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May 27, 2002

BY OVERNIGHT MAIL

Ms. Blanca S. Bayo, Director
Division of the Commission Clerk
and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 990649B-TP
Investigation into Pricing of Unbundled Network Elements
(Sprint/Verizon Track)

Dear Ms. Bayo:

Please find enclosed an original and 15 copies of Verizon Florida Inc.'s Post-Hearing Statement and Brief ("Brief") for filing in the above matter. Also enclosed is a diskette with a copy of the Brief in Word 2000 format. Service has been made as indicated on the Certificate of Service.

If there are any questions regarding this filing, please contact me at (202) 661-3850.

Very truly yours,

Christopher S. Huther

Enclosures
cc: Service List

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into pricing of unbundled network elements	)	Docket No. 990649B-TP
	)	Filed May 28, 2002
	)	

VERIZON FLORIDA INC.'S POST-HEARING STATEMENT AND BRIEF

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VERIZON FLORIDA INC.'S POST-HEARING STATEMENT AND BRIEF

In accordance with Florida Administrative Code section 28.106.215, Commission Order No. PSC-02-0568-PHO-TP, and Chairman Jaber's instructions at the hearing in this docket, Verizon Florida Inc. ("Verizon"), by and through its undersigned counsel, files its Post-Hearing Statement and Brief.[1]

The Florida Public Service Commission's ("Commission") decision in this case will have a significant impact on the type of competition that develops in Florida and on Verizon's ability to provide service and recover its costs. To encourage the development of efficient competition, the Commission's decision must provide accurate signals about Verizon's forward-looking costs of processing and provisioning unbundled network elements ("UNEs"). This necessarily requires that UNE prices reflect, as accurately as possible within the constraints of the total element long run incremental cost ("TELRIC") standard,[2] the efficient, forward-looking costs Verizon will incur in providing UNEs to alternative local exchange carriers ("ALECs"). Prices set too far below Verizon's costs will lead to an inefficiently high consumption of UNEs and will

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[1] On May 24, 2002, the United States Court of Appeals for the District of Columbia Circuit vacated and remanded the Federal Communications Commission's ("FCC") unbundling and line sharing rules (*United States Telecom Assoc., Inc. v. Federal Communications Comm'n*, No. 00-1012 (May 24, 2002).) Verizon has not addressed the effect of this ruling in its Post-Hearing Statement and Brief and reserves the right to do so at a future date.

[2] The U.S. Supreme Court recently affirmed the FCC's TELRIC standard. (*Verizon Communications et al. v. Federal Communications Comm'n*, No. 00-511 (May 13, 2002).)

deter facilities-based competition, which is the ultimate objective of the Telecommunications Act of 1996 ("1996 Act") and should be the Commission's goal as well.

The evidence submitted by the parties establishes that Verizon's recurring and non-recurring cost studies -- the only cost studies submitted in this case (Tr. at 640-42 (Trimble)) -- provide the best (and only) measure of the forward-looking costs of a real-world network in Florida, while complying fully with the FCC's TELRIC rules. (Tr. at 722-23, 830-33 (Tucek); Tucek Depo. at 52.) The design, plant, and technology chosen for the forward-looking network underlying Verizon's Integrated Cost Model ("ICM") reflects the judgments and assessments of Verizon engineers and cost analysts concerning the most efficient, least-cost approach that actually could be used in the real world to achieve a forward-looking, TELRIC-compliant evolution of Verizon's network. Nevertheless, ICM-FL models the network as if it is built all at once, and thus assumes economies of scope and scale that cannot be realized in the real world. Accordingly, the cost estimates produced by ICM-FL are a lower bound of Verizon's forward-looking costs. (Tr. at 731-33, 752-54, 830-31 (Tucek).)

In addition, ICM-FL is open and fully auditable. (Tr. at 768-69 (Tucek).) ICM-FL is written in Delphi Pascal -- a commercially-available and commonly-used programming language -- and nearly all of its inputs are user-adjustable. (Tr. at 768-72, 831-33, 902-905 (Tucek).) The ALECs' claims to the contrary speak more to the limited capabilities of their outside consultants than to any alleged failings in ICM-FL. Not only were the analyses conducted by the ALECs' consultants admittedly circumscribed, their consultants lacked the necessary cost modeling proficiency to analyze Verizon's cost studies in the desired manner.[3] (Ankum 3/15/02 Depo. at 15 (acknowledging that he was asked to focus only on a subset of rate elements), 24-25

[3] This is curious given that, in other state UNE proceedings -- as in the BellSouth phase of this docket -- the ALECs retained consultants who possessed the cost modeling and programming experience necessary to analyze Verizon's cost studies. (*See* Tr. at 900-02 (Tucek), 1276-80 (Ankum); VZ Hearing Ex. 63 (PA UNE Transcript).)

(admitting that he is not proficient in the Delphi programming language); Morrison Depo. at 38-39, 42-44.) As AT&T and WorldCom's cost model consultant in the BellSouth phase of this docket, Mr. Pitkin, previously testified, the experience Dr. Ankum lacks is "commonplace in [cost] modeling." (VZ Hearing Ex. 63 at 448 (PA UNE Transcript).)

Moreover, Dr. Ankum is simply wrong in contending that code-based cost models such as ICM-FL are inappropriate for establishing UNE rates because they are not sufficiently "flexible to allow model auditing and inputting of different assumptions in order to compare various possible outcome scenarios." (Tr. at 1173 (Ankum).) The use of code-based cost models is prevalent in the industry. (Tr. at 832-33 (Tucek).) Indeed, AT&T and WorldCom have sponsored the FCC's code-based federal universal service cost model (the so-called "Synthesis Model") in numerous state universal service and UNE proceedings.[4] While Dr. Ankum would prefer that cost models be Excel-based to accommodate his lack of programming proficiency, the FCC in designing the code-based Synthesis Model, and AT&T and WorldCom in sponsoring it, acknowledge there is no such requirement.[5]

In short, AT&T, WorldCom, and various other ALECs have one goal in this docket: to reduce Verizon's UNE rates in order to subsidize their entry into, or increase their share of, the local exchange market in Florida. Rather than sponsor an alternative cost model as they have in

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[4] Tr. at 832-33 (Tucek); Docket No. R-00016683, *Direct Testimony of Brian F. Pitkin* (Penn. PUC Dec. 7, 2001); CC Docket Nos. 00-218, -249, -251, *Direct Testimony of Brian F. Pitkin* (FCC July 31, 2001); Case No. 8879, *Direct Testimony of Brian F. Pitkin* (MD PSC May 25, 2001); Case No. 8745, *Direct Testimony of Brian F. Pitkin* (MD PSC Mar. 23, 2001).

[5] To make the Synthesis Model "UNE-compliant," AT&T and WorldCom cost model consultant Mr. Pitkin re-wrote portions of the model's uncompiled code, and then recompiled the modified program. (VZ Hearing Ex. 63 at 449 (PA UNE Transcript).) He accomplished this task despite the fact that, unlike ICM-FL, the version of the Synthesis Model modified by Mr. Pitkin, and sponsored by AT&T and WorldCom, is written in Turbo Pascal -- the predecessor to Delphi Pascal -- an obsolete programming language that is no longer commercially available in the United States. (Tr. at 1281-82 (Ankum), VZ Hearing Ex. 64 (Borland Webpage).)

other jurisdictions,[6] the ALECs attempt to slash Verizon's UNE rates by three equally flawed methods: (1) advocating the adoption of the rates and methodologies established for BellSouth in the previous phase of this docket; (2) making unsubstantiated modifications to Verizon's cost studies, often based on decisions made by other state regulatory commissions; and (3) proposing unrealistic and impossible assumptions concerning fill factors and network design.

For example, Dr. Ford proffers a misguided comparative cost analysis based on the estimates produced by an outdated and error-ridden version of the FCC's Synthesis Model to support his contention that Verizon's UNE rates should be no greater than those adopted by the Commission for BellSouth.[7] (Tr. at 287-90 (Ford); Ford Depo. at 30-31.) Dr. Ford's analysis is fundamentally flawed and must be rejected. The FCC has never used, nor condoned the use of, the Synthesis Model to identify the relative cost differences between two ILECs operating in the same state.[8] Moreover, the Synthesis Model's numerous platform flaws and use of generic, nationwide average input values render it incapable of accounting for the differences in costs incurred by two carriers operating two real -- yet very different -- networks in a particular state.[9]

The cost model critique and UNE rate recommendations proffered by Dr. Ankum and Mr. Morrison are equally unsound. They erroneously suggest that this Commission should set

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[6] In addition to the modified Synthesis Model, AT&T and WorldCom continue to sponsor the HAI Model to estimate Verizon's cost of providing UNEs in other states. (D.T.E. 01-20, *HAI Model, Release 5.2a-MA* (Massachusetts D.T.E. May 8, 2001); *see also* Ankum 3/15/02 Depo. at 69-70.)

[7] Despite Dr. Ford's repeated attempts to provide an accurate and up-to-date analysis, and notwithstanding his claims to the contrary, he persists in using the outdated January 2000 version of the Synthesis Model. (Tr. at 497-98 (Murphy/Tardiff); *see also* Ford Depo. at 41-42.)

[8] Tr. at 475-76 (Murphy/Tardiff) (noting that, outside the federal universal service context, the FCC has only used the Synthesis Model in the context of Section 271 proceedings to compare the rates of *the same ILEC* operating in *two different states*, and then only when the state regulatory commission did not apply TELRIC, or did so improperly).

[9] Tr at 489-90 (Murphy/Tardiff) (noting that the FCC has repeatedly and unequivocally stated that the Synthesis Model is incapable of accurately estimating the costs of a particular carrier in a particular state), 492, 494-95.)

rates based on those adopted for different companies by state regulatory commissions in other jurisdictions. (Tr. at 1159-61 (Ankum); Tr. at 1307-08 (Morrison).) The ALECs' witnesses' flawed analyses and theoretical musings are not the kind of competent and substantial evidence upon which the Commission's decision must be based. This docket is intended to identify *Verizon's* forward-looking costs of providing UNEs *in Florida*. Rates adopted by other regulatory commissions -- often times the results of regulatory gives-and-takes -- provide no useful basis for evaluating Verizon's proposed UNE rates. Dr. Ankum's and Mr. Morrison's numerous recommendations concerning various model inputs and methodologies are equally unsound and often inconsistent with one another. For these and other reasons discussed herein and throughout the course of this docket, the Commission should rely on Verizon's cost studies and its company-specific inputs in establishing Verizon's UNE rates.

VERIZON'S SPECIFIC POSITIONS

Issue 1: What factors should the Commission consider in establishing rates and charges for UNEs (including deaveraged UNEs and UNE combinations)?

Verizon's Position: * Verizon's rates must reflect Verizon's costs of provisioning UNEs, including a reasonable share of its common costs. If the Commission orders further deaveraging, UNE costs should be calculated at a wire center level. UNE rates must not undermine universal service goals or efficient competition. *

A number of important considerations should guide the establishment of Verizon's UNE rates. First and foremost, Verizon's UNE rates should reflect, to the maximum extent possible, Verizon's TELRIC of provisioning UNEs in Florida. In addition, and consistent with the FCC's pricing rules, Verizon's UNE rates must reflect a reasonable allocation of Verizon's forward-looking common costs. The Commission should also take care to ensure that the UNE rates adopted preserve and advance universal service and promote efficient competitive entry into Florida's local exchange market. Finally, the rates established for other ILECs in Florida and

elsewhere, as well as the financial position of the ALEC industry, are irrelevant to the determination of Verizon's UNE rates.

A. UNE Rates Must Reflect Verizon's Forward-Looking, Long Run Costs of Providing UNEs in Florida.

Consistent with the FCC's TELRIC standard, UNE rates should be based, to the maximum extent possible, on the rational choices that Verizon would make, acting efficiently over the long run. In addition, UNE rates and charges should reflect cost causation principles, the opportunity for cost recovery, and ease of administration. Verizon's use of ICM-FL to set UNE rates satisfies all of these criteria.

ICM-FL is designed to comply with the most economically appropriate interpretation of TELRIC. ICM-FL "reconstructs" Verizon's network with a forward-looking technology mix and assumes network characteristics and inputs that reflect the most efficient possible operation of that network, given TELRIC constraints and the technological and demand uncertainties a real-world carrier must face. Even the ALECs' own witness admits that this is the proper approach:

> [T]he real world network places a constraint on the costing exercise, the constraint being that . . . it should result in a functioning network, the technologies that you chose should be available on the market and not be some pie-in-the-sky technology, and you should be able to obtain vendor prices for it so that you can actually determine what your investment costs are . . . It's not that the [real network and the modeled network] live in separate universes. Very much the TELRIC exercise draws very heavily on what's being done in the real world. (Ankum 3/15/02 Depo. at 61-62.)

Nevertheless, the ALECs' proposals are flatly inconsistent with these principles. In the ALECs' view, TELRIC requires the Commission to assume a hypothetical network completely divorced from reality. This fantasy network reflects unrealistic fill factors, ignores the impact of discrete sizes for network components, assumes technologies that do not exist (*e.g.*, unbundling

from an integrated digital loop carrier ("IDLC")), and is based upon the wholesale replacement of a majority of Verizon's switches. This hypothetical "scorched-node" approach bears no resemblance to Verizon's network or the network any carrier would build in Florida. (Tr. at 747-51 (Tucek).) In the real world, an economically rational carrier must take into account the fact that future changes in technology or demand could render investments -- even for the deployment of the most up-to-the-moment technology -- obsolete sooner than anticipated. (Tr. at 731 (Tucek).) Accordingly, carriers minimize costs over the long run through incremental changes and investments, taking appropriate account of existing facilities. Thus, an efficient carrier is likely to employ a number of technologies of differing vintages and characteristics at any given point in time.

B. UNE Rates Must Reflect a Reasonable Share of Common Costs.

The FCC's pricing rules require UNE rates to be based solely on TELRIC, plus a portion of forward-looking common costs. (47 C.F.R. § 51.505(c)(2)(B); Tr. at 557, 640 (Trimble).) Verizon allocates common costs to UNEs using a fixed common cost allocator, which is computed by dividing common costs by total direct costs (*i.e.*, the sum of all direct costs for all UNEs that would be needed by ALECs to serve all existing customers).[10] (Tr. at 579-81, 629-30 (Trimble); VZ Hearing Ex. 46 at DBT-1; Trimble/Dye Depo. at 59.) The FCC has determined that the fixed common cost allocator approach is reasonable.[11]

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[10] Contrary to the ALEC's contentions, Verizon did *not* compute two separate common cost recovery factors. The computation of the percentage in Mr. Trimble's Attachment Q was for informational purposes only and was intended to show the relationship between Verizon's total common costs and its total regulated revenues. (Tr. at 629 (Trimble).)

[11] Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, *First Report and Order,* 11 FCC Rcd 15499 (1996) *Local Competition Order* at ¶ 696 (*"Local Competition Order"*); Tr. at 708-09 (Trimble). As Mr. Trimble testified, although the FCC indicated that other methodologies may also be reasonable, to his knowledge, state commissions have relied exclusively on the fixed common cost allocator approach. (Tr. at 708-09.)

The common cost allocator is designed to allow Verizon an opportunity (albeit an unlikely one) to recover its total costs (*i.e.*, its total direct costs + total common costs) through the prices created when direct costs are marked up.[12] (Tr. at 630 (Trimble).) As such, the direct costs, upon which the common cost allocator is based, include the direct costs for only those UNEs that Verizon intends to mark up -- Verizon does not intend to mark up non-recurring costs ("NRCs"), and thus the direct costs for NRCs are not included in the calculation. (Tr. at 580, 648 (Trimble), 860 (Tucek).) Mr. Fischer's suggestion that the fixed allocator should be based on total common costs divided by total *revenues* (as opposed to dividing by total direct costs) would significantly understate Verizon's total costs and deny Verizon the opportunity to recover its forward-looking costs (let alone its true costs).[13] (Tr. at 630, 649 (Trimble).) Because revenues necessarily include common costs, application of Mr. Fischer's revenue-based allocator would result in an under-recovery of Verizon's common costs due to the inconsistency between the denominator of Mr. Fischer's revenue-based allocator and the direct costs to which it would be applied.

Verizon uses this common cost allocator to establish a statewide uniform dollar amount of recovery for common costs, and applies it to specific deaveraged UNEs regardless of the geographic zone in which the UNEs are sold. (Tr. at 584-85 (Trimble).) Absent such an approach, the fixed allocator process would assign an unusually large amount of common costs to high-cost rural areas and a small absolute amount to low-cost urban areas when geographic deaveraging is implemented. To ensure an equitable distribution of common cost recovery,

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[12] Verizon notes, however, that the fixed allocator approach, while reflecting the UNEs' underlying long run characteristics, does not necessarily reflect a company's total actual costs because of the various assumptions underlying TELRIC. (Tr. at 564 (Trimble).)

[13] Despite the ALECs' repeated attempts to prove otherwise, Verizon has *never* used total common costs divided by total revenues to determine the fixed allocator. (Tr. at 650-56 (Trimble).)

Verizon assigns an equal, absolute dollar amount to each geographically deaveraged UNE. (Tr. at 585 (Trimble).)

The ALECs' objections to Verizon's use of a uniform amount of common costs across deaveraged zones are baseless and designed solely to enhance their ability to cream skim Verizon's profits from a few, select customers while ignoring the rest of Verizon's serving area. (Tr. at 631 (Trimble).) Common costs -- as the name implies -- cannot be attributed to any specific service or product, let alone any specific geographic area. (Tr. at 631, 642 (Trimble) ("common costs do not vary by geography").) Geographic areas that require higher investment costs will *not* incur higher common costs. (Tr. at 631-32 (Trimble).) For example, a UNE loop in a more costly serving area will not require more of a human resources employee's time than a UNE loop in a less costly area. (Tr. at 631, 642 (Trimble).) Thus, the ALECs' proposal is just an attempt to create undue price distortions and exploit them for their own benefit. (Tr. at 633-34 (Trimble).)

The ALECs' opposition to Verizon's inclusion of external relations and legal costs in the calculation of the common cost factor is equally unavailing. (Tr. at 537-38 (Fischer).) Verizon is entitled to structure in its UNE rates to recover all of the forward-looking costs associated with its provision of UNEs. (Tr. at 634-36 (Trimble).) As Mr. Trimble testified, "it would not be reasonable to take [the forward-looking legal and external affairs expenses associated with wholesale services] and ask the *retail* ratepayers to cover those costs." (Tr. at 673 (emphasis added).) Moreover, the 1996 Act explicitly states that UNE rates are to be just and reasonable, and may include a reasonable profit.[14] Verizon cannot realize a profit until it recovers all of the forward-looking costs associated with its provision of UNEs, *including* external relations and

[14] 47 U.S.C. § 252(d)(1)(A).

legal costs. (Tr. at 634-36, 660-61 (Trimble).) Indeed, under the FCC's pricing rules, the only costs explicitly *excluded* from a company's forward-looking costs are embedded costs, retail costs, opportunity costs, and revenues to subsidize other services.[15] Notably absent from this list are external relations and legal costs. Thus, lacking any legal or rational foundation, the ALECs' recommendation must be rejected.

C. UNE Rates Should Promote Universal Service and Encourage Fair and Efficient Competition.

UNE rates are inextricably linked to the preservation and advancement of universal service and the development of fair and efficient competition. (Tr. at 566 (Trimble).) In order to sustain and promote these important policy objectives, Verizon's UNE rates must not be deaveraged unless and until Verizon's retail rates are deaveraged. (Tr. at 558-60 (Trimble).) To do otherwise would result in a number of perverse incentives. Specifically, deaveraging Verizon's UNE rates in isolation would give the ALECs an even greater incentive to pursue low-cost urban customers, while ignoring high-cost rural ones. (Tr. at 558 (Trimble).) The universal service support provided by low-cost customers is already in jeopardy without deaveraged rates. (Tr. at 558-60 (Trimble).) Further reducing the ALECs' costs of serving low-cost, and highly profitable, customers, while raising the costs of serving rural customers, would only exacerbate the existing strains on universal service. (Tr. at 558-60 (Trimble).) In short, deaveraging Verizon's UNE rates without deaveraging Verizon's retail rates would result in an environment of haves (low-cost urban customers) and have nots (high-cost rural customers). The ALECs have already made clear that they do not intend to serve rural customers (Tr. at 560 (Trimble)) -- they should not be permitted to undermine further the support Verizon will need to do so.

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[15] *See* 47 C.F.R. at §§ 51.505(b), 51.505(c)(2)(B); Tr. at 635 (Trimble).

Moreover, deaveraging UNE rates without deaveraging retail rates results in a misallocation of market resources and is antithetical to the establishment and advancement of facilities-based competition in the state. The ALECs are already engaged in deaveraged facilities-based competition, targeting the low-cost, high-value customers in Verizon's most dense serving areas and ignoring (because they can) the high-cost, less desirable rural customers. (Tr. at 560 (Trimble).) If UNE rates are deaveraged, but retail rates are not, the ALECs would exploit this arbitrage opportunity by purchasing discounted, deaveraged UNEs from Verizon and selling them at rates that are lower than Verizon's averaged, retail rates. In the end, Verizon would be left holding the bag -- obligated to serve high-cost customers at discounted prices, yet unable to counter the ALECs' inevitable cream-skimming of Verizon's low-cost customers. Verizon's ability to recover its total costs would necessarily be destroyed. (Tr. at 563 (Trimble).)

D. The Rates Established for Other ILECs Are Irrelevant To The Commission's Determination Of Appropriate UNE Rates for Verizon.

The UNE rates set for Verizon must be based on *Verizon's* forward-looking costs of operating in Florida -- and *not* the rates set for other companies operating in Florida, let alone other companies operating in other states. (Trimble/Dye Depo. at 21-22; Tr. at 618-20 (Trimble); 47 U.S.C. § 252(d)(1)(A).) Thus, it is absurd to suggest, as the ALECs do, that the rates adopted for other ILECs are somehow relevant to the Commission's determination of *Verizon's* UNE rates. (Tr. at 618-20 (Trimble).) The rates established for other ILECs -- whether operating in Florida or not -- have absolutely no bearing on Verizon's TELRICs.[16]

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[16] As the FCC recognized "[t]he Act contemplates the states independently setting rates based on federally established guidelines. It is important to recognize both that costs may vary between states and that state commissions may reach different reasonable decisions on matters in dispute while correctly applying TELRIC principles." (CC Docket No. 02-35, *Memorandum Opinion and Order*, FCC 02-147 (FCC rel. May 15, 2001) at ¶ 24 (*"Georgia/Louisiana § 271 Order."*)

Moreover, comparing one company's rates against another's is a futile exercise because the costs included in one company's rates will not likely match the costs included in another company's rates, and it is unlikely that the two companies will combine activities and processes in an identical manner. For example, at the hearing, AT&T attempted, unsuccessfully, to compare Verizon's cost of a DS-1 loop with the DS-1 loop rate the Commission ordered for BellSouth. (Tr. at 1102-08.) As Mr. Dye and Mr. Richter explained, this comparison is meaningless given the companies' different rate structures. (Tr. at 1105-11, 1142.) Among other things, BellSouth includes disconnect charges as a separate rate element (*i.e.*, they are *not* reflected in its overall loop rates), whereas Verizon does not separate out those charges (*i.e.*, they are incorporated in its overall loop rates). (Tr. at 1106-12 (Dye).) Thus, AT&T is making the classic apples-to-oranges comparison. (Tr. at 1106-1112 (Dye); Richter Depo. at 64-65; *see also* Tr. at 618-21 (Trimble) (noting that among other things BellSouth's UNE rates reflect the costs associated with entirely different provisioning, ordering and billing systems).)

Indeed, relying upon rates from other states, for other companies, is also dangerous as UNE rates not only reflect vastly different serving areas and operating constraints, but often are the product of negotiated agreements or unique political concerns. For example, as Mr. Tucek explained, the rates established for Verizon New York -- which Dr. Ankum erroneously attempts to use as a benchmark for Verizon's UNE rates -- "are not reflective of Verizon New York's costs . . . They were ordered by the [New York Public Service] Commission. [Verizon] agreed not to challenge [the Commission-ordered rates] in order to get rate rebalancing. So they are very much a product of a political process." (Tr. at 840; *see also* Tr. at 619-20 (Trimble) (noting that the New York Commission allowed local rate increases in conjunction with adoption of new

UNE rates); Trimble/Dye Depo. at 22.) As such, it is meaningless to compare the UNE rates proposed by Verizon with such artificial and unrealistic results.

E. The Capitalized Worth of the ALEC Industry Is Irrelevant To The Commission's Determination of Appropriate UNE Rates for Verizon.

The financial state of the ALEC industry is equally irrelevant to the determination of appropriate UNE rates for Verizon. The ALEC's witnesses erroneously assert that the "troubled state" of the competitive telecommunications industry requires the adoption of below-cost UNE rates. (Tr. at 1150-51, 1166-72 (Ankum); *see also* Tr. at 243-44, 249, 252-53, 256 (Wood); Ankum 3/15/02 Depo. at 87-88.) This proposal is meritless on both legal and policy grounds. UNE rates are not to blame for the ALECs' financial problems. (Tr. at 613-14, 616-17 (Trimble).) When the ALECs entered the local telecommunications market, they were well aware of Verizon's existing UNE rates and the tariffed retail rates for Verizon's services. (Tr. at 617 (Trimble).) Poor business decisions, mismanagement, and erroneous predictions are the root of the ALECs' financial difficulties. (Tr. at 616-17 (Trimble); *see also* Tr. at 407-09 (Vander Weide).) There is no reason to make Verizon and its shareholders finance the ALECs' mistakes.[17]

As the Commission is well aware, the 1996 Act and the FCC's rules require UNE rates to be based on cost and be nondiscriminatory.[18] The ALECs' unabashed pleas for corporate welfare violate both of these principles. (Tr. at 618 (Trimble).) First, the rock-bottom UNE prices advocated by the ALECs bear absolutely no relationship to Verizon's TELRICs of providing UNEs in Florida. For example, the ALECs proposed average loop rate for Zone 1 is approximately *$10.00 less* than the average Zone 1 loop rate they agreed to just two and a half

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[17] Dr. Ankum is not even sure that the companies he alleges are in need of the Commission's assistance have operations in Florida. (Ankum 3/15/02 Depo. at 85-86.)

[18] 47 U.S.C. § 252(d)(1)(A); 47 C.F.R. § 51.503.

years ago, which was based on Commission-ordered rates. (ALEC Hearing Ex. 43 at GJD-2; Tr. at 664-65 (Trimble).) Moreover, the preferential treatment and subsidized entry the ALECs so desperately seek violates the FCC's prohibition on favoritism among carriers. The 1996 Act sought to make competition possible -- it in no way guaranteed that competitors would survive, let alone flourish. (Tr. at 618 (Trimble) (noting that "[t]hat Commission's interest is in protecting competition, *not particular competitors*") (emphasis added); 47 U.S.C. §§ 251, 252.) Perhaps most important, forcing Verizon to sell UNEs below cost is directly contrary to Congress' goal of promoting facilities-based competition. (Tr. at 618 (Trimble) (noting that there is no legal or policy reason supporting the fire sale UNE rates the ALECs seek.) It would not be economical or rational for the ALECs to build their own facilities when they can purchase UNEs from Verizon at below-cost rates. Thus, the witnesses' assertions that the Commission should consider information about certain ALECs' financial troubles in setting UNE rates for Verizon must be dismissed as empty rhetoric intended to improperly influence the Commission's pricing decisions. (Tr. at 616 (Trimble).)

Issue 2(a): What is the appropriate methodology to deaverage UNEs and what is the appropriate rate structure for deaveraged UNEs?

Verizon's Position: * To encourage widespread competition, the Commission should not deaverage UNE rates further until retail rates can also be deaveraged. In the alternative, the Commission should accept Verizon's three-zone deaveraging proposal set forth in Mr. Trimble's Direct Testimony. *

To resolve this issue, the ALEC Coalition has proposed the following stipulation: "[a]ll loops, subloops, and UNE combinations containing loops or subloops should be deaveraged according to Verizon's deaveraging proposal identified in Exhibit DBT-3 attached to witness Trimble's prefiled direct testimony."[19] Verizon and the parties have agreed to this proposal and

[19] Docket No. 990649B-TP, *Order No. PSC-02-0568-PHO-TP* (April 25, 2002) at 72.

are endeavoring to draft a mutually agreeable stipulation. The following argument is offered in the event no stipulation is reached.

A. A Single Rate Should Be Established for Verizon or, in the Alternative, Three Cost-Based Zones for Verizon's Serving Area Should Be Adopted.

The appropriate methodology for deaveraging UNEs is to establish a single rate for Verizon to accompany the rates already established for BellSouth and Sprint. (Tr. at 565, 667 (Trimble).) In doing so, the three rates would appropriately reflect the different cost characteristics and operational realities of the three carriers and be compliant with the FCC's requirement that UNE rates be deaveraged into at least three zones per state. (Tr. at 565-66 (Trimble); *see also* 47 C.F.R. § 51.507(f).) Contrary to the ALECs' contentions, the Commission is under *no legal requirement* to deaverage each company's UNE rates into at least three zones.[20] Moreover, by establishing separate rates for Verizon, BellSouth and Sprint, wholesale UNE rates would exhibit a more rational relationship to retail rates, thereby reducing the unfair and anti-competitive rate arbitrage engaged in by the ALECs. (Tr. at 565 (Trimble).)

Not as advantageous from a policy standpoint, but an acceptable alternative, would be to establish three cost-based zones for Verizon's serving area and establish a single UNE price for each zone. (Tr. at 566-67 (Trimble).) In developing these three zones, the Commission should: (1) calculate the average costs for UNEs at a wire center level, (2) identify those UNEs that have material cost differences between wire centers, and (3) group each wire center into one of the three cost-based zones. (Tr. at 566 (Trimble).) These three zones would be based upon whether the wire centers' costs are (a) below the statewide average, (b) above the statewide average, but

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[20] Tr. at 622 (Trimble); *see also* Petitions for Waiver of the Section 51.507(f) UNE Deaveraging Requirement, *Order*, 15 FCC Rcd 23353 (2000) at ¶ 15 ("the FCC has never ruled that states must create company-specific zones for each carrier in the state, but only that the state commission must have at least three deaveraged rate zones in total").

below 200 percent of the statewide average, or (c) above 200 percent of the statewide average. (Tr. at 626-27 (Trimble); VZ Hearing Ex. 46 at DBT-3.)

Despite the ALECs' contentions (Tr. at 520 (Fischer)), Verizon's alternative deaveraging methodology does *not* result in "overly averaged" UNE rates. To the contrary, Verizon's deaveraging methodology produces a much smaller amount of total variation than the ALECs' proposal. (Tr. at 627 (Trimble).) Moreover, the ALECs incorrectly assert that Verizon's proposal produces rates unrelated to Verizon's costs of providing the relevant UNEs. To the contrary, Verizon's deaveraged rate proposal produces rates that are directly related to the average cost of provisioning the service to all the customers in a given zone. (Tr. at 627 (Trimble).) The ALECs' assertion that Verizon's deaveraged UNE rates are "overly averaged" only makes sense if an ALEC intends to selectively target customers, and thus is focused on whether the UNE rates for a particular zone or geographic area are higher or lower than the costs of providing service to those customers. (Tr. at 627, 707 (Trimble) (noting that, if the ALECs intended to serve every customer and engage in *statewide* competition, there would be no difference in the ALECs' total costs for UNEs whether they are charged deaveraged loop rates or a statewide average rate).)

B. The ALEC Coalition's Deaveraging Proposal Would Encourage Uneconomic Rate Arbitrage.

Contrary to the ALEC's assertions, deaveraging UNE rates will not improve the efficiency of Verizon's network or promote competition in Florida. True efficiency in the marketplace will only occur when Verizon's retail rates are aligned with its UNE rates, and both reflect the underlying cost realities in a given area. (Tr. at 623-24 (Trimble).) Deaveraging wholesale UNE rates without deaveraging retail rates would only exacerbate the unfair and uneconomic arbitrage currently existing in Verizon's rate structures (Tr. at 623 (Trimble)), and

would benefit the ALECs financially without any corresponding advantages for Florida consumers. (Tr. at 624 (Trimble).)

An examination of the ALECs' specific proposal demonstrates its self-serving nature. The ALECs propose that eight zones be established for Verizon, with *only one* wire center in the lowest cost zone and *18 wire centers* in the 4 highest cost zones. (ALEC Hearing Ex. 44 at WRF-2; Tr. at 624-25 (Trimble).) Alternatively, the ALECs propose collapsing the eight zones into three, with five of the highest cost zones incorporated into Zone 3. (Tr. at 518, 520-21 (Fischer); ALEC Hearing Ex. 44 at WRF-2, WRF-5.) The ALECs' proposal highlights their intent: to ensure low-priced UNEs in the only areas they intend to serve -- the low cost areas that have the most profit potential. (Tr. at 634 (Trimble).)

Issue 2(b): For which of the following UNEs should the Commission set deaveraged rates: (1) loops (all); (2) local switching; (3) interoffice transport (dedicated and shared); (4) other (including combinations)?

Verizon's Position: * All parties agree that only 2-wire, 4-wire and DS-1 loops (including subloops), and any combinations including such loops, should be considered for deaveraging. *

If the Commission determines that it should further deaverage UNE rates, it should only deaverage those that vary significantly across geographic locations. (Tr. at 569 (Trimble).) Verizon proposes -- and all parties apparently agree -- that only the recurring rates for the local loop should be considered for deaveraging because only loop UNEs exhibit material cost differences between geographic areas. (Tr. at 567 (Trimble).) Switching costs do not exhibit the significant cost variations properly associated with deaveraged rates; and, regardless, the cost variations (to the extent there are any) are based more on call set up and call duration characteristics as opposed to any geographic disparities. (Tr. at 567-68 (Trimble).) The costs associated with interoffice transport already reflect distance, traffic and volume characteristics,

effectively resulting in deaveraged rates for those UNEs. (Tr. at 568 (Trimble).) Notably, in the BellSouth phase of this docket, the parties and Staff recommended, and the Commission adopted, deaveraged rates for only loop UNEs and combinations that include such loops.[21]

Issue 3(a): What are xDSL-capable loops?

Verizon's Position: * An xDSL-capable loop is a basic copper 2-wire or 4-wire UNE loop with electrical characteristics that allow for transmission of xDSL-based technology signals. *

An xDSL-capable loop is a basic copper 2-wire or 4-wire UNE loop that possesses the electrical characteristics that allow for the transmission of xDSL-based technology signals. (Tr. at 630 (Trimble).) The primary considerations in determining whether a UNE loop is capable of transmitting xDSL services are (1) the length of the loop, (2) the gauge of copper that makes up the loop, and (3) the existence of load coils or bridged taps, which are necessary for the efficient provision of voice-grade service. (Tr. at 570 (Trimble).) Currently, an xDSL-capable loop would not include loops served by digital loop carrier ("DLC").[22] (Trimble/Dye Depo. at 15.)

Issue 3(b): Should a cost study for xDSL-capable loops make distinctions based on loop length and/or the particular DSL technology to be deployed?

Verizon's Position: * No. A loop is a loop; charges for xDSL-capable loops should not change based on loop length or the DSL technology used on the loop. If they did, the result will be arbitrage and administrative chaos. *

Verizon proposes -- and no party to this docket has disagreed -- that the charges for an xDSL-capable loop should not be based upon the length of the loop and/or the particular DSL technology an ALEC intends to put on the loop. Loops are loops, and should be priced as such.

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21 Docket No. 990649-TP, *Order No. PSC-01-1181-FOF-TP* (May 25, 2001) at 36 ("*BellSouth Order*").

22 While some *fiber*-fed next generation digital loop carrier ("NGDLC") vendors have developed plug-in cards that can be used at the DLC location to provision xDSL service to customers, these plug-ins are not readily available and are still very much in the trial stage. (Trimble/Dye Depo. at 15.) Until such time as these plug-in cards are readily available and technically viable, it would be premature and indeed inappropriate to model these plug-in cards in ICM-FL.

(Tr. at 570-71 (Trimble).) To assume otherwise would only create unjust opportunities for arbitrage, not to mention administrative chaos, as loop prices would essentially be deaveraged based upon either the length of the loop or the types of technologies a specific loop can accommodate. (Tr. at 571 (Trimble); Trimble/Dye Depo. at 19-20.) Indeed, if wholesale UNE rates are deaveraged based upon loop length or the specific DSL technology that a loop will support, then retail rates (including any universal service support) would also need to be based upon loop lengths or technology to avoid additional arbitrage opportunities and uneconomic and inefficient rate structures. (Tr. at 573 (Trimble).) Moreover, basing UNE loop prices on loop lengths or DSL technology characteristics would be inconsistent with the FCC's rules, which require *geographically* deaveraged rate zones, not rate zones deaveraged based on loop length or the DSL technology the loop will support.[23]

Issue 4: Which subloop elements, if any, should be unbundled in this proceeding, and how should prices be set? How should access to such subloop elements be provided, and how should prices be set?

Verizon's Position: * Intrabuilding house and riser cable and feeder, distribution and drop for 2-wire and 4-wire loops are the only subloop elements that should be considered for unbundling. The Commission should adopt the subloop prices Mr. Trimble proposes. The nature of access to subloops depends on the operational characteristics of the interconnecting ALEC. *

Verizon proposes to unbundle four separate subloop elements -- feeder, distribution and drop, for both 2-wire and 4-wire loops, as well as intrabuilding house and riser cable. (Tr. at 574 (Trimble); Trimble/Dye Depo. at 33-34.) For dark fiber loops, Verizon proposes to unbundle only the feeder and distribution subloop elements. (Tr. at 575-76 (Trimble).) This proposal is consistent with the FCC's decisions and definitions,[24] and importantly, no ALEC "has requested

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[23] 47 C.F.R. § 51.507(f); Tr. at 572 (Trimble); Trimble/Dye Depo. at 20-21.

[24] Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, *Third Report and Order and Fourth Further Notice of Proposed Rulemaking*, 15 FCC Rcd. 3696, 3789-90 (1999) ("*UNE Remand*

or stated any issues with the level of subloops that [Verizon has] developed." (Trimble/Dye Depo. at 37.)

The recurring rates for these subloop elements, which are consistent with TELRIC principles, were proposed by Mr. Trimble. (Tr. at 575-76 (Trimble); Trimble/Dye Depo. at 9-10.) However, the ability to access subloop elements depends largely on the characteristics and operations of the requesting ALEC. The ALEC must pre-position, or otherwise establish a point of connection, at the point(s) where access to the subloop is requested. The ALEC must also collocate at the Verizon central office where the main distribution frame ("MDF") is located and establish a point of presence (through collocation or otherwise) at the feeder/distribution interface ("FDI") or terminal. (Tr. at 575 (Trimble).) There are technical and safety limitations with respect to where the ALEC can gain access to subloop unbundling; and for many of the specific subloop elements, Verizon has specified places where access is available (*e.g.*, at cross-connect boxes or FDIs). (Trimble/Dye Depo. at 10, 42-43.) Verizon works with ALECs to determine whether access to the particular subloop element is technically feasible. (Trimble/Dye Depo. at 46.) Thus, the labor and/or capital costs for which the ALEC is responsible will depend largely on the specific tasks that Verizon must perform, if feasible, to establish the point(s) of connection with the ALEC. (Tr. at 575-76 (Trimble).)

With respect to house and riser cable, an ALEC need only request access if it brings its own distribution facilities into a building where Verizon owns the house and riser cable. (Tr. at 576 (Trimble)) (noting that, if an ALEC purchases either a UNE loop or UNE distribution subloop, it will automatically receive access to any necessary house and riser cable).) The charges for access to house and riser cable are based upon the specific provisioning activities

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Order"); Trimble/Dye Depo. at 40. As previously noted, on May 24, 2002 the D.C. Circuit vacated and remanded the FCC's unbundling and line sharing rules.

Verizon must undertake to cross connect with an ALEC-compatible terminal block at the minimum point of entry for the cable. (Tr. at 576 (Trimble).)

Issue 5: For which signaling networks and call-related databases should rates be set?

Verizon's Position: * Verizon proposes TELRIC-based UNE prices for access to its SS-7 signaling network and for the call-related databases identified by the FCC. Access to and pricing of Advanced Intelligent Network ("AIN") databases will be determined on a case-by-case basis because customer requirements vary widely. *

Verizon proposes TELRIC-based UNE prices for access to its SS-7 signaling network and for the call-related databases identified in the FCC's rules. (Tr. at 577 (Trimble); VZ Hearing Ex. 46 at DBT-2; *see also* 47 C.F.R. § 51.319(e)(2)(a).) Because customer requirements may vary, Verizon will establish prices for access to its AIN service creation environment and associated databases on a case-by-case basis. (Tr. at 577-78 (Trimble).)

Issue 6: Under what circumstances, if any, is it appropriate to recover non-recurring costs through recurring rates?

Verizon's Position: * It is generally inappropriate to recover one-time, non-recurring costs through recurring rates, unless parties agree to do so or the cost object has a reasonably definite revenue-producing life and can be reused by different customers. *

As a general matter, it is not appropriate to recover NRCs through recurring rates; when a cost is incurred only once, it should be recovered through a one-time payment. To do otherwise transforms the party that has incurred the cost (*i.e.*, the ILEC) into a lender -- the ILEC incurs an immediate cost and hopes to recover it over time through a series of payments. (Tr. at 1020 (Dye).)

There are, however, two exceptions to this general rule. First, parties may agree to recover NRCs through recurring rates. To ensure full cost recovery, however, the parties' contract will generally include an early termination provision, whereby the buyer is required either to pay the bill in full or make monthly payments even should it cease operating. (Tr. at

1020 (Dye).) Second, recurring charges may be assessed for a non-recurring cost when the cost object has a reasonably definite revenue-producing life and can be reused by different customers. Take, for example, the local loop -- instead of assessing ALECs a one-time, non-recurring charge to recover the entire cost of the loop, Verizon recoups the cost of the loop through monthly recurring charges. (Tr. at 1020-21 (Dye).) On the other hand, ordering and connection costs are customer-specific and are caused by an activity that is not reusable. As such, Verizon appropriately recovers such costs through non-recurring charges. (Tr. at 1021 (Dye).) Similarly, if a customer requests an extremely large and costly specialized telecommunications facility to serve its particular business needs -- one that is not likely to be used by other customers -- Verizon properly assesses a one-time, non-recurring charge to recover the cost of the entire facility. (Tr. at 1021-22 (Dye).) In short, Verizon's non-recurring cost structure is fully consistent with the principle of cost causation, whereby costs are appropriately recouped from the specific cost causer.

Issue 7: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies: (a) network design (including customer location assumptions); (b) depreciation; (c) cost of capital; (d) tax rates; (e) structure sharing; (f) structure costs; (g) fill factors; (h) manholes; (i) fiber cable (material and placement costs); (j) copper cable (material and placement costs); (k) drops; (l) network interface devices; (m) digital loop carrier costs; (n) terminal costs; (o) switching costs and associated variables; (p) traffic data; (q) signaling system costs; (r) transport system costs and associated variables; (s) loadings; (t) expenses; (u) common costs; (v) other?

Verizon's Position: * The proper input values for depreciation and cost of capital are contained in the testimony of Mr. Sovereign and Dr. Vander Weide, respectively. The input values and assumptions for the other elements listed are contained in Mr. Tucek's testimony and the accompanying cost study. *

A. Network Design (including customer location assumptions)

ICM-FL calculates the TELRICs of individual UNEs provisioned out of Verizon's network by instantaneously re-designing the network, using currently available, forward-looking

technology and the prices for labor, material and equipment that Verizon is actually able to obtain. (Tr. at 716, 723-24 (Tucek).) ICM-FL models a fully-functional network that reflects Verizon's engineering practices and operating characteristics and is capable of serving 100 percent of current demand and provisioning all of the UNEs that Verizon is presently required to unbundle (*e.g.*, loops, switches, transport). (Tr. at 716, 723-24 (Tucek); Tucek Depo. at 26.) Thus, ICM-FL's network design is the most appropriate -- indeed the only viable -- network configuration upon which Verizon's UNE rates may be based.

1. ICM-FL's Network Design Appropriately Models Forward-Looking, Long Run Costs.

ICM-FL's network design appropriately models forward-looking, long run costs by *allowing* for the possibility that all inputs (except wire center locations) might be varied, but not assuming that all inputs would *in fact* be instantaneously changed. (Tr. at 831 (Tucek).) Instead, Verizon makes informed judgments based on cost analyses, experience, and other factors as to whether it would be efficient to vary a particular input. For example, recognizing that it is appropriate under TELRIC to use or place elements that already happen to exist in the current network, as long as doing so is efficient (Tr. at 899 (Tucek)), Verizon correctly models DLC locations and GTD-5 switches based upon the makeup of Verizon's existing network. (Tr. at 714, 830 (Tucek); Tucek Depo. at 41-43; *see also* Tucek Late-Filed Depo. Exh. 3.) Thus, Verizon's forward-looking cost studies are informed by its experience operating a real-world network in Florida. For the past five years, Verizon has been subject to price cap regulation and a steady increase in competition; thus, there is every reason to believe that Verizon's current engineering guidelines and its recent and expected technology choices, which form the basis for the technology mix assumed in Verizon's studies, are efficient. (Tr. at 908-09 (Tucek).) Moreover, because ICM-FL is based on the existing DLC and feeder route locations, it more

closely accounts for local requirements and right-of-way limitations than would a model that simply ignores everything between the customer locations and the wire centers. Verizon's efficient costs going forward are the correct basis for determining UNE rates. Only in this way can the Commission send the right economic signals to ALECs: if they can invest in their own facilities at less than Verizon's efficient costs of leasing those facilities, they should do so. In short, ICM-FL models UNEs with current network realities in mind, recognizing that the further a cost model's assumptions deviate from these very real -- and very permanent -- operating constraints, the more the cost estimates produced by the model will be severed from reality. (Tr. at 899 (Tucek).)

ICM-FL appropriately models forward-looking, long run, costs by accounting for all of the costs associated with provisioning UNEs, while not losing sight of the real-world operating constraints of which Verizon must contend. In contrast, the ALECs advocate the adoption of unrealistic, and at times, contradictory, assumptions concerning concentration ratios and fill factors. (Tr. at 755-60 (Tucek).) As explained below, Dr. Ankum's recommendations for fill factors ignore the impact of the discrete sizes of network components, and reveal that he does not understand how ICM-FL (and other cost models) size the modeled network to meet the required demand. Dr. Ankum's criticisms of Verizon's use of GTD-5 switches and current DLC locations are equally unavailing. As Mr. Tucek explained, "it would be inefficient for Verizon to replace all of its GTD-5s [switches], just as it would be inefficient for Verizon to replace or to change the locations of its DLCs." (Tr. at 899 (Tucek); see also Tucek Depo. at 27 (stating that Dr. Ankum's suggestion of replacing all GTD-5 switches in the network does not consider the ability of switch vendors to actually provide the switches); Vander Weide Depo. at 46-47.) Dr. Ankum also insists that the cost of loops served by DLCs should assume an integrated configuration,

despite the fact that the ALECs concede that no commercially viable means of doing so exists. (ALEC Coalition's Response to Verizon's Second Set of Interrogatories, Nos. 26 and 27; ALEC Coalition's Response to Verizon's Second Request for Production of Documents, Nos. 15 and 16.) While the ALECs have not proffered their own cost model in this docket, they advocate a network design that has no nexus to reality. Only the network design contemplated by ICM-FL comes close to producing reasonable estimates of Verizon's forward-looking costs, while recognizing the real-world constraints Verizon will face even in the long run.

2. ICM-FL's Network Design Properly Models Customer Locations Using Accurate and Reliable Road Feet Data.

Consistent with TELRIC and forward-looking modeling assumptions, ICM-FL models customer locations based upon an extremely small grid area (a "demand point"), information on road feet, and estimates of access lines by census block obtained from PNR Associates. (Tr. at 733-34, 792-93 (Tucek); Tucek Depo. at 72-76.) The access line count estimate for each census block is assigned to each demand point based upon that census block's share of the road feet. (Tr. at 733-34, 792-93 (Tucek); Tucek Depo. at 72-76.) The road feet measure only includes those roads along which residential or business development would normally occur. (Tr. at 733-34, 793 (Tucek); Tucek Depo. at 72-76.) The demand units are then assigned to a wire center based upon Verizon's tariffed exchange boundaries, and the totals for each wire center are trued up to coincide with Verizon's actual line counts by wire center. (Tr. at 733, 793 (Tucek); Tucek Depo. at 72-76.) The validity of ICM-FL's customer location data is demonstrated by ICM-FL's results: the amount of modeled sheath feet is more than 20 percent less than the sheath feet in Verizon's existing network. (Tr. at 752 (Tucek).)

The ALECs' criticisms of this accurate and reliable modeling methodology amount to nothing more than empty rhetoric. Dr. Ankum argues that ICM-FL should use geocoded

customer location data, in a manner similar to AT&T and WorldCom's HAI Model and BellSouth's BSTLM. (Tr. at 1205-06 (Ankum); Ankum 3/15/02 Depo. at 135.) Curiously, however, Dr. Ankum is unable or unwilling to sponsor a geocoded data set in support of his recommendation. Indeed, despite the fact that ICM-FL is capable of using geocoded data (Tr. at 796 (Tucek)), Dr. Ankum has not even bothered to submit for the parties' analysis or the Commission's review the allegedly accurate geocoded data upon which his recommendations are based.[25] (Tr. at 1205-06 (Ankum); Ankum 3/15/02 Depo. at 136-38.) Because the record is devoid of any evidence to substantiate Dr. Ankum's claims, they must be dismissed.

B. Depreciation

Depreciation lives must be consistent with a cost model's other assumptions. Verizon has applied this principle in this docket and, if anything, has proposed *longer* lives than would likely result under the TELRIC assumption of a fully competitive market and instantaneous network re-pricing. The ALECs' approach to depreciation, however, is *inconsistent* with the TELRIC assumption of a competitive market, as well as the assumptions that otherwise guide the ALECs' arguments. The ALECs' proposed lives, established in 1995 before the passage of the 1996 Act, cannot possibly reflect the risks of today's rate of technological change and competition.

1. Verizon's Depreciation Lives Are Forward-Looking and TELRIC-Compliant.

Verizon's depreciation lives conform to Generally Accepted Accounting Principles ("GAAP"), and thus are the best available estimate of the lives of Verizon's assets. (Tr. at 343

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[25] Perhaps Dr. Ankum's oversight can be traced to the fact that obtaining geocoding data is extremely expensive (Tr. at 793-94 (Tucek) (noting that the HAI Model's geocoded data have never been updated, despite the fact that the data are based on 1997 mass mailing list data)) and that geocoded success rates are far less than 100 percent. (Tr. at 794 (Tucek) (noting that the average geocoded success rate for Florida is a mere 70 percent); *see also* Tucek Depo. at 76-77.)

(Sovereign); VZ Hearing Ex. 39 at AES-1.) Verizon uses the same economic lives and future net salvage values in its studies as it uses in its financial reporting to its stockholders. (Sovereign Depo. at 8, 45, 58; Tr. at 343 (Sovereign).) Setting GAAP lives is an intrinsically forward-looking exercise, involving the determination of the expected time period, looking forward, during which assets will produce economic benefit. Expected technological changes, competition, serving area demographics, and other factors may decrease the period during which an asset will produce economic value, regardless of the asset's physical life. (Sovereign Depo. at 8-11, 68-69 (analogizing Verizon's equipment to vintage PCs and noting that, while some of the equipment may still be functional, over time, technological advances will render it obsolete).) To account for such factors, GAAP lives typically are reevaluated annually or even more frequently. Thus, while an asset's GAAP life may differ when determined again in the future, the 2000 GAAP lives estimated by Verizon constitute the best *currently available* estimate of Verizon's depreciation lives. Certainly, such GAAP lives, which account for the existing and expected competition, technological development, and the demographics of Verizon's serving area are more forward-looking than the FCC's lives, which were determined based on vintage information that may be as much as eight years old. (Tr. at 367, 371 (Sovereign).)

Verizon's service territory in the Tampa/St. Petersburg area is densely populated, and thus attractive for competitive entry; as such, Verizon's depreciation lives tend to be shorter than those in other states. (Sovereign Depo. at 10-11, 23.) As Mr. Sovereign explained, in order to stay competitive, Verizon must "change out" and "upgrade" its network more rapidly than if it operated in a sparsely populated rural area. (Sovereign Depo. at 19-20.) Verizon's lives appropriately take into account these demographic factors, as well as the competitive nature of the Florida telecommunications market, which should only increase over time, and certainly over

the next 15 years or more as the telephone plant is being depreciated. (Tr. at 351-52 (Sovereign).) There are 463 ALECs, all of which have access to Verizon's lines, certificated to provide facilities-based service in Florida. (Tr. at 351 (Sovereign); Tr. at 414 (Vander Weide).) While not all ALECs will succeed, and while the market may have its ups and downs, Florida remains particularly attractive for ALECs. (Tr. at 352 (Sovereign); Tr. at 414-15 (Vander Weide) (noting that ALECs continue to increase their share of both business and residential access line markets).) Accordingly, depreciation lives are not set merely to capture the market as it stands at this moment, but with a view toward what is happening in the future. As such, accounting for competition that will develop over the years to come is appropriate. (Tr. at 352-53 (Sovereign).) Indeed, it is *required* under TELRIC (Sovereign Depo. at 24-25) -- a fact the ALECs would rather have the Commission ignore.

Technological developments, such as the wireless local loop and cable telephony, as well as competition from traditional ALECs, also affect Verizon's depreciation lives. These technological advancements create facilities-based alternatives to Verizon's network, thereby causing Verizon to lose both retail and UNE customers and rendering units of plant obsolete. (Tr. at 351-52 (Sovereign); Sovereign Depo. at 19-20, 34; *see also* Vander Weide Depo. at 41-44 (recognizing that the 2001 report prepared by the Commission's Division of Policy Analysis and Intergovernmental Liaison acknowledged that there is vigorous competition in the market for business customers, as well as from wireless, cable television, and broadband providers), 52.) Accordingly, Verizon's depreciation lives account for recent developments such as the increasingly competitive switching market, in which the pace of technological change and the development of new switching components have increased significantly. (Tr. at 370-71 (Sovereign); Sovereign Depo. at 67-68.) Verizon's lives also recognize that digital switching is

being overtaken by packet switching offered by broadband providers, which threatens to render more and more of Verizon's digital switching capacity obsolete. (Tr. at 350 (Sovereign).) This trend is expected to accelerate within the next 10 years -- corresponding with Verizon's 10-year life for digital switching equipment (VZ Hearing Ex. 39 at AES-1) and with the 10.5 year digital switch life the FCC recently adopted for Verizon South, Inc.,[26] and contrasting with the ALEC's proposed range of 12 to 18 years. (Tr. at 1253-56 (Ankum), ALEC Hearing Ex. 61 at AHA-12; Tr. at 526 (Fischer).)

2. Verizon's Depreciation Lives Are Accurate and Reliable.

GAAP lives are intended to be inherently reliable and unbiased. A primary principle of the Financial Accounting Standards Board ("FASB"), the premier U.S. accounting standard-setting body, is that accounting information must contain no "bias intended to attain a predetermined result or to induce a particular mode of behavior."[27] Moreover, because GAAP lives are used in a company's financial reporting, a company would have no incentive to *understate* lives -- shorter depreciable lives produce higher expenses and lower net income, which can hurt a company's stock price. Thus, the Commission should support GAAP because it is designed to produce accurate, rather than inappropriately short, depreciation lives. Indeed, the FCC has recognized the validity of using GAAP lives in costing analyses.[28]

The reasonableness of the GAAP lives recommended by Verizon is confirmed by their comparability to the lives used by Verizon's competitors and others in the industry. As Mr. Sovereign explained, Verizon benchmarked its proposed depreciation lives against those of

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[26] In the Matter of The Revised Percentages of Depreciation Pursuant to the Communications Act of 1934, as amended for: GTE North, Incorporated, and GTE South, Incorporated, FCC 99-369 (Nov. 23, 1999).

[27] FASB Statement of Financial Accounting Concepts No. 2, "Qualitative Characteristics of Accounting Information," at Figure 1, Glossary.

[28] CC Docket No 00-217, *Memorandum Opinion and Order* (FCC rel. Jan. 22, 2001) at ¶ 74 ("*Kansas-Oklahoma § 271 Order*").

several industry players, including AT&T, WorldCom, and cable television operators.[29] (Tr. at 355-58 (Sovereign); Sovereign Depo. at 26-28.) In all cases, Verizon's proposed lives were comparable or longer.[30] (Tr. at 355-58 (Sovereign).) Whether Mr. Sovereign was personally engaged in the development of those lives is irrelevant. As Mr. Sovereign testified, it is reasonable to conclude that the depreciation lives in a company's financial report, which is shared with stockholders, investors and the general public, would be the "best estimate of a forward-looking life." (Sovereign Depo. at 27, 31-32, 59-60 (stating that it is extremely unlikely "that AT&T and WorldCom and [other] competitors would misrepresent to their stockholders that their lives of their assets are not their best estimate"); *see also* Sovereign Depo. at 36-41 (also noting that the economic lives provided in response to data requests should and are likely to be the best estimates of the company's forward-looking lives); Tr. at 358-59 (Sovereign) (indicating that the Missouri Public Service Commission concluded that benchmarking was a useful method of determining the reasonableness of Verizon's proposed lives).)

The ALECs' claim that their depreciation lives are irrelevant is nonsensical; it would be illogical for Verizon to use *longer* lives than those used by its chief competitors. Indeed, as the ALECs themselves admit, the lives they use in their day-to-day operations often coincide with the lives proposed by Verizon -- a fact that further confirms the reasonableness of Verizon's proposed depreciation lives. (Tr. at 359-61 (Sovereign); Sovereign Depo. at 28, 60 (noting the "tight range" of estimated useful lives among the benchmarking companies and Verizon).) Thus, it should come as no surprise that Verizon's depreciation lives have been endorsed by a number

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[29] This exercise is in no way similar to the ALECs' attempt to compare Verizon's *proposed* costs to the UNE rates *adopted* for other companies in Florida and elsewhere. (Sovereign Depo. at 61-62.) Unlike the UNE rates imposed on carriers by state regulatory commissions, the depreciation lives reported by the ALECs in their annual reports to their stockholders and the public are not in dispute, nor are they the result of regulatory decisionmaking or political compromise. (Sovereign Depo. at 61-62.)

[30] The accuracy of Verizon's depreciation lives is further confirmed by the fact that they comport with the economic life ranges recommended by Technology Futures Inc. (Tr. at 361-62 (Sovereign).)

of state regulatory commissions.[31] Indeed, this Commission has recommended depreciation lives that were strikingly similar to, if not the same as, the lives proposed by Verizon for the major technology-sensitive accounts. (Tr. at 347-48 (Sovereign).)

3. The ALECs' Proposed Depreciation Lives Are Backward-Looking and Inconsistent with TELRIC.

ALEC witnesses Ankum and Fischer -- none of whom prepared a depreciation study to determine whether their proposed lives were appropriate -- advocate depreciation lives that are inherently *backward*-looking. They propose using the depreciation lives the FCC prescribed *over six years ago* in 1995 (based on pre-1995 data), or alternatively, the depreciation lives approved in the BellSouth phase of this docket. (Tr. at 1253-56 (Ankum); ALEC Hearing Ex. 61 at AHA-12; Tr. at 526 (Fischer).) These recommendations have no merit.

First, the FCC's depreciation lives were intended for interstate reporting purposes and developed long before the 1996 Act was passed. (Tr. at 367 (Sovereign).) Thus, the 1995 depreciation lives recommended by the ALECs are based on a world in which the ILEC is the sole provider of local service. The FCC's lives do not reflect -- and could not have even been guided by -- TELRIC principles. Nor do they account for the very real impact that current and expected technological change and competition have had, and will continue to have, on the depreciable lives of telecommunications technology since the passage of the 1996 Act.

The ALECs acknowledge that, as competition began to develop and technology advanced, the FCC shortened the range of permissible lives several times. Dr. Ankum expressly recognizes that the FCC redetermined its depreciation lives as recently as 1999 (Tr. at 1255 (Ankum)), yet strangely attempts to defend the FCC's 1995 prescribed lives as forward-

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[31] Tr. at 362-65 (Sovereign); *see e.g.*, Rule Making R.93-04-003, I.93-04-002, *Decision No. D.96-08-021* (Cal. PUC Aug. 2, 1996); Case No. TO-97-63, *Final Arbitration Order* (Missouri PUC. July 31, 1997) Attachment C, at 76; Docket No. U-11281, *Order* (Michigan PUC Feb. 25, 1998) at Section D.

looking.[32] (Tr. at 1253-55 (Ankum).) Indeed, this Commission implicitly recognized the backward-looking nature of the FCC's outdated lives when, in 1998, it approved depreciation inputs for Verizon (then GTE) in the universal service fund docket that were shorter than the FCC's ranges. (Tr. at 347 (Sovereign); VZ Hearing Ex. 39 at AES-2.) In short, the ALECs' recommendations are illogical, inconsistent with this Commission's own direction, and manifestly incompatible with the competitive market assumption that TELRIC mandates.[33]

Second, the ALECs' recommendation that Verizon's depreciation lives should mirror those approved for BellSouth is devoid of any analysis and should be rejected. (Tr. at 367-68 (Sovereign).) The ALECs simply assert -- without offering any support for their claim -- that Verizon's risk could not be greater than that of BellSouth. (Tr. at 1256 (Ankum).) This is not true. BellSouth serves the majority of access lines in the state and serves a more varied base of customers (both urban and rural), whereas Verizon's serving area is concentrated in the densely populated, highly competitive, Tampa Bay/St. Petersburg area. (Tr. at 368-69 (Sovereign).) One need look no further than Verizon's access line data -- which decreased for the first time *ever* in 2001 -- for tangible proof that Verizon faces increasing competitive risk. (Tr. at 369 (Sovereign).) It is absurd for the ALECs to suggest that Verizon is immune from competitive pressures.

C. Cost of Capital

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[32] While the FCC's redetermined 1999 depreciation lives at least address more current circumstances and are a step in the right direction, this redetermination was not complete, and even the 1999 lives were not determined pursuant to TELRIC principles.

[33] Similarly, the New York Public Service Commission recently observed, in approving Verizon's recommended depreciation inputs, "those shorter lives may well be appropriate for a TELRIC study, in that they better reflect the treatment of depreciation in the competitive market contemplated by TELRIC." (Case 98-C-1357, *Order* (New York PSC Jan. 28, 2002) at 78.)

Verizon's cost studies employ a 12.95 percent cost of capital, the same cost of capital Verizon uses in making network investment decisions.[34] (Tr. at 380-81 (Vander Weide).) Rather than using a book or embedded approach, Verizon uses a forward-looking, market-based approach to assess the cost of both equity and debt. Thus, for example, in assessing its risk in the forward-looking market, Verizon uses companies from the S&P Industrials as a conservative proxy for the risk it would face. (Tr. at 426-27 (Vander Weide); Vander Weide Depo. at 28-29.) But as Dr. Vander Weide explained in his testimony, the cost of capital under the TELRIC construct actually would be significantly higher than what Verizon has employed, particularly given the significant risk associated with TELRIC's assumption that Verizon's entire network would be reconstructed instantaneously. (Tr. at 382-83, 388-89 (Vander Weide).)

The ALECs' and Staff's criticisms of, and counterproposals to, Verizon's approach suffer from one critical flaw: they are entirely inconsistent with TELRIC and the network assumptions underlying their other recommendations. The ALECs' and Staff's cost of capital proposals not only fail to account for the regulatory risks created by TELRIC, but also do not even purport to reflect the risk that Verizon would face in a fully competitive market. Not surprisingly, their incredibly low cost of capital significantly understates Verizon's forward-looking costs.[35] While the ALEC's and Staff's recommendations are incorrect for several other reasons, discussed below, this fundamental inconsistency, which is designed solely to decrease UNE costs, is sufficient to discredit their cost of capital proposals in their entirety. Indeed, AT&T itself admits that it uses a *15.31 percent* forward-looking cost of capital in one of its own cost models, which

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[34] Verizon's 12.95 percent cost of capital is based on a 14.75 percent cost of equity, 7.55 percent cost of debt, and a capital structure of 25 percent debt and 75 percent equity. (Tr. at 428 (Vander Weide).)

[35] Competition continues to develop rapidly in Florida, including competition from facilities-based local service carriers and from alternative technologies such as cable, wireless, and IP telephony providers. (*See, e.g.*, Tr. at 351-53 (Sovereign) 414-16 (Vander Weide); Vander Weide Depo. at 37.)

is significantly higher than the cost of capital used in Verizon's studies. (Tr. at 468-69 (Vander Weide).)

1. Verizon's Cost of Capital Is Appropriately Forward-Looking.

Verizon's cost of capital is consistent with the three forward-looking economic principles set forth by the FCC to guide the establishment of UNE rates: (1) UNE rates should be based on forward-looking economic costs, not embedded or accounting costs; (2) UNE rates should approximate the rates an ILEC would be able to charge in a competitive market for UNEs; and (3) UNE rates should provide correct economic signals for the investment decisions of both ALECs and ILECs.[36]

First, rather than using a book or embedded approach, Verizon calculates the forward-looking cost of capital using a forward-looking cost of equity, forward-looking cost of debt, and forward-looking capital structure. (Tr. at 382 (Vander Weide).) As Dr. Vander Weide explained, in a competitive market, investors and analysts rely upon market value capital structures, not book value capital structures, to estimate the cost of capital. (Tr. at 393-95 (Vander Weide); Vander Weide Depo. at 13.) No reasonable economist would rely on a book value capital structure to estimate the forward-looking weighted average cost of capital because book values reflect accounting conventions and purely historical costs. (Tr. at 382, 394 (Vander Weide); Vander Weide Depo. at 13.) Second, Verizon's cost of capital correctly reflects the forward-looking risk and required return on its investment in network facilities necessary to provide UNEs in a competitive environment. (Tr. at 387-88 (Vander Weide).) This assumption of a fully competitive market is important because it ensures -- as AT&T and WorldCom

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[36] *Local Competition Order* at ¶¶ 620, 673, 679, 738; *see also* Tr. at 381-32 (Vander Weide); Tr. at 431, 433-38 (noting that AT&T and WorldCom witnesses agree that "the prices for [UNEs] should mimic the prices that would prevail if Verizon sold the same functionalities in a competitive market"); Vander Weide Depo. at 12-13; CC Docket No. 01-9, *Memorandum Opinion and Order,* FCC 01-130 (FCC rel. April 16, 2001) at 42 (*"Massachusetts § 271 Order")*

concede -- that Verizon's cost of capital is consistent with its other UNE cost modeling assumptions. (Tr. at 438 (Vander Weide).) Finally, Verizon's cost of capital recommendation provides appropriate economic signals for the investment decisions of both ALECs and Verizon. If Verizon's proposed UNE rates were based on an unrealistic cost of capital -- one that did not reflect the true cost of provisioning UNEs in Florida -- ALECs would have no incentive to build their own facilities, opting instead to lease the undervalued UNEs from Verizon. (Vander Weide Depo. at 38.) Moreover, Verizon would have no incentive to continue to invest in new technologies if there is no reasonable prospect of recouping that investment. (Tr. at 388, 397-98 (Vander Weide).)

In addition, Verizon's capital structure, which consists of 25 percent debt and 75 percent equity, appropriately reflects the FCC's principles that rates must be based on forward-looking economic costs and reflect competitive market conditions. (Tr. at 424 (Vander Weide).) To determine this capital structure, Dr. Vander Weide examined five years of data for both a proxy group of S&P Industrials and a group of telecommunications companies with incumbent local exchange subsidiaries. (Tr. at 424-25, 455-56 (Vander Weide).) In all periods, the average market value capital structure for these companies contained no more than 25 percent debt and no less than 75 percent equity. (Tr. at 424-25 (Vander Weide); Vander Weide Depo. at 24.) While the average risk of these well known, publicly traded, competitive companies is certainly less than the risk faced by a company building an entirely new telecommunications network for providing UNEs (as TELRIC assumes), these proxy groups provide a useful starting point for approximating the risk that Verizon would face in an increasingly competitive market. (Tr. at 427 (Vander Weide); Vander Weide Depo. 26 (noting that the provision of UNEs is more capital intensive and involves higher fixed costs than the industries represented in the proxy groups), 28-

29 (stating that telecommunications carriers' operating leverage, technology risk and regulatory risk are greater than the average company in the S&P Industrials); *see also* Tr. at 444-45 (Vander Weide) (noting that companies do not need to be in the same industry to be representative of comparable risk).)

If anything, Verizon's cost of capital is conservative because it reflects the forward-looking costs of established companies operating in the real world. (Tr. at 383 (Vander Weide).) While Verizon's cost of capital would be appropriate if UNE prices were set based on Verizon's real forward-looking costs, it understates the risks inherent in being required to provide UNEs to competitors in a TELRIC-pricing world.[37] Undoubtedly, had Verizon assumed the instantaneous construction of an all-new, ubiquitous network based on the ILECs' existing wire centers -- and the concomitant risks associated therewith -- its cost of capital would have been significantly higher than the 12.95 percent Verizon proposes. (Tr. at 382-83, 388-89 (Vander Weide).)

2. The ALECs' and Staff's Cost of Capital Recommendations Violate TELRIC.

In a recent UNE proceeding before the FCC, AT&T and WorldCom conceded that the forward-looking cost of capital used in UNE cost studies must assume a fully competitive market, just like the assumptions contained in ICM-FL's expense and investment components. As AT&T and WorldCom economic and cost model witness Terry Murray acknowledged: "I think all the model's assumptions have to be consistent. So, to the degree that it requires a competitive market to get all of the other assumptions, that would be true for the cost of capital as well." (Tr. at 438 (Vander Weide) (*citing* CC Docket Nos. 00-218, -249, -251, *Hearing Transcript* (FCC Oct. 23, 2001) at 3202).) As Dr. Vander Weide explained, a cost model that

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[37] In particular, as noted above, under the instantaneous, ubiquitous network replacement envisioned by TELRIC, the cost of capital would be higher than what Dr. Vander Weide has proposed. (Tr. at 382-83, 388-89 (Vander Weide))

does not consistently reflect competitive market assumptions will not produce rates that replicate the costs that competitors would face in a competitive market. (Tr. at 403-04 (Vander Weide).)

Yet the ALECs' and Staff's cost of capital inputs do not reflect the conditions of a competitive market, let alone the additional regulatory risk inherent in TELRIC. As Dr. Vander Weide testified, forward-looking economic costs "are always based on market values, not historical or embedded costs as the book value capital structure is." (Vander Weide Depo. at 14, 18 (noting that TELRIC standards "aren't based on anything having to do with the books of the company"); *see also* Tr. at 431 (Vander Weide).) Nevertheless, the ALECs and Staff base their cost of capital recommendations on book value capital structures that reflect the embedded, historical, or accounting costs of the ILECs' business operations. (*See e.g.*, Tr. at 432-33, 454, 463-66 (Vander Weide).)

The ALECs propose a cost of capital that is no higher than the 10.24 percent approved in the BellSouth phase of this proceeding and no lower than the 8.8 percent approved by the New Jersey Commission; Dr. Ford recommends an 8.5 percent cost of capital; and Staff proposes a 9.63 percent cost of capital -- all of which are lower than the 11.25 percent that the FCC noted years ago was a *starting point* for cost of capital considerations in a TELRIC model.[38] AT&T and WorldCom have admitted that, according to the TELRIC methodology, "the prices for [UNEs] should mimic the prices that would prevail if Verizon sold the same functionalities in a competitive market. Competitive market forces would drive prices down to efficient forward-looking economic costs."[39] Because the ALECs have failed to follow these principles, their approach is internally inconsistent and their cost of capital proposals must be rejected.

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[38] *Local Competition Order* at ¶ 702; Tr. at 1253 (Ankum), 240 (Draper), at 286-87 (Ford).)

[39] Tr. at 437-38 (Vander Weide) (*citing* FCC CC Docket Nos. 00-218, -249, -251, *Rebuttal Testimony of Terry L. Murray* (Aug. 27, 2001) at 5); *see also* Tr. at 438 (Vander Weide) (quoting AT&T and WorldCom witness Ms. Murray as stating, "TELRIC is the right methodology because, as [the FCC] explained when it adopted the

The ALECs' and Staffs' backward-looking recommendations do not even purport to account for the regulatory risks created by TELRIC, the technological and demand uncertainties that are commonplace in the market today, or the risk that Verizon would face in a fully competitive market. (Tr. at 385-87 (Vander Weide).) The ALECs cannot have it both ways -- they cannot assume the existence of a fully competitive market when estimating the expenses and investment yet at the same time assume that the market for UNEs is monopolistic when estimating the cost of capital. (Tr. at 386-87, 403-04 (Vander Weide).) As Dr. Vander Weide explained, such inconsistent and irreconcilable assumptions produce forward-looking cost estimates that are *less than* the costs competitors would incur in building their own real-world networks, thereby eliminating any incentive for such competitors to engage in facilities-based competition and for ILECs to continue to invest in and improve their own networks. (Tr. at 404 (Vander Weide).)

The ALECs' and Staff's proposed cost of capital recommendations are further flawed because of the arbitrary and unsupported assumptions in their Discounted Cash Flow ("DCF") analysis and Capital Asset Pricing Model ("CAPM"). For example, Mr. Draper's 2-stage DCF analysis is based on a group of seven telecommunications holding companies, which he claims does not include any company that (1) received less than 75 percent of its annual revenues from telecommunications operations, (2) had insufficient financial data to perform a financial analysis, and (3) was the subject of an ongoing merger or acquisition. (Tr. at 235 (Draper); Draper Depo. at 31-32.) Curiously, however, Mr. Draper includes in his analysis AT&T and CenturyTel, which are subject to an ongoing merger or acquisition, and were at the time Mr. Draper filed his Direct Testimony. (Tr. at 442 (Vander Weide).) Mr. Draper also fails to include SBC

TELRIC methodology in its Local Competition First Report and Order, 'Adopting a pricing methodology based on forward-looking, economic costs best replicates, to the extent possible, the conditions of a competitive market'").

Communications Inc. ("SBC") even though it satisfies all of his enumerated criteria. (Draper Depo. at 53-56; Tr. at 442-43 (Vander Weide).) Not surprisingly, had Mr. Draper applied his own selection criteria correctly, he would have obtained significantly higher DCF results that are more in line with Verizon's results. (Tr. at 447 (Vander Weide).)

Mr. Draper's and Dr. Ford's use of the CAPM is equally flawed. Both witnesses fail to make any adjustment to account for the tendency of the CAPM to underestimate the cost of equity for companies with betas (a measure of a company's risk) of less than 1.0. (Tr. at 459-61 (Vander Weide).) For example, Dr. Ford simply uses another set of betas that are significantly lower than the Value Line betas that investors use -- this alone causes his estimate of Verizon's cost of equity to be severely understated. (Tr. at 462-64 (Vander Weide); Vander Weide Depo. at 47.) Dr. Vander Weide corrected the myriad flaws contained in each of their analyses and produced a much more reasonable CAPM result. (Tr. at 453-54, 463 (Vander Weide).)

Similarly, Dr. Ankum's baseless assertions should be dismissed outright. As Dr. Vander Weide explained, Dr. Ankum's reliance on the Commission's statement that the 1996 Act "requires the use of forward-looking costs, but not the use of a market value capital structure" is misplaced. (Tr. at 1249 (Ankum).) Market value capital structures are the only capital structures that are consistent with the FCC's three fundamental principles for setting UNE rates. (Tr. at 467-68 (Vander Weide); Vander Weide Depo. at 12-13; 48.) Use of book value capital structures fails to reflect forward-looking economic costs, as the FCC prescribes, and provides incorrect economic and investment signals to new entrants and ILECs. (Tr. at 467-68 (Vander Weide); Vander Weide Depo. at 19.)

While the ALECs' and Staff's positions are incorrect for several other reasons, these fundamental failings, designed solely to decrease UNE costs, are sufficient to discredit their cost

of capital proposals in their entirety. As noted earlier, perhaps the most compelling evidence of the entirely self-serving and unprincipled nature of the ALECs' and Staff's cost of capital proposals is AT&T's use of a 15.31 percent forward-looking cost of capital in its Total Incremental Cost Model ("TICM"). (Tr. at 468-69 (Vander Weide).)

D. (Tax rates); E. (Structure sharing); F. (Structure costs); H. (Manholes); I. (Fiber cable (material and placement costs)); J. (Copper cable (material and placement costs)); L. (Network interface devices); N. (Terminal costs); P. (Traffic data); Q. (Signaling system costs); R. (Transport system costs and associated variables); S. (Loadings)

ICM-FL's assumptions and input values for each of the above-referenced inputs have not been contested in this proceeding and should be adopted.

G. Fill Factors

Fill factors reflect the fact that every efficient, operational network has some spare capacity. This spare capacity is needed for maintenance, administration, growth, and other purposes, while some spare capacity is simply created by the functioning of the network. Fill factors reflect the average amount of spare capacity that exists -- across the network as a whole -- in each category of facilities. Fill factors thus ensure that the costs of providing UNEs are recovered only from the units of plant that, on average, are available for the generation of revenue. In other words, if over time, it appears that on average, only 7 out of 10 units can be or are in service at the same time -- but capacity for 10 is needed to ensure that the 7 are available -- the rates for the units must be set so that those generating revenue will cover the costs of providing all the units. Any other result would undercompensate Verizon and ultimately lead to degradation of the network and service quality.

ICM-FL's forward-looking fill factors reflect Verizon's engineering practices and customer locations, as well as the impact of discrete sizes of network components such as cable, drops and DLCs. ICM-FL does not model costs based on hypothetical, unsupportable and

entirely arbitrary fill factor inputs as the other parties to this proceeding propose. Accordingly, Verizon's fill factors are the only reliable source of utilization data before the Commission.

1. Spare Capacity Is Crucial to the Efficient Operation of Any Network.

Verizon and the ALECs agree that an efficient local exchange network must always have a certain amount of spare capacity. Spare is needed for administrative purposes[40] and to accommodate demand fluctuations and, in some cases, future growth.[41] (Ankum 3/15/02 Depo. at 34 (recognizing that "engineers will take into consideration issues of anticipated growth in a certain area").) Additional spare is also the inevitable result of "breakage" (*i.e.*, the unused capacity resulting from the fact that certain network elements are sold only in discrete capacity sizes)[42] and customer churn. The ALECs and Verizon disagree, however, over the amount of spare capacity that is needed to efficiently operate a telecommunications network. While too much spare capacity in the network is inefficient, too little spare capacity likewise leads to higher costs because of the need for successive relief jobs, and also interferes with the operation and quality of the network. (Tr. at 775 (Tucek).)

Although the ALECs assert that utilization rates should be higher, utilization rates cannot be adjusted arbitrarily. To achieve higher levels of fill, Verizon would have to abandon its efficient engineering practices, to the detriment of service quality. (Tr. at 775 (Tucek).) No party to this proceeding has suggested any means by which Verizon could achieve higher rates of utilization *without* affecting service quality -- nor has any party pointed to any carrier's network in which such high utilization rates have been achieved. In any event, not all of the spare

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[40] Administrative spare is necessary to permit efficient maintenance and administration of the network.

[41] AT&T witnesses in other UNE proceedings acknowledge that it is appropriate for a cost model to reflect the need to build capacity to serve tomorrow's demand. (Tr. at 776-78 (Tucek).)

[42] For example, copper cable is generally sold in discrete sizes. 25, 50, 100, 200, 300, 600 pairs, etc. If 410 pairs are needed, the most efficient choice would be to use the next largest cable size of 600, leaving 190 spare pairs.

capacity modeled by ICM-FL can be avoided, since it results from the available discrete sizes of cables and DLCs. Nevertheless, even assuming ICM-FL's sizing inputs were modified to reflect *no allowance for growth in* the distribution and feeder plant, the 2-wire loop TELRIC decreases by only 7 percent, even though the resulting modeled distribution fill nearly doubles.[43] (Tr. at 778-79 (Tucek).) Existing levels of spare reflect Verizon's efforts to address Florida service quality requirements in as efficient a manner as possible, as it has every incentive to do given its status as a price cap carrier.

2. Spare Capacity Is a Current Network Operating Cost.

The ALECs' central attack on Verizon's fill factors is their claim that, even if Verizon's fill factors reflect the proper amount of spare in the network from an engineering perspective, ALECs should not pay for spare that they are not using today. (Ankum 3/15/02 Depo. at 104; Ankum 4/15/02 Depo. at 35-37; Tr. at 465 (Ankum).) This argument takes several forms, all turning on the flawed premise that spare in the network is eventually "used up" by future growth and that today's customers should therefore be excused from paying for it.

But it is wrong to assume that spare capacity is used up by future growth. (Ankum 3/15/02 Depo. at 104; Ankum 4/15/02 Depo. at 35-37; Tr. at 465 (Ankum).) While the spare capacity in a specific facility may be filled by usage over time, other spare is always being built or created by churn, disconnections, and maintenance. Moreover, the average level of spare capacity is not something that current customers pay for but do not enjoy, as the ALECs suggest. (Ankum 3/15/02 Depo. at 104; Ankum 4/15/02 Depo. at 35-37; Tr. at 822 (Tucek.).) Spare capacity is a current operating cost of the network specifically because providing high-quality, timely service is a current operating requirement. When an ALEC orders a second line, the

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[43] The modeled feeder fill does not increase dramatically because it is already at 93 percent, well above the 74 percent fill the Commission found to be reasonable for BellSouth. (*BellSouth Order* at 201.)

ALEC (and the customer) enjoys the benefits of existing spare capacity because Verizon is able to provision that second line quickly, without incurring the cost and inconvenience of reinforcing plant in established neighborhoods. What the ALEC obtains is a unit of capacity on a network that has sufficient capacity to operate efficiently. The rate the ALEC pays must correctly reflect the costs of that entire network and should not exclude the cost of the spare capacity required for the network's efficient operation.

3. Each of ICM-FL's Facility-Specific Fill Factors Is Accurate and Efficient.

The fill factors produced by ICM-FL are the product of efficient engineering that maximizes plant use while providing timely, high-quality service at a reasonable cost. ICM-FL's fill factors reflect, for the most part, an attempt to size the network based on required demand and discrete sizes of network components such as cable, drops and DLCs. (Tr. at 774-75 (Tucek).) Dr. Ankum misunderstands this fundamental modeling convention. His erroneous assertion that ICM-FL's fill factors are too low makes clear that Dr. Ankum incorrectly views fills as inputs used to adjust capacity costs. (Tr. at 1178-82 (Ankum).)

As the Commission is well aware, cost models such as the HAI Model, BSTLM and BCPM size the modeled network based on required demand and discrete sizes of cable -- they do not use fill factors as inputs, as Dr. Ankum believes. These models divide the number of required lines by sizing fill factors to produce the required number of installed lines; the models then select the smallest discrete cable size that accommodates this number of installed lines. (Tr. at 773-74 (Tucek).) This is the same approach followed by ICM-FL, since multiplying the number of required lines by ICM-FL's engineering factors for distribution and feeder -- which are both greater than one -- is the mathematical equivalent of dividing required lines by the inverses of ICM-FL's engineering factors. For ICM-FL and the other models, the resulting

modeled fills are below those recommended by Dr. Ankum.[44] As a result, changes in the realized model fill do not have the significant effect on costs that Dr. Ankum posits. (Ankum 4/15/02 Depo. at 30-32.) The reasons for this are illustrated by the following example:

Impact of Changes in Sizing Fill Factor

Number of Working Lines: 40
Cable Length: 1,500 feet
Buried Placement Cost Per Foot: $1.4622
50-Pair Cable Material Cost Per Foot: $1.9950
100-Pair Cable Material Cost Per Foot: $3.4475

	Sizing Fill Input = 0.50[45]	Sizing Fill Input = 1.00[46]
Fill	40.00%	80.00%
Placement Cost	$2,193.26	$2,193.26
Material Cost	$5,171.25 (100 pair)	$2,992.50 (50 pair)
Total Cost	$7,364.51	$5,185.76
Cost Per Working Pair	$184.11	$129.64

- Going from 100 to 50 pairs
  Percent change in cost per working pair: -29.58 percent
  Note that the fill doubled, but the cost per working pair did not fall by half.

- Going from 50 to 100 pairs
  Percent change in cost per working pair: 42.01 percent
  Note that the fill fell by half, but the cost per working pair did not double.

This example demonstrates the impact on costs and the realized modeled fill for a 1,500-foot section of plowed cable, using two sizing fill inputs. Going from a sizing fill input of 0.5 to 1.0 reduces the required cable size from 100 to 50 pairs and doubles the realized fill. Even though the resulting fill factor doubles, costs do not fall by half as Dr. Ankum would assume. Similarly, decreasing the sizing input from 1.0 to 0.5 doubles the size of the cable required and cuts the resulting fill in half, but the costs do not double, as Dr. Ankum would conclude. (Tr. at 1270-72 (Ankum).) The reason in both cases is that the placement costs per working pair are

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[44] *See BellSouth Order* at 193-201; Tr. at 773-74 (Tucek.).

[45] 40/0.50 = 80 → 100-pair cable

[46] 40/1.00 = 40 → 50-pair cable

unchanged. Changing the installed cable size from 50 to 100 pairs, or from 100 to 50 pairs, only affects the material costs per pair. Dr. Ankum mistakenly suggests that both the placement and material costs will change as the realized fill is varied. (Ankum 4/15/02 Depo. at 34-36.) This erroneous assumption ignores the existence of discrete sizes for cable and other network components -- in other words, it ignores real-world operational realities.

Dr. Ankum's criticisms of the specific fill factors produced by ICM-FL are equally unavailing, reflecting nothing more than a baseless assumption that utilization rates should be higher.[47] Each of Dr. Ankum's recommendations ignores the fact that individual network components must fit together, and thus reflects a fundamental misunderstanding of ICM-FL's modeling conventions. For example, Dr. Ankum insists that ICM-FL's average 38.27 percent fill for distribution should be much higher. (Tr. at 1182-83 (Ankum).) Contrary to Dr. Ankum's assertions, the value reported by ICM-FL reflects the reasonable, *forward-looking*, amount of spare capacity necessary to serve Florida customer demand efficiently while meeting the service quality standards imposed on Verizon. (Tr. at 775-76 (Tucek).) The primary consideration in constructing distribution plant is the need to accommodate subscribers' requirements for multiple lines in a timely manner. It is impossible to predict, however, exactly how much distribution plant will be required in any given area because capacity must be built for *each customer location*. While the number of houses in a development may be fixed, the number of lines that

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[47] Dr. Ankum also labors under the incorrect assumption that ICM-FL contains hidden calculations and incorporates unknown components of the loop into its determination of each fill. (*See e.g.*, Tr. at 1183 (Ankum); Tr. at 772 (Tucek).) What Dr. Ankum fails to understand is that ICM-FL reports fills as outputs -- with a few exceptions, there are no specific fill factors input into the model. (Tr. at 772 (Tucek).) Rather, ICM-FL sizes cables based upon engineering factors for distribution and feeder, and selects the appropriate network components based upon the discrete sizes available. (Tr. at 774-75, 781 (Tucek).) The only fill factor input used by ICM-FL's loop module is an administrative fill of 98 percent, which allows 2 percent fill for administrative spare. (Tr. at 772 (Tucek).) The development of DLC material inputs for line cards is based on a 4.76 percent administrative spare. (Tr. at 772-73 (Tucek).) And, ICM-FL sizes entrance cables based on an assumed fill of 50 percent. (Tr. at 773 (Tucek).) All of these fill factors can be changed. (Tr. at 740, 772-73 (Tucek).) Had Dr. Ankum bothered to read Verizon's Response to Staff Data Request No. 75, his misapprehension about secret computations would have been allayed.

the residents of each of those houses will want at any given time is inherently uncertain and constantly changing. In order to meet its regulatory obligations, Verizon must build sufficient distribution facilities to serve the demand that may develop in each residential or business unit at *any* point in time. (Tr. at 775, 778 (Tucek).) This concept of "ultimate demand" thus does not relate to building extra capacity for "future growth," as Dr. Ankum suggests (Tr. at 1183-84 (Ankum)), but to building sufficient capacity to serve the varying potential demand *today* at each customer location. The Commission recognized this principle when it approved BellSouth's inputs for 2 lines per residential location.[48]

To meet this uncertain demand, ICM-FL models Verizon's practice of building distribution facilities with at least 2.0 to 2.5 pairs of distribution cables per residential unit. (Tr. at 775 (Tucek) (noting that ICM-FL's distribution engineering factor assumes that 2.36 pairs per lot will be placed); Tucek Depo. at 19, 32.) This avoids the prohibitive cost and delay associated with installing a new cable each time a group of subscribers on a particular street orders an above-average number of additional lines. This practice has been used throughout the LEC industry for many years and is based upon experience and studies to determine the most efficient way to build the distribution plant. Thus, it is not surprising that Dr. Ankum has provided no evidence to support the utilization rate he proposes for Verizon's distribution plant, can show no network in which this average utilization rate has ever been achieved, and cannot demonstrate how such utilization *could ever* be achieved without excessive cost or significant service degradation. (Ankum 3/15/02 Depo. at 50-60.)

Dr. Ankum's critiques of Verizon's copper and fiber feeder fill factors are equally misguided. For example, his recommendation that the cost of copper feeder cables be based on a

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[48] *BellSouth Order* at 201.

90 percent fill is premised on the erroneous and unrealistic assumption that fiber feeder facilities will largely replace copper. (Tr. at 779-80 (Tucek); Ankum 3/15/02 Depo. at 43-44.) While this may happen in some instances, it is entirely disingenuous to assume that such replacements will occur on a widespread basis. (Tr. at 779 (Tucek).) Moreover, copper feeder facilities are still needed to connect customers to DLCs; and thus, while feeder routes between DLCs and central offices may be replaced with fiber, every copper feeder facility will *not* be replaced. (Tr. at 779-80 (Tucek).) Indeed, Dr. Ankum's 90 percent fill greatly exceeds the fill adopted by the Commission in the BellSouth phase of this proceeding.[49]

K. Drops

Verizon's proposed drop lengths are forward-looking and appropriately reflect Verizon's operating realities. ICM-FL calculates the average drop length based upon the density characteristics of a given demand point, or grid. (Tr. at 789 (Tucek).) Accordingly, grids with similar characteristics (regardless of the zone to which they are assigned) have similar average drop lengths. (Tr. at 789 (Tucek).) To avoid drop length anomalies that may result in sparsely or densely populated grids, ICM-FL allows the user to set minimum and maximum values for the modeled average drop length. (Tr. at 790 (Tucek).) Based upon the inputs utilized in Verizon's cost study, ICM-FL calculates an average modeled drop length of 102.7 feet, and because one drop can serve more than one line, the average drop length is only 73.3 feet per line. (Tr. at 790 (Tucek).)

Dr. Ankum advocates the use of zone-specific average drop lengths that are unsupported by any record evidence, and are in fact a modeling impossibility. (Tr. at 789-91 (Tucek).) Clearly, the establishment of zones is a precursor to the establishment of *zone-specific* drop

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[49] *BellSouth Order* at 201.

lengths. (Tr. at 789 (Tucek).) However, the establishment of zones is contingent upon the calculation of loop costs, which cannot be done without first determining the modeled drop length. (Tr. at 789 (Tucek).) As such, Dr. Ankum's recommendation puts the cart before the horse. Moreover, Dr. Ankum has undertaken no empirical analysis to support his proposed drop lengths. (Ankum 3/15/02 Depo. at 68.) At bottom, however, Dr. Ankum's criticisms are of little consequence, because, contrary to Dr. Ankum's assertions (Tr. at 1186 (Ankum); Ankum 3/15/02 Depo. at 66-67), the cost of the drop is *not* an expensive part of the loop. Modifying ICM-FL's inputs to approximate Dr. Ankum's zone-specific average drop lengths has only a minimal impact on the costs produced. (Tr. at 792 (Tucek).) Thus, like so much of Dr. Ankum's analysis, his drop length recommendations are simply a distraction and in no way demonstrate any shortcomings in ICM-FL.

Dr. Ankum's criticism of ICM-FL's use of a 3-pair drop, instead of a 2-pair drop, is similarly unconvincing. (Tr. at 780-81 (Tucek).) Verizon's use of a 3-pair drop accurately reflects Verizon's real-world operational realities and engineering practices, which recognize that many customers have more than one line. (Tr. at 780 (Tucek).) Moreover, Verizon's 3-pair drop assumption is cost-effective because the incremental cost of installing a 3-pair as opposed to a 2-pair drop is negligible. (Tr. at 780 (Tucek) (noting that the cost differential between a 3-pair and a 2-pair drop is only four cents).) Installing a 3-pair drop, given the significant second line penetration rates, also reduces the likelihood of incurring the additional placement costs of installing a second drop at the customer premises if one pair fails or an additional line is ordered. (Tr. at 780-81 (Tucek).) Accordingly, adoption of Dr. Ankum's 2-pair drop recommendation would not be efficient, cost effective, or even rational.

M. Digital Loop Carrier Costs

1. ICM-FL Properly Models DLC Capable of Provisioning Non-Switched Services and Unbundled Loops in a Multi-carrier Environment.

ICM-FL assumes the deployment of universal digital loop carrier ("UDLC") throughout the modeled network -- the only currently available DLC technology that is capable of unbundling loops in a multi-carrier environment. (Tr. at 919 (Tucek).) The ALECs argue that Verizon's TELRIC network should be adjusted so that 100 percent of the fiber-fed loops are IDLC. (Ankum 3/15/02 Depo. at 112.) This argument is based on the erroneous contention that any retention of UDLC in the network -- which on its face is a more expensive technology -- is allegedly inefficient and not forward-looking. (Ankum 3/15/02 Depo. at 112-113.) But as Verizon demonstrated beyond question, IDLC is technologically *incapable* of provisioning stand-alone unbundled loops in a multi-carrier environment.[50] (Tr. at 782-87, 823, 919-25 (Tucek).) Accordingly, UDLC *must* be used to unbundle loops in both the real and modeled network. Any suggestion otherwise reflects either the ALEC witnesses' lack of familiarity with DLC technologies, or a willingness to assume any position that produces lower costs, even if it would render the network incapable of providing the very services the ALECs require.

Nevertheless, Dr. Ankum insists that a 100 percent IDLC assumption is reasonable, even though the record makes clear that, notwithstanding how, in theory, IDLC GR-303 unbundling hypothetically *could* take place, GR-303 unbundling remains nothing more than a theory. In fact, no equipment vendors even provide RT equipment for GR-303 unbundling. As of 1999,

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[50] Dr. Ankum apparently fails to make the distinction between unbundling IDLC in a multi-carrier versus a multi-host environment. (Tr. at 925 (Tucek).) Dr. Ankum is technically correct in asserting that unbundling IDLC in a *multi-host* environment is possible. (Ankum 3/15/02 Depo. at 115-116.) As Mr. Tucek explained, in a multi-host environment, the ILEC is the only carrier to which IDLC loops are being provisioned, and thus there are no security or operational issues. (Tr. at 925.) This, however, is not the situation envisioned by the ALECs. The ALECs want Verizon to unbundle IDLC in a *multi-carrier* environment in which the digitally-derived loop is connected to their switch -- a configuration that even the ALECs admit is not commercially available. (Tr. at 782-87, 919-25 (Tucek); ALEC Coalition's Response to Verizon's Second Set of Interrogatories, Nos. 26 and 27; ALEC Coalition's Response to Verizon's Second Request for Production of Documents, Nos. 15 and 16.)

Alcatel, Verizon's RT provider, noted that such unbundling "introduces a number of significant . . . challenges to the industry that still must be solved." (VZ Hearing Exh. 55 (Alcatel letter).) Nothing has changed since that letter was written. (Tr. at 922, 925 (Tucek).) Indeed, the current website for Telcordia -- the organization responsible for the GR-303 standard -- continues to note that "*new requirements* are needed to support alternative distribution technologies [for GR-303] . . . as well as services and applications (*e.g.*, . . . *local loop unbundling.*)" (VZ Hearing Exh. 54 (Telcordia website) (emphasis added).) Such unbundling does not exist, as the ALECs ultimately were forced to admit when they acknowledged that they know of no GR-303 unbundling solution that has been deployed in *any* carrier's network anywhere in the country. (Ankum 3/15/02 Depo at 114-15; ALEC Coalition's Response to Verizon's Second Set of Interrogatories, Nos. 26 and 27; ALEC Coalition's Response to Verizon's Second Request for Production of Documents, Nos. 15 and 16.)

The ALEC's rationale for modeling 100 percent IDLC thus is critically flawed. The ALECs argue that ILECs *should be able to* unbundle stand-alone loops using IDLC with a GR-303 interface. (Tr. at 1195-98 (Ankum).) But, as Verizon has demonstrated throughout the course of this proceeding, IDLC simply cannot be used to unbundle stand-alone loops. (Tr. at 782-87, 823, 919-25 (Tucek).) Because IDLC loops are connected directly into the ILEC's switch -- and because the software and equipment needed to unbundle IDLC loops in a multi-carrier environment does not exist -- UDLC is needed to connect a loop to an ALEC's switch. (Tr. at 782-86, 823, 919-25 (Tucek).) Although at one time many in the industry thought that GR-303 might provide a technological substitute for UDLC, the record reflects that the industry has never -- after years of trying -- resolved the fundamental security, error-protection, OSS, and

operational challenges that *prevent* unbundling UNE loops in a multi-carrier environment, even using a GR-303 interface.[51] (Tr. at 785-86, 919 (Tucek).)

Thus, the proposal that DLC costs nonetheless can be measured as if GR-303 unbundling capabilities and the necessary equipment do exist is a clear departure from the FCC's mandate that TELRICs be based only on "the most efficient telecommunications technology *currently available*."[52] Under TELRIC, allegations regarding what hypothetical, still-to-be-developed equipment would be, and might do, are irrelevant. As such, there is no legitimate basis under TELRIC to insist that any IDLC be deployed in ICM-FL's modeled network.

2. Verizon's DLC Placement Costs Are Accurate and Forward-Looking.

ICM-FL models the placement costs of DLCs based on their size. For DLCs that are 448 lines and smaller, ICM-FL assumes that the DLC is pole-mounted; for DLCs larger than 448 lines, ICM-FL assumes that the DLC is placed outside on a concrete pad. (Tr. at 801 (Tucek).) Dr. Ankum faults ICM-FL for failing to place large DLCs on the customer premises. (Tr. at 1207-08 (Ankum).) Predictably, Dr. Ankum offers no evidence to establish that placing a DLC on the customer premises is cheaper than either of the two options employed by ICM-FL. (Tr. at 799-801 (Tucek).) As Mr. Tucek testified, placing the DLC on the customer premises does not eliminate all associated placement costs since placing the DLC in a building will require the assembly of individual racks and shelves. (Tr. at 801 (Tucek).) Accordingly, the DLC placement costs modeled by ICM-FL should be adopted.

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[51] Moreover, none of the papers proffered by Dr. Ankum support the ALECs' contention that IDLC can be unbundled in a multi-carrier environment. (Tr. at 786-87 (Tucek).) In fact, the first of these papers clearly states that the unbundled loops are to be terminated at the MDF with an analog connection, suggesting that Dr. Ankum has not even read, or at least does not understand, the exhibits attached to his own testimony. (*See* ALEC Hearing Ex. 68 at AHA-8, 2 (stating that "[t]he TSI allows 'mapping' of the DS0s in the digital interface to be mapped to an analog interface . . . The subscriber making the transition to the CLEC can be 'mapped' to a VF circuit at the MDF for re-route").)

[52] 47 C.F.R. § 51.505(a)(1) (emphasis added).

O. Switching Costs and Associated Variables

In developing individual UNE rates, ICM-FL models switching costs based upon the forward-looking digital switches Verizon deploys throughout its network. ICM-FL properly assumes, in accordance with TELRIC, that existing wire center locations and host/remote relationships remain unchanged. (Tr. at 734 (Tucek).) Consistent with the FCC's rules, Verizon defines local circuit switching to include all the necessary facilities and functions required to connect end-user loops to a switch card and to facilitate the switching of calls to their proper destination.[53] This definition necessarily includes switch feature costs, which are necessary to provision enhanced vertical offerings. (Tr. at 590 (Trimble).) Verizon also proposes TELRIC-based UNE rates for unbundled tandem switching. (Tr. at 592 (Trimble).)

1. Verizon's Cost Studies Assume the Deployment of Forward-Looking Technology.

Dr. Ankum's criticisms of ICM-FL's modeling of GTD-5 switches are baseless and fail to recognize that GTD-5 switches continue to be marketed and supported by their manufacturer (AGCS), and that Verizon continues to buy line additions and remotes. (Tr. at 807-08 (Tucek).) As Mr. Tucek testified, Verizon has no plans to replace its GTD-5 switches and will provision UNEs out of a network in Florida that contains GTD-5s in the vast majority of its wire centers because it is economically efficient to do so. (Tr. at 807-08 (Tucek); Tucek Depo. at 25.) The ALECs mistakenly point to an excerpt from the Commission's Order in Docket No. 980696-TP in support of their contention that the GTD-5 switch should be excluded from Verizon's forward-looking cost study.[54] As Mr. Tucek explained, however, the Commission excluded the GTD-5 switch because it "did not feel it was representative of costs that would be suitable for *generic*

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[53] 47 C.F.R. § 51.319(c)(1)(A); Tr. at 589-90 (Trimble).

[54] Tr. at 896-898 (Tucek); Determination of the Cost of Basic Local Telecommunications Service, Docket No. 980696-TP, *Order No. PSC-99-0068-FOF-TP* (Jan. 7, 1999) at 231-32.

costs in the USF docket." (Tr. at 897.) The Commission never determined that the GTD-5 switch was not representative of *Verizon's costs* -- the only costs that are at issue in this proceeding. (Tr. at 897 (Tucek).) Indeed, Verizon has purchased GTD-5 switches as recently as the end of 2001 and plans to purchase additional GTD-5 switches in 2002.[55] (Tr. at 897-898, 914 (Tucek).)

2. Verizon Assumes an Appropriate Mix of New and Growth Discounts.

The switching costs modeled by ICM-FL are based on the prices Verizon pays for initial switch placements and expansions. (Tr. at 808 (Tucek).) This is accomplished through the use of a discount factor in the SCIS and CostMod runs that reflects the initial switch pricing, and an investment adjustment factor ("IAF") that reflects the pricing of additions. (Tr. at 808 (Tucek).) Discounts were computed based on the total modeled switching costs and the switch costs resulting from vendor quotes and the Nortel contract for initial switch purchases. Weighted averages of these discounts across cluster sizes constitute the discount inputs used in SCIS and CostMod runs for each Verizon wire center. (Tr. at 809 (Tucek).) The use of the IAF produces a blended switch cost that appropriately reflects the pricing for both initial switch purchases and line additions. (Tr. at 808 (Tucek).)

Dr. Ankum touts the supposed merits of weighting a UNE cost study more heavily toward allegedly inexpensive "cutover lines" (*i.e.*, the initial switch costs), as opposed to "growth lines" (*i.e.*, the cost of switch additions). (Tr. at 1228-35 (Ankum).) This suggestion is

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[55] By way of contrast, Verizon's exclusion of ATM switches from its cost studies is forward-looking and entirely consistent with TELRIC principles. While it is true that Verizon's network contains one ATM switch, this deployment is the "first of its kind in the entire Verizon network." (Tr. at 877 (Tucek).) The deployment of this ATM switch is just a trial -- until Verizon determines that this switch is efficient, viable and will be deployed in Verizon's network on a widespread basis, its inclusion in ICM-FL is improper. (Tr. at 877 (Tucek).) Moreover, Verizon's exclusion of this ATM switch *reduces* the switching cost estimates produced by ICM-FL. (Tr. at 877 (Tucek); *see also* Tr. at 878-80 (Tucek) (noting also that the inclusion of the ATM switch would have no effect on, among other things, the cost of the loop, 2-wire port, and UNE-P).)

not only unrealistic (Tucek Depo. at 26-27 (explaining that the exclusive use of initial switch purchases would produce a "network severed from reality")), it has been rejected repeatedly by the FCC and the courts. For example, in approving SBC's Kansas and Oklahoma Section 271 applications, the FCC rejected the ALECs' claim that SBC's costs should have reflected significant discounts associated with new switches. The FCC instead relied on the discounts in SBC's current contracts (which reflect primarily add-on switch equipment) in determining the UNE switching rate.[56] Moreover, in upholding the FCC's approval of Bell Atlantic's New York Section 271 application, the D.C. Circuit rejected the ALECs' switch discount argument on similar grounds.[57] The FCC and the courts thus acknowledge that TELRIC recognizes that ILECs will use a mixture of new switches and growth additions.[58]

3. Switching Feature Costs Should Not Be Recovered Through Monthly Recurring Charges and Should Only Be Assessed on a Per Feature Basis.

Switch feature costs should not be recouped as monthly recurring charges. Dr. Ankum is wrong in asserting that most of the costs of switch features are non-traffic sensitive. (Tr. at 812 (Tucek).) Switch features are usage sensitive and should be modeled as such. (Tr. at 813, 882 (Tucek).) Switch feature costs are derived from three primary sources: (1) the software right-to-use ("RTU") fees, (2) special hardware, and (3) the processor time used to activate the features. (Tr. at 812 (Tucek).) While a switch's software components are not usage-sensitive, the costs of

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[56] *Kansas-Oklahoma § 271 Order* at ¶ 77.

[57] *See AT&T Corp. v. Federal Communications Comm'n*, 220 F.3d 607, 617-18 (D.C. Cir. 2000).

[58] In the end, Dr. Ankum's proposal to calculate switch prices based on predominantly new switches is just a red herring. As Mr. Tucek demonstrated, ICM-FL produces a *lower* estimate of switching costs than Dr. Ankum's formula given that Dr. Ankum calculates the present value of additions over an assumed 18-year switch life, whereas Verizon calculates the cost of switch additions over a 6-year term. (Tr. at 811 (Tucek).) In addition, Verizon's switching costs do not include all the additional equipment that would be required over the life of the switch, such as additional host/remote links, software and processor upgrades, and additional network paths. (Tr. at 812 (Tucek).)

the specialized hardware and the processor costs certainly are. (Tr. at 882-87 (Tucek) (noting, among other things, that the quantity and capacity of equipment deployed, as well as processor utilization, depend on the demand being processed); *see also* Tr. at 813 (Tucek) (noting that, if processor usage increases enough, Verizon may need to install a larger processor or deploy multiple switches).)

Switch feature costs should also be recovered on a per feature, or an a la carte, basis (*i.e.*, the ALEC should only be charged for what it uses). (Tr. at 591 (Trimble).) A number of states have already adopted this approach. (Verizon's Response to Staff's Interrogatories, No. 255 (referencing Verizon's Response to Staff Interrogatory No. 160).) As with other UNEs, Verizon's feature-specific rates are based on each feature's TELRIC plus a reasonable allocation of Verizon's common costs. (Tr. at 591 (Trimble).) Moreover, from a policy and cost causation perspective, ALECs should not be required to pay for some of the more costly switch features unless they actually cause those costs to be incurred. (Tr. at 591 (Trimble).) Finally, if Verizon were required to offer unlimited use of its switches on a per-line, flat rate basis, the ALECs would have every incentive to price their services in such a way so as to promote maximum usage of those switches. From the ALECs' point of view, the marginal cost for switch features would be zero. (Tr. at 813 (Tucek).) Such a situation would put Verizon at a severe competitive disadvantage because additional use of switch features would result in increased processor costs. Indeed, the FCC in approving BellSouth's Section 271 application in Georgia and Louisiana noted that "contrary to the allegations of WorldCom, there was substantial evidence in the record to support a cost associated with features."[59] For these reasons, Verizon has never incorporated

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[59] *Georgia/Louisiana § 271 Order* at ¶ 84.

the cost of switch features in its switch port costs or end-office switching UNE rates. (Tr. at 591 (Trimble).)

T. Expenses

ICM-FL models Verizon's forward-looking operating expenses by starting with 2000 ARMIS data and making forward-looking adjustments. The 2000 ARMIS data are the best starting point for the development of ICM-FL's expense inputs because they reflect Verizon's actual experience in Florida, replicate the existing scale of Verizon's Florida operations, and are consistent with the demand data used to size the modeled network. (Tr. at 815 (Tucek).) The ARMIS data are made forward-looking in a number of ways. First, they are normalized to adjust for certain non-recurring items relating to merger-related costs and net settlement gains and curtailment losses on pension and other post-employment benefits. (Tr. at 814 (Tucek); *see also* ICM-FL Supporting Documentation at Attachment D.2.) Second, expenses related to non-forward looking technology are eliminated, as are expenses related to avoided retail costs. (Tr. at 814 (Tucek).) Third, expenses identified and modeled in Verizon's NRC study are removed. (Tr. at 814 (Tucek).) Fourth, ICM-FL's expense inputs are adjusted for yet-to-be-realized merger savings.[60] (Tr. at 768, 814 (Tucek).) Finally, the numerators of the expense-to-investment ratios used to model ICM-FL's expenses use C. A. Turner indices to express the cost of the general support assets on a reproduction cost basis. (Tr. at 814-15 (Tucek).)

The resulting adjusted ARMIS operating expenses represent the best -- indeed, the only -- estimate of Verizon's forward-looking operating expenses. ICM-FL ensures that these expenses

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[60] Contrary to the ALECs' contention, Verizon's anticipated $36.4 million in merger-related savings will not be realized until 3 years after the merger's completion (*i.e.*, July 2003) (Tr. at 767-68, 848-50 (Tucek)) -- a fact that is consistent with the information contained in Verizon's S-4 filed with the Securities and Exchange Commission (*see* Tr. at 848-53 (Tucek); ALEC Hearing Ex. 44 at WRF-6), and in no way contradicted by AT&T's inappropriate allocation of Verizon's merger savings according to each Verizon wireline operating company's percentage of access lines. (Tr. at 858-59 (Tucek) (explaining that AT&T mistakenly assigns the merger savings only to wireline companies, while ignoring Verizon's wireless, long-distance, international and other business units).)

are reflected in the TELRICs for UNEs by incorporating a calibration option, which ensures that the investments used in the denominators of the expense-to-investment ratios are consistent with the modeled investment to which they are applied. (Tr. at 816 (Tucek).) Nevertheless, there is an inherent shortfall in ICM-FL's calculation and application of these ratios that results in less than 100 percent of Verizon's forward-looking expenses being included in the reported TELRICs. (Tr. at 816 (Tucek).) This "calibration shortfall" would only be made worse by the ALECs' recommended elimination of the C. A. Turner adjustment. (Tr. at 816 (Tucek).) As explained by Mr. Tucek, it is possible to correct for this shortfall by adjusting the calculation of the fixed allocator used to include common costs in Verizon's proposed UNE rates. (Tr. at 817 (Tucek).)

U. Common Costs

By definition, TELRICs represent the costs that can be directly assigned to an individual UNE. By contrast, common costs are necessary for the provisioning of UNEs and for the operation of the company as a whole, but cannot be directly assigned to specific elements. (Tr. at 740 (Tucek).) Although the identification of Verizon's common costs is an integral part of the development of the operating expenses modeled by ICM-FL, they are not properly reflected in ICM-FL's UNE cost estimates. (Tr. at 740-41 (Tucek).) As discussed in Issue No. 1, Verizon's fixed common cost allocator should be applied to the cost estimates produced by ICM-FL. (Tr. at 629-30 (Trimble).)

Issue 8: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking non-recurring UNE cost studies: (a) network design; (b) OSS design; (c) labor rates; (d) required activities; (e) mix of manual versus electronic activities; (f) other?

Verizon's Position: * For these items, the Commission should adopt the assumptions and inputs used in Verizon's NRC studies. Verizon has presented the only accurate and reliable evidence of the tasks and the time required for Verizon to provision UNEs. *

Verizon's NRC study accounts for costs that are associated with the one-time activities Verizon performs when processing and provisioning ALECs' requests for UNEs. NRCs are incurred in response to a specific event initiated by a specific cost causer and generally involve easily identifiable, concrete costs. Such costs are best, and most efficiently, recovered through the application of a one-time, "non-recurring" charge.

Verizon's NRC study is based upon a sound methodology designed to accurately estimate the time it takes Verizon employees to perform the tasks required to provision UNEs. (Tr. at 1049 (Richter).) The study employs a "bottom-up" calculation to measure the costs arising from an ALEC request for a Verizon service or UNE. Verizon used a comprehensive survey process -- gathering information through work sampling studies, time and motion studies, work center reports, and input from subject matter experts ("SMEs") who are extremely proficient in their fields -- to determine the average amount of time required to perform the activities associated with provisioning UNEs.[61] (Tr. at 977, 988-89, 1050, 1090-1094 (Richter).) The work times underlying Verizon's NRC study are based on empirical data collected from individuals who have real-world experience in performing the tasks at issue. (Richter Depo. at 63.) Verizon took care to ensure that the survey process and the methodology for assessing the resulting responses were designed to produce relevant and reliable data. (Tr. at 1049 (Richter); Richter Depo. at 18, 63 (stating that the work sampling technique employed produces a statistical confidence level of ± 5 percent).) By contrast, the ALECs' proposed work times were developed by a single witness, whose primary objective was to minimize Verizon's non-recurring charges. (Tr. at 1052 (Richter).)

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[61] As Mr. Richter testified, work sampling is the preferred method when there are "wide variations in the work activities performed;" whereas time and motion studies are better suited to situations where the activities are repetitive. (Tr. at 1091; Richter Depo. at 9-10; *see also* Verizon's Response to Staff Interrogatory No. 167.)

A. Network Design

Verizon's NRC study measures the NRCs Verizon expects to incur in the future as it efficiently expands and replaces its network over time. (Tr. at 944 (Richter).) The assumptions reflected in Verizon's NRC study are consistent with its experience deploying up-to-date technology to serve ALECs and consumers. Verizon applies a forward-looking adjustment factor to account for future efficiency gains resulting from mechanization and process improvements. Consistent with the FCC rules, these forward-looking costs are based on *currently available* technology.[62]

The ALECs' recommendations, by contrast, rely extensively on technology that either is not currently available and will not be available for the foreseeable future, or cannot be used in a multi-carrier environment. For example, the ALECs argue for the ubiquitous deployment of IDLC based upon the discredited argument that Verizon could avoid the costs associated with UDLC by provisioning unbundled UNE loops using a GR-303 interface. As explained above, the record here shows beyond doubt that GR-303 unbundling is not technically possible in a multi-carrier environment, nor is it likely to be for the foreseeable future, if ever. Moreover, even if the ALECs' hypothetical technologies were available, none of the ALECs' recommendations account for the costs that Verizon would incur to make these alleged improvements. Thus, the ALECs play a shell game, assuming new technological systems in order to lower NRCs, yet failing to account for the costs of these alleged systems in their recurring cost proposals.

B. OSS Design

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[62] 47 C.F.R. § 51.505.

Verizon's operations support systems ("OSS") provide ALECs access to a cutting-edge network and reflect the most forward-looking technology being deployed. Verizon's OSS comply fully with the 1996 Act's requirement that Verizon provide nondiscriminatory access to OSS functionalities.[63] Verizon maintains an ALEC support website, which provides information on Verizon's two mechanized ordering interfaces: Verizon-West's Secure Integrated Gateway System ("SIGS") and its Wholesale Internet Service Engine ("WISE"). ALECs can either input local service requests ("LSRs") directly into SIGS through a mechanized ordering system or, if they do not have their own ordering systems, through WISE via the Internet, which then transmits the LSRs into SIGS. A shell of an order is created in Verizon's National Ordering and Collection Vehicle ("NOCV") for processing. (Tr. at 951, 1061-62 (Richter); Richter Depo. at 39-40, 67.)

Verizon is constantly endeavoring to enhance and upgrade its OSS. (Tr. at 1065-66, 1071-72 (Richter); Richter Depo. at 31.) Improvements are continually made to the OSS front-end edits in order to increase the amount and types of orders that can be processed electronically. (Tr. at 1074 (Richter).) In addition, when a UNE order "falls out" of Verizon's systems, a report is generated that explains why the order failed to flow through, thus enabling Verizon to identify potential improvements to its OSS. (Tr. at 1065-66 (Richter).) These enhancements, combined with general technological advances, allow Verizon to continually update its OSS, thereby facilitating greater flow-through of UNE orders. (Tr. at 1065-66, 1071-72 (Richter).)

C. Labor Rates

The labor rates reflected in Verizon's NRC study have not been contested in this proceeding and should be adopted.

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63 47 U.S.C. § 252(d)(1); Tr. at 944 (Richter).

D. Required Activities

1. Verizon Correctly Distinguishes Between Recurring and Non-Recurring Costs.

Verizon's NRC study appropriately distinguishes between recurring and non-recurring costs. Verizon is entitled to recover one-time costs caused by an ALEC order on a non-recurring basis. (Tr. at 1053-54 (Dye).) Such treatment is especially appropriate where the cost (a) is occasioned by the particular ALEC order and arises from activities that would not be undertaken but for that order, and (b) reflects a "one-time" expenditure whose total magnitude is not dependent on the length of service, and therefore would be subject to over-recovery or under-recovery if billed on a recurring basis. (Tr. at 1089 (Dye); *see e.g.*, Tr. at 1021-22 (Dye).)

It is erroneous to assume that a cost should be deemed recurring whenever the activity in question might possibly benefit some other ALEC, or Verizon itself at some hypothetical point in the future, even if the requesting ALEC directly caused the cost. The FCC has rejected such a theory in relation to interconnection: "To the extent that the equipment needed for expanded interconnection service is dedicated to a particular interconnector, . . . requiring the interconnector to pay the full cost of the equipment up front is reasonable . . . *regardless of whether the equipment might be reusable.*"[64] Otherwise the risk of cost under-recovery would be shifted, inappropriately, from the ALEC to the ILEC. If Verizon incurs a one-time cost caused by the connection of service, but must recover that cost through a recurring charge, then it bears the risk that it will lose the customer and not recover that one-time cost. The requesting ALEC should bear that risk; otherwise, it will not fully consider the long run costs of serving customers,

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[64] Local Exchange Carriers' Rates, Terms and Conditions for Expanded Interconnection through Physical Collocation for Special Access and Switched Transport, *Second Report and Order*, 12 FCC Rcd 18730 (June 13, 1997) at ¶ 33 (emphasis added); *see also Local Competition Order* at ¶ 751.

will have an incentive to over-expand, and will shift the risks associated with its own business decisions to the ILEC.

2. Verizon Appropriately Collects Disconnect Costs at the Time of Connection.

Verizon's non-recurring charges for a basic new order include disconnect costs. (Richter Depo. at 43; *see also* Verizon's Response to Staff Interrogatory No. 146.) This approach represents the industry norm and is entirely reasonable.[65] Moreover, recouping disconnect costs at the time of connection is the only way to ensure that such costs will be recovered. (Tr. at 998 (Richter).) Permitting recovery only at the time of disconnection would inappropriately shift the risk of non-recovery to Verizon, a particularly inequitable result since Verizon must provide UNEs to any requesting ALEC, regardless of its financial qualifications or stability. Although the risk of uncollectables may be relatively low in the case of carriers such as AT&T, that is certainly not the case for all ALECs, whether due to financial troubles or other reasons. (*See* Tr. at 1166-69 (Ankum).)

3. The ALECs' Reductions to Verizon's Proposed Non-Recurring Charges Are Baseless and Should Be Rejected.

Verizon's non-recurring charges are based on a statistically-sound survey of workers who actually perform the tasks necessary to provision UNEs. The ALECs' work times, in stark contrast, are based entirely on the opinions of a single expert, who has never processed a single UNE order. (Tr. at 979 (Richter); Morrison Depo. at 36.) The record leaves no doubt that the Commission should approve Verizon's work times and the associated non-recurring charges.

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[65] The fact that the Commission determined (approximately 4 years ago) that disconnect charges should not be included in non-recurring charges is irrelevant. As Mr. Richter testified, the conclusions reached in Order No. PSC-98-0604-FOF-TP are *not* applicable to Verizon and thus should have no bearing on the Commission's decision here. (Richter Depo. at 70.)

The ALECs venture a laundry list of criticisms of Verizon's survey methodologies and the resulting non-recurring charges. Each of these criticisms is based on nothing more than the unsubstantiated opinion of the ALECs' sole witness, Mr. Morrison, who conducted an admittedly limited review and either ignores or misunderstands the manner in which UNEs are ordered and provisioned. (Tr. at 979-81, 1052 (Richter).) Mr. Morrison proposes drastic reductions based solely on a cursory review of a handful of NRCs in Verizon's study. (Tr. at 1304 (Morrison); Morrison Depo. at 42, 60 (admitting that he was only asked to review unbundled loop, unbundled port, and enhanced extended links ("EELS") NRCs), Tr. at 995, 1052 (Richter) (noting that Mr. Morrison did not recalculate all of Verizon's approximately 300 ordering and provisioning NRCs).) Despite the fact that Mr. Morrison was unhampered by budgetary or other constraints (Morrison Depo. at 43-44), he did not conduct a single survey or consult with anyone to validate the accuracy of the work time estimates he proposes. (Morrison Depo. at 95-96.) This is surprising given that Mr. Morrison never personally observed any of the activities corresponding to the values he was "adjusting" in Verizon's NRC study,[66] nor did he conduct an empirical analysis of Verizon's operations to support the values he advocates. (Morrison Depo. at 92.) Mr. Morrison's proposed reductions to Verizon's non-recurring charges are thus arbitrary and should be rejected.

Similarly, Mr. Morrison's disapproval of Verizon's indirect percent reveals a fundamental misunderstanding of the manner in which UNE orders are processed and provisioned. (Tr. at 1311-12 (Morrison).) Verizon's indirect percent recognizes that a survey could never fully capture the wide range of activities in which Verizon service representatives engage -- activities that are essential to the accurate and timely processing and provisioning of

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[66] Morrison Depo. at 8-9 (noting that he has never worked in an ILEC service center or business office), 36 (never provisioned a UNE order), 93-94 (and never personally entered an LSR).

UNE orders. (Tr. at 989 (Richter).) Mr. Morrison's claims that certain NRCs are either unnecessary (*e.g.*, preordering) or duplicative (*e.g.*, record orders) are equally unavailing. (*See e.g.*, Tr. at 1318-19, 1328 (Morrison).) As Mr. Richter explained, Verizon's preordering activities are done at the ALECs' request -- a fact that Mr. Morrison ignores. (Tr. at 998-99 (Richter).) Moreover, Verizon's record order activities are requested *after* service has been established, and thus are separate and distinct from new order activities. (Tr. at 1000-01 (Richter).) Similarly, Mr. Morrison's assertion that jumper cables can be run very quickly is only accurate if one assumes that COSMIC frames (or other single-sided MDF technology) are widely deployed -- an assumption that is as fantastic as Mr. Morrison's revised work times. (Tr. at 1000-01 (Richter); *see also* Richter Depo. at 34 (noting that Verizon's jumper running study is Florida-specific).)

Finally, Mr. Morrison's proposal to eliminate all of Verizon's National Market Center ("NMC") costs is untenable and fails to appreciate the critical differences between retail and wholesale order processing.[67] Wholesale service and product offerings to ALECs bear no resemblance to retail product offerings to residential customers; and the wholesale ordering process is significantly different from the retail ordering process. (Tr. at 1007-10 (Richter).) These critical distinctions dictate that wholesale and retail orders be handled separately, by personnel who are specifically trained to process the different orders and provision the respective products and services. (Tr. at 1008 (Richter), 1086-87 (Richter) (noting that the NMCs' facilities, equipment and personnel are not transferable to the retail environment).) Thus, the

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[67] The NMC costs relate to the establishment and ongoing maintenance of the NMCs, which exist solely to process LSRs submitted by ALECs. (Tr. at 1033 (Dye).) As such, these costs are appropriately recovered through a non-recurring charge on each order that is processed at the NMCs. (Tr. at 1028 (Dye).) Including these amounts in the non-recurring rates spreads the recovery of these costs out over time and thus allows ALECs to pay for these costs in installments. (Tr at 1028 (Dye).) These costs cannot properly be recovered on a recurring basis because there is no way to ensure that they will be charged to only those ALECs submitting LSRs (as opposed to ASRs or some other type of order). (Tr. at 1085 (Richter).)

NMCs handle only ALEC orders for UNEs -- they have nothing to do with Verizon's retail orders. (Tr. at 1007-08, 1082 (Richter); Richter Depo. at 19, 25.) While criticizing this inherently reasonable and cost effective approach, Mr. Morrison is unable to identify a single ILEC that provisions its retail and wholesale orders out of the same facility. (Morrison Depo. at 74.) Moreover, even assuming that Verizon's retail and wholesale ordering centers could be combined -- which they cannot -- Mr. Morrison makes no allowance for the significant additional costs that would be associated with merging these facilities. (Morrison Depo. at 71; Tr. at 1009 (Richter).)

Many of Mr. Morrison's criticisms also demonstrate a basic unfamiliarity with cost modeling. For example, he criticizes the hard-coded values in Verizon's NRC study and implies that they somehow hindered his analysis (Tr. at 1310-11 (Morrison); Morrison Depo. at 75-77); yet he concedes that the use of hard-coded values is common in a cost study. (Tr. at 1311 (Morrison); Morrison Depo. at 76.) Mr. Morrison further acknowledges that hard-coded values in Verizon's NRC study are not set in stone, but rather are some of the "only things that [he] could effectively change." (Morrison Depo. at 76.) Moreover, had Mr. Morrison truly wanted to examine the data used to develop the hard-coded values, he could have traveled to Verizon's Dallas offices and reviewed the source documentation. (Tr. at 983-84 (Richter).) His decision not to do so -- like so many of his other decisions -- is baffling, given his lack of budgetary or other restrictions. (Tr. at 983-84 (Richter); Morrison Depo. at 43-44.)

In short, the ALECs' criticisms collapse under the weight of their manifest flaws. Mr. Morrison does not purport to have conducted an objective or statistically meaningful analysis (Morrison Depo. at 92); offers no documentation or other support for his proposed flow-through rate (Morrison Depo. at 87-88); makes purely speculative, across-the-board reductions to work

times (Tr. at 90-93 (Morrison)); and admittedly has no experience in processing wholesale UNE orders or provisioning UNEs. (Morrison Depo. at 93-94.) Ultimately, the ALECs' proposed NRC rates are nothing more than self-serving manipulations of Verizon's data to obtain pre-determined results. (Morrison Depo. at 90 (conceding that he adjusted the number of observations contained in Verizon's NRC study to arrive at pre-determined work times that *he alone* believed were appropriate); Tr. at 993-94 (Richter).) The Commission should thus reject the inherently subjective and unreliable time estimates and NRCs proposed by the ALECs.

E. Mix of Manual Versus Electronic Activities

The ALECs' erroneously assume that 95-98 percent of orders and products are, or should be, designed to flow through Verizon's automated systems, regardless of their complexity. (Tr. at 1027 (Morrison).) This assumption is wrong. (Richter Depo. at 67.) It would be neither cost-effective nor, in some cases, even possible for Verizon to mechanize the handling of every type of order. (Tr. at 992 (Richter).) The ALECs' almost-perfect flow-through rate could only be achieved if the ALECs submitted error-free orders essentially all the time. (Tr. at 991 (Richter); Richter Depo. at 67.) In the real world, this is simply not possible. (Tr. at 991 (Richter).) Verizon has mechanized many ordering tasks for many elements, and takes account of further potential efficient mechanization through its 15 percent productivity improvement factor. (Tr. at 947, 991-92, 1137 (Richter); Richter Depo. at 29-30, 61-62.) Nonetheless, while Verizon's NRC study already assumes that ALEC orders with formatting errors will be returned to the ALEC rather than manually processed (Tr. at 1069 (Richter)), this does not eliminate all fallout and associated manual handling costs. The gateway OSS will not catch "soft errors," *i.e.*, those that are formatted and punctuated as expected by the gateway OSS but contain information incompatible with downstream ordering and/or provisioning systems. (Tr. at 1069-71 (Richter).)

Moreover, manual processing remains the most economical (and in some cases the only) way to deal with certain types of complex and/or low-volume orders. (Tr. at 947-48, 992-93, 1062, 1072 (Richter); Richter Depo. at 67-68.) Verizon's NRC study therefore addresses not only the manual activity associated with orders that should automatically flow through but which "fall out" due to error, but also the manual handling needed for requests that were never *designed* to flow through the system. (Tr. at 1072-73 (Richter).) For example, an order for five or more loops will be designated for manual handling so that Verizon can do a facilities check to ensure that there are sufficient available lines before providing a firm order confirmation. This practice benefits both Verizon's retail and wholesale customers and is extremely cost efficient. Indeed, even the ALECs concede that manual handling will be the most cost-efficient means of provisioning some services, yet inexplicably fail to account for such manual work in their recommendations. (Morrison Depo. at 84.)

The ALECs fail to provide any evidence that the level of automation they assume is achievable. Indeed, Mr. Morrison could point to no carrier or existing system that processes and provisions UNE orders with the level of automation he asserts is possible.[68] (Morrison Depo. at 87.) As Mr. Richter testified, "you can't build something electronically to be able to identify everything and every combination that could exist." (Tr. at 1065, 1136.) Moreover, while the ALECs insist that Verizon should assume greatly expanded OSS capable of processing *all* orders, they do not account for the substantially increased costs that would result from the development of such systems, even assuming it were technically feasible. (Morrison Depo. at

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[68] Mr. Morrison was only able to identify one system, allegedly being used by SBC, that he claims has achieved 98-99 percent flow-through. (Morrison Depo. at 34.) Mr. Morrison, however, was unaware of the costs of such a system and was unable to provide any details as to the extent or geographic area in which this system was being deployed. (Morrison Depo. at 34-35.)

120-21; Tr. at 993 (Richter).) Their position is that Verizon should automate all tasks (even if doing so is not cost-efficient) and should not include the costs of such automation in its rates.

At bottom, there is no record evidence to support the ALECs' proposed 50 percent and 33 percent reductions to Verizon's ordering and provisioning NRCs, respectively. (Tr. at 1306 (Morrison).) These unjustified reductions are based solely on Mr. Morrison's self-proclaimed "good sense of the inherent magnitude by which the Verizon cost model overestimates actual, forward-looking NRCs." (Tr. at 1306 (Morrison); *see also* Tr. at 995-96 (Richter).) Mr. Morrison ignores Verizon's studies and work sheets, which accurately describe the activities necessary to process and ALEC order, and provision or assign facilities in connection with an ALEC service request. Instead, Mr. Morrison bases his revised work times on some arbitrary and uninformed sense of what the values should be. (Tr. at 1005 (Richter).) Mr. Morrison's "good sense," unsupported by any objective, empirical analysis or data, is a wholly insufficient basis upon which to reduce Verizon's non-recurring charges. (Tr. at 995-96 (Richter).)

Moreover, the ALECs erroneously imply that human intervention, to the extent it is required in the processing of UNE orders, may in some instances result in additional errors being created. (Tr. at 1076-78.) First, Verizon's systems are designed -- and continue to be enhanced -- to *minimize* the amount of human intervention required to process a UNE order. (Tr. at 1076-77 (Richter).) Nonetheless, to the extent that human intervention is necessary, the likelihood that additional errors will be made is minimal. (Tr. at 1077-78 (Richter).) Verizon's service representatives are highly trained and experienced individuals who are only concerned with *correcting* existing errors; they are not creating something anew to be processed downstream. (Tr. at 1078 (Richter).) As such, the probability that they will create independent errors is negligible. (Tr. at 1078 (Richter).)

Issue 9(a): **What are the appropriate recurring rates (averaged or deaveraged as the case may be) and non-recurring charges for each of the following UNEs: (1) 2-wire voice grade loop; (2) 4-wire analog loop; (3) 2-wire ISDN/IDSL loop; (4) 2-wire xDSL-capable loop; (5) 4-wire xDSL-capable loop; (6) 4-wire 56 kbps loop; (7) 4-wire 64 kbps loop; (8) DS-1 loop; (9) high capacity loops (DS3 and above); (10) dark fiber loop; (11) subloop elements (to the extent required by the Commission in Issue 4); (12) network interface devices; (13) circuit switching (where required); (14) packet switching (where required); (15) shared interoffice transmission; (16) dedicated interoffice transmission; (17) dark fiber interoffice facilities; (18) signaling networks and call-related databases; (19) OS/DA (where required)?**

Verizon's Position: * The appropriate recurring rates for the aforementioned UNEs are set forth in Mr. Trimble's Direct Testimony; the appropriate non-recurring rates are set forth in Mr. Dye's Direct Testimony. *

Issue 9(b): **Subject to the standards of the FCC's Third Report and Order, should the Commission require ILECs to unbundle any other elements or combinations of elements? If so, what are they and how should they be priced?**

Verizon's Position: * No. No party proposed any new UNEs or combinations, so there is no basis upon which to require them.

Issue 10: **What is the appropriate rate, if any, for customized routing?**

Verizon's Position: * There is little or no demand for customized routing. (Verizon has not received any requests for it since 1996.) As such, there is no need to establish a price here. If an ALEC requests customized routing, Verizon will price the service based on the appropriate forward-looking costs. *

Verizon offers customized routing in all areas, subject only to site-specific technical limitations, and thus is no longer required to provide Operator Services/Directory Assistance ("OS/DA") on an unbundled basis. (Tr. at 600 (Trimble); Trimble/Dye Depo. at 14.) Since 1996, however, Verizon has not received any requests for customized routing (Tr. at 600 (Trimble); Trimble/Dye Depo. at 14-15); in light of lack of demand, it is not necessary to establish costs and prices in this proceeding. When, and if, customized routing is requested by an ALEC, Verizon will develop the appropriate forward-looking costs and prices for such a request. (Trimble/Dye Depo. at 15.)

Issue 11(a): What is the appropriate rate, if any, for line conditioning, and in what situations should the rate apply?

Verizon's Position: * ILECs must be allowed to recover the NRCs incurred to perform loop conditioning. Verizon's loop conditioning rates are set forth in Mr. Richter's Direct Testimony. *

Verizon's line conditioning rates reflect the forward-looking costs that Verizon expects to incur when it removes a load coil and/or bridged tap from a cable pair in order to provision xDSL service. (Trimble/Dye Depo. at 22.) These rates are consistent with economic principles and FCC decisions, and should be approved. The FCC has repeatedly held that, if access to the high frequency portion of the loop requires that a copper loop be conditioned, the ILEC must be allowed to recover the non-recurring costs incurred in performing that conditioning.[69] Put simply, ILECs are not required to condition loops for advanced services "for free," and numerous state commissions have agreed.[70] Moreover, the FCC has made clear that "[t]he costs incumbents impose on competitors for line conditioning . . . are non-recurring charges."[71]

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[69] *See e.g., Local Competition Order* at ¶ 382 ("Some modification of incumbent LEC facilities, such as loop conditioning, is encompassed within the duty imposed by section 251(c)(3). *The requesting carrier would, however, bear the cost of compensating the incumbent LEC for such conditioning.*") (emphasis added); Deployment of Wireline Services Offering Advanced Telecommunications Capability, *Third Report and Order,* 14 FCC Rcd 20912 at ¶ 82 (1999) ("*Line Sharing Order*"); *id.* ¶ 87 ("[W]e conclude that incumbent LECs should be able to charge for conditioning loops when competitors request the high frequency portion of the loop."). As previously noted, on May 24, 2002 the D.C. Circuit vacated and remanded the FCC's unbundling and line sharing rules.

[70] *See* Docket Nos. R-00005261, *et al., Interim Opinion and Order* (Penn. PUC June 8, 2001) at 29; Docket No. P-100 Sub 133d, 2001 WL 811182 (N. Carolina Util. Comm'n June 7, 2001) at *24 ("*North Carolina Order*"); Case No. U-12540, 2001 WL 306699, *Opinion and Order* (MI PUC Mar. 7, 2001) at *9; *Illinois Commerce Commission on its Own Motion v. Illinois Bell Telephone Co. Investigation of Construction Charges*, 2000 Ill. PUC Lexis 654 (Ill. Commerce Comm'n 2000) at *157; Docket Nos. 98-593 & 98-806, *Order (Part 1 Issues E3 & E7) (Final Order for all Other Issues)* (ME PUC Mar. 25, 1999) at 27; Docket Nos. UT-960369, -370, -371, *17th Supplemental Order, Interim Order Determining Prices; Notice of Pre-hearing Conference,*at 132 (WA Utils. and Transp. Comm'n Sept. 23, 1999); Docket. Nos. P-442, 421, *et. al.*, 1997 Minn. PUC LEXIS 49 (Minn. PUC Mar. 17, 1997) at *115; Case No. TO-2000-322, *Arbitration Order,* 2000 Mo. PUC LEXIS 260 (MO PUC Mar. 23, 2000) at *17.

[71] *New York § 271 Order* at ¶ 254; *see also UNE Remand Order* at ¶ 194 ("We defer to the states to ensure that the costs incumbents impose on competitors for line conditioning are in compliance with our pricing rules *for non-recurring costs.*") (emphasis added); *North Carolina Order* at *24 ("The Commission agrees . . . that the ILECs should be allowed to impose nonrecurring charges for conditioning loops.").

Under the FCC's *Line Sharing Order*, Verizon is required to "condition" loops to allow requesting carriers to offer advanced services.[72] At an ALEC's request, Verizon will remove the load coils and/or bridged taps that impede the transmission of digital signals and otherwise prevent an ALEC from sharing Verizon's lines. (Tr. at 1040 (Dye).) Thus, consistent with the FCC's *UNE Remand Order*, Verizon charges for the conditioning of all loops, regardless of loop length.[73] (Tr. at 1041 (Dye); *see also* Trimble/Dye Depo. at 22-23 (explaining why loops greater than, and less than, 18,000 feet require load coils in order to provide voice service).)

However, Verizon does not provide loop conditioning in all circumstances. (Tr. at 1041 (Dye).) Load coils and bridged taps have been, and for some loops continue to be, an integral part of the copper voice grade network. (Tr. at 1040 (Dye).) As such, loop conditioning will not be provided if the conditioning will significantly degrade Verizon's voice-grade service. (Tr. at 1041 (Dye).) This is consistent with the FCC's pronouncements, which state that "if conditioning a particular loop for shared-line xDSL will significantly degrade that customer's analog voice service, incumbent LECs are not required to condition that loop for shared-line xDSL."[74] Moreover, in other cases, a specific loop, whether conditioned or not, may be unable to support the provision of a specific digital service (*e.g.*, the loop length is too long to technically support the desired service). (Tr. at 582-83 (Trimble).) Thus, absent the requisite assurance that the loop will be able to sustain the technical parameters required by digital services, Verizon will refrain from conditioning the loop. (Tr. at 582-83 (Trimble).)

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[72] *Line Sharing Order* at ¶ 86. As previously noted, on May 24, 2002 the D.C. Circuit vacated and remanded the FCC's unbundling and line sharing rules.

[73] However, as Mr. Richter noted, most loops are *not* loaded and thus would not require conditioning in order to provision xDSL service. (Tr. at 1115, 1119, 1126.)

[74] *Line Sharing Order* at ¶ 85.

As with other NRCs, Verizon developed its costs for loop conditioning based on a survey of personnel experienced in performing and supervising this work. The ALECs, by contrast, have not submitted any cost study or other empirical evidence supporting their loop conditioning recommendations. Instead, they assert that Verizon's loop conditioning charges should be reduced because the loop conditioning rates ordered for BellSouth, or contained in certain interconnection agreements, are lower. These comparisons are meaningless and in no way impeach the credibility of Verizon's cost study. Regardless of how, or on what basis, the BellSouth rates were established, Verizon's cost study accurately reflects the actual time it takes to perform the meticulous process of deloading a cable pair. (Tr. at 1119, 1125-26, 1133, 1138 (Richter).) Similarly, the loop conditioning charges contained in Verizon's interconnection agreements are in no way representative of the actual costs Verizon incurs in conditioning a loop. As Mr. Dye explained, these agreements are generally "packages," representing "gives and takes in the negotiating process" (Tr. at 1134); and thus, focusing on one rate element in isolation provides no meaningful point of comparison.

The ALECs also grossly understate loop conditioning costs by eliminating necessary work steps, underestimating the time required to complete the work steps they chose to include, and generally failing to appreciate the actual conditions according to which these activities must be performed. As Mr. Richter explained at the hearing, the activities involved in conditioning a loop are detailed, extensive and time-consuming. (Tr. at 1116-18.) The ALECs all but ignore the time and manpower required to (1) receive orders, (2) process orders in Verizon's databases, (3) close out orders and send them to engineering, (4) determine which load coils must be deloaded (there will always be a minimum of two), and (5) conduct the necessary, and time-consuming, field work. (Tr. at 1116-18 (Richter).) The ALECs also disregard the safety

requirements for work area protection and the time it takes to erect and disassemble such protection. In short, the ALECs' suggested work times for conditioning activities are undocumented, divorced from reality and do not account for essential activities.

Similarly unworkable is the notion that Verizon should reduce the incremental costs of conditioning loops by conditioning batches of loops whenever an ALEC requests that a *single* loop be conditioned. First, the incremental cost savings of conditioning multiple loops would not that great. (Tr. at 1120 (Richter).) Second, the ALECs' proposal would degrade the quality of service available on Verizon's network.[75] Such conditioning would render the extra conditioned loops useless for voice service (unless Verizon then turned around and re-installed bridged taps or load coils) without any guarantee that those newly conditioned loops would ever be needed for xDSL. Finally, Verizon has no way of knowing which *additional* loops will be used for xDSL service in the future, and thus has no way of ensuring that it will recoup the costs of conditioning the additional loops.[76]

Issue 11(b): What is the appropriate rate, if any, for loop qualification information, and in what situations should the rate apply?

Verizon's Position: * The appropriate way to recover Verizon's costs associated with mechanized loop qualification is through a $0.51 charge on each ALEC line sharing request. *

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[75] *North Carolina Order* at *33 ("it would not be prudent to remove load coils from such long loops, other than the loop over which advanced services, i.e., xDSL services, have been requested."); Decision, *DPUC Review of SNET's Studies of UNE Non-recurring Charges*, Docket No. 00-03-19, 2000 Conn. PUC LEXIS 187, at *60 (Conn. Dep't Pub. Util. Control June 29, 2000) (if loops were conditioned in batches rather than in response to specific requests, "efficiency would decrease, because customers using Telco service for only voice transmission would experience a decline in the quality of service offered.").

[76] Tr. at 1121 (Richter).) For example, assume that, for every single loop conditioning request, Verizon conditioned 10 loops at a cost of $10,000. The ALECs believe that Verizon should charge $1,000 per conditioned loop ($1/10^{th}$ of $10,000). However, if additional customers never request xDSL -- and there is no guarantee they will -- Verizon would fail to recover its total costs. (Tr. at 1138-39 (Dye); Trimble/Dye Depo. at 28-30.) Not only would Verizon be denied recovery of the nine extra loop conditionings (*i.e.*, $9,000), but would also fail to recover fully the cost of conditioning the one loop for which xDSL service was actually requested (*i.e.*, the ALEC would have only paid $1/10^{th}$ the actual cost of deloading the loop) (Tr. at 1138-39 (Dye); Trimble/Dye Depo. at 28-30.)

Loop qualification is the process by which ALECs access Verizon's automated loop qualification database to query whether a particular loop qualifies for xDSL service and is appropriate for line sharing purposes. (Trimble/Dye Depo. at 24-25.) The costs associated with Verizon's loop qualification process properly include the specific system development and enhancement costs necessary to establish that automated system. (Tr. at 1033 (Dye).) Verizon proposes to recover the costs associated with this mechanized qualification process through a rate additive of $0.51 on each ALEC line sharing request.[77] (Tr. at 1034-35 (Dye) (noting that this charge is based on the relevant OSS costs and the forecasted number of line sharing requests Verizon expects to provision to ALECs); Tr. at 1055 (Dye); Trimble/Dye Depo. at 25.)

A per-dip charge for mechanized loop qualification services would be impossible to implement and would leave Verizon with little recovery of the substantial investment it has been required to make. Verizon cannot automatically track how many times an ALEC uses the loop qualification database, and thus would have no way of establishing rates based upon how many times an ALEC accesses loop qualification information. Accordingly, Verizon's proposed method is the only fair and equitable means of recovering Verizon's loop qualification transition costs.

Issue 12: Without deciding the situations in which such combinations are required, what are the appropriate recurring and non-recurring rates for the following UNE combinations:

(a) "UNE platform" consisting of: loop (all), local (including packet, where required), switching (with signaling), and dedicated and shared transport (through and including local termination);

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[77] While Verizon proposes that this rate additive remain in place for only 3 years, it reserves the right to extend this charge beyond the 3-year recovery period if demand forecasts are overstated. (Tr. at 1035 (Dye).)

(b) "extended links," consisting of: (1) loop, DS0/1 multiplexing, DS1 interoffice transport; (2) DS1 loop, DS1 interoffice transport; (3) DS1 loop, DS1/3 multiplexing, DS3 interoffice transport.

Verizon's Position: * The appropriate rate for a combination is the sum of the underlying UNE rates. *

A. UNE-Platform

A UNE-Platform ("UNE-P") combines a loop, local circuit switching, and shared transport. (Tr. at 603-04 (Trimble).) A UNE-P is basically a functional local service that an ALEC can use to provide retail local services. (Tr. at 602-03 (Trimble).) Verizon proposes rates for the following four UNE-Ps: (1) Basic Analog Platform, which is comprised of a 2-wire UNE loop and a basic analog line side port, (2) ISDN BRI Platform, which is comprised of a 2-wire UNE loop and an ISDN BRI digital line side port (ISDN BRI Loop Extension charges may apply), (3) ISDN PRI Platform, which is comprised of a DS-1 UNE loop and an ISDN PRI digital port, and, (4) DS-1 Platform, which is comprised of a DS-1 UNE loop and a DS-1 digital trunk side port. (Tr. at 603-04 (Trimble).)

ALECs use the standard LSR form to order UNE-Ps, and may be required to submit additional information on a data gathering form if more complex switch features such as CentraNet are requested. (Tr. at 604-05 (Trimble).) An ALEC is not required to be collocated to purchase UNE-P since no handoff of facilities to the ALEC is necessary. (Tr. at 605 (Trimble).) While Verizon currently requires ALECs to update the E911 Database records associated with end-user customers they serve via UNE-P, Verizon expects to be able to perform these updates for the ALECs in the near future. UNE-P is always provisioned as a measured service. An ALEC is billed for local switching usage, as well as shared transport. Local and access usage files are provided to the ALEC to allow it to bill its end-users and any interexchange carriers. Verizon does not currently charge for usage files provided to ALECs. Vertical services can be

added to any platform at the ALEC's option and additional charges will apply. (Tr. at 605 (Trimble).)

Mr. Morrison alleges, incorrectly, that Verizon's proposed charges to migrate an ALEC to UNE-P should be more in line with those adopted for BellSouth in the previous phase of this docket. (Tr. at 1037-08 (Morrison).) Mr. Morrison's cost comparison, however, is fundamentally flawed. He fails to recognize that Verizon's and BellSouth's costs necessarily reflect the company-, state-, and area-specific operating conditions pursuant to which each company provides service. (Tr. at 986 (Richter).) As such, it is never appropriate to set UNE rates based upon comparisons of Verizon's rates to those of other carriers. (Tr. at 620-21 (Trimble).) Moreover, Mr. Morrison's comparison is entirely misplaced. He wrongly compares BellSouth's *electronic* service order rate of $1.52, with Verizon's *manual* order rate of $22.99, and perhaps does not realize that BellSouth's connection rate is for a 2-wire voice grade loop with 2-wire port, switch as-is, while Verizon's connection rate includes the loop, port, and shared transport. (Tr. at 987 (Richter).) This error only serves to highlight the fact that the rates of other companies -- in Florida or elsewhere -- for features that may or may not be comparable to those in Verizon's cost studies are of no consequence.[78] (Tr. at 986 (Richter).)

B. Extended Links

An EEL is a combination of dedicated transport, multiplexing (when required) and unbundled loops. (Tr. at 602-03 (Trimble) (noting that an EEL combination does not include local circuit switching).) An EEL facilitates the extension of an unbundled loop beyond the central office that serves an end-user, and thus obviates the need for an ALEC to collocate at

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[78] Equally absurd is Mr. Morrison's (and Dr. Ankum's) baseless assertion that Verizon's costs should be no higher than BellSouth's because "Verizon is the largest ILEC in the United States." (Tr. at 1037 (Morrison), 1159 (Ankum).) There is no evidence on the record to support such a claim. Indeed, as Mr. Tucek explained, the cost characteristics of Verizon's local operations in Florida have not changed as a result of the Bell Atlantic/GTE merger. (Tr. at 767 (Tucek); *see also* Tr. at 987 (Richter).)

every central office to obtain access to the unbundled loop within those offices. (Tr. at 602-03 (Trimble).)

Verizon will offer new EEL combinations for ALECs provisioning customers served by Verizon's local circuit switches that are located in the FCC's Density Zone 1 in the "Tampa–St. Petersburg–Clearwater" Metropolitan Statistical Area. (Tr. at 606 (Trimble).) Pursuant to the FCC's rules, the offering of new EEL combinations exempts Verizon from providing unbundled local circuit switching to requesting ALECs when the ALEC intends to serve a customer with four or more voice grade (*i.e.*, DS0) equivalent lines in the Tampa–St. Petersburg–Clearwater area.[79] Moreover, ALECs are permitted to convert special access arrangements to EEL combinations (*i.e.*, an "EEL migration") only when the carrier certifies to Verizon that it is providing a significant amount of local exchange service over combinations of UNEs.[80]

ALECs submit orders for an EEL through the ASR process. (Tr. at 962 (Richter).) Because there are many potential combinations of loop types, multiplexing arrangements, and transport bandwidth that could be provided under an EEL arrangement, the rate for each EEL UNE combination is the sum of the individual loop, transport and multiplexing rates for each of the individual UNEs that make up the combination. (Tr. at 606-07 (Trimble).)

Dr. Ankum makes the unsupported assertion that Verizon's EEL rates are too high. (Tr. at 1214-20 (Ankum).) He is wrong, and his critique of Verizon's EEL study is based on the erroneous premise (discussed above) that IDLC can be unbundled in a multi-carrier environment. (Tr. at 806 (Tucek) (noting that Dr. Ankum's recommendations only apply to those loops served

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[79] 47 C.F.R. § 51.319.

[80] Tr. at 607-09 (Trimble); *see also* Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, *Supplemental Order*, 15 FCC Rcd 1760 (1999); Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, *Supplemental Order Clarification*, 15 FCC Rcd 9587 (2000).

by DLC).) Verizon has demonstrated unequivocally that there is no commercially available or technically feasible means of accomplishing such a task. (Tr. at 806 (Tucek).)

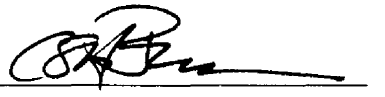
Similarly, Mr. Morrison makes the baseless assertion that Verizon's work times associated with processing and provisioning an EEL ASR are too high. (Tr. at 1337-39 (Morrison).) His reductions are unfounded. He provides absolutely no support for his recommended work times and ignores the complex nature of ASRs and the numerous tasks involved in processing and provisioning such requests. (Tr. at 1002 (Richter).) For example, Mr. Morrison disregards the fact that many EEL ASRs involve multiple circuits, while others require that certain types of equipment be ordered and specifically configured -- unavoidably, there are numerous quality checks to be performed when processing an EEL ASR. (Tr. at 1002 (Richter).) Mr. Morrison also fails to account for such things as the provisioning functions performed by Verizon's span technicians, who are tasked with installing repeater equipment in the circuit. (Tr. at 1001-02 (Richter).)

Issue 13: **When should the recurring and non-recurring rates and charges take effect?**

Verizon's Position: The Commission-ordered rates should take effect consistent with the terms of the Commission's final order approving those rates. The quickest and easiest way to implement these new rates would be to inform the ALECs of the rate change by distributing notices of the revised rates or by posting them on Verizon's website.

Respectfully submitted,

VERIZON FLORIDA INC.

By: 

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Dated: May 27, 2002

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of Verizon Florida Inc.'s Post-Hearing Statement and Brief in Docket No. 990649B-TP was served via overnight mail upon the Commission Staff, and via first class mail, postage prepaid, upon the parties on the attached list on May 27, 2002.

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