

III. NON-RECURRING COSTS

60. The ILECs assert that their non-recurring charges should be based on their actual, out-of-pocket costs, rationalizing that NRCs are not barriers to entry and that they have sufficient incentives to be efficient. As I testified in my Opening Declaration, however, none of these arguments is true. Furthermore, the ILECs' proposals to allow them to recover the costs of *any* one-time activity through non-recurring charges would lead to double-recovery of costs, an unfair imposition of costs on the first user of a "reusable" activity, and anticompetitive results. Finally, adoption of the ILECs' proposals to allow them to collect disconnection charges "up front," and to assess a separate charge for conditioning loops, would create even more barriers to entry.

A. **Contrary to the ILECs' Contention, NRCs Constitute a Serious Potential Barrier To Entry.**

61. In my Opening Declaration, I concurred with the Commission's finding that NRCs "can be a serious barrier to entry" because they "constitute an upfront cost to the competitive CLEC that is generally not recoverable if it subsequently loses the end-user customer served with the UNE."⁷⁰ Even in those circumstances in which NRCs do not foreclose entry entirely, they can increase the CLEC's cost of capital relative to that of the ILEC and thereby place the CLEC at a significant competitive disadvantage.⁷¹

62. The ILECs dispute this fundamental reality.⁷² However, their arguments are not only incorrect, but also internally contradictory.

⁷⁰ See, e.g., Notice ¶ 114; *Virginia Arbitration Order* ¶ 555; *Local Competition Order* ¶ 745.

⁷¹ Murray Opening Decl. ¶¶ 128-133.

⁷² See Verizon at 85-86; Declaration of NERA Economic Consulting on Behalf of

63. Verizon and BellSouth contend that NRCs are not a barrier to entry because the ILECs also incurred such “customer acquisition costs.”⁷³ That is incorrect. The NRCs that CLECs pay for UNEs are *not* the equivalent of the customer acquisition costs that the ILECs themselves incurred “at an earlier point in time.”⁷⁴ It is ridiculous to equate the costs that CLECs face as new entrants competing with a former monopolist to the customer acquisition costs that the ILECs incurred when they held monopoly franchises. A carrier with an exclusive right to serve customers faces little risk that it will be unable to recover legitimate costs of doing business. Indeed, unlike the CLECs, the monopoly ILECs were virtually *guaranteed* recovery of any “prudently incurred” costs (including the cost of uncollectibles) under traditional rate-of-return regulation. Having incurred (and recovered) these sunk costs during the monopoly era, the ILECs hold an enviable advantage vis-à-vis their CLEC rivals.

64. The ILECs attempt to minimize the significance of the NRC barrier to entry by claiming that CLECs can obtain private financing, and thereby convert the upfront charges they pay to ILECs into recurring costs of doing business.⁷⁵ The ILECs, however, provide no evidence that this theoretical possibility is a practical reality, nor could they. CLECs have limited access to capital markets precisely because of entry barriers, such as NRCs, that are high in relation to average customer life and revenues. Moreover, the ILEC is in a position to obtain more favorable financing for any such one-

BellSouth Telecommunications Inc., December 16, 2003 (“NERA Decl.”) ¶ 109; SBC at 87; Qwest at 56.

⁷³ See, e.g., Verizon at 85-86; NERA Decl. ¶ 109.

⁷⁴ NERA Decl. ¶ 109.

⁷⁵ Verizon at 83; SBC at 87; NERA Decl. ¶ 107.

time costs because the ILEC retains ownership of the underlying asset (e.g., the conditioned or connected-through loop) and can reuse that asset to provide service to another CLEC or the ILECs' own retail customer.

65. There is also no merit to BellSouth's argument that NRCs for services provided to CLECs *after* entry cannot be barriers to entry.⁷⁶ By itself, the CLECs' awareness that they will have to pay high NRCs (costs not borne by the incumbent) is sufficient to deter entry. That is precisely why, as BellSouth itself admits, any asymmetric cost burden experienced by a new entrant, but not by its competitors, constitutes a barrier to entry.⁷⁷

B. The Commission Should Reject the ILECs' Proposal That Non-Recurring Costs Be Based on Their "Actual," Embedded Costs.

66. In my Opening Declaration, I demonstrated that the same costing methodology, and the same set of network assumptions, should be used to determine both recurring and non-recurring costs and charges.⁷⁸ The ILECs do not directly disagree. They do, however, argue that non-recurring costs should reflect their actual "out-of-pocket" costs, and not the forward-looking costs associated with the most efficient available technology.⁷⁹ Given the Commission's decision to retain a forward-looking cost standard for UNEs,⁸⁰ the ILECs' actual cost standard for non-recurring costs would

⁷⁶ See NERA Decl. ¶ 109 n.104.

⁷⁷ *Accord*, NERA Decl. ¶ 109.

⁷⁸ See Murray Opening Decl. ¶¶ 134-178.

⁷⁹ Verizon at vii, 77; SBC at 79-80; BellSouth at 46; Qwest at 55.

⁸⁰ *Notice* ¶ 37.

be inconsistent with the methodology used to determine recurring costs. Moreover, it would be wrong as an economic and practical matter.

67. The ILECs would have the Commission believe that their “actual cost” standard would make the rate-setting process more predictable and less subject to speculation than the current TELRIC standard.⁸¹ This is not the case. The ILECs have been singularly unable to produce “actual” cost data to support their claimed NRCs.⁸² One cannot go to the ILECs’ books of account, for example, and find an entry for the typical cost of performing a cross-connect at the Main Distribution Frame (“MDF”) or the Feeder Distribution Interface (“FDI”). The limited “actual” cost data that exist are not sufficiently granular to provide a basis for determining specific NRCs.

68. Indeed, the further one digs beneath the surface of ILEC “actual” cost data, the more apparent it becomes that the data are not what they purport to be. During a recent arbitration hearing in Texas, SBC acknowledged (for the first time, at least in my experience) that its installation technicians do not book their time to detailed and specific account codes that reflect the precise activities performed. Instead, SBC allegedly performs periodic “samples” of technician work activities to develop “profiles” of the tasks and task times for a typical installation. These profiles form the basis for the distribution of the technicians’ time to accounts reflecting, for example, installation versus maintenance activities.⁸³

⁸¹ See, e.g., Verizon at 81; SBC at 80.

⁸² See Murray Opening Decl. ¶¶ 160-171.

⁸³ Proceedings before the Public Utility Commission of Texas in TPUC Docket No. 28600, Transcript at 311-312 (“Texas Tr.”).

69. During the same hearing, SBC's non-recurring cost expert—who claimed to have thousands of hours of direct and supervisory work experience with the tasks included in the SBC cost study—initially asserted that the study was entirely accurate, based on his detailed review and his field observations that confirmed the tasks and task times. Moments later, however, he admitted under cross-examination that key input assumptions were entirely inaccurate because they did not reflect the *actual, real-world* frequency with which SBC technicians perform the tasks in question on behalf of CLECs. This led to significant changes in SBC's Texas NRC study.⁸⁴

70. For example, SBC's non-recurring cost expert admitted that SBC's cost study assumed that SBC would perform fieldwork on all UNE loops—even though, in the “real world,” such fieldwork is not required on the vast majority of UNE loops because those loops are already in place providing retail services to the same customer location. When the CLEC wins the customer, these loops can simply be “migrated” to the CLEC's use without additional work in the field.⁸⁵ SBC had to reduce its claimed costs substantially to make those results reflect the costs it “actually” does incur when serving CLECs.

71. Another example, which I discussed in my Opening Declaration, is the non-recurring cost studies that Verizon presented in the *Virginia Arbitration* and other State cost proceedings in its region. These studies were based on a survey that purported to measure the non-recurring costs associated with its “real-world” network. They were,

⁸⁴ Texas Tr. at 320-321. These changes were later admitted into evidence in the Texas proceeding as SBC Exhibits 46 and 46a.

⁸⁵ Texas Tr. at 276.

however, in no way based on “actual” or “verifiable” data, but were simply employee guesses of task times. The Commission’s Wireline Competition Bureau found that Verizon’s base report of “actual” non-recurring costs (*i.e.*, its employee survey purporting to measure the non-recurring costs associated with Verizon’s “real-world” network) was a source of confusion and error, replete with deficiencies.⁸⁶

72. These examples are just microcosms of the reality that even ILECs’ non-recurring cost studies do not, and cannot, mirror the “real world.” Non-recurring cost studies typically involve four components: a list of tasks, the time that it will take the ILEC’s personnel to perform those tasks, the probability that the task must be performed, and the “loaded” labor rate (which includes supervisory time, materials loadings and other assumptions beyond simply the underlying wage rate). None of these components is directly recorded in any ILEC accounting record. The determination of each component requires some subjective judgment on such issues as, for example, whether a particular task is properly classified as “non-recurring” or even would be performed in a forward-looking environment and, if so, at what frequency and cost. Thus, it is utter nonsense to suggest that basing non-recurring charges on “actual” costs would remove any subjectivity.

⁸⁶ *Virginia Arbitration Order* ¶¶ 572-575; Murray Opening Decl. ¶¶ 167-168. The Wireline Competition Bureau has reaffirmed this finding only yesterday. See *In the Matter of Petition of WorldCom, Inc., et al., Pursuant to Section 252(e)(5) of the Communications Act for Expedited Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia, Inc., and for Expedited Arbitration*, CC Docket Nos. 00-218, 00-249, and 00-251, Memorandum Opinion and Order released January 29, 2004 (“*Virginia Arbitration Compliance Order*”), ¶ 9.

73. This inherent disjunction between “actual” non-recurring costs (which, at most, are recorded on a very high level) and the costs that appear in any non-recurring cost study renders most of the ILECs’ arguments in favor of “actual” costs at best irrelevant, and at worst deliberately misleading. As just one example, because the costs that appear in the non-recurring cost studies are so weakly linked to any “actual” costs, the ILECs’ incentives to be efficient in their *actual* operations have little bearing on the accuracy or appropriateness of the non-recurring costs reflected in their studies. It is entirely possible for the ILEC’s operations to be efficient (in the sense that the ILECs are “doing the best with what they have”) and for the “actual” non-recurring costs reflected in a UNE cost study to be the antithesis of efficiency.

74. Moreover, contrary to the ILECs’ suggestion,⁸⁷ the “incentives” that they describe are insufficient to drive their costs down to forward-looking levels. It is clear that the ILECs’ “actual” non-recurring costs do *not* reflect all of the efficiencies achievable in a forward-looking network. The most obvious example is loop conditioning, an activity that would not even occur in the forward-looking networks that the ILECs model in their recurring cost studies. But this is not an isolated example. The ILECs’ actual networks are in transition. They do not fully incorporate the technology mix that is reflected in forward-looking recurring cost studies. Hence, regardless of their incentives to be efficient, the ILECs have not achieved all of the cost-saving efficiencies that are attainable using the most efficient currently available technology. At most, the ILECs do the best they can, in the short run, with their current networks.

⁸⁷ See Verizon at 79-81; SBC at 82; BellSouth at 47.

75. And, as I explained in my Opening Declaration, the ILECs have no reason to go out of their way to be efficient when performing one-time activities on behalf of CLECs. For example, ILEC non-recurring cost studies often reflect costs for special organizations designed to handle only wholesale orders from competitors. There is no retail analog for these organizations. Thus, there is little, if any, check on the inefficiencies that the ILECs can introduce (either in a cost study or in the “real world”) into the “coordination” of CLEC orders by these organizations. Using inefficient procedures in such circumstances enables the ILECs to inflate their costs (and the prices that they charge to CLECs) while providing inferior service, thereby impeding the CLECs’ ability to compete.⁸⁸

76. Seen in this light, none of the various “incentives” cited by the ILECs⁸⁹ is of the slightest significance. Neither price caps nor competition can make the ILECs’ non-recurring cost *studies* reflect efficiencies. As I have previously testified, price caps often give ILECs an incentive to be inefficient.⁹⁰ Furthermore, as Professor Willig testifies in his Reply Declaration, the existing amount of actual competition in the local exchange market is insufficient to warrant a presumption that the ILECs are efficient.

77. Nor is there any reason to believe that the CLECs’ alleged acquiescence to the non-recurring tasks developed in “collaborative proceedings”⁹¹ somehow ensures the reasonableness of the ILECs’ non-recurring cost studies. I know of no “collaborative

⁸⁸ See Murray Opening Decl. ¶¶ 124-133.

⁸⁹ See, e.g., Verizon at 79-81; SBC at 82; BellSouth at 47.

⁹⁰ See Murray Opening Decl. ¶¶ 185-186.

⁹¹ See Verizon at 80; BellSouth at 47.

proceeding” in which CLECs agreed to the forward-looking non-recurring costs for the activities in question. At most, certain Section 271 collaborative proceedings identified specific tasks that the ILECs would perform—not specific *efficient* task times or the frequencies with which the tasks would need to be performed, both of which are critical components of a non-recurring cost study.

78. Also, the performance metrics and penalties emerging from those 271 proceedings have nothing to do with the efficiencies achievable in a forward-looking network. Both wholesale and retail performance, as measured by “parity” standards or benchmarks, reflect the ILECs’ actual performance (including tasks and task times) based on their embedded networks. Consequently, these metrics and penalties do not give the ILEC sufficient incentive to achieve a truly efficient, forward-looking network. In fact, at least one of the ILECs (SBC) is currently seeking to recover from the CLECs, through its “shared and common” cost mark-up on UNEs, a portion of the performance penalties that it has paid, arguing that such penalties are simply a “cost of doing business.”⁹²

79. A presumption that the ILECs already are efficient, whether for recurring costs or non-recurring costs, is a prescription for competitive disaster under any circumstances. But it is especially risky in the context of the Commission’s pursuit of facilities-based competition. The existing retail analogs for wholesale non-recurring activities apply most readily to the UNE Platform (“UNE-P”), and even the ILECs admit that the non-recurring costs associated with the typical UNE-P “migration” are quite low.⁹³ In contrast, the “real-world” non-recurring activities performed using the ILECs’

⁹² Texas Tr. at 737-739.

⁹³ For example, SBC admitted in the recent Texas arbitration hearings that 90 percent of

embedded plant on behalf of CLECs that use their own switching in conjunction with the ILECs' loops tend to be more extensive (and therefore more costly), and retail analogs in that context are more limited. High NRCs for stand-alone loops could have a particularly chilling effect on competition in areas in which the ILECs successfully challenge the national finding of no impairment for mass-market switching—and, therefore, relieve themselves of the obligation to provide the UNE platform. In such circumstances, the ILECs' incentive to be inefficient would only increase.

80. Thus, rather than heed the ILECs' call to relax the costing and pricing standards for NRCs, the Commission should instead take steps to ensure that NRCs in all states are calculated with reference to rigorous forward-looking cost principles. Insofar as the ILECs have cited inconsistencies in the NRCs prescribed by various state commissions for the same activity, they have merely provided evidence of the need for Commission clarification and affirmation of the existing Total Element Long Run Incremental Cost ("TELRIC") principles. The Commission should make clear that *all* states should follow the lead established in the Wireline Competition Bureau's *Virginia Arbitration Order*, applying the same forward-looking network architecture and technology assumptions in both recurring and non-recurring cost studies. Consistent application of forward-looking cost principles across states will lead to consistent (but, on average, *lower*) NRCs than those to which the ILECs point in their comments.⁹⁴

UNE-P orders are migrations and therefore would never require any fieldwork at all. Texas Tr. at 277-278.

⁹⁴ Verizon's witness Shelanski argues that an ILEC would have no incentive to "suddenly start acting inefficiently" when a state commission is about to launch a proceeding to establish UNE rates. Verizon Shelanski Decl. ¶ 59. Dr. Shelanski, however, misses the point. An ILEC has an incentive to be inefficient whenever it can use those inefficiencies to inflate non-recurring costs and impede competition, regardless of whether a state

81. By contrast, establishment of a new costing methodology at this stage to replace the current TELRIC methodology would lead to more confusion and litigation in UNE ratemaking proceedings and (if the ILECs' proposed methodology is adopted) higher NRCs. This would only create additional barriers to entry.

C. The Commission Should Limit Recovery Through NRCs To the Costs of Those Activities That Exclusively Benefit the CLEC Ordering the UNE or Activity, and Should Therefore Reject the ILECs' Proposal To Allow Such Recovery for the Costs of Every One-Time Activity Performed For CLECs.

82. The Commission's *Notice* correctly identified the principle that NRCs should recover only those costs that "exclusively benefit the competitive CLEC ordering the UNE."⁹⁵ Contrary to the ILECs' claims,⁹⁶ this approach (which I described in my Opening Declaration as the "reusability test") is fully consistent with the principle of cost causation, and therefore with the Commission's requirement that costs should be recovered in a manner that reflects the way in which they are incurred.⁹⁷

83. The ILECs' alternative—to treat *all* one-time costs as non-recurring costs, regardless of whether the activity creates a reusable asset—fails to comply with the principles they purport to espouse, because it would not reflect the manner in which the ILECs' costs were incurred. For example, when an ILEC performs a cross-connect at the FDI to fulfill an order for a loop because there are not any spare loops "connected through" to the requested location, the ILEC creates a new "connected-through" facility

commission is about to institute a new UNE rate proceeding.

⁹⁵ *Notice* ¶ 121.

⁹⁶ Verizon at 81; SBC at 79, 83-84; BellSouth at 47; Qwest at 56.

⁹⁷ *Local Competition Order* ¶ 743.

that can be reused to serve all subsequent requests for a loop to that location. If the ILEC wins back the customer that the CLEC initially serves using that loop, the ILEC will benefit from the earlier cross-connect activity, as will any other CLEC that subsequently uses that “connected-through” loop.⁹⁸ The ILECs’ approach would place the entire cost of the cross-connect activity on the carrier that initially orders the loop (a carrier that has no way of knowing whether there is an existing “connected-through” loop at that location). But requiring the initial user to bear the entire cost burden fails to recognize that subsequent carriers (including the ILEC) will use the same “connected through” facility. Instead, the recurring cost of all loops should reflect all of the costs necessary to create a usable end-to-end facility from the customer’s premises to the MDF. Recovering all such costs (including the cost of necessary fieldwork to complete a circuit) through recurring charges appropriately spreads the cost across all potential users of the loop. It also reflects simple fairness; after all, it is mere happenstance that a particular loop order results in the need for fieldwork.

84. Thus, and again contrary to the ILECs’ claims,⁹⁹ there is no subsidy or violation of “competitive neutrality” involved in applying the reusability test. By its very nature, the reusability test separates costs attributable solely to one carrier from costs that are not. The “luck of the draw” should not determine which carrier bears the cost of placing the cross-connect at the FDI. Instead, that cost should be borne equally by all

⁹⁸ The reusability test classifies the cost of an activity as a recurring cost if it creates an asset that can, or is, re-used by a subsequent *carrier*. Thus, if an ILEC can, or does, re-use a facility originally ordered by a CLEC (as occurs, for example, when a CLEC orders a loop and the customer later migrates to the ILEC), the costs of any activity that created the reusable facility (such as fieldwork to place a cross-connect at the FDI) would be treated as recurring costs under the test.

⁹⁹ See SBC at 86-87; Qwest at 56-57; Verizon at 81-82.

carriers that could have “caused” the cost by ordering a loop. Such an approach is competitively neutral, and creates no subsidy. Placing all cost responsibility on the initial ordering carrier would be the true violation of “competitive neutrality.”

85. Similarly, the ILECs have not, and cannot, demonstrate that recovery of the costs of creating reusable assets through recurring charges would create a significant risk of nonrecovery of costs, nor can they demonstrate that such a method for recovering the costs of activities that create such assets convert the ILECs into the CLECs’ “bankers.”¹⁰⁰ As an initial matter, the ILECs’ allegations are based on the flawed premise that the reusability test would shift true nonrecurring costs to recurring costs. It would not. The reusability test would simply require that particular costs be recovered through recurring charges if they create an asset that has enduring value that can be re-used by subsequent carriers. In short, under this test, an ILEC is required to recover costs that create a reusable asset through recurring charges. That is not a subsidy.

86. In any event, the ILECs’ fears of nonrecovery are misplaced. The ILEC need not recover all of the cost of the reusable asset from the recurring charges to the first carrier ordering a facility; it will recover those costs, in total, from all users of the facility over the economic life of the reusable facility. Thus, the ILECs’ concerns about “churn” and CLEC bankruptcies have little relevance to the debate over the reusability test. The reusability test identifies costs that are truly recurring in the sense that the value of the activity is not entirely “consumed” by the initial carrier. The enduring value of the asset creates a continuing opportunity for cost recovery from all subsequent users of the asset.

¹⁰⁰ For examples of such claims, *see* Verizon at 77, 81-84; SBC at 85-86; BellSouth at 47.

87. The ILECs' professed fears of nonrecovery are also inconsistent with their conduct in the retail context. The ILECs have frequently been willing to waive NRCs for their retail customers—as, for example, when the ILEC wins back a customer. If the ILECs are so concerned about the possibility that a CLEC will not pay the applicable NRCs, it is difficult to reconcile that fear with their willingness to absolve retail customers of their payment obligations.¹⁰¹

88. The ILECs contend that the reusability test would lead to substantial increases in recurring charges for all CLECs.¹⁰² That, however, is not the case. Only in a very few instances (if any) would application of the reusability test result in transferring existing NRCs to recurring charges.¹⁰³ Instead, the reusability test provides a valuable touchstone that eliminates double-counting of costs in both recurring and non-recurring charges. The costs of activities that create reusable assets may already be included in recurring charges, such as recurring maintenance expenses. Alternatively, activities (such as the removal of load coils) that create reusable assets (such as a loop that does not require further conditioning to provide Digital Subscriber Line (“DSL”) services) may be unnecessary because there are less expensive means of creating the same reusable asset in the network modeled in the recurring cost study. Based on my experience in reviewing

¹⁰¹ Verizon asserts that it is unlikely that an ILEC could recover all of its costs of reusable activities through recurring charges, because such charges would have to be spread over an estimate of some measure of forward-looking usage over time—which would require forecasts of, for example, the average number of CLECs who would use the facility and the average length of time that the facility would be used by each carrier. Verizon at 84. The forecasts that actually are required, however, are the economic life of the facility and the demand for the facility; these inputs are common to all recurring cost calculations.

¹⁰² See Verizon at 85; SBC at 85.

¹⁰³ Of course, this would occur only if the costs are currently misclassified as non-recurring costs.

ILEC cost studies, I am not aware of any instance in which application of the reusability test would materially increase current levels of recurring charges for UNEs.

89. Finally, there is no merit in the ILECs' contention that their "one-time-activity" test is needed as an incentive to CLECs to avoid ordering "unnecessary" services. I know of no rational reason why a CLEC would order services from the ILEC that the CLEC did not need, particularly when ordering additional one-time activities could delay the provisioning of a loop or some other UNE. Mr. Riolo, in his Reply Declaration, demonstrates that CLECs would order conditioning only when necessary to provide DSL service or to improve service to their customers.

90. The ILECs' "one-time-activity" approach would result in the double recovery of costs, unfairness to the initial user, and barriers to entry that the reusability test is intended to prevent. In addition, by permitting double-recovery of costs, the ILECs' approach would reduce (if not totally eliminate) their incentive to develop more efficient processes.

91. For all of these reasons, the Commission should adopt the reusability test as a means of determining the costs that may be recovered through NRCs. The Commission should allow the assessment of NRCs only to recover the costs of activities that exclusively benefit the ordering CLEC, and should require ILECs to recover through recurring charges the costs of any one-time activity that can, or does, benefit subsequent users.¹⁰⁴

¹⁰⁴ SBC argues that no refund mechanism should be adopted to provide a credit to the carrier that orders a one-time activity to be performed if the asset created by that one-time activity is subsequently used by other carriers, because an ILEC incurs such costs in the retail context (as when it installs a cross-connect) and bears the risk that the customer will

D. Disconnection Charges Should Be Recovered (If At All) Only When the Service Is Actually Disconnected.

92. The ILECs take disparate positions on the issue of disconnection charges. Although Verizon still seeks to recover disconnection costs at the time the CLEC places an initial order for a UNE,¹⁰⁵ other ILECs take a more measured approach. BellSouth, for example, indicates its willingness to assess charges for disconnection only when the CLEC actually places an order for disconnection,¹⁰⁶ and Qwest acknowledges that facilities are often not physically disconnected when a customer terminates its service.¹⁰⁷ Implicit in the BellSouth and Qwest comments is the indisputable fact that assessing disconnection charges only if, and when, a facility has actually been disconnected is consistent with the principle of cost causation.

93. Verizon's argument about risk-shifting¹⁰⁸ presumes, without factual basis, that it faces a substantial risk of non-recovery unless it assesses disconnection charges at the time of installation. This is not true, for several reasons. Unlike a retail customer that may be leaving Verizon's service territory entirely after disconnection, CLEC disconnections typically occur during the ordinary course of doing business (as retail customers move from one provider to another). A CLEC that has a continuing business relationship with the ILEC is unlikely to jeopardize that relationship by failing to pay

be lost to the CLEC, without the availability of a refund mechanism. SBC at 88. But if the ILEC bears that risk, it must have collected no retail NRC for the activity from the user, and instead must have included the costs in its recurring charges (which the ILEC can recover from each user of the asset over the asset's economic life).

¹⁰⁵ Verizon at 86-87.

¹⁰⁶ BellSouth at 48-49.

¹⁰⁷ See Qwest at 41.

¹⁰⁸ Verizon at 86.

disconnection charges when they are due. Moreover, there is no risk of non-recovery at all if the ILEC does not actually disconnect the facility when the CLEC ceases to purchase the UNE, as is often the case.

94. Contrary to Verizon's claim,¹⁰⁹ it is by no means simple to devise an equitable installation charge that incorporates a present worth calculation of disconnection costs. Any uniform assumption about average "churn" disadvantages carriers that retain their customers longer (perhaps as a result of superior service) and, in effect, requires those carriers to subsidize others with a shorter average customer life.

95. For these reasons, the Commission should adopt the *Virginia Arbitration Order's* approach of requiring that any disconnect charges be assessed only at the time of actual disconnection.¹¹⁰

E. ILECs Should Not Be Permitted To Assess Separate Charges for Conditioning Loops.

96. After several years of DSL provisioning, as well as concerted ILEC efforts to upgrade their networks to facilitate their own DSL offerings, one would expect the remaining need for loop conditioning to be minimal or even nonexistent. Once "conditioned" (by the removal of load coils, repeaters or excessive bridged tap), a loop remains suitable for DSL service in perpetuity, regardless of the subsequent DSL provider. In this sense, loop conditioning is a classic example of an activity that creates a reusable asset. Similarly, if the ILEC had installed outside plant that conforms to

¹⁰⁹ *Id.*

¹¹⁰ *Virginia Arbitration Order* ¶¶ 596-598.

engineering standards that have been in existence for two decades, there would be no remaining need for loop conditioning because the forward-looking network does not contain impediments to DSL provisioning.

97. Nonetheless, both Verizon and BellSouth seek Commission authorization of conditioning charges¹¹¹ even though, as BellSouth acknowledges, its recurring cost studies reflect an outside plant network that would not require any conditioning to provide DSL service.¹¹² As I explained fully in my Opening Declaration, use of different network assumptions in recurring and non-recurring cost studies can lead to recovery of more than 100% of forward-looking costs. That is precisely the outcome the ILECs seek here, because loop conditioning charges, as proposed by the ILECs, can be higher than the total capital cost to build an entire new loop that does not require any conditioning at all.

98. The Commission should give the ILECs the proper financial incentive to modernize their networks and eliminate the need for loop conditioning. As long as ILECs are able to pass along loop conditioning costs to competitors, they may “drag their heels” in the hope that CLECs, by paying these charges, will finance long-overdue work to bring the ILECs’ networks into compliance with decades-old engineering standards. Loop conditioning charges are inconsistent with forward-looking cost principles and the Commission’s own objectives to promote an advanced telecommunications network. Consequently, ILECs should not be permitted to assess any separate charge for loop conditioning.

¹¹¹ Verizon at 88; BellSouth at 49.

¹¹² BellSouth at 49.

99. This concludes my declaration.

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

Review of the Commission's Rules)	
Regarding the Pricing of Unbundled)	WC Docket No. 03-173
Network Elements and the Resale of Service)	
by Incumbent Local Exchange Carriers)	
)	

**JOINT REPLY DECLARATION OF
TERRY L. MURRAY AND CATHERINE E. PITTS**

I. INTRODUCTION AND SUMMARY

1. My name is Terry L. Murray. With Catherine E. Pitts, I previously submitted a declaration in this proceeding addressing the appropriate treatment of switching costs under TELRIC principles on December 16, 2003. My background and qualifications are set forth in that initial declaration.

2. My name is Catherine E. Pitts. With Terry L. Murray, I previously submitted a declaration in this proceeding addressing the appropriate treatment of switching costs under TELRIC principles on December 16, 2003. My background and qualifications are set forth in that initial declaration.

3. Various incumbents raise their shopworn arguments in claiming that switching investment should largely reflect the smaller growth discounts or higher per-line growth prices available from switch manufacturers without also reflecting the use of new switches purchased at the larger new switch discount or better per-line

new switch prices. *See, e.g.*, Verizon at 48-53; BellSouth at 28-29; SBC at 70-73. In so claiming, they argue that manufacturers would price their switches differently in a TELRIC environment and that switching investment should reflect the current cost of switching equipment, which largely reflects growth and upgrade equipment. These arguments have no basis in fact and reflect the incumbents' short-run outlook tied firmly to their embedded switching base. By contrast, AT&T's proposed life cycle approach is consistent with forward-looking, long-run costing principles in determining switching investment over the life of the switch, based on use of a new switch with the most up-to-date technology as well as growth equipment for capacity increases over the life of the switch.

4. On the issue of switching rate structure, Verizon argues in favor of usage rates, Verizon at 53-55, ignoring the fact, demonstrated in our initial declaration, that switching costs are largely non-traffic-sensitive. Murray/Pitts Dec. ¶¶ 39-57. Moreover, the small portion of traffic-sensitive costs relate to peak-period usage, which as a practical matter cannot be allocated to peak-period users. As found by the Wireline Competition Bureau in the Virginia Arbitration Proceeding and recommended in our initial declaration, the most appropriate and practical approach is a switching rate structure based on a fixed, per-port charge.

II. THE INCUMBENTS' ARGUMENTS REGARDING SWITCHING INVESTMENT ARE ERRONEOUS.

5. Verizon presents a variety of arguments against the use of the price for new switches in a forward-looking cost study, but all ignore recent history or are the result of Verizon's short-run and embedded base mindset. Verizon argues that the current prices for new switches are atypical and "anachronistic"; switch manufacturers would not offer such low prices for new switches if, in fact, they expected incumbents to purchase many new switches as opposed to the current forecast for predominantly growth and upgrade investments. Verizon at 52-53. These arguments, however, ignore recent history. The analog-to-digital switch replacement programs began in the mid-1980s, and these programs provided highly favorable new switch prices relative to prices for growth equipment for switches.¹ The switch manufacturers routinely offered these "special" prices for more than a decade. Recent reviews of new switch prices show that most vendors continue to offer significantly lower prices per line (or switch port) for new switch purchases than for growth purchases, and new switch prices at the routine "special" pricing levels are still available, as evidenced in the Virginia arbitration proceeding and the Massachusetts UNE proceeding.² Given that switch vendors have offered relatively low prices for switches for a decade or more, Verizon simply cannot claim that such new switch prices are atypical or "anachronistic." Moreover, Verizon provides no evidence – only its rank conjecture – that the switch vendors' profits differ between new switch and growth switch purchases.

¹ Our comments regarding switch pricing apply whether the actual switch cost inputs are formatted as discounts or switch prices.

² *Virginia Arb. Order*, ¶ 385; *Massachusetts Order*, at 290-303.

6. Verizon also argues that vendors knew the expected life of their digital switches when they began marketing those switches in the 1980s and claims that manufacturers priced those switches so that they could accurately ensure full cost recovery based on the vendor's assessment of the new and growth equipment purchases expected to be purchased. Verizon at 50-51 & Shelanski Dec. ¶ 46. This theory fails to consider the massive changes that have occurred in the computer industry, the economies associated with evolving switch, computer, and microchip technologies, or the efficiencies in switch manufacturing experienced by switch manufacturers over the life cycle of digital switch technology. The differential in price between new and growth equipment can be attributed to many factors, not the least of which is the economies of scale of provisioning an entire switch compared to the manufacture and distribution of piecemeal upgrades and growth equipment to various components within embedded switches.

7. Verizon's argument also ignores the fact that the vendors that provide the incumbents with switches also provide them with a wide assortment of telecommunications technologies, such as equipment for the SS7 and outside plant networks, and wireless and broadband technologies. One cannot simply focus on one product – digital switches – in a multiproduct environment. Verizon's narrow focus oversimplifies the pricing strategies of switch equipment suppliers and fails to reflect the dynamic nature and changes in the switch equipment world.

8. SBC raises the tired argument of “the razor and the blade,” whereby it asserts that the vendors sell new switches cheaply to obtain the supposedly high-profit growth and upgrade equipment purchases. SBC at 71. SBC, however, fails to demonstrate that its premise of lower profit margins for new versus growth and upgrade equipment is correct. In fact, switch vendors do not appear to have been earning record profits during this period in which most ILECs are buying predominantly growth and upgrade equipment. Indeed, the alternate theory that higher profit margins are enjoyed on new switch purchases matches the market realities more closely than do SBC’s various arguments that depend upon the assumption that growth and upgrade equipment is more profitable.

9. Moreover, history does not support SBC’s position. As the last decade of the 20th century approached, most incumbents completed their analog to digital switch conversions. This meant they were purchasing relatively small amounts of switch equipment as new switch purchases compared to the vastly larger amounts of growth and upgrade equipment. If the “hostage” argument were true, then one would have expected increased growth and upgrade switch equipment prices to correspond with the incumbents’ dependence upon specific manufacturers. Instead, all switch prices have been declining, including growth and upgrade equipment.

10. Various incumbents assert that prices actually paid should be the standard for determining switch prices. Verizon at 50 (“price a carrier pays today” is the

“most accurate measure” of forward-looking cost of switching investment);³ BellSouth at 28-29 (advocating use of a “snapshot” of switching prices at a particular time); SBC at 71.⁴ In so claiming, these incumbents clearly know that use of prices actually paid for recently purchased equipment leads to the assumption of essentially 100% growth equipment in determining switching investment, as the incumbents have purchased very few new switches in the past few years. Moreover, the use of current prices measures only the cost to upgrade and grow the embedded switch base and in no way takes account of the long run on which forward-looking costs should be based.⁵

11. Indeed, the incumbents’ position is totally inconsistent with forward-looking, long-run costing principles but would also produce rates even greater than “embedded costs.” Having replaced *all* of their outdated analog switches with digital switches, the incumbents obtained with respect to each and every one of those switches the very switch discounts that they now ask the Commission to

³ Verizon continues its elasticity with the English language, seeking to claim that the “prices a carrier pays today” reflect the switching manufacturers’ revenue requirement and is an “approach [that] might be thought of as a form of ‘life cycle’ cost for switching capacity.” Verizon at 50, 51. Verizon’s “life cycle” has a very short life.

⁴ In the Virginia proceeding, Verizon proposed a less radical assumption of essentially 100% growth discount by suggesting that the mixture of new and growth equipment that currently exists in the embedded network over a longer period of time would be a more accurate “life cycle” cost. This, too, is inappropriate as the 1990s saw a sudden and temporary spike in line growth associated with second lines, many of which have now been replaced with broadband access and cellphone technologies. An historical look at switch purchases would overestimate the amount of growth equipment relative to new switch purchases and would therefore not provide a good estimate of forward-looking switch prices in the long-run.

⁵ The FCC has held that switch prices based on 100% growth discounts violate long-run cost study principles. *Virginia Arbitration Order*, ¶ 387; *Rhode Island 271 Proceeding*, ¶ 34.

disregard in setting network element rates. The incumbents would have this Commission allow them to charge their potential competitors inflated rates that reflect only a shallow growth discount for the use of switches that the incumbents *actually purchased* at the much deeper discount and can continue to use at virtually no added cost for years.

12. An approach that relies on switching prices based on the “snapshot” that results in use of essentially 100% growth discounts would no longer result in a long-run study. In such a case, the large fixed investment in switches would be considered “sunk,” and therefore would not be relevant in setting incremental switching rates. See Murray/Pitts Dec. ¶¶ 13-15 (discussing difference between short-run and long-run methodology); see also Shelanski Dec. (Verizon) ¶ 45 (arguing relevance of total cost of the switch, which implies a long-run approach to switching investment).

13. SBC argues that switching investment must include the mix of technology used by an incumbent. SBC at 70-71. In so arguing, SBC confuses the issue of assuming use of one switch manufacturer’s technology with the assumption of best-in-class pricing. AT&T has not advocated that a company assume only one switch vendor or technology. Nor has AT&T proposed that individual switch components be analyzed for the most efficient price. AT&T *has* proposed that the *prices* offered by the lowest-cost switch equipment provider reflect the forward-looking cost of switching, given the competitive nature of the switch equipment market. As SBC concedes, SBC at 71, the competitive nature of the switch

equipment market should keep switch prices reasonably level across technologies. Frequently in cost proceedings, however, there are vast differences in switching investment on a per-line basis. Inflated switching prices are generally the result of the incumbents' flawed analyses of switching costs, and for this reason, it is appropriate to rely on the costs of the most efficient switch equipment provider in determining switching investment.

III. SWITCHING COSTS SHOULD BE RECOVERED THROUGH FLAT, PER-PORT CHARGES.

14. On the issue of switching rate structure, AT&T has proposed use of flat, per-port charges. AT&T at 75-78. As we demonstrated in our initial declaration, switching costs generally do not change with volume. Murray/Pitts Dec. ¶¶ 39-57. A small percentage of traffic-sensitive costs relate to peak period usage, but as the Wireline Competition Bureau determined in the Virginia Arbitration Proceeding, it is not practical or efficient to recover those charges through traffic-sensitive charges.⁶ Accordingly, a flat, per-port switching charge allows for the recovery of all switching costs and mirrors the flat-rated pricing structures for switching offered to residential and small business customers.
15. Verizon argues against use of a flat, per-port charge, claiming that switching costs are largely traffic sensitive. Verizon at 53. Verizon agrees that switching costs should be recovered “in a manner that reflects the way they are incurred,” *Id.* (quoting *Local Competition Order*, ¶ 743), but ignores the evidence presented in

⁶ *Virginia Arbitration Order*, ¶ 478.

our initial declaration, including the statements of its own officials, that switching costs do not vary significantly with usage. Murray/Pitts Dec. ¶¶ 42-46. Verizon simply has no answer for this evidence, and most of Verizon's arguments in favor of usage sensitive switching rates founder on its mistaken assumption that switching costs are largely traffic sensitive.

16. Verizon also claims that use of a flat per-port fee would create new subsidies in which low-use customers would subsidize high-use customers. Verizon at 54-55. This argument is incorrect. As the Wireline Competition Bureau found in the Virginia Arbitration Proceeding, the only relevant usage is peak period usage.⁷ During off-peak periods, neither high-volume users nor low-volume users cause the ILEC to incur capacity costs; hence, no subsidy can result from off-peak usage. Traffic-sensitive cost causation thus is even a theoretical possibility only during peak periods. Verizon provides no evidence about which users—high volume or low volume—use switch resources during the peak period.
17. Any concern about peak-period usage has been allayed by real world experience. The widespread and longstanding existence of flat, per-line local services for residential and small business customers does not appear to have resulted in peak-period usage problems or issues with call blocking or the need for capacity additions. Murray/Pitts Dec. ¶¶ 53-57.

⁷ *Id.*

CONCLUSION

18. Various incumbents argue that switching investment should be based largely on growth discounts and that switching costs should be recovered through traffic-sensitive rates. Neither of these arguments has merit. AT&T's proposed "life cycle" approach to switching investment includes both a new switch and switch growth equipment and appropriately determines the forward-looking switching costs over the life of the switch. AT&T's proposed flat, per-port charge recovers switching costs in a manner that most closely follows the manner in which those costs are incurred and is a competitively neutral and efficient means of recovering the small percentage of peak-period costs.

VERIFICATION PAGE

I, Terry L. Murray, declare under penalty of perjury that the foregoing is true and correct.

/s/Terry L. Murray
Terry L. Murray

January 30, 2004

VERIFICATION PAGE

I, Catherine E. Pitts, declare under penalty of perjury that the foregoing is true and correct.

/s/Catherine E. Pitts
Catherine E. Pitts

January 30, 2004