BEFORE THE
STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

I/M/O the Board's Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic-New Jersey	:	BPU Docket No. TO00060356

INITIAL BRIEF ON BEHALF OF THE
NEW JERSEY DIVISION OF THE RATEPAYER ADVOCATE

REDACTED VERSION

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A. Preliminary Statement

The Board of Public Utilities' ("Board" or "BPU") decision in this proceeding is of critical importance to the viability of local exchange competition in the State of New Jersey. There can be no dispute that the promise of robust competition embodied in the federal Telecommunications Act of 1996 has yet to be realized in New Jersey. Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56, codified at 47 *U.S.C.* § 153, *et seq.* (1996) ("1996 Act"). Entrenched monopolists continue to dominate the local telecommunications market to the exclusion of competitive providers and to the detriment of consumers.

At the national level, incumbent local exchange carriers ("ILECs") are successfully driving competitors out of the marketplace, and in turn substantially limiting consumer choice. The ILECs have been so successful in resisting implementation of the 1996 Act that there is the danger that none of the competitive local exchange carriers ("CLECs") will be able to survive. Nationwide, competitive carriers serve only 7.2% of lines in the local telecommunications market. Martha McKay, "Local Competition Still Elusive After the 'Revolution,'" *The Record* (Feb. 8, 2001). (See Attachment 5).

Competition is even more stunted in New Jersey. *See id.* (Verizon controls 6.5 million loops in New Jersey, compared to only 219,929 loops controlled by other companies); *see also* Martha McKay, "Delay Looming in Local Phone Competition?" *The Record*, Jan. 23, 2001 at L-8; Anthony Birritteri, "Clarity Needed in Telecommunications Competition Rollout," *NJ Business*, Oct. 2000, at 58. (See Attachment 5). The discouraging competitive landscape is not due to a lack of willing new entrants. Rather, the slow development of competition is due to the

continued high wholesale costs that Verizon New Jersey ("Verizon-NJ") charges for Unbundled Network Elements ("UNEs"). As explained by Ratepayer Advocate Blossom A. Peretz:

> Dozens of prospective competitive local exchange carriers have lined up, eager to begin actively marketing and providing local exchange service in New Jersey. Despite their interest, these companies cannot yet afford to compete. One of the primary barriers to a competitive local exchange telecommunications marketplace in New Jersey is the high cost of Unbundled Network Elements. With current UNE rates priced so high, companies stand to lose money on every customer they sign up.

Exh. RPA-1 at 1. The Board itself has found that limited access to UNEs is a major barrier to competition in New Jersey. *See* New Jersey Board of Public Utilities, *Status of Local Telephone Competition: Report and Action Plan*, Docket No. TX98010010 (July 1998) ("*BPU Competition Report*") at 13. This barrier to competition parallels recent developments in the deregulated energy market in New Jersey where high wholesale costs are driving competitors from the market. *See* Kevin G. DeMarrais, "New Supplier Exiting N.J.'s Electric Market," *The Record*, Nov. 8, 2000, at B-1; David P. Willis, "Brownout," *Asbury Park Press*, July 23, 2000, at B-1; Tom Johnson, "High Prices Heating Up Deregulation," *The Star Ledger*, June 4, 2000, at 1. (See Attachment 5).

Competition in the market for advanced telecommunications services is also suffering. Stories of customers seeking digital subscriber line ("DSL") service and failing to receive it are well documented. *See* Roben Farzad, "SMARTMONEY.COM: My Kingdom For A DSL Line," *Dow Jones News Service*, Mar. 28, 2001. (See Attachment 5) Though there is great consumer demand, advanced services such as DSL are simply not being deployed. Moreover, what competition there was is now declining, and this decline has been detrimental to consumers in

New Jersey. *See* Martha McKay, "DSL Shutoff a Nightmare, Businesses Struggle Without Fast Internet Link," *The Record,* Apr. 6, 2000, at B-1. (See Attachment 5).

Consumer welfare is best served by the encouragement and development of a competitively vibrant telecommunications market. To this end, the Ratepayer Advocate urges the Board to set UNE prices at forward-looking economic cost. If prices continue to be set above economic cost, competitors, if they can afford to compete at all, will be forced to subsidize the incumbent. This, in turn, "will result in large numbers of residential and small business customers having no choice in selecting a local exchange carrier, since no competing carrier will be able to justify the high cost in order to compete against the incumbent." Exh. RPA-1 at 2. New Jersey consumers deserve better. The only way in which this Board will develop a truly competitive telecommunications market in New Jersey is to establish forward-looking, cost-based UNE rates that will encourage competitive entry.

B. Executive Summary

In this proceeding the Board is examining the rates for UNEs in light of the New Jersey District Court's decision concerning the Board's Generic Order, *In the Matter of the Investigation Regarding Local Exchange Competition for the Telecommunications Market,* Docket No. TX95120631, Telecommunications Decision and Order (December 2, 1997) ("*Generic Order*"). The parties agree that rates in this proceeding are to be determined under the Total Element Long Run Incremental Cost ("TELRIC") principles established by the FCC and adopted by the Board. *Id.; see also Implementation of the Local Competition Provisions of the Telecommunications Act of 1996,* CC Docket No. 96-98, First Report and Order ¶¶ 618-766 (rel. August 8, 1996) ("*Local Competition Order").* The TELRIC methodology requires that costs

and prices be based on the use of the most efficient technology available and the lowest-cost network configuration, given existing wire center locations, and forbids consideration of embedded costs. The major methodological issues in this case include Verizon-NJ's reliance on embedded conditions rather than forward-looking, efficient conditions in its cost models and its erroneous use of inconsistent network models for determining recurring and nonrecurring costs.

Verizon-NJ and AT&T filed cost studies in this proceeding. While Verizon-NJ states that it has made some changes in its recurring cost model, that model is largely the same as the model that it presented in the prior phase of this case. However, Verizon-NJ's nonrecurring cost model is different from the model it used in the prior phase. AT&T submitted HAI model 5.2a for recurring rates and the AT&T Nonrecurring Cost Model ("AT&T NRCM") for nonrecurring rates. AT&T and Verizon-NJ each claims, incorrectly, that its cost model is consistent with the TELRIC methodology. Verizon-NJ's cost models do not follow TELRIC methodology, largely because they are based on an embedded network design that is not forward-looking. As a result of this and other flaws in its model, Verizon-NJ's proposed rates will likely lead to over-recovery, a matter of great concern to the Board during the hearings. Like the Verizon-NJ cost model, the AT&T cost model fails to use TELRIC-compliant inputs and assumptions, and therefore fails to generate TELRIC rates.

To bring competition to New Jersey consumers, UNE rates under the TELRIC methodology must fall in a range so that they are low enough to permit new entrants, but not too low so as to distort competition. The Verizon-NJ and AT&T models are not likely to generate rates that fall within the TELRIC range. The evidence supports many, but not all, of the corrections to the Verizon-NJ model that would be necessary for it to yield UNE rates that fall

within an acceptable range. Conversely, there is little evidence of corrections to the AT&T cost model that would generate rates within that range. Therefore, the Board should not base rates on the AT&T model and should identify the changes to the assumptions and inputs necessary to enable the Verizon-NJ model to move toward rates that are in an acceptable TELRIC range. As an additional safeguard, and to provide guidance where the record does not yield a definite, TELRIC-compliant result, the Board should ensure that the rates it establishes are comparable with those established pursuant to TELRIC standards in neighboring states.

Cost of capital and other inputs

Book values are the appropriate basis for calculating Verizon-NJ's cost of capital. The Ratepayer Advocate urges the Board to adopt an 8.8% cost of capital. Verizon-NJ proposes a flawed cost of capital analysis based on the faulty premise that it participates in a competitive market, rather than being a monopoly provider of wholesale UNEs. State commissions across the Verizon region have rejected this approach. T.32:7-10 (11/28/00); T.33:2-34:2 (11/28/00); *Joint Complaint of AT&T Communications of New York, Inc.*, Opinion 97-2, Opinion and Order Setting Rates for First Group of Network Elements at 38 (April 1, 1997) ("*NY UNE Case*"); *Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements,* New York Public Service Commission Case 98-C-1357, Recommended Decision on Module 3 Issues at 79 (May 16, 2001) (*"NY Recommended Decision"*); *Joint Petition of Nextlink Pennsylvania, Inc.,* Pennsylvania Public Utility Commission, Docket Nos. P-00991648 and P-00991649, Opinion and Order at 73 (September 30, 1999) ("*Pennsylvania Global Order*"); *Approval of Agreements and Arbitration of Unresolved Issues Arising Under § 252 of the Telecommunications Act,* Maryland Public

Utilities Commission Order No. 73707 at 27 (Sept. 1997) ("*MD UNE Order*"); *Ex Parte: To Determine Prices Bell Atlantic-Virginia, Inc. Is Authorized to Charge Competitive Local Exchange Carriers*, Virginia State Corporation Commission Case No. PUC970005, Final Order at 8 (April 15, 1999) ("*VA UNE Order*"); *Findings*, Delaware Public Service Commission Docket No. 96-324, Opinion & Order No. 4542 at 14-15 (July 8, 1997) ("*DE UNE Order*"); *Bell Atlantic-Delaware, Inc. v. McMahon*, 80 F. Supp.2d 218, 240-241 (Del. Dist. Ct. Jan. 6, 2000) ("*Bell Atlantic-Delaware*") (attached hereto at Attachment 1). The Ratepayer Advocate proposes a 10% cost of equity based on a combination of the Discounted Cash Flow ("DCF") and the risk premium/Capital Asset Pricing Model ("CAPM") methods, and opposes Verizon-NJ's use of a comparison group of Standard & Poor's (S&P") 500 companies to support its cost of equity proposal. The Ratepayer Advocate proposes an 8.07% cost of debt. The Board should recognize the realities of Verizon-NJ's position and adopt a 60.94% debt to 39.06% equity ratio based on book value.

The Board should adopt the depreciation rates and lives in Verizon-NJ's January 2000 Rate Update, and reject Verizon-NJ's proposal to use GAAP lives. In addition, the Ratepayer Advocate recommends that the Board adopt a common overhead factor that does not exceed 10%.

Loop inputs

Verizon-NJ's loop cost proposals are overstated. Verizon-NJ's cable cost calculations are based on embedded conditions rather than a forward-looking model, and Verizon-NJ makes an unwarranted assumption, already rejected by the Board, that distribution cable lengths are one-half the maximum length of a distribution cable. Prosini Aff. ¶ 23; *Generic Order* at 45. In

addition, Verizon-NJ's cost study overstates loop costs by assuming that the vast majority of unbundled loops served over digital loop carrier ("DLC") systems use costly and inefficient universal equipment rather than GR-303 technology. Lundquist Rebuttal at 14. This is a further example of the cost study's reliance on embedded technology. The evidence shows that GR-303 is the most efficient and forward-looking approach, and refutes Verizon-NJ's claim that use of that technology is not technically feasible.

Verizon-NJ's proposed fill factors for the loop also improperly inflate costs. Verizon-NJ's fill factor for distribution cable is based on embedded conditions, and asks consumers to pay for future capacity sufficient to satisfy Verizon-NJ's "ultimate demand" for subscriber loops, an unacceptable approach that the FCC has specifically rejected. *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, *Forward-Looking Mechanism For High Cost Support for Non-Rural LECs*, CC Docket No. 97-160, Tenth Report and Order, FCC 99-304 (rel. Nov. 2, 1999) ("*Universal Service Order*"). The Ratepayer Advocate urges the Board to adopt a distribution fill factor of **[Begin Verizon Proprietary] [End Verizon Proprietary]**. Verizon-NJ's proposed fill factors for copper feeder, fiber feeder and loop electronics are all based on embedded conditions, and ignore conditions that will cause these factors to increase on a forward-looking basis. The Ratepayer Advocate recommends that the fill factors for copper feeder, fiber feeder and loop electronics be set at 85%.

The Ratepayer Advocate proposes several corrections to Verizon-NJ's costs for support structure, the poles and conduit used in providing loop plant. We recommend a structure sharing percentage of 50% to account for Verizon-NJ's cost savings in sharing support structure with other utilities. The Board should adopt the forward-looking pole spacing parameters developed

by the FCC and reject Verizon-NJ's embedded figure. *Universal Service Order* ¶ 2. Finally, the Ratepayer Advocate recommends that the Board adopt a $733.67 unit cost for poles, based on the application of the NYNEX-Massachusetts UNE Cost study brought forward to the year 2000 and applying Verizon-NJ's Telephone Plant Index inflation factors. Lundquist Rebuttal at 34.

Based on the Ratepayer Advocate's evidence concerning distribution fill factors, the use of GR-303 technology, the unit price of poles, the cost of capital and depreciation rates, the Ratepayer Advocate recommends that the Board's average cost for unbundled POTS loops should not exceed **[Begin Verizon Proprietary] [End Verizon Proprietary]** per month.

Switching costs

Verizon-NJ overstates its switching costs by using vendor discounts that are inconsistent with TELRIC methodology. Even though TELRIC requires modeling of a reconstructed network, Verizon-NJ uses the vendor discounts for additions to switches in its embedded network, and ignores the far greater discounts available when purchasing new or replacement switches. Verizon-NJ's approach has been rejected by the FCC and the courts. *Universal Service Order* ¶ 317; *See generally, Bell Atlantic-Delaware*. Verizon-NJ compounds this error by using its embedded mix of switch types and ignoring the superior discounts that are available from certain manufacturers. Finally, Verizon-NJ fails to take into account the increased purchasing power it gained as a result of the Bell Atlantic-GTE merger.

Transport/IOF costs

Again in the case of the transport UNE, Verizon-NJ incorrectly bases costs on its embedded network, when a forward-looking analysis would have assumed more efficient high-capacity facilities. In addition, Verizon-NJ's use of embedded values led it to use an excessively

low fill factor, further inflating prices, and Verizon-NJ has double-counted the cost of some central office equipment in determining transport and loop costs. Baranowski Rebuttal at 8.

Nonrecurring cost model

Verizon's nonrecurring cost model relies on non-TELRIC-compliant inputs and assumptions, and, as a result, generates overstated nonrecurring rates. Three key errors underlie the Verizon nonrecurring cost model ("VZ NRCM"). First, as with the recurring cost model, the VZ NRCM relies on embedded network assumptions. For example, the VZ NRCM fails to assume 100% GR-303 systems. Second, the VZ NRCM erroneously relies on work-time estimates that are based on the average amount of time it takes employees to perform tasks in the embedded network. Moreover, the work-time surveys contain numerous other flaws and upward biases. Third, the VZ NRCM fails to assume the proper forward-looking electronic Operational Support Systems ("OSS"), instead assuming that orders other than small numbers of the most basic UNEs will be processed manually. For these and other reasons, the VZ NRCM produced inflated nonrecurring rates. To compensate for these flaws, the Ratepayer Advocate recommends that the Board adopt the best comparable nonrecurring rates from neighboring states, or, if there is no such comparable, to adjust the Verizon-NJ proposed rates to correct for the flaws identified in this Brief.

DSL

Verizon-NJ's proposed rates, terms and conditions for DSL providers threaten to deprive consumers of competition in the provision of advanced services. Verizon-NJ's proposed conditioning charges suffer from the same flaws as other results of its nonrecurring cost study. The ISDN conditioning charge is a clear example of double recovery as a result of using

inconsistent network assumptions. Verizon-NJ's proposed charges for removal of load coils and bridged taps seriously overstate work times and resulting costs because they do not reflect least-cost, efficient methods. Thus, Verizon-NJ does not consider the efficient practice of conditioning multiple loops at a time, and generally overstates work times for conditioning. The Ratepayer Advocate recommends that the Board adopt conditioning costs based on a combination of the more conservative aspects of the alternative proposals offered by Covad and AT&T.

Verizon-NJ's loop qualification rate is also based on current, inefficient methods and thus violates TELRIC principles. Verizon-NJ should charge competitors a minimal dip charge associated with efficient electronic access to LFACS, its database of loop makeup information, rather than charging for cumbersome manual processes that are the consequence of its failure to follow its own practices. In addition, the Board should order Verizon-NJ to promptly provide electronic access to LFACS, as it has testified it will do. T. 3796:23-3797:11 (2/18/01).[1]

Other charges, terms and conditions that Verizon-NJ proposes would also hamper DSL competition. Verizon-NJ has seriously overstated its cost for splitter installation by using an accounting factor that is not based on the realities of this task. Verizon-NJ also proposes an entirely unwarranted splitter administration and support charge that would be based on the cost of splitters that are owned, maintained and installed by CLECs. Murray-Riolo Rebuttal at 60-62. As several other state commissions have held, this charge should be rejected. *Arbitration of Rhythms Links, Inc. and COVAD Communications Company vs. Bell Atlantic-Maryland, Inc.,*

[1] Hearing transcripts are cited to by page number:line number - page number:line number (and date).

pursuant to Section 252(B) of the Telecommunications Act of 1996, Case 8842 Phase II, Proposed Order of Arbitrator at 15 (Dec. 29, 2000) ("*Maryland Arbitration Decision*"); New York Public Service Commission, *Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, Case 98-C-1357, Order Denying Petition for Rehearing (rel. Oct. 3, 2000) at 7; *NY Recommended Decision* at 171-172. Verizon-NJ also proposes to apply nonrecurring POT Bay and Cable & Frame Termination charges to line sharing competitors in a way that ignores the efficient practice of locating splitters at the Main Distribution Frame. The company would carry over to line sharing arrangements existing tariffed rates for charges related to service orders, when the evidence shows that those rates recover costs that are simply not present in line sharing situations.

Line splitting (the ability of two CLECs to share a loop for voice and data services) is a major competitive concern. To ensure that CLECs have a full opportunity to compete for consumers interested in the line sharing offerings of Verizon-NJ and data CLECs, the Board should order Verizon-NJ to fulfill its commitment to facilitate line splitting, and should also order Verizon-NJ to provide splitters to CLECs on a per-line basis.

Verizon-NJ proposes to impose on CLECs a wideband testing system, even though those CLECs have an FCC-established right to perform their own testing. Verizon-NJ's claim that its wideband testing system is an efficient choice is refuted by evidence concerning Verizon's purchase of the Hekimian system. The Ratepayer Advocate recommends that the Board join three other state commissions and declare Verizon-NJ's wideband testing system optional for CLECs. New York Public Service Commission, *Opinion and Order Concerning Line Sharing Rates*, Case 98-C-1357, Opinion No. 00-07, at 25-27 (May 26, 2000) ("*NY Line Sharing*

Order"); Massachusetts Department of Telecommunications and Energy, *Investigation by the Department on its own motion as to the propriety of the rates and charges set forth in M.D.T.E. No. 17, filed with the Department by VZ-MA New England, Inc. d/b/a VZ-MA Massachusetts on May 5 and June 14, 2000, to become effective October 2, 2000*, DTE 98-57 (Phase III) at 118 (September 29, 2000) ("*Massachusetts Phase III Order*"); *Maryland Arbitration Decision* at 21; *see also NY Recommended Decision* at 162, n. 324. In addition, the Board should, like other state commissions, rule that Verizon-NJ may not impose on its competitors the cost of cooperative testing, since these tests would not be necessary if Verizon delivered loops as it should. *Massachusetts Phase III Order* at 113.

As the network evolves, the provision of advanced services through remote terminals will become increasingly important to consumers. The Ratepayer Advocate urges the Board to recognize the major deficiencies in Verizon-NJ's current offerings for access to consumers served through remote terminals. In the view of the Ratepayer Advocate, the Board should actively monitor the progress of Verizon-NJ's PARTS proposal for remote terminal access, and order Verizon-NJ to specify within 60 days the particular terms, conditions and rates associated with its PARTS proposal. In addition, the Ratepayer Advocate recommends that the Board take steps to improve Verizon-NJ's existing remote collocation offering and require Verizon-NJ to facilitate line card collocation.

House and riser cable

The parties disagree as to some terms and conditions under which Verizon-NJ will provide access to house and riser cable, and as to the rates for such access. See Exh. VNJ-26, Attachment 1R at 2 (Revised Oct. 12, 2000); Kahn Rebuttal at 8-9, 9-10, 17-20; Stern Aff. ¶ 39.

As for rates, the Board should permit Verizon-NJ to assess terminal charges only for the number of terminal connections specifically requested by the CLEC, not for an indivisible block of 50 connections. Such single pair interconnection is technically feasible and, therefore, must be made available to CLECs. In addition, the Board should disallow Verizon-NJ's proposed Time and Materials charges for dispatches to perform cross-connections between the Verizon-NJ network and the CLEC terminal block, which amount to unknown Individual Case Basis prices.

Access to Verizon-NJ's house and riser cable is key to the provision of competitive services to occupants of multiple tenant units. Verizon-NJ's proposal is anticompetitive because it would require CLECs to purchase and install their own separate 50-pair terminal block to access house and riser cable, and to connect to this in 50-pair block increments. Instead, the Ratepayer Advocate recommends that the Board permit CLECs to either obtain their own terminal blocks or share terminal blocks among themselves.

Dark Fiber

The Board should adopt rates for dark fiber that use the same long-run forward-looking cost basis used to price any UNE. Verizon's proposed rates for dark fiber violate the FCC's methodology because they include both investment costs and embedded costs. Murray-Riolo Rebuttal at 182-183. Moreover, Verizon's proposed rates for New Jersey are higher than those proposed in our neighboring jurisdiction, Pennsylvania. The Board should be vigilant to ensure that competitors are not faced with higher rates for dark fiber in New Jersey than those being offered in Pennsylvania. Verizon-NJ should also be required to provide a subloop dark fiber offering based on rates that Verizon has offered in New York. New York Telephone Company Tariff, P.S.C. 914, § 5.20.4 (A) (May 17, 2000).

Verizon-NJ's terms and conditions for dark fiber also require attention. Based on the FCC's definition of dark fiber, the Board should provide for a CLEC's ability to run interoffice facility through central office space where it is not collocated, to splice its own interoffice facility, and to splice its own dark fiber. In addition, the Board should reject Verizon-NJ's restrictions on the availability of dark fiber, in particular, its attempt to improperly reserve dark fiber for itself.

Subloop unbundling and remote terminal collocation

Verizon-NJ proposed an incomplete set of rates for unbundled subloops, restricting its evidence to rates for distribution subloops. Those rates, moreover, suffer from the same flaws as Verizon-NJ's loop rates generally, and exceed the rates Verizon itself proposed in Pennsylvania. *Further Pricing of Verizon Pennsylvania Inc.'s Unbundled Network Elements*, Recommended Decision, Dockets Nos. R-00005261 and R-00005261C001 Appendix A at 2 (March 22, 2001) ("*Pennsylvania Recommended Decision*"). The Ratepayer Advocate recommends that the Board adopt rates no higher than those proposed by Verizon in Pennsylvania for application to the distribution subloop. *Id.*

Verizon-NJ's remote terminal collocation offering is one method of gaining access to subloop elements. Verizon-NJ has proposed individual case basis rates as nonrecurring rates for this element and the rates in its interim tariff for central office collocation for recurring rates. In the Ratepayer Advocate's view, individual case basis rates are inherently unreasonable and anticompetitive, since they make it virtually impossible for competitors to develop business plans, and should be rejected by the Board.

II. PROCEDURAL HISTORY

The current proceeding affords the Board the opportunity to examine the rates for UNEs in light of the New Jersey District Court's decision concerning the Board's *Generic Order*. Having found the cost studies before it deficient, the Board allocated 60% weight to the rates proposed by Verizon-NJ, and 40% weight to the Hatfield Model proposed by AT&T and MCI. In this proceeding, the Board has again undertaken to determine acceptable rates for UNEs in New Jersey in order to provide consumers with reasonably priced telephone service and open the New Jersey market to viable carrier competition.

On June 6, 2000, upon appeal by AT&T and MCI to the United States District Court for the District of New Jersey, the court determined that in its 1997 *Generic Order* the Board's "assignment of numeric percentages to models the Board found were flawed amounts to arbitrary and capricious rule making," and remanded the rates back to the Board for a new determination. *AT&T v. Bell Atlantic-New Jersey*, Civ. No. 97-5762, Opinion at 30 (D.C.N.J. June 6, 2000) ("*AT&T v. Bell Atlantic-NJ*").

Concurrent with the Board's determination and the District Court's subsequent decision, the federal courts were also addressing the legal implications of pricing wholesale UNEs. The United States Supreme Court reversed the Eighth Circuit's determination regarding the FCC's authority to set national pricing standards. *AT&T v. Iowa Util. Bd.*, 525 U.S. 366 (1999). On remand to the Eighth Circuit, the court vacated certain portions of the FCC's rules regarding TELRIC pricing principles, rejecting a purely "hypothetical" network, but accepting the use of "forward-looking" pricing. *Iowa Util. Bd. v. FCC,* 219 F.3d 744 (July 18, 2000) ("*Iowa Utilities*"). The Eighth Circuit stayed its decision in pertinent part on September 22, 2000, and

the United States Supreme Court recently granted a *writ of certiorari* to hear challenges to the Eighth Circuit's decision. *FCC v. Iowa Util. Bd.*, 121 S.Ct. 878 (2001).

On November 5, 1999, the FCC released the *UNE Remand Order*, establishing dark fiber, subloops, and line sharing as new UNEs. *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking (rel. Nov. 5, 1999) ("*UNE Remand Order*"). In recognition of this, the Board in a June 28, 2000 letter requested that the parties provide supplemental information on the newly identified UNEs.

Hearings in this proceeding commenced on November 28, 2000. During eighteen days of hearings, and through the submission of written testimony and exhibits, the parties presented the Board with their positions on developing UNE rates. Based on the duration of this proceeding and the lack of certain and definitive rates in the State of New Jersey over the past five years, the Ratepayer Advocate respectfully asks the Board to set final recurring and nonrecurring rates for all of the elements raised in the current proceeding. Only through a reasoned determination of rates by the Board may consumers receive the full benefits — *i.e.*, innovation and affordable, cost-based rates — that flow from proper rates and real competition.

III. RECURRING COST OF UNES

A. TELRIC Methodology

1. Legal Standard

The parties agree that rates in this proceeding are to be determined under the TELRIC principles established by the FCC in its *Local Competition Order*. TELRIC is meant to produce rates that replicate the rates that would be charged by a wholesaler operating in a competitive

market. *Local Competition Order* ¶¶ 620, 679. The FCC concluded that only with such an approach would potential entrants be given proper economic signals. *Id.* If a costing methodology produces prices that exceed a competitive, cost-based level, then competitive entry will be artificially and improperly discouraged. *Id.*

Likewise, the Board has adopted TELRIC principles. *Generic Order* at 9. The Board stated:

> Adopting a methodology based on forward-looking, economic costs, which all become variable over time, will best replicate to the extent possible the conditions of a competitive market. Further, a forward-looking cost methodology reduces the ability of an ILEC to engage in anticompetitive behavior. By utilizing a methodology based on forward-looking costs, it should allow the requesting carrier to produce efficiently and compete effectively, which should drive retail prices to their competitive level.

Id.

To accomplish these ends, the TELRIC methodology requires that costs and prices be based on the use of the most efficient technology available and the lowest-cost network configuration, given existing wire center locations. *Local Competition Order* at ¶ 685; 47 C.F.R. § 51.505(b)(1). The TELRIC rules forbid consideration of embedded costs. *Local Competition Order* ¶ 704; 47 C.F.R. § 51.505(d)(1). Taken together, these principles establish a point of great importance in this proceeding: "*[E]fficient network configurations,* rather than any particular ILEC's *embedded* network design, should be taken into account for UNE costing purposes." Lundquist Direct at 8 (emphasis in original). Under TELRIC, costs must be attributed to elements on a cost-causative basis. *Local Competition Order* ¶ 691. The cost of capital, too, must be determined on a forward-looking basis. *Local Competition Order* ¶ 340; 47 C.F.R. § 51.505(b)(2).

In analyzing rate structure the FCC expressed its concern that excessive nonrecurring charges would restrain competition by erecting entry barriers. *Local Competition Order* ¶ 747. The FCC's pricing rules forbid the imposition of recurring and nonrecurring charges in such a way as to recover more than the total forward-looking cost of an element. *Local Competition Order* ¶ 750; 47 C.F.R. § 51.507(e).

2. Basic Conceptual Disputes

All parties to this proceeding give lip service to the TELRIC methodology. But two important TELRIC principles are put at risk in this proceeding, largely because of Verizon-NJ's approach to its cost study and rate design.

The most pervasive of these disputes arises from Verizon-NJ's insistence on looking to embedded conditions, technology or cost information to derive rates. As pointed out previously, TELRIC methodology forbids consideration of embedded costs and requires consideration of forward-looking technology and network architecture. *Local Competition Order* ¶¶ 685 and 704; 47 C.F.R. §§ 51.505(b)(1), 51.505(d)(1); *Generic Order* at 9. It does not, as Verizon-NJ would have it, consider the "actual" (Verizon-NJ's euphemism for embedded) technology and architecture that Verizon so often chooses to study. Examples of this abound, from Verizon-NJ's use of current utilization to derive supposedly forward-looking fill factors, Section III.D.6 *infra*, p. 57, to its reliance on surveys of current work times for current work activities to establish nonrecurring costs that should be forward-looking. Section IV.B.5 *infra*, p. 100.

The other major methodological issue revolves around the TELRIC requirement that recurring and nonrecurring charges be developed using the same assumptions concerning technology and architecture. When inconsistent network assumptions are used to derive different

sets of costs, the result will certainly be in error and the danger of over-recovery is significant. The importance of this issue is heightened by the fact that excessive nonrecurring costs in particular can be virulently anticompetitive entry barriers. Verizon-NJ's use of different network assumptions for its recurring and nonrecurring costs has introduced this error into its cost studies. *See* Section IV *infra*, p. 83.

B. Model Issues

1. Description of Models Sponsored by Party

In this proceeding Verizon-NJ and AT&T filed cost studies that produced proposed recurring and nonrecurring rates for UNEs.

a. Verizon-NJ model

The Verizon-NJ recurring cost model is largely the same as the model that it presented in the prior phase of this case. Prosini Aff. ¶¶ 13, 16-18. Verizon-NJ states that it has made four basic changes to the model and its methodology. *Id*. ¶ 14. First, Verizon-NJ has added to its cost study additional UNEs that it was required to offer under the *UNE Remand Order*. *Id*. Thus, Verizon-NJ's cost studies now include subloops, dark fiber, house and riser cable and line sharing elements. *Id*. ¶¶ 37-38. Second, Verizon-NJ claims to have updated its model to account for technology changes that Verizon-NJ either has or will deploy. *Id*. ¶ 14. For example, Verizon-NJ's model now assumes that the technology mix for loops and for switching will include 10% GR-303 technology. *Id*. ¶ 18. Third, according to Verizon-NJ, the model was modified "to improve the manner in which certain calculations or functions are performed." *Id*. ¶ 14. Finally, Verizon-NJ conformed its terminology to be consistent with the terminology used throughout the entire Verizon footprint. *Id*.

In addition, Verizon-NJ made changes to the model's input assumptions to capture some of the Board's prior findings and to include more current information. *Id*. ¶¶ 15, 32-36. For example, in response to criticism by the Board in the *Generic Order*, Verizon-NJ ceased using data from its Vintage Retirement Unit Cost database, and instead relied on its New Jersey Estimate Preparation program. *Id*. ¶¶ 23, 32. Verizon-NJ also used investment loadings and expense factors in this proceeding based on 1999 data, rather than the older data used in the previous phase. *Id*. ¶ 19.

The Verizon-NJ nonrecurring cost model purports to recover the one-time expenses associated with the activities necessary to provide service to a particular end-user. Meacham Aff. ¶ 8. Specifically, the Verizon-NJ nonrecurring study developed nonrecurring costs for each UNE by determining costs for the following four categories of work activities: service ordering, central office wiring, provisioning and field installation. *Id*. Verizon-NJ determined the time it took to perform these work activities by surveying its employees. *Id*. ¶¶ 12-31. Unlike its recurring cost model, the VZ NRCM differs from that used by Verizon-NJ in the preceding phase of this case. *Id*. ¶ 6. In addition, Verizon-NJ filed a separate nonrecurring cost study for dark fiber. *Id*. ¶ 35.

Verizon-NJ claims that its cost studies are TELRIC-compliant. *E.g.*, Taylor Aff. ¶¶ 5, 11-22. The Verizon-NJ economic witness testified that the recurring cost model "assumes that the company will deploy the most efficient technologies available using [Verizon-NJ's] current wire center locations, consistent with forward-looking engineering guidelines and its expected future capital investment programs." *Id*. ¶ 11; *see also* Prosini Aff. ¶ 36 (citing Verizon-NJ's economic witness for the proposition that the recurring model's assumptions are consistent with the TELRIC methodology). Similarly, Verizon-NJ claims that its nonrecurring cost model

"represents an economically correct forward-looking long-run incremental cost study." Taylor Aff. ¶ 17.

Despite these claims, the Verizon-NJ recurring and nonrecurring cost models rely on Verizon-NJ's embedded network. For example, in both models, Verizon-NJ fails to assume the amount of Next Generation GR-303 digital loop carrier ("DLC") that would exist in a forward-looking network. *See infra* Sections III.D.5.a, IV.A.1 and IV.B.1, pg. 50, 83 and 89. Also, Verizon-NJ proposes a cost of capital input based on the faulty assumption that the wholesale provisioning of UNEs occurs in a competitive market. *See infra* Section III.C.1, p. 33. Further, Verizon-NJ utilizes inappropriately low fill factors and switching discounts. *See infra* Sections III.D.6 and III.E, pg. 57 and 68. In particular, Verizon-NJ failed to use the new/replacement discounts when calculating its proposed switching rates. *See infra* Section III.E, p. 68. Additionally, Verizon-NJ erroneously relied on work time estimates of existing practices for inputs to its nonrecurring cost study. *See infra* Section IV.B.5, 100. Thus, the Verizon-NJ cost models are not forward-looking.

b. AT&T model

Like Verizon-NJ, AT&T submitted a cost study to establish recurring and nonrecurring rates for UNEs. Specifically, AT&T submitted HAI model 5.2a for recurring rates and the AT&T Nonrecurring Cost Model ("AT&T NRCM") for nonrecurring rates. *See* Mercer Direct at 4; Walsh Direct at 1. HAI model 5.2a represents an updated version of model 2.2.2 that AT&T filed in the previous phase of this proceeding. Mercer Direct at 4, 15-18. Like Verizon-NJ, AT&T claims that its new HAI model is "more sophisticated and precise in its methodologies and calculations" than its previous model. *Id*. at 4. AT&T explains that its newer version has

benefitted from several years of scrutiny by regulators and ILECs. *Id*. Further, AT&T claims that this version of the model addresses each of the criticisms made by the Board in its *Generic Order*. *Id*. at 5.

AT&T, like Verizon-NJ, claims that its cost models are consistent with the TELRIC methodology. *Id*. at 4; Walsh Direct at 10; Mercer Direct, Exh. RAM-2, HAI Model Release 5.2a, Model Description at 1 ("HAI Model Description"). AT&T avers that the model assumes a fully reconstructed network, except for existing Verizon-NJ wire center locations, and purports to use the most advanced technology on the market today. Mercer Direct at 11-13; HAI Model Description at 1-3. Similarly, the AT&T NRCM is said to assume the most forward-looking technologies that Verizon-NJ is, or will be, deploying in the foreseeable future anywhere in its footprint. Walsh Direct at 10, 19.

Despite these claims, however, as discussed further below, some of the inputs and assumptions underlying the AT&T cost models are inappropriate for use in TELRIC cost models. For instance, the AT&T models assume a network design that appears to be too speculative. Further, like the VZ NRCM, the AT&T NRCM relies on unverified task time inputs.

2. Criticisms and Comparisons with Competing Models

a. Verizon-NJ model

Verizon-NJ's cost models fundamentally fail to comply with the TELRIC methodology. While Verizon-NJ proclaims that its network assumptions and inputs are consistent with TELRIC pricing principles, the Board must not let this rhetoric obscure the core flaw in Verizon-NJ's models — the models are based on an embedded, not forward-looking, network design. *E.g.*, Lundquist Direct at 8-12; Laub Direct at 8-10; Baranowski Rebuttal at 3-4, 6-7; Stacy

Rebuttal at 16-17; Ankum Rebuttal at 72-82; T.1853:19-1855:6 (12/21/00); T.2048:15-2049:21 (12/21/00). The Board recognized this flaw in Verizon-NJ's cost study in the earlier phase of this proceeding when it found

> the BA-NJ models represent a network that can provide safe, adequate, and proper service from a technical view, but may not represent the most efficient system from an economic viewpoint, therefore, they do not, on their own, produce results which can be considered reasonable.

Generic Order at 67. Although Verizon-NJ's embedded network may be a proper network over which to *provision* service, it remains an inappropriate network to use for *pricing* purposes. While Verizon-NJ has taken steps that may correct some of the *Generic Order's* specific criticisms, Verizon-NJ has utterly failed to rectify this basic, underlying defect in the models' inputs and assumptions. Indeed, Verizon-NJ admitted that the cost model at issue here "is largely unchanged from the original one that was filed in this docket in 1996." T.234:3-6 (11/29/00).

The fact that the Verizon-NJ cost models use the existing, embedded network of Verizon-NJ as the baseline for establishing rates is clearly evident from the testimony of Verizon-NJ's own witnesses and from the Verizon-NJ cost studies themselves. In fact, the Verizon-NJ economic witness specifically testified that Verizon-NJ's cost studies "begin with the *current* state of affairs," Taylor Aff. ¶ 8 (emphasis in original), and that the "study should be based on the company's actual expected costs." *Id*. ¶ 10; *see* T.201:23-202:11 (11/29/00).

For example, Verizon-NJ failed to assume forward-looking loop design assumptions. Specifically, the Verizon-NJ study used a 10% GR-303 system assumption, AT&T Exh. 14, VNJ-ATT-121, VNJ-ATT-122, rather than the appropriate 100% forward-looking assumption.

Lundquist Rebuttal at 16-17, 23, Att. 2; Laub Direct at 8-10; Baranowski Rebuttal at 3-4, 6-7; Stacy Rebuttal at 16-17; Ankum Rebuttal at 72-82; *see also* T.1853:19-1855:6 (12/21/00); T.2048:15-2049:21 (12/21/00). In so doing, Verizon-NJ significantly inflates its recurring loop costs, Lundquist Rebuttal at 16-17, Att. 2 and Ankum Rebuttal at 72-84, as well as its nonrecurring costs. *See infra* Section IV, p. 83.

Similarly, Verizon-NJ's fill factors reflect non-forward-looking assumptions. *See infra* Section III.D.6, p. 57. For instance, Verizon-NJ assumes an exceptionally high amount of spare facilities in its network. In so doing, Verizon-NJ attempts to require CLECs, when they order UNE loops, to pay for this spare capacity in addition to the loops ordered. The FCC has rejected this approach to fill factors precisely because it is not forward-looking. *See Joint Application by SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance for Provision of In-Region, InterLATA Services in Kansas and Oklahoma*, CC Docket No. 00-217, FCC 01-29, Memorandum Opinion and Order, ¶ 80 (rel. Jan. 22, 2001) ("*KS/OK 271 Order*"). Similarly, these sorts of embedded assumptions led the District Court to reject the fill factors proposed previously by Verizon-NJ. *AT&T v. Bell Atlantic-NJ* at 34.

Verizon-NJ's switching input assumptions also fail to properly assume a forward-looking network. *See infra* Section III.E, p. 68. In particular, the Verizon-NJ cost study assumes that Verizon will obtain vendor switch discounts on an additions/growth basis. Lundquist Rebuttal at 40. However, a TELRIC-compliant study would assume a forward-looking, reconstructed network. *Local Competition Order* ¶ 685. Under TELRIC, while wire center locations would remain the same, the model must assume that new switches would be purchased and installed in

those locations. Consequently, the vendor discount rates should be based on new/replacement discounts, not additions/growth discounts. *See infra* Section III.E, p. 68.

In addition, Verizon-NJ proposed an inflated cost of capital. *See infra* Section III.C.1, p. 33. Because Verizon-NJ is the monopoly provider of UNEs in New Jersey, its cost of capital must be based on the currently authorized rate of return. *Local Competition Order* ¶ 702. Instead, Verizon-NJ disregarded this requirement and advocated that cost of capital be based on the assumption of a competitive market for the wholesale provision of UNEs. T.94:15-20 (9/28/00). In so doing Verizon-NJ ignores the reality that it is the *only* provider of UNEs within its service territory.

Improper reliance on embedded conditions is particularly acute with respect to the VZ NRCM. Specifically, the VZ NRCM sponsor stated that "[k]nown and measurable costs are a reasonable starting point for estimating forward-looking costs for similar functions and work times." Meacham Aff. ¶ 15. Further, the VZ NRCM specifically states that **[Begin Verizon Proprietary]**

[End Verizon Proprietary] Exh. VNJ-12, Description of NRCM Methodology at 4. Also, the work times provided improperly rely on unverifiable estimates provided by Verizon-NJ employees. *See infra* Section IV.B.5, p. 100; Meacham Aff. ¶¶ 12-15, 23-31. As Verizon-NJ uses them, its current network, work tasks and task times have no bearing on the development of TELRIC-based UNE rates. Indeed, the federal district court in the neighboring state of Delaware recently found just that when analyzing Verizon's cost study. The court held that "the current state of Bell's network is irrelevant for the purposes of a long-run

cost analysis." *Bell Atlantic-Delaware* at 238. Thus, the use by Verizon-NJ of its existing network and existing practices as its starting point does not comply with TELRIC.

Even if it were proper to begin with current practices, Verizon-NJ failed to make sufficient adjustments for its study to be forward-looking. Verizon-NJ claims that it has cured this patent defect in its study by adjusting for forward-looking technological improvements and process and efficiency improvements. Taylor Aff. ¶ 17. For instance, the nonrecurring cost study relied on surveys of "current operations" to serve as the "baseline" in developing nonrecurring UNE rates. Meacham Aff. ¶¶ 13-15. To attempt to cure this and other similar non-forward-looking inputs, Verizon-NJ claims that its results and inputs were "adjusted, as appropriate, to fully reflect the benefits of future mechanization of BA-NJ's OSS and other process improvements." Meacham Aff. ¶ 14; *see also* Taylor Aff. ¶ 17.

Such attempts to adjust non-forward-looking inputs and network assumptions fail to yield a TELRIC-compliant methodology. In fact, they completely miss the point. As the Delaware District Court held in applying the TELRIC standard, "[t]he state of Bell's network 'in the coming years' is equally irrelevant." *Bell Atlantic-Delaware* at 238. Rather, the Ratepayer Advocate agrees with the description of the appropriate TELRIC standard as set forth by AT&T witness Baranowski:

> Under TELRIC, costs are based on the design and construction of the most efficient network design that could be deployed today, using the best technology available on the market.

Baranowski Rebuttal at 7. In fact, Verizon-NJ's economic witness, William E. Taylor, agreed with this correct application of TELRIC when testifying before the Delaware Commission. Specifically, he then testified that "the *Local Competition Order* 'says rip every switch out. All

of them. . . . Every switch in the network rip them out. Leave the . . . wire center location where they [sic] are. And build the network that you would build today to serve the demand.'" *Bell Atlantic-Delaware* at 238 (quoting testimony of William E. Taylor before the Delaware Public Service Commission, Findings and Recommendations of the Hearing Examiners, Del. PSC Doc. No. 96-324 at J.A. 1325 (April 7, 1997)).

Verizon-NJ's recurring and nonrecurring cost studies' reliance on the current network design and on current systems, methods and procedures are little more than thinly veiled attempts to recover embedded costs through UNE rates. In so doing, Verizon-NJ's proposed rates will likely lead to over-recovery, a matter of great concern to the Board during the hearings. T.1930:2-6 ("Commissioner Butler: Ms. Babineau, I have to tell you, this Board would be very interested in any potential for double cost recovery.")[2] Contrary to Verizon-NJ's proposals, TELRIC, as shown above, is expressly designed to result in rates equivalent to those that would have resulted if the local exchange market were competitive. *Local Competition Order* ¶ 679; *see infra* Section III.A.1, p. 16. As Ms. Murray and Mr. Riolo correctly explained, competitive markets do not permit the recovery of actual incurred costs unless those costs are no more than forward-looking economic costs. Murray-Riolo Rebuttal at 6. If a company attempts to charge a rate higher than economic cost in a competitive market, it will be undersold by other companies operating in that market. *See id.* at 6-7. Accordingly, the Ratepayer Advocate agrees with Murray and Riolo's conclusion that "there is no reasonable economic basis" for the Board to

[2] Double recovery was also an issue of concern to the Administrative Law Judge in New York, who recommended a 2.5% downward adjustment to correct for double recovery of land and building costs found in Verizon-NY's proposed collocation rates. *NY Recommended Decision* at 113-115.

endorse the Verizon-NJ model, with its reliance on actual costs. *Id*. at 7. Verizon-NJ's tortured attempts to convince the Board that TELRIC rates "should be developed to reflect the way efficient networks actually evolve to accommodate growth over time," Taylor Aff. ¶19, should not only be rejected by the Board, but should be affirmatively recognized as a disingenuous effort to use embedded costs where forward-looking costs are legally required.

Nowhere is the disingenuous nature of this effort more evident than at the very end of the direct testimony of Verizon-NJ's economic witness, William E. Taylor. There, the Verizon witness quotes extensively from the key paragraphs of the FCC's *Local Competition Order* that established the legal requirement for the Board to utilize a TELRIC methodology, and yet ends this quotation before the FCC states its conclusion of what TELRIC requires. Taylor Aff. at 13. Specifically, the Verizon-NJ witness' testimony stops a mere sentence before the FCC's finding that "[w]e, therefore, conclude that the forward-looking pricing methodology for interconnection and unbundled network elements should be based on costs that assume that wire centers will be placed at the incumbent LEC's current wire center locations, *but that the reconstructed local network will employ the most efficient technology for reasonably foreseeable capacity requirements*." *Local Competition Order* ¶ 685 (emphasis added). It is no mystery why Verizon-NJ did not quote this concluding sentence. Verizon-NJ did not assume a reconstructed network in its models. Rather, Verizon-NJ assumed its embedded network. Accordingly, because Verizon-NJ's models are not TELRIC-compliant, the Board should not adopt the UNE rates proposed by Verizon-NJ.

All of these and many other problems with the inputs and assumptions used in the Verizon-NJ recurring and nonrecurring cost models are discussed at greater length throughout the

remainder of this Brief, providing the Board with numerous reasons why it should not rely on the Verizon-NJ cost models in establishing UNE rates. Specifically, analysis of the problems with the recurring cost model are detailed throughout Sections III.C, III.D and V, *infra*, pg. 33, 48 and 107, and analysis of the problems with the VZ NRCM are detailed in Section IV, as well as in certain parts of Section V, *infra*, p. 107. Correction of these deficiencies will help ensure that rates are cost-based and affordable for New Jersey consumers.

b. AT&T model

Like the Verizon-NJ cost model, the AT&T cost model also fails to use TELRIC-compliant inputs and assumptions, and therefore fails to generate TELRIC rates. However, unlike the Verizon-NJ model, the AT&T model does not assume the use of the existing network. Rather, the AT&T model fails to comply with TELRIC because it is too speculative. While TELRIC requires a forward-looking, generally reconstructed network, this network must at least be attainable assuming full deployment of forward-looking technologies. Indeed, Rule 51.505(b)(1) specifically requires that the technology modeled be "currently available." 47 C.F.R. § 51.505(b)(1). The AT&T model, however, assumes an idealized network that is not necessarily attainable in any forward-looking environment. Tardiff Rebuttal at 5-9.

Also, Mr. Meacham claims that the AT&T cost studies do not generate rates for the complete universe of UNEs. Meacham Rebuttal at 45-49. While AT&T may not seek access to all of the UNEs offered by Verizon-NJ, other CLECs may desire these UNEs. Accordingly, these UNEs must be priced, and the AT&T model offers no basis to establish rates for these elements.

Additionally, the AT&T NRCM suffers from one of the same elemental failures as the Verizon-NJ model, relying on unverified work-times estimates provided by supposed experts. For instance, according to Verizon-NJ, no written materials were provided to the subject matter experts ("SMEs") that provided the tasks and the task-time estimates used in the AT&T NRCM. Meacham Rebuttal at 42-43; T.2831:7-11 (1/23/01). Further, no documentation was provided showing the experience of the SMEs in performing the tasks identified in the AT&T NRCM. Meacham Rebuttal at 42-43; T.2838:17-21 (1/23/01). Verizon-NJ also demonstrated that the study failed to include any basis for arriving at the work-time estimates. Meacham Rebuttal at 42-43; T.2845:11-2856:7 (1/23/01). Finally, AT&T did not utilize statistical sampling in the AT&T NRCM. T.2862:15-17 (1/23/01).

3. Empirical tests of significance of choice of models

To bring competition to New Jersey consumers, rates must be set low enough to permit new entrants, but not too low so as to distort competition. The TELRIC methodology is designed to establish rates that fall within that range. *See Application of Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions) And Verizon Global Networks Inc., for Authorization to Provide In-Region, InterLATA Services in Massachusetts*, CC Docket No. 01-9, FCC 01-130, Memorandum Opinion and Order ¶¶ 27-28, 35 ("*MA 271 Order*"); *KS/OK 271 Order* ¶¶ 55, 60, 64, 81 and 91; *Local Competition Order* ¶ 679. In other words, TELRIC is a methodology designed not to result in specific rates, but rather rates that fall within the range that would be offered by companies operating in a truly competitive marketplace. *MA 271 Order* ¶ 35; *Local Competition Order* ¶ 679.

Because of the flaws outlined above, the inputs and assumptions used in both the Verizon-NJ and the AT&T models submitted to the Board are not likely to generate UNE rates that fall within the TELRIC range. Thus, the Board is faced with either attempting to correct the Verizon-NJ or the AT&T models to establish TELRIC-compliant rates, or with finding an alternative approach — for example using comparable TELRIC rates established by neighboring state commissions — to set TELRIC-compliant rates.

The Ratepayer Advocate recommends that the Board use the best of both of these approaches. The Board should begin its analysis by starting with either the Verizon-NJ or the AT&T cost model. The assumptions and inputs to the model are the true key in driving a cost model towards TELRIC compliance, not the broad parameters of the model itself. T.3090:5-11 (1/24/01). The Ratepayer Advocate and numerous other parties have introduced a substantial amount of evidence showing many, but not all, of the corrections that would need to be made to the Verizon-NJ model in order for it to result in UNE rates that fall within an acceptable range. Conversely, there is a dearth of evidence as to the corrections that would need to be made to the AT&T cost model to make it generate rates within this range. Therefore, the Board should not base rates on the AT&T model (except to the extent it offers ways of correcting the Verizon-NJ model), and should instead identify the changes to the assumptions and inputs necessary to enable the Verizon-NJ model to move toward rates that are closer to being TELRIC-compliant. These changes should be used to recalibrate, as an interim step in the Board's analysis, the rates produced by the Verizon-NJ model.

The record demonstrates, however, that even when all the evidence is examined collectively, it is impossible to identify all of the corrections that are necessary to make the

Verizon-NJ model produce TELRIC-compliant rates. Stacy Rebuttal at 7-8, 20; Baranowski Rebuttal at 5. Accordingly, the Board should take additional steps to safeguard that the resulting rates are sufficiently reduced from those proposed by Verizon-NJ to fall within the range of TELRIC. The best safeguard available to the Board is to ensure that the rates it establishes are comparable with those established pursuant to TELRIC standards in neighboring states. Such comparisons will enable the Board to encourage competition in New Jersey at levels similar to the levels in neighboring states, such as New York, Pennsylvania and Delaware.

Comparing an ILEC's UNE rates in neighboring states as a validation method is entirely consistent with recent FCC analysis, particularly when one of the adjoining states has already determined TELRIC-compliant UNE rates. Specifically, in analyzing Verizon Massachusetts' recent Section 271 application, the FCC compared the rates in that Commonwealth to those previously determined to be TELRIC-compliant in New York. In so doing, the FCC set forth the following three part test for determining whether another state's UNE rates may be used as comparables under TELRIC:

> 1) they [the states being compared] have a common BOC and geographic similarities; 2) they have similar, although not identical, rate structures for comparison purposes; and 3) the [FCC] had already found the rates in [the other state] to be reasonable.

MA 271 Order ¶ 28 (citing *KS/OK Order* ¶ 82 "[W]e agree with the Department of Justice that we may, in appropriate circumstances, consider rates that we have found to be based on TELRIC principles. We therefore compare SWBT's rates in Oklahoma to SWBT's rates in Texas. We do so because they are adjoining states; because the two states have a similar, if not identical, rate structure for comparison purposes; and because we have already found the rates in Texas

reasonable."). Therefore, the Board should use comparable, neighboring state commission rates when available to establish UNE rates in New Jersey.

Accordingly, after making the initial adjustments to the Verizon-NJ proposed rates by changing inputs and assumptions, the rates should be compared to those that have been ordered by neighboring state commissions. To the extent that such a comparison identifies additional rate discrepancies, those discrepancies should be corrected by adopting the lowest, "best" comparable rate for the UNE in question. Only by so doing will the Board enable a full measure of competition to come to New Jersey. New Jersey consumers deserve at least this much. The Appendix to this brief contains the Ratepayer Advocate's proposed UNE rates, recurring and nonrecurring, based on those adjustments and corrections, as well as on comparable rates from other states.

C. Input Issues Affecting All UNEs

1. Cost of Capital

Verizon-NJ proposes a flawed cost of capital analysis based on a market assumption that has been rejected by state commissions within the Verizon region. T.32:7-10 (11/28/00); T.33:2-34:2 (11/28/00); *NY UNE Case* at 38; *NY Recommended Decision* at 79; *Pennsylvania Global Order* at 73; *VA UNE Order* at 8; *DE UNE Order* at 14-15; *Bell Atlantic-Delaware* at 240-241. Disregarding the FCC's clear guidance in the *Local Competition Order* for determining an incumbent's cost of capital, Verizon-NJ proposes a 12.6% cost of capital that is based on the faulty premise that it is a market participant in a competitive market, rather than a monopoly provider of wholesale UNEs. This error is compounded by Verizon-NJ's failure to implement its computations properly. The appropriate foundation on which to calculate Verizon-NJ's cost of

capital is the Company's book values, which provide actual real-world numbers upon which the Board can determine Verizon-NJ's actual performance. Rothschild Direct at 2-4. The Board should therefore reject Verizon-NJ's 12.6% proposal and instead adopt an 8.8% cost of capital based on the Ratepayer Advocate's proposed book value methodology. Rothschild Direct at 1; Vander Weide Rebuttal at 3.

It is imperative that the Board use the appropriate foundation for determining Verizon-NJ's cost of capital. Permitting an inflated cost of capital will result in an increased price of UNEs which will deter competitive entry in the State of New Jersey. This is unacceptable, since without competition, consumers are relegated indefinitely to a monopoly provider of services.

The cost of capital is the return that a company must achieve in order to attract investors to provide debt and equity financing. To determine the cost of capital, there are three calculated variables: the cost of equity, the cost of debt, and the debt to equity ratio. Rothschild Direct Schedule 1. In the *Local Competition Order*, the FCC provides a starting point for determining the cost of capital:

> the currently authorized rate of return at the federal or state level is a reasonable starting point for TELRIC calculations, and incumbent LECs bear the burden of demonstrating with specificity that the business risks that they face in providing unbundled network elements and interconnection services would justify a different risk-adjusted cost of capital or depreciation rate. These elements generally are bottleneck, monopoly services that do not now face significant competition.

Local Competition Order ¶ 702. Book values, gleaned from investment reports such as those provided by Value Line, are the appropriate basis for calculating an appropriate cost of capital under the FCC's methodology. Rothschild Direct Exhibit 1 at 27. These reports offer a

reasonable snapshot of Verizon-NJ's current market position. *Id.* Based on these Value Line inputs, the Ratepayer Advocate reached the following results and urges the Board to adopt its 8.8% cost of capital:

RATEPAYER ADVOCATE'S COST OF CAPITAL			
	Cost Rate	**Debt Ratio**	**Weighted Cost**
Debt	8.07%	60.94%	4.9%
Equity	10%	39.06%	3.9%
Cost of Capital		100%	8.8%

Rothschild Direct at 1 (overall cost of capital); Rothschild Direct at Schedule 1 (short-term debt, long-term debt, equity and weighted costs); Rothschild Direct Exh. 1 at 13 (use of consolidated capital structure).

In stark contrast to the book value approach, and ignoring the FCC's premise that Verizon-NJ is a monopoly provider of wholesale UNEs, Verizon-NJ continues to argue that its cost of capital should reflect a competitive market for the sale of wholesale UNEs in New Jersey. T.94:15-20 (09/28/00). Verizon-NJ determines its capital structure using a proxy group of competitive firms including the S&P 500, a collection of market industrials. *Id.* This use of a capital structure that is appropriate to a competitive market provides a skewed framework within which to analyze Verizon-NJ's situation. The fact that Verizon Communications Inc.'s ("Verizon") own management has chosen to employ substantially less common equity in its

capital structure is proof that even Verizon's management must disagree with company witness Dr. Vander Weide. *See* Section III.C.1.c. *infra*, p. 42.

In order for Verizon-NJ 's market-based capital structure to provide the Board reasonable results, Verizon-NJ would have to be a competitive provider of wholesale UNEs in a competitive industry. Indeed, according to Verizon-NJ its "definition of cost of capital . . . is based on the assumption that the market for local exchange services is competitive." VNJ Exh. 3, Vander Weide Direct at 53. Verizon-NJ's underlying premise supporting its cost of capital is flawed. Verizon-NJ both incorrectly assumes the correct market is that for local exchange service, which is not the service under review in this proceeding, and that a competitive market for such services exist.

Verizon-NJ is wrong on both points. The Ratepayer Advocate supports Mr. Hirshleifer's demonstration that, "the relevant line of business in UNE cost proceedings is not local retail phone service, but rather the wholesale business of leasing network elements to CLECs that provide competitive service to an existing retail market." Hirshleifer Direct at 10; *See also* Lundquist Rebuttal at 12.

Indeed, there is not a competitive market for either wholesale UNEs or retail local exchange service in the State of New Jersey. *See Infra* Section III. A, p. 16. In a New York Times article citing the "limited effect" that competition has had on local telephone markets, New Jersey failed to make a list of states where alternative carriers have *at most* a 16% share of all local phone lines. Seth Schiesel, "Seizing the Phone Giant's Turf", *The New York Times* (April 9, 2001) B-1. (See Attachment 5). While competitors serve 7.2% of all lines nationwide, the number drops to 4.5% in New Jersey. Martha McKay, "Local Competition Still Elusive

After the 'Revolution,'" *The Record* (Feb. 8, 2001). (See Attachment 5). Clearly, there is no real competition for local exchange service in New Jersey. This Board similarly recognized in the *BPU Competition Report* that since the 1996 Act, "there has not been any significant statewide 'resale based' or 'facilities based' local land line residential or small business telephone offerings to or the switching of customers to CLECs from ILECs in New Jersey or the nation." *BPU Competition Report* at 2.

More to the point, competitors have no choice but to purchase UNEs from Verizon-NJ. *See* Lundquist Rebuttal at 53-54. The Ratepayer Advocate supports Mr. Hirshleifer's explanation that Verizon-NJ "is unlikely to face significant competitive risk for the foreseeable future" and Verizon-NJ "will remain the dominant supplier of unbundled network elements in New Jersey, both to itself and to new retail competitors." Hirshleifer Direct at 10.

Most recently, in the FCC's *MA 271 Order*, the FCC recognized that Verizon-MA's cost of capital rate of 12.16% was "higher than the cost of capital that the Massachusetts Department has used in setting Verizon's local rates." *MA 271 Order* ¶ 38. The 12.16% rate, the FCC concluded, "raised legitimate concerns" which it hoped the Massachusetts Department would review "as part of its current rate case." *Id.*

State commissions across the Verizon region, which generally adopt cost of capital rates far less than the rate Verizon proposes, have rejected Verizon's proposed cost of capital because of its flawed reliance on competitive markets. T.32:7-10 (11/28/00); T.33:2-34:2 (11/28/00). For example, the New York Commission initially rejected Dr. Vander Weide's 13.18% proposal based on the fact that it "greatly strains the FCC's forward-looking concept" when comparing the ILEC "for cost of capital purposes to certain industrial firms operating in different, if fully

competitive markets." *NY UNE Case* at 38. Most recently, in the *New York Recommended Decision*, the ALJ concluded that "these observations are no less pertinent today than when first made," and "that TELRIC should not be understood ... to require basing the cost of capital on a 'fantasy marketplace,' in which the provision of local telephone service is as competitive as the sale of detergent." *NY Recommended Decision* at 79. "With respect to UNEs," the ALJ concludes, "vibrant competition seems even more remote." *Id.* In addition, the Pennsylvania Public Utility Commission rejected Verizon's cost of capital because the company "had represented to the Securities and Exchange Commission, as well as its investors, that its actual cost of capital was between 8% and 10% at the time of the Bell Atlantic - NYNEX acquisition." *Pennsylvania Global Order* at 73; *further, Pricing of Verizon Pennsylvania Inc.'s Unbundled Network Elements, et. al.*, Interim Opinion and Order, Docket Nos. R-00005261 and R-00005261C001 at 15 (May 24, 2001) (*"Pennsylvania Interim Order"*).

Other state commissions agree that Verizon's competitive market assumptions are wrong. The State of Vermont Public Service Board concluded that "today's UNE market is more monopoly in nature than competitive" and that "the Company has not met its burden of demonstrating 'with specificity' the existence of new business risks." *Investigation into New England Telephone and Telegraph Company's (NET's) Tariff Filing*, Vermont Public Service Board Docket No. 5713, Phase II, Module 2-Cost Studies at 35 (Feb. 4, 2000). Similarly, the Maryland Public Service Commission held that Verizon-MD's cost of capital recommendation was "excessive" and that the company "greatly overstated the risk of competition that it can reasonably expect in the near future with respect to these network elements." *MD UNE Order* at 27. Likewise, the Virginia State Corporation Commission also denied Verizon-VA's request that

it be compared to "risky competitive markets." *Ex Parte: To Determine Prices Bell Atlantic-Virginia, Inc. Is Authorized to Charge Competitive Local Exchange Carriers*, Virginia State Corporation Commission Case No. PUC970005, Final Order at 8 (April 15, 1999).

Finally, the Delaware Public Service Commission rejected Verizon-DE's request to recover a 13.2% cost of capital based on its perceived greater risk in the local telephone market. *DE UNE Order* at 14-15. On appeal of the Delaware Commission's decision, the United States District Court in Delaware strongly affirmed that Commission's decision rejecting Verizon's proposed cost of capital. The court held that "the Hearing Examiners correctly rejected Vander Weide's testimony as impermissible attributing the risk of local competition in the sale of unbundled network elements." *Bell Atlantic-Delaware* at 240-241. The court supported the Delaware Commission's determination, noting that Verizon admitted in its proxy statement that its estimated cost of capital was between 8% and 10% and that it did not need new capital investments to sell wholesale UNEs. *Id.* at 240. The court concluded that "ILECs like Bell do not face the same competitive risks as firms operating in a competitive market . . . In reintroducing competition in the local telephone market, it makes perfect sense to recreate competitive prices while acknowledging that the current lack of competition warrants reduced costs of capital." *Id.* at 240 n. 19.

For the reasons endorsed by the FCC, federal courts and state commissions alike, the Board should reject Verizon-NJ's cost of capital determination and its assumption of a competitive market.

a. Cost of Equity

Verizon-NJ proposes a 14.78% cost of equity which inappropriately inflates its cost of capital by relying on faulty assumptions. The cost of equity "is the rate of return that must be offered to a common equity investor for that investor to be willing to buy the common stock." Rothschild Direct Exh. 1 at 22. To correct for this inflation, the Ratepayer Advocate proposes a 10% cost of equity based on both the Discounted Cash Flow ("DCF") method and the risk premium/Capital Asset Pricing Model ("CAPM") method of determining the cost of equity. Rothschild Direct Exh. 1 at 25.

The DCF method is popular because it directly examines the factors that provide an investor with a reason to initially purchase a stock. *Id.* The DCF method "starts with the current dividend yield, and adds to that dividend yield an estimate of growth to arrive at the estimated cost of capital." Rothschild Direct Exh. 1 at 24. By using the Value Line inputs as of July 7, 2000, the Ratepayer Advocate determined a 10.91% cost of equity with the DCF method. Rothschild Direct Exh. 1 Schedule JAR 2.

In order to reduce any possible upward bias, the Ratepayer Advocate averaged the DCF method results with the inflation risk premium/CAPM method. Rothschild Direct Exh. 1 at 25. The risk premium/CAPM method, like the DCF method, measures "the total return expected by a common stock investor." Rothschild Direct Exh. 1 at 23. However, the risk premium/CAPM method uses interest rates or inflation rates to determine what rate of return an investor wants in order to purchase a specific stock. *Id.* Using the Beta, or risk, of Verizon from Value Line reports, the Ratepayer Advocate reached a cost of equity determination of 9.02%. Rothschild Direct Exh. 1, Schedule JAR 5. The Ratepayer Advocate arrived at a 10% cost of equity by

averaging both the results from the DCF (10.91%) and the risk premium/CAPM (9.02%) methods. Rothschild Direct Exh. 1 at 25-26.

In stark contrast, Verizon-NJ's proposal of a 14.78% cost of equity is far too high. While 14.78% is even too high for competitive industries, Verizon also uses the wrong group of companies in its analysis. In Verizon's application of the single stage DCF method, Dr. Vander Weide improperly uses a comparison group of S&P 500 companies. Exh VNJ-3, Vander Weide Direct at 52. Verizon assumes that it experiences as much risk as the comparison group, but none of the companies that Verizon uses in its analysis are monopoly providers of wholesale UNEs to competitive local exchange carriers. This directly contradicts the FCC's cost of capital determination based on the assumption of "monopoly services that do not now face significant competition." *Local Competition Order* ¶ 702. The evidence in this proceeding, as well as common sense, clearly demonstrates that "on average, these other lines of business have a significantly greater risk, and thus a higher cost of equity, than the business of supplying unbundled network elements at wholesale." Hirshleifer Rebuttal at 7. Verizon's use of dissimilar companies for its comparison group applied in its DCF analysis does not result in a cost of equity that represents Verizon-NJ's actual position.

At the very least, Verizon-NJ could have limited its comparison to the other incumbent local exchange carriers providing the same elements in their respective service areas. Instead, Verizon-NJ incredibly argues that based on the "extraordinary restructuring and industry consolidation" these companies do not provide a viable comparison. Exh. VNJ-3, Vander Weide Direct at 55. However, Verizon is also undergoing restructuring and consolidation, in its recent mergers with NYNEX and GTE and its recent entrance into the long distance markets in

New York and Massachusetts. It is unclear how Verizon-NJ can dismiss this comparison of similar companies, in order to use companies that have vastly different risks and returns. On this basis, the Board should reject Verizon-NJ's cost of equity.

b. Cost of Debt

There is little dispute over the cost of debt in this proceeding. The Board should adopt the Ratepayer Advocate's proposed 8.07% cost of debt based on the interest rate of A rated utility debt. Rothschild Direct Schedule 1. Verizon-NJ proposes a similar 7.77% cost of debt, affirming the reasonableness of the Ratepayer Advocate's proposal. Vander Weide Direct at 52.

c. Debt/Equity Ratio

In determining a debt to equity ratio, a firm that faces a low level of risk — as the FCC concludes ILECs like Verizon do — should have a lower percentage of equity and a higher percentage of debt. *See* Rothschild Direct Exh. 1 at 23. Instead, Verizon-NJ proposes a debt to equity ratio of 25% debt to 75% equity, based on an improper competitive market capital structure analysis. Exh. VNJ-3; Vander Weide Direct at 44-45. The Board should recognize the realities of Verizon-NJ's position and adopt a 60.94% debt to 39.06% equity ratio based on the book value of the common equity ratio. Rothschild Direct Exh. 1 at 13. The Ratepayer Advocate developed this ratio from short-term debt (8.82%) and long-term debt (52.12%) using information found in Value Line Reports.[3] Rothschild Direct Schedule JAR-1.

[3] In his testimony, Ratepayer Advocate witness James Rothschild recognizes that Verizon's post-merger capital structure now contains approximately 26.2% common equity, rather than his originally determined 38.47%. Rothschild Direct at 2. However, this actual decrease in the amount of common equity is due to Verizon's temporary increase in short-term debt. *Id.* Rothschild concludes, based on Value Line's assumptions, that the total amount of common equity will increase, and that "Verizon will again bring its common equity ratio up to the pre-merger level." Rothschild Direct at 3.

COST OF CAPITAL BASED ON CONSOLIDATED CAPITAL STRUCTURE RATIOS			
Type of Capital	**Ratios**	**Cost Rate**	**Weighted Cost Rate**
Short-Term Debt	8.82%	7.00%	0.62%
Long-Term Debt	52.12%	8.25%	4.30%
Preferred Stock	0.59%	8.00%	0.05%
Common Equity	38.47%	10.00%	3.85%
	100%		8.8%

See Rothschild Direct Schedule 1.

The Ratepayer Advocate strongly supports the Board's use of the consolidated capital structure of Verizon rather than the competitive capital structure assumptions of Verizon-NJ. Rothschild Direct Exh. 1 at 14. The consolidated capital structure should be used "because it is not subject to manipulation." Rothschild Direct Exh. 1 at 13. Unlike Verizon-NJ's proposed market capital structure, "the consolidated capital structure is an actual capital structure where full arms-length transactions between the public debt and equity investors is reflected." *Id.*

Verizon-NJ should not be permitted to obscure its performance by manipulating its capital structure. Upon review of both Verizon and Verizon-NJ's consolidated capital structures in the 1999 Moody's Public Utility Manual, it is clear that the parent, Verizon, at 38.47%

common equity, has considerably less common equity on its books than its subsidiary Verizon-NJ, at 51.52% common equity. Rothschild Direct Exh. 1 at 13. The fact that the consolidated capital structure of Verizon contains a lower percentage of common equity shows that Verizon-NJ "can understate the actual return on equity" it achieves. Rothschild Direct Exh. 1 at 7. It is unreasonable to assume that "the regulated operations in New Jersey are more risky than the other businesses owned by [Verizon]." *Id.*

Moreover, both the FCC and the Washington D.C. Public Service Commission support the use of a consolidated capital structure in determining a company's debt to equity ratio. The FCC noted that:

> the capital structures of utilities that are owned by holding companies can be controlled by the parent company. For this reason, regulatory commissions have often been cautious about using, for purposes of calculating a weighted average cost of capital, the debt/equity ratio of a subsidiary. Traditional solutions to this problem include using the capital structure of the holding company in place of that of the subsidiary.

In the Matter of Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers, CC Docket No. 89-624, Order (December 7, 1990) ("*Represcribing Order*") ¶ 31. In the *Represcribing Order*, the FCC concluded that "the capital structure of the BOCs should not be used to determine the overall interstate access cost of capital because the capital structure of those entities is subject to manipulation by the holding companies." *Represcribing Order* ¶ 8.

The Washington, D.C. Public Service Commission similarly found that Verizon-DC should apply its parent's capital structure rather than that of its local subsidiary. *Re Chesapeake and Potomac Telephone Company*, Washington, D.C. Public Service Commission Formal Case

No. 926, Opinion and Order No. 10353 (December 21, 1993) ("*Potomac Telephone*"). Indeed the D.C. Commission found that the levels of Verizon's capital structure contained a much lower ratio of equity as compared with that of its subsidiary which is "inconsistent with the general rule that the amount of equity in a company's capital structure is directly related to that company's business risk." *Potomac Telephone* at 57.

Verizon-NJ's suggested 25% debt to 75% equity ratio paints a distorted picture of its capital structure by again choosing to look beyond the realities of its monopoly position in the wholesale UNE market. Exh. VNJ-3; Vander Weide Direct at 47. Verizon-NJ argues that the Board should adopt a "market value" debt/equity ratio because it is "forward-looking." *Id.* Yet Verizon's assumptions have no basis in reality. In Verizon's own publicly available 2000 Annual SEC filing, it reports debt ratios for 1997, 1998 and 1999 of 60.5%, 61.2% and 60.1% respectively. Verizon Communications 10K-405, Annual Report (Mar. 30, 2000).

Verizon-NJ's proposal is particularly ill-advised in light of its recent increase in short-term debt due to the Bell Atlantic- GTE merger. Since that merger, Verizon has substantially increased its short-term debt. Rothschild Direct Exh. 1 at 2. Verizon's post-merger capital structure contains approximately 26.3% common equity. *Id.* While this decreased level of equity is likely a temporary situation —and is not reflected in the Ratepayer Advocate's analysis— it is illustrative of the complete inaccuracy of Verizon-NJ's position. The Board should not adopt a 25% debt to 75% equity position when the Company is currently holding nearly 74% debt and 26% equity. Rather, the Board should adopt the commonly recognized debt to equity ratio of 60.94% debt to 39.06% equity proposed by the Ratepayer Advocate.

d. Cost of Capital Estimates Developed Outside of Litigation Context

The Ratepayer Advocate takes no position on this issue at this time.

2. Depreciation Lives

The Board should adopt the depreciation rates and lives in Verizon-NJ's January 2000 Rate Update. Lundquist Rebuttal at 47; Exh. VNJ-72, 2000 Depreciation Rate Update Addendum to 1999 Depreciation Rate Update Submitted for Review by the Board's Staff (Jan. 18, 2000). Use of a conservative depreciation life is necessary to accomplish reasonable rates. The depreciation life represents the period of time from an element's deployment until such time as that element must be replaced. Applying a shorter depreciation life results in less time to recover the cost of an element at a greater overall cost per unit. The Board should use the rates that it has already approved and that are reflective of Verizon-NJ's most recent accounting data. *Id.*

On January 18, 2000, in response to a request of the Ratepayer Advocate, Verizon-NJ filed an update to its depreciation rates to reflect its most current accounting data. Exh. VNJ-72. The Ratepayer Advocate strongly supports use of these rates in the current proceeding. Lundquist Rebuttal at 47. Verizon-NJ made this submission for "approval of those rates and lives for application in the year 2000." Lundquist Rebuttal at 47-48. These numbers reflect a more forward-looking proposal than the 1999 Generally Accepted Accounting Principle ("GAAP") lives which Verizon-NJ proposed. *Id.* Based on application of these rates to Verizon-NJ's unbundled loop costs, the Ratepayer Advocate found an overall 4% reduction in the total cost of Verizon-NJ's 2-wire loop costs. Lundquist Rebuttal Attachment 6-A. In addition, use of

the 2000 Depreciation Lives results in a 3% reduction in the overall costs of unbundled local switching and POTs ports. Lundquist Rebuttal Attachment 6-B, 6-C.

Rather than relying on the most current information contained in its Rate Update, Verizon-NJ chose to rely upon the outdated figures based on 1999 GAAP lives. Lundquist Rebuttal at 47. The 1999 GAAP lives are not forward looking because they "were designed to err on the side of protecting shareholders, and are inconsistent with the lives previously recommended by the BPU and the FCC." Baranowski Rebuttal at 12. Under Verizon's approach, "the rates for UNEs would be artificially inflated, which would stifle competition." Ankum Rebuttal at 40. The Board should instead rely on Verizon-NJ's updated 2000 depreciation lives. Lundquist Rebuttal at 47 (citing NJ BPU Docket No. TO99120934, VNJ-DRA-1-43C, Supplemental).

3. Expense Factors

The Ratepayer Advocate takes no position on this issue at this time.

4. Gross Revenue Loading

The Ratepayer Advocate takes no position on this issue at this time.

5. Common Costs

The Board should maintain the 10% common overhead factor that it determined in its previous proceeding. Lundquist Rebuttal Attachment 8. Neither the Ratepayer Advocate nor Verizon-NJ oppose the use of a 10% common overhead factor. Prosini Aff. at 9. While Verizon presents arguments supporting an updated 15.7% common overhead factor, it accepts, and uses the Board's earlier 10% common overhead factor. *Id.* Accordingly, the Board should adopt a common overhead factor that does not exceed 10%.

Indeed, the Board should recognize that a 10% overhead factor is a conservative estimate. While the Board initially adopted a 10% common overhead factor, this determination occurred prior to Bell Atlantic's merger with GTE. The 10% factor, therefore, does not reflect the substantial cost savings that Verizon claims to have realized as a result of that merger. Bell Atlantic/GTE Merger Proxy, I-24.

D. Loop Input Issues

1. Cable Unit Cost

Verizon-NJ based its cost study inputs for cable cost, sizing, selection and distribution cable length on the Company's embedded network rather than the required forward-looking construct. Prosini Aff. ¶¶ 23, 35; T. 2120:20-23 (01/03/01). Combined, these inputs lead to overstated loop costs.

For example, Verizon-NJ's cost study relies on cable costing data from the New Jersey Estimate Preparation ("NJEP") program. Company engineers then use this data "to estimate construction expenditures," for its cable unit cost input. Prosini Aff. ¶ 23. Rather than a forward-looking analysis of efficient approaches to engineering, furnishing and installing cable, these estimates are based on Verizon-NJ's past experience in its embedded outside plant, T.2120:20-23 (1/03/01), which results in overstated cable costs.

Likewise, Verizon-NJ's cable size estimates are based on a survey done by Verizon-NJ's outside plant engineers. T.2094:16-20 (1/3/01). This survey, exh. AT&T-38, is the starting point for cable sizes and support structure mix for the cost study. T.2095:10-23 (1/3/01). The survey, however, covered the period 1993 to 1995 and therefore is based on Verizon's historical outside plant. T.2096:12-16 (1/3/01). Notwithstanding the fact that the survey is over five years old and

predates the 1996 Act, Verizon-NJ contends that the size estimates generated by the survey provide Verizon-NJ's forward-looking cable size estimates. T.2095:24-2096:4 (1/3/01). This is simply not plausible. The Company has not done any subsequent analysis on how current cable sizes compare to the embedded cable sizes studied in the survey. T.2097:16-23 (1/3/01). Indeed, Verizon-NJ was not even able to produce evidence that the cable sizes used in the study were consistent with the actual cable sizes used today in the same Ultimate Allocation Area ("UAA") section. T.2101:15-2103:8 (1/3/01). As a consequence of relying on this historical survey, Verizon-NJ's cable sizing inputs fail to reflect least cost, most efficient forward-looking estimates. This, in turn, leads to overstated cable costs, which improperly inflates recurring loop rates.

Finally, notwithstanding the Board's prior criticisms of Verizon-NJ's distribution cable length estimates, *Generic Order* at 67, the Company's proposed cost study continues to assume that the average distribution cable length is one half the length of the longest distribution cable in an UAA. Prosini Aff. ¶ 35. In its *Generic Order*, the Board specifically found that this methodology "would overstate the true cable lengths and not place enough emphasis on the areas immediately surrounding the wire center." *Generic Order* at 67. The Board further stated that absent "the ability to measure with some level of precision the length of each cable," it could not adopt the Company's approach. *Generic Order* at 67. Verizon-NJ has done nothing to provide the Board a means to measure the precision of its assumed cable length. Rather than conducting a study or empirical analysis of these lengths, Verizon-NJ simply chose to ignore the Board's earlier findings.

Combined, Verizon-NJ's methodologies for each of these inputs constitute a serious breach of its forward-looking pricing obligations and necessarily leads to an overstatement of its loop costs. While the evidence demonstrates that Verizon-NJ's cost study is flawed in these areas, there is little supportable evidence on the correct inputs for cable cost, sizing and length. The Ratepayer Advocate therefore does not offer a specific recommendation on how the Board should correct the overstatement of costs caused by these inputs. Indeed, the Ratepayer Advocate's proposed $9.79 loop rate does not account for these overstatements. Rather, the flawed methodology and resulting overstatements for these inputs demonstrate that the proposed $9.79 loop rate is conservative. Thus, the Ratepayer Advocate urges the Board to consider these overstatements of cost when establishing the recurring loop rate.

2. Cable Sizing and Selection

The Ratepayer Advocate's position on this issue is contained in Section III.D.1, *supra*, p. 48.

3. Copper/Fiber Feeder Break Point

The Ratepayer Advocate's position on this issue is contained in Section III.D.1, *supra*, p. 48.

4. Maximum Distribution Length

The Ratepayer Advocate's position on this issue is contained in Section III.D.1, *supra*, p. 48.

5. Digital Loop Carrier

a. GR-303

Verizon-NJ's cost study includes an inappropriate mix of Digital Loop Carrier ("DLC") technologies that overstate its loop costs. Specifically, the incumbent assumes that the vast

majority of unbundled loops served over DLC systems use the "costly and inefficient non-integrated 'Universal' DLC ["UDLC"] equipment" rather than the integrated Next Generation DLC, known as GR-303. Lundquist Rebuttal at 14. GR-303 is the Telcordia technical specification for an integrated interface between a digital switch and a DLC system. Lundquist Rebuttal at 15-17. GR-303 combines "the efficiencies and cost savings of integrated DLC with flexibility in provisioning options that is even greater than that provided by non-integrated DLC systems." Lundquist Rebuttal at 17.

Nevertheless, Verizon-NJ proposes a DLC loop make-up that assumes only 10% of its DLC fed loops are served by GR-303, while the vast majority are served by the more costly UDLC equipment. By "assuming the widespread use of Universal DLC for unbundled loops and minimal use of the forward-looking NGDLC technology choice, VNJ has substantially overstated the DLC costs for unbundled loops." Lundquist Rebuttal at 15.

Verizon-NJ argues that its assumption of 10% GR-303 is reasonable in light of its current network deployment. Indeed, Verizon-NJ claims that the use of only 10% GR-303 is *generous* because it is "based on what's actually in the network today." T:2240:7-11 (1/3/01). In an effort to justify its scant use of GR-303, the Company states that it has deployed very little GR-303 in its network. T.1094:19-22 (12/19/00). What Verizon-NJ fails to understand, however, is that its embedded plant make-up is irrelevant to its costing obligations. AT&T is correct that the incumbent's current GR-303 deployment plans "in the carrier's embedded network has no bearing on the proper design of the forward-looking network." Baranowski Rebuttal at 7. Rather, Verizon-NJ's costs must reflect the least cost, most efficient forward-looking technology, not the technology or costs of its embedded network. As explained below, Verizon-NJ's use of the less

efficient and significantly more costly UDLC equipment "is clearly not forward looking in any relevant sense." Baranowski Rebuttal at 7. Therefore, the Board should order Verizon-NJ to eliminate UDLC from its cost study and assume 100% use of the forward-looking GR-303 standard NGDLC.

Unrebutted evidence clearly demonstrates that integrated GR-303 is the most efficient forward-looking equipment and that the UDLC equipment, which comprises the vast majority of Verizon-NJ's DLC costing assumptions, is more costly and less technologically efficient than GR-303. As Mr. Lundquist explained, integrated DLC equipment is more efficient than UDLC because it can terminate directly into a digital switch at a high-capacity (DS-1) digital signal rate through a single switch port. Lundquist Rebuttal at 15. In stark contrast, non-integrated UDLC "requires back to back analog to digital conversions at the digital switch location, plus an additional layer of multiplexing (DS-0/DS-1)." Lundquist Rebuttal at 16. This additional conversion and multiplexing requirement is inefficient because it "degrades the transmission quality significantly, increases the probability of more troubles associated with the line because of the additional equipment used, and it costs significantly more than integrated DLC." Lundquist Rebuttal at 16. Indeed, it is widely understood that "non-integrated UDLC equipment is inefficient and costly, and thus is not representative of a forward-looking view of DLC technology." Lundquist Rebuttal at 16; Baranowski Rebuttal at 7; Fassett Reply at 31; *NY Recommended Decision* at 91. For these reasons, it is inappropriate to assume UDLC in a loop cost study. Rather, the "appropriate technology choice for estimating the forward-looking, economic costs for DLC" is GR-303 standard NGDLC. Lundquist Rebuttal at 16-17.

[Begin Verizon Proprietary]

[End Verizon Proprietary] Exh. WCOM-15 at 22 (emphasis in original). AT&T correctly asserted that Verizon-NJ has not complied with its own engineering and planning guidelines in establishing the input assumptions for Verizon-NJ's cost studies. Fassett Reply at 33. The evidence is undisputed that GR-303 represents the least cost, most efficient forward-looking technology. Therefore, the Board should require Verizon-NJ to eliminate the embedded UDLC platform and assume 100% integrated GR-303 technology in its cost study.

Moreover, the Board should reject any argument that it is technically infeasible to unbundle loops served by GR-303 standard NGDLC. In an effort to justify its inclusion of UDLC costs in its loop rates, Verizon-NJ argues against 100% usage of GR-303 on the basis that loops served through this integrated interface cannot be provided on an unbundled basis. According to the incumbent, this "assumed configuration is not an unbundled voice grade analog loop in New Jersey," and would therefore be a new and as yet undeveloped UNE. Albert Rebuttal at 2.

Verizon-NJ is simply incorrect. Verizon-NJ's own documents, as well as the findings of the New York Public Service Commission, *see* Exh. WCOM-11, demonstrate that there is no meaningful technological barrier to unbundling NGDLC loops. **[Begin Verizon Proprietary]**

[End Verizon Proprietary]

Exh. WCOM-15 at 1.

As Mr. Lundquist explained, and **[Begin Verizon Proprietary]**

[End Verizon Proprietary], GR-303 standard NGDLC is designed to accommodate multi-hosting, and can be used to identify and segregate individual loops to route them to alternative locations (*e.g.*, a CLEC's switch or collocated equipment). Lundquist Rebuttal at 19. This is true because the remote terminal can support multiple GR-303 interfaces, known as virtual interface groups ("VIGs"). The feature of supporting multiple GR-303 VIGs "provides the opportunity for multiple CLECs to establish an GR-303 VIG between their switch or collocated equipment and the [remote digital terminal]." Lundquist Rebuttal at 19. Moreover, the fact that Verizon-NJ included some, albeit inadequate, loops served by the GR-303 standard in its cost study confirms that GR-303 standard NGDLC is capable of providing unbundled loops. Lundquist Rebuttal at 20.

Furthermore, as demonstrated in Exhibit WCOM-11, the New York Commission addressed this same issue with respect to ISDN-BRI loops. As in this proceeding, Verizon-NY proposed ISDN-BRI prices based on UDLC technology. Exh. WCOM-11 at 2. The New York Commission rejected Verizon-NY's proposed prices and ordered that prices be set on the basis of IDLC technology. Exh. WCOM-11 at 2. Verizon-NY petitioned for rehearing, arguing that the GR-303 IDLC standard was still in the developmental stage and could not be deployed. Exh.

WCOM-11 at 2. While the New York Commission authorized the pricing of ISDN-BRI loops based on UDLC technology, it ordered that the rate be reduced after one year to the level that would be associated with IDLC unless Verizon-NY could demonstrate that the deployment of the equipment needed to do so was technologically impossible or economically unjustified. Exh. WCOM-11 at 2.[4]

Verizon-NY filed a report attempting to satisfy the necessary showing, but the New York Commission rejected Verizon-NY's claim. The Commission found that because "several major manufacturers have begun marketing the equipment and technology and it is now readily available for deployment . . . subscriber loops can be most efficiently provided via integrated digital loop carrier technology using the GR-303 protocol." Exh. WCOM-11 at 11. Concluding that the deployment of GR-303 was "technologically practicable," the New York Commission rejected Verizon-NY's claims that "deployment of the equipment needed to do so is technologically impossible or economically unjustified." Exh. WCOM-11 at 11-12. That Commission further found that the "effects of GR-303 technology, of course, go far beyond the items at issue here, extending to fundamental matters of network design and associated costs." Exh. WCOM-11 at 12.

Similarly, in this proceeding, Verizon-NJ fails to demonstrate that unbundling loops served by GR-303 is not technically feasible. Indeed, the evidence shows that there is no significant technological barrier to unbundling these loops. Therefore, the Board should reject

[4] The New York Recommended Decision recently affirmed this approach. *NY Recommended Decision* at 92.

Verizon-NJ's proposed UDLC cost input and adjust the loop study to assume 100% use of the integrated GR-303 DLC technology. Lundquist Rebuttal at 23; Baranowski Rebuttal at 14.

b. Other Issues

The Ratepayer Advocate takes no position on other issues at this time.

6. Fill factors

Fill factors are fractions that measure the utilization of a given facility or, put another way, the amount of capacity in a facility that is not actively used to provide service. Albert Rebuttal ¶ 4. In a cost study, fill factors are used to distribute the cost of such idle investment to the working service on a facility. Fill factors can play a crucial role in determining the charges facing competitors seeking access to UNEs. The FCC has recognized that fill factors are a legitimate part of the TELRIC methodology. *Local Competition Order* ¶ 682. Like other aspects of the TELRIC methodology, fill factors must be developed with a focus on forward-looking analysis of efficient practices. *Id.*

As discussed in the following sections, in determining costs and charges for loops, Verizon-NJ has routinely ignored this requirement that fill factors be based on forward-looking assumptions and yield forward-looking, efficient results. Accordingly, the Ratepayer Advocate has proposed fill factors that attempt to account for the flaws in Verizon-NJ's approach. In the case of the fill factor for loop distribution, we rely on the analysis provided in testimony sponsored by the Ratepayer Advocate. In the other cases, involving the fill factors for copper feeder, fiber feeder and loop electronics, the Ratepayer Advocate relies on other evidence concerning Verizon-NJ's methodology, as well as determinations by the Pennsylvania Public

Utilities Commission as support for recommended fill factors. *See Pennsylvania Global Order* at 75.

a. Distribution

Verizon inappropriately bases its **[Begin Verizon Proprietary] [End Verizon Proprietary]** fill factor for the distribution portion of the loop on an unacceptable combination of embedded utilization rates and ultimate demand sizing of its plant. Prosini Aff. ¶ 22. Verizon-NJ's methodology for calculating this fill factor, as well as its defense of that methodology, are essentially the same as that previously offered by Verizon-NJ, and endorsed by the Board in the *Generic Order*, and later rejected by the District Court in its review of the *Generic Order*. *Generic Order* at 80; *AT&T v. Bell Atlantic-NJ* at 34. As before, Verizon-NJ's present approach is not forward-looking, as required by FCC regulations. In addition, Verizon-NJ's proposal would retard competition by improperly and unnecessarily shifting costs for spare distribution facilities to present-day competitors. The Ratepayer Advocate has demonstrated that a more appropriate fill factor would be **[Begin Verizon Proprietary] [End Verizon Proprietary]** . This figure is conservative, since increased use of line sharing and pair-gain systems should increase loop fill factors in ways that are not accounted for in that **[Begin Verizon Proprietary] [End Verizon Proprietary]** figure.

Verizon-NJ's fill factor translates into a requirement that a competitor purchasing one loop pay for **[Begin Verizon Proprietary] [End Verizon Proprietary]** loops' worth of distribution plant. Tr. 2188. Verizon-NJ bases this fill factor on its embedded network, taking the current utilization of its distribution plant and decreasing it still more to account for "breakage," which refers to spare capacity as a result of the discrete sizes in which cable is purchased. Prosini Aff. ¶ 22. Verizon-NJ provides no support for the level of this breakage

adjustment, and it may well create a double count with Verizon-NJ's basic loop cost model. Baranowski Rebuttal at 8. In addition, some of the embedded plant that is the basis for this fill factor may be many decades old and thus the product of engineering choices influenced by rate-of-return regulation, which imposed no penalty for over-investment. Ankum Rebuttal at 91. Verizon-NJ nevertheless makes no effort to adjust this number to reflect a forward-looking, efficient approach. Lundquist Rebuttal at 26.

It was this reliance on conditions in the embedded network that convinced the District Court to reject the fill factor that Verizon-NJ proposed and the Board adopted in the *Generic Order*. In that proceeding, as here, Verizon-NJ proposed a fill factor based on its actual level of fill. *Generic Order* at 51. Prosini Aff. ¶ 22; Albert Aff. ¶ 12. In that proceeding, as here, Verizon-NJ argued that the use of that embedded figure was justified because it reflected Verizon-NJ's assertedly "prudent" engineering practices. *Generic Order* at 51; Albert Aff. ¶¶ 12-13. In reviewing the *Generic Order*, the District Court explicitly rejected Verizon-NJ's proposed fill factor and its supporting rationale. The court held:

> Past practice alone, without some more tangible measurement relating it to an efficient, forward-looking system cannot be the basis for setting forward-looking rates as required by the Act.

AT&T v. Bell Atlantic-NJ at 34.

Treating this proceeding like the second round of an auction, Verizon-NJ now offers a higher distribution fill factor, but a figure that Verizon-NJ has still not justified and that is still so low that it will severely restrain competition. All that Verizon-NJ has added to the mix in this proceeding is a description of the engineering practice – ultimate demand engineering – that, it claims, justifies this fill factor. Albert Aff. ¶ 13. The evidence demonstrates, however, that the

"ultimate demand" approach to determining fill factors is wholly unwarranted. As discussed below, the FCC has recognized this, and indicated that "ultimate demand" has no place in a proper TELRIC analysis.

Verizon-NJ's "ultimate demand" approach entails designing the initial installation of distribution cable to accommodate all foreseeable demand for loops in the area that the cable might serve. Albert Aff. ¶ 13; Lundquist Rebuttal at 28. The alternative to the ultimate demand approach is to provide distribution cables successively, in smaller increments. Although it presents no engineering study to validate its choice of ultimate demand engineering, Verizon-NJ claims that it is an efficient practice. Albert Aff. ¶ 13.

Application of this approach to derive fill factors, however, creates a paradox. Using the ultimate demand approach, Verizon-NJ's current competitors pay more than they would if the Company employed the supposedly less efficient approach of adding capacity in increments. Lundquist Rebuttal at 29-31. At best, under the ultimate demand approach competitors are asked to pay more for capacity that will be available more cheaply in the future. But even that cheaper capacity is illusory, since at any given point in the future competitors will face the same prices, inflated by the same fill factor, with the same empty promise of cheaper rates down the line. Lundquist Rebuttal at 30. In reality, applying "ultimate demand" to derive fill factors imposes a harsh tax on today's competitors, with only a false hope of future relief, if the competitors survive that long. *Id.*

The FCC recognized the flaws in the ultimate demand approach and flatly rejected it in its 1999 *Universal Service Order*. Verizon agrees that the economic costing principles of the FCC's universal service model are meant to be "almost identical to TELRIC principles." *Proceeding on*

Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements, New York Public Service Commission Case 98-C-1357, Responsive Panel Testimony of Bell Atlantic-New York on Revised Costs and Rates for Unbundled Network Elements and Related Wholesale Services at 41 (attached hereto as Attachment 2). In the *Universal Service Order* the FCC held that fill factors "should reflect current demand and not reflect the industry practice of building distribution plant to meet ultimate demand." *Universal Service Order* ¶ 199. The FCC concluded that the case for using ultimate demand was "unpersuasive." *Id.* ¶ 200.

The FCC went on to identify some of the forces that make the ultimate demand approach unacceptable. It identified line sharing as one of the "rapid technological advances in telecommunications" that would tend to drive down the ultimate demand predicted by the incumbent. Line sharing does this by allowing the use of one loop for voice and data service, where two had been required before. *Id. See also* Fassett Reply at 12. Similarly, the evidence in this proceeding shows that the increased use of pair gain systems will further reduce "ultimate demand," as will the advent of "Voice-over-ADSL." *Id.* at 13. All these forces diminish the case for using ultimate demand for determining fill factors. They establish, as the FCC found, that "forecasting ultimate demand is a speculative exercise." 1999 *Universal Service Order* ¶ 200.

The Ratepayer Advocate therefore recommends that the Board reject Verizon-NJ's proposed fill factor for distribution cable, and adopt instead a fill factor of **[Begin Verizon Proprietary] [End Verizon Proprietary]**. This figure is based on the same methods Verizon-NJ uses to develop fill factors for feeder facilities and electronics, which are provided in increments rather than on the basis of ultimate demand. It finds support in the ALJ's recent

decision in New York, where he recommended a distribution fill factor of 50%, an amount roughly equal to the figure proposed here. *NY Recommended Decision* at 98. The proposed figure is conservative, since it does not take into account the technological forces that are changing loop demand as described in the preceding paragraph.

b. Copper feeder

Verizon-NJ proposes a fill factor of 69% for copper feeder cable. This percentage is based on a fraction, the numerator of which is Verizon-NJ's current working lines. Prosini Aff. ¶ 22. Since Verizon-NJ bases this factor on current working lines, it is improperly grounded in a measurement of Verizon-NJ's embedded network, rather than a forward-looking model of efficiently deployed copper feeder plant. Verizon-NJ's reliance on a measurement of current utilization is particularly inconsistent with TELRIC principles in this instance because of Verizon-NJ's future plans for copper feeder. Verizon-NJ's loop cost model in this proceeding contemplates the introduction of GR-303 technology in its loop plant, Prosini Aff. ¶ 17, an assumption that can only diminish the use of copper feeder as compared with the embedded network. Indeed, Verizon-NJ's 1998 Outside Plant Engineering guidelines provide that **[Begin Verizon Proprietary]**

[End Verizon Proprietary] Exh. AT&T-13 at 11. As a result of these engineering choices, on a forward-looking basis **[Begin Verizon Proprietary]**

[End Verizon Proprietary] The Ratepayer Advocate agrees with Mr. Ankum and Mr. Fasset that as a result some copper facilities will approach or even reach "objective fill," their highest permissible utilization, but no capacity will be added, which will promote higher overall utilization of copper

feeder. Fassett Reply at 4; Ankum Rebuttal at 94-95. Verizon-NJ's calculation of this fill factor, however, includes no adjustment to take this tendency into account. The Ratepayer Advocate support's Mr. Ankum's recommendation to correct for this flaw, and urges the Board to set this fill factor at 85%. Ankum Rebuttal at 95.

c. Fiber feeder

Verizon-NJ proposes a fill factor of 68% for fiber feeder, based on the same type of calculation that it used for copper feeder. This proposal is flawed because it is again based on embedded facilities, and the Ratepayer Advocate again recommends a fill factor of 85%, based on the factor adopted in Pennsylvania. *Pennsylvania Global Order* at 75; *Pennsylvania Interim Order* at 15.

d. Loop electronics

Loop electronics are the equipment used to **[Begin Verizon Proprietary]**

[End Verizon Proprietary]. Prosini Rebuttal, Attachment MSP-2 at 6. Verizon-NJ has developed two fill factors for loop electronics; one for channel banks (equipment associated with many loops being served by the fiber optic system), and one for plug-ins (each of which handles a few, typically four to six, loops). Verizon-NJ develops both factors in the same way, **[Begin Verizon Proprietary]**

[End Verizon Proprietary] Exh. 12 FinalNJTELRIC/FinalNJT/Loop_ASO/2wire/3.7UT/NJFillA.xls, Tab 4.4, Loop Electronics. With this method, Verizon-NJ arrives at fill factors of **[Begin Verizon Proprietary]**

[End Verizon Proprietary] *Id.*, Tab 4.4, Loop Electronics, Tab 2.1, Utilization Factors.

Yet again, Verizon-NJ bases these fill factors on its embedded network, so that they fail to reflect efficient, forward-looking practices or technology. For example, Verizon-NJ's methodology has the effect of treating plug-ins as if they were difficult and costly to put in service, like other equipment. As several witnesses correctly recognized, however, these plug-ins can be put in service in minutes, not weeks, with a corresponding decrease in the cost for adding the equipment, so that ILECs can manage them like inventory, and drive their average utilization far closer to the maximum permissible value. Fassett Direct at 47; Baranowski Direct at 8-9.

For similar reasons, Verizon-NJ's fill factor for channel banks is understated. Indeed, Verizon-NJ's own engineering guidelines call for **[Begin Verizon Proprietary]**

[End Verizon Proprietary] levels that are simply not captured by the figures Verizon-NJ uses in its calculations. Exh. AT&T-13 ¶ 5.3.2.

Other parties have urged the Board to set Verizon-NJ's fill factors for loop electronics at 90% or above. Ankum Rebuttal at 99 (90% for channel banks, 95% for plug-ins); Fassett Direct at 47 (90% for plug-ins). The Ratepayer Advocate recommends that both of those fill factors be set at 85%. This figure falls between the extremes proposed by the parties. Of equal significance, Verizon used this factor in the cost study it submitted to the Pennsylvania Public Utilities Commission, and the Pennsylvania Commission adopted it. Pennsylvania Public Utilities Commission, *Application of MFS Intelenet of Pennsylvania, Inc. et al.*, Docket Nos. A-310203F00002; A-31021F00002; A-3102136F002, 1997 Pa. PUC Lexis 50, 87-88 (April 10, 1997) (adopted and modified in other respects by Commission Order of August 7, 1997). The

loop electronics fill factor we recommend, therefore, finds support in the record, in Verizon's position in the Pennsylvania proceeding, and in the decision of the Pennsylvania PUC.

7. Support Structure

Support structures refer to the facilities that physically support or protect the loop, such as poles and conduits. Verizon-NJ is able to recover from competitors the costs it incurs for its share of support structures through the cost of the pole. Initially, Verizon-NJ recovers the costs of poles via relationships with other utilities, such as cable and electric providers. This proceeding considers several of the factors that go into the development of reasonable costs for Verizon-NJ's support structures.

a. Percentage of Aerial vs. Buried vs. Underground Structure

The Ratepayer Advocate takes no position on this issue at this time.

b. Structure Sharing

Structural sharing percentages refer to the percentage of pole investment allotted to Verizon-NJ considering that the Company does not pay the full cost of poles. Rather, other utilities that use the poles —namely energy and cable providers—share in the overall cost of the structure. The Ratepayer Advocate recommends that the Board adopt a 50% pole line structure sharing figure because it reflects a reasonable recognition of joint-ownership of structures by utility companies. *See NY UNE Case* at 66.

This percentage is supported by the New York Public Service Commission and the record in this proceeding. *Id.* In New York, the issue of structure sharing was developed in detail, and that Commission "recognized joint ownership of utility poles with other utility companies by taking account of only that portion of the structural investment owned by New York Telephone;

that factor is approximately 50% overall." *Id.* Indeed while AT&T advocates a 75%/25% sharing structure, it observes that "the pole line structure sharing available in New Jersey reflect essentially the same sharing opportunities that exist in New York." Fassett Reply at 39. Furthermore, Verizon-NJ agrees that a 50% rate is a reasonable structure sharing allocation. T.947:2-6: T.948:14-17 (12/01/00). This 50% figure for support structure sharing is thus reasonable and finds support in the record of this proceeding. T.947:2-6 (12/01/00); T.948:14-17 (12/01/00).

c. Pole Placement Assumptions

The Board should adopt the pole spacing parameters developed in the FCC's *Universal Service Order*. In the *Universal Service Order*, the FCC used forward-looking inputs to determine the proper ILEC contribution to Universal Service mechanisms. *Universal Service Order* ¶ 2. These inputs provide clear guidance to the Board in developing the proper pole placement assumptions.

The FCC's evaluation in the *Universal Service Order* includes inputs pertaining to the assumptions for structures in evaluating its Universal Service contributions. To create these assumptions, the FCC elicited comments from interested parties over the course of several years. *Universal Service Order* ¶¶ 3-7. In the end, the FCC determined "to use the following values for the distance between poles: 250 feet for density zones 1 and 2; 200 feet for zones 3 and 4; 175 feet for zones 5 and 6; and 150 feet for zones 7, 8, and 9." *Universal Service Order* ¶ 214; *See* Fassett Direct at 51. Verizon-NJ argues that the "use of this assumption for a heavily urbanized area such as New Jersey is improper." Gansert Rebuttal at 23. However, this argument fails because the FCC's study was geared toward the universal service contributions of *non-rural*

ILECs. *Universal Service Order* ¶ 4. Therefore, the Board should adopt these unbiased and well-developed assumptions for Verizon-NJ's cost study in the current proceeding.

In stark contrast to the FCC's pole placement assumptions, Verizon-NJ's proposed 100 foot pole spacing input is improperly based on embedded costs. *See* Gansert Rebuttal at 24. Verizon-NJ supports its proposal with the assertion that there are "1.5M poles that are *currently utilized* by Verizon NJ." *Id.* (emphasis added). The Board should not depend upon the number of poles currently in existence in New Jersey because that number is both embedded and not reflective of the most efficient network. The Ratepayer Advocate supports AT&T's view that in a forward-looking "TELRIC environment, poles will be efficiently installed sequentially along the feeder and distribution routes." Baranowski Rebuttal at 11. Therefore, the Board should adopt the FCC's pole spacing assumptions because they reflect the most efficient forward-looking network.

d. Other Issues Re: Poles, Conduit and Drop

The Board should adopt a $733.67 unit cost for poles, based on the application of the NYNEX-Massachusetts UNE Cost study brought forward to the year 2000 and applying Verizon-NJ's Telephone Plant Index (TPI) inflation factors. Lundquist Rebuttal at 34. The Ratepayer Advocate's office used TPIs specific to pole costs to reflect the trends in the price of poles over the last four years. T.3170:2-10 (01/26/01). Moreover, use of Massachusetts data is appropriate because poles are commodities. Thus, the input for poles do not vary from state to state. T.3191:19-25 (01/26/01).

Verizon-NJ's pole unit costs are, by contrast, excessive and rely on embedded costs. Verizon-NJ proposes a unit pole cost of **[Begin Verizon Proprietary]** **[End Verizon**

Proprietary]. Exh. VNJ-26, Exhibit D, Bell Atlantic - New Jersey, Inc., Docket No. TT00060356 - Item 8A, Dark Fiber Cost Studies 2000-2004 at § 5.2 ("Dark Fiber Cost Study"). Verizon-NJ bases its rates for pole costs on its purchases of new poles from the period of 1994-1998. Lundquist Rebuttal at 33; Verizon-NJ's Exhibit D Dark Fiber cost study, New Jersey Pole Study, Section 5.2 at 1. In New York, "based on Verizon's uncritical reliance on unadjusted costs" the ALJ recently recommended a 10% downward adjustment on Verizon's figures. *NY Recommended Decision* at 118. As the New York ALJ clearly recognized, pole costs should not be based on embedded costs. Verizon-NJ's approach is unreasonable for a TELRIC analysis because it directly incorporates Verizon-NJ's embedded costs and therefore does not reflect a forward-looking efficient network.

Therefore, the Ratepayer Advocate urges the Board to reject Verizon-NJ's pole cost and instead adopt its proposed pole cost of $733.67, which is **[Begin Verizon Proprietary]**

[End Verizon Proprietary] and HAI's unit pole costs of $415, and is a reasonable assumption for this Board to adopt in New Jersey. Lundquist Rebuttal at 33-34.

E. Switching Costs

1. Comparison of Modeling Approaches

Both Verizon-NJ and AT&T have offered models for determining switching costs in New Jersey. Prosini Aff. at 9; Mercer Direct at 10-11. In calculating its proposed switching costs, Verizon-NJ uses a Telcordia model called the Switching Cost Information System Model Office (SCIS/MO) Version 2.7.1.A. Prosini Aff. at 9. The resulting costs are based on 100% digital

switching, and what Verizon-NJ claims is a forward-looking mix of technologies. *Id.* The SCIS/MO model calculates switching costs based on proposed inputs and "the discounts VNJ receives on the vendor's switch prices." Lundquist Rebuttal at 36. Verizon-NJ bases this vendor discount on the assumption that Verizon-NJ will only upgrade, rather than replace, existing switches in the future. Prosini Aff. at 10; Albert Aff. at 8.

AT&T relies on its HAI model to determine Verizon-NJ's switching costs. Mercer Direct at 10-11. AT&T describes its model as a "bottom-up" engineering and economic model used to construct proper rates based on "the costs that an efficient firm would incur to provide unbundled network elements." *Id.* The HAI model supports using the new or replacement discount assumption. Baranowski Direct at 16-17.

2. Discount Weighting – New vs. Add-On Investment

Verizon-NJ overstates its switching costs by using incorrect vendor discounts based on assumptions that are counter to the FCC's TELRIC pricing methodology. Lundquist Rebuttal at 40. The price of switching is largely dependent upon the switch vendor discount that is applied. There are two types of discounts that vendors make available: new/replacement discounts, and growth discounts. Lundquist Rebuttal at 39. Verizon-NJ uniformly applies the smaller growth discount despite the fact that vendors will offer much greater discounts for the purchase of new switches. Lundquist Rebuttal at 40. Thus, by relying on growth discounts, Verizon-NJ artificially inflates its switching costs.

The discount applied to Verizon's switch costs should reflect the forward-looking discount that Verizon-NJ will receive under TELRIC assumptions. As explained by the Ratepayer Advocate, "a key costing principle underlying the TELRIC approach is that costs must

be developed on the basis of the least-cost, most efficient technology available today." Lundquist Rebuttal at 40. In the *Local Competition Order,* the FCC concludes:

> that the forward-looking pricing methodology for interconnection and unbundled network elements should be based on costs that assume that wire centers will be placed at the incumbent LEC's current wire center locations, but that the reconstructed local network will employ the most efficient technology for reasonably foreseeable capacity requirements.

Local Competition Order ¶ 687.

The new/replacement discount properly reflects the efficiencies that Verizon-NJ should recognize in its switching purchases. Lundquist Rebuttal at 4, 39. Through the use of the new/replacement discount, the cost of switching is appropriately set at a level consistent with a forward-looking market. Lundquist Rebuttal at 40. As explained below, use of the new/replacement discount is also consistent with the FCC's *Universal Service Order*. Moreover, this discount is further supported by the FCC's TELRIC mandate, as affirmed by both a federal court's finding and the record in this proceeding. *Bell Atlantic-Delaware* at 235-239.

The FCC supports the use of new switch prices in its *Universal Service Order*, while rejecting the ILECs' arguments for costing switches based on upgrades. *Universal Service Order* ¶ 317. The FCC concludes that:

> The model platform we adopted is intended to use the most cost-effective, forward-looking technology available at a particular period in time. The installation costs of switches estimated above reflect the most cost-effective forward-looking technology for meeting industry performance requirements. Switches, augmented by upgrades, may provide carriers the ability to provide supported services, but do so at greater costs. Therefore, such augmented switches do not constitute cost-effective forward-looking technology.

Universal Service Order ¶ 317.

Despite overwhelming support for the new/replacement discount, Verizon-NJ continues to use the "growth" discount. Lundquist Rebuttal at 39. Verizon-NJ acknowledges that "the 'growth' discount that the LEC can be expected to receive will be less than the 'replacement' discount realized for a new switch." Albert Aff. at 7-8. However, Verizon-NJ incorrectly continues to apply the "growth" discount, based on its assumption that it will seek only to add to its existing number of switches. Prosini Aff. at 10; Albert Aff. at 7. Specifically, Verizon-NJ argues that because it:

> has completed its deployment of modern switches and expects to be deploying only growth lines and upgrading existing switches for the foreseeable future. . .The real-world purchasing discounts BA-NJ can be expected to achieve under these circumstances should be applied.

Taylor Aff. at 8.

This assumption is in direct contradiction to TELRIC pricing methodology, under which Verizon-NJ may not constrain "its cost development to conform to its embedded network." Lundquist Rebuttal at 40. In "a valid, forward-looking analysis consistent with the economic principles of TELRIC, switching investments must be calculated 'from the ground up' without reference to VNJ's existing switching structure." Lundquist Rebuttal at 40. At TELRIC based rates, the cost standard that should be applied includes savings that may be achieved in the long-run. Lundquist Rebuttal at 7-11. In the long-run, all switches *must* be replaced. Baranowski Direct at 16. When such an occurrence takes place, Verizon-NJ "will be in precisely the position faced by a new entrant: buying new switching equipment and therefore eligible for new equipment discounts." *Id.* The Ratepayer Advocate supports AT&T's argument that "no

efficient supplier of unbundled switching in a competitive market would pay so much for switches," and switching would not be "purchased at shallow add-on discounts." Baranowski Direct at 16. While Verizon-NJ agrees that "you want to use the price that the Company is ultimately going to have to pay," the Ratepayer Advocate believes this argument "fails to point out that the costing principle that the FCC actually adopted does not allow for consideration of any of those constraints imposed by the ILEC's embedded network facilities, other than the geographic location of its switches." T.150:18-20 (09/29/00); Lundquist Rebuttal at 9.

In a recent decision on appeal to the United States District Court in Delaware, the court agreed in principle with using the replacement discount. *Bell Atlantic-Delaware* at 235-239. The court affirmed the Hearing Examiner's determination that "an efficient telecommunications provider would replace its obsolete switches (and receive bulk discounts) rather than adding, in piece-meal fashion, line cards for which it would receive much smaller discounts." *Bell Atlantic-Delaware* at 238. The Court further agreed with the determination that "the current state of Bell's network is irrelevant for purposes of a long-run cost analysis" wherein "a firm's present equipment will become obsolete and need replacement." *Id.* Finally, the Court referenced Verizon witness William E. Taylor's admission that the *Local Competition Order* "says rip every switch out. All of them . . . every switch in the network, rip them out. Leave the . . . wire center location where they [sic] are. And build the network that you would build today to serve the demand." *Id.* Thus, Verizon-NJ's continual pronouncements that it has recently updated its network to "100% digital" switching are irrelevant to a TELRIC analysis. *See* Prosini Aff. at 9; Albert Aff. at 8.

Verizon-NJ's approach is further flawed by its admission that it continues to use switches that were bought with new equipment discounts and will do so for the next few years. T.167: 16-221 (09/29/00). Indeed, if Verizon-NJ's purchase of an all digital network proves anything, it is that Verizon-NJ itself received the new/replacement discount that it describes as 'uneconomical' and 'foolish'. Taylor Direct at 8. The record evidence reveals that Verizon-NJ "bought its existing base-load switches at the deep discounts offered for new equipment purchases." Baranowski Direct at 16. Verizon-NJ's switching costs should incorporate the same discount that the incumbent enjoyed when purchasing these new switches.

Verizon's application of the growth discount also assumes that Verizon-NJ will never receive the benefits of the new/replacement discount in the future. Verizon-NJ revealed that "the commercial development of new switching technologies and equipment" will "potentially result in the economic replacement of BA-NJ's current local digital switching[.]" Albert Aff. at 9. Thus, while these remaining analog switches will need to be entirely replaced, under Verizon's methodology the growth discount will continue to be applied.

If Verizon-NJ was a competitive market participant, it is intuitive that it would assume the vendor discount that would produce the lowest priced switching. However, Verizon-NJ is a monopoly provider and "there are indications that companies under rate of return regulation have incentives to actually augment their rate base because that increases their overall rate of return." T.3229:25-3230:4 (01/26/01). The effect of using Verizon-NJ's "growth" discount is "that [it] would increase costs compared to using the numbers that were specified by the FCC which is the cost of purchasing new switches with all the discounts that come with those switches."

T.2773:13-16(01/19/01). Verizon-NJ should not be permitted to use the least efficient discount in order to inflate the price of switching for its competitors.

To illustrate the anticipated effect of using Verizon's inflated growth discounts on the price of switching, the Ratepayer Advocate estimated results from the SCIS/MO model. Lundquist Rebuttal at 43. Using the new/replacement discount levels originally presented by Verizon-NJ in this proceeding revealed dramatic cost savings in the cost of switching. *Id.* In fact, the total cost for local switching with features reduced by **[Begin Third Party Proprietary]**

[End Third Party Proprietary] for terminating minutes. Lundquist Rebuttal at 43. Furthermore, these costs savings calculated on the basis of the new/replacement switch discounts currently available to Verizon-NJ are conservative, because the discounts are not as large as the discounts "VNJ will be able to command in the future." Lundquist Rebuttal at 42.

Recently, Verizon-NJ amended its rebuttal testimony to reflect recent vendor switching contracts based only on a growth discount. Prosini Rebuttal (revised December 21, 2000) at 17-19. One consequence of that change is that Verizon-NJ now admits that the new/replacement discount applicable to Lucent switching equipment is higher than Verizon-NJ indicated previously. Compare Exh. RPA-35, Verizon-NJ Response to ATT-VNJ-74 (Supplemental 12/21/00), to Verizon-NJ Response to ATT-VNJ-74 (original). However, Verizon-NJ's new switching rates only reflect the incorrect assumption that "Verizon NJ will not incur future switching costs at the replacement discount level for line equipment." Prosini Rebuttal (revised December 21, 2000) at 18.

Based on the conclusion that only the growth discount level should apply, Verizon-NJ refuses to respond to interrogatories posed by the Ratepayer Advocate that will present the Board with switching rates that reflect the new/replacement discount level. RPA Exh. 36, Verizon-NJ's Responses to DRA-1 through DRA-4. As an initial matter, when the parties realized that Verizon-NJ did not use the most current vendor contracts in producing its switching rates, the Board in response to a motion to compel required Verizon-NJ to produce these documents. *In the Matter of the Review of Unbundled Network Elements, Rates, Terms and Conditions of Verizon New Jersey, Inc.*, Docket No. TO00060356, Order on AT&T Motion for Order Directing Verizon New Jersey Inc. To Submit Witnesses for Deposition (April 12, 2001). Based on these more current vendor contracts, the Ratepayer Advocate posed an interrogatory request to Verizon-NJ to determine revised new/replacement and growth discount levels based on the various specific discounts embodied in these contracts. RPA Exh. 36, Verizon-NJ's Responses to DRA-1 through DRA-4. Verizon-NJ evaded any response to this interrogatory with a discussion of the inapplicability of the various specific discounts identified by the Ratepayer Advocate. RPA Exh. 36, Verizon-NJ's Responses to DRA-1 through DRA-4. Based on the deficiency of Verizon-NJ's responses, the Ratepayer Advocate asked Verizon-NJ on May 16, 2001 to supplement its discovery responses to provide the responses to the interrogatory questions actually posed. Letter of Lawanda R. Gilbert, Assistant Deputy Ratepayer Advocate, to Hesser G. McBride, Wilentz, Goldman & Spitzer o/b/o Verizon-NJ (May 16, 2001) ("May 16 RPA Letter"). Despite the Ratepayer Advocate's observation that the "failure to provide that information will make it difficult for the Board to assess Verizon-NJ's proposed switching costs

on the basis of the most up-to-date information," Verizon-NJ has not produced the information that the Ratepayer Advocate requested. May 16 RPA Letter at 2.

Verizon-NJ also remains steadfast on its refusal to rerun its own SCIS/MO model. The Ratepayer Advocate spoke with Verizon-NJ on May 3, 2001 in an effort to obtain responses from Verizon-NJ on the supplemental interrogatories submitted by the Ratepayer Advocate to determine the effect of the new contracts and discounts on the price of switching as computed by SCIS/MO. Verizon-NJ refused to rerun the SCIS/MO model. *See* Letter of Blossom A. Peretz, Esq. Division of the Ratepayer Advocate, to Honorable Frederick Butler, New Jersey Board of Public Utilities (May 9, 2001) ("May 9 RPA Letter"). The Ratepayer Advocate sent a letter to the Board on May 9, 2001, asking that the Board require Verizon-NJ to rerun the SCIS/MO model in order to "require Verizon-NJ to answer the interrogatories requesting the results of its cost studies reflecting the new discounts." May 9 RPA Letter at 3. As a supplement to the May 9 letter, Ratepayer Advocate witness Scott C. Lundquist prepared a declaration to explain that it would be excessively expensive and prohibitively time consuming for the Ratepayer Advocate to determine the effect of the new discounts using the SCIS/MO model. Lundquist Declaration at ¶ 6. Verizon-NJ's refusal to rerun the SCIS/MO model is particularly curious in light of the fact that, "Verizon-New Jersey's own cost analysts have already run its switching cost models on several occasions to produce the original and revised switching and port UNE cost results presented in this proceeding, and are in the best position to re-run those models expeditiously with the update switching discounts." Lundquist Declaration at ¶ 7.

AT&T has similarly pursued the effects of Verizon-NJ's most recent vendor contracts upon the price of switching. Baranowski Supplemental Rebuttal Testimony at 1. Based on

"important cost information that was previously withheld by Verizon New Jersey" AT&T determined that it had to make "adjustments" to its switching costs. *Id.* AT&T "conservatively assumed that only a portion of the new entrant's switch purchases would be to accommodate future anticipated growth in demand." Baranowski Supplemental Rebuttal Testimony at 4. Even presupposing a level of growth discounts in its analysis — which the Ratepayer Advocate feels is not in accordance with the most efficient network found in a TELRIC environment — AT&T estimated that the most recent vendor discounts used by Verizon-NJ produces a substantial reduction in switching costs. Baranowski Supplemental Rebuttal Testimony at 6 (revised).

In summary, Verizon-NJ has refused to calculate switching costs on the basis of the most current information available, and indeed has refused even to identify the effect of its most recent vendor contracts on the overall level of discounts it now enjoys. This refusal to take into account the best available information that may be used in its cost model amounts to a failure of proof on Verizon-NJ's part. The switching costs estimated by Mr. Lundquist, therefore, should be treated as a *ceiling* on the switching costs Verizon-NJ is allowed to recover.

Finally, the mix of switch types assumed in Verizon-NJ's cost study "represents the embedded mix of switches currently in place for VNJ." Lundquist Rebuttal at 36 n. 48. This embedded mix of switching machine types is illustrated in the following chart:

[Begin Verizon Proprietary]

Vendor	Verizon's Mix of Switching Technologies

[End Verizon Proprietary] Lundquist Rebuttal at 36; Prosini Aff. at 9; Exh. RPA-35.

Verizon-NJ has not demonstrated that its embedded mix of switching types represents the least cost, forward-looking mix, as the TELRIC methodology requires. Lundquist Rebuttal at 37 n. 48. In fact, contrary to that unsupported assumption, the per-line switch investments for Seimens are **[Begin Verizon Proprietary] [End Verizon Proprietary]** than those for the Nortel switches and **[Begin Verizon Proprietary] [End Verizon Proprietary]** than for the Lucent switches. *Id*. While it is reasonable for Verizon-NJ to model its switching costs assuming multiple switching vendors (to ensure continued competitive pricing from its switching equipment suppliers), the inclusion of the **[Begin Verizon Proprietary]**

[End Verizon Proprietary] appears incompatible with the TELRIC methodology. **[Begin Verizon Proprietary]**

[End Verizon Proprietary].

3. Busy Hour Utilization

The Ratepayer Advocate takes no position on this issue at this time.

4. Vertical features

The Ratepayer Advocate takes no position on this issue at this time.

5. Other Switching Cost Issues

The Board should additionally recognize merger synergies in its determination of Verizon-NJ's switch costs. Due to the merger of Bell Atlantic with GTE, the resulting firm, Verizon, "is expected to realize significant cost savings relative to the purchase of switches, among other things." Lundquist Rebuttal at 41. Verizon has increased its total switched access line count from 24% nationwide to 37% nationwide. *Id.* This overall increase in switched access lines substantially increased Verizon's purchase power with vendors.

In the past, telecommunications mergers have experienced greater cost savings than projected. Lundquist Rebuttal at 42. In fact, "the procurement cost savings that have actually been achieved by the large incumbent LECs that have merged have been greater than the amounts they had originally forecast." *Id.* SBC's merger with Telesis reported savings "more than twice the original projections." *Id.* After the Bell Atlantic-NYNEX merger, the Vice President of Bell Atlantic announced that the "very substantial cost savings estimated at the time of the Bell Atlantic-NYNEX merger were subsequently increased and the increased targets are now being achieved." *Id.*

Verizon-NJ cannot expect the Board to think that its participation in two mergers did not result in significant savings to the company. Indeed, the Bell Atlantic/GTE Proxy Statement declares that it expects from the merger "annual capital synergies of $550 million though volume purchasing." Bell Atlantic/GTE Merger Proxy, I-24. The record notes confidence that Verizon "will be able to produce substantial savings from the merger with GTE just as it has achieved

with NYNEX." Cosgrove Direct at 8. These mega cost savings should be passed through to New Jersey consumers in the form of lower UNE rates. Rothschild Direct Exh. 1 at 29. One significant and important benefit to the Verizon merger should be reduced switching rates that will help spur competition.

F. Transport/IOF Costs

Unbundled interoffice transport is a transmission facility used by CLECs to carry traffic between Verizon-NJ central offices, tandem offices and/or remote terminals (collectively "Offices") or between Verizon-NJ Offices and CLEC Offices. 47 C.F.R. § 319(d); Exh. VNJ-26, Exhibit H3, Bell Atlantic - New Jersey, Inc. Docket No. TT00060356 - Item 8A Unbundled Transport 2000-2004 at § 1.1 ("Verizon-NJ Transport Study I"); Exh. VNJ-26, Exhibit H5, Bell Atlantic - New Jersey, Inc. Docket No. TT00060356 - Item H5 Unbundled Direct Trunked VG PL & DDS, DS3, STS-1, OC3 & OC12 IOF & Multiplexing Cost Studies 200-2004 at § 1.1 ("Verizon-NJ Transport Study II"); Ankum Rebuttal at 111. Interoffice transport is also used by CLECs to carry traffic between their collocation arrangements and points of presence. In short, transport is the facility that binds together the network over which facilities-based CLECs carry their traffic. Accordingly, the ability of CLECs to obtain transport UNEs from Verizon-NJ is critically important to their ability to provide service in New Jersey.

Unbundled interoffice transport exists in at least three varieties: dedicated transport, shared (or common) transport and dark fiber transport. 47 C.F.R. § 51.319(d)(1); Ankum Rebuttal at 111. Dedicated transport, as the term indicates, is ILEC interoffice transport that is "dedicated to a particular customer or carrier." 47 C.F.R. § 51.319(d)(1)(A). Shared transport is an ILEC interoffice transmission facility "shared by more than one carrier." 47 C.F.R.

51.319(d)(1)(C). Both CLECs and Verizon-NJ may utilize the same shared transport. Dark fiber transport is an ILEC optical interoffice transmission facility that does not include electronics. 47 C.F.R. § 51.319(d)(1)(B). (This Section of the Brief addresses dedicated and shared transport. Section V.C, *infra*, p. 143, addresses dark fiber transport.)

Verizon-NJ's proposed rates for interoffice transport are based upon erroneous, non-TELRIC assumptions. *See* Ankum Rebuttal at 111-119. In particular, the Ratepayer Advocate agrees with WorldCom witness Dr. Ankum that Verizon-NJ, as it does so often in its cost studies, uses as its starting point the embedded network, rather than a forward-looking network required by TELRIC principles. *Id.* at 114. The Ratepayer Advocate agrees with Dr. Ankum's critique of Verizon-NJ's model that, instead of assuming a network that is based on Verizon-NJ's existing network, including the lower capacity transmission facilities initially deployed in the embedded network, Verizon-NJ's cost study should have assumed use of a forward-looking network with high capacity facilities. *See id.* at 113-114. Specifically, Dr. Ankum testified that:

> [i]n a TELRIC setting, one should assume that the facilities with the greatest capacity, such as a OC-48 rings [sic], carry the base-load and that facilities of smaller capacity are used to accommodate growth. In this manner the facilities with the largest capacity can be fully utilized. However, an embedded network, that has grown historically, may have been constructed in a manner where a large number of smaller capacity rings accommodate much of the traffic and larger rings were added only at a later point in time to accommodate growth. As a result, the larger rings may not be fully utilized. But, while this may be true for an embedded network, it should not be allowed in a least-cost, forward-looking network.

Id. at 114. Instead, the Verizon-NJ cost model assumed too much embedded, lower capacity interoffice transport, for carrying current traffic loads. A forward-looking model would assume

use of high capacity, *e.g.* OC-48, transport to service existing capacity, with smaller capacity transport planned to address incremental growth.

As Mr. Ankum showed, this error led Verizon-NJ to assume an unnecessarily low **[Begin Verizon Proprietary] [End Verizon Proprietary]** utilization percentage for interoffice transport. *See id.* at 112. While this percentage may be appropriate when assessing only the incremental trunks used to accommodate growth, the Ratepayer Advocate agrees with Dr. Ankum that it is too low for all the capacity -- *i.e.*, capacity for existing demand and for incremental growth -- in a reconstructed network. *Id.* at 112-113. Instead, the Board should order the 90% utilization factor proposed by Dr. Ankum. *Id.* at 117-118.

In addition, Verizon-NJ's method of calculating its interoffice transport costs leads to double counting. Specifically, because fiber loop feeder and fiber transport will utilize some of the same equipment in the central office, the costs of this equipment must only be counted once. *See id.* at 115. The Board should ensure that the costs for the fiber distributing frames in Verizon-NJ's central offices are recovered either through the recurring loop costs or through the recurring interoffice transport costs, but not through both.

IV. NON RECURRING COST MODELS[5]

A. Summary of Models, Assumptions and Approach

1. Relationship of Nonrecurring Cost Model to Recurring Cost Model

Our goal here, as above, is to maintain a consistency between the recurring cost TELRIC study and the NRC TELRIC study.

Consolidated Petitions of New England Telephone and Telegraph Company d/b/a Bell Atlantic-Massachusetts, Teleport Communications Group, Inc., Brooks Fiber Communications of Massachusetts, Inc., AT&T Communications of New England, Inc., MCI Telecommunications Company, and Sprint Communications, L.P., pursuant to Section 252(b) of the Telecommunications Act of 1996, for arbitration of interconnection agreements between Bell Atlantic-Massachusetts and the aforementioned companies., D.P.U./D.T.E. 96-73/74, 96-75, 96-80-81, 96-83, 96-94-Phase 4-L at 21 (Oct. 15, 1999) (*"MA Phase 4-L Order").*

The parties to this proceeding agree that nonrecurring charges ("NRCs") recover the one-time costs associated with the specific tasks necessary for Verizon-NJ to process and provision service to CLECs. Walsh Rebuttal at 7; Meacham Aff. ¶ 8. NRCs should only include costs that apply to the specific UNE ordered and that benefit the specific customer acquiring that UNE. AT&T is correct that if a one-time activity benefits future customers as well as the current customer, then the costs associated with that activity should be included in the recurring, not the nonrecurring, charge. Walsh Direct at 7. For example, because the cost of constructing a loop will benefit each user of that loop, these costs should be recovered through a recurring, as opposed to a nonrecurring charge. *Id.* at 7.

Excessive NRCs pose a barrier to entry for CLECs. *See Local Competition Order* ¶¶ 746-747. Therefore, the FCC's rules prohibit recurring costs from being recovered through

[5] The presentation and critique of the AT&T NRCM are contained in Section III.C, *supra*, p. 33. Because, for reasons stated therein, the Ratepayer Advocate is generally not supporting the use of the AT&T NRCM, this Section IV focuses solely on the VZ NRCM.

NRCs. 47 C.F.R. § 51.507(d) ("Recurring costs shall be recovered through recurring charges..."). Rather, only nonrecurring costs may be recovered through NRCs. 47 C.F.R. § 51.507(e); *Local Competition Order* ¶¶ 746-747.[6]

When setting nonrecurring rates, the Board must be vigilant to prevent over-recovery. *Local Competition Order* ¶ 750 (requiring "that state commissions take steps to ensure that incumbent LECs do not recover nonrecurring costs twice ..."). To prevent that double recovery, the same forward-looking network should be used to generate both nonrecurring and recurring rates. 47 C.F.R. § 51.507(e); Murray-Riolo Rebuttal at 108-112. Indeed, assuming a consistent network design is the only way to guarantee compliance with the FCC rule requiring that nonrecurring rates do "not permit an incumbent LEC to recover more than the total forward-looking economic cost of providing the applicable element." 47 C.F.R. § 51.507(e); Murray-Riolo Rebuttal at 108-109. As Ms. Murray and Mr. Riolo properly demonstrated, because differing network assumptions preclude an "apples-to-apples" comparison of recurring and nonrecurring rates, if different network designs are assumed for developing these rates, it may not be possible to know if there has been over-recovery. Murray-Riolo Rebuttal at 108-109; *see also* T.1999:17-2000:3 (12/21/00).

Consequently, any nonrecurring rates established by the Board should be based on the same forward-looking network assumptions that are used to determine the recurring rates. (*See* Section III.C, *supra*, p. 33, and Section V.B.1, *infra*, p. 139, for a description of the forward-

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[6] Conversely, however, because recurring charges do not pose the same entry-barrier threat to competition, nonrecurring costs may be recovered through either recurring or nonrecurring charges. 47 C.F.R. § 51.507(e).

looking network assumptions.) Verizon-NJ evidently recognized this fundamental requirement, since it claimed that, for its studies, "[t]he network assumed in the determination of nonrecurring costs and recurring costs was the same." Exh. AT&T 15, Verizon Response to ATT-VNJ-122. Unfortunately, as discussed in this Section, Verizon-NJ observed this important requirement only in the breach.

2. Description of Model, Assumptions and Approach

> *An economically correct long-run study should also reflect how the firm actually expects to deploy its networks. . . . [E]ven long-run cost curves are based on technology and market opportunity sets that begin with the* ***current*** *state of affairs.*

Taylor Aff. at 5 (emphasis in original).

Verizon-NJ submitted a different NRC model ("VZ NRCM") from the one it submitted in the earlier phase of this case. Meacham Aff. ¶ 6. Verizon-NJ claims that the VZ NRCM is more sophisticated and flexible than its prior NRC model and that, this time, the VZ NRCM generates nonrecurring rates that are TELRIC compliant. *Id.*

The VZ NRCM generates nonrecurring rates based on tasks and task time estimates that Verizon developed for four separate categories of work functions: "(1) service ordering, (2) central office wiring, (3) provisioning, and (4) field installation." *Id.* ¶ 8; *see also id.*, Exh. A, Nonrecurring Costs Model for Unbundled Network Elements, Description of NRCM Methodology at 3 ("VZ NRCM Description"). The tasks and task times were developed through a study performed throughout the Verizon East footprint (*i.e.*, the former Bell Atlantic footprint), and therefore are not specific to the State of New Jersey. T.1133:24-1134:13 (12/18/00). (References throughout this Section to "Verizon" rather than "Verizon-NJ" are used when

referring to the Verizon East footprint rather than New Jersey.) Verizon, with one exception (discussed below), did not conduct any time and motion studies to determine the task times inputs that were used to generate nonrecurring rates. Instead, Verizon relied on surveys of field personnel to determine this information. Meacham Aff. ¶¶ 12-31.

In conducting the surveys, Verizon first identified the organizations currently responsible for performing each of these four groups of tasks and identified the tasks performed by these organizations. VZ NRCM Description at 4; Meacham Aff. ¶ 23, Exh. C, Functional Organizations Description ("Functional Organizations Description"), and Exh. D, Activity Description ("Activity Description"). Verizon then developed surveys to obtain information on the actual time it took Verizon personnel to perform these tasks, and distributed this information to the various work groups. Meacham Aff. ¶¶ 12, 24 and Exh. J at 1-2; VZ NRCM Description at 4. Verizon instructed the personnel involved in performing the various tasks in the survey to estimate the amount of time it *actually* took them to perform the identified tasks, not the time it *should* take. Meacham Aff., Exh. K, Work-Time Survey for Unbundled Network Elements and Related Services Introduction at 2 ("Survey Introduction").

The one work group for which Verizon did not use surveys to generate task times was the Telecom Industry Services Operating Center ("TISOC"). Meacham Aff. ¶ 25. The TISOC is the initial point of contact for CLECs and serves to process orders that do not flow through electronic operations support systems ("OSS"). Functional Organizations Description at 1. For the TISOC work time estimates, Anderson Consulting performed a time and motion study, which was subsequently examined for purposes of validation by 25 services representatives and their supervisors. Meacham Aff. ¶ 25.

According to Verizon-NJ, once the task time estimates were gathered, 18 Verizon employees reviewed them. *Id.* ¶ 31. Verizon-NJ asserts that these unidentified employees, ostensibly the "personnel closest to the development of future systems and process improvements," modified both the work tasks and task times in an effort to make these numbers forward-looking. *Id.* ¶¶ 16, 31. Also, according to Verizon-NJ, the employees were instructed to validate the field personnel's work time estimates, but their instructions fail to include direction on how this validation was to occur. *Id.*, Exh. L, Nonrecurring UNE Cost Study, Forward Looking Provisioning Process Panel Instructions at 1 ("Panel Instructions"). Subsequently, according to Verizon-NJ, the reviewing panel discussed and determined how often each task would need to be performed in a forward-looking environment (*i.e.*, an occurrence factor) and how much quicker each task would be performed in a forward-looking environment (*i.e.*, a forward-looking adjustment factor). Panel Instructions at 1-2; VZ NRCM Description at 4; Meacham Aff. ¶ 33. The task time results were then adjusted accordingly. VZ NRCM Description at 4. To calculate the nonrecurring rate for each UNE, the VZ NRCM multiplied these results by the labor rate and then added common overhead expenses and gross revenue loadings to these products. Meacham Aff. ¶¶ 8, 33; VZ NRCM Description at 4.

In sum, the VZ NRCM generated nonrecurring rates by surveying employees to determine what Verizon-NJ describes as "known and measurable" task times, Meacham Aff. at 6, applying what Verizon-NJ calls forward-looking adjustments to these times, and then factoring in labor rates, common overhead expenses and gross revenue loadings.

3. Criticism of Competing Models

> *The purpose of the TELRIC study is not cost recovery. It is assignment of forward-looking costs as rate elements for the provision of UNEs.*

MA Phase 4-L Order at 49.

The VZ NRCM fails to comply with the FCC's forward-looking TELRIC rules and, therefore, should be rejected by the Board. Sections IV.A.1, *supra*, p. 83, and IV.B.1-5, *infra*, pg. 89-100, detail many of the flaws in the VZ NRCM. For example, the VZ NRCM does not model - or even attempt to model - a forward-looking network topology. Rather, it assumes an embedded network, and then purports to make adjustments to that embedded network. *See supra* Section IV.A.1, p. 83, and *infra* Section IV.B.1, p. 89. Further, the VZ NRCM assumes inappropriately high OSS fallout rates. *See infra* Section IV.B.2, p. 90. The VZ NRCM does not use an appropriate long-run time horizon. *See infra* Section IV.B.3, p. 96. Installation rates erroneously include disconnect costs. *See infra* Section IV.B.4.a, p. 97. The VZ NRCM improperly includes recurring costs. *See infra* Section IV.B.4.b, p. 98. Costs of converting Verizon-NJ end-users to CLEC customers (*e.g.*, UNE-P and hot-cuts) are determined using non-forward-looking network assumptions. *See infra* Section IV.B.4.c, p. 99. Finally, the work time surveys at the core of the VZ NRCM are inherently flawed. *See infra* Section IV.B.5, p. 100.

For all the reasons detailed throughout this Section IV, the Board should reject the rates generated by the VZ NRCM and should instead order the alternatives proposed by the Ratepayer Advocate, and particularly the specific rates proposed in Section IV.B.6, *infra*, p. 105.

B. Discussion and Recommendations on Major Inputs and Assumptions

> *[T]he Local Competition Order required the [Delaware] Commission to set these [nonrecurring] charges according to the forward-looking costing principles of TELRIC. The NRC charges,*

> *then, must "be based on the use of the **most efficient** telecommunications technology **currently available** and the lowest cost network configuration." See 47 C.F.R. § 51.505(b)(1) (emphasis added).*

Bell Atlantic-Delaware at 250 (emphasis in original).

1. Forward-Looking Network Assumptions

The TELRIC methodology requires that UNE rates, including nonrecurring UNE rates, be established based on forward-looking, economic cost. 47 C.F.R. §§ 51.505 and 51.507(e). TELRIC further requires that UNE rates be based on long-run costs. 47 C.F.R. § 51.505. Therefore, as the District Court held in analyzing Verizon Delaware's proposed rates, "the current state of Bell's network is irrelevant for purposes of a long-run cost analysis. The state of Bell's network in the coming years is equally irrelevant." *Bell Atlantic-Delaware* at 238. Moreover, as shown *supra* in Section V.A.1, p. 107, the long-run network modeled for the nonrecurring cost study should be identical to that which is modeled for the recurring cost study.

Accordingly, the nonrecurring rates the Board orders for New Jersey should be based on the same corrected forward-looking network detailed by the Ratepayer Advocate, *supra*, in Sections III.C-III.D of this Brief, pg. 33-67. In particular, just as 100% Next Generation GR-303 should be assumed for the recurring model, *see supra* Section III.B.5.a, p. 47, and Lundquist Rebuttal at 16-23, so 100% GR-303 should be assumed for the nonrecurring model. Indeed, the New York Public Service Commission so concluded in 1999, holding that:

> subscriber loops can be most efficiently provided via integrated digital loop carrier technology using the GR-303 protocol, and that the employment of that technology will allow for electronic cross-connections and for the provisioning of ISDN-BRI.

Exh. WCOM-11 at 11; *see NY Recommended Decision* at 92 (adopting the New York Commission's 1999 decision); *see also* Laub Rebuttal at 21-22. Only once the nonrecurring cost model is adjusted to conform to the proper forward-looking recurring model can the nonrecurring cost model be used to generate rates that fall within the range of TELRIC.

However, due to the vast amount of corrections that would be necessary and the complexity of the VZ NRCM, the Ratepayer Advocate found it impossible to make these corrections and re-run the model. Instead, the Ratepayer Advocate recommends the Board adopt, where possible, the best comparable rates ordered by neighboring state commissions. *See* Section IV.B.6, *infra*, p. 105, and Section III.B, *supra*, p. 19. Where such comparables do not exist, the Ratepayer Advocate recommends that the Board make the specific adjustments or order the specific rates proposed throughout this Section IV. Only by so doing will the Board ensure that its rates fall within an appropriate TELRIC range. *MA 271 Order* ¶¶ 27-28.

2. Role of OSS

> *The mechanization of Bell's current internal service order processes is irrelevant to the legal standard for determining network elements costs.*

Bell Atlantic-Delaware at 251.

Operations Support Systems ("OSS") are computer systems that Verizon uses to process and provide services and UNEs to CLECs. *MA Phase 4-L Order* at 3. Specifically, OSS provide pre-ordering, ordering, provisioning, billing and maintenance and repair functionalities to CLECs. *MA Phase 4-L Order* at 3.

The Ratepayer Advocate agrees with WorldCom witness Stacy that the assumptions underlying the tasks that OSS will perform in a forward-looking network are key cost drivers of

the nonrecurring rates. Stacy Rebuttal at 11. Assumptions in a forward-looking network regarding (1) the UNEs that the electronic OSS will support, and (2) the OSS success rate, drive many of the inputs to the nonrecurring rates. Stacy Rebuttal at 11. Because Verizon-NJ determined its nonrecurring rates in large part by multiplying task times by labor rates, every OSS function that it assumed to be manual rather than automated dramatically increases the nonrecurring rates for the UNE in question. T.1329:21-1330:6 (12/19/00); Stacy Rebuttal at 11. Accordingly, the Ratepayer Advocate posits that the OSS assumptions and "fallout" rates established by the Board will be of critical importance in ensuring that the nonrecurring rates established comply with TELRIC and, thereby, do not create a barrier to market entry by CLECs.

As a preliminary matter, the Board must therefore determine the UNEs to which electronic OSS will apply. In other words, the Board needs to determine whether, in a forward-looking environment, it is appropriate to ever assume, as Verizon-NJ does, that ordering and provisioning of particular UNEs will always be conducted by manual, rather than mechanized, OSS.

The OSS assumptions, like all assumptions used in a nonrecurring cost model, must "be based on the use of the most efficient telecommunications technology currently available and the lowest cost network configuration." 47 C.F.R. § 51.505(b)(1). Applying this standard, the mechanization of Verizon-NJ's existing systems is not the appropriate starting point to determine fallout rates.

> The mechanization of Bell's current internal service order processes is irrelevant to the legal standard for determining network element costs. . . . [Rather, the controlling legal standard is] the "most efficient, currently available" telecommunications technology.

Bell Atlantic-Delaware at 251. Verizon-NJ failed to use this standard in determining its OSS fallout assumptions and rates. As a result, the Board should reject these assumptions and rates.

Verizon-NJ's assumption that mechanized OSS should only apply to resale and to simple UNE orders should be rejected as violating TELRIC principles. Despite Verizon-NJ's claims that its cost study assumed forward-looking automated processes, *see* Meacham Aff. ¶ 17, Verizon-NJ expressly chose to assume that its electronic OSS would not process multiple or complex UNE orders for reasons other than proper forward-looking cost assumptions. *See id.* ¶ 20. Specifically, Verizon-NJ failed to assume mechanized OSS capabilities for multiple loop or for complex orders, claiming that "the cost to mechanize these types of requests exceeds any anticipated economic benefit." *Id.*. Other than vague statements that the cut-off points for the types of orders that would be processed by electronic OSS were unrelated to the capabilities of the systems, but rather were based on operational decisions by management, T.1386:23-1388:11 (12/19/00), this rationale is unsupported by the record.

Using existing Verizon-NJ systems as a starting point for determining OSS rates is inappropriate. Without some demonstration that it is the efficient solution, simply assuming future mechanization of the incumbent's existing systems has no place in a TELRIC analysis. *Bell Atlantic-Delaware* at 251; Stacy Rebuttal at 12-13. Rather, the application of OSS to particular UNEs should be based on the best systems currently available on the market today. 47 C.F.R. § 51.505(b)(1); Stacy Rebuttal at 12-13. As witness Stacy testified, if Verizon-NJ were building its OSS new today, it would include capabilities to process multiple loop orders and complex UNE orders. Stacy Rebuttal at 12-13.

In addition, because the forward-looking nonrecurring cost model, including OSS components, should be based on the same network design as the recurring model, *see supra* Sections IV.A.1 and IV.B.1, pg. 83 and 89, OSS assumptions should take into account forward-looking network topology aspects that would, by design, lead to increased mechanization. For example, a proper forward-looking network would deploy 100% GR-303 systems. Lundquist Rebuttal at 23; *see supra* Sections III.D.5.a, IV.A.1 and IV.B.1, pg. 50, 83 and 89. Applying this network assumption to OSS, electronic cross-connections would be assumed when determining OSS fallout. Exh. WCOM-11 at 11; *see supra* Section IV.B.1, p. 50. However, Verizon-NJ did not account for electronic cross-connections.

> Q. Mr. Meacham, does your NRCM account for electronic cross-connection?
> A. Meacham: No it does not.
> Q. It's solely manual?
> A. Meacham: Solely manual.
> Q. In the order I just handed out from the New York Public Service Commission [Exh. WCOM-11], they found that electronic cross-connections were technically feasible in order for Verizon to reduce their Central Office wiring with respect to NRC. Are you aware of this order?
> A. Meacham: No, I'm not.

T.1163:2-13 (12/18/00).

Accordingly, because Verizon-NJ assumed an improper basis, in terms of its assumptions about both OSS and network topology, to determine the universe of activities and UNEs to which electronic OSS should apply, the Board should reject Verizon-NJ's assumption that all multiple loop and complex UNE orders will not be processed by electronic OSS.

a. Fallout Rate

In addition to determining the appropriate UNE orders that should be processed by electronic OSS, the Board must determine what, if any, percentage of the transactions the electronic OSS should handle will "fallout" so that they must be processed manually instead.

The Board should reject the four percent fallout rate proposed by Verizon-NJ. *E.g.*, T.1078:3-15 (12/18/00). Network design assumptions drive the percentage of fallout that should be assumed system wide. Assuming forward-looking adjustments to existing systems establishes an incorrect baseline. As shown above, the proper OSS to assume are the most efficient systems available today, not current systems ostensibly adjusted to be forward-looking. 47 C.F.R. § 51.505(b)(1); Stacy Rebuttal at 11-13.

Additionally, the Ratepayer Advocate supports witness Stacy's position that, once proper systems are assumed, fallout should be calculated over the entire system, rather than on an individual process step basis. Stacy Rebuttal at 13. Assuming individualized fallout percentages for each system is nothing more than a thinly veiled attempt by Verizon-NJ to present a fallout percentage that might appear reasonable, but to apply that percentage in such a way as to achieve a very high system-wide fallout rate. Therefore, the Board should reject Verizon-NJ's attempts to apply fallout rates on individual systems.

Further, presenting a cost study in 2000-2001 that assumes substantial amounts of manual processing is patently unreasonable. It is now more than five years since the passage of the 1996 Act. Verizon-NJ has been on notice since the *Local Competition Order* was released in August of 1996 that it must provide electronic OSS. FCC regulations and sound competition policy demand that Verizon-NJ comply with these long-standing obligations and provide electronic access where feasible. Indeed, the Connecticut Department of Public Utility Control

("Connecticut DPUC") concluded over two years ago that "[p]resenting a cost study that incorporates mostly manual labor [was] unacceptable in 1999." *DPUC Investigation of the Southern New England Telephone Company's UNE Nonrecurring Charges*, Connecticut DPUC Docket No. 98-09-01, Decision at 31 (Jan. 5, 2000) ("*CT NRC Decision*"). What was unacceptable in 1999 is an egregious, willful disregard of legal obligations in 2001.

Accordingly, the Board should establish a system-wide OSS fallout rate of two percent – the same level required by the Connecticut DPUC not just once, but twice, and amply supported by the record in this proceeding. *CT NRC Decision* at 33-34; *Application of the Southern New England Telephone Company for Approval of the Total Service Long Run Incremental Cost Studies and Rates for Unbundled Elements*, Connecticut DPUC Docket No. 97-04-10, Decision at 48 and 56 (May 20, 1998); Stacy Rebuttal at 13-16; T.2910:3-6 (1/23/01); T:2926:14-17 (1/23/01); *NY Recommended Decision* at 190 ("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.").

3. Study Time Horizon

> *In the long-run, a firm's present equipment will become obsolete and need replacement. It is to this long-run period of obsolescence that a forward-looking pricing methodology looks.*

Bell Atlantic-Delaware at 238.

The VZ NRCM fails the TELRIC requirement that it be a long-run cost study. Long-run "refers to a period long enough so that all of a firm's costs become variable or avoidable." *Local Competition Order* ¶ 677. The record indicates that, depending on the particular input or assumption, the VZ NRCM uses a two to four year time horizon. Meacham Aff. at 3 (2 year planning period for labor costs); T.255:21-256:11 (11/29/00) (current demand forecasted until 2004). However, as testified to by witness Murray, none of the time horizons Verizon-NJ used in the VZ NRCM qualify as the long run.

> A. Murray: Speaking hypothetically, a time horizon of two to three years simply does not comport with the long run portion of the TELRIC methodology.
>
> That is defined as a period of time long enough for all costs to be variable and avoidable.
>
> A standard graduate level economics text book will tell you that a long run cost function is one in which you ignore all input commitments.
>
> Input commitments are still in place over a two to three year time horizon. You are not talking about all of the efficiencies that could be obtained using equipment that is available today on the commercial market.
>
> I'm not talking about a pie in the sky technology, I'm simply talking about ubiquitous deployment of best practice today, and a long run cost study by definition in economics should assume ubiquitous employment of efficient technology that's currently available.

T.1969:24-1970:21 (12/21/00). Because the time-horizon used in the VZ NRCM is too short, the model inputs must be adjusted for a long-run time horizon in order to comply with TELRIC. Verizon-NJ has failed to provide sufficient information for the Ratepayer Advocate to make

specific recommendations for these corrections. Accordingly, because Verizon-NJ uses an inappropriate time horizon, all of the rates generated by the VZ NRCM are suspect.

4. New Lines, Conversion and Migration

a. Disconnect Charges

The Ratepayer Advocate supports the claim Verizon-NJ improperly includes disconnection charges in its NRCs for the installation of new UNEs. Walsh Direct at 29-30; Stacy Rebuttal at 17-19; *see also* T.1152:24-1154:3 (12/18/00); Meacham Rebuttal at 51-52. A CLEC should pay disconnect charges only when it places a disconnect order. Walsh Direct at 29-30; Stacy Rebuttal at 17-19.

The fact that Verizon-NJ traditionally has assessed disconnect charges on its *retail* customers is inapposite. *See* T.1153:15-22 (12/18/00). As Mr. Walsh demonstrated, the analysis of disconnect charges for CLECs is entirely different from the analysis for end-users. Walsh Direct at 30. First, an end-user that moves out of New Jersey (or the entire Verizon footprint) and fails to pay the disconnect charge becomes a significant collection problem for Verizon-NJ. That problem does not arise with CLECs. For instance, Verizon-NJ can secure contractual rights to suspend provision of new orders for a CLEC if the CLEC fails to pay disconnect charges. *See* Walsh Direct at 30. Further, excessive up-front NRCs assessed on CLECs will restrain competition because they create entry barriers. The Board should avoid creating such barriers if at all possible. *See supra* Section IV.A.1, p. 16.

Therefore, the Ratepayer Advocate recommends that the cost of disconnection should be separated out from the installation nonrecurring rate into its own separate nonrecurring rate. Walsh Direct at 29; Stacy Direct at 17-19. Attachment 3 to this Brief contains a spreadsheet

provided by Verizon-NJ that breaks out the disconnect costs as a percentage of the Verizon-NJ proposed nonrecurring rates for each UNE in its cost study. Exh. RPA-24, Verizon-NJ Response to RPA Transcript Request at T.1171, 1175 (12/18/00). The Board should order installation charges reduced by (at least) the amount of the disconnect costs and should create a separate nonrecurring rate item for the disconnect charges that would be assessed upon the submission of a disconnect order.

In addition, the disconnect charges themselves should be reduced to account for a forward-looking network design and forward-looking OSS. *See supra* Section IV.B.2, p. 90. Just as certain tasks, such as cross-connections would be performed electronically using forward-looking OSS, *see supra* Section V.B.2, many of the equivalent tasks associated with disconnects should also be assumed to be performed electronically. *See* Stacy Rebuttal at 19-20. Thus, the disconnect charge should be reduced significantly from the amount indicated in Attachment 3.

b. Recurring Costs Included in the VZ NRCM

Verizon-NJ inappropriately includes recurring costs, including maintenance and repair costs, in its proposed loop nonrecurring rates. In promulgating the TELRIC rules, the FCC required that recurring costs be recovered through recurring rates only. 47 C.F.R. § 51.507(d); *see supra* Section III.A.1. Further, the FCC unequivocally determined that maintenance expenses for UNE loops must be recovered through recurring, rather than nonrecurring, charges. *Local Competition Order* ¶ 745. Yet, Verizon-NJ includes maintenance costs in determining its nonrecurring rates. For example, the nonrecurring rate calculations improperly include an input for the time it takes the Recent Change Memory Administration Center ("RCMAC") to obtain notification from the Regional CLEC Maintenance Center ("RCMC") of trouble conditions.

Meacham Aff., Exh. D at 4. Also, the nonrecurring rate calculations include an input for the time central office technicians take to resolve field installation problems. Meacham Aff., Exh. D at 5. Indeed, record evidence shows that at least 20 work steps included in determining nonrecurring rates likely are more properly included in calculating recurring rates. Walsh Rebuttal, Exh. RJW-14.[7] Because these costs may not be recovered through nonrecurring rates, the Board should order them removed from any nonrecurring rate calculations.

c. Conversion/Migration

The record shows that Verizon-NJ's proposed nonrecurring rates for conversions and migrations are inflated, again due to Verizon-NJ's erroneous assumptions and inputs. Walsh Rebuttal at 18-40; Stacy Rebuttal at 20-21. For example, the nonrecurring rates produced by VZ NRCM assume 100% analog connections at the main distribution frames in Verizon-NJ's central offices. Walsh Rebuttal at 19. Not only is this inconsistent with the proper forward-looking assumption of 100% GR-303, but it is inconsistent with Verizon-NJ's own assumption of 50% copper DLC, 40% UDLC and 10% GR-303, the later two of which connect to digital, not analog, switches. Walsh Rebuttal at 19-20.

The Board should recognize that the cost of converting an existing Verizon-NJ customer to a CLEC customer should be determined by assuming efficient, forward-looking methods. Walsh Rebuttal at 18. The Ratepayer Advocate agrees with witness Stacy that a UNE-P conversion should only require Verizon to change its customer records to indicate that the CLEC is now the Verizon-NJ customer of record for the elements at issue. Stacy Rebuttal at 21.

[7] Three of the twenty-three tasks identified in this exhibit were not recovered in the VZ NRCM. T.2946:19-2948:12 (1/23/01). The other twenty items went unchallenged.

Similarly, for hot-cuts, where a loop needs to be connected to a CLEC's network at the Verizon-NJ central office, the process should be much simpler than what Verizon-NJ assumed because Verizon-NJ again failed to assume 100% GR-303 equipment. *See* Walsh Rebuttal at 19-20; *see also supra* Sections III.D.5.a, IV.A.1 and IV.B.1, pg. 50, 83 and 89. Because of this fundamental error in input assumptions, Verizon-NJ overstates the rate for conversions. The Ratepayer Advocate recommends, therefore, that the Board reject the conversion rate proposed by Verizon-NJ and, instead, adopt the $0.30 rate proposed by Mr. Stacy. Stacy Rebuttal at 20-21.

5. Appropriate Methods to Estimate Time Required to Perform Required Work Functions

The surveys used by Verizon to determine work time inputs for the VZ NRCM are fundamentally flawed and do not yield TELRIC-compliant inputs. As a preliminary matter, surveys are a less than ideal method to obtain time estimates for work functions. Time and motion studies are significantly superior. *See* T.2848:23-2849:22 (1/23/01) (Verizon-NJ counsel attacking HAI model for its lack of time and motion studies). Yet, except for the Anderson Consulting time and motion study for the TISOC – a study that was not conducted for this proceeding, but rather for a completely unrelated purpose, T. 1307:9-1311:4 (12/19/00) – Verizon conducted no time and motion studies. Meacham Aff. at 10.

The surveys are also fundamentally flawed because, as correctly pointed out by Covad's witnesses, they deal with existing tasks in the existing network. Murray-Riolo Rebuttal at 82, 146-157. As shown above, Verizon's embedded network, even if adjusted, is not the proper basis for a forward-looking cost study. *See supra* Sections III.B, IV.A.1 and IV.B.1, pg. 19, 83 and 89; *Bell Atlantic-Delaware* at 238. The Ratepayer Advocate agrees that, if work time

surveys are to be relied on at all, they must expressly seek results based on work in a forward-looking environment. Murray-Riolo Rebuttal at 146-147. Further, the survey respondents would need clear instructions on what that environment is, but Verizon did not provide such instructions. Murray-Riolo Rebuttal at 146. Indeed, the survey compounded this focus on embedded technology when it expressly instructed the survey respondents to estimate the *actual* time it took to perform tasks, not the amount of time it *should* take. Survey Instructions at 2. Thus, using actual work times from the survey results fails TELRIC requirements abysmally.

Aside from these fundamental flaws, the surveys utilized by Verizon are unreliable and likely to produce significantly inflated inputs. First, surveys must contain explicit and clear instructions, be statistically validated by an independent third party, and exclude outliers. *See* Murray-Riolo at 145-153. However, none of these conditions were satisfied here. The two-page instructions do not provide detailed instructions. *See* Survey Instructions. There is no evidence that third party statistical validation occurred. Rather, a panel of 18 Verizon employees reviewed the times for the purpose of making forward-looking adjustments to them. Meacham Aff. ¶ 31; *see supra* Section III.B. Yet, as the record shows, the very close working relationship between the reviewing employees and the survey respondents demands independent third-party review if validation is to have any meaning. Stacy Rebuttal at 7-8. Verizon-NJ apparently agrees with this principle; it attacked the work time estimates underlying the HAI nonrecurring rates because of their lack of independent validation. T.2844:18-2846:7 (1/23/01).

Finally, the record demonstrates that outliers were not excluded from the survey results. T.1906:7-20 (12/21/00); T.1141:22-1142:2 (12/18/00); Murray-Riolo Rebuttal at 147-149.

Q. Okay. To arrive at the work time that you ultimately used in the model, the survey results were averaged. Is that right?
A. Meacham: That is right.
Q. Were the highest and the lowest results discarded?
A. Meacham: No. We had no reason to assume that any of the data points provided by these expert technicians who are the best people qualified to provide these work time estimates, why would we disbelieve them unless there is something that was so far out of range that there must have been an error in the communication of the instructions to that respondent.
Q. So there was no – you didn't deal with anything that would have been called like a statistical outlier?
A. Meacham: We did not deal with outliers, no.

T.1141:8-1142:2 (12/18/00). By not excluding outliers, extreme survey results are included in determining, and thereby skew, the work-time results used in the VZ NRCM. For example, in determining the time for performing the engineering work order associated with CLECs ordering digital subscriber line loops, the work time to "[a]cquire necessary and appropriate approval" ranged from a low of 1 minute to a high of 1,440 minutes (24 hours). Murray-Riolo Rebuttal at 147. Including such obvious extreme results is inappropriate. Murray-Riolo Rebuttal at 147-149. Rather, as the record shows, exclusion of outliers is a basic statistical principle necessary to ensure the accuracy of survey results. Exh. RPA-35**,** Covad-VNJ-808; T.1906:7-1907:20 (12/21/00).

Second, the way Verizon conducted the surveys built in upward biases. The Ratepayer Advocate concurs with Ms. Murray and Mr. Riolo that the extreme multiplicity of tasks identified in the surveys created bias. Murray-Riolo Rebuttal at 149. This bias, termed the "unpacking effect," results from the tendency of survey respondents to overestimate the time required for an activity when it is broken up into a series of small actions. Murray-Riolo Rebuttal at 149-150.

This effect was exacerbated by survey directions that instructed the respondents to enter "N/A" rather than zero in their responses. Survey Instructions at 2; Murray-Riolo Rebuttal at 150-151. These "N/A" results were then excluded from the denominator altogether when calculating the nonrecurring rates, thereby making the sum of the average work time estimates larger than the average of the total work times that the respondents reported for the activities. Murray-Riolo Rebuttal at 151. Verizon-NJ's claims that "N/A" entries should only have occurred if a survey did not perform a given task fail to cure this problem. Stern-White Supplemental Rebuttal at 69-70. If a survey respondent entered "N/A" because the respondent, in fact, did not perform the task, then the survey should not have been included in either the numerator or the denominator in determining the ultimate task time result. If, however, the respondent did perform the task, but included it in the time for a different task, then zero rather than "N/A" would have been the appropriate response. Similarly, if the respondent performed the task, but recorded "N/A," then the appropriate response should have been zero. These implicit biases substantially undermine the validity of the survey results.

Verizon's use of averages or means further inflated the upward bias. Verizon used the average work time rather than the median work time. VZ NRCM Description at 4; Meacham Aff. ¶¶ 31, 33; Murray-Riolo Rebuttal at 148. Due to the skewed nature of the survey responses and exacerbated by the inclusion of outliers, these averages were consistently higher than the medians. *See id*. Moreover, because TELRIC rates are supposed to reflect the best available, forward-looking practices, Verizon should have used the minimum time responses returned from the surveys. *See id.* Use of any other survey responses ignores both the forward-looking nature of TELRIC, 47 C.F.R. §§ 51.505, 51.507, and the best practices commitments Verizon made to

obtain FCC approval of the Bell Atlantic - GTE merger. *In re Application of GTE Corporation and Bell Atlantic Corporation for Consent to Transfer Control of Domestic and International Sections 214 and 310 Authorizations and Application to Transfer Control of a Submarine Cable Landing License,* Memorandum Opinion and Order at ¶¶ 279-318, CC Docket No. 98-14, Federal Communications Commission (June 16, 2000).

Not only are the surveys therefore suspect, but Verizon-NJ failed to provide a witness that could properly sponsor the surveys. T.1324:5-1325:9 (12/19/00); T.1300:2-4 (12/19/00). In fact, the witness Verizon-NJ put forth to sponsor the VZ NRCM never reviewed the actual surveys and did not know who designed them. T.1300:2-4 (12/19/00); T.1324:24-1325:9 (12/19/00). Moreover, this witness admitted that he had no idea how to design a statistically valid survey.

> Q. Well, there's a distinction between gathering data and doing surveys, isn't there, or do you not consider them the same?
> A. Meacham: Well, I'm not a statistician, so I'm not able to delve into the distinction between designing statistically – I don't know what the terminology is -- valid surveys.
> I mean, if you're taking calls from people coming out of voting booths, there are very well defined rules I think statisticians employ that tell you what the reliability of those exit poles are and so forth.
> But the service cost analysts aren't doing that, they're just gathering the data. They went to the people that do the work, asked them what the work activities are to complete the tasks and then they asked how long it took to do those.

T.1324:5-23 (12/19/00). Thus, the Verizon-NJ witnesses could not provide the Board with first hand responses to any of the problems with how the surveys were conducted. Because the survey results underlie all of the proposed nonrecurring rates, the failure by Verizon-NJ to offer a proper witness greatly undermines the entire VZ NRCM.

For all the above reasons, the Board should reject Verizon's survey. It is, both as designed and as implemented, incapable of providing valid inputs for a TELRIC-compliant nonrecurring cost study.

6. Recommendations of the Ratepayer Advocate[8]

> *If NRCs are too high, [CLECs] may be deterred from entering the market altogether. Inflated NRCs are textbook barriers to competitive entry. Even if CLECs obtain appropriate [recurring UNE] rates, wholesale discounts, and collocation terms and conditions, overstated NRCs will immediately undo everything else the Board does to encourage competition.*

Walsh Rebuttal at 2-3.

As demonstrated in detail throughout this Section of the Brief, the VZ NRCM utterly fails to comply with TELRIC pricing rules and is otherwise seriously flawed. While some of these flaws can be corrected, it would take a Herculean effort, even were it possible at all, to run the model, correcting all the flaws in the VZ NRCM, and produce TELRIC nonrecurring rates. Requiring Verizon-NJ to submit a new cost model would only serve to prolong the existing non-TELRIC compliant rates and thereby delay the roll-out of competitive service offerings in New Jersey. Further, it would cause all parties, including the Board and its staff, to expend substantial resources litigating these issues yet again.

The Ratepayer Advocate therefore proposes that, in addition to any other specific nonrecurring rates proposed elsewhere in this Section IV, the Board adopt the following

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[8] The Ratepayer Advocate has added this subheading to the approved outline to assist the Board in more easily identifying some of the specific Ratepayer Advocate nonrecurring rate proposals.

nonrecurring rates previously ordered by the Pennsylvania Commission because they are the lowest, and therefore the best, comparable rates available to the Board:[9]

UNE / Rate Element	No Premises Visit		Premises Visit		Service Order (*)
	Installation (includes electronic service ordering)	Disconnect	Installation (includes electronic service ordering)	Disconnect	Charge–Manual
Two-Wire New Initial – Analog	$4.07	$1.34	$68.72	$1.34	$12.74
Two-Wire New Initial – Digital	$4.07	$1.34	$68.72	$1.34	$12.74
Four Wire New Initial – Analog	$4.07	$1.34	$68.72	$1.34	$12.74
Four Wire New Initial – Digital	$4.07	$1.34	$68.72	$1.34	$12.74
ISDN New Initial	$14.12	$1.34	$78.77	$1.34	$12.74
xDSL (2-wire) Loop New Initial	$4.07	$1.34	$68.72	$1.34	$12.74
HDSL (4-wire) Loop New Initial	$4.07	$1.34	$68.72	$1.34	$12.74
Line Port New Initial	$4.07	$1.34	$4.07	$1.34	No comparable available

(*) The Service Order Charge – Manual. This rate should only apply (1) if the CLEC chooses to place orders manually despite Verizon-NJ offering electronic ordering, or (2) for the 2% of cases permitted to fallout of the electronic OSS.

Pennsylvania Global Order, App. A (as implemented by Verizon-PA in its tariff PA P.U.C. No. 216).

Use of these rates by the Board would be consistent with the three part test used by the FCC in analyzing Verizon Massachusetts' rates. *MA 271 Order* ¶ 28 (citing *KS/OK 271 Order* ¶ 82); *see supra* Section III.B.3, p. 30. First, New Jersey and Pennsylvania have a common ILEC, Verizon, and are adjoining states. *MA 271 Order* ¶ 28 (citing *KS/OK 271 Order* ¶ 82). Second, for these UNEs, New Jersey and Pennsylvania have similar rate structures. *MA 271 Order* ¶ 28 (citing *KS/OK 271 Order* ¶ 82). Third, while the FCC has not been presented with the opportunity to rule on whether the Pennsylvania rates comply with TELRIC, these rates have

[9] All of the rates proposed by the Ratepayer Advocate are presented collectively, *infra*, in Section V.I, p. 157.

been found to be TELRIC-compliant by the Pennsylvania Commission. *Pennsylvania Global Order* at 61-93; *MA 271 Order* ¶ 28 (citing *KS/OK 271 Order* ¶ 82).

Consequently, the Ratepayer Advocate urges the Board to adopt these rates, which have been charged in the market by Verizon-PA. In addition, to the extent that no neighboring state ordered a TELRIC nonrecurring rate for a particular UNE, the Board should endorse the corrections detailed by the Ratepayer Advocate herein and order rates adjusted accordingly.

V. OTHER ISSUES

A. DSL

1. Rates

The Ratepayer Advocate's positions on DSL rate issues are set forth in succeeding sections.

2. Line Sharing

a. Line Conditioning

Line conditioning refers to modifications to a loop so that it may be used in providing advanced services. *Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC Docket 96-98 , 14 FCC Rcd 20912 (rel. Dec. 9, 1999) ("*Line Sharing Order*") ¶ 82. For purposes of this proceeding, conditioning includes removing load coils and excessive bridged tap from loops so the loops will be suitable for DSL service, and adding repeaters to long loops so they can provide ISDN service. Meacham Aff., Exhibit M. Load coils and bridged tap are equipment that was used in older outside plant designs to support analog/voice services, but

would impede DSL transmission. Verizon-NJ proposes nonrecurring charges of **[Begin Verizon Proprietary] [End Verizon Proprietary]** for removal of one bridged tap and **[Begin Verizon Proprietary] [End Verizon Proprietary]** for more than one. The proposed charge for load coil removal is **[Begin Verizon Proprietary] [End Verizon Proprietary]** for loops between 18,000 and 21,000 feet in length, and **[Begin Verizon Proprietary] [End Verizon Proprietary]** for loops between 21,000 and 27,000 feet. Verizon-NJ further proposes an "Engineering Work Order" charge of **[Begin Verizon Proprietary] [End Verizon Proprietary]**. Meacham Aff., Exhibit M.

Conditioning charges, like other nonrecurring charges, have a dangerous potential to restrain competition by erecting barriers to entry by DSL competitors. *See Local Competition Order* ¶ 747. Verizon-NJ's conditioning charges are entirely unjustified and anticompetitive. Verizon-NJ derived them using the same flawed methodology as it uses for the rest of its nonrecurring charges. As discussed in Section IV.A.1., -2., these charges create a significant risk of double recovery because they are based on a different network construct than Verizon-NJ uses for its recurring charges. Verizon-NJ uses its embedded network, moreover, to determine conditioning charges, an impermissible choice under TELRIC principles. *Supra* Sections IV.A.1, IV.B.1, pg. 83 and 89.. Finally, the work time survey underlying these charges is riddled with methodological errors and anomalous results. *Supra* Section IV.B.5, p. 100.

Verizon itself has recognized the error of assuming a separate, all-copper network for computing conditioning charges. In a proceeding before the Maryland Public Service Commission, Verizon criticized a network model adopted by the FCC arguing (correctly, for

once) that it was improper to use different network assumptions to generate conditioning costs and other costs:

> By designing a network that requires significant loop conditioning costs, the FCC Model ignores the fact that ILECs have one network for all services - basic and advanced. In its First Report and Order [the *Local Competition Order*], the FCC mandated that ILECs condition loops for data transmission if technically feasible. Therefore it is in the interest of both ILECs and their competitors that the forward-looking network used to provide both UNEs and basic service to be constructed in a manner that will minimize conditioning costs.

Maryland Public Service Commission, *Provision of Universal Service to Telecommunications Consumers*, Case No. 8745, Rebuttal Testimony of Francis J. Murphy on behalf of Verizon Maryland (May 21, 2001) at 22. Verizon went on to criticize the FCC Model's assumption of 18,000 foot copper loops, the very same loop assumption it uses in this case to determine conditioning costs. *Id.* at 22-23.

Verizon-NJ's ISDN conditioning charge is an egregious example of double-counting as a result of using different network assumptions to derive recurring and nonrecurring costs. Verizon-NJ identifies this **[Begin Verizon Proprietary] [End Verizon Proprietary]** charge as Add Electronics (Repeater). Meacham Aff., Exhibit M. This nonrecurring charge is said to cover the cost of engineering, furnishing and installing a repeater, the electronic equipment needed to provide ISDN service over long all-copper loops. Stern-White Supplemental Rebuttal at 41. As the Covad witnesses correctly point out, however, the recurring charge for an ISDN loop reflects the higher cost of electronics required to provide ISDN service over fiber loops of any length. Murray-Riolo Rebuttal at 154. The duplication as the result of inconsistent network assumptions is clear. When it comes to the nonrecurring charge for a long,

all-copper ISDN loop, Verizon-NJ assumes an all-copper network with no DLC and charges for the electronics added to a copper loop to make it ISDN-capable. To calculate the recurring charge for the same loop, Verizon-NJ assumes a network with DLC and includes electronics costs attributable to providing ISDN service over fiber. The Ratepayer Advocate concurs with the Covad witnesses' conclusion that this is an impermissible double recovery. *Id.*

Verizon-NJ's only answer to this anomaly is to assert that repeaters are needed for ISDN service on long copper loops and to suggest that the recurring charge does not include the cost of those repeaters. Stern-White Rebuttal at 41. This response only illustrates Verizon-NJ's abandonment of TELRIC principles. It defends its repeater cost by assuming Verizon-NJ's embedded, all-copper network, an improper assumption under TELRIC methodology. It then attempts to talk around the fact that its choice of inconsistent network models would charge competitors for two separate costs for electronics needed to establish an ISDN-capable loop, even though no loop actually causes both costs. Verizon-NJ should not be permitted to impose this exorbitant nonrecurring charge by using inconsistent network assumptions.

Even if this ISDN conditioning charge were otherwise permissible, it should be levied on a recurring basis. The Covad witnesses testified that the repeater that is the basis for this charge is fungible and reusable, Murray-Riolo Rebuttal at 153, but Verizon-NJ offers no substantial basis for imposing its full cost on each competitor to use it. Instead, Verizon-NJ resorts to semantics, describing these repeater costs as "one-time capital investments" and suggesting that these repeaters are "dedicated" to Verizon-NJ's competitors in a way that loops, for example, are not. Stern-White Rebuttal at 41. Verizon-NJ also invokes the "considerable" churn away from ISDN service as a basis for speculating that recurring charges would lead to under-recovery of

costs. *Id.* Verizon-NJ does not deny or refute, however, what the Covad testimony establishes – that these repeaters can be reused in the same location or moved to serve different customers, thus avoiding any under-recovery. Murray-Riolo Rebuttal at 154-155. Nor does Verizon-NJ explain why, if this churn is indeed significant, it asks customers who will use these repeaters for only part of their useful life to account for their full cost. That eliminates any risk of under-recovery by Verizon-NJ to be sure, but does so by guaranteeing that each successive user of a repeater overpays.

Verizon-NJ's proposed charges for removal of load coils and bridged taps seriously overstate work times and resulting costs because they do not reflect least cost, efficient methods. The Ratepayer Advocate concurs with the witnesses who find that a major cause of this overstatement is Verizon-NJ's assumption that conditioning work must proceed one loop at a time, when the standard practice today is to deload or unbridge multiple loops at a time. *Id.* at 126; Fassett Rebuttal at 22; Stacy Rebuttal at 29-38 . Conditioning multiple loops is not only more efficient from the perspective of labor time savings, it avoids degradation of splices through repeated intrusion for single-pair operations. Beyond this basic failure to account for multiple-pair conditioning, Verizon-NJ's study of the conditioning NRCs is also flawed because it yields excessive work times.

Covad's and AT&T's witnesses have developed alternative conditioning rates based on standard, efficient practices, reasonable guidelines for multiple-pair conditioning, and the mix of conditions expected in the loop plant. The work times they derive are supported by specific analyses of the tasks involved and yield work time estimates far below those produced by the flawed survey that Verizon-NJ sponsors. Murray-Riolo Rebuttal at 128-135; Fassett Rebuttal at

21-26. The work time analysis of WorldCom witness McPeak corroborates these estimates. McPeak Rebuttal at 9-11. The Covad and AT&T analyses are consistent in most respects, but in two particulars the Covad work time analysis is more conservative. It assumes that two technicians will be involved in removing load coils from underground facilities, while the AT&T analysis assumes one technician for that task, and it assumes that the ILEC will remove load coils 25 pairs at a time, as opposed to AT&T's 50. *Compare* Murray-Riolo Rebuttal at 131 *with* Fassett Rebuttal at 23. The AT&T analysis, on the other hand, adopts a more conservative labor rate. *Compare* Fassett Rebuttal n. 5 *with* Murray-Riolo Rebuttal at 131. Indeed, the AT&T labor rate is more conservative than the rate that Verizon-NJ uses in its study for comparable labor. *See* Exh. 12, Dark Fiber/vnj_whls.xls Labor Rates Tab cell J15, Tab 72 cell K17, Tab 74 cell K17.

The Ratepayer Advocate recommends that the Board base conditioning rates on a combination of the more conservative aspects of the AT&T and Covad analyses. To accomplish this, we recommend applying the AT&T witness' recommended labor rate to the Covad witnesses' work times. To do this, we have multiplied Covad's proposed charges for load coil removal and bridged tap removal (*see* Murray-Riolo Rebuttal at 135) by the ratio of the AT&T labor rate to that of Covad. The result is a charge of $20.32 for load coil removal and $1.09 for bridged tap removal.

For every conditioning job, Verizon-NJ also proposes a mandatory engineering work order, for which it would charge competitors **[Begin Verizon Proprietary] [End Verizon Proprietary]**. Meacham Rebuttal, Exhibit M. The exorbitant level of this charge arises in part from Verizon's erroneous treatment of "N/A" responses in its work-time survey, as

discussed in Section IV.B.5. In addition, Verizon-NJ's tasks and task times reflect no effort to identify efficient, forward-looking practices. The Covad witnesses have attempted to rectify this with a point-by-point task time analysis of the engineering work order function. This analysis makes forward-looking assumptions about the technology used in this process, and provides a set of efficiency-based work times. Murray-Riolo Rebuttal at 135-145. The Board should reject Verizon-NJ's inflated estimates in favor of these reasonable, efficient times.

b. Loop Qualification

Loop qualification is the process by which Verizon-NJ provides CLECs information concerning the suitability of loops for advanced services. Verizon-NJ is obligated under FCC decisions to afford its competitors direct electronic access to its databases containing loop makeup information. Each CLEC is entitled to access to the same loop makeup information as is available to any of the ILEC's employees (not just its retail arm), so that the CLEC can *independently* determine the suitability of a loop for the services it wishes to offer. The FCC articulated these requirements with clarity:

> [A]n incumbent LEC must provide the requesting carrier with nondiscriminatory access to the same detailed information about the loop that is available to the incumbent, so that the requesting carrier can make an independent judgment about whether the loop is capable of supporting the advanced services equipment the requesting carrier intends to install.… [A]t a minimum, incumbent LECs must provide requesting carriers the same underlying information that the incumbent LEC has in any of its own databases or other internal records…

UNE Remand Order ¶ 427; *see also* 47 C.F.R. § 51.313(c). The cost of this access to loop makeup information, moreover, should be based on the use of efficient, forward-looking technology. *Local Competition Order* ¶ 685. As discussed below, the Ratepayer Advocate

agrees with the analysis of this issue presented by the several CLEC witnesses, who find that in light of these FCC requirements and the status of Verizon-NJ's databases of loop makeup information, the proper, forward-looking charge for any loop qualification operation is a minimal "dip" charge that reflects the cost of providing an electronic query of a well-maintained database.

Verizon-NJ's internal database of loop makeup information is the Loop Facilities Assignment and Control System ("LFACS"). Stern-White Supplemental Rebuttal at 76. Until the end of this proceeding, Verizon-NJ resisted providing CLECs direct, efficient access to this database. Instead, Verizon-NJ proposes Mechanized Loop Qualification – a query of a database created to serve Verizon-NJ's needs as a retailer. Stern-White Supplemental Rebuttal at 73. Verizon-NJ proposes a recurring charge of **[Begin Verizon Proprietary] [End Verizon Proprietary]** per loop for Mechanized Loop Qualification. Prosini Aff., Exhibit MSP-1. For that payment, a CLEC gets little information that it can use to determine a loop's suitability for its services. Mechanized Loop Qualification yields only loop length and Verizon-NJ's determination of the loop's suitability for Verizon-NJ's own retail service. Stern-White Supplemental Rebuttal at 73; Murray-Riolo Rebuttal at 167; Laub Direct at 27. Verizon-NJ's standards for the suitability of its service, moreover, differ from those of some CLECs, so that for those CLECs at least the indication of suitability provided by Mechanized Loop Qualification has little use. T.3686:11-3687:10 (03/08/01).

Verizon-NJ offers two manual processes, Manual Loop Qualification and Engineering Query, for use when this mechanized approach is inadequate. The Manual Loop Qualification process provides more information than Mechanized Loop Qualification. Stern-White Supplemental Rebuttal at 73. An Engineering Query provides still more information, including,

at the CLEC's request, the number and location of bridged taps and load coils, the location of digital loop carrier, and cable gauges. *Id.* This additional information does not come cheap. Verizon-NJ proposes nonrecurring charges of **[Begin Verizon Proprietary] [End Verizon Proprietary]** for Manual Loop Qualification and **[Begin Verizon Proprietary] [End Verizon Proprietary]** for Engineering Query. Meacham Aff., Exhibit M.

Verizon-NJ's current loop qualification offerings and rates do not comply with the FCC's requirements. None of these service offerings provide full, direct access to Verizon-NJ's databases of loop makeup information. These services, moreover, are the farthest thing from the forward-looking, efficient technology required for UNE cost determination, and use processes that are the direct result of Verizon-NJ's past inefficiency. In addition, Verizon-NJ's proposed rates would improperly recover from CLECs Verizon-NJ's costs for upgrading databases used for all aspects of Verizon-NJ's operations, including its retail business.

Verizon-NJ now appears to have shown some recognition that a proper response to the FCC requirements described above would be to offer CLECs direct electronic access to LFACS and similar systems. On the last day of testimony in this proceeding, Verizon-NJ indicated that it plans to offer CLECs access to information in LFACS, with its existing offerings still in place as well. T.3796:23-3797:11 (2/8/01). Verizon-NJ has provided few details about this plan on the record of this proceeding, and has not made a concrete offering for use in New Jersey. It appears, however, that when access to LFACS does not yield the information the CLEC needs, Verizon-NJ's manual processes will be used and the results of that process will be used to update LFACS. T.3797:7-11(2/8/01)

Whatever method a CLEC must use for access to loop makeup information, the charge for that access should be based on forward-looking technology. The Ratepayer Advocate supports the WorldCom and Covad witnesses' recommendations that the charge for any mechanized access to loop makeup information, including the charge for Verizon-NJ's Mechanized Loop Qualification, should be a minimal "dip" charge to cover the recurring cost of adding to Verizon-NJ's OSS the capability to access the information. Laub Direct at 28; Murray-Riolo Rebuttal at 160. Because Verizon-NJ's two manual loop qualification offerings lack any basis in forward-looking, efficient technology, charging on the basis of the cost of those cumbersome manual services is unjustified, and charges for them should also be based on these forward-looking costs. *Id.* at 161.

Verizon-NJ responds with the claim that LFACS does not contain the information that CLECs need. Stern-White Supplemental Rebuttal at 74. If LFACS is inadequate, however, it is because Verizon-NJ has systematically ignored its own practices and failed to update the database in an efficient manner. Verizon-NJ began using LFACS for loop assignment decades ago, and Verizon-NJ's practices over the years contemplated that it would populate the system with loop makeup information on an ongoing basis, an efficient approach that other ILECs have used. Murray-Riolo Rebuttal at 165, 166; Laub Direct at 28.

CLECs should not be required to pay Verizon-NJ to correct its failure to follow its own procedures. It would be a gross distortion of TELRIC principles to allow Verizon-NJ to charge for technology that does not even measure up to its own current standards, let alone to the standard of forward-looking efficient technology. As Ms. Murray testified:

> I guess to be precise, what I would say is Verizon's nonrecurring cost study or Verizon's study for loop qualification assumes costs that would not be necessary if Verizon had actually provisioned OSS in an efficient forward-looking way as is what is assumed in the cost study. So it's not so much that it's the OSS costs per se that are in there as that it is the costs for manual activities that would not be necessary with efficient deployment of even the existing legacy OSS.

T.1999:5-16 (12/21/00). The Illinois Commerce Commission recently adopted just this position, finding that "loop information should have been accumulated in Ameritech-IL databases long before now and, therefore, manual processing costs are not appropriate." Illinois Commerce Commission, *Proposed Implementation of High Frequency Portion of Loop (HFPL)/ Line Sharing Service*, Docket 00-093, Order (Mar. 14, 2001) at 84.

A TELRIC-compliant cost study should assume a situation in which Verizon-NJ functions as a competitive wholesaler and offers access to facilities that embody technological choices based on long-run efficiency. *Local Competition Order* ¶¶ 685, 691. What Verizon-NJ proposes, however, is that its competitors pay for Verizon-NJ's historical disregard of its own procedures and its past efforts to support its retail activities. The Board should not permit this radical departure from TELRIC principles.

The Ratepayer Advocate supports Ms. Murray's and Mr. Riolo's finding that the Board should also reject Verizon-NJ's loop qualification charge because it would improperly subsidize the upgrading of databases that Verizon-NJ uses for many loop-related purposes. Murray-Riolo Rebuttal at 167-168. A significant portion of the charge for Mechanized Loop Qualification would recover the cost of populating the LFACS database with information that would then be available for assigning loops for all types of service, including further loop qualification

procedures (for which Verizon-NJ will presumably charge CLECs), other future operations with respect to the affected loops, and Verizon-NJ's own retail operations. *Id.* at 168. Similarly, Verizon-NJ's manual processes will also be used to update LFACS. T.3798:7-11 (2/8/01). Since these costs are associated with all loops, not just loops requested by DSL competitors, we would agree with the Covad witnesses that Verizon-NJ should have spread those costs over all loops, not just DSL loops. Murray-Riolo Rebuttal at 168-169.

To assure that competitive carriers receive the information to which they are entitled at a proper price, therefore, Verizon-NJ should be ordered to make specific and concrete its plan to provide CLECs direct electronic access to loop makeup information in LFACS. To meet the requirement of pricing based on forward-looking, efficient technology, the charge for this access should be minimal, as two other state Commissions have ruled. State Corporation Commission of the State of Kansas, Docket No. 00-DCIT-389-ARB, Arbitrator's Order (Redacted; May 9, 2000) at 20 ($0 for loop qualification); Public Utility Commission of Texas, Arbitration Award, Docket No. 20226 and 20272, November 30, 1999, at 102-103 ($0.10 "dip" charge).

c. Other Issues

(1) Splitter Installation/EF&I Factor

Verizon-NJ proposes a nonrecurring charge of **[Begin Verizon Proprietary]** **[End Verizon Proprietary]** to install a CLEC-provided splitter. Verizon-NJ computes this charge differently from other nonrecurring charges, basing it not on a task time survey like that underlying other NRCs, but on the application of its EF&I (engineer, furnish and install) factor to splitter investment. Verizon-NJ offers no justification for using the EF&I factor to compute the costs at issue here. Application of that factor in all likelihood leads to a cost figure far higher

than Verizon-NJ's actual cost of providing and installing a splitter. The Ratepayer Advocate urges the Board to reject Verizon-NJ's proposed splitter installation charge.

Applying the EF&I factor for Digital Circuit Equipment to estimated splitter investment is wholly inappropriate for estimating splitter installation costs. That factor is based on embedded information about costs and investments, and intrinsically does not reflect forward-looking costs. Indeed, as Ms. Murray and Mr. Riolo correctly point out, the data on which this factor is based have no necessary connection to new equipment like splitters or new services like line sharing, the cost of which is not reflected in the development of the factor. Murray-Riolo Rebuttal at 58-59, 68, 70.

It becomes clear that this EF&I factor is inapplicable to splitter installation when we examine the components of the factor. Again, the Ratepayer Advocate would agree with Covad witnesses, who have applied the correct analysis. The EF&I factor imputes an engineering cost to the installation of splitters, but most engineering costs are recovered in collocation charges. Murray-Riolo Rebuttal at 68-69; Exh. Covad-2, VNJ-Cov-1-8. "Furnishing," the purchase and delivery of materials, is largely the responsibility of the CLEC in the case of splitters. Exh. VNJ-12, FinalNJTelric/FinalNJT/ Coststud/ExhibitN/N-1Admin/LS_Split.doc Section 1.3. Accordingly, "competitors will have already paid for most of the supporting 'EF' of EF&I before actual splitter cards are installed." Murray-Riolo Rebuttal at 68-69.

The installation component of Verizon-NJ's proposed cost is also unconnected with reality. The **[Begin Verizon Proprietary]** **[End Verizon Proprietary]** cost that Verizon-NJ attributes to splitter installation, *id.* Section 2.1, would translate into approximately

"34 hours of installation labor to screw four screws into a metal frame and to slide 24 cards into a small shelf." Murray-Riolo Rebuttal at 69.

The Covad witnesses offer an alternative rate of $18.30, based on an analysis of the tasks mentioned in the previous quotation, but this proposal appears to underestimate costs. It focuses solely on the physical work involved in actually mounting splitter equipment in the central office, and ignores any costs activities such as administration, planning, design or testing. In the view of the Ratepayer Advocate, neither the Verizon-NJ nor the Covad proposed rate for splitter installation falls within the range of TELRIC-compliant rates, and therefore, both should be rejected based upon the reasoning above.

(2) Splitter Administration and Support

Verizon-NJ's Splitter Administration and Support Charge would apply to CLECs using "Option A," who purchase splitters for installation in their own collocation areas, and those using "Option C," whose splitters are installed in Verizon-NJ's common area. Verizon-NJ's proposed recurring charge for Option A CLECs is **[Begin Verizon Proprietary] [End Verizon Proprietary]** per 96-line splitter shelf. Prosini Aff., Exhibit MSP-2. Verizon-NJ computes this charge by applying an Annual Cost Factor covering costs for network administration, marketing, and other support to an investment amount based on the cost of a commonly used splitter. Exh. VNJ-12, FinalNJTelric/FinalNJT/Coststud/ExhibitN/N-1Admin/ LS_Split.doc Section 1.3. The proposed charge for Option C CLECs is **[Begin Verizon Proprietary] [End Verizon Proprietary]** Prosini Aff., Exhibit MSP-2. This charge is higher because the ACF used to compute it recovers maintenance costs as well as the costs attributed to Option A. Exh. VNJ-12, FinalNJTelric/FinalNJT/Coststud/ExhibitN/ –1Admin/LS_Split.doc Section 1.3. For the reasons

set forth below, the Ratepayer Advocate supports the analysis of the Covad witnesses, and urges the Board to reject these charges.

Verizon-NJ has presented no justification for applying its ACF to Option A CLECs. These factors are computed on the basis of Verizon-NJ's expenses and investments, and Verizon-NJ has not been able to point to any instance in which it has applied such a factor to the investments of another firm. Murray-Riolo Rebuttal at 60-61. Nor has Verizon-NJ identified a rational relationship between the costs that this ACF covers and an Option A CLEC's splitter investments. *Id.* Verizon-NJ cannot deny that Option A CLECs administer the splitters in their collocation area, or that CLECs and their suppliers answer for the marketing and support costs that Verizon-NJ's ACF purports to recover.

From Verizon-NJ's perspective, this charge is equally baseless. There is no sense in which an Option A CLEC's decision to purchase splitters and place them in its collocation area causes Verizon-NJ to incur any of the costs it seeks to recover with this charge. *Id.* at 61-62. Verizon-NJ has failed to explain, moreover, why splitters, of all the equipment in a CLEC's collocation area, should be subject to this arbitrary assessment. *Id.* at 62.

Verizon-NJ attempts to defend this charge with the assertion that without it Option A CLECs will not be bearing their "fair share." Stern-White Supplemental Rebuttal at 30. But Verizon-NJ neglects to mention that Option A CLECs pay collocation charges for the space where they house their splitters, and that those charges undoubtedly include costs based on the ACFs that Verizon-NJ seeks to apply with this charge. If Verizon-NJ is trying to suggest that these CLECs are getting a free ride, it is wrong.

Application of this charge to CLEC investments will result in over-recovery. Like all ACFs, the ACF Verizon-NJ proposes to apply here was developed on the basis of Verizon-NJ investments to be applied to VZ investment amounts. *Id.* at 61. Applying the ACF to additional investments made by another firm will lead to over-recovery. This concern about over-recovery was one basis for the New York Public Service Commission's rejection of this charge, and the New York ALJ's subsequent decision reiterates this risk of over-recovery. New York Public Service Commission, *Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, Case 98-C-1357, Order Denying Petition for Rehearing (rel. Oct. 3, 2000) at 7; *NY Recommended Decision* at 171-172.

As applied to Option C CLECs, the Splitter Administration and Support charge overstates the maintenance costs it purports to recover. The initial error in the calculation of this charge is the use of Verizon-NJ's EF&I factor to determine splitter investment. As discussed in Section V.A.1.c.(1), it is inappropriate to apply a factor based on embedded, company-wide costs to line sharing.

The error of applying this factor to measure splitter maintenance costs is clear when one considers the realities of the situation. A splitter is a passive device with a long life that requires very little maintenance. A reasonable estimate of splitter maintenance costs would result in minuscule monthly maintenance costs, far less than the figure suggested by Verizon-NJ's methodology. Murray-Riolo Rebuttal at 65-66.

As described above, the New York Public Service Commission has refused to approve the Splitter Administration and Support charge as applied to Option A. The arbitrator in the Maryland Public Service Commission's cost proceeding has similarly rejected the charge.

Maryland Arbitration Decision at 15. This Board, too, should reject Verizon-NJ's attempt to impose these unprecedented costs on its line sharing competitors.

(3) Collocation Charges, Including Splitter Equipment Charge

The Ratepayer Advocate takes no position on this issue at this time.

(4) Pot Bay and Cable and Frame Termination

Verizon-NJ proposes to apply two nonrecurring POT Bay and Cable & Frame Termination charges of **[Begin Verizon Proprietary] [End Verizon Proprietary]** to each line sharing arrangement. Exh. VNJ-12, FinalNJTelric/FinalNJT/Coststud/ExhibitN/N-2Split/ LS_Collo.doc Section 2.1. Verizon-NJ presents no cost support for this charge, instead carrying it over from its collocation tariff. *Id.* Verizon-NJ assumes that two of those charges should apply for each line sharing arrangement on the basis of an equipment arrangement that it has chosen. That arrangement, however, is not the most efficient, forward-looking means of accomplishing the wiring connections that the charge is said to represent. *Id.* Section 1.2. In particular, as discussed below, Verizon-NJ insists on assuming that line sharing arrangements be provided by adding an intermediate POT bay for connecting splitters, which necessitates the two cross-connections and dual cabling covered by the charge. We concur with Ms. Murray and Mr. Riolo that the more efficient approach, and the approach that must be assumed for TELRIC costing purposes, is to mount splitters on the main distribution frame ("MDF"). Murray-Riolo Rebuttal at 23-27.

The Ratepayer Advocate does not argue that Verizon-NJ must provide frame-mounted splitters. Our argument, rather, is that frame-mounted splitters are the most efficient technology,

and for that reason must be part of the network model used to determine TELRIC rates. If Verizon-NJ chooses to use another, less efficient technology in its central offices, it should not impose the costs of that choice on its competitors. For similar reasons, if Verizon-NJ's past practices have precluded it from employing this efficient approach, Verizon-NJ, not its competitors, should bear the resultant cost.

Technologically, Verizon-NJ's POT bay adds no functionality. It is merely an intermediate connection point between Verizon-NJ's equipment and the CLEC's. Murray-Riolo Rebuttal at 75. Economically, however, the POT bay is a further expense for CLECs and thus a restraint on their competitive vitality. *Id.* at 75, 77-78. The FCC has specifically addressed such situations:

> Incumbent LECs may not require competitors to use an intermediate interconnection arrangement in lieu of direct connection to the incumbent's network if technically feasible, because such intermediate points of interconnection simply increase collocation costs without a concomitant benefit to incumbents.

Federal Communications Commission, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, First Report and Order and Further Notice of Proposed Rulemaking ¶ 42 (rel. March 31, 1999) ("*Advanced Services Order*").

The point of contention, therefore, is whether it is "technically feasible" to provide line sharing connections in the central office without adding a POT bay. In the view of the Ratepayer Advocate, the availability of frame-mounted splitters means that POT bays are an unnecessary and inefficient technical choice, and in a TELRIC analysis the cost of interconnection should not be based on assuming that choice. Mr. Riolo accurately explained the advantages and

availability of frame mounted splitters, and described how mounting splitters on the MDF would obviate the need for a POT bay and multiple cross-connections and tie cables. Murray-Riolo Rebuttal at 23-27. Verizon-NJ's witnesses respond that these splitters are not truly available, supporting this claim with hedged statements that "to the best of [their] knowledge" the splitters do not comply with industry safety standards, and "Verizon NJ has seen no evidence demonstrating" such compliance. Stern-White Supplemental Rebuttal at 6, 7. Mr. Riolo simply and convincingly testified to two reputable manufacturers promoting frame mounted splitters that comply with industry standards. T.1861:2-186322 (12/21/00).

Verizon-NJ also contends that mounting splitters on the MDF is not possible because space on MDFs is limited, and adding splitters would exhaust their capacity. Stern-White Supplemental Rebuttal at 7-8. In a very important sense, this concern is irrelevant. It is hard to square Verizon-NJ's focus on current MDF congestion and a planning process that has led to this limited capacity for growth with the forward-looking, efficient construct that should be employed in a TELRIC analysis. In any event, as the Covad witnesses pointed out, there is reason to doubt the severity of the congestion problem that Verizon-NJ raises, and even greater reason to doubt that it will persist. Murray-Riolo Rebuttal at 25-26.

In summary, frame mounted splitters are available for use and are the efficient technological choice. If Verizon-NJ chooses a less efficient technology, it causes and should bear any of the costs of that inefficiency. The Ratepayer Advocate recommends that the Board adopt the recommendation of the Covad witnesses, and decrease Verizon-NJ's POT bay and cable and frame termination charges by 50%.

(5) Per-line and Order-related Charges

Verizon-NJ proposes essentially to carry over to line sharing orders certain nonrecurring charges applicable to unbundled loops. Exh. VNJ-26, Dark Fiber/VNJ_WHLS.XLS Cost Summary tab, row 165. These charges are for the Service Order, Central Office Wiring and Provisioning NRCs. *Id.* In its initial submissions, Verizon-NJ made no effort to justify its assumption that these charges for a full loop should apply fully to line sharing arrangements. In the view of the Ratepayer Advocate, Covad persuasively demonstrated that the Service Order charge should be reduced on the basis of a line sharing-specific cost analysis, and that the other two charges should be cut by 50%. *Id.* at 79-81. In response, Verizon-NJ defended only its application of the Service Order charge. Stern-White Supplemental Rebuttal at 39. That charge recovers costs for activities that are clearly not associated with line sharing, including, for example, activities to establish a new account. Murray-Riolo Rebuttal at 80. Verizon-NJ argues in essence that line sharing orders are complex because line sharing involves two services that must be tracked by the ordering system. Stern-White Supplemental Rebuttal at 39. Verizon-NJ does not account, however, for the possibility that those complexities may be handled, at least in a forward-looking construct, by a mechanized, flow-through process. Murray-Riolo Rebuttal at 80.

Verizon-NJ has thus failed to meet its burden of proving that the charges it proposed are applicable to line sharing arrangements. Accordingly, the Ratepayer Advocate recommends that the Service Order and Provisioning charges be reduced by 50%. Such treatment finds support in the recent decision of the Pennsylvania PUC in its UNE case. In that case Verizon produced no evidence to support application of its pre-existing installation charge to line sharing, a failure of

proof that it repeats here for the installation and provisioning charges. In that case, the ALJ set the installation charge for line sharing at zero. *Pennsylvania Recommended Decision* at 61, which was upheld by the Pennsylvania PUC. *Pennsylvania Interim Order* at 45-46. Arguably a similar result is justified here, but the Ratepayer Advocate recommends the 50% reduction supported by the record before the Board. We further recommend that nonrecurring charges for central office wiring be set as follows:

	First/additional install	**First/additional disconnect**
Place Jumper	$5.85/$3.32	$4.58/$2.05
Remove Jumper	$2.05/ N/A	N/A

Murray-Riolo Rebuttal at 35, 81.

3. Line splitting

Line splitting is the provision of voice and data service on the same loop by two different CLECs. Technologically, it is virtually identical to line sharing, which is the provision of voice service by an ILEC and data service by a CLEC on the same loop. Broadly speaking, in this proceeding the Board faced two issues related to line splitting. The first was whether and how Verizon-NJ is responsible for facilitating line splitting. The second was whether Verizon-NJ should be required to own the splitters used to accomplish line splitting.

During this proceeding, Verizon-NJ's intentions concerning line splitting have been unclear. The Company referred to and defended its "prohibition on line splitting." Stern-White Rebuttal at 14. In the next breath, though, it described Verizon's effort to "explore the feasibility" of line splitting in a collaborative in New York, only to dwell at some length on the

host of complex problems that beset that effort, problems surrounding the business rules for line splitting and their relation to the OSS changes that line splitting will involve. *Id.* at 15-17.

The FCC's recent order on reconsideration of its *Advanced Services Order* resolved the question of Verizon-NJ's obligations in this area, making it clear that ILECs are required to enable competing carriers to engage in line splitting. Exh. RPA-19, Federal Communications Commission, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Third Report and Order on Reconsideration in CC Docket No. 98-147 ¶ 17 (rel. Jan. 19, 2001). The Ratepayer Advocate believes that there are strong policy reasons for ensuring that line splitting quickly becomes a reality in New Jersey. When line splitting is not a real alternative, Verizon-NJ's voice customers who use line sharing arrangements can only choose competing voice carriers if they are willing to give up the advantages of line sharing. Similarly, without line splitting customers of competitive voice carriers are denied the advantage of receiving data services over the same loop as voice services. All of this deprives consumers of attractive alternatives and puts a damper on competition. Recognizing this, the New York Public Service Commission anticipated the FCC's recent action and required Verizon to provide for line splitting "as soon as practicable." New York Public Service Commission, *Proceeding on Motion of the Commission to Examine Issues Concerning the Provision of Digital Subscriber Line Services*, Case 00-C-0127, Opinion and Order Concerning Verizon's Wholesale Provision of DSL Capabilities (iss. and eff. Oct. 31, 2000). The Board should likewise order Verizon-NJ to make line splitting available to New Jersey consumers as soon as reasonably possible.

The second question, concerning the existence of a requirement that Verizon-NJ provide splitters, remains open. Verizon-NJ contends that no such obligation exists as a legal matter. Stern-White Rebuttal at 1-2. It further asserts that such an obligation would be ill-advised from the operational and financial standpoint. In particular, Verizon-NJ argues that owning splitters used by numerous CLECs, and in particular being required to provide them to CLECs a line at a time, would be administratively confusing and prohibitively complex. *Id.* at 4-11. Verizon-NJ further contends that splitter ownership would expose it to financial risk as churn among splitter users and abandonment of Verizon-NJ-owned splitters stranded its splitter capacity. *Id.* at 4-6. The Ratepayer Advocate agrees with Mr. Nurse that there are solutions to all these problems that Verizon-NJ raises. Central ownership of the splitters in a central office would promote efficiency by decreasing the number of splitters in each office. Nurse Rebuttal at 3. In addition, Verizon-NJ-owned splitters would simplify the movement of customers from one provider to another. Nurse Direct at 13. A variety of other advantages can be expected to emerge from a regime in which Verizon-NJ provides splitters to CLECs. *Id.* at 15-18.

For all these reasons, the Ratepayer Advocate urges the Board to require Verizon-NJ to provide splitters to CLECs for line splitting on a per-line basis.

4. Wideband Testing

Verizon-NJ proposes a recurring charge of **[Begin Verizon Proprietary] [End Verizon Proprietary]** per line sharing arrangement to cover the cost of its Hekimian wideband testing system. Prosini Aff., Exhibit MSP-2. Verizon-NJ insists that line sharing CLECs must pay this charge, asserting that the system is an efficient adjunct to its role as a wholesaler. Stern-White Supplemental Rebuttal at 14. Verizon-NJ's argument, however, has several fatal flaws.

Verizon-NJ overlooks the fact that CLECs can perform their own testing. Indeed, the FCC has established that CLECs have the right to perform testing for themselves. *See* 47 C.F.R. § 51.319(h)(7) (requiring incumbent LECs to permit purchasers of line sharing to provide their own testing systems). This right would be empty indeed if Verizon-NJ were permitted to levy a charge for testing, whether the CLEC wanted the testing or not. Once a CLEC is forced to pay for a testing system, it will have little incentive to invest in a testing capability of its own.

Verizon-NJ's position also rests on the premise that deployment of its wideband testing system is an efficient choice. That premise, however, is unproven by Verizon-NJ and indeed refuted by evidence concerning Verizon's purchase of the Hekimian system. Verizon-NJ claims that without this system Verizon-NJ will face increased costs as a result of increased field dispatches to clear troubles. Stern-White Supplemental Rebuttal at 17-18. Verizon-NJ provides nothing but assertion to support this claim. Verizon-NJ offers no objective evidence in the form of a study or engineering analysis of the effect of the Hekimian system on Verizon-NJ's wholesale provisioning or repair efforts.

Indeed, the study that Verizon (then Bell Atlantic) performed to justify purchasing the Hekimian system **[Begin Verizon Proprietary]**

[End Verizon Proprietary]

Verizon-NJ has thus failed to establish that the costs of the Hekimian system should be imposed willy-nilly on CLECs. Three other state Commissions have reached that same conclusion, declaring Verizon-NJ's wideband testing rate to be optional. *NY Line Sharing Order* at 25-27; *Massachusetts Phase III Order* at 118; *Maryland Arbitration Decision* at 21; *see also*

NY Recommended Decision at 162, n. 324. The Ratepayer Advocate recommends that the Board likewise prohibit Verizon-NJ from imposing the costs of this system on its competitors.

5. Cooperative Testing

Cooperative testing is the procedure in which Verizon-NJ and a CLEC collaborate on testing new loops on the day of installation to ensure that the loops are working. Murray-Riolo Rebuttal at 176. Cooperative testing had its origin in the New York collaborative, when CLECs found that Verizon-NY was providing an unacceptable number of non-working loops. *Id.* Verizon-NJ now seeks to charge CLECs for its role in this cooperative effort to ensure that it is delivering acceptable loops. The Ratepayer Advocate concurs with Covad's view that these tests would not be necessary if Verizon-NJ delivered loops as it should, and that there is no basis for Verizon-NJ to claim a right to payment for a procedure that its own shortcomings make necessary. Indeed, even without a Verizon-NJ-imposed charge, cooperative testing is not "free" to CLECs, since they bear the cost of their own participation in the tests. *Id.* at 177. The Ratepayer Advocate recommends that the Board disallow this unjustified charge. The Massachusetts Department of Telecommunications and Energy considered and disallowed this charge for just these reasons. *Massachusetts Phase III Order* at 113.

6. DSL Over DLC/PARTS

The number of telephone subscribers who are served by fiber fed outside plant is growing as Verizon-NJ implements plans to increase the deployment of fiber and GR-303 technology in its network. Lundquist Direct at 13-14. This phenomenon gives cause for serious concern about access by those consumers to competitively provided advanced services. If consumers are to enjoy that access, competitive providers of DSL services must have fair and technically up-to-

date access to Verizon-NJ's remote terminals. Without a workable, affordable and competitively neutral solution to that problem, the spread of advanced services to New Jersey ratepayers will be severely curtailed.

Verizon-NJ's past offerings purporting to provide competitors with access to subscribers served by RTs have been grudging and inadequate. As discussed in Section V.E.2. *infra*, p. 154, because of a combination of technological constraints, the nature of the embedded plant and Verizon-NJ's refusal to propose viable rates, terms and conditions, RT collocation does not have broad promise as a solution. Many believe that "plug and play," in essence the ability to collocate line cards in NGDLC systems, can facilitate the provision of competitive advanced services over fiber. *E.g.*, Murray-Riolo Rebuttal at 201-208. As discussed below, however, long after it made massive plans to deploy its own line cards for the provision of advanced services, Verizon continues to stall competitors' efforts to take advantage of that network architecture.

Now that the evidence is mounting that these positions lack substance, Verizon has proposed its Packet at Remote Terminal Service ("PARTS"). The initial documentation of the PARTS proposal is a slide show that contains a "Draft Service Description." Exh. WCOM-18 at 4. The presentation repeatedly informs the audience that, "This is not an offering by Verizon. Presentation is for discussion purposes only." *Id. passim*. The service described in the slide show is a customer-to-central office offering in which Verizon would own all the facilities from the rate demarcation point to the CLEC's point of interconnection in the central office. *Id.* at 5. According to the presentation, no Verizon RTs are now equipped to provide the service, and the service will be available only in "specially equipped" RTs and central offices. *Id.* at 5, 6. The presentation estimates that approximately 15,000 such RTs "may" be developed in the next two

years, and states that there are no current plans for overlays or replacements of existing DLC systems.

The Ratepayer Advocate welcomes any movement that might bring advanced services competition to the underserved consumers of New Jersey. However we urge the Board to take steps to maximize the chance that competition will truly take root and grow in this difficult environment. At present, as the PARTS slide show indicates, Verizon-NJ is proceeding cautiously and without making commitments. The consumers of New Jersey, however, cannot wait for Verizon-NJ to decide when it is time for them to enjoy the benefits of advanced services competition. Therefore, the Ratepayer Advocate first urges the Board to actively monitor the progress of this proposal, and to order Verizon-NJ to specify within 60 days the particular terms, conditions and rates associated with its PARTS proposal.

In addition, we urge the Board to take steps to promote facilities-based advanced services competition. The drafters of the 1996 Act recognized that facilities-based carriers would be the most robust and long-lasting competitors, the carriers most likely to bring innovation and quality competition to the market. The FCC has recognized the importance of this and has acted to promote facilities-based competition wherever possible. *Local Competition Order* ¶ *172; UNE Remand Order* ¶¶ 5-7. The PARTS proposal, however, is antithetical to those objectives. Its central office-to-subscriber ILEC ownership regime eliminates the opportunity for carriers to provide their own facilities to complement those of the ILEC. Its control over the electronics in the RT and CO will retard if not eliminate variety, quality and innovation in CLECs' service offerings. For these reasons, the Ratepayer Advocate recommends that the Board take all necessary steps to improve Verizon-NJ's existing RT collocation offering and to require

Verizon-NJ to facilitate line card collocation. We address both of these topics in the following section of this brief.

7. Line Cards/Access to Remote Terminals

The Ratepayer Advocate agrees with the competitive carriers that have concluded that Verizon-NJ's proposed RT collocation scheme is so deficient as to be useless as a vehicle for competition. Nurse Rebuttal at 8. We discuss this offering and recommend rates for RT collocation in Section V.E.2. *infra*, p. 154. As Verizon-NJ's offering currently stands, many of its nonrecurring charges are prohibitively high. Murray-Riolo Rebuttal at 196. A more serious flaw in Verizon-NJ's offering is the prevalence of ICB (individual case basis) pricing. Verizon-NJ has attached ICB pricing indications to some potentially expensive items, such as the normally large (and potentially entry-barring) nonrecurring charges for Site Survey and Engineering and Implementation. Nurse Rebuttal at 10. Deprived of useful information about these potentially debilitating charges, Verizon-NJ's competitors are commercially paralyzed. Accordingly, the Ratepayer Advocate recommends the establishment of rates for RT collocation as set out in Section V.E.2. *infra*, p. 154.

Verizon-NJ's proposed terms and conditions make the prospect of successful RT collocation seem even more remote. In some cases important information, such as the accessibility of spare conduit, is missing. Murray-Riolo Rebuttal at 199. In addition, the information that Verizon-NJ proposes to provide about subtending FDIs, easements and other aspects of the RT are of limited use. *Id.* at 199-200. All in all, the RT collocation offering as Verizon-NJ currently describes it is largely useless.

The answer to this problem lies in "plug and play," the ability of competitors to purchase or lease line cards for insertion in Verizon-NJ's DLC systems. Verizon-NJ continues to insist that plug and play is not yet achievable. Stern-White Rebuttal at 32-33. The plans of other ILECs, however, demonstrate that that position is, to put it mildly, pessimistic. Murray-Riolo Rebuttal, Exhibit TLM/JPR-4. While it has taken this position over the years, Verizon-NJ has also been making its own plans to offer line sharing through line cards at the RT. It has now been two years since Verizon announced an $800 million plan to purchase line cards and other equipment for use in providing DSL service to customers served by digital loop carrier. Alcatel Press Release (April 8, 1999), http://www.alcatel.com/press/vpr (included as Attachment 4 to this brief). As Verizon-NJ continues to advance these plans to provide DSL over fiber, the competitive issue comes more sharply into focus.

In the Ratepayer Advocate's view, Verizon-NJ should not be permitted to dominate the provision of advanced services to consumers served by the network of the future. Regulators in other states have recognized this imperative and taken steps to bring competition to those consumers. The Pennsylvania Public Utilities Commission has called for a Technical Conference to explore the means by which competitive carriers can provide advanced services to consumers served by digital loop carrier. Pennsylvania Public Utilities Comm., *Petition of Covad Communications Co. for an Arbitration Award Against Bell Atlantic-Pennsylvania, Inc., Implementing the Line Sharing Unbundled Network Element,* A-316096F0002, *Petition of Rhythms Links, Inc., for an Expedited Arbitration Award Implementing Line Sharing,* A-310698F0002, Opinion and Order (Nov. 15, 2000) at 19. The New York Public Service Commission similarly concluded that when technically feasible, "customers served by digital

loop carrier must have access to xDSL service offered them by data local exchange carriers." New York Public Service Comm., *Proceeding on Motion of the Commission to Examine Issues Concerning the Provision of Digital Subscriber Line Services*, Case 00-C-0127, Opinion and Order Concerning Verizon's Wholesale Provision of DSL Capabilities (Oct. 31, 2000) at 25. The New York Commission found that Verizon was required to make competitive carriers' advanced services available to consumers served by remote terminals regardless of whether Verizon was providing such services. *Id.* The Commission found that Verizon must improve its existing tariff offering, which had many of the shortcomings of the tariff now before the Board, and ordered Verizon to offer competitors technically feasible access to subscribers served by RTs. *Id.* at 25-28. The Massachusetts Department of Telecommunications and Energy likewise expressed its concern with consumers served by RTs, and ordered Verizon to file tariffs that provide competitive carriers with a plug and play option. *Massachusetts Phase III Order* at 43-45. The Ratepayer Advocate urges the Commission to ensure that all New Jersey consumers will enjoy the benefits of advanced services competition by ordering Verizon-NJ to add to its tariffs a plug and play option and to take immediate steps to cooperate with competitive carriers to implement that option in New Jersey.

B. House and Riser Cable

> *[A] facilities-based provider's ability to offer service in a multi-unit building or campus may be severely impaired if it must install duplicative inside wiring.*

UNE Remand Order ¶ 216.

Verizon-NJ is required to provide CLECs with access to its house and riser cable. 47 C.F.R. § 51.319(a)(2). The parties to this proceeding agree to the basic definition of house and riser cable:

> A house and riser cable means a two-wire or four-wire metallic distribution facility in [Verizon-NJ's] network between the minimum point of entry for a building where a premises of a customer is located (such a point, a Minimum Point of Entry "MPOE") and the rate demarcation point for such a facility (or network interface device "NID") if the NID is located at such rate demarcation point.
>
> House and riser cable provides a CLEC with access to facilities between the network side of the network interface of the CLEC's end user (usually on the floor where the end user is located), and a point of interconnection (usually in the basement) on the same premises where the network side of [Verizon-NJ's] house and riser facilities terminate.

Stern Aff. ¶¶ 33-34; see Kahn Rebuttal at 5 (agreeing with Stern definition); *see also* 47 C.F.R. § 51.319(a)(2)(A). The parties disagree as to some terms and conditions under which Verizon-NJ will provide access to house and riser cable, and as to the rates for such access. The following two sections address these issues, starting with the latter.

1. Rates

The main dispute on rates for access to Verizon-NJ house and riser cable is between Verizon-NJ and AT&T. Those parties proposed the following recurring and nonrecurring rates for access to its house and riser cable:

HOUSE AND RISER	**Verizon-NJ**	**AT&T**
Cable Investment per Floor (recurring)	$0.01	$0.005
Building Access per pair (recurring)	$0.55	$0.25
50 Pair Terminal Charge (nonrecurring)	$157.38	$3.15 (per individual pair)[10]
Time and Materials (nonrecurring)	ICB	N/A

Exh. VNJ-26, Attachment 1R at 2 (Revised Oct. 12, 2000); Kahn Rebuttal at 8-9. AT&T's proposed rates for house and riser cable, unlike those for other UNEs, were based on running Verizon-NJ's cost models, not on the HAI model. Kahn Rebuttal, Attachment BK-4.

The most significant of the rate disputes center around the nonrecurring rates. First, the Ratepayer Advocate supports the AT&T proposal that the Board permit Verizon-NJ to assess terminal charges only for the number of terminal connections specifically requested by the CLEC, rather than for an indivisible block of 50 connections as proposed by Verizon-NJ. Such single pair interconnection is technically feasible and, therefore must be made available to CLECs. *See infra* Section V.B.2, p. 140.

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[10] The $3.15 per terminal block pair rate does not appear in witness Kahn's rebuttal testimony. It has been computed by taking the Verizon-NJ revised rate of $157.38 and dividing it by 50 consistent with the disagreement between AT&T and Verizon-NJ regarding whether the rate should be calculated per 50 pairs or per individual pair. The $157.38 rate represents a corrected rate by Verizon-NJ; the rate available to witness Kahn at the time her rebuttal testimony was filed was $209.22. Presentation of Bell Atlantic-New Jersey, Inc., Augmenting the Existing Record, Docket No. TO00060356, Attachment 1 at 2 (July 28, 2000) ("Verizon-NJ Presentation").

Second, the Ratepayer Advocate agrees with witness Kahn that the Board should disallow Verizon-NJ's proposed Time and Materials charges for dispatches to perform cross-connections between the Verizon-NJ network and the CLEC terminal block. Time and Materials charges are one time charges based on the amount of time it takes Verizon-NJ personnel to perform their assigned tasks (*e.g.*, the cross-connections) and the applicable labor rate. *See* Kahn Rebuttal at Att. BK-7. Such charges, therefore, amount to individual case basis ("ICB") charges. Accordingly, they provide CLECs with no certainty as to the amount Verizon-NJ would actually assess for providing access to house and riser cable. Without such certainty, it is all but impossible for CLECs to develop business plans to include house and riser cable. *See* Murray-Riolo Rebuttal at 192-193 (the ICB rates Verizon-NJ proposed for remote terminal collocation "would make it impossible for competitors to develop business plans that include remote terminal collocation"). Given the obviously large number of multiple tenant units, residential and business, in New Jersey, allowing rates based on ICB charges would effectively preclude CLECs from providing service to these New Jersey consumers.

Accordingly, the Ratepayer Advocate recommends that the Board order the following rates, and the following rates only, for CLEC access to house and riser cable:

HOUSE AND RISER	**RATE**
Cable Investment per Floor (recurring)	$0.01
Building Access per pair (recurring)	$0.55
Pair Terminal Charge, per pair (nonrecurring)	$3.15
Time and Materials (nonrecurring)	N/A

2. Terms and Conditions

Access to Verizon-NJ house and riser cable is key to the provision of competitive services to occupants of multiple tenant units. The Ratepayer Advocate posits that Verizon-NJ's

proposal is anticompetitive because it would require CLECs to purchase and install their own, separate 50-pair terminal block in order to access house and riser cable, Stern Aff. ¶ 39, and to connect to this in 50-pair block increments. *Id*.; Kahn Rebuttal at 9-10, 17-20. While Verizon may prefer this method of interconnection for house and riser cable, it should not be permitted to require CLECs to acquire their own terminal blocks. Kahn Rebuttal at 9-10, 17-20.

Instead, the Ratepayer Advocate agrees with AT&T's recommendation that the Board permit CLECs to either obtain their own terminal blocks or share terminal blocks among themselves. Kahn Rebuttal at 17-18. If a CLEC is sharing a terminal block with other CLECs, that CLEC must be able to order from Verizon-NJ only the number of cross-connects required by that CLEC, not a pre-set minimum. For example, CLECs should be able to order single pair interconnection so that they can perform any necessary cross-connection work at the building owner's property themselves, thereby obviating the need for Verizon-NJ to dispatch technicians. Kahn Rebuttal at 10. (If the Board orders single pair interconnection, time and materials charges for technician dispatches would be unnecessary and should therefore be disallowed. *See supra* Section V.B.1., p. 139)

Verizon-NJ has the burden of proving that the single pair method of interconnecting with its house and riser cable is not technically feasible. 47 C.F.R. § 51.319(a)(2)(B). Verizon failed to demonstrate, or even to attempt to demonstrate, that single pair interconnection to house and riser cable is not technically feasible. Thus, Verizon-NJ failed to meet its burden and the single pair method of interconnection must be permitted.

At least two other state commissions have required ILECs to permit single pair interconnection, one as recently as last month. In addressing a complaint by AT&T that Qwest

denied it access to inside wiring in multiple tenant units, on April 5, 2001, the Washington Utilities and Transportation Commission found, pursuant to the *UNE Remand Order*, that the single pair interconnection sought by AT&T was technically feasible and, therefore, that AT&T was entitled to such a method of interconnection. *AT&T Communications of the Pacific Northwest, Inc. v. Quest Corporation*, Washington Utilities and Transportation Commission Docket No. UT-003120, Second Supplemental Order Granting Motion to Amend Answer, Denying Emergency Relief and Denying Motion for Summary Determination at 8 (April 5, 2001). Similarly, the Georgia Public Service Commission has ordered that "BellSouth must construct a single point of interconnection that will be fully accessible and suitable for use by multiple carriers." *Interconnection Agreement Between MediaOne Telecommunications of Georgia, LLC and BellSouth Telecommunications, Inc.*, Georgia Public Service Commission Docket No. 10418-U, Order at 5 (Dec. 21, 1999).

Not only are these decisions persuasive, but they establish that the single pair interconnection is presumptively feasible in every other state. The FCC's rules require that, once one state has found single pair interconnection to house and riser cable technically feasible, ILECs in other states must provide such interconnection upon request, absent a demonstration by the incumbent provider to the state commission that such interconnection is not technically feasible in the given state. 47 C.F.R. 51.319(a)(2)(C). Indeed, the FCC's *UNE Remand Order* provides an example of how states should apply best practices that parallels the situation at issue here.

> For example, Texas requires subloop unbundling at the remote terminal. If a competitive LEC seeks unbundled access to a subloop at the remote terminal from an incumbent LEC in New

> York, the burden rests with the New York incumbent to prove that its own situation differs to such an extent that the Texas arrangement is not technically feasible.

UNE Remand Order ¶ 227. Consequently, because Verizon-NJ failed to demonstrate that single pair access to house and riser cable is not technically feasible, Verizon-NJ must provide such access. Further, this method of access should be assumed when determining the proper TELRIC rates for access to house and riser cable. *See supra* Section V.B.1, p. 139.

C. Dark Fiber

Under the *UNE Remand Order*, dark fiber is a UNE that ILECs are required to offer to competitors. *UNE Remand Order* ¶ 326; 47 C.F.R. §§ 51.319(a)(1), 51.319(d)(1)(ii). The FCC determined "that, because dark fiber provides high transmission capabilities at relatively low cost, unbundling dark fiber is essential for competition in the provision of advanced services." *UNE Remand Order* ¶ 196.

Dark fiber is unlike other UNEs in that "[i]f incumbent LECs are able to demonstrate to the state commission that unlimited access to unbundled dark fiber threatens their ability to provide service as a carrier of last resort, state commissions retain the flexibility to establish reasonable limitations governing access to dark fiber loops in their states." *UNE Remand Order* ¶ 199. Verizon-NJ has not shown this Board any evidence that its ability to provide service as a carrier of last resort is threatened in any way that justifies action to limit the provision of dark fiber. Nevertheless, Verizon-NJ's definition of the dark fiber UNE has provisions that when measured against the FCC's definition of the UNE amount to impermissible restrictions upon the availability of dark fiber.

1. Rates

The Board should adopt rates for dark fiber that use the same long-run forward-looking cost basis used to price any UNE. The Ratepayer Advocate supports Covad's conclusion that Verizon's proposed rates for dark fiber violate the FCC's methodology in that they include both investment costs and embedded costs. Murray-Riolo Rebuttal at 182-183. Moreover, when compared to the dark fiber rates proposed by Verizon in Pennsylvania, it is obvious that Verizon-NJ's proposed rates in this proceeding are excessive.

First, the Board should not include investment costs in determining the rate for dark fiber. Verizon-NJ's dark fiber offering only provides for fiber that is "unlit" and "in-place." Stern Affidavit at 7. Thus, Verizon-NJ does not plan for future dark fiber placement and does not take into consideration customer demand. Murray-Riolo Rebuttal at 182. *See also* Covad Exh. 2, VNJ-Covad-3-21, VNJ-Covad-3-23, and VNJ-Covad-3-25. The Ratepayer Advocate supports Covad's recognition that, "Verizon-NJ states specifically that it will not consider demand for the dark fiber element when it plans its network" and thus dark fiber will not "affect Verizon-NJ's calculations of anticipated service demand." Murray-Riolo Rebuttal at 182, citing Exh. Covad-2, VNJ-Covad 3-21, 3-23, 3-25. Rather, Verizon-NJ will provide only the dark fiber that is available minus the dark fiber it sets aside for maintenance and its own future use. It is not sensible to require competitors to pay Verizon-NJ for adding additional capacity when Verizon-NJ has no intention of adding that capacity. The Board should recognize that the only costs incurred by Verizon-NJ for dark fiber are the costs of maintaining the dark fiber. *See* Murray-Riolo Rebuttal at 183.

Second, the Board should require Verizon-NJ to remove its embedded costs from its rates for dark fiber. Verizon-NJ asks that the Board permit it to "recover the costs of the fiber cable and the associated structure costs." Stern and White Supplemental Rebuttal at 93. However, these are costs that Verizon-NJ has already incurred that have no place in a forward-looking cost analysis. The question is not whether Verizon-NJ can recover for money already spent on dark fiber, but what Verizon-NJ should be allowed to recover for maintenance of its current dark fiber. *See* Murray-Riolo Rebuttal at 182. Rationally, the Board should not include in the rate for dark fiber investment costs that Verizon-NJ would not incur on a forward-looking basis. In order to develop a forward-looking price for Verizon-NJ's dark fiber IOF offering, the Board's adopted rate for dark fiber should plainly include only the forward looking network expenses to Verizon-NJ of its dark fiber interoffice facility ("IOF").

Additionally, this Board cannot ignore the fact that the rates for dark fiber proposed by Verizon in Pennsylvania are substantially lower than those proposed in New Jersey. Specifically, Verizon-NJ proposes to this Board a substantially higher recurring rate of **[Begin Verizon Proprietary] [End Verizon Proprietary]** (Prosini Rebuttal Attachment MSP-1R at 1), compared to the rate proposed by Verizon in Pennsylvania, $66.30 per fiber pair per mile. There is no reason competitors in New Jersey should pay substantially more for dark fiber IOF than in Pennsylvania.

Similarly, for dark fiber loops, Verizon-NJ proposes **[Begin Verizon Proprietary] [End Verizon Proprietary]** per loop for density cells one, two and three respectively (Prosini Rebuttal Attachment MSP-1R at 1), while in Pennsylvania Verizon proposes dramatically lower dark fiber loop rates of $44.49, $32.77, $120.55 and

$153.34 for zones one, two, three and four. *Pennsylvania Recommended Decision*, Appendix A at 2.

The disparity of rates from New Jersey to Pennsylvania is particularly curious in light of the states' similarly dense populations. Intuitively, a dense population should mean a lower price for dark fiber. Indeed, according to the United States Census, New Jersey is the most densely populated state, with Pennsylvania ranked tenth. http://www.census.gov/Press-Release/state02.prn. Such population density should result, at the very least, in lower rates for Verizon-NJ's dark fiber offering. Based on Verizon's proposed rates in Pennsylvania, the Ratepayer Advocate recommends that Board set Verizon-NJ's dark fiber rates at no more than $70.94 for density zone one, $120.55 for zone two, and $153.34 for zone three. These rates are based on a blending of Pennsylvania's rates for its zones one and two to arrive at a zone one rate for New Jersey.

Finally, Verizon-NJ should be required to propose a dark fiber subloop in New Jersey with rates that mirror New York. As described in Section V.C.2., Verizon-NJ has inexplicably failed to make such an offering. The Board should similarly require Verizon-NJ to provide the subloop dark fiber offering at approximately the rates offered by Verizon-NY of $4.69 fixed and $65.40 per mile. New York Telephone Company Tariff, P.S.C. 914, § 5.20.4 (A) (May 17, 2000).

In summary, the Ratepayer Advocate recommends that the Board not include investment related costs in Verizon-NJ's dark fiber rates. At a minimum, this Board should adopt rates no higher than those that Verizon has proposed to provide to competitive carriers in Pennsylvania,

which are substantially lower than those being proposed in New Jersey today. Verizon-NJ should also be required to provide a subloop dark fiber offering at New York based rates.

2. Definition

The FCC defines Dark Fiber as "[u]nused fiber through which no light is transmitted, or installed fiber optic cable not carrying a signal." *UNE Remand Order* ¶ 162 n. 292. To spur competition, the Board should exercise its authority and adopt a similarly broad and unrestricted definition of dark fiber. Specifically, that definition should provide for a CLEC's ability to run interoffice facility through central office space where it is not collocated and to splice its own interoffice facility. In addition, it is imperative that the Board require Verizon-NJ to provide a dark fiber subloop offering in order that competitors can truly take advantage of the dark fiber UNE.

In stark contrast to the FCC's broad definition, Verizon-NJ defines dark fiber as "spare, unlit continuous fiber optic strand, without enhancing electronic/photonics, within an existing, in-place fiber optic cable sheath." Stern Affidavit at 7. As an initial matter, the Ratepayer Advocate agrees with Conversent that it is inappropriately restrictive for Verizon-NJ to place upon CLECs a prohibition upon using enhancing electronics that effectively requires the CLECs to be collocated at all intermediate points. Graham Rebuttal at 6-7. Further, the requirement that dark fiber be a "continuous" loop further prohibits CLECs from splicing the dark fiber, which limits the dark fiber available to competitors. Graham Direct at 6. It is not surprising that state commissions have rejected Verizon's attempts to offer its present dark fiber offering as a UNE. It is particularly troubling that Verizon-NJ refuses to offer New Jersey competitors a dark fiber subloop offering. This definition of dark fiber clearly places unreasonable limitations on the

provision of dark fiber without showing the Board that Verizon-NJ's provision of service as a carrier of last resort is being threatened.

Under Verizon-NJ's definition of dark fiber, the interoffice facility dark fiber must originate at a central office and end at a central office where the CLEC is collocated or at a CLEC's central office or point of presence ("POP"). Stern Affidavit at 7. This definition prohibits a CLEC from obtaining dark fiber that passes through any central office where it is not collocated. Verizon-NJ argues that "if the CLEC does not have a virtual or physical collocation arrangement at the intermediate office, the CLEC will not be able to access their ends of the fiber to perform testing and/or install necessary equipment to light the fiber." Sprint Exh. 4, VNJ-Conversent 1-9.

It is unclear, as Conversent notes, why Verizon-NJ places such a limitation upon CLECs' provision of dark fiber through offices in which they are not collocated despite the fact that it is both technically feasible and provided by other incumbents. Graham Rebuttal at 6-7; *see also* Maples Rebuttal at 4. Indeed, "VZ-NJ's treatment of dark fiber that runs through an intermediate central office is inconsistent with its treatment of requests for lit fiber, including OC-3 fiber, that runs through an intermediate office." Graham Rebuttal at 7. Such an unnecessary prohibition is clearly discriminatory and does not threaten Verizon-NJ's status as a carrier of last resort. Thus, the Board should require Verizon-NJ to define dark fiber so that it may run through central offices where the competitive carrier is not collocated.

The Board should also require Verizon-NJ to allow competitive carriers to splice their own dark fiber. Verizon-NJ states that "[a] strand [of dark fiber] is not considered continuous if electronics or splicing is required to provide continuity between locations." Stern Affidavit at 7.

The FCC does not require that dark fiber be "continuous." *See* Graham Rebuttal at 6. This is a Verizon-NJ imposed restriction. The ability to splice strands at intermediary points "is not an unreasonable requirement," as it is technically feasible to splice dark fiber. Maples Rebuttal at 4; Graham Rebuttal at 6. In fact, in Massachusetts, Verizon-MA's tariffed dark fiber offering provides that "if a fiber strand can be made continuous by joining fibers at existing splice points within the same sheath, [Verizon-MA] will perform such splicing at the [telephone companies'] request on a time and materials basis." Verizon-MA Tariff No. 17, Part B § 17.11. Verizon-NJ provides no reason why it would prohibit its carrier customers from splicing their own dark fiber nor why such splicing would not fit within its definition of "continuous." T.1670: 11-19 (12/20/00). Accordingly, the Massachusetts Department of Telecommunications and Energy ("Massachusetts D.T.E.") rejected Verizon's attempts to impose these types of limitations on its dark fiber offering and prohibited Verizon-Massachusetts from requiring carriers ordering dark fiber to terminate only at points where they were collocated. *Consolidated Petitions of Verizon New England, Inc. d/b/a Verizon Massachusetts,* Dockets Nos. 96-73/74, 96-75, 96-80/81, 96-83, Order (Aug. 17, 2000).

Finally, Verizon-NJ's dark fiber offering is limited to interoffice dark fiber and a dark fiber loop, but does not include a dark fiber subloop. As noted in Section V.C.1., the dark fiber definition should not only include a dark fiber subloop offering but also a forward-looking cost based rate for such an offering. The FCC requires ILECs to offer competitors nondiscriminatory access to subloops on an unbundled basis at any technically feasible point. *UNE Remand Order* ¶ 205; 47 C.F.R. § 51.319(a)(2). The FCC defines the subloop "as portions of the loop that can be accessed at terminals in the incumbent's outside plant." *UNE Remand Order* ¶ 206.

The Ratepayer Advocate agrees with carriers such as Covad that the omission of a such a rate for dark fiber subloops by Verizon-NJ limits New Jersey carriers to ordering the entire dark fiber loop to the end used premises. Murray-Riolo Rebuttal at 186. It is rare that fiber extends to an end user's premises. Because Verizon-NJ limited its offering to the entire loop, "the dark fiber product as defined by Verizon-NJ would likely never be an option." *Id.* As Mr. Riolo and Ms. Murray explained, it is a matter of concern that "Verizon-NJ's interpretation of the dark fiber loop nearly defines the product out of existence." Murray-Riolo Rebuttal at 186. The FCC clearly intended that incumbents provide a viable dark fiber offering to be made available to carriers in a manner that is useful. Verizon should not be permitted to limit the language of its dark fiber offering in New Jersey to make it worthless and erect barriers to CLECs benefitting from the offering, particularly when Verizon is making subloop dark fiber available in New York.

3. Maintenance and Spare

Verizon-NJ's proposed definition inappropriately restricts dark fiber to "spare" fiber. Stern Affidavit at 7. In categorizing what is "spare" fiber, Verizon-NJ explicitly excludes any fiber that Verizon-NJ is reserving for its own use. T.1693:3-17 (12/20/2000). This restriction is not supported by the FCC's definition of dark fiber and improperly discriminates against the CLECs and ultimately consumers. See *UNE Remand Order* ¶ 162, n. 292.

The limitation that dark fiber be "spare" fiber is not a part of the definition of dark fiber provided by the FCC in the *UNE Remand Orde*r. Verizon-NJ agrees that the terminology in the FCC's definition is "existing" but then defines "spare" as both "existing and unutilized."

T.1668: 2-17 (12/20/00). Verizon-NJ's improper restriction upon dark fiber, without any legitimate justification, should not be permitted.

Moreover, Verizon-NJ's proposed restrictions discriminate against other carriers by permitting the incumbent to favor itself in the provision of dark fiber. In order to prevent discriminatory treatment, the Board should prohibit Verizon-NJ from reserving dark fiber as "spare" and thus giving itself an unfair advantage in the marketplace. Verizon-NJ includes in this reserved fiber an allotment of "maintenance" fiber to be used for emergency repairs and/or network rearrangements. Affidavit of Stern at 8; VNJ-Covad 3-18. If the Board determines that Verizon-NJ is allowed to reserve fiber for "maintenance" purposes, the Ratepayer Advocate supports the carriers' conclusion that it should define what constitutes a "reasonable quantity." Conversent Exh. 5, VNJ-Covad-3-18.

Under the current parameters of this offering Verizon-NJ will provide only dark fiber "that Verizon-NJ has no plans to use for any purpose." Murray-Riolo Rebuttal at 181. Only by limiting the amount of dark fiber that Verizon-NJ is able to reserve for its own purposes may the Board ensure that Verizon-NJ will not discriminate against carriers to the disadvantage of competition in New Jersey.

4. Ordering

The Ratepayer Advocate's position on this issue is contained in Section V.C.2.

D. Reciprocal Compensation

The Ratepayer Advocate takes no position on this issue at this time.

E. Sub-Loop Unbundling

> *[A]ccess to subloop elements is likely to be the catalyst that will allow competitors, over time, to deploy their own complementary facilities, and eventually to develop competitive loops. . . . Failure to unbundle the subloop would cause residential and small business consumers to wait unnecessarily for competitive alternatives.*

UNE Remand Order ¶¶ 205, 219.

The FCC's rules promulgated in the *UNE Remand Order* mandate that Verizon-NJ provide access to unbundled subloop elements. 47 C.F.R. § 51.319(a)(2). The FCC's rules define the subloop as follows:

> *Subloop.* The subloop network element is defined as any portion of the loop that is technically feasible to access at terminals in the incumbent LEC's outside plant, including inside wire. An accessible terminal is any point on the loop where technicians can access the wire or fiber within the cable without removing a splice case to reach the wire or fiber within. Such points may include, but are not limited to, the pole or pedestal, the network interface device, the minimum point of entry, the single point of interconnection, the main distribution frame, the remote terminal, and the feeder/distribution interface.

47 C.F.R. § 51.319(a)(2).

The district court's remand of the Board's *Generic Order* requires the Board to establish rates for subloop network elements, including the rates for deploying the equipment necessary to access the subloop elements (*e.g.*, remote terminal collocation). *AT&T v. Bell Atlantic-NJ* at 15. Verizon-NJ has proposed rates for subloop distribution and for remote terminal collocation. Accordingly, the Board should establish rates for access to these subloop elements in this proceeding. *See* Maples Rebuttal at 3; Murray-Riolo Rebuttal at 210-11.

1. Subloop Distribution

Verizon-NJ has developed a "standardized offering" for unbundled subloop distribution that it terms Unbundled Sub-loop Arrangement or "USLA." Stern Aff. at 2.

> USLA provides a CLEC access to [Verizon-NJ's] metallic distribution pairs/facilities at the [Verizon-NJ] Feeder Distribution Interface ([Version NJ] FDI). USLA provides a 2 wire or 4 wire transmission channel between the Telephone Company ("TC") Outside Plant Interconnection Cabinet ("TOPIC") and the Network Interface Device ("NID") or Rate Demarcation Point ("RDP") at the End User location.

Stern Aff. at 2-3. Verizon-NJ proposed deaveraged recurring rates of $7.60 (Density Cell 1), $9.16 (Density Cell 2), and $10.82 (Density Cell 3) for the 2-wire USLA, and rates of $12.65, $15.65 and 18.83 for the 4-wire USLA. Exh. VNJ-26, Attachment 1R at 1 (Oct. 12, 2000). No party appears to have offered any evidence disputing the rates that Verizon-NJ proposed for the USLA. However, many of the erroneous inputs and assumptions that govern Verizon-NJ's loop rate proposals also underlie its USLA rate proposals. For example, cost of capital, depreciation lives, and fill factors should all be adjusted for the USLA according to their adjustments for the UNE loop. *See supra* Sections III.C - III.D, pg. 33 - 67.

Further, these rates are about twice as high as those *proposed* by Verizon in the neighboring jurisdiction of Pennsylvania. *Pennsylvania Recommended Decision*, Appendix A at 2. New Jersey consumers are at least as deserving as Pennsylvania consumers of receiving the competitive choice to which TELRIC rates will lead. Accordingly, the Ratepayer Advocate recommends that the Board account for the adjustments that should be made to Verizon-NJ's proposed USLA rates by adopting the rates no higher than those proposed by Verizon in Pennsylvania. *Pennsylvania Recommended Decision*, Appendix A at 2. Because Pennsylvania

adopted four density zones, *see Pennsylvania Global Order* at 71, rather than the three adopted by the Board, *Generic Order* at 84, the rates must be converted. The following table sets forth the recurring rates proposed by Verizon in Pennsylvania and the three zone New Jersey equivalents to the Pennsylvania proposed rates.

USLA - 2-wire

Verizon-PA Proposed Rates	New Jersey Rate Equivalents
$3.44 (zone 1)	$3.46 (zone 1)
$3.47 (zone 2)	$5.31 (zone 2)
$5.31 (zone 3)	$8.25 (zone 3)
$8.25 (zone 4)	

USLA - 4-wire

Verizon-PA Proposed Rates	New Jersey Rate Equivalents
$4.39 (zone 1)	$4.87 (zone 1)
$5.07 (zone 2)	$8.18 (zone 2)
$8.18 (zone 3)	$13.44 (zone 3)
$13.44 (zone 4)	

2. Remote Terminal Collocation

One of the methods by which a CLEC may obtain access to unbundled subloop elements is for that CLEC to collocate equipment in a Verizon-NJ remote terminal ("RT").[11] *UNE Remand Order* ¶¶ 221-22. One of the two standard subloop unbundling offerings made available to CLECs by Verizon-NJ is RT collocation. Stern Aff. ¶¶ 4, 9-14. Verizon terms its RT collocation offering "Collocation at Remote Terminal Equipment Enclosures ('CRTEE')." *Id.* ¶ 9. CRTEE is available for both physical and virtual collocation at the RT. *Id.* CRTEE is essentially an adaptation of Verizon-NJ's central office collocation offerings. *Id.* Verizon-NJ has proposed ICB rates as CRTEE nonrecurring rates and the same rates as set forth in Verizon-

[11] RT collocation issues involving the CLEC placement of line cards in a Verizon-NJ RT are addressed *supra* in Section V.A.7, p. 135.

NJ's interim Tariff B.P.U. No. 4 for central office collocation for CRTEE recurring rates. Murray-Riolo Rebuttal at 192.

The Ratepayer Advocate agrees with Covad that ICB rates are inherently unreasonable for standardized UNE offerings. *See* Murray-Riolo Rebuttal at 192-193. Verizon-NJ maintains approximately 2,200 RTs. Murray-Riolo Rebuttal at 192 (citing response to VNJ-ATT-1-12). It would be extremely difficult, if not impossible, for a CLEC to generate a business plan that relied on CRTEE if the rates that Verizon-NJ would assess on that CLEC could vary for each of the 2,200 RTs in New Jersey. *Id*. at 192-193. Instead,

> [t]o ensure that the remote terminal collocation prices Verizon-NJ imposes on competitors are reasonable, nondiscriminatory and cost-based, the Board should adopt a set of fixed prices based on average costs.

Id. at 193. Verizon-NJ has used this very basis to establish its other nonrecurring rates, including its central office collocation rates. *Id*. at 193. Accordingly, the Board should reject Verizon-NJ's proposal to establish CRTEE nonrecurring rates as ICBs.

Because Verizon-NJ has proposed establishing ICB rates for its CRTEE NRCs, it was impossible for any party to propose corrections to make them more TELRIC compliant. Verizon-NJ had the burden of proof to justify its ICB rates and failed to do so, as supported by the record before the Board. The Ratepayer Advocate therefore recommends that the Board adopt rates that are 50% of those proposed by Verizon, as recommended by Covad.

The recurring rates for CRTEE are patently unreasonable. Rather than submit a cost study to calculate the appropriate recurring rates, Verizon-NJ simply proposes that the rates in its central office collocation tariff be applied to CRTEE. *See id.* at 192. This ignores the distinct

differences in costs between central office collocation and CRTEE. "For example, building space charges should not apply because the space in Verizon-NJ remote terminals has already been assigned to the cost of the loops." *Id*. at 194. Further, space should be provided in an RT on a much smaller unit basis - *e.g.*, a rack inch basis - than is appropriate for a central office. *Id*. Indeed, witnesses Murray and Riolo claim that Southwestern Bell prices its rates based on one-inch increments. *Id*. at 195.

Accordingly, the Board should not endorse Verizon-NJ's proposed CRTEE recurring rates. Instead, because Verizon-NJ failed to carry its burden of proof to submit TELRIC based recurring rates for CRTEE, but because Verizon-NJ does incur costs in making CRTEE available to CLECs, the Board should adopt rates that are 50% of those proposed by Verizon-NJ. *See* Murray-Riolo Rebuttal at 196.

F. Customer Specific Pricing Arrangements

The Ratepayer Advocate takes no position on this issue at this time.

G. Development of Revised UNEs Filed after December 1997 Pursuant to June 28, 2000 BPU Letter

The Ratepayer Advocate's positions on the appropriate rates for the UNEs indicated in the June 28, 2000 letter are contained in other sections of this brief.

H. Other BA/GTE Merger Condition Issues

The Ratepayer Advocate's positions on the BA/GTE Merger Conditions are contained in Sections III.C.1.a, III.C.5 and III.E.5, *supra*, pg. 40, 47 and 79.

IV. CONCLUSION

For the reasons expressed above, the Ratepayer Advocate recommends the following:

RECURRING COST OF UNES

Input Issues Affecting All UNES

Cost of Capital: The Ratepayer Advocate supports an 8.8% cost of capital.

Cost of Equity: The Ratepayer Advocate supports a 10% cost of equity.

Cost of Debt: The Ratepayer Advocate supports an 8.07% cost of debt.

Debt/Equity Ratio: The Ratepayer Advocate supports a ratio of 60.94% debt to 39.06% equity.

Depreciation Lives: The Ratepayer Advocate supports the depreciation rates and lives of Verizon-NJ's January 2000 Rate Update.

Common Costs: The Ratepayer Advocate supports a common overhead factor that does not exceed 10%.

Loop Input Issues

Cable Unit Cost: The Ratepayer Advocate recommends that the Board reject Verizon-NJ's cost study for cable costs based on its breach of forward-looking price obligations.

Digital Loop Carrier/GR-303: The Ratepayer Advocate supports assumptions based on Verizon-NJ's 100% use of GR-303 technology as the most efficient, technically feasible, and forward-looking approach.

Fill Factors- Distribution: The Ratepayer Advocate supports the adoption of a distribution fill factor of **[Begin Verizon Proprietary] [End Verizon Proprietary]**.

Fill Factor- Copper Feeder: The Ratepayer Advocate supports that fill factors for copper feeder be set at 85%.

Fill Factor- Fiber Feeder: The Ratepayer Advocate supports that fill factors for fiber feeder be set at 85%.

Fill Factor- Loop Electronics: The Ratepayer Advocate supports that fill factors for loop electronics be set at 85%.

Support Structure- Structure Sharing: The Ratepayer Advocate supports an assumption of 50% structure sharing for Verizon-NJ and other utilities.

Support Structure- Pole Placement Assumptions: The Ratepayer Advocate supports adopting the forward-looking pole spacing parameters proposed by the FCC.

Support Structure- Other Issues: The Ratepayer Advocate supports adopting a unit pole cost of $733.67, based on the application of the NYNEX-Massachusetts UNE Cost Study matured to the year 2000 and applying Verizon-NJ's Telephone Plant Index Inflation factors.

Switching Costs

Discount Weighing: The Ratepayer Advocate supports the recognition of a 100% new/replacement vendor discount applied to the most efficient mix of switching types to determine prices for switching.

Transport/IOF Costs: The Ratepayer Advocate supports the use of a 90% utilization factor in calculating interoffice transport rates.

NON RECURRING COST MODELS

Summary of Models

Relationship of Nonrecurring Cost Model to Recurring Cost Model: The Ratepayer Advocate recommends that the nonrecurring cost model be based on the same forward-looking network design as the recurring cost model. The Ratepayer Advocate recommends NRCs only include costs that apply to the specific UNE ordered by the specific CLEC.

Criticism of Competing Models: The Ratepayer Advocate supports adopting the Ratepayer Advocate's proposed rates and rejecting Verizon-NJ's NRCM for failure to comply with the FCC's forward-looking TELRIC rules.

Discussion of Models

Forward-Looking Network Assumptions: The Ratepayer Advocate supports the adoption of nonrecurring rates based on long-run, forward-looking economic cost. Because it is impossible to make all the necessary corrections to the Verizon-NJ NRCM, the Ratepayer Advocate supports the Board's adoption of rates based on either the best comparable nonrecurring rates from neighboring states and adjustments to Verizon-NJ's proposed rates to correct for the flaws identified in this brief.

Role of OSS: The Ratepayer Advocate supports the forward-looking assumption that OSS functionalities for multiple loop and complex UNE ordering will be processed by electronic OSS.

Fallout Rate of OSS: The Ratepayer Advocate supports a system-wide OSS fallout rate of two percent.

Study Time Horizon: The Ratepayer Advocate supports adjusting Verizon-NJ's model inputs to comply with a long-run time horizon in order to be TELRIC compliant.

Disconnect Charge: The Ratepayer Advocate recommends that disconnect charges be assessed at the time of disconnect, not installation. Therefore, installation charges should be reduced by at least the amount of the disconnect costs and a separate nonrecurring rate item for disconnect charges should be created.

Recurring Costs Included in the VZ NRCM: The Ratepayer Advocate supports removing any recurring costs from the calculation of nonrecurring rates.

Conversion/Migration: The Ratepayer Advocate recommends that the Board adopt a $0.30 conversion rate and rejecting the conversion rate proposed by Verizon-NJ.

Required Work Functions: The Ratepayer Advocate recommends that the Board reject Verizon-NJ's work time function survey as not compliant with a forward-looking environment.

Recommendations of the Ratepayer Advocate Overall: The Ratepayer Advocate supports adopting the comparable rates ordered by the Pennsylvania Commission charged in the market by Verizon-PA, or, if there are no such comparable rates, the adjustments detailed in this Brief to Verizon-NJ's proposed nonrecurring rates.

OTHER ISSUES

DSL

Line Conditioning: The Ratepayer Advocate supports rates based on adopting efficient practices of conditioning multiple lines and conservative work times, and in particular recommends that the Board adopt rates based on a combination of the more conservative assumptions of the Covad and AT&T witnesses.

Loop Qualification: The Ratepayer Advocate supports minimal dip charges associated with access to electronic access to loop makeup information.

Splitter Installation/EF&I Factor: The Ratepayer Advocate recommends that the Board reject both the Verizon-NJ and the Covad proposed rates.

Splitter Administration and Support: The Ratepayer Advocate recommends that the Board reject the splitter administration and support charge for Scenario A CLECs and supports minimal monthly splitter maintenance costs for scenario C CLECs.

Pot Bay and Cable and Frame Termination: The Ratepayer Advocate recommends that the Board reduce Verizon-NJ's POT Bay and cable and frame termination charges by 50%.

Per-Line and Order-Related Charges: The Ratepayer Advocate recommends that the Board reduce Verizon-NJ's Service Order and Provisioning charges by 50% and adopt reasonable nonrecurring charges for central office wiring, as discussed above.

Line Splitting: The Ratepayer Advocate recommends that the Board require Verizon-NJ to provide CLECs with splitters on a per-line basis in order to make line splitting available to New Jersey consumers as soon as possible.

Wideband Testing: The Ratepayer Advocate recommends that the Board prohibit Verizon-NJ from imposing the costs of wideband testing on its competitors.

Cooperative Testing: The Ratepayer Advocate recommends that the Board prohibit Verizon-NJ from imposing costs for cooperative testing.

DSL over DLC/PARTS: The Ratepayer Advocate recommends that the Board actively monitor the DLC/PARTS offering and order Verizon-NJ within 60 days to specify the particulars of its proposed terms, conditions and rates for the DLC/PARTS proposal.

Line Cards/Access to Remote Terminals: The Ratepayer Advocate recommends that the Board order Verizon-NJ to add to its tariff a plug and play option and take steps to cooperate with competitors to implement the plug and play offering in New Jersey.

House and Riser Cable

The Ratepayer Advocate recommends that the Board permit Verizon-NJ to assess terminal charges only for the specific number of terminal connections requested by the CLEC (i.e. allowing the CLEC to choose to obtain its own terminal block or share with others) and prohibit Verizon-NJ from imposing charges only for dispatches to perform cross-connections between the ILEC's network and the CLEC's terminal blocks.

Dark Fiber

Rates: The Ratepayer Advocate recommends that the Board include investment costs and exclude embedded costs in determining the rate for dark fiber loops, dark fiber interoffice transport, and dark fiber subloops and that the Board adopt dark fiber rates based on the recent Recommended Decision in Pennsylvania.

Definition: The Ratepayer Advocate recommends that the Board require Verizon-NJ to define dark fiber broadly to allow carriers to splice dark fiber and to include a dark fiber subloop offering.

Maintenance and Spare: The Ratepayer Advocate recommends that, to prevent discrimination against competitors, the Board limit Verizon-NJ's reservation of dark fiber.

Subloop Unbundling

Subloop Distribution: The Ratepayer Advocate recommends that the Board adopt recurring rates for subloop distribution no higher than those proposed by Verizon in Pennsylvania, as adjusted to conform to New Jersey's deaveraged zones and as set forth above.

Remote Terminal Collocation: The Ratepayer Advocate recommends that the Board adopt recurring and non-recurring rates for 'Collocation at Remote Terminal Equipment Enclosures' at 50% of Verizon-NJ's tariffed rates for central office collocation.

Respectfully submitted,

Blossom A. Peretz, Esq.
RATEPAYER ADVOCATE

Dated: June 18, 2001

APPENDIX

RECOMMENDED RECURRING AND NONRECURRING RATES

Attachment 1

Bell Atlantic-Delaware, Inc. v. McMahon
80 F. Supp.2d 218, 238 (Del. Dist. Ct. Jan. 6, 2000).

Attachment 2

Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements, New York Public Service Commission Case 98-C-1357, Responsive Panel Testimony of Bell Atlantic-New York on Revised Costs and Rates for Unbundled Network Elements and Related Wholesale Services at 41.

Attachment 3

Exh. RPA-24, Verizon-NJ Response to
RPA Transcript Request at T.1171, 1175 (12/18/00)

Attachment 4

Alcatel Press Release (April 8, 1999), http://www.alcatel.com/vpr

Attachment 5

News Articles