will incur in the future, a result prohibited by the 1996 Act, the Local

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[350] Verizon's Initial Brief, p. 304.

[351] AT&T's Initial Brief, p. 185.

Competition Order and the Public Service Law."[352] AT&T responds that Verizon fails to explain why recurring and nonrecurring future costs should be based on different architectures, contending that if ULDC technology is consistent with TELRIC concepts, its recurring cost model should reflect that; if it is not consistent, it should not be used as a basis for recovering nonrecurring costs. AT&T charges that Verizon is attempting to assume the network construct that increases recurring costs along with the different network construct that increases nonrecurring costs.[353] It cites the Commission's observation that TELRIC does not require allowance of actual costs based on the existing network infrastructure, and therefore sees no reason to allow nonrecurring charges associated with existing UDLC technology.

2. Discussion

Although I cannot locate, either in my Phase 3 recommended decision or the Commission's ensuing opinions, any reference in so many words to the "great" strength of Verizon's Phase 3 studies,[354] I did find in Phase 3 that Verizon had "made a credible effort to produce a forward-looking study of its nonrecurring costs, consistent with the demands of the Phase 2 Opinion."[355] The Commission accepted my recommendation, and the only NRCs that were disallowed in Phase 3 were those whose computational methods remained inadequate.

The situation here is substantially the same; if anything, Verizon's efforts to study its NRCs on a forward-looking basis represent a further improvement beyond Phase 3. As noted earlier, the fact that the studies use existing systems and costs as a starting point does not in itself vitiate their forward-looking nature, and the key is whether adequate steps

[352] Verizon's Initial Brief, p. 301.

[353] AT&T's Reply Brief, p. 98.

[354] Verizon's Initial Brief, p. 291, citing Tr. 2,663.

[355] Phase 3 Recommended Decision, pp. 49-50.

have been taken to adjust that starting point to reflect reasonable forward-looking assumptions. Verizon's evidence details those steps, and they appear generally sufficient.

One point of concern, however, is the continued reflection of UDLC technology, which is as troublesome in the NRC context as it was in the establishment of recurring loop rates. The procedure I recommend for recurring charges should be extended to NRCs as well; they may be set for now in a manner that reflects continued use of UDLC, but they should be reduced in a year to a level consistent with IDLC alone unless Verizon can show that step to be unreasonable.

Survey Method

AT&T contends that Verizon's work time estimates are substantially overstated, citing, in its brief, a 7.49 minute interval applied to each order for the "two-wire new initial" item and noting that there may be ten orders in a work package, meaning that the time allocated to waiting for printouts would be 74.9 minutes even though a list of ten jobs is generated in less than ten minutes. It cites other instances of alleged inconsistencies in work times, including a situation in which it appears to take less time to place a four-wire cross-connect than to place a two-wire cross-connect.[356]

The CLEC Alliance challenges Verizon's survey and statistical sampling techniques, citing Verizon's witness panel's concession that NERA's calculation of a 95% confidence interval simply meant that the survey responses were similar to each other and shed no light on whether they accurately captured forward-looking costs.[357] It points as well to the Commission's decision in the DSL track of this proceeding to reject similar surveys and reduce NRCs by 70% because of Verizon's failure to insure the absence of bias in the surveys. Noting, among other

[356] AT&T's Initial Brief, pp. 187-188.

[357] CLEC Alliance's Initial Brief, pp. 123-124, citing Tr. 5,401, 5,405.

things, that the survey recipients knew that the results would be used by Verizon in litigation, it alleges opportunity for bias sufficient to taint the entire study. Beyond that, the sample was taken from throughout the Bell Atlantic region, and Verizon failed to show that it was representative of New York operations.

In response, Verizon defends its survey method, noting the absence of actual evidence of bias; the routine use of surveys as a means of determining costs; the omission of respondents' names from survey forms, precluding reward or punishment; and the review of survey results by a panel of experts. In response to AT&T, it notes, among other things, that a two-wire connection may indeed take more time than a four-wire connection given the more frequent use there of tie cables wired across distant central office locations.[358] AT&T responds that knowing how Verizon reached inconsistent numbers does not explain the differences between them.

Again as in Phase 3, Verizon has largely cured the deficiencies of its Phase 2 NRC studies. It has documented its process, compiled extensive data, and refuted the allegations of bias. While the NERA analysis of its results does not, of course, confirm their accuracy, it does assuage any concerns about the statistical validity of the study. On the basis of this record, it appears to me that Verizon has presented a reasonable study of its NRC work times.

Other NRC Issues

1. OSS Efficiency

AT&T and the CLEC Alliance charge that Verizon's study assumes backward-looking rather than forward-looking and efficient exchange of information between companies in the service ordering process. They contend, first, that Verizon assumes too high a level of manual intervention, in contrast to the less costly "flow through" of orders on an automated basis.

[358] Verizon's Initial Brief, p. 307, citing Tr. 3,563.

AT&T asserts, for example, that Verizon has reflected in its study substantial manual labor costs for its TIOSC work group, sometimes as much as 160 minutes of manual labor per order, when the actual task would be performed by the OSS itself or only minimal manual labor would be needed to return to the CLEC an order that cannot be processed. AT&T contends that Verizon returns erroneous service orders electronically in the retail environment, and that similarly efficient processes should be available in the wholesale context.

AT&T and the CLEC Alliance also contend that the "fallout" rate--that is, the percentage of orders that cannot be processed electronically--contemplated by the study is excessive. As a threshold matter, AT&T asserts that Verizon's projected fallout rates are not clearly stated and must be calculated from other data; AT&T calculated a fallout rate of 25% for a two-wire loop.[359] It argues that these high fallout rates are responsible for the frequency with which certain work activities are required, and it contends that in a properly designed system, the OSS should detect the error and automatically return the order to the originator, leaving a low fallout rate not in excess of 2%. The CLEC Alliance notes that the 2% figure has been adopted in Connecticut and Massachusetts. Finally, AT&T contends that Verizon compounds the problem by assuming not only excessive levels of fallout, but also a need for significant manual labor in multiple departments to process the anticipated fallout.

Verizon responds that this study reflects the effect of planned future mechanization efforts and that it does not merely assume levels of manual intervention but estimates them on the basis of expert opinion that AT&T has not called into question. It sees no basis for the 2% across-the-board fallout rate advocated by AT&T and the CLEC Alliance, contending that fallout rates will vary by activity, though for most UNEs, its studies reflect a 4% rate.

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[359] AT&T's Initial Brief, p. 192.

In its reply brief, AT&T advocates adoption of the 2% fallout rate which, it says, the Massachusetts Commission adopted on the basis of a record similar to the one here.[360]

While Verizon contends its fallout rate is extremely optimistic, the record does not show it to have borne its burden of proving that to be the case. Fallout rates can be expected to decline as experience is gained with more efficient OSS, and it is important that rates here be set on the premise of minimal fallout. Overall, I recommend the 2% level advocated by AT&T.

2. Alleged Inclusion of Recurring Costs

AT&T contends that Verizon has included the cost of recurring activities in its nonrecurring charges, thereby recovering those costs a second time. It asserts that in provisioning a CLEC's request, Verizon may have to perform activities that benefit its network, and the costs of such activities should be classified as recurring and recovered through recurring rates. As an example, AT&T cites field installation activities that are needed for construction of outside plant and should not be recovered through NRCs, inasmuch as they will benefit not only the first customer placing the order but future customers on subsequent orders as well. Moreover, AT&T continues, some one-time costs--such as those of capital assets--should not be seen as nonrecurring costs.

Verizon responds that it addressed the situations raised by AT&T in its rebuttal testimony. It insists that the costs are in fact nonrecurring and that they are incurred as a direct result of a request by a CLEC for service.[361]

Verizon's response is persuasive; no adjustment is needed on this account.

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[360] AT&T's Reply Brief, pp. 103-105.

[361] Verizon's Initial Brief, pp. 302-303.

3. Inclusion of Disconnection Costs

The CLEC Alliance objects to the inclusion in some connection-related NRCs of the costs of future disconnection. It contends Verizon should recover disconnection costs only if and when the actual disconnection occurs, citing decisions to that effect in various other jurisdictions. It adds that disconnection costs are normally quite low, given OSS efficiencies, and that charging the CLEC at the outset puts it at a cost disadvantage relative to the incumbent.

Verizon contends that up-front recovery of the disconnection costs is consistent with the practice in New York and elsewhere for retail and wholesale rates alike and recognizes the realities that it is difficult to recover costs once service is disconnected. Since recovery of these costs in initial rates is standard practice, it says, the CLEC can include the cost in its own initial rate to its customers without suffering a competitive disadvantage. Verizon sees no reason why it should bear the risk that these costs would not be paid when disconnection takes place.

Recovery of disconnection costs in the manner proposed by Verizon appears to be standard practice, and no persuasive reason has been presented for changing it. I recommend that Verizon's proposed treatment of the costs be approved.

4. Expedited Processing

Verizon calculated separate NRCs for standard interval installation and expedited interval installation; the costs for expedited service reflect the need to pay premium wage rates for work outside normal work shifts. The CLEC Coalition contends that the labor costs for expedited provisioning contemplate excessive non-productive overtime hours and urges that the costs for expedited service provisioning be determined on the premise that all overtime is productive.[362]

[362] CLEC Coalition's Initial Brief, p. 37.

Verizon contends that non-producing overtime--the term it favors over non-productive overtime, inasmuch as it refers not to wasted time but to time spent in necessary activities, such as travel and training, that do not provide an additional unit of service--amounted to less than 1% of total overtime hours.[363]

Whether the time at issue is characterized as non-producing or non-productive, the amount appears to be de minimis. No adjustment is needed.

NRCs for DSL Service

Issues related to the recoverability in principle of Verizon's proposed DSL costs have already been considered. This section considers more specific issues related to the computation of the loop conditioning charge.[364]

Rhythms/Covad contend that Verizon's study overstates work times by asking respondents to estimate the time it takes to perform the activity in question rather than the time it ought to take. It characterizes the survey results as "far out of bounds" in the view of other experts in the field and contends, in some instances, that the numerical range of the responses was "ridiculously broad."[365] They disparage Verizon's effort to validate its study results by comparing them to the average cost of 23 purported conditioning jobs related to ISDN service, contending that cross-examination showed, among other things, that some of the jobs were not conditioning jobs at all, that some included costly items of equipment, and that some included multiple conditioning operations.[366] Rhythms/Covad attribute much of Verizon's alleged overstatement of costs to

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[363] Verizon's Initial Brief, p. 289, n. 688.

[364] No computational issues specifically related to loop qualification are presented.

[365] Rhythms/Covad's Initial Brief, p. 16, citing Tr. 4,047-4,053; Tr. 4,175-4,176.

[366] Tr. 5,503-5,505.

the assumption that conditioning work must proceed one loop at a time instead of through a more efficient process of deloading multiple loops. They urge the Commission, if it allows conditioning charges to be imposed at all, to use the conservative time estimates proposed by witness Donovan.[367]

The CLEC Alliance likewise asserts that in some instances up to 50 pairs could be conditioned at once. That Verizon rarely receives a request to condition more than one loop at a time does not mean that it should not do so; and Verizon has submitted no evidence in support of its claim that it may be unfeasible to condition more than one loop at a time or that doing so would be tantamount to random removal of load coils that could result in degraded service. The CLEC Alliance cites decisions in other jurisdictions that rejected the one-loop-per-trip assumption.[368] Like Rhythms/Covad, the CLEC Alliance urges that if conditioning costs are allowed, they be based on the recommendations of witnesses Donovan and Riolo.

In response, Verizon asserts that Messrs. Riolo and Donovan had only limited experience in loop conditioning, and it contrasts that experience to the day-to-day involvement of the experts who participated in its survey. It maintains that even if its analysis of ISDN conditioning jobs were adjusted in a manner consistent with the issues raised on cross-examination, it would still confirm the conservative nature of its loop conditioning studies. As for conditioning multiple loops, it maintains that decisions in other jurisdictions are irrelevant and that it has shown that multiple conditioning, given the characteristics of Verizon's network, would pose service problems and significantly increase costs.[369]

In their reply brief, Rhythms/Covad note that Verizon declined to cross-examine the witnesses who questioned the

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[367] Tr. 4,048-4,053.

[368] CLEC Alliance's Initial Brief, p. 139.

[369] Verizon's Initial Brief, p. 313, citing Tr. 2,796; p. 318, citing Tr. 3,098-3,099, 3,586.

reasonableness of its study, point to what they characterize as outrageously exaggerated work times--for example, 7.31 minutes for monitoring a phone line to determine whether it is in use--and note the widely varying figures for work times associated with some tasks. They maintain that Verizon simply cites the wide variety of circumstances encountered by its employees on a day-to-day basis and contend that "if competitors were forced to afford [Verizon's] technicians time to deal with every eventuality under the sun, the loop conditioning process would never end and, to [Verizon's] delight, the associated charges would quickly put competitors out of business as they paid over and over for [Verizon's] 'worst case' assumptions."[370] They therefore urge reliance on Mr. Donovan's time estimates, which they consider to be more reasonable.

The record on this issue leads inexorably neither to approval of Verizon's numbers nor to any specific alternative. Witnesses Riolo and Donovan are less expert, perhaps, than Verizon's engineers, but they are by no means totally lacking in pertinent expertise. Verizon may have successfully rebutted some of their specific criticisms of its study, but their overall analysis seriously calls Verizon's results into question. Their critique may fail to take account of all the varied situations Verizon must deal with on the ground; but it is far from clear that CLECs should bear all the associated costs. Deloading loops in batches of 25 or 50 may risk degrading service or increasing costs in the manner warned of by Verizon; but deloading only one loop at a time does not appear absolutely essential to system integrity or cost minimization, and might itself jeopardize system integrity by requiring more frequent opening of enclosures.[371]

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[370] Rhythms/Covad's Reply Brief, p. 12.

[371] Without intending to belittle concerns about service quality, I cannot help but note that such warnings have a long history of overstatement, going all the way back to pre-divestiture AT&T's objections to competitive customer premises equipment.

To state the matter differently, Verizon has not borne its burden of proof with respect to its proposed charges, but it has shown ample qualitative reason why the charges should not be reduced to a level consistent with the worktimes advanced by Rhythms/Covad. To reflect the state of the record before me, I conclude that Verizon recompute its worktimes on the premise that loops are deloaded on average in batches of ten, thereby capturing some of the efficiencies that may be available through multiple deloadings while recognizing the difficulty of extending that premise too far. Loop conditioning charges should be set on that basis.[372]

RECIPROCAL COMPENSATION ISSUES

"Reciprocal compensation" refers to an arrangement between two local exchange carriers in which each compensates the other for the transport and termination on the second carrier's network facilities of calls originating on the first carrier's facilities. Under the 1996 Act (and earlier decisions by the Commission), reciprocal compensation consists of mutual reimbursement of termination costs; the rates are set on a TELRIC basis, with reference to the incumbent's costs.

Verizon presented in this proceeding reciprocal compensation rates (which it called "derived rates") based on its calculated costs for transport and switching. It describes the rates as those it charges for accepting traffic from a CLEC and delivering it to a Verizon end user.[373] The two principal

[372] These recomputations should be set forth in Verizon's brief on exceptions. I should note as well that the record makes it difficult to compare Verizon's worktimes with Rhythms/Covad's; see, for example, the table at Tr. 5,627, where Rhythms/Covad cites what it characterizes as Verizon's worktimes to a Verizon exhibit in which it is not readily apparent how the figures appear. Parties addressing the issue on exceptions should present, to the extent possible, the parties' conflicting positions in comparable terms.

[373] Further background on reciprocal compensation and its legal context is set forth in the Reciprocal Compensation Opinion, pp. 1-10.

derived rates are termed "Meet Point A," which compensates Verizon for traffic delivered to an end user through and end office switch, and "Meet Point B," which compensates Verizon for delivering tandem-routed traffic. The Meet Point A rate is equal to the sum of the rates for switch usage and a common trunk port; the higher Meet Point B rate is equal to the sum of the rates for a tandem trunk port, end office to tandem common trunking and associated trunk port costs, tandem switch usage, and end office switch usage.

AT&T raised a number of issues regarding the calculation of derived rates. In addition, Verizon again presented its geographically relevant interconnection point (GRIP) proposal, which the Commission rejected in the Reciprocal Compensation Reexamination proceeding, subject to further consideration here.

Derived Rates Generally

1. Use of Feature-Free Switch Usage Rate

AT&T objects to calculation of derived rates (Meet Point A, Meet Point B, and the Unbundled Telephone Company Reciprocal Compensation Charge (UNRCC, based on the same formula used to calculate the Meet Point A rate) on the basis of a switching rate that excludes the costs of vertical features and is accordingly lower than the average switch usage rate. It contends that Verizon is interested in lowering reciprocal compensation rates because it is a net payer of reciprocal compensation and that there is no reason to treat switch costs differently in a UNE context and in a reciprocal compensation context. It would base reciprocal compensation on the unaltered average local switching rate.

Verizon cites the Commission's determination, in the Reciprocal Compensation Opinion, that removal of vertical feature costs from reciprocal compensation rates "makes considerable sense in the abstract."[374] It contends that

[374] Verizon's Initial Brief, p. 272, citing Reciprocal Compensation Opinion, pp. 58-59 [sic; should be 55-56].

providing feature functionality is not part of transport and termination service, for which reciprocal compensation is paid, and that including feature costs in reciprocal compensation rates is therefore inappropriate.

The Commission determined in the Reciprocal Compensation Reexamination Proceeding that vertical costs should be excluded in principle from reciprocal compensation but declined to do so there because they had not been calculated. That calculation now having been done, there appears to be no reason not to exclude them.

2. UCRCC

The unbundled CLEC reciprocal compensation charge (UCRCC) is intended to compensate Verizon in situations where it receives certain types of calls from the CLEC for hand off to a second CLEC and must make reciprocal compensation payments to that second CLEC. Verizon calculated the charge on the basis of average actual payments in the period September 1999 through December 1999.

AT&T challenges the use of the 1999 data to develop forward-looking costs, noting that the rate at issue had dropped from September to December and that decisions made in this case with regard to switching costs can be expected to reduce reciprocal compensation rates even further. It regards as inadequate Verizon's proposal to recalculate the UCRCC on a quarterly basis and urges that the rate be set on the basis of the meet point A rate.

In response, Verizon cites once again the Commission's determination that forward-looking cost estimates may be based on historical costs. It reiterates its offer to recalculate the element prospectively on a quarterly basis, given the difficulty of knowing the direction in which reciprocal interconnection charges will move, and it disputes the premise that intercarrier compensation charges are necessarily based on Meet Point A rates, noting that negotiated agreements often require payment of Meet Point B or blended rates.

While forward-looking costs can be based on adjusted historical data, it seems unreasonable to do so on the basis of so small a sample and one that itself suggests a declining trend. Verizon should recalculate the rate in its brief on exceptions, on the basis of a longer period terminating at a point closer to the present.

GRIPs

Some customers, primarily internet service providers (ISPs) ask their local exchange carriers to assign them "virtual local numbers," that is, numbers associated with each of the local calling areas in which their users might be located regardless of whether the ISP itself or the carrier serving it has facilities in those areas. The ISPs do so to make it convenient and cheap for their customers to place calls with long holding times. In the Reciprocal Compensation Reexamination Proceeding, Verizon contended (as it again contends now) that these arrangements, though not unlawful, can result in the carrier serving the ISP (usually a CLEC) passing on to another carrier (usually the originating ILEC) the cost of transporting the virtual local call from the ISP's customer's local calling area to the area in which the ISP is physically located. For example, Verizon says, if a call is originated on Verizon's network and directed to an ISP served by a CLEC, and the CLEC declines to provide Verizon a point of interconnection (POI) within the originating local calling area, Verizon must carry the call (and install the facilities needed to do so) to the local area in which the CLEC has a POI "even though it receives only local usage rates from the originating end user and nothing at all from either the CLEC or the ISP. (Indeed, far from being compensated by the CLEC for transporting its call, Verizon is actually required to pay the CLEC intercarrier compensation for the privilege of transporting its interexchange call for free, and is being prevented by the CLEC's numbering practices from being compensated by its end user through toll charges)."[375]

To remedy what it regards as the unfairness of the situation, Verizon proposes that each LEC be required to establish, upon the request of any interconnected LEC, a geographically relevant interconnection point in every rate center in which it assigns telephone numbers, unless the parties

[375] Verizon's Initial Brief, p. 276 (emphasis in the original).

agree otherwise. The requirement could be fulfilled by establishing an actual, physical interconnection point or by purchasing dedicated UNE transport, at Commission approved rates, which would obviate the deployment of allegedly uneconomic new transport facilities.

In the Reciprocal Compensation Reexamination Proceeding, the Commission determined that Verizon had made "a good case for the fairness of its proposal, which is designed to spare it the cost of, in effect, subsidizing a CLEC's use of virtual NXX's." It rejected as well the CLECs' argument that its hands were tied by federal law allowing CLECs considerable discretion with regard to selecting points of interconnection and requiring originating carriers to bear the cost of hauling traffic to them. Nevertheless, it saw no need to adopt the GRIP proposal, finding that "any additional benefits to [Verizon] would be relatively minor, and the unintended effects on access to the Internet from remote areas could be substantial."[376]

In again presenting the proposal, Verizon disputes the premise that its benefits would be relatively minor; it provides calculations showing, on the basis of 1999 data, that its non-compensated transport costs exceed $2 million annually.[377] Verizon likewise sees no need for concern over effects on internet access, noting that CLECs would remain free to assign telephone numbers that could be reached on a local usage rate basis; that they would not be required to install facilities; and that alternatives such as virtual GRIPs could be negotiated.[378]

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[376] Reciprocal Compensation Opinion, p. 59.

[377] Verizon's Initial Brief, pp. 278-279.

[378] A virtual GRIP entails the establishment of a collocated interconnection point by a CLEC at a Verizon tandem switch or at host end offices, obviating the concern that the interconnection point would have to be located within the rate center in which the CLEC assigns telephone numbers. Verizon's Initial Brief, p. 280, n. 666.