STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Illinois Bell Telephone Company	)	
	)	
Filing to increase Unbundled Loop	)	**02-0864**
and Nonrecurring Rates	)	

INITIAL BRIEF OF AT&T COMMUNICATIONS OF ILLINOIS , INC. CIMCO COMMUNICATIONS, INC., FORTE COMMUNICATIONS, INC. MCLEODUSA TELECOMMUNICATIONS SERVICES, INC., RCN TELECOM SERVICES OF ILLINOIS, LLC, TDS METROCOM, LLC, WORLDCOM, INC. D/B/A MCI AND XO ILLINOIS, INC.

PUBLIC VERSION

Cheryl Hamill
David J. Chorzempa
222 West Adams, Suite 1500
Chicago, Illinois 60606
Attorneys for AT&T Communications of Illinois, Inc.

Owen E. MacBride
Keely V. Lewis
6600 Sears Tower
Chicago, Illinois 60606
Attorneys for McLeodUSA Telecommunications Services, Inc., RCN Telecom Services of Illinois, LLC and TDS Metrocom, LLC

Darrell Townsley
WorldCom, Inc. d/b/a MCI
205 North Michigan Avenue
Suite 1100
Chicago, Illinois 60601
Attorney for WorldCom, Inc. d/b/a MCI

Thomas H. Rowland
Stephen J. Moore
Rowland & Moore LLP
200 West Superior Street
Suite 400
Chicago, Illinois 60610
Attorneys for CIMCO Communications, Inc, Forte Communications, Inc. and XO Illinois, Inc.

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I. INTRODUCTION AND SUMMARY OF POSITION

The position of the competitive local exchange carriers listed on the cover of this brief (the "Joint CLECs") can be summarized in one sentence: SBC Illinois has failed to demonstrate that its currently-effective unbundled loop charges and related nonrecurring charges ("NRCs") that are the subject of this docket need to be raised. If anything, SBC's loop rates and NRCs should be decreased. As detailed throughout this brief, the cost studies that SBC Illinois has submitted in support of its rate increase proposals are for the most part not in compliance with the Federal Communications Commission's ("FCC") TELRIC principles and requirements, and are more akin to embedded cost studies than to forward-looking cost studies. SBC's cost studies are also replete with questionable or unsupported data inputs and assumptions.

With respect to SBC's unbundled loop rates, Joint CLECs offer the Commission two alternatives. First, the Commission can completely reject SBC's loop cost study, which is based on a flawed and unreliable new model, "LoopCAT", that does not produce the costs of an efficient, forward-looking network, as required by the FCC's TELRIC rules. Under this alternative the Commission can continue to use the loop costs it adopted in its previous TELRIC proceeding for Ameritech. Alternatively, if the Commission wishes to set rates in this proceeding using SBC's loop costs studies as a starting point, the Commission should adopt the extensive adjustments and revisions to those studies presented by the Joint CLECs' witnesses, as detailed in this brief. In either case, the Commission should use the shared and common cost factors and annual cost factors developed by the Joint CLECs' witnesses, rather than the grossly inflated factors proposed by SBC Illinois.

With respect to SBC Illinois' proposed NRCs, the Joint CLECs have also presented extensive adjustments and revisions to all aspects of SBC's purported support for those charges, including necessary tasks, activity times, occurrence probabilities, fallout rates and other components of the NRCs. The Commission must be cognizant that excessive NRCs, such as SBC has proposed, are just as damaging to competition as excessive recurring monthly loop rates – perhaps even more so. The Commission should adopt the adjustments and revisions to SBC's NRCs that the Joint CLECs have proposed, which will reduce those charges to a more reasonable level.

II. GENERAL ISSUES.

A. Legal Requirements For Setting UNE Rates

Joint CLECs have provided discussions of the legal requirements for setting SBC Illinois' unbundled network element rates applicable to each of the rates or cost components thereof in the individual sections of this brief, as appropriate. However, one overriding principle that the Commission must keep in mind as it considers and resolves the many issues in this case is that *SBC Illinois has the burden of proof on all issues to demonstrate that its proposed rates and the underlying cost-support are TELRIC-compliant*. Specifically, the FCC's TELRIC rules require that "An incumbent LEC must **prove** to the state commission that the rates for each element it offers do not exceed the forward-looking economic cost per unit of providing the element, using a cost study that complies with the methodology set forth in this section and §51.511." (47 C.F.R. §51.505(e) (emphasis supplied)) The Commission must strictly hold SBC Illinois to this burden of proof as it decides the issues in this case.

B. Economic/Policy Issues Associated With UNE Pricing (Including Benchmarking Analyses and Trends in Telecommunications Costs)

1. The Embedded Cost Analyses Presented by Dr. Aron Should Be Completely Disregarded

As will be demonstrated throughout this brief, SBC Illinois' existing UNE rates are *supra*-compensatory when judged under the appropriate cost standard – forward looking economic costs. SBC Illinois has submitted testimony attempting to justify its proposed rates in a variety of ways. All of these efforts suffer from a common, fatal defect, however: they all rely on embedded cost comparisons. Embedded cost is an entirely improper and irrelevant standard that, even if applied properly, would not produce meaningful results. Dr. Aron's execution of her method *is* thoroughly flawed, however. Moreover, Dr. Aron's testimony attempts to support an underlying policy prescription – essentially an industrial policy favoring high UNE rates and duplicative investment, even where uneconomic – that is not only inefficient and directly contrary to Illinois law, but would force SBC Illinois to increase its own retail rates as well as force increases in the rates of its competitors.

Thus, Dr. Aron's testimony invites something of a sideshow, initiating debate over issues that are otherwise unrelated to the docket. To assure that the record is complete, AT&T submitted the testimony of Dr. Lee Selwyn in response to Dr. Aron's testimony,[1] but AT&T's overall recommendation is that the Commission focus its attention on the *cost* testimony of each party, not the testimony of Dr. Aron discussed in this section.

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[1] Joint CLEC witnesses Mr. Starkey and Mr. Balke also responded to Dr. Aron's argument that SBC Illinois' loop rates are lower than those found in other parts of the country. See Joint CLEC Ex. 2.0, pp. 12–17, discussed below.

The principal claim of Dr. Aron's testimony is that "…the current prices for SBC Illinois' unbundled network elements have been set at uneconomically low levels." (SBC Ex. 2.0, p. 4) According to Dr. Aron, current UNE prices do not permit "even the *opportunity* for SBC Illinois to recover its ongoing costs of providing UNEs" because: 1) SBC Illinois' existing UNE-L and UNE-P prices are among the lowest in the nation; and 2) SBC Illinois' UNE margins are significantly negative. (SBC Ex. 2.0, p. 5) Of course, the first observation says nothing about whether the Illinois rates are compensatory. In fact, as SBC itself argued in Texas, "it is no surprise that one might find lower UNE rates in states that are so much more dense [than others]," specifically citing Illinois as a state where relatively low rates should be expected.[2] The relevant standard for judging Illinois' UNE rates are Illinois' TELRIC costs, and nothing can be gleaned on this question from an unthinking review of UNE rates in other (mostly dissimilar) states.[3] (AT&T Ex. 1.0, pp. 7-8)

Similarly, Dr. Aron's second claim – that existing UNE rates produce a "significantly negative margin" – is founded on an analysis that is baseless and faulty. First of all, and again, the only proper measure of whether a particular UNE price is

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[2] SBC's Response to the CLECs' Motions for Reconsideration of Abatement Order, Docket No. 25834, Public Utilities Commission of Texas, pp. 8-9, April 17, 2003.

[3] In that connection, Mr. Starkey and Mr. Balke responded to Dr. Aron's contention that SBC's Illinois loop rates are substantially lower than those found in other parts of the country by observing that there are "myriad factors that impact costs specific to unbundled loops," most of which are highly dependent upon the geographic location, and density characteristics, of the network in question and the size and scale economies of the carrier in question. (Joint CLEC Ex. 2.0, pp. 12-13) Indeed, when they segmented Dr. Aron's chart of loop rates into states with below average population density, states of average density, and states with highly concentrated population centers, they found, unsurprisingly, that loop prices indeed fall when moving along the scale to higher population density, fewer geographic impairments, and larger serving carriers. (*Id.*, pp. 14–15)

economic (and compensatory) is through a comparison to its forward-looking economic cost. This principle – that forward looking economic costs are the relevant cost measure – is embodied in federal TELRIC rules; it is a long-standing tenet of Illinois costing rules,[4] and it has been explicitly affirmed by the United States Supreme Court.[5] Despite the clear consensus (and legal mandate) that forward-looking economic costs are the appropriate measure to determine the reasonableness of UNE rates, Dr. Aron chose to present embedded costs and a rate-of-return based analysis to "support" her claim that the existing UNE rates are below cost. For this reason, if no other, Dr. Aron's testimony should be ignored. (AT&T Ex. 1.0, pp. 8-9)

Indeed, SBC's backward-looking, embedded costs should never be used to judge the reasonableness of UNE rates. The only costs relevant to UNE rates are forward-looking costs – costs that SBC Illinois would incur to *replace* its plant. Historic costs do not provide the appropriate price signals to either SBC or an entrant because they reflect past circumstances that cannot be altered. In addition, SBC's past costs include a variety of costs unrelated to UNE-activities (some the result of inefficiencies and others due to business decisions and investment initiatives that have nothing to do with its wholesale obligations). Embedded costs reflect the wrong *perspective* (*i.e.*, they look at what was, and not what will be) and, at best, measure the historic cost of an *entire* enterprise, not just that portion relevant to the provision of network elements. (AT&T Ex. 1.0, pp. 9–10) The bottom line is that Dr. Aron's embedded analyses are useless for judging the

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[4] As embodied in the LRSIC standard identified in 83 Ill. Adm. Code Part 791, Cost of Service.

[5] *Verizon Communications, Inc. v. FCC*, 535 U.S. 467 (2002).

reasonableness of SBC Illinois' UNE rates, even if they had been done reasonably well (which they were not).

Dr. Aron presented two embedded cost "analyses" of SBC Illinois data as part of her effort to show that UNE rates in Illinois are below cost. The first analysis was based on embedded cost data filed with the FCC related to interstate switched access service (*i.e.*, the "Switched Access Cost Study"), while the second analysis purports to determine whether UNEs provide SBC with "adequate" cash (the "Cash Flow" Analysis). As discussed below, neither of these analyses is useful to determine whether UNE loop rates are compensatory (even on an embedded cost/rate of return basis), although for different reasons.

a. Dr. Aron's "Switched Access Cost Study" Is Both Irrelevant And Profoundly Flawed

Dr. Aron's first analysis compares the average revenue for a UNE-L and UNE-P line (assuming existing UNE rates) to what she claims is the "book cost" of UNE-L and UNE-P developed from ARMIS.[6] Significantly, as Dr. Selwyn testified, the ARMIS data that Dr. Aron relied upon reflects legacy cost-allocation rules (Parts 36 and 69), left over from the days when interstate carrier access service was regulated by rate-of-return.[7] By using these legacy cost allocations as her starting point, Dr. Aron introduced into her analysis all of the flaws and deficiencies associated with rate-of-return regulation – deficiencies that have otherwise led SBC Illinois to *reject* rate-of-return regulation for its

[6] ARMIS stands for "Automated Reporting Management Information System," which is the system used by the FCC to routinely collect and publish certain financial and operational information.

[7] AT&T Ex. 1.0, p. 11. FCC Part 36 allocation rules assign book cost between the interstate and intrastate jurisdictions. FCC Part 69 rules allocate embedded costs among interstate access categories such as common line, switching and transport.

Illinois services (by electing alternative regulation), and which caused Congress to *specifically* reject rate-of-return as the process to establish cost-based UNE rates. As Congress mandated, prices for network elements shall be "…based on the cost (determined without reference to a rate of return or other rate-based proceeding)."[8] As the Supreme Court noted in *Verizon v. FCC*:

> For the first time, Congress passed a ratesetting statute with the aim not just to balance interests between sellers and buyers, but to reorganize markets by rendering regulated utilities' monopolies vulnerable to interlopers …
>
> While the Act is like its predecessors in tying the methodology to the objectives of "just and reasonable" and nondiscriminatory rates, it is radically unlike all previous statutes in providing that rates be set "without reference to a rate-of-return or other rate-based proceeding." The Act thus appears to be an explicit disavowal of the familiar public-utility model of rate regulation … in favor of novel ratesetting designed to give aspiring competitors every possible incentive to enter local retail telephone markets, short of confiscating the incumbents' property.[9]

Despite the clear direction that a traditional cost-of-service approach <u>*not*</u> be used to establish UNE rates, Dr. Aron's basic analysis was nevertheless premised upon *exactly* just such a scheme. The FCC's Part 36/69 rules are precisely the type of "familiar public-utility model of rate regulation" that the Act "explicitly disavows."

As Dr. Selwyn explained, Part 36 "jurisdictional" rules had more in common with political compromise than with economic costing, while the Part 69 cost allocation rules were initially developed to establish access charges that would continue the same toll-to-local revenue flows that existed at divestiture. (AT&T Ex. 1.0, pp. 12-13) Both were created in an environment where public policy viewed pricing as a social, as opposed to

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[8] 47 U.S.C.A § 252(d)(1)(A)

[9] 535 U.S. at 489.

costing, exercise. Each takes as its starting point embedded costs, and each was intended to be used within a general framework of rate-of-return regulation. For its part, the FCC abandoned rate-of-return regulation for carriers the size of SBC in 1991, moving instead to a price-cap regime.[10] SBC Illinois' interstate access services are now regulated under a negotiated industry plan set forth by the Coalition for Affordable Local and Long Distance Services (CALLS).[11] In an environment where not even the FCC uses Parts 36/69 for the purpose they were originally intended -- *i.e.*, mimicking the jurisdictional separations process -- the notion that these rules can reliably estimate the cost of individual network elements (or the UNE-P combination) is absurd.

Moreover, because the Parts 36 and 69 cost allocation rules do not estimate the book cost of network elements, Dr. Aron performed a variety of "adjustments" to develop her estimates. Some of the more obvious flaws with Dr. Aron's adjustments include:

* Dr. Aron grossly underestimates the number of competitive lines, thereby increasing the estimated cost "per line." Dr. Aron *estimates* the number of competitive lines in Illinois as 112,143 (UNE) and 199,366 (resale).[12] The actual numbers of UNE and resale lines in Illinois at the end of 2001, however, were 610,638 UNE lines and 248,569 resale lines – roughly 176% more than the number of lines used by Dr. Aron. (AT&T Ex. 1.0, p. 14)

* Dr. Aron attempts to "back out" from its UNE book cost SBC Illinois' retail-related costs by applying the "wholesale discount" solely to book loop costs, including return. By applying this ratio to "book loop costs" only (which would be less than retail revenue on the total service), Dr. Aron thus underestimates the level of "booked cost" that should reasonably be allocated to retail (and other

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[10] Second Report and Order, *Policy and Rules Concerning Rates for Dominant Carriers*, Docket 87-313 (1990).

[11] Sixth Report and Order in CC Docket 96-262 and 94-1, Report and Order in CC Docket 99-249, and Eleventh Report and Order in CC Docket 96-45, Federal Communications Commission, Adopted and Released May 31, 2000 ("CALLS Access Order").

[12] It is certainly odd that Dr. Aron chooses to *estimate* values (such as the number of UNE and resale lines provided by SBC Illinois) that her client publicly *reports.*

non-UNE activities), even under her embedded-cost approach. (AT&T Ex. 1.0, p. 15)

* Dr. Aron assumes that all investment is UNE-related, with no investment caused by retail or non-UNE activities. This assumption thus totally ignores SBC Illinois' marketing functions, not to mention other support investments (such as computers and the like) that have nothing to do with UNE activity. It also ignores the fact that SBC is not required to – and does not – make all of its network components available as UNEs. Consequently, any embedded cost analysis that fails to exclude those investments that are driven by broadband and other "advanced services" initiatives will operate to over-attribute costs to the subset of SBC's network that is being offered as UNEs. (AT&T Ex. 1.0, p. 15)

* Dr. Aron in Table 1 of her testimony "estimates" that SBC Illinois' 2001 depreciation expense related to UNE-P and UNE-L was $819 million. However, SBC Illinois' entire 2001 depreciation expense for its total operations – wholesale, retail; network and everything else – was only $809 million. In other words, Dr. Aron's "estimate" of the depreciation related solely to UNE-L and UNE-P is $10 million more than the total depreciation of the company that year (including unregulated activities).[13] Not only does Dr. Aron manage to allocate *more than* 100% of SBC Illinois' depreciation to its switched and UNE services, at the same time Dr. Aron assigns *no* depreciation to SBC Illinois' special access services, even though such services comprised 40% of SBC Illinois' network in 2001. (AT&T Ex. 1.0, p. 16)

* Finally, Dr. Aron makes no adjustment to eliminate retail costs embedded in the "book cost" of switching or transport, based on her assumption that any such costs would already be limited to "wholesale marketing." However, Dr. Aron's workpapers claim that SBC spent more than $27 million in 2001 "marketing" local switching (at least as adjusted by Dr. Aron).[14] This Commission is well aware of SBC Illinois' longstanding recalcitrance on UNE-P and unbundled local switching, and Dr. Aron's suggestion that SBC Illinois spent more than $27 million *encouraging* carriers to purchase this network element strains credulity. (AT&T Ex. 1.0, pp. 16-17)

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[13] Dr. Aron's work papers indicate that this particular error (i.e., assigning more depreciation cost than exists) is limited to Table 1 of her testimony.

[14] SBC Illinois' ARMIS 43-01 Operating Expense includes $4.5 million for Local Switching – Marketing. Dr. Selwyn explained that his understanding of Dr. Aron's methodology is that she multiplies this "interstate" amount by 6.13 to arrive at her estimate of the total company expense, thereby increasing the $4.5 million that SBC Illinois claimed it incurred marketing interstate local switching to interexchange carriers (a claim worthy of its own investigation) to a total marketing cost for wholesale local switching (*i.e.*, unbundled local switching) of over $27 million. (AT&T Ex. 1.0, pp. 16-17)

As Dr. Selwyn testified, there is no point in attempting to correct Dr. Aron's methodology for such errors, for even if each of the errors were corrected, the Commission would have nothing before it but a slightly less poorly constructed,[15] rate-of-return based, embedded-cost study of precisely the type Congress specifically instructed should not be used to establish UNE rates. (AT&T Ex. 1.0, p. 17) In short, the first of Dr. Aron's embedded-cost analyses – the "Switched Access Cost Study" – is fundamentally flawed and should be rejected in its entirety.

b. Dr. Aron's "Cash Flow Analysis"

Dr. Aron in her "cash flow analysis" claims that existing UNEs are priced below cost because they do not produce sufficient cash to (1) offset SBC Illinois' operating expense (as assigned by Dr. Aron to UNEs) and (2) extract from CLECs the cash to fund SBC Illinois' capital expenditures for 2001. As to the first of these components – Dr. Aron's estimate of the "booked operating cost" of UNEs – the Cash Flow Analysis is built upon the same errors embedded in the "Switched Access Cost Study" just described. (AT&T Ex. 1.0, pp. 17-18)

In addition, however, Dr. Aron's Cash Flow Analysis contains a threshold conceptual flaw: It presumes that CLECs purchasing UNEs should be expected to supply SBC with the cash to fund its capital expansion. (AT&T Ex. 1.0, p. 18) This is a

[15] If the Commission were interested in conducting a traditional rate-of-return-type analysis of UNE rates, it would have to (1) exclude from SBC Illinois' books any imprudent costs, (2) allocate costs (at the least) between its switched and dedicated services, (3) allocate costs between those network components that are required to be made available as UNEs and those that are not, (4) allocate costs between its retail and wholesale services, and (5) then determine a rate-of-return applicable to its lower-risk wholesale arrangements. The results of such an analysis would be dramatically lower than Dr. Aron's estimates (for instance, Dr. Aron assigned zero depreciation cost to the 40% of SBC Illinois' network that consists of special access lines), but would still serve no useful purpose for establishing UNE rates. (AT&T Ex. 1.0, p. 17, n. 18)

profound error. First of all, it is important to understand that the issue of providing cash for capital expansion is not the same as asking whether CLECs should pay to use SBC Illinois' capital investment. Nor does it involve whether CLECs should pay rates that provide for a recovery of that investment (over an appropriate time and at an appropriate level); nor is the issue whether CLECs should pay rates that provide for an appropriate return on SBC Illinois' investment. Capital costs form an important part of a network element's TELRIC cost, and the UNE rates proposed by Joint CLECs reflect that fact. (*Id.*, pp. 18-19)

Dr. Aron's calculation in her Cash Flow Analysis, however, assumes that UNE prices should provide the funds used by SBC to expand its network – that is, UNE prices should supply the cash to pay for SBC Illinois' network expansion as it occurs. In effect, this claim turns the CLECs (through UNE prices) into SBC Illinois' investors by requiring that they pay for network facilities "up front" as they are installed, and not over time as the facilities are used by CLECs as well as SBC Illinois' own retail services.[16] TELRIC rates are intended to fully compensate SBC Illinois for its forward-looking capital investments over the life of the asset, however, and not to provide the cash required up-front to purchase the asset.[17] (AT&T Ex. 1.0, p. 19)

Moreover, Dr. Aron's analysis fails even to correctly estimate SBC Illinois' capital expenditure per line for Illinois. In particular, Dr. Aron attributes SBC Illinois'

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[16] This assumes that new facilities are made available to CLECs at UNE rates, either under state or federal law. Obviously, if SBC Illinois' capital expenditure budget is being expended on facilities that SBC Illinois' intends to *deny* to CLECs, any suggestion that CLECs should be required to fund such an expansion is absurd. (AT&T Ex. 1.0, p. 19)

[17] If that were the case, then the CLECs would more properly be considered the owner of these new assets, and SBC Illinois should be required to pay the CLECs for their use. (AT&T Ex. 1.0, p. 19)

entire capital expenditure to its switched access services (even though the number of these lines is declining), while attributing none to its dedicated (and broadband) services, even though these lines are increasing. However, as Dr. Selwyn demonstrated, the engine of growth in the SBC Illinois network over the past 5 years – and the most likely cause of its recent capital expenditures – has been non-switched services, not switched facilities. Over that period switched lines have actually declined by 0.7% per year, while dedicated lines have increased by 26.8% per year.[18] (AT&T Ex. 1.0, Table 1)

As to Dr. Aron's claim that UNE-P discourages investment, Dr. Selwyn pointed to SBC Illinois' capital budget for the 4 years prior to the passage of the federal Telecommunications Act compared to its expenditures after that Act was adopted and UNE rates were set.[19] He showed that in fact SBC Illinois' capital expenditures increased significantly, roughly *doubling* after passage of the Act. (AT&T Ex. 1.0, Table 2)

Dr. Selwyn further noted that SBC was well aware of Ameritech's UNE rates at the time it chose to acquire the company. SBC could have decided to enter Illinois as a CLEC, leasing UNEs (at rates that it now claims are below-cost), offering bundles of

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[18] As Dr. Selwyn testified, under Dr. Aron's Cash Flow Analysis every UNE loop user should be held accountable for $8.10 per line, per month, of SBC Illinois' capital budget. In addition, Dr. Aron demands an additional monthly contribution of $5.88 per month from each UNE-P line, as though UNE-P users are particularly obligated to fund SBC Illinois' network expansion. To put those figures in perspective, it is useful to understand that Dr. Aron's cap ex "tax" on UNE-P is more than 3 times SBC Illinois' LRSIC cost of local switching. (AT&T Ex. 1.0, p. 19)

[19] ARMIS provided only 4 years of information (starting in 1992) prior to the passage of the Telecommunications Act to include in the comparison. (AT&T Ex. 1.0, p. 21)

local and long distance service,[20] competing like any other entrant. Instead, SBC chose to gain access to the network by purchasing Ameritech, and thus it must be held to the market-opening requirements of Section 271 – including leasing UNEs to others at TELRIC-based rates. Having voluntarily embraced the obligations of Illinois' incumbent – and paying a premium in the process – SBC's claims that that role places it at a disadvantage ring hollow. (AT&T Ex. 1.0, p. 22)

Finally, Dr. Aron's citation to studies by a number of investment firms[21] fails to support her conclusions. First, as Dr. Selwyn explained, investment firms do not commonly evaluate the profitability of SBC's wholesale operations, but rather tend to look at the overall profitability of the company. Because a useful wholesale product (such as UNE-P) causes the incumbent to lose *retail* market share, investment firms tend to focus on the financial effects caused by a loss of retail market share rather than evaluate the separate question of whether the wholesale rates are compensatory.[22] Beyond that, the investment firms cited by Dr. Aron do not uniformly share her view of UNE rates, as Dr. Selwyn pointed out. (AT&T Ex. 1.0, pp. 23-24 (citing Merrill Lynch report)) Not only that, the investment firms cited by Dr. Aron present very different views of existing UNE-P costs in Illinois: Merrill Lynch states UNE-P costs $14.82, while UBS Warburg puts the cost at $8.92. Remarkably, even though these firms are attempting to calculate the same data point – the average revenue collected under

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[20] SBC would not have been restricted from offering interLATA long distance services in Illinois had it decided to compete as a CLEC. (AT&T Ex. 1.0, p. 22)

[21] See, for instance, SBC Ex. 2.0, p. 21, Table 3.

[22] A wholesale service, including a compensatory one, is likely to lead to revenue erosion because lost retail sales can be expected to produce revenue reductions that are greater than the replacement wholesale revenue. (AT&T Ex. 1.0, p. 23)

standard UNE rates -- the Merrill Lynch estimate is nearly 2/3rds larger than the UBS Warburg estimate. Such disparity does not lend itself to confidence in the analytic accuracy of these reports or their conclusions. The inescapable conclusion is that Dr. Aron's cited investor reports -- which have their own significant deficiencies -- do not support Dr. Aron's claims. (*Id.*, pp. 24-25)

c. Dr. Aron's "industrial policy" is poor policy and should be ignored

Dr. Aron's testimony includes a number of "side discussions" that collectively reflect an "industrial policy" intended to rationalize the view that "high" UNE rates would be sound public policy (albeit, of course, not the one adopted by Congress). This testimony, first of all, is not relevant to a proceeding intended to review the cost justification for UNE loop rates (and certain non-recurring charges) in Illinois. However, given the importance of this proceeding to local competition in Illinois, Dr. Selwyn briefly addressed Dr. Aron's other points.

Dr. Aron implied, first of all, that the Commission should not be concerned about the competitive consequences of UNE rate increases – up to and including an actual price squeeze – because CLECS always have the option of resale.[23] As an initial matter, it is difficult to fathom an economic expert testifying that Telecommunications Act-based resale "ensures … a profit margin," given the highly publicized experiences of those entrants who have attempted the strategy. Local service resale has been declining for years, as entrant after entrant concluded it was unprofitable. Resale is no substitute for

[23] SBC Ex. 2.0, p. 27 ("The availability of resale under the Telecommunications Act ensures that there is available to CLECs a method of entry that provides a profit margin.")

UNE-based entry, and the effect of increasing UNE rates would be higher consumer prices and/or fewer choices. (AT&T Ex. 1.0, p. 26)

Nowhere in her testimony does Dr. Aron acknowledge the harm to competition from uneconomically high UNE rates. Local competition is only now beginning to emerge, and UNE-based competition is a critical element. UNE rates that exceed SBC Illinois' forward looking economic costs will retard CLEC entry, frustrate product innovation and, importantly, will lead to higher prices to consumers. (AT&T Ex. 1.0, p. 26)

Indeed, if the Commission were to adopt SBC Illinois' claimed UNE costs, the prices of a number of SBC's services would need to be increased, because SBC today offers consumers retail rates that are *less* than what it claims are its forward-looking economic costs. Any ILEC competitive service priced below cost (including, for its non-competitive components, the wholesale price imposed on entrants) violates the Illinois Public Utilities Act, however,[24] and the ILEC's retail rates must increase as a matter of law. Any reasonable review of SBC Illinois' retail rates reveals this problem.[25] The point is that UNE rates directly affect the rates paid by end-users -- including end-users served by the incumbent – and the increases sought by SBC Illinois in this proceeding would directly, and negatively, impact consumers. (AT&T Ex. 1.0, pp. 26-27)

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[24] 220 ILCS 5/13-505.1.

[25] See the discussion of Imputation and Price Squeeze in Section VII of this brief. Dr. Selwyn's review indicated, moreover, that SBC Illinois' studies underestimate imputed costs. For instance, SBC Illinois' improperly "imputed" the LRSIC cost for the switching port in its Network Access Line study, ignoring that the Commission found that local switching is a non-competitive service when it ordered Ameritech to provide it in the Docket 95-0458/0531. (AT&T Ex. 1.0, p. 26)

This is not the first time that Dr. Aron has opposed UNE-P. Even though UNE-P is a clear, unequivocal requirement of the Illinois Public Utilities Act,[26] Dr. Aron continues to sponsor testimony encouraging the Commission to disadvantage this critical entry strategy. (AT&T Ex. 1.0, pp. 27-28) As the Commission recently noted, in rejecting Dr. Aron's testimony once before:

> The Commission and the FCC have rejected Ameritech's "CLECs must build to be competitive" argument on so many occasions that citation is unnecessary. At some point, we are confident that CLECs will undertake the infrastructure investments necessary to serve their clients. Until that occurs, the United States Congress and now, the Illinois Legislature have established a different scheme, one which Ameritech finds uncomfortable, but one we have been charged with enforcing.[27]

Dr. Aron's and SBC's attack on UNE-P in this proceeding, moreover, is particularly disingenuous. This docket is about establishing cost-based unbundled loop rates and various nonrecurring rates. Increasing loop rates would likely have a *greater* impact on UNE-L based competition (which Dr. Aron purports to favor), for which loop rates are 100% of the UNE cost, than UNE-P (where the loop rate is only one – albeit significant – cost component). Dr. Aron has managed not only to file anti-UNE-P testimony in a proceeding where it is not relevant, she is doing so in conjunction with UNE rate recommendations by her client that will harm most precisely the form of competition (UNE-L) that it and she claim to prefer. (AT&T Ex. 1.0, p. 28) Moreover, it is simply misleading for Dr. Aron and SBC to attempt to show that UNE-L prices are somehow too low through comparisons and analysis of UNE-P prices.

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[26] 220 ILCS 5/13-801(d)(4).

[27] Order, Docket No. 01-0614, June 11, 2002, p. 56.

Dr. Aron's unrelenting opposition to UNE-P rests on the contention that, because CLECs using UNE-P rely on the incumbent's network, they do not provide innovation in the provision of the underlying facilities and thus do not "contribute," for example through investment, to the competitive marketplace.[28] The fundamental flaw in Dr. Aron's industrial policy, of course, is that it assumes that the best judge of "contributions to the marketplace" is Dr. Aron, as opposed to the individual consumers that vote with their checkbook when they choose their preferred provider. Assuming for the moment that Dr. Aron is correct that UNE-P providers cannot "innovate" in the way facilities are used,[29] the larger issue is why Dr. Aron believes that only facilities-related innovation is important. As a practical matter, as Dr. Selwyn testified, in the analog-voice market where UNE-P generally competes, the network is *intentionally* a commodity. Most network facilities – particularly analog network facilities – are designed to perform generic functions that are not the source of product differentiation. It should be obvious that voice conversations, even when carried over different facilities, are *supposed* to sound identical. Manufacturers have in fact gone to great lengths to make sure that different equipment is interoperable precisely so that it can be introduced into the network *without* customers being able to tell the difference. Whether an entrant *leases*

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[28] See, e.g., SBC Ex. 2.0, p. 35.

[29] As Dr. Selwyn explained, the fundamental architecture of the local network has changed over the past decade with the introduction of the "Advanced Intelligent Network" call model. In an AIN environment (which SBC has implemented), services can be defined in remote databases that use the signaling system to invoke different switching commands. In this way, the local network becomes a service-neutral transmission and switching matrix (UNE-P), while service creation and enhancement become software-defined capabilities external to the physical network. Thus, the claim that UNE-P providers cannot innovate in how facilities are used is simply wrong. (AT&T Ex. 1.0, n. 40)

capacity in the incumbent's switch or installs its *own* switch, the services that it can offer are essentially the same. As a result, innovation in the voice marketplace is not generally found in the network but, rather, involves other tangible dimensions of a service, such as how the service is priced, packaged, and supported. (AT&T Ex. 1.0, p. 30)

Indeed, the importance of non-network skills in the local marketplace cannot be overemphasized. Many of the innovations that attract customers involve pricing and support capabilities that reside *outside* the physical network. Matters such as the size of the local calling area, whether a service seamlessly transitions between "local and toll," the interrelationship between the local service and other customer support activities (such as web design or specialized billing) are all important service elements that have nothing to do with the generic switching and transmission platform used to transmit calls. UNE-P enables companies to first focus on these operational dimensions, and thus bring competitive differentiation to nearly every facet of service design other than those linked to the network itself. (AT&T Ex. 1.0, pp. 30-31)

Finally, in the time since SBC Illinois has offered UNE-P more than 650,000 Illinois customers have validated the importance of this entry strategy.[30] (AT&T Ex. 1.0, p. 31) These customers determined through their individual choices the "contribution to the marketplace" of UNE-P. Dr. Aron's personal opinion of UNE-P should not be used to disregard the contrary views of the 650,000 (and growing) Illinois consumers. (*Id.*)

SBC itself has acknowledged that it is being forced to innovate in <u>response</u> to UNE-P based competition. It has told investors that it has "responded to intensified

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[30] Data as of the filing date of Dr. Selwyn's direct testimony in this docket (May 2003).

UNE-P-based offers on several fronts: by introducing innovative new packages …"[31] Obviously, if SBC has to innovate to "catch-up" with UNE-P based competition, then UNE-P must have enabled innovation in the first instance. Moreover, UNE-P is nothing more than the local equivalent of the long distance wholesale arrangements that SBC uses to offer its interLATA services. Neither SBC (nor Dr. Aron) have been heard to claim that SBC's long distance entry would make no "contribution to the marketplace" unless SBC was first required to construct an overlay national long distance network. (AT&T Ex. 1.0, pp. 31-32)

Dr. Aron's further claim that existing UNE rates are resulting in "marketplace distortions" in Illinois[32] is simply misplaced. It is in this section of her testimony that Dr. Aron's bias is most apparent: Under her logic, if the *type* of competition is not to Dr. Aron's liking, then UNE rates must be wrong. Specifically, as support for her conclusion that UNE pricing is amiss, Dr. Aron observes that: (1) Since March, 2001, there have been no net new facilities-based entrants; and (2) although "facilities-based line additions are substantial … growth has decreased," while UNE-P has continued to grow steadily. *Id.* The underlying question, however, is: accepting these observations as accurate, what do they mean? That no new facilities-based entrants have come into being since March 2001 should not be a surprise -- capital markets are essentially closed to CLECs, in part

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[31] SBC 2nd Quarter Investor Briefing, July 23, 2002 ("In mid-June, SBC launched in its Michigan markets an innovative unlimited local toll/zone calling plan …"), quoted at AT&T Ex. 1.0, p. 32.

[32] SBC Ex. 2.0, p. 42.

in response to the widespread spate of bankruptcies by CLECs attempting to pursue Dr. Aron's preferred entry mechanism.[33] (AT&T Ex. 1.0, p. 32-33)

In all events, it is impossible to understand how *more* facilities-based entry – which of course includes UNE-L -- would result if SBC Illinois is permitted to increase its loop rates as it requests in this proceeding. If anything, such increases would only discourage such facilities-based strategies. (AT&T Ex. 1.0, pp. 33-34)

Moreover, the fact that UNE-P has continued to show a "steady pace" of net additions while facilities-based line additions are only "substantial" does not mean that one form of entry is occurring at the expense of another. Rather, as Dr. Selwyn explained, each strategy is used to serve different customer segments. (AT&T Ex. 1.0, p. 34) UNE-P is used primarily to offer analog voice services to smaller users (residential and small business). In contrast, UNE-L is better suited for providing more complex services to larger customers, particularly in urban areas.[34] Given that UNE-P and UNE-L should be expected to serve different markets, there is no basis to "blame" the decline in UNE-L based entry (which Dr. Aron implies)[35] on the introduction of UNE-P. The

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[33] Even Dr. Aron has (in prior affidavits) recognized that facilities-based entry has its limits. See Reply Affidavit of Dr. Debra J. Aron on Behalf of Ameritech Michigan, Michigan Public Service Commission Case No. U-12320, July 30 2001, quoted at AT&T Ex. 1.0, p. 33.

[34] In fact, this Commission expected that the markets used by UNE-P and UNE-L would likely differ, and noted this difference in its Order first requiring UNE-P seven years ago. Order, Dockets 95-0458 and 95-0531 (Consolidated), June 26 1996, p. 56 ("Due to economic realities, [UNE-L] competition will be costly and slow to develop, possibly limited to densely-populated areas and large-volume users. The services requested by AT&T and LDDS [resale and UNE-P, respectively] would more readily be available to provide quicker and broader based competition to the entire territories of Ameritech and Centel, including residential and small business users.") (AT&T Ex. 1.0, pp. 34-35)

[35] SBC Ex. 2.0, p. 44.

growth of UNE-P starting in 2001 can be attributed to SBC Illinois finally implementing the Commission's orders with respect to UNE-P (and its necessary component, shared transport), thereby opening the mass market to competition. The slowing of facilities-based entry should be expected, given the financial performance of competitors pursuing that strategy, as well as the fact that it is (at least relative to UNE-P) past its infant-entry phase when growth rates tend to be most relatively rapid. (*Id.*, p. 35)

Any contention that SBC Illinois' UNE unbundling obligations give it reduced incentives to invest in its Illinois network is similarly unfounded. As a practical matter, as Dr. Selwyn pointed out, SBC Illinois' *retail* demand dwarfs its unbundling volumes. SBC's investment strategies are driven more by the requirements of its retail business -- which, as Dr. Selwyn showed, involve more than 91% of its network -- than by its unbundling obligations (which involve less than 9% of its operations).[36]

Thus, there is simply no basis to claim that UNE-P discourages carriers (either new entrants or the incumbent) from continuing to make network investments that make sense. In this regard, the Texas Public Service Commission *explicitly* rejected SBC's "UNE-P harms facilities-deployment" argument in an order requiring that UNE-P remain available in that state:

> With regard to the long run impact on the incentive for infrastructure investment, the Arbitrators were not convinced by SWBT's argument that the availability of UNE-P will crowd out investment in the analog network. Moreover, the Arbitrators find that continued duplication of the existing legacy analog network may constitute an inefficient use of scarce industry resources. Inefficient use of available resources is not in the public interest.[37]

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[36] AT&T Ex. 1.0, Table 4.

[37] *Arbitration Award*, Texas P.S.C. Docket 24542, April 29, 2002, p. 84 (footnotes omitted), quoted at AT&T Ex. 1.0, pp. 36-37.

Finally, Dr. Aron complains that entrants are competing most heavily for those customers that SBC Illinois overcharges the most.[38] SBC labels CLEC pricing plans as "cherry picking" because these plans are most attractive to customers desiring a bundle of local, long distance and features. The ability to offer bundles is one of the benefits of competition, however, and indeed it was frequently cited as such by SBC when it was seeking interLATA authority.[39] (AT&T Ex. 1.0, p. 37)

SBC Illinois has a history of trying to use UNE proceedings to preserve its retail pricing strategies, even when they are not cost-based.[40] A similar tack is at work here. Fundamentally, Dr. Aron complains that competition is forcing SBC Illinois to rationalize its retail pricing systems because it must respond to packages offered by competitors to customers that today pay unreasonably high rates. Such price reform, however, is one of the *benefits* of competition, and it is generally a result *encouraged* by responsible economists. (AT&T Ex. 1.0, pp. 37-38) The Commission should ignore – indeed, it should expressly reject – the views expressed by Dr. Aron in this proceeding

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[38] SBC Ex. 2.0, p. 41.

[39] Of course, SBC is similarly competing for the higher-margin customer segment. For example, SBC recently announced a "comprehensive, next generation, consumer bundling strategy" that is targeted to the *top 30%* of the market. *SBC Unveils Comprehensive, Next-Generation, Consumer Bundling Strategy to Provide Customers New Levels of Control and Flexibility*, SBC Press Statement, November 18, 2002. *See* Attachment LLS-2 to AT&T Ex. 1.0. It should be no surprise to anyone, much less an economist, that competition will brings the most benefit to those consumers most disadvantaged by the current pricing structure. The implication of Dr. Aron's testimony, however, is that these customers are some form of market entitlement – *i.e.*, that only SBC should decide when the customers are offered bundles, not the competitive process. It goes without saying the Commission should ignore such views. (AT&T Ex. 1.0, pp. 38-39)

[40] See, *e.g.*, Second Interim Order, Docket Nos. 95-0486 and 96-0569 (Consol.), February 17, 1998, p. 59, ("TELRIC I Order") quoted at AT&T Ex. 1.0, p. 38.

2. Telecommunications Costs Are Decreasing, Not Increasing, a Fundamental Fact That is Directly Counter to SBC'S Pricing Proposals in This Case

SBC's proposed huge increases in UNE loop prices are discredited by a fundamental, widely-acknowledged fact: Telecommunications costs are *decreasing*, **not** *increasing*, and they have declined since the Commission's previous review of SBC's costs in the TELRIC I Order. SBC has failed to provide any reasonable support for the reversal in loop cost trends that its cost studies contemplate. In their direct testimony (AT&T Ex. 2.0), AT&T witnesses Pitkin and Turner described four primary causes for the cost reductions that have occurred in the telecommunications industry over the past decade, all of which are applicable to SBC.

First, the cost of most telecommunications equipment has declined over time. The trade press, the FCC and the courts have all acknowledged the significant reductions in equipment prices over the past several years.[41] ILEC executives have touted this fact. Joseph Nacchio, former chief executive of Quest, stated in a May 2001 conference call with analysts: "We're just pressing vendors across the board – whether it's optics, DSL, adding switched ports or software releases. It's become a buyer's market and we're taking advantage."[42] The FCC and the courts have also recognized these significant cost declines. As the D.C. Circuit Court of Appeals has stated, "[i]n a market with falling

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[41] For example, *Broadband Week* observed: "There is no denying the downward trend of equipment prices, ranging from sophisticated switching gear to fiber optic cable." *Broadband Week*, "Equipment Prices Dropping, But Not Plummeting," Ken Branson, June 4, 2001, included in AT&T Ex. 2.0, Attach. BFP/SET-2.

[42] *CNET News.com*, "Telecoms Anticipate Price Cuts for Gear," Wylie Wong and Sam Amers, May 25, 2001, included in AT&T Ex. 2.0, Attach. BFP/SET-2.

costs, ancient UNE rates cannot serve as a valid benchmark."[43] In determining inputs for its Synthesis Model, the FCC noted that "US West agrees that the costs of the equipment, such as switches and multiplexers, used to provide telecommunications services are declining, and that the per-unit cost of providing more services on average is declining."[44] SBC witness Smallwood acknowledged that SBC has been able to negotiated discounted prices in recent years, but he contended that such discounts have been included in its cost studies. (SBC Ex. 4.1, p. 33) That contention is irrelevant to the larger point that costs have declined across the board since the Commission last established UNE rates in Illinois. Moreover, if SBC's claims are true, *i.e.*, that its costs are declining through discounted prices, then LoopCAT must be otherwise profoundly flawed to generate such huge overall increases in cost. That is exactly the case, as the evidence demonstrates (as shown in Section III.A of this brief). (AT&T Ex. 2.0, pp. 9-11)

Second, telecommunications carriers have realized significant efficiency gains as a result of consolidations (merger savings and improved purchasing power). SBC has been in the forefront of such consolidation, having closed its merger with Ameritech in October of 1999, after having merged with Pacific Telesis and, before that, Southern New England Telephone. SBC now serves more than four times the number of lines that Ameritech served in 1996. (AT&T Ex. 2.0, p. 11-12) SBC has repeatedly claimed that

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[43] *WorldCom, Inc. v. FCC*, No. 01-1198, 2002 WL 31360433, *4 (D.C.Cir., Sept. 9, 2002).

[44] FCC CC Docket No. 96-45 & 97-160, *In the Matter of Federal-State Joint Board on Universal Service Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, Tenth Report and Order, October 21, 1999, ¶313.

its mergers would generate efficiencies in the development and delivery of services, and has reported as much to its investors:

> [W]e . . . are well along in developing the business plans that will bring you and our customers the full value of this powerful combination [with Ameritech]. Using the same processes that guided our successful integration of Pacific Telesis and Southern New England Telecommunications, we are confident that we can achieve our goal of $1.4 billion in synergies by 2002.[45]

Third, SBC has benefited from the tremendous technological advancements that have occurred, by realizing lower operational expense in maintaining the network and provisioning services. (AT&T Ex. 2.0, pp. 13-14) For example, SBC has repeatedly touted the savings that it will realize from implementing Project Pronto:

> [T]he Ameritech acquisition has enabled us to launch an unprecedented $6 billion initiative designed to transform our company over the next three years into America's largest single provider of advanced broadband services. . . .We also plan to enhance our network to accelerate the rollout of high-speed data technologies, while simultaneously reducing our network cost structure. The resulting expense and capital savings alone are expected to offset the cost of the entire initiative.[46]

SBC provided examples of how these efficiencies would be realized, including:

> By avoiding dispatches on many installations, SBC expects to realize efficiencies in its installation and maintenance operations. Other anticipated efficiencies will come from reduced activity required in the remaining copper plant because of improved reliability.

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[45] SBC Communications Inc. Quarterly Report to Shareholders, 3d Quarter 1999. (See AT&T Ex. 2.0, p. 12) SBC noted that the largest anticipated merger cost savings would come from support operations, such as volume discounts on equipment purchases ($381 million) and consolidation of billing and ordering functions ($221 million). In addition, SBC/Ameritech predicted more than $310 million in savings from combining their operations. The testimony of Joint CLEC witnesses Michael Starkey and Warren Fischer (AT&T/Joint CLEC Ex. 1.0) discusses merger savings and shows that SBC Illinois' cost studies fail to account for these savings in any meaningful way.

[46] *Id*.

> Reduced spending on feeder facilities represents 70 percent of the targeted capital savings. The broad deployment of fiber and related electronics will substantially eliminate further deployment of copper facilities for feeder reinforcement.[47]

Such savings should be reflected in a forward-looking cost study of SBC's local exchange network designed to establish UNE prices. If properly accounted for in accordance with TELRIC, they would drive down costs and prices. (AT&T Ex. 2.0, pp. 13-14) Moreover, they belie SBC's complaints that it cannot recover its costs through existing UNE loop rates.

Fourth, the growth in overall network demand for SBC's services has contributed to significant reductions in unit costs. SBC Illinois' total demand for access lines has grown from 7.66 million in 1996 to 10.2 million lines in 2002 – an increase of 33.6 percent. In addition, SBC Illinois has experienced great increases in demand for the various services that can be provided over its network, further driving down its unit costs. Because these services are provided over shared facilities (at least in part), more demand is available to cover common and fixed costs, and unit costs decline. (AT&T Ex. 2.0, pp. 14-15) For example, poles used to provide POTs service are also used to support higher capacity services such as DS-1, DS-3, and optical services, and fiber optic facilities and digital loop carrier systems used in POTS services also support DS-1 services and DSL. (*Id.*). In short, the forward looking network consists of a set of facilities that are used to provide the full range of SBC's services, and with the high growth rates that many of

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[47] *Id.*

these services enjoy, per-unit costs of the joint and common facilities are declining at a significant rate.[48] (AT&T Ex. 2.0, pp. 15-16)

Joint CLEC witnesses Starkey and Balke confirmed the downward trend in telecommunications costs generally and in SBC's costs in particular. First, they showed that SBC's overhead expenses, as well as its network related expenses, have fallen dramatically when compared to SBC Illinois' access line output, particularly between 1998 (when the Commission adopted the existing UNE loop rates) and 2002.[49] In 1998, SBC incurred a combined $322 in attributable expense per access line, while it incurred only $251 per access line in 2002, a decrease of nearly 23%. Similarly, looking at productivity measured by the number of employees per access line, SBC increased its "output" per employee from 616 access lines in 1998 to 737 access lines per employee in 2002 – an increase of nearly 20%. The same comparison between 1996 and 2002 would show a productivity gain of an astounding 42%. (Joint CLEC Ex. 2.0, p. 20)[50] This data cannot be ignored in evaluating SBC's proposed massive UNE rate increases.

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[48] SBC witness Smallwood contended that SBC is not experiencing increased network demand, despite the growth in access reported by Mr. Pitkin and Mr. Turner. Mr. Smallwood could make such an argument, however, only by limiting his discussion to switched lines as reported in ARMIS. Switched line counts as reported in ARMIS do not reflect a host of services that SBC provides and that contribute to covering its costs. For example, switched line counts reflect only retail services and do not include wholesale services such as UNEs. And they ignore the significant growth in broadband facilities that SBC Illinois has experienced in recent years and that it has touted elsewhere. Thus, Mr. Smallwood considered only a portion of the total picture with respect to SBC demand.

[49] Joint CLEC Ex. 2.0, pp. 18-19. Note that the observed decline would be even greater if measured from 1996, the time period for much of the data relied upon by SBC in its cost studies approved in 1998.

[50] Similarly, looking at SBC Illinois' operating expenses per access line (i.e., the cash outlay required to support the network and the services it provides – including UNEs), while there was some year-to-year increase between 2001 and 2002, SBC has

SBC itself expects costs to continue to decline. SBC's CFO Randall Stephenson has been cited as observing:

> SBC sees the margin difference between it and [Verizon] and [BellSouth] as indicating an opportunity for further cost cutting. Point to opportunities in consolidating call centers, raising efficiencies in network operations and generally trimming overhead costs.[51]

Time and time again, SBC has promised cost reductions, and touted them when they occurred. SBC is no exception to the trend that has characterized the entire industry for the past decade.

In short, it is undisputed that telecommunications carriers' costs have declined and continue to do so. This decline should be reflected in a proper TELRIC cost study.[52] That outcome would be consistent, moreover, with the outcomes of most state regulatory proceedings since this Commission last established UNE rates for SBC Illinois. Were SBC truly desirous of an "updating" of its UNE costs, the Commission should expect to

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seen notable decreases in these expenses between 1998 and 2002. In 1998 SBC Illinois expended $302/access line, compared to $284 in 2002 – a decrease of some 6%. (Joint CLEC Ex. 2.0, pp. 20-21)

[51] Goldman Sachs "Analyst Comment," August 22, 2002, Attached to September 9, 2002 Memorandum of Ex Parte Presentation from Brian Bennison, SBC, to the FDD as part of its Triennial Review proceeding, FCC CC Docket No. 01-0338, 96-98, and 98-127, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, et al.* (See AT&T Ex. 2.0, p. 16)

[52] Mr. Smallwood presented what he termed a "red-face test" in an attempt to discredit Mr. Pitkin and Mr. Turner's restatement of SBC's cost studies. He compared their statewide average investment per loop figure with the embedded actual SBC Illinois investment per loop developed by SBC witness Mr. Sneed. (SBC Ex. 4.1, p. 32; SBC Ex. 20.0, Sched. JWS-R2) That comparison is both misleading and inappropriate, however. First, it makes no attempt to isolate loop investments in Mr. Sneed's embedded analysis, rendering the comparison meaningless. Second, Mr. Smallwood's analysis erroneously assumed that all SBC investments are associated only with switched loops. And it compared embedded costs to forward-looking costs; not only is the comparison not meaningful, but any use of embedded costs in connection with a TELRIC proceeding is irrelevant.

see a notable decline in its rates for UNEs relative to 1998. That SBC's proposal in this docket is, instead, an increase of more than 300% in some circumstances shows that SBC's true view is that this Commission made a mistake in the TELRIC I Order in which the Commission adopted key inputs and assumptions that impact the cost models used to calculate SBC's UNE rates. As shown elsewhere in this brief, the Commission made no mistake in the TELRIC I Order, but in any event SBC cannot credibly claim that its proposed are justified by increases in its underlying costs.

III. UNE LOOP RECURRING COST STUDIES.

A. Compliance With TELRIC-General (Including SBC's Loop Cost Analysis Tool, LoopCAT)

It is the Joint CLECs' position that SBC Illinois has not demonstrated in this proceeding that its unbundled loop rates need to be increased. With respect to SBC's loop costs, SBC has not demonstrated that those costs have increased above the TELRIC costs established by the Commission in the TELRIC I Order. As described in Section III.A.1, below, SBC has failed to demonstrate any need for an increase in its UNE loop rates because (among other reasons) the new cost model that it has employed in this case, "LoopCAT", is flawed and unreliable, and does not appropriately model, calculate and present the costs of an efficient, forward-looking network using the most advanced telecommunications technology presently available, as required by the FCC's TELRIC rules. The LoopCAT model is not an improvement over the previous Ameritech/SBC loop cost models. One alternative available to the Commission therefore, is simply to reject SBC Illinois' proposed UNE loop TELRIC studies, and continue to use the same UNE loop TELRIC that resulted from the Commission's determinations in the TELRIC I Order. By taking this alternative, which is supported by the record, the Commission

would avoid the need to resolve the myriad specific loop cost-related issues that are discussed in Sections III.B and III.C of this brief. Under this alternative, however, SBC's UNE loop rates should be revised by applying to the UNE loop TELRIC the revised Shared and Common Cost factor developed by Joint CLEC witnesses Michael Starkey and Warren Fischer in AT&T/Joint CLEC Exhibit 1.0.

However, if the Commission determines to set loop rates in this docket using SBC's loop cost studies as a starting point, the Joint CLECs have presented evidence comprehensively reviewing, critiquing and adjusting SBC's studies where appropriate. Joint CLECs' review of and revisions to SBC's loop costs studies are summarized in the remainder of Section III of this brief (after Section III.A.1). Thus, if the Commission decides to use SBC's loop cost studies as the starting point in establishing unbundled loop rates in this docket, the Commission should adopt the Joint CLECs' revisions to SBC's studies, as discussed in this brief.

1. SBC's LoopCAT Model is Inherently Flawed

In this case, SBC has calculated its loop costs using a new cost model, LoopCAT. Joint CLEC witnesses Michael Starkey and John Balke ("Starkey/Balke"), who are familiar with the loop cost models previously used by Ameritech (the Ameritech Facility Analysis Model ("AFAM") and its next-generation successor, the Loop Facility Analysis Model ("LFAM")), analyzed LoopCAT and compared it to these predecessor models.[53] Their conclusion is that LoopCAT has a number of problems that render it largely unusable for establishing appropriately forward-looking loop costs. Indeed, they

[53] AFAM was used to generate Ameritech's loop costs in the TELRIC I proceeding.

concluded that LoopCAT is not superior to the AFAM model relied on by the Commission in the TELRIC I case.

The LoopCAT model represents a substantial step backward from the modeling techniques used by Ameritech prior to the SBC merger. (Joint CLEC Ex. 2.0, p. 31) In fact, LoopCAT resembles the costing methodology relied on by Ameritech prior to the 1994 time frame. LoopCAT relies heavily on embedded loop samples, and acts as little more than a calculator used to aggregate and mathematically manage embedded network data. (*Id*.) In contrast, AFAM used the entire inventory of cables in the feeder route network, not just a sample. (*Id*.) Further, LoopCAT extracts only loop length information from SBC's facilities databases, and does not extract any of the section-by-section characteristics that are critical to understanding the primary cost drivers specific to the loop, such as density, tapering and engineering design. (*Id*., p. 34) LoopCAT's reliance on embedded data is a primary defect of this model, along with its proclivity to overly average the embedded data it uses for purposes of extrapolating costs throughout the network. These defects result in loop cost estimates that have very little validity with respect even to SBC's actual cost data, let alone to the costs that should result from a diligent adherence to the FCC's TELRIC methodology. (*Id*.)

Messrs. Starkey and Balke detailed the problems they identified with LoopCAT that render it largely unusable for setting appropriately forward-looking loop costs. First, LoopCAT does not model a forward-looking network, and relies on embedded data. (Joint CLEC Ex. 2.0, p. 34) LoopCAT calculates average costs per study area using SBC's embedded data. LoopCAT does not re-design anything, or even model a loop network (either embedded or forward-looking). In fact, prior to the actual operation of

LoopCAT, a "pre-processor" – which Starkey/Balke described as a "black box" -- makes such decisions as which loops are served via fiber or copper, and for the copper facilities, transmission loss and gauging calculations produce the cable mixture by gauge. (*Id*., pp. 34-35) Thus, LoopCAT fails to incorporate important engineering information specific to loop architecture building blocks, such as Carrier Serving Areas ("CSAs"). As a result, LoopCAT fails to accurately portray SBC's current engineering guidelines. LoopCAT lacks any ability to re-design the loop network using efficient, forward-looking assumptions. (*Id*., p. 35)

Second, LoopCAT's lack of information on loop architecture building blocks causes distortions in the costs it produces. LoopCAT's fundamental problem in this regard is that is cannot "build" a loop network using actual engineering architectures including feeder, CSAs and Distribution Areas ("DA") because it relies solely on samples of embedded data. The individual samples (especially samples that contain only loop length data) make it impossible for LoopCAT to "build" a loop network that uses these fundamental loop building blocks. (*Id*., pp. 35-36) For example, while LoopCAT is aware of the lengths of the sample cable sections it selects, it is not aware of the cable section connectivity and tapering impacts that would result in a well-engineered network. It is also unaware of the locations of the customers it is attempting to serve in relation to individual CSA's and DA's. In other words, LoopCAT has no information on the network architecture building blocks that are used to properly design and develop the loops for which it has extracted (from SBC's loop databases) information specific only to length. LoopCAT is unable to select appropriate technologies, components and sizes

necessary to serve the customers. (*Id*., p. 37) Instead, it relies on arbitrary inputs that are dictated by the model operator. (*Id*., p. 38)

LoopCAT is unable to aggregate usage at various "nodes" in the network, such as cable branches, or CSA's or DA's. It cannot optimally size loop components based on a forward-looking design, and cannot take advantage of economies of scale. As a result, LoopCAT has a tendency to overestimate costs. (Joint CLEC Ex. 2.0, p. 39)

Third, the quantity of loop data used by LoopCAT creates a false sense of confidence. SBC claimed that LoopCAT was reliable because it uses the universe of loop data in SBC's loop data base, rather than just a sample. (SBC Ex. 4.0, p. 23) Unfortunately, as shown above, loop length data is only one of the pieces of information needed to model an efficient, forward-looking network and thereby develop a TELRIC-compliant estimate of loop costs. Engineering characteristics of the loop, including the extent to which loops are served in a CSA environment, the tapering characteristics of the loops and other information is also required. (Joint CLEC Ex. 2.0, p. 40)

Fourth, LoopCAT does not produce meaningfully geographically deaveraged costs. This is because LoopCAT is built to use data that has been preprocessed by zone (*i.e.*, Access Areas A, B and C), not by wire center, and thus cannot calculate results by wire center (or for smaller geographic areas than the three rate zones). (Joint CLEC Ex. 2.0, p. 41) More significantly, LoopCAT relies heavily on averages in its inputs, which further precludes it from being able to produce de-averaged costs other than based on the existing rate zones. (*Id*., p. 42)

Fifth, LoopCAT melds together network characteristics from unrelated sources and contains user-driven inputs which impact costs. LoopCAT combines data from

various unrelated sources and data bases to develop outputs that the data was not intended for. Grouping this data at a zonal or statewide level, as LoopCAT does, can then mask deficiencies resulting from the fact that parts of the data used may not be valid individually or may not really fit together. Further, much of the data combination occurs in the preprocessing stage. (Joint CLEC Ex. 2.0, p. 42) For example, LoopCAT obtains data on all copper cables, undifferentiated as to what portions of the data are related to feeder or distribution loop facilities or interoffice facilities. Within LoopCAT, unlabeled user-driven inputs then separate this data into feeder and distribution data (interoffice facilities are ignored). The resultant calculation, which is driven by the user input, directly impacts LoopCAT's calculations of weighted cost per copper pair for feeder and distribution cable, as well as the plant mix among aerial, buried and underground, which also has a substantial impact on the calculated loop costs. (*Id.*, p. 43) One result of these user-driven assumptions to the LoopCAT results presented by SBC in this case, as noted by Messrs. Starkey/Balke, is a high percentage of underground cable (vs. aerial and buried) in the distribution plant. (*Id.*, p. 44) Another result is that all cable types of all gauges and all installation types (aerial, underground and buried) are allocated 50% to feeder and 50% to distribution. (*Id.*, pp. 44-45) These outcomes have no relationship either to SBC's existing network or to a properly engineered network consistent with SBC's current engineering guidelines. (*Id.*, p. 45)

Sixth, the embedded data used in LoopCAT fails to reflect economies of scale and a forward-looking design. By extracting embedded cable sheath data, LoopCAT fails to reflect efficient facility sizing on a forward-looking basis. Larger cables and loop components would be used in a forward-looking design rather than the smaller sizes that

exist in the embedded mix. As a result, costs are affected by (for example) the use of multiple cables within a cable section, when a single larger cable would be more efficient. (Joint CLEC Ex. 2.0, p. 46) Messrs. Starkey/Balke gave examples of how this aspect of LoopCAT results in over-stated costs. (*Id*., pp. 47-48) As they pointed out, "Assuming that averaged embedded data correlates with a forward-looking geographic specific design is an important leap of faith that you must make in order to rely upon the results of LoopCAT." (*Id*., p. 47) For example, the forward-looking network will have fewer copper facilities and more fiber-fed DLC facilities, and a different mixture of copper cables by size, than does the embedded loop network. (*Id*., p. 48)

Seventh, transmission loss calculations in LoopCAT develop loops that will not work properly and cannot optimize network facility locations. Loops are designed in the "pre-processing" of cable data for LoopCAT, but many of these redesigned loops would not work properly. For example, Messrs. Starkey/Balke's review of the loop data pre-processed for LoopCAT revealed thousands of loops in excess of 18,000 feet (the distance beyond which loops are generally required to have load coils to compensate for electrical capacitance), with some loop lengths well in excess of 18,000 feet. (Joint CLEC Ex. 2.0, pp. 48-49) However, load coils should not be included in a forward-looking network, both because they are not consistent with the forward-looking CSA provisioning strategy and because of the limitations they impose on using the underlying copper loops for digital services such as DSL.[54] (*Id*., p. 49)

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[54] In addition, Messrs. Starkey/Balke noted that although SBC's Loop Deployment Policies and Guidelines indicate a 12,000 foot loop length design threshold, there are tens of thousands of loops in the LoopCAT results with lengths greater than 12,000 feet. This indicates that costs are probably too high for these loops, whereas with a properly

In addition, LoopCAT is incapable of making the decision on where to properly place DLC equipment in order for the loops it designs to work properly, or to minimize costs. For example, for the thousands of loops in LoopCAT that are longer than 18,000 feet, a fiber-fed DLC remote terminal ("RT") would need to be placed close to the customer locations in order to reduce the excessive copper lengths. While this involves a cost trade-off (*i.e.*, longer length cables versus greater use of DLC RTs), LoopCAT is incapable of identifying the least-cost choice. LoopCAT is incapable of performing any sort of network optimization and re-design because of its reliance on embedded loop characteristics and facility location, and because it does not incorporate an approach based on network building blocks such as CSA's and DA's. (*Id*., pp. 49-50)

Eighth, Messrs. Starkey and Balke identified a number of data anomalies in the pre-processed data use in LoopCAT. These anomalies include duplicated length data and FDI loop appearance data that cannot possibly be right. These anomalies suggest potential problems with the underlying data source, or that certain types of facilities were excluded from the data used. (Joint CLEC Ex. 2.0, pp. 51-52)

Another problem with the pre-processed data used in LoopCAT lies with the methodology used to pre-process the loop length data. In the real world, in designing a loop network, cable gauge and transmission loss design decisions are not made one pair at a time, but rather are based on an overall view of the loop network and the architecture in question, and take into account cable section lengths, DA locations, customer locations, and similar information. However, because LoopCAT has no information on loop architecture building blocks, and makes design decisions one pair at a time,

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developed forward-looking loop network design, which LoopCAT is incapable of producing, the result would be lower costs for these loops. (Joint CLEC Ex. 2.0, p. 50)

LoopCAT cannot make accurate transmission design decisions. This is a substantial flaw in LoopCAT's methodology. (Joint CLEC Ex. 2.0, p. 53)

Ninth, the installation factors used in LoopCAT cause cost distortions. Within LoopCAT, installation factors are developed exclusively from databases containing embedded data. The use of widely averaged factors, based on historical data culled from numerous provisioning scenarios, can cause major distortions in the cost study. Because most of the installation factors are developed on a statewide basis, they can distort results when applied to a more geographically-specific level such as the rate zones used in LoopCAT. These widely-averaged installation factors also cause distortions when applied to different sizes of cables, because large and small cables have different material-to-total installed cost relationships. (Joint CLEC Ex. 2.0, pp. 53-54) Messrs. Starkey/Balke gave examples of how LoopCAT's use of widely-averaged installation factors can cause cost distortions. (*Id.*, pp, 54-55) They also pointed out that although SBC's engineering witness had testified that placing multiple cables in a location instead of a single, larger cable is in most circumstances significantly more expensive, LoopCAT, because it relies on averaged, embedded data, tends to calculate loop costs using the multiples cables in a single location (*i.e.*, the use of the average installation factor does not recognize a distinction between the more costly alternative of installing multiple cables in the same location and the less costly alternative of installing a single larger cable). (Joint CLEC Ex. 2.0, pp. 56-57)

Tenth, LoopCAT includes specific costs that are already accounted for in the model through the use of installation factors. This results in the double-counting of costs.

(Joint CLEC Ex. 2.0, pp. 62-63) Messrs. Starkey and Balke provided examples of this problem in the LoopCAT results. (*Id.* pp. 57-63)

Eleventh, LoopCAT provides for a much smaller selection of fiber cable types than are in fact available to designers in the real world. The availability of numerous cable types in the real world design process enables the designers to select among those options in the manner that will best meet demand and reduce costs. LoopCAT's inability to choose from the same range of options generally available substantially limits the applicability of its results. Again, Messrs. Starkey/Balke gave examples of how this limitation in the LoopCAT model can result in overstatement of costs. (Joint CLEC Ex. 2.0, pp. 64-65)

In summary, SBC's LoopCAT model (including the steps by which the data used by LoopCAT is "pre-processed") is seriously flawed, and in its current form (as presented in this case) cannot be relied upon to produce reasonable, forward-looking loop costs representative of an efficient, forward-looking network (as opposed to SBC's <u>embedded</u> network). Neither the input data nor the model itself are sufficient to produce rates consistent with the FCC's TELRIC methodology. SBC's LoopCAT-based loop costs do not satisfy SBC's burden of proof under the FCC's TELRIC rules and cannot be used to substantiate any claimed increase in SBC's loop rates. (Joint CLEC Ex. 2.0, pp. 65-66) In light of the problems with LoopCAT, disclosed by the record in this case, one alternative available to the Commission in this case simply to reject the LoopCAT results submitted by SBC entirely, and utilize the same TELRIC loop costs it determined in the TELRIC I Order to set loop rates in this case.

2. As Implemented in This Case, SBC's LoopCAT Model is Riddled with Errors

SBC's LoopCAT model was and is riddled with errors, all of which massively inflate SBC's costs. Indeed, SBC – and the sponsor of the LoopCAT model, SBC witness Mr. Smallwood – now admit that LoopCAT, as originally filed in December 2002, included a litany of TELRIC cost errors. SBC's original LoopCAT model studies in this case, among other errors, failed to account for multiple dwelling units; it included a massive double count and overstatement of digital loop carrier ("DLC") installation costs; and it included a double count of distribution terminal costs. (SBC Ex. 4.1, p. 5). The CLECs (as well as other parties) identified all of these errors in their direct testimony, filed in May 2003. And when SBC addressed these errors (in rebuttal filed in February 2004), it caused SBC's LoopCAT costs to decline by some 25%, a decline even Mr. Smallwood acknowledged was "significant." (Tr. 701-704; AT&T Cross Exs. 25-26 (comparing current loop rates ($9.33) to SBC's December 2002 proposal ($24.99) and SBC's revised February 2004 rate proposal ($18.77))).

However, the errors in LoopCAT do not stop there. To the contrary, as discussed above and explained further below, the LoopCAT model, as used by SBC, continues to deviate from the TELRIC pricing methodology on numerous significant grounds. It is worth reviewing those principles. The intent of the TELRIC methodology is to generate UNE costs that reflect a competitive wholesale environment while ensuring that competitors do not pay for inefficiencies inherent in the ILEC's monopoly network. To accomplish this result, TELRIC demands the acceptance of a few simple cost assumptions:

- The ILEC must assume it has replaced its existing network with the least-cost, most-efficient technology and network design available, assuming

that its customers and wire centers remain static. 47 C.F.R. §51.505(b)(1). This is sometimes referred to as the scorched node approach.

- The FCC has specifically prohibited the use of embedded costs in TELRIC cost studies, defining such costs as "costs that the incumbent LEC incurred in the past and that are recorded in the incumbent LECs books of accounts." 47 U.S.C. §51.505.

LoopCAT does little to comply with these basic requirements. Common sense dictates that if SBC's network were redesigned today, with full knowledge of where current demand is located, it would be able to design and route plant more efficiently than what currently exists. (AT&T Ex. 2.0, p. 149). SBC's present network, fill factors, and installation factors are all based upon embedded accounting data derived from a network that has resulted from piece-meal construction, using dated technology. As a matter of law, SBC's embedded data cannot be the basis for determining SBC's forward-looking costs.

As discussed further below, LoopCAT is also inappropriately based on embedded outside plant routing and cable sizing. That is inappropriate for three reasons: (i) In constructing outside to plant to meet known demand from scratch, one can size cable more precisely to meet current demand and short-run anticipated growth; (ii) knowing current customer demand with certainty allows use of algorithms to more precisely tailor cable routings to minimize the overall cable feet required to meet that demand, and (iii) today's service area interfaces ("SAIs") and digital loop carrier ("DLC") equipment service much larger areas than in decades past. (AT&T Ex. 2.0, pp. 150-161).

SBC's failure to present a compliant "scorched node" cost study serves to drive up its claimed loop costs. In short, LoopCAT does not comply with the TELRIC

methodology and merely serves to perpetuate SBC's long-standing "disagreement" with that methodology.

3. SBC's Credibility on Costing Issues Should Be Severely Discounted

Consistent to a fault, SBC, and its witness Mr. Smallwood in particular, attempt to discount the CLEC criticisms of LoopCAT as "beside the point," "unfounded," and attempts to "cloud the issue." (SBC Ex. 4.1, pp. 41, 60, 104) First of all, it is simply dumbfounding that Mr. Smallwood would so testify. As noted above, he has already agreed with a number of CLEC criticisms that have reduced his original "estimate" of forward-looking costs by some 25%. Faced with this evidence during cross examination, Mr. Smallwood had to begrudgingly agree that the CLEC criticisms were not a "waste of time." (Tr. 705; AT&T Cross Ex. 25, 26).

Moreover, and more troubling, is the fact that SBC, and Mr. Smallwood in particular, knew about many of these CLEC criticisms *before* SBC filed its direct case on December 24, 2002. SBC, and more particularly its cost witness Mr. Smallwood, chose not to address these issues. Instead, SBC and Mr. Smallwood chose to submit the LoopCAT results "as is" with full knowledge that the model inflates SBC's costs. As became clear on cross examination, Mr. Smallwood and SBC have known about the problems with LoopCAT – including many of the problems on which SBC now agrees with the CLECs – since November and early December 2002, and certainly prior to SBC's filing of its tariffs, cost studies and direct testimony in this docket. (Tr. 485-91, 714, 716, 719, 742-743). Indeed, SBC's own engineering witness, Mr. White, testified that he told Mr. Smallwood prior to the fling of LoopCAT that the DLC installation factors "seemed high." (Tr. 485-491, 724). Of course, Mr. Smallwood ignored Mr.

White's concern and submitted LoopCAT studies as part of his direct testimony in December 2002, including those high DLC installation costs. Now, SBC has admitted that there was a double count in the DLC installation costs included in the December 2002 version of LoopCAT -- or as Mr. Smallwood prefers to call it, an "overlap" in costs. (Tr. 727-732). Mr. Smallwood's cavalier disregard of Mr. White's warning was indefensible.

The record shows that SBC and Mr. Smallwood have taken a consistently careless attitude toward overstated costs. In fact, CLECs brought many of these same problems to SBC and Mr. Smallwood's attention as far back as November 2002 in a Texas TELRIC proceeding. CLECs raised them again in California in November-December 2002, and again in Illinois in May 2003. Despite SBC and Mr. Smallwood's eventual agreement with many of the CLEC concerns, SBC and Mr. Smallwood at first chose not to fix the problems. Instead, SBC Illinois based its direct case in this docket on a LoopCAT model Mr. Smallwood subsequently conceded inflates SBC Illinois' loop costs,[55] and is therefore flawed.

Despite all of this, SBC, when filing its proposed tariffs on December 24, 2002, asked the Commission to allow its overstated rates to go into effect prior to hearing. And Mr. Smallwood himself provided direct testimony claiming that the LoopCAT model fully complied with the TELRIC methodology. These facts, on their own, should lead the Commission to severely question the entirety of SBC's assertions regarding the appropriateness and accuracy of LoopCAT.

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[55] Tr. 485-91, 714, 716, 719, 742-743.

Even worse, SBC continued to turn a blind eye to these obvious errors while it successfully sought passage of Senate Bill ("SB") 885 in May 2003. Through that bill, SBC sought to legislatively mandate much of the UNE loop rate increase inherent in SBC's December 2002 filing. As the foregoing discussion shows, while seeking passage of SB 885, SBC knew that LoopCAT was flawed and otherwise overstated its costs. Nevertheless, SBC, in seeking passage of SB 885, repeatedly cited to SBC's December 2002 cost estimates as infallible proof that SBC's UNE loop rates were far too low. Indeed, the enacted version of SB 885 specifically directed the Commission to implement that legislation "by employing the models and methodologies used to generate the propose rates submitted by [SBC] in ICC Docket No. 02-0864." (220 ILCS 5/13-408 (c)). SBC never saw fit to tell the Illinois Legislature that the model and methodologies SBC had used in Docket 02-0864 overstated SBC's loop costs.

SBC continued to ignore these errors as it sought swift implementation of the enacted legislation in Docket No. 03-0323. In that docket, which was initiated to carry out the rate adjustments mandated by SB 885, SBC filed two sworn affidavits from Mr. Smallwood, both of which purported to properly implement SB 885. While nothing prevented him from doing so, neither SBC nor Mr. Smallwood alerted the Commission to the myriad of LoopCAT errors it now acknowledges. Such acknowledgment only came after the SB 885 was held unlawful by the federal courts, and after the Indiana Commission publicly discounted Mr. Smallwood's credibility for ignoring these LoopCAT problems for so long (see quotation below from the Indiana Commission's January 5, 2004 order).

All of these facts should lead the Commission to severely discount SBC's and Mr. Smallwood's credibility on loop-related issues. There is no reasonable explanation for SBC's lack of candor on these issues between the filing of its direct case in this docket and the submission of its rebuttal case herein.

Faced with similar evidence, the Indiana Commission discounted Mr. Smallwood's testimony, finding as follows:

> We believe that certain modifications to the LoopCAT model are necessary to bring it into compliance with TELRIC. In fact, SBC and its cost witness Mr. Smallwood agreed that some of the CLEC-raised issues and recommendations regarding LoopCAT were reasonable and appropriate.
>
> ***
>
> We find most troubling that SBC, and more particularly its cost witness Mr. Smallwood, chose not to address these issues with LoopCAT prior to this proceeding. Instead, SBC and Mr. Smallwood chose to file LoopCAT in Indiana with full knowledge that the model, as filed, inflates SBC Indiana's costs. As became clear on cross examination, Mr. Smallwood and SBC have known about the shortcomings of LoopCAT, including the problems with which SBC agrees with the CLECs, for almost a year. *The CLECs raised these problems with SBC and brought them to Mr. Smallwood's attention as far back as November 2002 in a Texas TELRIC proceeding. The CLECs raised them again in California in December 2002, and again in Illinois earlier this year. Despite SBC and Mr. Smallwood's agreement with CLEC concerns, SBC and Mr. Smallwood chose not to fix the problems, much less bring them to this Commission's attention. The CLECs have repeatedly raised this issue in Texas, California, and Illinois. Yet Mr. Smallwood filed a loop study here that he knew overstated SBC's costs, and is therefore flawed. These facts lead us to severely discount Mr. Smallwood's credibility on network design issues. As a result, we adopt a large portion of Messrs. Pitkin and Turner's recommendations regarding restatement of LoopCAT.*[56]

This Commission should do the same.

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[56] Order in IURC Cause No. 42393 (issued Jan. 5, 2004), p. 41 ("Indiana Order") (emphasis supplied).

4. SBC Overstates the Effect of the FCC TELRIC NPRM

SBC's chief defense for failing to comply with TELRIC is that the rules have somehow changed. In support of this contention, FCC cites generously to the FCC's TELRIC Notice of Proposed Rulemaking. (Notice of Proposed Rulemaking, *Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements*, WC Docket No. 03-173, FCC 03-224 (rel. September 15, 2003) ("TELRIC NPRM"). SBC overstates the relevance and importance of the FCC's TELRIC NPRM. Thus, while SBC rejects a "forward-looking" approach for its cost studies, it advocates that the Commission apply a "forward-looking" view of what the law may someday require (in SBC's opinion), rather than what the law is today. However, one thing is very clear: regardless of the wide array of questions posed by the TELRIC NPRM, *TELRIC methodology has not changed, and will not change, until the FCC actually issues an order that promulgates new TELRIC rules*. (Tr. 903-04)

Despite SBC's repeated attempts to contort the import of the TELRIC NPRM, it shows at best that the FCC has only solicited comment on certain interpretive and policy decisions that SBC asserts are a given in this proceeding. For example, the TELRIC NPRM states that "[w]e seek comment on an approach that bases UNE prices on a cost inquiry that is more firmly rooted in the real-world attributes of the existing network, rather than the speculative attributes of a purely hypothetical network." (TELRIC NPRM, ¶4). Indeed, the FCC makes clear that reference to the LEC's current network is *inappropriate* under the *current* TELRIC methodology: "We ask parties to discuss whether a regime focused more closely on the existing network of an incumbent LEC would be easier for state commissions to implement than the current TELRIC regime."

Such a question would only make sense if the current regime does **not** focus on the ILEC's embedded network.

These sorts of questions, found throughout the TELRIC NPRM, indicate that SBC's contention that the Commission should limit its consideration of issues relating to NRCs to SBC's *current* network configuration is wholly inappropriate, since it is not what the law presently requires (nor may it ever require). Instead, any deviation from the examination of a forward-looking network is merely the subject of requested comment based on several years of vocal RBOC criticism of the TELRIC methodology (a methodology that has been upheld by the U.S. Supreme Court).[57] However, the TELRIC NPRM makes clear that any future costing approach must continue to be forward-looking, rather than embedded:

> Although some incumbent LECs continue to press for UNE rates based on an historical cost methodology, in this proceeding we reaffirm our commitment to forward-looking costing principles.
>
> * * *
>
> We conclude that our decision remains sound to base UNE prices on the forward-looking cost of providing UNEs. This approach is supported both by the Supreme Court's endorsement of our forward-looking cost methodology and its concerns regarding alternative pricing methodologies that rely in whole or in part on embedded costs. We also note the general absence of criticism showing that a forward-looking costing methodology per se is flawed or unreasonable. Accordingly, we decline to open an inquiry into alternative pricing theories.[58]

The TELRIC NPRM also confirms the CLEC view of how to address the embedded inefficiencies of SBC's network, which drive up its recurring cost calculations: "A central principle of the current UNE pricing rules is that competitive LECs should not

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57 *Verizon Communications, Inc. v. FCC*, 535 U.S. 467 (2002).

58 TELRIC NPRM, ¶¶29, 37.

pay UNE rates that compensate the incumbent LECs for past inefficiencies." Additionally, the TELRIC NPRM echoes the U.S. Supreme Court's comments on the subject:

> The Supreme Court found that "the statutory language places a heavy presumption against any method resembling the traditional embedded-cost-of service model of rate setting. The court noted that any use of embedded costs would allow LECs to pass on to competitors the results of past inefficiencies, which is at odds with the objective of forcing all carriers to make efficient choices.[59]

This is exactly the interpretation of TELIRC that the CLECs agree with, but which SBC wholly ignores. Embedded costs and past ILEC network inefficiencies cannot be an appropriate basis for TELRIC costs.

B. Major Inputs To Cost Studies

1. Fill Factors

a. Summary of Recommendations

The Joint CLECs offer three options for the Commission in determining what fill factors to use in calculating SBC Illinois TELRIC-based UNE loop costs in this proceeding.[60] (See AT&T/Joint CLEC Ex. 1.3, pp. 28-29)

Joint CLECs' **first**, preferred option is that the Commission use in SBC's TELRIC studies for setting its **wholesale** UNE prices the same fill factors that SBC uses

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59 TELRIC NPRM, ¶33 (footnotes omitted).

60 As stated in Section III.A.1 of this brief, Joint CLECs are recommending that the Commission rejected SBC's TELRIC studies and utilize the same TELRIC for UNE loops that resulted from the TELRIC I Order, but that the Commission adjust SBC's UNE loop rates by applying the revised Shared and Common factor, developed by Joint CLEC witnesses Starkey and Fischer, to the existing TELRIC. This recommendation implicitly results in continued use of the same fill factors adopted in the TELRIC I Order. The specific recommendations with respect to fill factors in this Section III.B.1 are applicable only if the Commission decides to utilize the cost studies submitted by SBC in this docket as a starting point for developing new TELRICs for SBC's UNE loops.

in its **retail** "LRSIC" (long-run service incremental cost) studies. (LRSIC studies are conducted in accordance with the Commission's Cost of Service rule, 83 Ill. Admin. Code Part 791.) These fill factors are the "usable fill" factors and represent the amount of fill if SBC's loop facilities were fully utilized except for the capacity needed for maintenance, testing and administrative purposes.[61] The specific "usable capacity" fill factor values that Joint CLECs recommend be adopted were supplied by SBC Illinois and are the fill factors that SBC has used in its most recent LRSIC studies for retail services. (AT&T/Joint CLEC Ex. 1.0, pp. 193-194)

Joint CLECs **second** option would be for the Commission to use the same fill factors that it adopted in the TELRIC I Order. These fill factors are the "target fill" factors and represent the point of network utilization at which it becomes more cost effective for SBC to install new capacity to meet growth in demand rather than to continue to fill existing facilities. Continued use of the target fill factors adopted by the Commission in the TELRIC I Order was also endorsed by Commission Staff witness H.R. "Bud" Green, Chief Engineer of the Commission's Telecommunications Division, in his direct testimony in this case. (Staff Ex. 10.0, p. 15)

Joint CLECs' **third** option would be for the Commission to use the "forward looking actual fill" factors proposed by Staff witness Dr. Liu, as adjusted by Messrs. Starkey and Fischer, to remove the effects of observed inefficiency in SBC's network.

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[61] 83 Ill. Admin. Code §791.20(n) defines "usable capacity" as "the maximum physical capacity of the equipment or resource less any capacity required for maintenance, testing or administrative purposes." This is identical to SBC Illinois' definition of "usable capacity". (See AT&T/Joint CLEC Ex. 1.0, p. 185)

The following table shows the fill factors for major components of the network under Joint CLECs' three options.[62] It also shows the fill factors proposed by SBC – its current actual fill factors – and the "forward-looking actual fill" factors proposed by Staff witness Qin Liu (AT&T/Joint CLEC Ex. 1.3, p. 30):

[62] The table does not present the fill factor values for all of the components of SBC's network that must be included in calculating its UNE loop rates. There are dozens of individual fill factors used in loop cost studies. With respect to two of the other, more important fill factors not shown in the table above, Joint CLECs' recommended fill factors for both Fiber – Active Fiber Strands and Fiber Premises Termination are **BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL**, under both the "usable capacity" and "target fills" approaches. SBC's proposed "actual" fill factors for these two components are **BEGIN CONFIDENTIAL** XXXXXXXXXXXXXXXX **END CONFIDENTIAL**, respectively. (AT&T/Joint CLEC Ex. 1.0, pp. 172-73, 207)

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	SBC Proposal: Actual Fills	**Qin Liu Proposal: Forwa rd-Looking Actual Fills**	**Joint CLEC Option 3: Adjusted Forward-Looking Actual Fills**	**Joint CLEC Option 2: Target Fills from TELRIC I**	**Joint CLEC Option 1: Usable Fills from SBC Retail Studies**
Copper Feeder					
Zone A	XXXX	XXXX	XXXX	XXXX	XXXX
Zone B	XXXX	XXXX	XXXX	XXXX	XXXX
Zone C	XXXX	XXXX	XXXX	XXXX	XXXX
DLC Chassis					
Zone A	XXXX	XXXX	XXXX	XXXX	XXXX
Zone B	XXXX	XXXX	XXXX	XXXX	XXXX
Zone C	XXXX	XXXX	XXXX	XXXX	XXXX
DLC Plug-In					
Zone A	XXXX	XXXX	XXXX	XXXX	XXXX
Zone B	XXXX	XXXX	XXXX	XXXX	XXXX
Zone C	XXXX	XXXX	XXXX	XXXX	XXXX
Distribution					
Zone A	XXXX	XXXX	XXXX	XXXX	XXXX
Zone B	XXXX	XXXX	XXXX	XXXX	XXXX
Zone C	XXXX	XXXX	XXXX	XXXX	XXXX

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b. <u>Overview</u>

In the *Local Competition Order*, the FCC adopted the TELRIC methodology for setting the prices of UNEs leased by ILECs such as SBC Illinois to CLECs.[63] In ¶682 of that Order, the FCC stated:

[63] FCC, *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996,* CC Docket 96-98, First Report and Order, FCC 96-325 (released Aug. 8, 1996) ("*Local Compeition Order*").

> We conclude that under a TELRIC methodology, incumbent LECs' prices for interconnection and unbundled network elements shall recover the forward-looking costs directly attributable to the specified element, as well as a reasonable allocation of forward-looking common costs. Per-unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage); that is, the per-unit costs associated with a particular element must be derived by dividing the total cost associated with the element by a reasonable projection of the actual total usage of the element.

In determining how to implement the forward-looking cost concept it articulated in ¶682 of the *Local Competition Order*, the FCC noted that:

> Forward-looking cost methodologies, like TELRIC, are intended to consider the costs that a carrier would incur in the future. Thus, a question arises whether costs should be computed based on the least-cost, most efficient network configuration and technology available, or whether forward-looking cost should be computed based on incumbent LECs' existing network infrastructures, taking into account changes in depreciation and inflation. (*Id*., ¶683)

After discussing the merits of both approaches, the FCC concluded that use of the most efficient network configuration and technology would best accomplish its objectives:

> We, therefore, conclude that the forward-looking pricing methodology for interconnection and unbundled network elements should be based on costs that assume that wire centers will be placed at the LEC's current wire center locations, but that the reconstructed local network will employ the most efficient technology for reasonably foreseeable capacity requirements. (*Id*., ¶685)

Further, the FCC stated in ¶¶690 and 692:

> The increment that forms the basis for a TELRIC study shall be the entire quantity of the network element provided. . . . Only forward-looking, incremental costs shall be included in a TELRIC study. Costs must be based on the incumbent LEC's existing wire center locations and most efficient technology available. (¶690)
>
> In a TELRIC Methodology the "long run" shall be a period long enough that all costs are treated as variable and avoidable. This "long run" approach ensures that rates recover not only the operating costs that vary in the short run, but also fixed investment costs that, while not variable in the short term, are necessary inputs directly attributable to providing the element. (¶692)

The FCC also emphasized that embedded costs are not to be included in the forward-looking costs that are used to set UNE prices.[64] (*Id*., ¶¶704-707)

In its TELRIC regulations, the FCC expressed the concept of "forward-looking economic cost per unit" as follows:

> The forward-looking economic cost per unit of an element equals the forward-looking economic cost of the element, as defined in §51.505, divided by a reasonable projection of the sum of the total number of units of the element that the incumbent LEC is likely to provide to requesting telecommunications carriers and the total number of units of the element that the incumbent LEC is likely to use in offering its own services, during a reasonable measuring period. (47 C.F.R. §51.511(a))

In the TELRIC I case, in which this Commission first set SBC Illinois (then Ameritech's) UNE prices in accordance with the FCC's TELRIC rules, three different approaches to fill factors were identified to the Commission: actual fills, usable capacity fills and target fill factors. (TELRIC I Order, p. 29) Focusing its attention on the "usable capacity" and "target fill" approaches, the Commission concluded that it should utilize the "target fill factor" approach that was advocated in that case by Ameritech, and not the "usable capacity" approach proposed by AT&T and MCI:

> We will adopt the "target" fill factors as suggested by [Ameritech witness] Mr. [William] Palmer, because we agree with him that TELRIC-based prices are reasonably based in the "optimal usage level above which it is more cost effective to add plant and capacity rather than increase the utilization of existing plant." We are not persuaded that AT&T's and MCI's preference for the LRSIC standard of usable capacity adequately reflects this important efficiency factor. In addition, the difference between usable capacity and target capacity provides capacity to meet growth. When the target is reached more capacity needs to be added. (*Id*., p. 34)

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[64] The prohibition against inclusion of embedded costs in the calculation of the forward-looking economic costs of an element is incorporated into the FCC's adopted TELRIC pricing rules. 47 C.F.R. §51.505(d)(1).

However, the Commission implemented the target fill factor concept by adopting the specific values proposed by Commission Staff rather than the values proposed by Ameritech:

> We will use the target fills that Staff proposed. We note that Staff reviewed the same data relied upon by Ameritech Illinois to develop the targets. Furthermore, Staff used the same standard that [Ameritech witness] Mr. [William] Palmer proposed which we quoted above. Staff's analysis was essentially unrebutted. We believe that the change in methodology from usable capacity to target capacity will take into account the emerging unbundled environment appropriately and adequately. (*Id*.)

In addition, in rejecting proposals to conduct additional proceedings to consider additional methodologies for determining "projections of actual use" in accordance with the *Local Competition Order*, the Commission stated: "If local exchange competition is to develop, potential competitors require a stable pricing environment within which to develop business plans. That will not be possible if we are relitigating significant assumptions underlying price. (*Id*.)

In summary, in the TELRIC I Order, the Commission *adopted the fill factor methodology recommended by Ameritech* – target fills – for determining fill factors, but used the specific values of "target fills" recommended by Staff.

In *this* case, SBC is urging the Commission to depart from the approach it adopted in the TELRIC I Order – the approach that SBC advocated in that case – and to use instead SBC's current actual fill factors to set the prices of its UNE loops. As can be seen from the table in Section III.B.1.a of this brief, the "current actual" fill factors that SBC proposes are for all components of the network significantly <u>less</u> than the fill factors adopted by the Commission in the TELRIC I Order, and for some components are <u>less</u>

than one-half the fill factors adopted in the TELRIC I Order.[65] Adoption of the fill factors proposed by SBC in this case would result in a substantial increase in the existing UNE loop rates, *even if no other changes* were made to the cost studies approved in the TELRIC I Order. As illustration of this point, Schedule JRS-3 presented in the direct testimony of SBC witness James Smallwood showed that for basic 2-wire analog loops, adoption of SBC's proposed fill factors would:

? **Add** $4.72 to the current approved monthly loop cost of $1.86 for Zone A;

? **Add** $8.66 to the current approved monthly loop cost of $5.18 for Zone B; and

? **Add** $9.20 to the current approved monthly loop cost of $8.39 for Zone C.

Schedule JRS-3 showed that on a statewide average basis, adoption of SBC's proposed fill factors would **add** $8.77 to the current monthly loop cost of $6.94 that resulted from the TELRIC I Order.[66] In addition, SBC Illinois witness Eric Panfil noted in his direct testimony that SBC's proposed change from the target fill factors adopted by the Commission in the TELRIC I Order to the current actual fill factors proposed by SBC accounted for 40% of SBC's proposed UNE loop price increase in this case. (SBC Ex. 1.0, p. 17)

However, SBC failed in this case to meet its burden to show that use of its current actual fill factors would be representative of the forward-looking costs of an efficient network that utilizes the most efficient telecommunications technology currently

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[65] This comparison is also illustrated by the table and chart on pages 173-174 of AT&T/Joint CLEC Ex. 1.0.

[66] SBC Ex. 4.0, Sched. JRS-3. The current monthly loop costs quoted above are the TELRIC loop costs and do not include the Shared & Common cost factor which is added to get the full monthly price.

available and the lowest cost network configuration given the location of SBC's existing wire centers, as required by the FCC's TELRIC pricing rules.[67] (47 C.F.R. §51.505(b)) Witnesses for CLECs, Commission Staff, the Attorney General and the Citizens Utility Board unanimously opposed use of SBC's current actual fill factors as not TELRIC-compliant. The Commission should reject SBC's proposal.

Staff witness Dr. Qin Liu also proposed a departure from the fill factor method that the Commission adopted in the TELRIC I Order.[68] Dr. Liu proposed a concept – apparently heretofore not adopted by any other state commission – that she styled "forward-looking actual fills". However, although she presented her new methodology with a theoretical gloss, it was revealed to be incapable of implementation. The fill factor values she ultimately proposed were nothing more than SBC's actual fill factors to which she applied modest upward adjustments that were utterly arbitrary and totally lacking in empirical support. Dr. Liu's proposed fill factors must be rejected as being totally devoid of any credible basis.

Joint CLECs, on the other hand, are urging the Commission to reconsider one of the two fill factor methods that it had under consideration in the TELRIC I case, namely, usable capacity fill factors. As the table in Section III.B.1.a above shows, use of the usable capacity fill factors (which are an SBC construct, not a set of values created by

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[67] Section 51.505(e) of the FCC's TELRIC rules unequivocally states: "An incumbent LEC must prove to the state commission that the rates for each element it offers do not exceed the forward-looking economic cost per unit of providing the element, using a cost study that complies with the methodology set forth in this section and §51.511." (47 C.F.R. §51.505(e))

[68] As noted earlier, Commission Staff witness H.R. Green, the Commission's Chief Telecommunications Engineer, proposed continued use of the target fill value adopted by the Commission in the TELRIC I Order in his direct testimony.

CLECs) would result in modest upward adjustments of 5% - 6% to the fill factor values adopted in the TELRIC I Order. A principal advantage of adopting the usable capacity fill factors to set SBC's UNE prices is that it would result in a consistent set of fill factor values being used in both the cost studies used in setting SBC Illinois' wholesale UNE rates and the cost studies used to set SBC's retail rates. As a second (although less preferred) option, the Joint CLECs would recommend that the Commission simply continue to use the target capacity fill factors that it adopted in the TELRIC I Order. Joint CLECs have also offered, as a third option, a more accurate implementation of Staff witness Liu's forward-looking actual fill methodology, by presenting a set of upward adjustments to SBC Illinois' current actual fill factors to account for observed inefficiencies (or perhaps more accurately stated, to incorporate SBC's most efficient practices), which have an actual empirical basis rather than being simply arbitrary as were Dr. Liu's adjustments.

c. Use of Usable Capacity Fill Factors Complies with TELRIC Requirements and Will Establish Consistency Between SBC's Wholesale Cost Studies and Retail Cost Studies (Joint CLEC Option 1)

Joint CLECs recommend that in this case the Commission utilize SBC Illinois' "usable capacity" fill factors for purposes of setting its UNE loop rates. As noted earlier, "usable capacity" is the maximum physical capacity of the network less any capacity that is required for maintenance, testing and administrative purposes. Usable capacity fill factors represent the optimal usage capable of being sustained from an engineering perspective. (AT&T/Joint CLEC Ex. 1.0, p. 187) Usable capacity fill factors therefore represent a network whose capacity is fully utilized to serve demand except for that

capacity that is needed for maintenance, testing and administrative purposes to operate the network.

As the excerpts from the *Local Competition Order* quoted in the preceding subsection of this brief show, the process prescribed by the FCC for calculating TELRIC-based rates requires that the ILEC first design and construct (at least conceptually) a forward-looking, least cost network that relies upon the most efficient technology and configuration available. After having designed this least cost network, the ILEC is required to size that network consistent with a reasonable projection of its total demand. After having sized the network accordingly (and subsequently developing the total costs for such a network) the ILEC is then required to develop "per-unit costs" by dividing its total network costs by the projection of total demand used originally to size the network. Because the ILEC's redesigned forward-looking network will include only the latest technology (capable of being deployed very modularly), and because the ILEC will size the network based on a known quantity of demand (*i.e.*, the projection of its total demand), the only constraints that keep the ILEC from building the (hypothetical) forward-looking network with nearly perfect (*i.e.*, 100%) utilization of capacity are the maintenance, testing and administration requirements that necessitate that some capacity be set aside for these purposes. Thus, "usable capacity" fill factors represent the most reasonable interpretation of the FCC's fill factor requirements for TELRIC studies. (AT&T/Joint CLEC Ex. 1.0, pp. 196-197)

Paragraph 682 of the *Local Competition Order* specifies that "the per-unit costs associated with a particular element must be derived by dividing the total costs associated with the element by a reasonable projection of the actual total usage of the element,"

while ¶685 correspondingly requires that the reconstructed local network employ the most efficient technology for "reasonably foreseeable capacity requirements". The "actual total usage" referred to in ¶682 is the demand that must be considered in developing per-unit costs, not the actual level of fill or utilization. Thus, developing a fill factor in accordance with the FCC's directives in ¶682 of the *Local Competition Order* requires a calculation of the actual demand divided by the most efficient amount of network capacity required to support it. That is exactly what the "usable capacity" fill factors represent – the most efficient (complete) utilization of the network, with the network's capacity fully utilized to serve demand except for the capacity needed to be kept aside (in accordance with sound engineering and economic guidelines) for maintenance, testing and administrative purposes. (AT&T/Joint CLEC Ex. 1.2, p. 74)

Arguments that the "usable capacity" fill factors are not consistent with the FCC's TELRIC requirements because they do not provide for unused capacity to serve long-term, future "ultimate" demand are misplaced. To calculate fill factors by including sufficient capacity in the forward-looking network to serve long-term, "ultimate" demand (and dividing that capacity amount into current actual demand) would be economically unsound, and would not be consistent with the TELRIC requirement that an efficient, forward-looking network be assumed. The inclusion of long-term "ultimate" demand in the capacity component (denominator) of the fill factor calculation (along with current capacity in the numerator) would essentially force current customers to pay for capacity to be used to serve growth in usage by future customers. (*Id*., pp. 75, 77)

In contrast, the usable capacity fill factors represent an efficient network that is sized to meet demand in the most efficient manner, *i.e.*, with no excess capacity. Further, as noted above, the *Local Competition Order* requires the use of "reasonably foreseeable capacity requirements." As the FCC noted in its recent TELRIC NPRM[69], this necessitates the consideration of at most anticipated short-term growth, but not long-term growth or "ultimate" demand:

> The *Local Competition Order* provides no guidance to state commissions on this specific issue beyond the general requirement that the network should be sized to meet reasonably foreseeable demand. In the *USF Inputs Order*, the Commission established forward-looking fill factors based on current demand, which it defined to include excess capacity for short-term growth, rather than on ultimate demand, which it found to be too speculative. (TELRIC NPRM, ¶73)

Thus, the FCC has made it clear that for purposes of determining fill factors, it is reasonably foreseeable short-term demand that must be considered, not "speculative" long-term or "ultimate" demand. (See AT&T/Joint CLEC Ex. 1.2, pp. 79-80) The "usable capacity" fill factors satisfy these requirements.

Apart from consistency with the FCC's TELRIC requirements, another important reason for using SBC's usable capacity fill factors to calculate its wholesale UNE rates is to achieve consistency between the fill factors used in these wholesale costing/pricing studies and the fill factors used in SBC's LRSIC retail costing/pricing studies. When calculating costs for purposes of its retail cost studies, including LRSIC studies required by Code Part 791, SBC uses usable capacity fill factors.[70] (AT&T/Joint CLEC Ex. 1.0,

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[69] Notice of Proposed Rulemaking, *Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Services by Incumbent Local Exchange Carriers*, WC Docket No. 03-173, FCC 03-224 (rel. Sept. 15, 2003)

[70] The Commission has recently conducted a rulemaking to review and revise Code Part 791, and at the conclusion of that rulemaking, adopted revisions to Part 791 but

pp. 190) There is no reason from an engineering or economic viewpoint that the same fill factors should not be used in both wholesale and retail costing/pricing studies. SBC uses the same network, technicians and OSS platforms and methods to provide both its retail and its UNE products and services. The costs incurred by SBC to provision a given network element (whether ultimately unbundled to be provided at wholesale or provided as a component of a retail service) are the same. Moreover, functionally, SBC does not engineer its network with different capacity assumptions for wholesale and retail customers. Therefore, there is no reason to assume different amounts of spare or unused capacity in the [same] network in cost studies that are conducted for retail and wholesale purposes. (AT&T/Joint CLEC Ex. 1.2, p. 76; AT&T/Joint CLEC Ex. 1.0, pp. 188, 193-94, 198)

Additionally, a clear objective of the FCC's TELRIC methodology is the ability of CLECs to share in the economies of scale and scope that the incumbent itself enjoys in providing its retail services – so that both the ILEC and its competitors can compete on a level playing field. (AT&T/Joint CLEC Ex. 1.0, p. 188) This objective is thwarted if SBC Illinois is allowed to develop costs for its retail services using markedly different inputs and assumptions than it uses to develop its UNE costs. Whether SBC provides a loop as part of a retail network access line, or provides the same or a similar loop as a UNE loop, the same facilities are used, and the costs associated with providing both the retail and the wholesale product should be identical. (*Id.*) Simply put, allowing SBC to use fill factor values in setting its UNE prices that are lower than the usable capacity fill

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retained the requirement that usable capacity be used in LRSIC studies. (*Illinois Commerce Commission On Its Own Motion, Amendment of 83 Ill. Adm. Code 791,* Docket 99-0535 (Order issued Feb. 20, 2003).

factor it uses in its retail LRSIC studies will enable SBC to set *low* price floors for its retail services (and thereby to set lower prices for products and services for which it faces competition), while allowing SBC to impose much higher costs and prices for the same network components on its UNE-purchasing competitors. (*Id*., p. 189) Using the same fill factors for both wholesale and retail studies will avoid this outcome. As Ameritech advocated in the recent Part 791 rulemaking:

> Ameritech Illinois recommends that the key assumptions (cost of capital, economic lives, and fill factors) used in future LRSIC studies be made consistent with the assumptions used in TELRIC studies.[71]
>
> Regardless of whether the Commission determines that Ameritech Illinois' language regarding consistency should be adopted in this proceeding, I believe that TELRIC/LRSIC consistency should be a goal of public policy. Economic lives for the same piece of equipment are what they are, and to advocate or approve different lives in different studies could well be a results-driven exercise.[72]
>
> Simply said, higher cost of capital values, shorter economic lives, and lower fill factors produce higher cost estimates. Conversely, lower cost of capital values, longer economic lives, and higher fill factors produce lower cost estimates. Parties in this proceeding on both sides of these issues, as well as state commissions and the FCC, have expended enormous amounts of time and resources advocating their positions and attacking the positions of their opponents. Many of these arguments, in addition to being about the absolute values used in the studies, have also been about whether or not these assumptions in LRSIC and TELRIC should be consistent. Ameritech Illinois believes they should be, and establishing a requirement for cost study consistency in the rule will substantially reduce future debate and conserve the scarce resources of the parties and the Commission.[73]

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[71] Direct Testimony of William C. Palmer on behalf of Ameritech Illinois, Docket 99-0535 (filed April 14, 2000), page 4, quoted at AT&T/Joint CLEC Ex. 1.0, p. 191.

[72] Direct Testimony of William C. Palmer on behalf of Ameritech Illinois, Docket 99-0535 (filed April 14, 2000), page 18, quoted at AT&T/Joint CLEC Ex. 1.0, p. 191.

[73] *Comments of Ameritech Illinois Regarding Recommended Changes to Part 791 Cost-of-Service*, Docket 99-0535, page 2 (emphasis supplied), quoted in AT&T/Joint CLEC Ex. 1.0, p. 192.

As the above statements recognize, because both the LRSIC and the TELRIC methodologies are studying the same network (used to provide both retail and wholesale products), there is no logical basis upon which to suggest that different fill factors should be used in one type of study versus another. (AT&T/Joint CLEC Ex. 1.0, p. 200)

Thus, both for reasons of TELRIC compliance and to achieve consistency between SBC Illinois' wholesale and retail costing and pricing studies, the Commission should adopt SBC Illinois' "usable capacity" fill factors for purposes of calculating SBC's UNE loop rates. As shown by the table in Section III.B.1.a above, for the most impactful network components, the usable fill factors are only 5% to 6% above the fill factor values adopted by the Commission in the TELRIC I Order. As a result, adoption of the usable fill factors should have only a modest impact on the currently-effective UNE loop prices and would be consistent with the objective of rate stability which is critical to continued development of a competitive local exchange market.

d. If the Commission Does Not Adopt SBC's Usable Capacity Fill Factors, It Should Continue to Use the Target Fill Factors It Adopted in the TELRIC I Order (Joint CLEC Option 2)

As discussed in the preceding section, Joint CLECs' recommendation is that the Commission adopt SBC Illinois' usable capacity fill factors for use in setting its TELRIC-based UNE loop rates. If the Commission decides not to adopt usable capacity fill factors in this case, however, then the Commission should continue to use the target capacity fill factors that it adopted in the TELRIC I Order.

In the TELRIC I case, the Commission decided, after extensive analysis, that Ameritech Illinois' target fill factors best satisfied the FCC's forward-looking cost methodology. (TELRIC I Order, p. 34) Target fill factors represent the level of network

utilization at which it would be more cost-efficient for the carrier to supplement its network (add new capacity) rather than to increase the amount of utilization on its existing facilities. (AT&T/Joint CLEC Ex. 1.0, p. 202) (Of necessity, then, the target fill factors will be lower than the usable capacity fill factors.)

It is important to note, as the Commission pointed out in the TELRIC I Order, that the "target fill factor" concept was proposed by Ameritech. Further, in describing Ameritech's fill factor proposal in that case, its witness William Palmer – who at the time was "responsible for achieving the regulatory objectives of Ameritech's wholesale business units" and "for identifying and addressing industry economic issues in all Ameritech regulatory proceedings involving cost models and studies" (Tr. 905-06) – testified that Ameritech had purposely constructed its target fill factors to accommodate the additional demands of unbundling and increased customer churn resulting from the 1996 Act, as well as the FCC's definition of fill factors in the *Local Competition Order*:

> To understand how Ameritech Illinois actually developed its unbundled loop unit costs, it is first necessary to understand the evolution of the fill factors used in those studies. Prior to the Act, Ameritech Illinois employed usable capacity fills, that is, the maximum physical capacity of the network less the capacity required for maintenance, testing and administrative purposes. In response to the fundamental changes in our business signaled by enactment of the Act and in anticipation of the release of FCC cost rules in CC Docket 96-98, we made a "fresh look" adjustment in June 1996 to our usable capacity fills. This adjustment was based on our recognition that usable capacity fill would shrink as the network capacity required for maintenance, testing and administrative purposes increased due to the rise in unbundling and churning expected in the wake of the Act.
>
> Instead, we developed and employed "target" fill factors – the optimal usage level above which point it is more cost effective to add plant and capacity rather than increase the utilization of the existing plant. **These target fills realistically reflect efficient network use and are appropriate for the development of forward looking economic costs.**

> Thus, Ameritech Illinois' cost studies involved two fill factor adjustments, accounting for both the fresh look modifications, which simply adjusted the usable fill to reflect greater expected churn and maintenance, and **the target fill modifications, which reflected the qualitative change in methodology from usable to "reasonably accurate" fill**.[74]

In short, the target fill factors were developed by Ameritech to be compliant with the new TELRIC concepts of forward-looking economic costs based on efficient network use and the FCC directive to develop and use "reasonably accurate" fill factors, as well as the new requirements that were being placed on the network by the advent of local service competition. The target fill factors satisfied these TELRIC requirements because the target fill factors represented the optimal level of network usage.

The Commission agreed with Ameritech's proposal, stating:

> We will adopt "target" fill factors as suggested by Mr. Palmer, because we agree with him that TELRIC-based prices are reasonably based on the "optimal usage level above which it is more cost effective to add plant and capacity rather than increase the utilization of the existing plant." (TELRIC I Order, p. 34)

The Commission also concluded that "the difference between usable capacity and target capacity provides capacity to meet growth. When the target is reached more capacity needs to be added." (*Id.*) Although the Commission adopted the target fill factor <u>concept</u> which had been proposed by Ameritech, the Commission adopted actual <u>values</u> for the target fill factors that were proposed by Commission Staff. As the Commission noted, the specific fill factor values proposed by Staff, which were based on the same standard

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[74] Rebuttal Testimony of William Palmer on behalf of Ameritech Illinois in ICC Dockets 96-0486/96-0569 (Cons.), Ameritech Illinois Ex. 3.1, pp. 14-15, quoted at AT&T/Joint CLEC Ex. 1.0, pp. 185-86 (emphasis supplied). Note that Mr. Palmer's reference to "the qualitative change in methodology from usable to 'reasonably accurate' fill" expressly recognizes the appropriateness of the target fill factor concept to satisfy the FCC's TELRIC requirement that "per-unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage)." (*Local Competition Order*, ¶682)

proposed by Ameritech and used the same data used by Ameritech, were "essentially unrebutted."[75] (TELRIC I Order, p. 34)

In addition to being identified by Joint CLEC witnesses Michael Starkey and Warren Fischer as an acceptable second option to "usable capacity" fill factors, continued use of the target fill factors the Commission adopted in the TELRIC I Order was endorsed by other witnesses not representing SBC Illinois' wholesale customers. In his direct testimony, Commission Staff witness H.R. Green, the Commission's Chief Telecommunications Engineer, recommended that the Commission continue to use the fill factors it ordered for SBC in the TELRIC I Order in determining SBC's UNE rates. (Staff Ex. 10.0, pp. 15, 18) Additionally, William Dunkel, witness for the Attorney General, recommended that in this case the Commission continue to use the fill factors for SBC Illinois that the Commission adopted in the TELRIC I Order. (AG Ex. 1.0, p. 36)

Accordingly, if the Commission does not decide to use SBC's usable capacity fill factors as recommended by Joint CLECs, the Commission should continue to use the target fill factor concept proposed by SBC Illinois and the target fill factor values proposed by Staff and adopted by the Commission in the TELRIC I Order. In addition to comporting with the forward-looking TELRIC methodology as the Commission found in the TELRIC I Order, the continued use of the target fill factor values would promote stability and continuity in SBC Illinois' UNE loop prices. This consideration is

[75] The target fill factor values proposed by Ameritech and proposed by Staff (and adopted by the Commission) in the TELRIC I Order are shown on page 14 of Staff witness H.R. Green's direct testimony in this case. (Staff Ex. 10.0) As Mr. Green's table shows, for many network components the Ameritech and Staff-proposed fill factor values were identical. For all other components but one, Staff's proposed fill factor values were in the range of 10% to 15% higher than Ameritech's proposed values.

particularly important with respect to the determination of fill factors given the significant impact that the fill factor values used (and any change in fill factor values) will have on the overall UNE rate calculation.[76]

e. SBC's Current Actual Fill Factors Are Not Representative of the Efficient Forward Looking Network Specified by the FCC, Do Not Satisfy TELRIC Requirements, and Must Be Rejected

Departing sharply from the approach it recommended to the Commission in the TELRIC I case, SBC Illinois in this case proposes that the Commission use its current actual fill factors in calculating its UNE loop prices. (See SBC Ex. 4.0, p. 9; SBC Ex. 8.0, p. 4) Rather than employing its target fill factors, SBC has calculated its proposed loop costs using the level of utilization currently being experienced on its existing network.[77] As noted in Section III.B.1.b above, adoption of this SBC proposal would have a tremendous upward impact on the prices that CLECs pay to SBC to lease UNE loops that the CLECs employ to provide competitive local exchange service to their retail customers in SBC Illinois' service area. Fortunately, there is no need for the Commission to allow this competitively-disastrous impact to come to pass, because SBC's current

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[76] As noted above, the use of SBC's usable capacity fill factors is Joint CLECs' recommended option for this case, and the continued use of the target fill factors adopted in the TELRIC I Order is Joint CLEC's second option. Joint CLECs' third option is the adjusted "forward-looking actual fill" values developed by Joint CLEC witnesses Michael Starkey and Warren Fischer. Since this third option results from a more accurate implementation of Staff witness Dr. Liu's "forward looking actual fills" proposal, we will describe this third option in Section III.B.1.g below, after discussing Dr. Liu's approach in Section III.B.1.f.

[77] For most components of the network SBC appears to have in fact used its actual network utilization, or fill factors. For some components, however, SBC has not used actual utilization data but rather has developed fill factors based on "subject matter expert" ("SME") estimates of what the utilization rates of network components are. (See AT&T/Joint CLEC Ex. 1.2, pp. 93)

actual fill factors are not compliant with the FCC's TELRIC requirements. SBC Illinois' proposal can and should be rejected by the Commission.

The fundamental premise that SBC Illinois is asking this Commission to accept is that SBC's current actual fill factors are equivalent to the utilization that would be experienced on a newly-constructed, forward-looking network that used the most efficient telecommunications technology available, taking into account reasonable projections of reasonably foreseeable capacity requirements. (*Local Competition Order*, ¶¶682, 685) This proposition is illogical on its face. SBC's existing network has been designed and constructed over a period of at least 100 years, using myriad engineering techniques and technologies. (AT&T/Joint CLEC Ex. 1.0, p. 176) More importantly, SBC's existing network has been designed and constructed to serve projected demand levels that have proved to be too high in some cases, too low in others, and fairly accurate in still others. In some areas demand levels have receded due to economic or demographic changes leaving excess capacity. SBC's existing network has been supplemented and re-designed to account for population growth that has shifted, expanded and contracted literally hundreds of times over its more than 100 year history. (*Id.*) SBC's existing network does not mimic a "forward-looking network", and the actual level of fill that SBC is able to maintain on that network at any given point in time bears no relationship to the utilization rates that could be achieved in an efficient, forward-looking network that was designed and costed consistent with the FCC's TELRIC rules. (*Id.*)

For example, in the past 30 years alone, SBC Illinois has substantially changed the manner by which it engineers and builds its local loop plant, changing from multi-

party lines and multi-appearance plant to a more economical and efficient Carrier Serving Area ("CSA") design. Over the years, SBC Illinois has also adopted newer, more efficient design practices and installed newer and more efficient equipment, which enable it to serve its customers with fewer facilities and reduced levels of spare capacity in the network. Nonetheless, a large portion of SBC's existing network was built before newer, more efficient design practices and technologies were developed, and those older portions of its network still represent design and technology that is decades old. When SBC simply measures its current actual fill at any given point in time, some portion of the fill factors that results is directly impacted by the presence of the older, less efficient technology. (*Id*., pp. 176-77)

Looking at another example, today, and on a going forward basis, SBC Illinois only deploys next generation digital loop carrier ("NGDLC") equipment in its outside plant when it replaces traditional copper feeder cables with fiber optics and loop electronics (*i.e.*, digital loop carrier ("DLC")). However, within its existing network, SBC continues to use and maintain older, less efficient DLC equipment. Newer NGDLC equipment requires fewer facilities to provision the same number of services because it has the capability to "over-subscribe", or "concentrate," the facilities used to serve its downstream customers. As a result, NGDLC equipment requires far less spare capacity to meet consumer demand and allows SBC to more closely match its facility investments to more precise levels of consumer demand – that is, it allows SBC to maintain higher levels of utilization than is possible with older equipment. Additionally, NGDLC is far more modular than SBC's older DLC equipment. With NGDLC equipment, SBC can initially install a relatively small amount of capacity, and then add to that capacity as

demand materializes. Thus, NGDLC equipment permits a reduction in the amount of spare capacity that is needed in the network at any point in time. Older DLC equipment and systems are not so modularly designed and require a larger amount of spare capacity to meet growth in demand (*i.e.*, older DLC systems are not capable of maintaining the same higher levels of utilization as newer NGDLC equipment).[78] (*Id.*, pp. 177-78)

It would be only by the wildest coincidence that SBC's current actual fill factors matched the utilization levels of a newly-constructed, efficient, forward-looking network. SBC has not shown that this coincidence has occurred.[79] By relying on a snapshot in time of its actual fill factors, across the entirety of its existing legacy network, SBC captures levels of utilization that do not reflect the newer equipment, and more efficient network design, that should be used exclusively in forward-looking cost studies comporting with the FCC's TELRIC requirements. (*Id.*, p. 179) SBC's approach does not comport with the FCC's TELRIC requirement that UNE prices shall be based on a "reconstructed local network [that] will employ the most efficient technology for reasonably foreseeable capacity requirements." (*Local Competition Order*, ¶685)

The witness for both CUB and the Attorney General also testified that the use of SBC's actual fill factors to calculate its UNE prices would not be representative of an efficient, forward-looking network. (See AG Ex. 1.0, pp. 33-36 (AG witness William Dunkel); CUB Ex. 1.0, pp. 16-25 (CUB witness Susan Baldwin)). Mr. Dunkel gave a

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[78] Note that the examples just discussed involve newer telecommunications technology that is "currently available" (and in fact is deployed by SBC), as required by the FCC's TELRIC methodology.

[79] SBC has the burden of proof to demonstrate that its proposed UNE loop rates do not exceed the costs determined in accordance with the FCC's TELRIC requirements. (47 C.F.R. §51.505(e); see also TELRIC I Order, p. 34)

simple example of why SBC's existing embedded fills are not TELRIC forward-looking fills:

> [I]f people or businesses have moved out of an area, there may be a large number of unused pairs in that area. These unused and unneeded pairs would be part of the "existing" fill count. However on a forward-looking basis, if you were building new, you would not build as many pairs in that "deserted" area. (AG Ex. 1.0, p. 35)

Both Mr. Dunkel and Ms. Baldwin pointed out that SBC's low actual fill factors would result in SBC customers paying for an excessive amount of spare capacity on SBC's network. (AG Ex. 1.0, p. 35; CUB Ex. 1.0, pp. 18-20) Ms. Baldwin noted that SBC's long-standing planning criteria do not correspond with efficient forward-looking practices nor with the business practices of an efficient competitor (which a TELRIC study is intended to model), which would be to adjust capital investment decisions to correspond better with changing consumer demand. (CUB Ex. 1.0, p. 20) She pointed out that designing a TELRIC model with the large percentage of spare capacity that SBC proposes would violate basic principles of economic efficiency. (*Id.*)

Commission Staff witnesses also testified that SBC Illinois failed to demonstrate that its current actual fill factors are the same as the fill factors that would be found in an efficient, forward-looking network and that its fill factors satisfied the FCC's TELRIC requirements. Staff witness Jeffrey Hoagg explained that SBC Illinois' proposed method of estimating forward-looking projected fill factors is not conceptually consistent with TELRIC requirements. (Staff Ex. 1.0, p. 26) He pointed out that "In the TELRIC pricing methodology, reasonable fill factor estimates must, of course, be both forward-looking and reflect the operations of an efficient provider", and that "[a]s with all other aspects of the TELRIC methodology, the use of actual values is not generally permissible." (*Id.*, p. 25) He noted that there are at least two fundamental problems with SBC's position that

the best estimators of projected TELRIC fill factors are SBC's current actual fill factors, and that each of those problems provide sufficient grounds for the Commission to reject SBC Illinois' proposed fill factors (*Id*., p. 27):

(1) SBC presented no evidence that its actual fills are equivalent to (or consistent with) those of an efficient firm; and

(2) SBC's proposed method of calculating per unit costs for each element directly violates the TELRIC requirement that the divisor used to calculate per-unit costs reflect a reasonable projection of the forward-looking demand for the element; rather, SBC divides element costs by current demand levels for each element.

He concluded that, due to SBC Illinois' failure to adhere to TELRIC principles, SBC's approach underestimates the proper TELRIC fill factors and over-estimates TELRIC-based UNE rates. (*Id*., p. 28) This occurs because (i) SBC *overestimates* the *numerator* of the per-unit cost calculation by using something *more* than current demand levels to estimate aggregate costs associated with each element,[80] while at the same time (ii) SBC *understates* the *denominator* of the per-unit calculation to the extent that the current demands SBC uses in its fill factor calculation are less than projected demand levels. (*Id*., pp. 28-29)

Staff witness H.R. Green, Chief Telecommunications Engineer of the Commission, comprehensively addressed the fact that SBC's current actual fill factors are not the same as the fill factors that would be expected in an efficient, forward-looking network. Mr. Green testified that "current embedded fill rates are reflective of either historical or current fills and are not necessarily reflective of an efficient network. Thus, current embedded fills would be inappropriate to use as fill factors for determining UNE

[80] That is, SBC does not size the model network to efficiently meet current demand, but simply models costs based on the current size of the network. (Staff Ex. 1.0, p. 29)

rates." (Staff Ex. 10.0, pp. 6-7) He also concluded that SBC's "current embedded fills, however, have not been demonstrated . . . to be consistent with an efficient, forward-looking network."[81] (*Id*. at 7) As Mr. Green further explained:

> The reason that the use of current embedded fills is not necessarily consistent with an efficient, forward-looking network is that there is no evidence that the current fills are indicative of an efficient network today, let alone a forward-looking network. The current embedded network from which the current fills have been determined is a network that has evolved over decades. . . . Facilities engineered in the past did not include the consideration of the current or future demands for developing technologies. As a matter of fact, today's demands are causing the telecommunications carriers to redesign some of the existing plant. . . . [T]he type of efficient forward-looking network planning expected in a TELRIC study *could not* be planned using the planning tools and capabilities available to the engineers decades ago who designed much of the embedded network. (Staff Ex. 10.0, pp. 8-9; emphasis in original)

Based on these considerations, Staff witness Mr. Green concluded:

> Consequently, **SBCI's current embedded network does not reflect a forward-looking efficient network.** (*Id*., p. 9; emphasis supplied)

Staff witness Mr. Green also disagreed with SBC's assertion that its actual fills are fairly consistent over time and that the current utilization levels on SBC Illinois' existing network are the best predictors of future utilization levels. (*Id*., p. 9) He pointed out (as did, he noted, Ameritech in the TELRIC I case), that there are demand shifts over time due to factors such as changes in population size, growth, density and changes in technology; as a result, SBC's "confidence that fills are fairly consistent over time is misplaced." (*Id*., p. 10)

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[81] Mr. Green also concluded, based on his detailed analysis of SBC Illinois' fill factor evidence, that "SBC Illinois has not shown why the fill factors authorized by the Commission in SBCI's last UNE rate case are now inappropriate." (Staff Ex. 10.0, p. 18) He reiterated in his rebuttal testimony, after considering SBC's response to his critique of SBC's proposed use of actual fill factors, that "It is still my opinion that the target fills ordered in the TELRIC [I] Order are more appropriate than the actual fills proposed by SBC." (Staff Ex. 32.0, p. 2)

On this topic we note that although SBC Illinois witnesses asserted that its actual fill factors have been "fairly constant" and "virtually constant"[82], SBC only provided actual fill factor data for the period December 31, 1998 through December 31, 2001, to attempt to substantiate this claim. (See SBC Ex. 8.0, p. 24 and Sched. RSW-11) This limited data series is woefully inadequate to substantiate any claim that SBC's fill factors are constant over time. Moreover, even if SBC's assertion could be substantiated by data, it would not establish that SBC's current actual fill factors are representative of the utilization levels that would be found in an efficient, forward-looking network. In fact, it would tend to establish *just the opposite*.[83] As Mr. Green explained:

> These time intervals are far too short to reasonably demonstrate the changes in fills of SBCI's massive embedded network over time. . . . Due to the great size of SBCI's embedded network, it would be reasonable to expect the fill rate of the current embedded network that has been built over decades not to change very rapidly over a relatively short period. Nonetheless, even if the fill rate were proven to be consistent over time, this embedded fill used as the fill factor would truly be backward looking. The size of SBCI's current embedded network masks any efficient designs and renders the embedded fills a poor indicator for a forward-looking efficient network. The fill factor would be based on the embedded network that evolved from past practices, old technologies, past forecasts and past demands, hence backward-looking when we should be basing the fill factor on a forward-looking efficient network. (Staff Ex. 10.0, pp. 10-11)

There are additional reasons why SBC's current actual fill factors (even if they have been fairly constant over an extended period of time) are not representative of the utilization that would be expected in an efficient, forward-looking network. As Staff witness Mr. Green explained:

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82 See, *e.g.*, SBC Ex. 8.0, pp. 5, 24.

83 Further, the current actual fill rates that SBC proposes be used in this proceeding would not be the projected actual fill rates in the future. (Staff Ex. 32.0, pp. 7-8)

> [T]echnologies change, forecasts are only best estimates that may not be borne out by actual events, and the accuracy of present worth analyses are affected by interest rates that fluctuate over time. With all three of these inputs changing with time, an embedded network that may have been efficient when designed may no longer be an efficient network today and no longer forward-looking. Therefore, SBCI's current embedded network of various design factors would invariably have different fill rates from an efficient, forward-looking network totally designed today. (Staff Ex. 10.0, pp. 11-12)

> [SBC] has been provisioning cables for decades and many of these older cables are still in use today. There are cables that were previously used to serve factories, businesses, and residential areas that are much smaller or no longer exist and, as a result, produce much less demand upon the network than before. The current embedded fill on these cables is, therefore, disproportionately low. On the other hand, there are also areas where the fill would be disproportionately high, such as in urban renewal areas that could not have been part of the original forecast. Either of these outcomes, of course, would be inconsistent with an efficient, forward-looking network.[84] (*Id*., p. 12)

In response to the testimony of Staff witness Mr. Green as well as CLEC and intervenor witnesses, SBC witnesses attempted to defend the prudence of the network engineering and design practices employed by SBC over the years. (See, *e.g.*, SBC Ex. 4.1, p. 38; SBC Ex. 8.1, p. 5) This response is a red herring. None of the points made by Staff witness Mr. Green, Joint CLEC witnesses Starkey and Fischer, or any of the other witnesses who explained why SBC's current actual fill factors are not representative of an efficient forward-looking network, were intended to suggest that any of the design, engineering and installation decisions made by SBC over the past 30 or more years that its existing network has been constructed were imprudent or inefficient, *based on*

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[84] In reviewing Staff witness Mr. Green's analysis of SBC Illinois' fill factor approach and his analysis of whether SBC's existing actual network matches the efficient, forward-looking network, the Commission should keep in mind that Mr. Green was employed by Illinois Bell from 1970 to 1984, in network engineering positions for much of that time. (Staff Ex. 10.0, p.3) Mr. Green actually has as much or more personal experience with the historic engineering practices that have shaped SBC Illinois' legacy network than the witnesses appearing on behalf of SBC in this proceeding.

information available to SBC at the time, on design and engineering practices then in place, or on technologies then available. (See, *e.g.*, Staff Ex. 32.0, pp. 5-6) Nor are the conclusions of these witnesses, that SBC's current actual fill factors do not represent the utilization rates of a newly-constructed, efficient, forward-looking network, dependent on whether SBC's decisions and actions were prudent at the various times they were made. As Mr. Green explained:

> I did not in my Direct Testimony (Staff Exhibit 10.0) imply that SBC had not designed or constructed its network in a manner deemed efficient at the time it was designed or built. I did, however, raise the possibility that what was efficiently engineered or designed based on the efficiency standard 10 years ago may no longer be deemed an efficient network design based on today's standards. Due to unexpected events, including, but not limited to, technology advances and growth in demand, a *network capacity* that was deemed efficient and forward-looking at the time of deployment, may no longer be deemed efficient or forward-looking based on current circumstances. (Staff Ex. 32.0, pp. 3-4)

As had Joint CLEC witnesses Starkey and Fischer (as summarized earlier in this subsection), Mr. Green gave examples of subsequent developments that could render a network design that was efficient when first placed in service no longer efficient, such as changes in technology that impact network sizing guidelines, changes in the nature of the customers in a geographic area and other unforeseen changes in demand. (*Id*., pp. 4-6)

Although the prudence of SBC Illinois' past engineering decisions is not at issue in this case (and is not a defense for SBC's low actual fill factors), Staff economist Dr. Genio Staranczak explained that SBC's low fill factors are likely an inefficient vestige of SBC's days as a monopoly provider of service under rate of return regulation. As Dr. Staranczak explained, under rate of return regulation, SBC was regulated based on the size of its rate base; consequently, SBC could earn a rate of return on spare capacity. As a result, under rate of return regulation, there was not as strong an incentive to be as

frugal with spare capacity as there is in unregulated industries. (Staff Ex. 2.0, pp. 18-19) Although SBC is now under price-cap regulation, the high levels of spare capacity placed during the era of rate of return regulation remain embedded in SBC's network.[85] As Dr. Staranczak bluntly put it, SBC "is trying to recover the costs of inappropriate past investments from competitors." (*Id*., p. 19) Moreover, the fact that much of SBC's existing network was installed under rate of return regulation has negative implications for the efficiency of its network:

> Much of the plant SBCI has currently in place was put in place when it was a rate of return regulated monopolist. This plant therefore reflects practices typical of a rate of return regulated monopolist and does not reflect what an efficient forward looking firm would do. I should also note that it takes time to change old habits. So if rate of return engineering guidelines suggested a certain amount of spare capacity then these guidelines may not immediately be changed under price cap regulation. Planners who were comfortable under the old spare capacity guidelines would lobby to retain these guidelines. So even under price caps, SBCI would not necessarily be making the most efficient investment decisions. (Staff Ex. 2.0, pp. 19-20)[86]
>
> SBCI's embedded fills do not reflect fills for an efficient forward-looking firm. SBCI's embedded fills in part reflect fills for a rate of return regulated monopoly. . . . Furthermore, former monopolies are not known for their efficiency. . . .Use of embedded fills reflects historical behavior and not what is possible from a forward-looking efficient carrier. (*Id.*, pp. 20-21)

The record contains other evidence that SBC's current actual fill factors are not representative of an efficient forward-looking network, should not be adopted for

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[85] SBC witness Dr. Aron testified that about one-third of SBC's current network has been installed since SBC moved to price-cap regulation. (Tr. 304) Thus, two-thirds of SBC's existing network was installed while SBC operated under rate of return regulation.

[86] In fact, SBC presented no evidence of changes in design or engineering practices when it moved from rate of return regulation to price-cap regulation.

purposes of calculating SBC's UNE prices, and in fact are even subject to question as to their accuracy:

? SBC's long-standing design practice of installing 2.25 pairs (lines) per household for much of its network – which is a principal driver of its actual distribution fill factors that are below 50% – appears excessive in light of potential demographic changes in the demand for telephone service.[87] Households today are using cellular phones, DSL and cable modems in lieu of second wirelines. (CUB Ex. 1.0, p. 19; AT&T/Joint CLEC Ex. 1.3, pp. 15-16; Staff Ex. 22.0, pp. 16-17) SBC itself has identified customer use of such alternatives as factors that may reduce demand on its network facilities. (See, *e.g.*, SBC Ex. 13.0, pp. 27-35) While it would be a gross exaggeration to suggest that these alternatives will strand or render obsolete substantial portions of SBC's embedded network, it certainly *is* reasonable to conclude that an efficient competitor designing a forward-looking network would take the reduced demand for wireline services per household into account in determining the amount of spare capacity to design into the network. Thus, SBC's historic practice of installing two lines per living unit is becoming outdated. (AT&T/Joint CLEC Ex. 1.3, p. 7) As CUB witness Ms. Baldwin aptly stated:

> Just as an efficient new entrant must change its engineering practices to accommodate changing technology and consumer demand, so too should

[87] Specifically, in "urban" and "suburban" areas, SBC typically installs 2 lines per living unit, with an additional spare for every four living units, resulting in 2.25 lines per living unit. (SBC Ex. 8.0, p. 9) Interestingly, during some time periods SBC may depart from these criteria due to its own internal, self-imposed budgetary constraints. One such occurrence was in 2002 when, due to scarce capital dollars, temporary guidelines were imposed that required higher network utilization levels before relief jobs were authorized. (SBC Ex. 8.0, p. 10) Thus, even SBC's own concepts of efficient network design are subordinated at times to SBC's earnings or cash flow objectives.

TELRIC studies accommodate changing patterns in consumer demand rather than modeling embedded practices. (CUB Ex. 1.0, p. 19)

? SBC's approach essentially assumes that its network will have substantial excess capacity forever. It might be reasonable to design a new network to have 50% excess capacity at the outset, but that excess capacity will be used up as growth in demand manifests. Yet by proposing to use its current actual fill factors for TELRIC purposes, SBC effectively assumes that the efficient forward-looking network would have the same level of excess capacity indefinitely. This is flatly inconsistent with the FCC's requirement that TELRIC calculations be based on "a reasonable *projection* of the actual total usage of the element" and "reasonably foreseeable capacity requirements."[88] As Staff witness Mr. Hoagg pointed out, the FCC's TELRIC methodology requires reasonable projections of demand for an element, which is not the same as the current demand for the element. (Staff Ex. 1.0, pp. 25-26)

? SBC's calculation of its current actual fill factors (at least with respect to copper facilities and DLC chassis) includes "defective pairs" in the denominator as available capacity. (See AT&T/Joint CLEC Ex. 1.2, pp. 98-99) On a statewide basis, defective pairs constitute **BEGIN CONFIDENTIAL** XXXX XXX XXXX **END CONFIDENTIAL**, respectively, of SBC's copper feeder and copper distribution "usable pairs."[89] (*Id*., p. 112) Clearly, no efficient, forward-looking design would include such a

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88 *Local Competition Order*, ¶¶682, 685.

89 Defective copper pairs in individual wire centers were as high as **BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL**. (AT&T/MCI Ex. 1.2, p. 111)

high percentage of defective pairs.[90] (*Id.*) While in theory defective pairs can be repaired and thus converted into available capacity, SBC Illinois' actual percentages of defective pairs are too high to be seriously considered forward-looking. (*Id.*) This high percentage of defective pairs in SBC's actual fill factors unreasonably increases the denominator of the fill factor calculation and lowers the actual fill factors. (*Id.*)

? Moreover, SBC's own internal guidelines establish that SBC will not always seek to reclaim defective pairs and thereby convert them back into usable capacity. SBC classifies some defective pairs as uneconomical to recover and hence unusable. (AT&T/Joint CLEC Ex. 1.2, p. 113) For example, SBC typically will not attempt to recover single defective pairs in underground and buried cable, defective pairs in a cable section between manholes, defective pairs in a section where adequate other spare capacity exists, or defective pairs in areas where repair of the defective pairs would be insufficient to serve anticipated growth in demand. (*Id.*, pp. 119-123; see TDS Cross Exs. 23P and 24P)

? Whereas, as discussed above, all indications are that an efficient, forward-looking network using the most efficient network configuration and technology available would have less, rather than more, spare capacity than the existing legacy network, SBC's actual fill factors have in fact been **decreasing** over the past several years. (See data on pages 105 and 107 of AT&T/Joint CLEC Ex. 1.2) Most noticeably, from December 2000 to December 2001, SBC's working copper distribution pairs **fell** by **BEGIN CONFIDENTIAL** XXXXXX **END CONFIDENTIAL** while its available

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[90] Further, defective pairs in SBC Illinois' network have been <u>increasing</u> over the past several years, both in absolute number and as a percentage of available and usable pairs. (AT&T/Joint CLEC Ex. 1.2, p. 117-119)

capacity **increased** by **BEGIN CONFIDENTIAL** XXX,XXX **END CONFIDENTIAL**, thereby dropping the fill factor by **BEGIN CONFIDENTIAL** XXX **CONFIDENTIAL** in just 12 months. (See SBC Ex. 8.0, Sched. RSW-11 Rev. and Tr. 576-77) This drop in SBC Illinois' fill factors during 2001 is especially suspect because SBC chose to use **January 2002** data for the current actual fill factor values that it proposes be adopted in this case. (See SBC Ex. 8.0, Sched. RSW-12)

SBC Illinois is asking the Commission to adopt fill factors that for many components – including the copper distribution portion of the network – are at or below 50%. As this Commission recently advised the FCC in its comments on the TELRIC NPRM:

> Most ILEC facilities were placed when the telecommunications industry was a regulated monopoly, and placement of an efficient network was not necessarily a primary objective. Presuming that an ILEC's network is efficient will probably tend to increase UNE rates. For example, high fill factors would exist in an efficient network, **while a fill factor of less that 50% would indicate that the network was not designed for efficiency**.[91]

SBC Illinois' current actual fill factors have not been demonstrated to be the fill factors that would be expected in an efficient, forward-looking network using the most efficient telecommunications technology available. They have not been shown to match the utilization rates that would be expected in an efficient, forward-looking network. SBC's proposal to use its current actual fill factors in its TELRIC studies to calculate its UNE rates must be rejected.

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[91] Initial Comments of the ICC, *In the Matter of Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers*, WC Docket No. 03-173 (Dec. 16, 2003), pp. 33-34 ("TELRIC NPRM Comments").

f. Dr. Qin Liu's Proposed "Forward Looking Actual Fill Factor" Values are Totally Without Support and Must Be Rejected

Staff witness Dr. Qin Liu proposed that the Commission use a set of fill factor values that she referred to as "forward-looking actual fill" factors in calculating SBC Illinois' UNE rates in this proceeding. (See Staff Ex. 17.0, p. 35) She described this concept as "the fill rate that a forward-looking network would actually achieve on average", and stated that "It is based on the *forward-looking total network capacity* (*i.e.*, capacity of a forward-looking network) and the *projection of the total actual demand*."[92] (*Id.*; emphasis in original) She testified that she was unaware of any other state commissions that had used her concept of "forward-looking actual fill." (Tr. 987)

Although Dr. Liu submitted direct testimony on behalf of Staff in May 2003 as part of Staff's direct case, her testimony did not address fill factors. In Staff's May 2003 direct case, Staff witness Mr. Green presented Staff's position that the Commission should continue to use the target fill factor values that it adopted in the TELRIC I Order (as described in Sections III.B.1.d and e above). (Tr. 978-980)

Dr. Liu did not provide any testimony on fill factors until Staff's rebuttal testimony was submitted on January 20, 2004, at which time she introduced for the first time her forward-looking actual fill concept, which she described as a "new fill concept." (Staff Ex. 17.0, p. 35; Tr. 986-87) However, she did not at that time present any actual proposed values of "forward-looking actual fill" for the Commission's consideration in this case. (Staff Ex. 17.0, p. 38; Tr. 988-89) Instead, she represented to the Commission

[92] Dr. Liu made it clear that the actual capacity of SBC Illinois' existing network would not be the same as the capacity (network size) in a forward-looking network, due to the existence of redundant capacity in SBC's actual existing network. (Staff Ex. 17.0, p. 31)

that she was still gathering information that she needed to calculate values for forward-looking actual fill, and would present her actual proposed values in Staff's surrebuttal testimony to be submitted on February 20, 2004. (Staff Ex. 17.0, p. 38; Tr. 988-89) During cross-examination, Dr. Liu stated that by "collecting information", she meant "I needed to do more analysis on how to approach this issue" (Tr. 989-990) – a task one would have expected to be completed by May 2003 when Staff direct testimony was submitted.[93] More disturbingly, Dr. Liu testified during cross-examination that when she stated in her January 20, 2004 rebuttal testimony that she was still in the process of collecting information needed to calculate specific values for "forward-looking actual fill" and would present her actual value in her surrebuttal testimony due February 20, she did not in fact expect to be able to collect the information she needed to calculate "forward-looking actual fill" factors. (Tr. 990-991)

Dr. Liu in fact did present proposed fill factor values in her surrebuttal testimony submitted on February 20, although in that testimony she stated that she had been unable to obtain the information needed to calculate "forward-looking actual fill" factors in the manner she considered theoretically appropriate, and thus could offer only a "proxy" of what "forward-looking actual fill" factors should be. (Staff Ex. 25.0, pp. 17-18) Unfortunately as a result of this sequence of events, the other parties were given only one

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[93] Dr. Liu did send a series of data requests to SBC, shortly after submitting her January 20 rebuttal testimony, seeking additional information. All of these data requests were answered, apparently completely, by SBC prior to the February 20 due date for Dr. Liu's surrebuttal testimony. (See TR. 993-996 and TDS Cross Ex. 35) Apparently, however, the information that Dr. Liu requested and received from SBC did not enable her to calculate "forward-looking actual fill" factor values. In fact, she did not cite any information from those data responses in her February 20 surrebuttal testimony. (Tr. 996-997)

opportunity – their surrebuttal testimonies due on March 5, 2004 – to respond to the fill factor values proposed by Dr. Liu.

The sequence of events by which Dr. Liu's concept of "forward-looking actual fill" factors, and the actual fill factor values she proposed, were introduced in this case, is sufficient basis for the Commission to completely disregard her testimony and proposal. Further, in her January 20, 2004 rebuttal testimony, in which Dr. Liu testified that she was still in the process of collecting information necessary to calculate "forward-looking actual fill" factors and would present her actual proposed values in her February 20 surrebuttal testimony, she also stated:

> In the event that I am not able to collect sufficient information for me to develop the particular values that the "forward-looking actual fill" would take, **then I would recommend that the Commission continue to use the target fill as adopted in the TELRIC [I] Proceeding.** (Staff Ex. 17.0, p. 38)

Given that, by her own subsequent admission, Dr. Liu already new at the time she made the above-quoted statement that she would **not** be able to obtain the information needed to calculate "forward-looking actual fill" values, the Commission should hold Dr. Liu to her word and treat her recommendation as being to continue to use the target fill factors adopted in the TELRIC I Order. This would make Dr. Liu's recommendation consistent with Staff's direct case as presented by Staff witnesses Messrs. Hoagg and Green and Dr. Staranczak.

Although Dr. Liu's explanation in her rebuttal and surrebuttal testimonies of her new concept of "forward-looking actual fill" is highly technical, and seems to be somewhat different between the two pieces of testimony (see, *e.g.*, Tr. 997-98, 1002), as best as we can tell, the concept she has in mind is the present value of the sum of all future demand on the network divided by the present value of all future network capacity.

(See, *e.g.*, Staff Ex. 25.0, p. 17, and Tr. 997-998) It is therefore not surprising that Dr. Liu came to the conclusion that the information needed for the calculation of this fill factor value is unavailable. (*Id.*) In fact, she testified on cross-examination that she did not think the necessary information to make the calculation would *ever* be available. (Tr. 999-1000) Although Dr. Liu blamed this lack of necessary information on "the FCC hypothetical fill factor, which requires information about the FCC hypothetical network" (*Id.*, p. 18), her inability to make the calculation would appear to be solely the result of her own unworkable construct. Joint CLECs submit that the FCC cannot have intended to establish a fill factor concept that is incapable of implementation.

Dr. Liu's "proxy" calculation of her "forward-looking actual fill" factors, presented for the first time in her February 20 surrebuttal, bears no resemblance to the theoretical construct of "forward-looking actual fill" that Dr. Liu presented in her rebuttal and surrebuttal testimonies. Her calculation of her proxy values did not use the mathematical models for "forward-looking actual fill" calculations that she developed in her testimony. (Tr. 998-999) The purported basis of Dr. Liu's proxy calculation is to adjust SBC's current actual network capacity to remove the effects of so-called *ex post* inefficiencies that exist in SBC's current actual network, which would not be found in the efficient forward-looking network. (Staff Ex. 25.0, pp. 18, 25-27) She then used these adjusted capacity values to calculate fill factors. (*Id.*, p. 30)

However, the actual numerical adjustments to SBC's current actual network capacity are totally lacking in either explanation or empirical basis. After providing dozens of pages of highly-theoretical testimony on "forward-looking actual fill" and the

basis for her "proxy", here is the entirety of Dr. Liu's explanation and support for the fill factor values she actually proposed:

> Q. What are the adjustments that you make to the total network capacity for different loop components?
>
> A. I make 15% adjustments to the total capacity of SBC distribution plant, and 7.5% capacity adjustments to SBC's feeder plant and DLC capacity. I make no adjustment to SBC network capacity for circuit equipment.
>
> Note that a 15% adjustment to SBC's actual distribution plant capacity implicitly assumes that 15% of distribution plant capacity has been built due to "innocent mistakes" such as incomplete information or imperfect forecasts of the future events, and it is thus not part of a forward-looking network. Similarly, a 7.5% adjustment to feeder plant capacity assumes that 7.5% of the total feeder plant capacity has been built due to "innocent mistakes," and it is not part of a forward-looking network. These adjustments would at least be sufficient to account for *ex post* inefficient network plant that has been cumulatively built due to incomplete information or imperfect forecasts. (Staff Ex. 25.0, pp. 28-29)

Dr. Liu confirmed that she had no supporting materials, data or analysis for her proposed 15% and 7.5% adjustments other than what she provided in her February 20 testimony (quoted above). (Tr. 1003; TDS Cross Ex. 34)

In summary, Dr. Liu's proposed "forward-looking actual fill" concept is a theoretical construct that by her own admission is incapable of ever being implemented to produce numeric fill factor values in a manner consistent with the underlying theory. Her actual proposed fill factor values for this case are totally lacking in any basis, and are nothing more than an arbitrary, and rather minimal, adjustment to SBC's proposed current actual fill factors. Perhaps if her ideas, and her actual proposed values, had been presented in a timely manner in this case, there would have been adequate time to properly consider them, but that did not happen. The Commission should reject Dr. Liu's

"forward-looking actual fill" factor proposal and her "proxy" calculation, and (as explained above) should treat Staff's position in this case as being that the target fill factors adopted in the TELRIC I Order should continue to be used.

g. Joint CLECs Have Proposed A More Accurate Implementation of Dr. Liu's Approach (Joint CLEC Option 3)

As shown above, Dr. Liu's proposed fill factor values are simply arbitrary adjustments to SBC Illinois' current actual fill factors, and have no empirical basis. However, Joint CLEC witnesses Starkey and Fischer testified that Dr. Liu's theoretical concept – to adjust SBC Illinois' actual network capacity to remove the impacts of efficiency (or perhaps more accurately, to reflect the most efficient practices) – could have merit if implemented more appropriately. Unfortunately, Dr. Liu did not conduct a sufficiently detailed analysis and failed to provide empirical support in applying her own theory. (AT&T/Joint CLEC Ex. 1.3, pp. 3-4, 17-18) In their supplemental surrebuttal testimony filed March 5, 2004, Messrs. Starkey and Fischer presented a more accurate implementation of Dr. Liu's approach for the Commission's consideration. (*Id.*, pp. 18-28) The resulting fill factor values are set forth on Attachment MS/WF-23 to AT&T/Joint CLEC Exhibit 1.3, and are summarized for the major network components in the table in Section III.B.1.a above. These fill factor values are a third best option for the Commission in this case, behind (1) usable capacity fill factors and (2) the target fill factors adopted in the TELRIC I Order.

In describing the basis for their more accurate implementation of Dr. Liu's approach, Messrs. Starkey and Fischer explained that economists measure the inefficiency of a particular entity by comparing it with the best observed practices. The best observed practices represent a "frontier" against which the relative efficiency of

entities can be measured. (AT&T/Joint CLEC Ex. 1.3, p. 18) In a competitive industry, the mechanism of the competitive market drives the participants towards efficiency. In a monopoly market, however, this is not necessarily the case, and there are no competitors to provide a benchmark of efficiency against which to judge the company under consideration. The frontier approach can still be applied, however, by attempting to identify the most efficient operations of the monopoly and comparing the rest of its operations to those most efficient operations. (*Id*., pp. 18-19)

To effectuate their more accurate implementation of Dr. Liu's approach, Messrs. Starkey and Fischer applied the frontier approach to SBC's capacity utilization at the wire center level. (*Id*., p. 19) They noted that some SBC wire centers tend to have high fill factors over time and others tend to have low fill factors over time. These observations suggested that some wire centers are more efficient relative to other wire centers. (*Id*., pp. 19-20) In addition, there is a wide variance among SBC wire centers in terms of numbers of defective pairs. Moreover, as discussed in Section III.B.1.e above, a high percentage of defective pairs is not consistent with a new, efficient, forward-looking network. Since in a number of wire centers defective pairs constitute 1% or less of usable capacity, this percentage appeared to represent the best-observed practice. Messrs. Starkey and Fischer therefore set the defective pair percentage at 1% in all wire centers in which the actual percentage is greater than 1%. Using these adjusted counts of defective pairs, they then recalculated the usable capacity (which includes defective pairs) in each wire center. (*Id*., pp. 20-21)

With respect to the wire center-by-wire center fill factors, Messrs. Starkey and Fischer selected from SBC's fill data base (January 2002) the 20 wire centers (rather than

just one wire center) for each network component that had the best fill factors.[94] These wire centers were selected after the adjustment had been made to wire center available capacity for defective pairs described in the preceding paragraph. The best 20 wire centers were selected independently for each network component (*i.e.*, the best 20 wire centers were not identical from network component to network component). After selecting these wire centers, Messrs. Starkey and Fischer reviewed subsequent data to determine if significant increases in capacity had occurred after the date on which SBC's fill data base was based.[95] If a subsequent capacity increase in one of the selected wire centers was observed, that wire center was discarded from the group of 20 and replaced with the wire center with the next highest fill. Messrs. Starkey and Fischer also checked that the selected wire centers varied considerably in size (pair counts), so that the selected wire centers did not consist solely of either small/rural or large/urban central offices. Finally, for each network component they calculated a weighted average of the fill factors in the 20 wire centers. (*Id*., pp. 22-23) The resulting fill factors for the major network components, on a state-wide basis, were as follows (*Id.*, p. 23):

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Feeder – Copper	DLC Chassis	DLC Plug-in	Distrib. – Copper
XXXX	XXXX	XXXX	XXXX

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94 Twenty wire centers constituted approximately 7% of the wire centers in SBC's fill data base. (AT&T/Joint CLEC Ex. 1.3, p. 22)

95 Such capacity increases would suggest that the observed high fill factor in a wire center had been unsustainable and that capacity relief had been required. (AT&T/Joint CLEC Ex. 1.3, p. 23)

Messrs. Starkey and Fischer made one other adjustment to the above fill factors. Specifically, in light of the fact that SBC's fill factors have been falling over time, they compared SBC fill factor data for the year 1998 to the fill factor data for January 2002 (the data set that SBC proposes to use in this case and from which Messrs. Starkey and Fischer constructed the adjusted fill factors shown above).[96] They selected 1998 for two reasons: (1) it was the year before SBC initiated its "Project Pronto" broadband initiative, and (2) it was a "middle" year (*i.e.*, neither best nor worst) in the business cycle. (*Id.*, pp. 23-25) The comparison of SBC's distribution fill factors in 1998 to those in January 2002 showed that the 1998 fill factors were **BEGIN CONFIDENTIAL** XX XXX **END CONFIDENTIAL** the January 2002 fill factors. (*Id.*, p. 25) Messrs. Starkey and Fischer revised their adjusted fill factors for each of the three SBC zones by the ratio of the 1998 fill factor to the January 2002 fill factor. This adjustment removed the effects of the business cycle on the January 2002 data. This adjustment was made only for distribution fill factors since the data needed to make the 1998-January 2002 comparison was not available for other network components. (*Id.*) The final, adjusted actual fill factors for the major network components are as follows (*Id.*, p. 26):

BEGIN CONFIDENTIAL

Zone	Feeder – Copper	DLC Chassis	DLC Plug-in	Distrib. Copper
A	XXX	XXX	XXX	XXX
B	XXX	XXX	XXX	XXX
C	XXX	XXX	XXX	XXX
Statewide	XXX	XXX	XXX	XXX

[96] SBC made fill factor data from 1997 forward available, so that was the available body of data from which Messrs. Starkey and Fischer could select a year for comparison purposes. (AT&T/Joint CLEC Ex. 1.3, p. 24)

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These fill factors represent SBC Illinois' actual fill factors, adjusted to remove the following types of inefficiencies: (i) relative inefficiency of SBC's wire centers as measured against its "best" wire centers; (ii) unreasonable proportions of defective pairs in individual wire centers; and (iii) short-term decreases in capacity utilization associated with the business cycle or other short-term events. (AT&T/Joint CLEC Ex. 1.3, p. 27)

Messrs. Starkey and Fischer explained that while the adjusted fill factors removed the effects of some inefficiencies from SBC's actual fill factors, the adjusted fill factors did not fully represent those to be expected in an efficient, forward-looking network, because the data did not permit removal of other types of inefficiency in SBC's actual network. (*Id.*, pp. 27-28) For this reason, these adjusted actual fill factors are a third option for the Commission behind usable capacity fill factors and the target fill factors adopted in the TELRIC I Order. However, should the Commission decide to base the fill factor values used in this case on SBC Illinois' actual network capacity utilization data, the adjusted fill factors calculated by Messrs. Starkey and Fischer provide a superior, more logically-grounded and empirically based set of values than the fill factor values proposed by Dr. Liu. (*Id.*, pp. 28-29)

2. Depreciation

a. Introduction

The FCC's TELRIC rules require the use of "economic depreciation" rates in calculating forward-looking costs to be used in setting UNE prices. (47 C.F.R. §51.505(b)(3)) Thus, the lives used for the various categories of plant assets must be

based on the expected economic lives of newly-installed plant based on the most efficient technology available today.[97]

In the TELRIC I Order, the Commission determined that the projection lives and future net salvage percentages underlying the depreciation rates prescribed for Ameritech Illinois by the FCC as set forth in the FCC's update of depreciation rates in FCC Docket 96-22 (1996) should be used to set TELRIC-based UNE rates for Ameritech. (TELRIC I Order, p. 28) The Commission rejected Ameritech's proposal to use shorter depreciable lives than those adopted for Ameritech by the FCC, stating, "We are unwilling to adopt Ameritech Illinois' ill-defined and largely judgmental calculations of economic lives and abandon the traditional engineering and economic principles which we have utilized in the past." (*Id*., p. 27) The Commission found that "We are persuaded by [AT&T/MCI witness] Mr. Majoros' testimony that the FCC projected lives are reasonably forward-looking." (*Id*., p. 28)

In this case, the Joint CLECs, as well as the Commission Staff and the Attorney General, recommend that the Commission continue to use the depreciation rates adopted in the TELRIC I Order (which are depreciation rates prescribed for SBC Illinois by the FCC) in setting SBC Illinois' UNE rates. SBC, in contrast, asks the Commission to depart from its determination in the TELRIC I Order and instead adopt the depreciation lives that SBC uses for financial reporting purposes to set its TELRIC rates. The Joint CLECs join with Staff and the Attorney General in urging the Commission to reject SBC's proposal and to continue to utilize the FCC-approved depreciation rates this Commission adopted in TELRIC I.

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[97] These lives are sometimes referred to as "projection lives." (AT&T/MCI Jt. Ex. 1, p. 6)

Attachment MJM-4 to AT&T/MCI Joint Exhibit 1 contains a comparison of the depreciation lives and future net salvage percentages prescribed by the FCC for SBC Illinois (and adopted by the Commission for use in setting UNE prices in the TELRIC I Order) to the depreciation lives and future net salvage values proposed by SBC in this case.[98] This comparison shows that SBC is proposing substantial **decreases** in depreciation lives, and substantial **increases** in negative future net salvage percentages, for many categories of plant assets. Decreases in depreciation lives and increases in future net salvage values, if accepted, both **increase** the annual depreciation rate and expense associated with a UNE, and thus (all other things equal) **increase** the TELRIC-based cost of providing a UNE.

Focusing on some of the categories of plant assets that are most significant to this case, the comparison on Attachment MJM-4 shows that SBC is proposing significant **decreases** in depreciation lives from those prescribed by the FCC and adopted by this Commission in TELRIC I for plant and equipment categories that are critical to the UNE rates being set in this case. For example, SBC is proposing to **decrease** the depreciable life for Poles from **BEGIN CONFIDENTIAL** XXXXXXXXX **END CONFIDENTIAL**; to **decrease** the depreciable life for Aerial Cable - Metallic from **BEGIN CONFIDENTIAL** XXXXXXXXXXX **END CONFIDENTIAL**; to **decrease**

[98] Future net salvage values are stated in percentages and represent the cost of retiring or removing an asset, net of any salvage value of the facilities at the time the asset is removed from service, expressed as a percent of the original installation cost of the asset. Thus, for example, a future net salvage value of 25% indicates that the cost of removing an asset from service, net of any salvage value when the asset is retired (such as scrap value of metal parts or resale value of used equipment), is expected to be 25% of the original cost of the asset. A negative net salvage value increases the annual depreciation rate over the rate that is obtained by dividing the original cost of the asset by its depreciable life.

the depreciable lives for Underground Cable – Metallic and Underground Cable - Fiber from **BEGIN CONFIDENTIAL** XXXXXXXXX **END CONFIDENTIAL**; and to **decrease** the depreciable lives for Underground Cable - Fiber and Buried Cable – Fiber from **BEGIN CONFIDENTIAL** XXXXXXXXXXXXXX **END CONFIDENTIAL**. These changes, were they to be adopted, would materially increase the depreciation rates and expense used to calculate SBC's UNE rates, and would exert significant upward pressure on SBC Illinois' UNE prices over those established in the TELRIC I case.

It is important to note at the outset that in this case SBC presented no evidence explaining how the depreciation lives it uses for financial reporting purposes are calculated and determined. Instead, SBC's presentation consists of the testimony of well-known ILEC witness Dr. Lawrence Vanston, who offered a number of studies purporting to estimate – based largely on his projections of future competitive impacts on the lives of SBC's loop assets – the future economic lives of SBC's outside plant assets, which he found to be consistent with the depreciation lives used by SBC for financial reporting purposes. (SBC Ex. 13.0, 13.1, 13.2) As will be shown below, Dr. Vanston's latest studies are just the most recent in a series of studies in which he consistently predicts that a life-shortening (for ILEC outside plant assets) wave of new competitive or technological developments is just over the horizon, and that therefore ILEC depreciation lives should be drastically reduced from the depreciation lives adopted by the FCC. Dr. Vanston's studies are speculative and unsupported, other than by anecdotal evidence and his own hyperbole, and should be rejected. As the Commission stated in the TELRIC I Order in rejecting Ameritech's arguments to use shorter depreciation lives than those

prescribed by the FCC, on the basis of impending technological and competitive change that would require replacement of substantial portions of Ameritech's network:

> [I]f we attempted in this proceeding to establish depreciation rates based on some assessment of what market conditions may look like seven years from now, we could obtain the same likelihood of accuracy by consulting tea leaves. We do not believe that "forward-looking" is synonymous with "gross speculation." (TELRIC I Order, p. 28)

In contrast, the depreciation lives (and salvage values) prescribed by the FCC for SBC Illinois represent an unbiased estimate of the forward-looking economic lives of SBC's plant assets. (AT&T/MCI Jt. Ex. 1.1, p. 15) Although (as discussed below) the FCC takes into account in developing an ILEC's prescription lives information submitted by the ILEC on future plans and anticipated technological and other developments, those lives are in the end determined by an impartial third party, the FCC.

The Commission should reject SBC's proposal to use the depreciation lives it uses for financial reporting in setting TELRIC-based rates in this proceeding. Rather, the Commission should continue to use the depreciation lives prescribed for SBC Illinois by the FCC.

b. The Projection Lives Adopted by the FCC for SBC Illinois Are Forward-Looking and Unbiased; the Commission Should Continue to Use the FCC Lives to Set TELRIC-Based UNE Prices, as It Did in the TELRIC I Order

The FCC projection lives for SBC Illinois provide a forward-looking and unbiased set of economic lives for SBC's assets that this Commission can reliably use in setting TELRIC-based UNE prices in this proceeding – as it did in the TELRIC I Order. As AT&T/MCI witness Mr. Majoros testified, "I believe the projection lives underlying the depreciation rates prescribed by the FCC to be the most realistic and unbiased estimates of plant projection lives." (AT&T/MCI Jt. Ex. 1, p. 6) The FCC's projection

lives are the result of the FCC's analysis of depreciation studies filed by carriers and performed in consultation with state regulatory commission staffs. (*Id*., p. 7) Whereas the FCC previously relied on "historical experience" to project equipment lives, it now "rel[ies] on analysis of company plans, technological developments, and other future-oriented studies." (*Id*., p. 7, citing FCC, *1998 Biennial Regulatory Review – Review of Depreciation Requirements for Incumbent Local Exchange Carriers*, CC Docket 98-137, Report and Order, FCC 99-397 (rel. Dec. 30, 1999) ("FCC 1999 Depreciation Update Order")) As Mr. Majoros described based on his personal involvement in FCC depreciation proceedings:

> [T]he FCC staff always used a forward-looking approach to setting depreciation rates. The FCC staff rarely relied solely on historical data to set depreciation parameters. The FCC bases its parameter prescriptions upon the studies and information supplied by the individual companies, specific company plans, information submitted by state commission staffs, consumer groups and its broad industry-wide experience. That information includes a wealth of company-specific (and company provided) information concerning the impact of technology and competition on lives. (AT&T/MCI Jt. Ex. 1, pp. 7-8)

In adopting the current prescription lives for SBC Illinois, the FCC took into account forward-looking technology as opposed to utilizing only historical information. Indeed, the projection lives adopted by the FCC for Ameritech in 1996 are significantly shorter than the average life indications for Ameritech's plant accounts at the time (*i.e.*, the lives that the FCC could have adopted had it relied solely on historical experience). For example, the FCC projection life for Aerial Cable for SBC Illinois is 20 years versus an average life indication of 30 years; the FCC projection life for Underground Cable – Metallic is 25 years versus an average life indication of 38 years; and the FCC projection life for Buried Cable – Metallic is 20 years versus an average life indication of 33 years. (AT&T/MCI Jt. Ex. 1, pp. 14-15)

More recent data than that available to the FCC at the time it set SBC's current prescription lives confirms that there is no basis for reducing those lives and increasing the annual depreciation rates. For example, the 2002 retirement rates in SBC Illinois' underground cable account and buried cable account imply lives of over 100 years for the equipment in each of these accounts.[99] (AT&T/MCI Jt. Ex. 1.1, p. 16)

Further, the rapid growth in SBC Illinois' depreciation reserve percentage (*i.e.*, the accumulated reserve for depreciation as a percentage of the original cost of plant in service) since the 1996 represcription of its depreciation rates by the FCC indicates that the current rates implemented a significant decrease in SBC's projection lives and a significant increase in its annual depreciation expense as compared to Ameritech's previous depreciation rates that were based on historical experience, and that the current lives are *not* too long. SBC Illinois/Ameritech's depreciation reserve level has risen from 39.1% in 1992 to 56.5% in 2002, despite a growth in plant of over 61%. Growth in the depreciation reserve as a percentage of plant in service in a time of significant plant growth indicates that plant is being depreciated over shorter lives than the actual in-service lives of the plant, *i.e.*, plant is being fully depreciated well before it is retired.[100] (AT&T/MCI Jt. Ex. 1, pp. 9-13)

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[99] As the Commission noted in the TELRIC I Order with reference to switching equipment, if the economic life of a plant asset category has decreased significantly, "then Ameritech should be able to show a dramatically accelerated replacement schedule for [that equipment] consistent with the new economic life." (TELRIC I Order, pp. 27-28) SBC has not made such a showing in this case.

[100] When a plant asset is retired the accumulated provision for depreciation is reduced by the cost of the asset. Thus a rising depreciation reserve percent can indicate that plant assets are being fully depreciated before they are physically retired (because if an asset is retired at the time it reaches the end of its depreciable life, the depreciation that has accumulated in the reserve in respect of that asset is essentially removed from the reserve). An increasing depreciation reserve percent can also indicate that plant is being

Looking at a more recent period, SBC Illinois' depreciation reserve percentage was higher in 2002 than it was in 1998 (when its TELRIC-based rates were first set by the Commission) even though SBC Illinois' plant grew by over 20% in that period. (*Id.*, pp. 16-17 and Att. MJM-6) Other analyses conducted by AT&T/MCI witness Mr. Majoros using 1999-2002 data showed that the trend of SBC Illinois' equipment lives is *increasing not decreasing*. (AT&T/MCI Jt. Ex. 1, pp. 17-21 and Att. MJM-8-13; AT&T/MCI Jt. Ex. 1.1, pp. 18-19 and Att. MJM-20) Thus, empirical evidence does not indicate that SBC Illinois' current FCC-prescribed depreciation lives are too long. (AT&T/MCI Jt. Ex. 1, p. 13) Indeed, as Mr. Majoros succinctly summarized, although the FCC prescription lives "already reflect the life-shortening effect of facilities bypass, or competition, that have been predicted for over a decade" (AT&T/MCI Jt. Ex. 1, p. 38), at this point "these FCC lives are extremely short because they are based on accelerated retirements which are not occurring." (*Id.*, p. 41)

The Staff depreciation witnesses recommended that the Commission continue to use the same depreciation lives it adopted in the TELRIC I Order, namely, the FCC's projection lives for SBC Illinois. Staff witness Peter Wagner testified that "Equipment lives set by the Commission in Docket 96-0486/0569 continue to be forward looking and appropriate for the following reasons: 1) Advanced services can be offered through the existing Illinois network; 2) SBC Illinois' own network infrastructure investment does not recognize or reflect the need for a more rapid network transformation; and 3) The FCC continues to apply the same rates used to determine the current equipment lives for Illinois." (Staff Ex. 13.0, p. 5) Similarly, Staff economist Dr. Genio Staranczak, who

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depreciated and retired at a faster rate than new plant is being added, but that does not seem to be the case for SBC Illinois given its large increases in plant in service.

provided detailed analyses of the arguments made by SBC witness Vanston in support of shorter depreciation lives and higher depreciation rates (Staff Ex. 2.0, pp. 22-31; Staff Ex. 22.0, pp. 17-30), supported continued use of the FCC depreciation lives adopted in the TELRIC I Order, rather than the shorter financial reporting lives proposed by SBC Illinois. His testimony unequivocally states that the current depreciation rates adopted by this Commission are economic depreciation rates. (Staff Ex. 2.0, p. 22)

William Dunkel, the witness on behalf of the Attorney General, also recommended that the Commission should continue to use the depreciation lives for SBC Illinois that it adopted in the TELRIC I Order. After reviewing the arguments of SBC witness Dr. Vanston for shorter depreciation lives and higher depreciation expense (AG Ex. 1.0, pp. 36-40), Mr. Dunkel concluded that SBC Illinois "has not demonstrated that the depreciation lives that the ICC established in the prior UNE proceeding are unreasonable. Therefore, I recommend that the ICC's previously approved lives continue to be used in the current UNE loop cost studies." (*Id*., p. 41)

The FCC itself has confirmed that the projection lives it has established in prescribing depreciation rates for telecommunications carriers such as SBC Illinois are forward-looking and suitable for use in setting UNE prices. In a 1999 order relating to the Universal Service Fund, the FCC stated:

> In adopting a forward-looking mechanism for high-cost support, we found that depreciation expense calculations based on the [FCC's] prescribed projection lives and salvage factors represent the best forward-looking estimates of depreciation lives and net salvage projections.[101]

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[101] FCC, *United States Telephone Association's Petition for Forbearance from Depreciation Regulation of Price Cap Local Exchange Carriers*, ASD 98-91, Mem. Opinion and Order, FCC 99-397 (rel. Dec. 30, 1999), ¶61.

In another 1999 order in which it reviewed and updated the depreciation projection life ranges it had originally adopted in 1996, the FCC stated:

> These ranges can be relied upon by Federal and state regulatory commissions for determining the appropriate depreciation factors for use in establishing high cost support and interconnection and UNE prices.[102]

More recently, in the *Triennial Review Order*,[103] the FCC rejected the attempts of ILECs (including SBC) to persuade the FCC to mandate the use of ILECs' financial reporting book lives for purposes of setting TELRIC rates, stating, "We decline to adopt the incumbent LECs' suggestion that we mandate the use of financial lives in establishing depreciation expense under TELRIC. The incumbent LECs have not provided any empirical basis on which we could conclude that financial lives always will be more consistent with TELRIC than regulatory lives." (*Triennial Review Order*, ¶688.) The FCC also noted that the rate of depreciation over an asset's life may be accelerated to reflect any anticipated decline in its value due to the presence of competition. (*Id*., ¶689-690) However, this observation did not really provide any new insights or cast doubt on the continued validity of the FCC's prescription lives for TELRIC purposes. As described above, the FCC prescription lives first adopted in 1996 and reviewed and confirmed in 1999, which this Commission has adopted for TELRIC purposes, are based

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[102] FCC 1999 Depreciation Update Order, ¶34. In this Order, the FCC conducted a complete review of the prescription lives it originally established several years earlier and found a need to change the lives for only one account. (*Id*. at ¶13-14; see AT&T/MCI Jt. Ex. 1.1, p. 17)

[103] FCC, *In the Matter of Implementation of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Dockets 01-0338, 96-98 and 98-147, Report and order on Remand and Further Notice of Proposed Rulemaking, FCC 03-36 (released Aug. 21, 2003) ("*Triennial Review Order*").

on economic depreciation concepts rather than strictly on historical experience. (See AT&T/MCI Jt. Ex. 1.1, p. 20)

Further, a clear view of FCC thinking, contemporaneous with the *Triennial Review Order*, concerning the appropriateness of ILEC financial lives versus FCC prescription lives in setting TELRIC-based rates is found in the *Virginia Arbitration Order* issued in later August 2003.[104] In that case, which was an interconnection agreement arbitration conducted by the FCC's Wireline Competition Bureau ("WCB") rather than by the state commission, the ILEC (Verizon) proposed the use of its financial book lives for setting TELRIC rates, while the CLECs (AT&T and MCI) proposed the use of the FCC-prescribed lives. The FCC WCB rejected Verizon's proposed use of financial book lives, and concluded that "FCC regulatory lives should be used for purposes of calculating UNE prices." (*Virginia Arbitration Order*, ¶112, 116) The Order stated (*Id.*, ¶115):

> We reject Verizon's argument that FCC regulatory lives are not sufficiently forward-looking. The Commission has used forward-looking asset lives for some time in its regulation of incumbent LEC depreciation practices, and the asset lives that we adopt here are the most recent ones prescribed by the Commission.

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[104] *In the Matter of the Petition of WorldCom, Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia Corporation Commission Regarding Interconnection Disputes with Verizon Virginia, Inc. and for Expedited Arbitration*, CC Docket No. 00-218; *In the Matter of the Petition of AT&T Communications of Virginia, Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia Corporation Commission Regarding Interconnection Disputes with Verizon Virginia, Inc.*, CC Docket No. 00-251, Mem. Opinion and Order, DA 03-2738 (rel. Aug. 29, 2003) ("*Virginia Arbitration Order*"). The *Virginia Arbitration Order* was released shortly after the *Triennial Review Order* was released.

c. SBC Has Failed to Justify its Proposed Departure from this Commission's Use of the FCC Prescription Lives and Adoption of SBC's Much Shorter Financial Reporting Lives

SBC Illinois urges the Commission to abandon the use of the FCC prescription projection lives that the Commission adopted in the TELRIC I Order. Instead, SBC proposes to use the same depreciation lives for UNE costing that it currently uses for external financial reporting for new additions. (SBC Ex. 13.0, p. 9) As noted at the outset of this Section III.B.2, SBC provided little if any explanation of how it derived its financial reporting lives, which are the lives that SBC actually seeks to have this Commission use for TELRIC purposes. Instead, SBC attempted to support its proposal to adopt its financial reporting lives as its economic depreciation rates for TELRIC purposes by presenting the testimony of Dr. Vanston of Technology Futures Inc. ("TFI"), who testified as to various forecasts made by him and TFI as to future lives of various categories of ILEC telecommunications plant equipment.[105] (See AT&T/MCI Jt. Ex. 1, pp. 26-27) As demonstrated below, neither SBC Illinois' financial reporting lives, nor Dr. Vanston's studies, provide an appropriate basis for setting SBC Illinois' TELRIC-based UNE prices.

[105] The record shows that Dr. Vanston and his firm are regularly employed by SBC and other ILECs to present studies and forecasts in regulatory proceedings in support of shorter depreciation lives and higher depreciation rates. The performance of TFI's recurring studies is sponsored by the "Telecommunications Technology Forecasting Group", an industry association of major ILECs in the United States and Canada. (AT&T/MCI Jt. Ex. 1, p. 26, citing L.K. Vanston, "The Local Exchange Network in 2015," (Technology Futures Inc. (2001), p. v)

i. SBC's Financial Reporting Lives Have Not Been Shown to be Forward-Looking Economic Lives

Financial reporting lives are governed by generally accepted accounting principles ("GAAP") and specifically, the GAAP principle of conservatism, which dictates that when alternative estimates are about equally likely, the less optimistic estimate should be used. (AT&T/MCI Jt. Ex. 1, p. 33, citing Statement of Financial Accounting Concepts No. 2, Financial Accounting Standards Board, May 1980, p. 95) As AT&T/MCI witness Mr. Majoros pointed out, although the conservatism principle is effective in protecting the interests of investors, it may not offer adequate protection to ratepayers. (AT&T/MCI Jt. Ex. 1, p. 33) The GAAP principle of conservatism prefers the understatement (versus overstatement) of net income and net assets where any potential measurement problems exist – that is, it would point towards the use of depreciation lives for the ILEC's assets that are conservatively *short* in order to produce a conservatively *higher* amount of depreciation expense and, correspondingly, a conservatively *lower* amount of net income. (*Id*., p. 35)

Financial reporting lives are determined by and are the responsibility of company management, as opposed to being determined by an unbiased third-party source such as the FCC. Although a public accounting firm audits the financial statements in SBC's annual reports, the auditors merely provide their opinion that management's use of the asset life estimates selected for financial reporting purposes present fairly, in all material respects, the annual depreciation expense in conformance with GAAP. The auditors are guided by the GAAP conservatism principle that when alternative expense amounts are acceptable, the alternative having the least favorable effect on net income should be used. The auditors specifically do not attest to the accuracy of the asset lives selected by

management (although, in light of the GAAP principle of conservatism, it is more likely that the auditors would question depreciation lives they thought were *too long* than depreciation lives they thought were *too short*).[106] (AT&T/MCI Jt. Ex. 1.1, pp. 2-4)

On several occasions, the FCC has cited the GAAP conservatism principle in rejecting ILEC proposals to use the ILECs' financial reporting lives. For example, in a 1993 order the FCC stated:

> One of the primary purposes of GAAP is to ensure that a company does not present a misleading picture of its financial condition and operating results by, for example, overstating its asset values or overstating its earnings, which would mislead current and potential investors. GAAP is guided by the conservatism principle which holds, for example, that, when alternative expense amounts are acceptable, the alternative having the least favorable effect on net income should be used. Although conservatism is effective in protecting the interest of investors, it may not always serve the interest of ratepayers. Conservatism could be used under GAAP, for example, to justify additional (but perhaps not "reasonable") depreciation expense by a LEC to avoid its sharing obligation. (FCC, *Prescription Simplification*, Report and Order, FCC 93-452 (rel. Oct. 20, 1993), ¶46 (quoted at AT&T/MCI Jt. Ex. 1, pp. 35-36))

Again in a December 1999 order, the FCC reconfirmed its conclusion that the GAAP principle of conservatism "did not offer adequate protection for ratepayers in the case of depreciation accounting."[107] The FCC stated, "We are not persuaded that the role

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[106] Nonetheless, in order to provide actual information on the basis of its financial reporting lives and why they represent forward-looking economic lives of its plant assets, SBC Illinois might usefully have presented as witnesses (i) company executives to explain how the financial reporting lives were developed and (ii) a representative of SBC Illinois' public accounting firm to explain the basis on which the accounting firm concluded that the financial reporting lives are reasonable and appropriate.

[107] FCC, *United States Telephone Association's Petition for Forebearance from Depreciation Regulation of Price Cap Local Exchange Carriers*, ASD-98-91, Mem Opinion and Order, FCC 99-397 (rel. Dec. 30, 1999), ¶48.

of the conservatism principle has changed or that we should change our previous decision."[108]

Staff economist Dr. Staranczak unequivocally concluded that SBC's financial reporting lives should not be adopted for use in setting TELRIC-based UNE rates. (Staff Ex. 15.0, p. 2) As Dr. Staranczak explained:

> Financial reporting lives are inappropriate for the regulatory purpose of setting UNE rates. Use of financial lives protects the interests of shareholders, by enabling shareholders to recoup (through higher depreciation charges) their capital outlays in the shortest possible period of time, thereby reducing investor risk. However, higher depreciation charges will result in substantial increases in UNE rates for CLECs. This substantial increase in UNE rates will ultimately result in significant rate increases for business and residence phone subscribers that are served by CLECs. Use of financial reporting lives, therefore, does not fairly balance the interests of ratepayers with that of shareholders. Rather, use of financial lives unduly protects the interests of shareholders at the expense of wholesale and ultimately retail subscribers who in effect will be asked to pay higher rates in order to eliminate any possible obsolescence risks to shareholders. In essence, use of financial lives minimizes investment risks for shareholders but maximizes rate risk (i.e. the risk of being overcharged) for subscribers. (Staff Ex. 15.0, p. 3)

In subsequent testimony, Dr. Staranczak, after a detailed analysis of Dr. Vanston's arguments in support of SBC's proposal that its financial reporting lives should be used in calculating its TELRIC-based UNE rates, put the FCC's "not adequate protection for ratepayers" concern into much more direct terms in the context of this case:

> Basically, Dr. Vanston is asking the Commission to grant SBC shorter lives for plant and equipment, which will raise UNE-L rates for CLECs and ultimately telephone rates for the million telephone subscribers they serve because this will enable SBCI to more easily compete in the broadband market with cable operators. It is inappropriate public policy to have ratepayers who don't subscribe to broadband, or who obtain broadband from the cable companies, to pay higher telephone rates just to

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108 *Id*., quoted at AT&T/MCI Jt. Ex. 1, pp. 36-37.

make the telephone companies better able to compete in the broadband market. (Staff Ex. 22.0, pp. 29-30)[109]

ii. Vanston/TFI Forecasts of Technological Change and Competitive Impacts are Speculative and Not Credible

Turning to Dr. Vanston's and TFI's forecasts of plant and equipment lives, their approach is to develop estimates of asset lives by attempting to forecast the pattern by which new technology will replace old (current) technology. A key assumption of Dr. Vanston's studies presented in this case is that incumbent ILECs such as SBC Illinois will replace their narrowband telecommunications networks with broadband integrated networks capable of providing both telecommunications services and video services, *i.e.*, that SBC Illinois will be forced to engage in a massive replacement of its copper facilities with fiber facilities. Another key component of Dr. Vanston's forecasts is that significant numbers of customers will begin to abandon their landline phones in favor of cable telephony, facilities-based CLECs and wireless, thereby stranding a significant amount of embedded ILEC feeder and distribution facilities. (SBC Ex. 13.0, pp. 6-8, 35-48; see AT&T/MCI Jt. Ex. 1, pp. 27-28)

While Dr. Vanston's and TFI's studies are lengthy and purport to contain a lot of analytical detail, the fact is that the analyses TFI performs "superficially appear quite sophisticated, but the lives generated by them are only as correct as TFI's assumptions." TFI's analysis "merely provides a convenient method for plotting by year the growth of new technology assuming the inputs to one's formula are correct." (AT&T/MCI Jt. Ex.

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[109] As the Commission should be well aware, it is not just the rates paid by the telephone customers served by CLECs that would be impacted. Higher UNE rates that force CLECs to charge higher prices to their customers enhance SBC's ability to charge higher prices to its customers, as the disciplining bar of competitors' rates is raised.

1, pp. 28-29) The basic issue is the credibility of TFI's forecast that SBC Illinois (and other ILECs) will find it necessary to engage in massive *replacement* of copper feeder and distribution facilities with fiber feeder facilities, due to either competitive or technological developments, thereby necessitating a shortening of depreciation lives (particularly those for copper-based loop facilities). Unfortunately for Dr. Vanston and SBC, a review of TFI's previous forecasts on this point show that they have consistently been overstated, and that in each forecast the point in time at which these massive replacements are predicted to occur is pushed farther into the future.

For example, TFI produced industry-wide studies in 1988, 1994, 1997 and 2002 in which it predicted replacement of ILEC copper loop feeder and distribution facilities by fiber loop feeder and distribution facilities. In the 1988 study, TFI predicted a substitution of fiber for copper of 78.54% (*i.e.*, fiber facilities as a percent of working lines) by 2001. In the 1994 study, TFI's prediction dropped to 45.9%. In the 1997 study, TFI's prediction dropped to 34.6%. In the 2002 study, TFI's prediction dropped to 32.7%. Similarly, in each successive study the predicted year at which essentially complete replacement (99%) of copper feeder facilities by fiber feeder facilities would be achieved has been pushed farther out into the future: In the 1988 study, 99% use of fiber feeder was predicted to be achieved in 2009; in the 1994 study, 99% use of fiber feeder was projected to occur in 2014; and in the 1997 study, 99% use of fiber feeder was predicted to occur in 2015. In the 2002 study, use of fiber feeder is only predicted to be at 77.2% by 2015. (AT&T/MCI Jt. Ex. 1, pp. 30-31 and Att. MJM-14)

With respect to replacement of copper loop distribution facilities by fiber loop distribution facilities, in the 1994 study, TFI predicted that fiber facilities would be

42.4% of household lines by 2003. In the 1994 study, TFI's prediction of fiber distribution facilities as a percent of total household lines in 2003 dropped to 16.8%. In the 2002 study, TFI predicts that fiber distribution facilities will constitute only 0.5% of total household lines in 2003.[110] (AT&T/MCI Jt. Ex. 1, p. 31 and Att. MJM-15)

As Attorney General witness William Dunkel stated based on the forecasts described in the preceding two paragraphs:

> Dr. Vanston/TFI always forecasts that massive copper distribution retirements will occur in "a few more years". . . The simple fact is that Dr. Vanston's forecasts always suggest that massive copper distribution retirements will occur "in a few more years." When his forecasts prove to be inaccurate, Dr. Vanston just moves his forecast to suggest that the massive distribution copper retirements will occur after the next "few more years." The simple fact is that Dr. Vanston's/TFI's estimates have proven to be unreliable in the past, are not reflective of what has happened, and are not reflective of what is happening today. (AG Ex. 1.2, pp. 13-14)

With respect to both feeder facilities and distribution facilities, TFI's predictions of the replacement of copper facilities by fiber facilities have continuously moved farther out into the future as actual data has proved its predictions to be wrong. (AT&T/MCI Jt. Ex. 1, p. 31)

Not surprisingly in light of this history, although TFI's forecasts have been submitted to the FCC by ILECs for over a decade in support of efforts to obtain shorter depreciation lives, the FCC has declined to rely on TFI's forecasts in developing plant projection lives. For example, in the 1999 Depreciation Update Order, the FCC stated:

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[110] Mr. Dunkel on behalf of the Attorney General presented a similar analysis showing how TFI's successive forecasts of copper-by-fiber replacement have continuously pushed the predicted arrival of the fiber network farther into the future. (AG Ex. 1.0, p. 39 and Sched. WDA-23) He also pointed out that in 1994, TFI forecast that by 2003 ILECs would be retiring 8% of their distribution lines per year as fiber replaced copper; but in fact SBC Illinois is only retiring 1% to 2% of its distribution cable per year. (*Id*., p. 39 and Sched. WDA-17)

> Given the significant uncertainty that even TFI acknowledged exists in forecasting plant replacement over the next fifteen years, we do not find that the carriers that advocate adoption of TFI's much shorter projection lives have met their burden. Depreciation reserves are at 52 percent, an all-time high, and have increased in each of the past five years. There is no evidence that the large wave of plant replacements forecast by TFI, which should result in increased retirements, has begun or is about to begin. . . . We conclude, therefore, that the TFI study fails to establish convincingly that current projection lives are inadequate.[111]

There are specific reasons that fiber is not replacing copper in the local loop at the rate Dr. Vanston and TFI have predicted. Specifically, instead of replacing its copper-based network with fiber, SBC Illinois, like the other major ILECs, has chosen to implement digital subscriber line ("DSL") technology, which allows the provision of broadband services over existing copper loops. (AT&T/MCI Jt. Ex. 1.1, p. 16) Similarly, in response to competition from broadband providers (such as cable companies), SBC Illinois and other ILECs have not replaced their existing networks with fiber facilities, but rather have chosen the economically efficient path of enhancing their networks through the use of DSL technology and innovative systems such as Project Pronto, which diverts data traffic while continuing to fully utilize SBC Illinois' existing copper network. Thus, SBC Illinois' response to this competition has tended to *lengthen* the economic life of its plant, to the extent there is any change at all.[112] (*Id*., pp. 17-18)

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[111] FCC 1999 Depreciation Update Order, ¶16. As noted earlier, the significance of the high depreciation reserve percentage cited by the FCC is that it indicates that significant retirements (which one would expect if major replacement of copper loop facilities by fiber facilities were occurring) are not happening, since if retirements were occurring the depreciation reserve would be relieved of (charged for) the cost of the assets retired, and the reserve percentage would go down.

[112] Of course, competition from CLECs using resale of SBC Illinois services and/or UNEs leased from SBC has no effect whatsoever on SBC Illinois' plant lives, since SBC Illinois' existing network continues to be used. (AT&T/MCI Jt. Ex. 1.1, p. 18)

Commission Staff economist Dr. Staranczak demonstrated persuasively that Dr. Vanston's forecasts failed to provide any basis for the Commission to depart from the depreciation lives that it adopted in the TELRIC I Order. Dr. Staranczak found Dr. Vanston's "analysis" (the quotes are Dr. Staranczak's) of how quickly metallic cable will be replaced by fiber cable to be "speculative." (Staff Ex. 2.0, p. 24) As he noted:

> Dr. Vanston presented no evidence proving rates of technical change today are more rapid than the last time depreciation rates were set in Illinois, which was 1996. Dr. Vanston provides examples of technical developments in telecommunications, and then maintains that these new technologies will reduce the economic lives of existing plant and equipment, but his case is largely speculative and selectively anecdotal rather than substantive. (*Id.*; (footnotes omitted))

Addressing one of Dr. Vanston's critical assumptions supporting his predictions, Dr. Staranczak stated:

> [Dr. Vanston] assumes that customers will migrate from 1.5Mb/s today to 100 Mb/s by 2020. But Dr. Vanston does not provide any convincing rationale why customers will need 60 times the bandwidth they use now. He seems to imply that customers will want this capacity to access video and audio clips but his case is based on unsupported assertions ("after 2005, customers will demand the increased data rates") rather than substantive analysis. He also selectively quotes "some experts" to support his assumptions. Again, selectively quoting some experts who predict band-widths "as high as" 100 Mb/s could be needed is far from conclusive evidence. (*Id.*, p. 26 (footnotes omitted))

As Dr. Staranczak points out, based on this analysis, Dr. Vanston predicts that the percentage of access lines that will be converted from copper to fiber will increase from **1% in 2003** to (amazingly enough) 100% by 2019. (*Id.*) Even this prediction is implausible (and the assumed 100% conversion of the network from copper to fiber is unnecessary) because (i) customers who have already installed broadband from other sources will have no need to have their copper telephone access lines converted (and there is no reason why CLECs or customers as a group should pay for the costs of SBC

Illinois becoming more competitive with cable companies on a house-by-house basis); and (ii) new technologies exist which allow advanced services to be provided over existing copper facilities, thereby precluding the need for copper facilities to households to be replaced with fiber facilities in order for those households to have access to advanced services.[113] (*Id*., pp. 26-27)

In fact, although the number of narrowband access lines nationwide has declined from 2000 to 2003 (in part due to the decline in employment and business activity during that period), the number of ILEC-provided ADSL and other high-speed lines increased four-fold in that period. The data demonstrate that much of the decline in narrowband access lines is accounted for by conversion to broadband; and that conversion to broadband does not strand existing ILEC narrowband loop plant, but rather makes new use of the functionalities inherent in the copper loop, thereby giving extended life to the copper plant. (Staff Ex. 22.0, pp. 24-26)

Dr. Staranczak also found unpersuasive the other premise of TFI's forecasts of shorter asset lives, namely, that increasing competition will strand large quantities of ILEC equipment thereby necessitating shortened depreciation lives to take account of this development. TFI forecasts that by 2010, ILECs will provide *one-third fewer access lines than today*, and that by 2015 ILECs will provide *less than half as many access lines as today*. (Staff Ex. 2.0, p. 27; SBC Ex. 13.0, p. 8) As Dr. Staranczak pointed out, while competition may strand plant if the competition is facilities-based and there is no growth in underlying lines, UNE-P and resale-based competition uses existing SBC Illinois plant

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[113] One such new technology, which SBC Illinois is already deploying, is New Generation Digital Loop Carrier ("NGDLC") technology. (Staff Ex. 2.0, p. 27)

and will not shorten the life of that plant.[114] (Staff Ex. 2.0, p. 28) With respect to the various forms of facilities-based (at the local loop level) competition, Dr. Staranczak pointed out that (i) TFI's forecasts of the numbers of cable telephone subscribers in future years are unrealistically high[115]; (ii) the likelihood of significant construction of their own expensive loop facilities by CLECs is small given the capital-intensity of such an effort and current CLEC financial difficulties; and (iii) the likelihood that a substantial portion of consumers will completely replace their landline service with cellular service, rather than continuing to use cellular service as a complement to their landline service, is small.[116] (*Id.*, p. 29) As Dr. Staranczak summarized: "Dr. Vanston's approach to forecasting competitive market share loss appears to consist of quoting a few extreme predictions in the hopes of making his own projections seem reasonable" (*Id.*, p. 30), and:

> Dr. Vanston provides little in the way of hard evidence to support his view that depreciation rates need to be increased. He has not shown that the

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[114] Dr. Vanston's own data shows that 75% of CLEC lines are resale, UNE-P or UNE-L which do not strand ILEC loop investment since such lines are provisioned entirely through use of the ILECs' facilities. Moreover, according to FCC data, the number of CLEC facilities-based access lines has increased only minimally since December 2001. (Staff Ex. 22.0, pp. 21-22; SBC Ex. 13.1, p. 13)

[115] In his rebuttal testimony, Dr. Staranczak cited a number of technical and economic factors that make it unlikely that cable telephony will make substantial inroads into wireline telephony. (Staff Ex. 22.0, p. 19)

[116] Currently, even though there are over 128 million cellular users nationwide (indicating a fairly high penetration rate for cellular), only 2.2% of households have done away with their regular phones to rely totally on cell phones or other wireless devices. (Staff Ex. 2.0, pp. 29-30; SBC Ex. 13.0, p. 31) Yet Dr. Vanston predicts that the number of households relying solely on wireless will jump to 20% by 2005 and to 50% by 2020. (Staff Ex. 2.0, p. 30) In his rebuttal testimony, Dr. Vanston asserted that the percentage of households relying solely on wireless has now risen to 3% to 5%, although as Dr. Staranczak pointed out, Dr. Vanston admitted that he had no data to support this assertion. (Staff Ex. 22.0, p. 20; SBC Ex. 13.1, p. 30) Dr. Staranczak reiterated that "Dr. Vanston's very aggressive wireline to wireless forecasts are without basis in fact." (Staff Ex. 22.0, p. 20)

> rate of technological change is accelerating from the rapid rates experienced in the past. Rather Dr. Vanston provides examples of current technical change and then claims that these technical changes will cause equipment to be replaced more quickly than before. His demand forecasts for broadband appear to [be] simplistic "S" curve projections that assert a certain level of penetration will occur in 2020 but these assumed penetration levels are unsupported by underlying economics. He selectively quotes experts in the field and uses anecdotes to justify his projections for increasing bandwidth rather than providing substantive analysis of his own. He does not acknowledge that some technologies allow advanced services to be offered over metallic cable. His analysis of competition does not take into account the weakened financial conditions of competitors or the increased competitive expertise of incumbents. Finally, he quotes experts that assert that cable, facilities based CLEC and cellular competition will strand substantial local plant. However, these so-called expert predictions are inconsistent with recent developments and lack an analytical basis and therefore are not credible. (*Id*., pp. 30-31)

Despite Dr. Vanston's submission of a new volley of TFI studies in his rebuttal testimony, Dr. Staranczak concluded, after carefully analyzing Dr. Vanston's new studies, that his forecasts remained unsupported:

> To summarize, there is no credible statistical evidence to support Dr. Vanston's assertions that facilities based competition will increase substantially. Cable telephony accounts for a small portion of the total market and growth for this type of facilities based entry appears to have stalled. Furthermore, there is now **less** facilities-based competition from non-coaxial sources than there was three years ago. Finally, there is no plausible evidence that substantial numbers of wireline subscribers will rely solely on wireless anytime in the foreseeable future. (Staff Ex. 22.0, pp. 22-23; emphasis in original)

Finally, Joint CLECs note that the possibility that significant numbers of customers will abandon their wireline service for other alternatives is in no way manifested in SBC Illinois' loop facilities planning. As discussed in Section III.B.1 of this brief on fill factors, the record in this case shows that (except for its own temporary economic and budgetary reasons) SBC Illinois continues to plan and install distribution facilities using the same basic "two lines per household" criteria for urban and suburban areas that it claims to have used since at least the 1970s. If SBC Illinois management

actually believed Dr. Vanston's forecasts, management would change this criterion and begin to install fewer lines per household.

d. Conclusion on Depreciation

It is worthwhile to reiterate what the Commission concluded in rejecting Ameritech's proposed depreciation lives in the TELRIC I Order, since those conclusions resonate equally well on this record:

> We are unwilling to adopt Ameritech's ill-defined and largely judgmental calculations of economic lives and abandon the traditional engineering and economic principles which we have utilized in the past. The specifics of the Company's proposal are not supported by a sufficient quantum of evidence. Although it asserts that service lives must be shortened in order to ensure that they are consistent with the new competitive environment, it provided very little hard evidence to justify either the range prepared by [its witness] or the actual depreciation economic lives [its witness] selected. (TELRIC I Order, p. 27)

In summary, the FCC prescription lives for SBC Illinois continue to be the appropriate measure of forward-looking economic lives of plant assets to use in calculating TELRIC-based UNE rates. SBC has not demonstrated that its financial reporting lives are an appropriate measure of the economic lives of its assets, and (unlike the FCC prescription lives), SBC's financial reporting lives do not come from an unbiased source. Nor has the appropriateness of SBC's financial reporting lives for TELRIC purposes been substantiated by Dr. Vanston's forecasts, which are speculative and lack credibility. As it did in the TELRIC I Order, the Commission should continue to use the FCC's prescription depreciation lives for SBC Illinois as the forward-looking economic lives for purposes of calculating SBC Illinois' TELRIC-based UNE rates.

3. Cost of Capital

a. Summary of Recommendations

The Commission should utilize an overall cost of capital of 7.54% for SBC Illinois for purposes of setting SBC's UNE rates in this proceeding. The components of the weighted average cost of capital of 7.54% are as follows (see AT&T/MCI Jt. Ex. 2, Att. TLM-2, p. 1)[117]:

Component	**Cost Rate**	**Percent of Total**	**Weighted Cost**
Common equity	9.46%	66.12%	6.25%
Long Term Debt	5.60%	11.53%	0.65%
Short Term Debt	2.84%	22.35%	0.64%
Total		100%	**7.54%**

The 12.19% cost of capital that SBC proposed for use in this proceeding is based on a badly-outdated study – one prepared in **1999**. SBC's proposal is (remarkably) more than 250 basis points ***higher*** than the 9.52% cost of capital adopted by the Commission in 1998 in SBC's (then Ameritech Illinois) previous TELRIC case, despite years of declining interest rates, and is the product of seriously flawed analyses. SBC's cost of capital proposal must be rejected.

[117] Joint CLECs' recommended cost of capital is based on analyses conducted by AT&T/MCI witness Terry L. Murray in the early part of 2003 and submitted as part of the CLECs' direct case in May 2003. Consistent with Joint CLECs' position that the eight month hiatus in this docket caused by SBC's attempts to legislatively bypass this Commission should not provide an excuse to selectively "update" the parties' direct cases, Joint CLECs are not proposing that the Commission adopt an updated cost of capital based on 2004 data. As will be discussed herein, any such updating would compel a *lower* weighted cost of capital for SBC than the 7.54% overall cost of capital recommended by Ms. Murray.

b. The Joint CLECs' Cost of Capital Recommendation is Based on a Reasonable Analysis, Reflects Current Capital Market Conditions and Should be Adopted

i. Background

Because this is a TELRIC case, the Commission must determine a forward-looking cost of capital to employ in setting SBC's TELRIC-based UNE prices. The TELRIC methodology requires that "the forward-looking costs of capital (debt and equity) needed to support investments required to produce a given element shall be included in the forward-looking direct cost of that element." (*Local Competition Order*, ¶690) The Commission must develop a forward-looking weighted average cost of capital incorporating the costs of equity and debt capital and the mix of each type of capital in the overall capital structure. The weighted average cost of capital represents the compensation investors require, on a forward-looking basis, to hold claims on assets deployed to provide UNEs. The FCC has defined the relevant cost of capital as one that reflects the risk incurred in the business of leasing UNEs at wholesale.[118] (*Id.*, ¶702)

The Joint CLECs' recommended cost of capital for use in this proceeding is based on an analysis prepared by AT&T/MCI witness Terry L. Murray that employs the foregoing principles. Ms. Murray is an economist specializing in the analysis of regulated industries. She holds M.A. and M.Phil degrees in Economics from Yale

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[118] In the *Triennial Review Order*, the FCC made it clear that "the use of UNE-specific costs of capital is an acceptable method of reflecting in UNE prices any risk associated with new facilities that deploy new technology and offer new services." *Triennial Review Order*, ¶683. The FCC also confirmed the applicability of the long-standing principle for determining the cost of capital for public utilities and telecommunications carriers that "*[c]ost of capital* reflects the rate of return required to attract capital, *i.e.*, the rate of return that investors expect to receive from alternative investments that have the same risk." *Id.*, ¶671 (emphasis in original).

University and an A.B. in Economics from Oberlin College. She has 14 years' experience as a consultant in the fields of telecommunications, energy and insurance regulation. Prior to entering private practice, Ms. Murray was on the Staff of the California Public Utilities Commission where, among other responsibilities, she held the position of Director of the Division of Ratepayer Advocates. Ms. Murray has testified or served as an expert on telecommunications issues before the regulatory commissions of 26 states and the FCC. (AT&T/MCI Jt. Ex. 2, pp. 1-2 and Att. TLM-1)

As background, Joint CLECs note that in the TELRIC I case, the Commission adopted a 9.52% overall cost of capital for SBC for use in setting its UNE rates. (TELRIC I Order, pp. 21-22) The TELRIC I Order was issued in February 1998. Although in *this* case SBC proposes a cost of capital some 250 basis points *higher* than the cost of capital adopted by this Commission in the TELRIC I Order, virtually every quantitative indicator demonstrates that SBC's cost of capital should have *decreased* from 1998 to 2003. (AT&T/MCI Jt. Ex. 2.0, p. 9) For example, the 10-year U.S. Treasury bond rate was 5.57% in February 1998 but had fallen to 3.96% by early April 2003. The 3-month Treasury bill rate was 5.23% in February 1998 but only 1.11% in early April 2003, a drop of 412 basis points.[119] Other key interest rates declined by similar magnitudes. (*Id*., pp. 10-11)

In addition, an important SBC-specific development subsequent to the TELRIC I case is that in 1999, Ameritech was acquired by and became a subsidiary of a much larger company, SBC. In seeking approval of this merger, the applicants argued that it would improve the combined company's access to capital markets. For example, in its

[119] The short-term interest rate used to calculate SBC's 9.52% overall cost of capital in the TELRIC I Order was 5.53%. (AT&T/MCI Ex. 2, p. 11)

Order in Docket 98-0555 in which this Commission approved the SBC-Ameritech merger, this Commission noted that "The record indicates that the financial strength of the combined companies will exceed the financial strength of either company alone. As such, the Joint Applicants' access to capital markets will likely be enhanced, not decreased."[120] Thus, all other things being equal, SBC Illinois' cost of capital should have declined since 1998, not increased. (AT&T/MCI Jt. Ex. 2, p. 9)

ii. <u>Forward-Looking Cost of Equity</u>

Ms. Murray began her analysis by selecting a group of comparable companies (proxy group) with characteristics as similar as possible to the wholesale business of providing network elements, which is the line of business for which SBC's forward-looking cost of capital is being determined.[121] Because the relevant business risk is that of providing UNEs at wholesale, Ms. Murray considered for inclusion in the proxy group all companies with publicly-traded stock for which any part of the company has a legal obligation to provide UNEs pursuant to the Telecommunications Act. (AT&T/MCI Jt. Ex. 2, p. 18) However, she eliminated as not comparable companies that do not qualify as a large capitalization stock like SBC.[122] (*Id*., p. 19) The resulting proxy group she selected consists of Verizon, Bell South and SBC itself.[123] (*Id*.)

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[120] *See Joint Application For Approval of the Reorganization of Illinois Bell Telephone Company d/b/a Ameritech Illinois, and the Reorganization of Ameritech Illinois Metro, Inc., in Accordance with Section 7-204 of the Public Utilities Act and/or All Other Appropriate Relief*, Docket 98-0555, Order issued Sept. 23, 1999, pp. 42, 44-45 (cited at AT&T/MCI Jt. Ex. 2, p. 9)

[121] Although we discuss the selection of comparable companies here in connection with describing Ms. Murray's cost of equity analysis, the proxy group is used in determining all the components of her cost of capital.

[122] The overall risk of the holding companies with publicly-traded securities that own the operating telephone companies that are obligated to provide UNEs is probably greater

Ms. Murray estimated the forward-looking cost of equity capital using the discounted cash flow ("DCF") and capital asset pricing model ("CAPM") methodologies. The DCF methodology estimates investors' required cost of equity capital using the familiar formula that equates the price of a common stock to the discounted value of the expected cash flows from dividends over time. (AT&T/MCI Jt. Ex. 2, pp. 21-22) In her DCF analysis, Ms. Murray used a three-stage DCF growth model which, as recognized by the respected authority Ibbotson and Associates, "fits with life cycle theories in regards to company growth . . . Typically, the potential for extraordinary growth in the near term eases over time and eventually growth slows to a more stable level." (*Id.*, pp. 22-23, citing Ibbotson Associates, *SBBI: Valuation Edition, 2003 Yearbook*, p. 62). In Ms. Murray's three-stage model, the first stage is the next five years, in which she based the expected growth in the proxy companies' earnings on the mean of analysts' forecasts over the five-year period.[124] (*Id.*, p. 23) The second stage is the succeeding 10 years

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than the risk associated with providing UNEs standing alone. However, Ms. Murray made no downward adjustments to her cost of capital estimates based on the publicly-traded securities of the holding companies to reflect this fact. This is one of several reasons that her estimate of the forward-looking cost of capital associated with providing UNEs at wholesale is conservatively high. (AT&T/MCI Jt. Ex. 2, pp. 16-18)

[123] Another large telecommunications holding company, Qwest, was not included in the proxy group for several reasons including recently revealed accounting issues and the fact that Qwest pays no dividends and thus cannot be used in a standard DCF analysis. (AT&T/MCI, p. 19) Nevertheless, Ms. Murray prepared an alternative cost of capital analysis with Qwest included in the proxy group. The cost of capital analysis with Qwest included in the proxy group produced a higher cost of equity estimate than the base analysis but a lower overall cost of capital due to the low percentage of common equity in Qwest's capital structure. (See *Id.*, pp. 19-20 and Att. TLM-2, p. 1)

[124] Ms. Murray assumed that a company's dividends will grow at the same rate as its earnings over time; this permits the use of analysts' forecasts of earnings growth rates, which are commonly available, in estimating growth rates in the DCF model. She used analysts' consensus earnings forecasts from *Thomson Financial Network* (formerly

(*i.e.*, the period ending 15 years in the future), during which each company's growth rate is assumed to gradually converge toward the future rate of overall economic growth.[125] (*Id.*) In the third stage (year 16 forward) each company is assumed to grow at the same rate as the overall economy, which is the only sustainable growth rate for a company in the long run. (*Id*., p. 24)

Ms. Murray's DCF analysis for the comparable companies using their current dividend yields and the three-stage growth rates produced an average (for the proxy companies) cost of equity of 9.72%. (See AT&T/MCI Jt. Ex. 2, pp. 24-25) It is noteworthy that the forecasts of the long-term growth rate of the economy used in stages 2 and 3 of the analysis are *higher* than the analysts' forecasts of earnings growth for the next five years that she used for each of the comparable companies, and thus tended to raise the cost of equity estimate above the value that would be produced by a one-stage DCF model that used only the forecasted earnings growth rates for the comparable companies. (*Id*., p. 25) Ms. Murray performed an alternative analysis using a single-stage (constant growth) DCF model and the comparable companies' forecasted near-term earnings growth rate, which produced a cost of equity estimate 59 basis points *lower* than her base estimate of 9.72%. (*Id*., pp. 24-25) In other words, the use of the three-stage DCF model produced a *higher* forward-looking cost of equity estimate for SBC than would use of a single-stage (constant growth) DCF model.

I/B/E/S) as the first-stage growth rates for the comparable companies. (AT&T/MCI Jt. Ex. 2, p. 24)

[125] The future rate of overall economic growth for the second stage of the DCF analysis was developed using forecasts published in the Federal Reserve Bank of Philadelphia's *Survey of Professional Forecasters*. (AT&T/MCI Jt. Ex. 2, p. 23)

Ms. Murray also employed the CAPM methodology to estimate the forward-looking cost of equity capital. The CAPM estimates the cost of equity capital based on the expected rate of return on riskless assets, the market-expected equity risk premium, and the beta of the particular company or companies under consideration. A company's beta is the covariance of the stock's return with the market return divided by the total variance of the stock's return, and measures the variability of the stock's return relative to the overall market return. (AT&T/MCI Jt. Ex. 2, pp. 26-27) Ms. Murray utilized forecasted betas from two respected sources, *Value Line* and BARRA (both of which show that returns for stocks of telecommunications firms move roughly in tandem with the market as a whole). (*Id*., p. 27) She also employed the well-known procedure of unlevering, averaging and then relevering the comparable companies' betas to account for the fact that differences in the companies' tax rates and capital structure leverage create artificial differences in their observed betas. The resulting average beta for the comparable companies was 0.917, indicating that the stock of the proxy group is slightly less sensitive to the market than the average stock. (*Id*., pp. 27-28, 33)

A second input to the CAPM calculation, the market risk premium, is the difference between the expected returns of the stock market and a purely riskless bond. (AT&T/MCI Jt. Ex. 2, p. 29) A wide variety of means have been employed, and have the support of academicians, for developing the market risk premium, ranging from estimates based on long-term historical data (over various time periods) to purely forecasted approaches. (See *Id*., pp. 29-31) As reported by Ms. Murray in her discussion of the various methods that enjoy support, the historical risk premium based on data for the period 1926-2002 is approximately 7%, whereas the forward-looking risk premium

advocated by most experts is about 4%.[126] (*Id*., pp. 30-31) Accordingly, rather than select a single method or source for the market risk premium, Ms. Murray used an average consisting of (i) the most widely-cited historical equity premium from Ibbotson and Associates and (ii) an average forecast of the equity premium based on four prominent sources (each of which used a different methodology for forecasting the equity risk premium). She gave equal weight to the historical value and to the average of the four forecasted values. She also adjusted the various values to place them on a consistent basis in terms of the riskless rate of return assumed in calculating the respective equity risk premiums. The result was an average equity risk premium of 5.00%. (*Id*., pp. 31-32)

To develop the third input into the CAPM analysis, the forward-looking riskless rate of return, Ms. Murray averaged the 10-year forecast of the rate on 10-year U.S. Treasury notes with the current rate on 10-year Treasury notes. This procedure produced an estimate of the average 10-year Treasury note rate expected to prevail over the next ten years of 4.61%. (AT&T/MCI Jt. Ex. 2, pp. 32-33)

Based on the inputs developed as discussed above, Ms. Murray's CAPM estimate of the forward-looking cost of equity capital is 9.19%. (AT&T/MCI Jt. Ex. 2, p. 33) She averaged this CAPM cost of equity estimate with her DCF cost of equity estimate (9.72%) to produce an overall forward-looking cost of equity capital of 9.46%. (*Id*.)

iii. <u>Forward-Looking Cost of Debt</u>

The forward-looking cost of capital includes a debt as well as an equity component. SBC Illinois has a substantial amount of short-debt outstanding as well as

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[126] The historical period of 1926-2002 is based on the use of a well-known series of historical stock market data maintained and published by Ibbotson and Associates, which begins with 1926 data.

long-term debt. Ms. Murray estimated the forward-looking cost of debt based on the assumption that SBC would continue to roll over both its short-term debt and its long-term debt over the next ten years. With respect to short-term debt, Ms. Murray determined that the historical spread between SBC Illinois' short-term debt cost and the yield to maturity on three-month U.S. Treasury notes is 0.35%. She added this spread to the forecasted interest rate on a three-month Treasury note (3.89%) 10 years in the future to obtain an estimate of the future cost of short-term debt capital for SBC, 4.24%. (AT&T/MCI Jt. Ex. 2, p. 34) She then determined the current cost of short-term debt capital for SBC as the sum of the historical spread over the three-month Treasury note yield (0.35%) plus the current three-month Treasury note rate (1.09%), or 1.44%. Ms. Murray averaged the current short-term debt cost with the future cost 10 years hence to obtain a forward-looking cost of short-term debt capital of 2.84% over the next 10 years. (*Id*.) Using the same procedure, Ms. Murray developed an estimate of 5.60% for SBC Illinois' projected long-term debt cost over the next 10 years. (*Id*.)

It should be noted that at the time SBC filed this case (December 2002), its debt was on credit watch by Moody's for possible downgrade. (AT&T/MCI Jt. Ex. 2, pp. 35-36) Moody's in fact downgraded SBC's debt in March 2003, prior to the date that CLECs and Staff filed their direct testimony, and this fact was taken into account by Ms. Murray. (*Id*.) She noted that after the downgrade, the ratings outlook for SBC was "stable". (*Id*., p. 38) Further, the average spread in the debt costs for companies with SBC's new debt rating, A1/A+, and companies with the next highest rating, Aa3/AA-, was quite small, ranging from 0.02% to 0.10% depending on the maturity of the particular debt. (*Id*., pp. 36-37) Ms. Murray concluded that SBC should be able to obtain

new debt at her forward-looking cost of debt even with the new rating. (*Id.*, p. 38) Moreover, in stating its reasons for downgrading SBC's debt, Moody's stated that the downgrade was predicated in large part on concerns about the effect on SBC's retail revenues of UNE-P based competition.[127] This is a separate risk from the risk associated with leasing UNE loops at wholesale, which is the risk that is to be reflected in the forward-looking cost of capital used for purposes of setting UNE rates in this case. (*Id.*, p. 37)

iv. Forward-Looking Capital Structure

In determining the forward-looking capital structure (*i.e.*, the mix of debt and equity capital) to utilize in establishing the forward-looking cost of capital for SBC Illinois, Ms. Murray focused on the capital structure that best approximated SBC's own *target* capital structure. This is the relevant capital structure for determining the cost of capital at which investors will provide an efficient amount of funds for SBC investment projects.[128] Further, by definition, in an efficient market a firm's capital structure will adjust toward its target capital structure in the long-run. As Ms. Murray explained,

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[127] See AT&T/MCI Jt. Ex. 2, p. 37, citing "Moody's Cuts SBC Communications Ratings," *CBS.MarketWatch.com*, March 24, 2003. More recently, in the *Triennial Review Order*, the FCC has stated that a TELRIC-based cost of capital should reflect the risk that the carrier providing UNEs will lose customers *to other facilities based carriers*. (*Triennial Review Order*, ¶680)

[128] Most economists estimate the value of debt in the capital structure by looking at its book value, since so little debt is publicly traded. Thus, the only real question in determining the proportions of debt and equity in the firm's capital structure is whether to use the book value or the market value of equity in this analysis. As Ms. Murray noted, academic research does not provide an unambiguous basis for choosing between use of 100% book value and 100% market value for this purpose. She cited academic studies that indicate that a firm's market equity value moves towards its book equity value, as well as others that suggest that market equity values are related to the firm's target capital structure. (AT&T/MCI Jt. Ex. 2, pp. 40-42)

empirically the best prediction of the target capital structure incorporates both market value and book value information. (AT&T/MCI Jt. Ex. 2, pp. 38-42)

Taking into account the academic studies and literature that she reviewed, Ms. Murray developed the forward-looking capital structure to use in the overall cost of capital determination by using a 50%-50% average of book and market values for equity. For book value information, she used the book capital structure of SBC Illinois. Because data on the market value of equity is not available for SBC Illinois standing alone, she averaged the market capital structures of the companies comparable to SBC (the parent company) to obtain a value for the market equity capital to use in this calculation. Using the resultant average of the market and book values of equity and the book value of debt, she developed a forward-looking capital structure for SBC Illinois of 66.12% common equity, 11.53% long-term debt and 22.35% short-term debt. (AT&T/MCI Jt. Ex. 2, p. 43) This capital structure contains more equity (the most expensive form of capital) than does SBC Illinois' current book capital structure, and less short-term debt (the least-expensive form of capital) than does SBC Illinois' current book capital structure. (*Id*., pp. 43-44)

In the TELRIC I Order, the Commission adopted a forward-looking capital structure for SBC Illinois consisting of 41.2% common equity, 35.5% long-term debt and 23.3% short-term debt, as recommended by Staff.[129] (See TELRIC I Order, pp. 10-12) Ms. Murray's recommended capital structure in this proceeding contains 60% more equity and only about one-third as much long-term debt (and about the same amount of

[129] The capital structure adopted by the Commission in the TELRIC I Order was Ameritech's then-actual book capital structure, which the Commission concluded was "an accurate and suitable indicator of its future capital structure." (TELRIC I Order, pp. 11-12) As described above, Joint CLECs' recommended forward-looking capital structure takes into account the market value of equity by using a 50%-50% weighting of market value and book value for equity.

short-term debt) as the capital structure recommended by Staff and adopted by the Commission in the TELRIC I Order. Of course, the cost of equity adopted in the TELRIC I Order was 13.40% (as recommended by Staff; *see* TELRIC I Order, pp. 15-16, 20), which is consistent with the higher overall costs of capital at that time (as discussed above) and the much higher degree of financial leverage (*i.e.*, debt as a percentage of total capital) in the capital structure adopted in that case. In this case, Joint CLECs' recommended cost of equity and common equity capital structure component actually produce a *higher* weighted average cost of equity for SBC Illinois (*i.e.*, 9.46% X 66.12% = 6.25%) than the values adopted in the TELRIC I Order (*i.e.*, 13.40% X 41.2% = 5.52%).

v. Forward-Looking Overall Cost of Capital

Based on the components of the overall cost of capital determined by Ms. Murray, as described above, Joint CLECs' recommended forward-looking overall cost of capital for purposes of establishing SBC Illinois' UNE rates in this case is 7.54%. The components of this overall cost of capital are summarized in the table at the start of this Section III.B.3.

vi. A Check: Updated Cost of Capital Based on More Current Information

As the Commission knows, this case was "abated" in May 2003, virtually contemporaneously with the submission of Staff, CLEC and other intervenor's direct testimony, and was not "reopened" until mid-December 2003. CLEC rebuttal testimony to Staff was submitted on January 20, 2004, and CLEC surrebuttal to SBC's rebuttal testimony was filed on February 20, 2004. As noted at the outset of this Section III.B.3, the Joint CLECs are not proposing to modify their cost of capital recommendation

submitted in May 2003, in light of more recent data and information that indicates a lower forward-looking cost of capital than 7.54% would be appropriate in this case based on current information. A more recent analysis was, however, presented by Ms. Murray in her rebuttal testimony (submitted January 20, 2004), and the Commission should consider that updated analysis to provide assurance that the forward-looking cost of capital for SBC *has not increased* since May 2003.

Specifically, Ms. Murray submitted with her rebuttal testimony a forward-looking cost of capital study for SBC as of September 30, 2003, that she filed in a TELRIC proceeding before the Michigan Public Service Commission (Mich. PSC Case No. U-13531). That study took into account the additional guidance on cost of capital principles provided by the FCC in the *Triennial Review Order*. (AT&T/MCI Jt. Ex. 2.1, p. 14) In the SBC Michigan study, in order to develop a quantitative estimate of the cost of capital for a hypothetical efficient carrier subject to facilities-based competition, Ms. Murray again used data from three Regional Bell Operating Companies ("RBOC"), including SBC. She again used both a three-stage DCF analysis and a CAPM analysis to determine the forward-looking cost of equity.[130] Ms. Murray developed short-term debt costs using the forward-looking yield-to-maturity for publicly-traded debt of the SBC companies. She estimated forward-looking long-term debt costs based on the yield to maturity for newly-issued ILEC 10-year bonds. Finally, she determined the capital structure using the average of the market and book capital structures for the comparable companies.

[130] In her CAPM analysis for the SBC Michigan cost of capital study, Ms. Murray used a beta of 1.0 (AT&T/MCI Jt. Ex. 2.1, p. 14), rather than a beta of 0.917 as employed in the CAPM analysis in her direct testimony in this docket. A beta of 1.0 indicates that the variability of return of the stock under consideration is equal to that of the overall market equity return, whereas a beta of 0.917 indicates that the variability of return of the subject stock is lower than that of the overall market return.

(AT&T/MCI Jt. Ex. 2.1, p. 15 and Att. TLM-4) The resulting updated forward-looking weighted average cost of capital was 7.04%, as follows (*Id.*):

Component	**Cost Rate**	**Percent of Total**	**Weighted Cost**
Common equity	8.70%	63.71%	5.54%
Long Term Debt	4.87%	29.38%	1.43%
Short Term Debt	0.95%	6.91%	0.07%
Total		100%	**7.04%**

Ms. Murray explained in her January 2004 rebuttal testimony that although her May 2003 estimate of the forward-looking cost of capital, 7.54%, appeared now to be conservatively high, it is still appropriate for this proceeding as a "not to exceed" value. (AT&T/MCI Jt. Ex. 2.1, p. 15) In light of more recent data, the 7.54% cost of capital would be ample to compensate a hypothetical efficient telecommunications carrier for the risks it faces in providing UNEs subject to facilities-based competition. (*Id.*) Ms. Murray noted that the 7.54% forward-looking cost of capital remains reasonable in light of projected returns for the stock market as a whole of less than 8% per year for the next 10 years (the 7.54% overall cost of capital incorporates a cost of equity capital of 9.46%), as well as current and forecasted low interest rates. (*Id.*)

Accordingly, the Commission should adopt the Joint CLECs' recommended forward-looking overall cost of capital of 7.54% for purposes of setting SBC Illinois' UNE rates in this proceeding.

c. SBC Illinois' Proposed Cost of Capital is Based on an Analysis that is Woefully Out of Date and is Otherwise Flawed and Inappropriate

SBC's cost of capital witness, Dr. William Avera, proposed that an overall cost of capital of 12.19% should be adopted for setting UNE rates in this proceeding. His proposed overall cost of capital included a 13.00% rate of return on common equity for

SBC, which is particularly generous in light of his recommendation that it be applied to a capital structure containing *86 percent equity*! (SBC Ex. 12.0, pp. 4, 7 and Sched. WEA-1, p. 1)

Before the Commission spends much time on any detailed consideration and analysis of Dr. Avera's cost of capital study, it should be aware of one fact that provides sufficient basis, standing alone, to reject Dr. Avera's study and recommendations: it was prepared in *1999*, using data primarily from year-end 1998 and the first quarter of 1999. (See AT&T/MCI Jt. Ex. 2, p. 49) As Ms. Murray succinctly stated, this is "far too stale to form the basis for an estimate of SBC Illinois' forward-looking cost of capital." (*Id.*) Indeed, Dr. Avera's analysis was unacceptably dated – *i.e.*, already based on data that was almost four years old – at the time SBC filed this case in December 2002. By now, Dr. Avera's analysis and findings are certainly far too old to be consistent with the suggestion of the U.S. Seventh Circuit Court of Appeals that in this case, "The ICC must attempt to produce a rate that complies with TELRIC as of 2003."[131] *AT&T Communications of Illinois, Inc. v. Illinois Bell Tel. Co.*, 349 F. 3d 402, 411 (7 Cir. 2003)

Dr. Avera, in his various rounds of testimony, offers extended argument as to why his 1999 cost of capital analysis and findings are still representative of the forward-looking cost of capital in 2003 and 2004. Dr. Avera's protestations on behalf of SBC are simply not credible. If SBC wanted to demonstrate that a 12.19% overall cost of capital

[131] As the Seventh Circuit also noted, "A rate for unbundled network elements generated by combining some factors that are six years out of date with two other factors that are not forward-looking cannot possibly satisfy the requirements of federal law." (*AT&T Comm. of Illinois*, 349 F. 3d at 411) We suspect that the Seventh Circuit would conclude that a UNE rate that uses components that are many years out of date (*i.e.*, the cost of capital) is not TELRIC-compliant *even if* all the other factors *are* forward-looking (which of course is not the case with SBC's proposed UNE rates, as demonstrated throughout this brief).

was still valid in 2002 and 2003, it should have paid Dr. Avera to prepare an up-to-date study to be filed with this case. Given SBC's lengthy public campaign to persuade this Commission that its current UNE rates are too low (a campaign manifested in the record of this case through the testimony of SBC witnesses Aron, William Palmer and Sneed), one would have expected SBC to submit a current cost of capital study in support of its proposed rates. SBC's failure to do so – and its election instead to submit and rely on a study that used four-year-old data at the time SBC initiated this case – speaks volumes.

Further, although SBC was apparently loathe to commission Dr. Avera to produce a current cost of capital analysis, Joint CLEC witness Ms. Murray effectively did so in her direct testimony (submitted in May 2003) by updating Dr. Avera's 1999 cost of capital study.[132] She did so by reproducing his study using updated financial data for the various inputs Dr. Avera employed. (See AT&T/MCI Jt. Ex. 2, pp. 53-62) Just this exercise of updating inputs from 1998-1999 values to early 2003 values (but otherwise using his methodologies, many of which Ms. Murray disputed) reduced Dr. Avera's overall cost of capital by 166 basis points, to 9.53%.[133] (*Id.*, p. 61) Among the factors that produced this reduction in Dr. Avera's overall cost of capital when his sources were updated were the following:

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[132] In performing the update, it was necessary for Ms. Murray to eliminate two of Dr. Avera's comparable companies, Qwest and Broadwing, from the DCF analysis, because neither company had posted positive earnings nor paid dividends in their most recent financial quarters, and thus could not be used in a DCF analysis. (AT&T/MCI Jt. Ex. 2, p. 56)

[133] As noted in Section III.B.3.b.vi above, Ms. Murray showed that a cost of capital analysis for SBC as of September 30, 2003, produced an overall cost of capital of 7.04%, or 50 basis points less than her own May 2003 cost of capital analysis, simply as a result of updating data and inputs.

- Because a number of Dr. Avera's comparable companies had increased the percentage of debt in their capital structures since 1998, and the market capitalizations of his comparable companies had decreased, the equity component of his capital structure decreased from 86% to 74.62%. (AT&T/MCI Jt. Ex. 2, pp. 54-55)

- Consensus analysts' forecasts of growth rates for Dr. Avera's comparable companies (used in the DCF analysis) fell considerably from the first quarter of 1999 (the data he used) to early 2003. The I/B/E/S (now known as *Thomson First Call*) consensus estimates of growth rates for SBC, Verizon and BellSouth *fell by an average of 495 basis points* over this period. The *Value Line* growth rate estimates for these three companies *declined by an average of 967 basis points* over this period. Thus, the consensus growth rate estimates Dr. Avera had used no longer reflected analysts' current expectations (and in fact, diverged widely from them) by early 2003.[134] (*Id*., pp. 55-56)

- The historical equity risk premium that Dr. Avera used in his CAPM analysis fell by 50 basis points from the time he prepared his study to early 2003. This is a remarkable drop considering that the historical data series published by Ibbotson and Associates used to develop the historical risk premium starts in *1926*. (*Id*., p. 58)

- Long-term debt costs declined considerably from the time that Dr. Avera prepared his analysis to early 2003. For example, interest rates on 30-year utility bonds rated A+/A1 (SBC's debt rating) fell to a level 91 basis points below the long-term debt costs assumed in Dr. Avera's analysis. (*Id*., pp. 59-60)

Staff cost of capital witness Michael McNally also properly dismissed Dr. Avera's analysis as out of date. Mr. McNally noted that because Dr. Avera's study used capital structure date from year-end 1998 and capital cost data from March 1999, his capital costs were not forward-looking. (Staff Ex. 12.0, p. 35) Like Ms. Murray, Mr. McNally noted that yields on 25/30-year A-rated industrial bonds declined by 91 basis points from April 1999 to March 2003. (*Id*., p. 36) He also pointed out that SBC's

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[134] Staff cost of capital witness Michael McNally pointed out that the 1999 growth rates used by Dr. Avera had been "unsustainably high", a fact that Staff cost of capital witness Janis Freetly had called to the Commission's attention in Dockets 98-0252/98-0335 (Cons.), Ameritech's alternative regulation plan review case. (Staff Ex. 12.0, p. 37)

outstanding long-term debt had fallen to a level 148 basis points below Dr. Avera's recommended cost of debt. (*Id.*) Mr. McNally succinctly explained why Dr. Avera's four-year old data is inappropriate to use in a current cost of equity analysis:

> [A] current stock price reflects all information that is available and relevant to the market; thus, it represents the market's assessment of the common stock's current value. Likewise, current growth rate expectations reflect currently available information. The growth rates and stock prices Dr. Avera used in developing his cost of equity recommendation reflect market expectations of four years ago rather than current market expectations. Obviously, four-year-old stock prices and growth rate estimates cannot incorporate all the information available to investors today and thus, cannot be used to measure investors' current required rate of return. (*Id.*, p. 37)

As Mr. McNally observed, Dr. Avera himself described in great detail "how the telecommunications industry has changed dramatically over the last four years." (*Id*, pp. 37-38 (citing SBC Ex. 12.0, Sched. WEA-1, pp. 10-22))

While the woefully outdated state of Dr. Avera's analysis is sufficient basis for the Commission to reject it without further consideration, both Ms. Murray and Mr. McNally also found serious methodological and assumption flaws in Dr. Avera's study. The significant methodological flaws identified by Ms. Murray included the following:

- Dr. Avera used simple averaging of betas for companies with disparate capital structures and tax rates to determine an estimated beta for SBC, rather than employing an appropriate levering/delivering procedure. Thus, the betas Dr. Avera used in his CAPM failed to distinguish between the *business risk* and *financial risk* of the comparable companies. (AT&T/MCI Jt. Ex. 2, pp. 62-64)

- Dr. Avera used inflated estimates of the "expectational" equity risk premium in his CAPM analysis. Among other errors, rather than relying on multiple sources to develop this risk premium, he relied on a single study whose own authors admitted that their methodology overstates the equity premium and that their estimation technique overstates the interest rate sensitivity of the equity premium. (*Id.*, pp. 62, 65-68) In a later article, the same authors acknowledged that their estimate of the relationship between interest rates and equity premiums was spurious

and overstated.[135] (*Id*., p. 68) Not surprisingly, the equity risk premium that Dr. Avera developed based on his use of just a single source was well in excess (by some 3 to 4%) of the equity risk premium developed by Ms. Murray using an average of multiple sources, and therefore produced an excessive cost of equity estimate.[136] (*Id*., pp. 65-66)

- Dr. Avera used a 100% market-based capital structure, giving no consideration to book values, which resulted in an overstated 86% equity component (which correspondingly inflated his overall cost of capital estimate). (*Id*,. p. 73) As noted earlier, in the TELRIC I Order (pp. 10-12), the Commission established the capital structure using only actual *book* values; thus Dr. Avera has departed radically from the methodology previously adopted by this Commission in setting TELRIC rates. In contrast, Ms. Murray used the book values for debt and a 50%-50% averaging of market and book values for equity in establishing the capital structure. Use of a 50%-50% market value/book value weighting in Dr. Avera's analysis would reduce his overall cost of capital estimate by 129 basis points. (AT&T/MCI Ex. 2, p. 73)

- Dr. Avera based his long-term debt costs on the costs of very long-term bonds (25 years or longer to maturity). The lives of the long-term debt that he used exceed the depreciable lives assumed for most if not all of SBC's assets in the UNE cost studies in this case. It would be unusual for a company (or any borrower) to obtain debt financing with a maturity that exceeds the life of the assets being financed. Dr. Avera's use of very long-term debt overstated his cost of capital compared to the use of

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[135] The adjustment relied on by Dr. Avera is based on the assumption that the equity risk premium *increases* as interest rates *decline* – a counterintuitive proposition that conveniently enables Dr. Avera to construct continuously high cost of equity estimates for his client while interest rates plunge to the historically low levels experienced in the recent period. Respected academicians such as Dr. Eugene Brigham have rejected this proposition based on empirical results. Further, the source cited by Dr. Avera did not use data from periods in which interest rates are as low as they are today; principles of statistics indicate that extending the results of this study outside the range of its underlying data may be problematic and dangerous. (See AT&T/MCI Jt. Ex. 2, pp. 69-71)

[136] Staff witness Mr. McNally also found Dr. Avera's use of the adjustment to the equity risk premium based on declines in interest rates to be flawed. (Staff Ex. 12.0, pp. 40-41) As Mr. McNally stated: "[T]his methodology, which extrapolates current equity risk premium from historical relationships, is not appropriate for determining the forward-looking equity risk premium and the forward-looking cost of equity." (*Id*., p. 41)

shorter-term debt that currently carries lower interest rates.[137] Moreover, one would expect an efficient carrier financing a new network today to take advantage of the lower interest rates available on shorter-term (*e.g.*, 10 year) bonds. (*Id*., pp. 76-77)

- Dr. Avera failed to include any short-term debt in the capital structure, even though most of SBC's debt (and over 25% of its total capitalization) is short-term debt. The exclusion of short-term debt raised Dr. Avera's cost of capital estimate by 57 basis points (and would have had an even greater impact had Dr. Avera used a capital structure with a more realistic equity-debt ratio than 86%-14%). (*Id*., p. 74)

As Ms. Murray explained with respect to the appropriateness of including short-term debt in the capital structure in this proceeding:

> Given that SBC Illinois continues to have a substantial amount of short-term debt outstanding, however, one can infer that short-term debt does play a nontrivial role in the company's target capital structure. Indeed, SBC Illinois has repeatedly taken advantage of cheap short-term financing opportunities over the past several years, suggesting that the company's management sees a significant role for short-term debt in its long-run capital structure . . . If SBC Illinois is able to roll over this debt indefinitely, a reasonable expectation for a company with a strong debt rating, it will always be able to finance projects cheaply. Thus, the Commission should take short-term debt into consideration in this proceeding, as it has done in prior UNE cost proceedings. (AT&T/MCI Jt. Ex. 2, pp. 74-75)

In the TELRIC I Order, the capital structure adopted by the Commission, which was Ameritech's average actual capital structure at September 30, 1996, included 23.3% short-term debt. (TELRIC I Order, pp. 10-12) This indicates that the Commission has recognized the appropriateness of including short-term debt in the forward-looking capital structure used to set TELRIC-based UNE prices when the ILEC's actual capital

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[137] In contrast to Dr. Avera's use of 25-year and longer bonds, *all of SBC's listed publicly traded debt matures in 10 years or less*. The highest yield to maturity of any of these SBC bonds is 4.62%, as compared to Dr. Avera's 7.18% in his original study and updated figure of 6.27%. Similarly, the average maturity of all of SBC's outstanding long-term debt (as of early 2003) was 13 years, with an average yield to maturity of 5.70%, well below the long-term debt cost used by Dr. Avera in his cost of capital estimate. (AT&T/MCI Jt. Ex. 2, p. 77)

structure includes short-term debt. It also demonstrates that Ameritech/SBC Illinois has been utilizing short-term debt as a significant component of its permanent capitalization for an extended period of time – thereby belying any assertion that the current proportion of short-term debt in SBC's capital structure is only a temporary situation.[138]

Staff witness Mr. McNally also testified that Dr. Avera used an inappropriate capital structure in his cost of capital analysis. He explained that Dr. Avera had not selected an efficient capital structure, *i.e.*, one that minimizes the cost of capital and maintains a reasonable level of financial strength. (Staff Ex. 12.0, pp. 41-42) Mr. McNally noted that Dr. Avera's 86% equity – 14% debt capital structure would produce earnings before income taxes (EBIT) and earnings before income taxes, depreciation and amortization (EBITDA) interest coverage ratios in excess of the rating agency benchmarks for AAA-rated industrial bonds; whereas a reasonable level of financial strength could be achieved at much lower cost, *i.e.*, with a lower percentage of equity (the highest-cost form of capital) and a higher percentage of debt in the forward-looking capital structure. (*Id.*, p. 42)

Staff witness McNally also criticized other aspects of Dr. Avera's analysis. Mr. McNally pointed out that in Dr. Avera's DCF analysis, he mismatched dividend yields and dividend growth rates from different time periods. Mr. McNally pointed out that had

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[138] One other aspect of Dr. Avera's analysis with which Ms. Murray disagreed is that he utilized a single-stage DCF model and thereby assumed that SBC's earnings could grow to infinity at a rate higher than the rate of growth of the overall economy. This is in part another manifestation of the outdated nature of Dr. Avera's analysis, since the same analysts whose growth forecasts he used have subsequently lowered their growth forecasts for the comparable companies. (AT&T/MCI Jt. Ex. 2., pp. 77-78) One may also observe that the forecast of ongoing robust earnings growth incorporated in Dr. Avera's cost of capital analysis is inconsistent with the gloom and doom predictions of lost business due to competition that imbue other components of SBC's case in this docket.

Dr. Avera used a consistent time period for both dividend yields and growth rates, his DCF cost of equity would be reduced by 225 basis points. (Staff Ex. 12.0, p. 39) Mr. McNally also pointed out that Dr. Avera incorrectly implemented the b X r formula (*i.e.*, earnings retention times anticipated return) in constructing earnings growth estimates. (*Id*., pp. 39-40)

d. Staff's Cost of Capital Analysis, While Much More Reasonable Than SBC's Analysis, Still Produces an Excessive Cost of Capital for SBC

Staff witness Mr. McNally testified that the cost of capital that should be used in setting SBC Illinois' UNE rates in this proceeding should be 8.62%. The table below sets forth the components of Mr. McNally's proposal. (Staff Ex. 12.0, Sched. 12.1) For comparison purposes we include in brackets the corresponding values as determined by AT&T/MCI witness Ms. Murray, taken from the table at the start of this Section III.B.3.

Component	**Cost Rate**	**Percent of Total**	**Weighted Cost**
Common equity	12.44% [9.46%]	51.00% [66.12%]	6.34% [6.25%]
Long Term Debt	4.99% [5.60%]	44.22% [11.53%]	2.21% [0.65%]
Short Term Debt	1.47% [2.84%]	4.78% [22.35%]	0.07% [0.64%]
Total		100%	**8.62%** [**7.54%**]

As can be seen from this table, although Mr. McNally's overall cost of capital estimate is 108 basis points higher than Ms. Murray's, and Mr. McNally's cost of equity estimate is 298 basis points higher than Ms. Murray's, Mr. McNally's use of a lower equity percentage in the capital structure results in a weighted cost of equity (6.34%) that is only 9 basis points higher than Ms. Murray's weighted cost of equity (6.25%). Thus, there is some consistency between Ms. Murray's and Mr. McNally's conclusions in that their respective cost of equity recommendations and equity components of the capital structure reflect the relationship between leverage and required equity return. Further, Ms. Murray

determined higher cost rates for long-term debt (by 61 basis points) and short-term debt (by 137 basis points) than did Mr. McNally. Thus, the predominant reason for Mr. McNally's higher overall cost of capital estimate is his inclusion of 44.22% long-term debt and only 4.78% short-term debt in the capital structure, whereas Ms. Murray (for reasons described in Section III.B.3.b above) included more short-term debt (22.35%) and less long-term debt (11.53%) in the capital structure.

Nevertheless, Joint CLECs submit that Mr. McNally's 12.44% cost of equity estimate is excessive. Mr. McNally's higher cost of equity estimate appears to result primarily from his use of a constant growth DCF model rather than a multi-stage growth model.[139] This was inappropriate because the analysts' forecasted five-year growth rates for the firms in Mr. McNally's comparable companies noticeably exceeded forecasts of long-term economic growth. (AT&T/MCI Jt. Ex. 2.1, pp. 4, 15-17) Further, the consensus growth rates for the firms in Mr. McNally's comparable sample dropped by some 200 basis points from the data he used to prepare his direct testimony (May 2003) to January 2004. (*Id*., pp. 4, 17-18)

Mr. McNally's use of the constant growth DCF model also affected his CAPM analysis, because he used a constant-growth DCF calculation for the S&P 500 in developing his equity risk premium estimate, resulting in an equity risk premium that is extremely high and out of line with long-term economic growth forecasts. (*Id*., pp. 5-6, 17) As Ms. Murray pointed out, Mr. McNally's 8.89% equity risk premium was out of line with all reputable estimates of which she was aware. (*Id*., p. 19) For example, the

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[139] As Mr. McNally acknowledged, in the most recent proceeding in which it had to determine SBC's cost of equity, Dockets 98-0252/98-0335 (Cons.), Staff used a multi-stage DCF growth model. (Staff Ex. 12.0, p. 9; AT&T/MCI Jt. Ex. 2.1, pp. 3-4)

Ibbotson Associates long-horizon expected equity risk-premium, constructed using historical data for the period 1926-2002 and published in 2003, is 7.0%. (*Id*., pp. 19-20) In an article published in early 2003, Ibbotson and Chen estimated the forward-looking equity risk premium to be approximately 5.9%. (*Id*., p. 20) Mr. McNally's use of an extremely high equity risk premium increased his CAPM cost of equity estimate by 200 to 300 basis points over the results he would have obtained based on these sources. (*Id*., pp. 21-22)

In addition, Mr. McNally's comparable sample, consisting of seven companies, included a number of companies that are not comparable in risk to SBC. Two of the companies have much lower bond ratings than SBC, indicating a much higher degree of risk for those companies. Two of Mr. McNally's other companies have a high percentage of non-wireline operations and are not included in the same industry groupings as SBC and other ILECs published by recognized sources such as Thomson Financial Network and Yahoo Finance. (AT&T/MCI Jt. Ex. 2.1, pp. 18-19) Attempting to estimate the cost of equity for the UNE line of business by looking at firms that are perceived to be far riskier than SBC or firms in an industry grouping with much higher projected earnings growth rate than SBC and other ILECs, as Mr. McNally did, does not provide a reasonable or accurate measure of investors' expectations for SBC's UNE line of business. (*Id*., p. 19)

e. <u>Conclusion on Cost of Capital</u>

The Commission should adopt a 7.54% forward-looking cost of capital to set UNE rates in this proceeding, based on Ms. Murray's analysis. Indeed, this cost of capital estimate, which was prepared in the first part of 2003, is probably overstated today. Dr. Avera's cost of capital analysis on behalf of SBC, which was based on 1998-

1999 data, is simply too stale to be given any consideration for use in setting UNE prices in this docket. Further, even if it were not so stale, Dr. Avera's analysis incorporates other methodological flaws and inappropriate assumptions (including the use of an 86% equity ration) that warrant its rejection.

C. Other Loop Recurring Cost Modeling And Input Issues.

1. Cable and DLC Installation costs/factors

a. Introduction/Summary of Argument

SBC's LoopCAT does not calculate equipment installation costs directly. Instead, LoopCAT relies upon a series of "linear loading factors" to estimate the non-material portion of the total investment for most network components. These non-material costs include installation costs. These linear loading factors are sometimes referred to as engineer, furnish, and install ("EF&I") or in-place factors. In simple terms, through LoopCAT, SBC applies these factors to the material price for a particular piece (or pieces) of equipment to calculate the construction cost of the asset. Using its historic accounting data, SBC calculates these linear loading factors by comparing the total cost of a particular equipment account to the material costs in that account. The linear loading factor of a $1.00 light bulb that costs 50 cents to engineer, furnish and install would be 1.5 -- $1.50 (total cost) divided by $1.00 (material cost) = 1.5 (loading factor). SBC applies the same loading factor to the alleged "forward looking" material cost of all equipment within a particular accounting code, referred to as Field Reporting Codes. SBC derives these alleged forward-looking material costs from its vendor contracts.

The use of linear loading factors is inappropriate for a multitude of reasons. First, these factors are inherently unreliable, as there is no evidence of any linear relationship between material costs and installation cost – *e.g.*, a $1,000,000 Picasso painting takes

the same time to hang on the wall as a $20 Velvet Elvis. In addition, linear loading factors are inconsistent with the TELRIC methodology, as the factors reflect embedded, and not forward-looking, costs, and fail to reflect economies of scale associated with new installations. Instead of using such factors to derive installation costs, AT&T witnesses Messrs. Pitkin and Turner ("Pitkin/Turner") used SBC's own Job Administration Management System ("JAMS"), which provides SBC's average installation cost estimates for different types of projects.

For the reasons discussed more fully below, the Commission should reject the use of linear loading factors for deriving installation costs, and should direct the use of the AT&T Pitkin/Turner modified JAMS data in LoopCAT. It is SBC's burden to demonstrate that those factors are appropriate for use in its TELRIC studies. SBC wholly failed to meet that burden. Indeed, neither its chief cost witness, Mr. Smallwood, nor its chief engineering witness, Mr. White, could state that there is a linear relationship between material and installation costs. In discovery and at hearing, both these witnesses flatly denied the existence of a relationship between material and installation costs. Yet LoopCAT assumes and applies a linear relationship in order to determine installation costs. Moreover, the use of linear loading factors is further flawed by the fact that SBC uses the same factor for so many different types of equipment that are found within a particular Field Reporting Code, despite the fact that different types of equipment necessitate varying costs of installation, as some are more "pre-fabricated" than others.

Linear loading factors are do not comply with the TELRIC methodology, as they rely upon embedded data and fail to reflect economies of scope and scale associated with the placement of new plant and equipment, as assumed in a TELRIC cost study.

Additionally, linear loading factor are inappropriate because they are based on "black box" data that cannot be verified. Indeed, when the CLECS finally got behind SBC's previous black box database (PICS/DCPR), they found massive double counts that, when accounted for, reduced SBC's hard-wire DLC installation factor by some 80%. SBC has replaced that black box with another: its General Ledger data. There is no reason for the Commission to rely on yet another black box that may include similar problems.

The record also established that the JAMS data relied upon by the CLECs came from SBC systems that provide reliable estimates of average installation costs. These SBC systems properly build installation costs from the "bottom-up" by estimating the labor time and costs of installation rather than applying confusing "factors" to material expenditures. By the term "bottom-up," we mean that the cost of the particular element being studied will be determined by its unique attributes rather than by application of a factor that is often arbitrary and unfounded. JAMS are, in fact, the system used by SBC's own engineers to estimate construction costs. Thus, the Commission should direct that LoopCAT be modified to include the modified JAMS data, as provided by Messrs. Pitkin/Turner.

b. Linear Loading Factors Provide Unreliable Estimates of Installation Costs

A linear loading factor is a multiplier that is applied to cost data to calculate total installed costs based on the assumption that there is a linear, or straight line, relationship between material investment costs and installation costs. That is, as the amount of material investment costs increases, the installation costs also increase proportionately. SBC loads these multipliers on top of the material investments in a linear fashion –

assuming that installation costs are directly proportional to material costs.[140] This methodology builds installation costs from the "top-down" by starting, at the top, with total investment and dividing out the material portion to establish a fixed ratio.[141]

Since SBC decided to use this top-down methodology for determining installation costs, SBC should be expected to provide evidence demonstrating a linear relationship between material and installation costs. After all, it is SBC's burden alone to prove the reasonableness of its proposed TELRIC costs. *See Local Competition Order*, ¶ 680 ("we find that incumbent LEC must prove to the state commission the nature and magnitude of any forward-looking cost that it seeks to recover in the prices of interconnection and unbundled network elements."). But instead of providing such evidence, SBC and its witnesses consistently failed to support LoopCAT's assumption that there is any linear or consistent relationship between material and installation costs. In fact, they flatly denied it.

In a discovery response attributed to its chief cost witness Mr. Smallwood, SBC admitted that installation costs *are not* directly proportional to the cost of material:

> Request: Confirm or deny that the installation of cable is not directly proportional to the cost of the material. If this statement is denied, provide a detailed explanation and give an example of when this would not be true.
>
> Response: Confirm.[142]

At hearing, SBC's chief engineering witness, Mr. Randall White, was shown this response and fully agreed with Mr. Smallwood response.[143] Indeed, Mr. White, SBC's

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[140] Or, in the alternative, that material costs are directly proportional to installation costs.

[141] AT&T Ex. 2.0, pp. 28-29.

[142] AT&T Cross Ex. 19.

General Manager of Engineering in Illinois, went out of his way to provide testimony explaining that the cost of placing cable is constant, no matter the size (and cost) of the cable. (SBC Ex. 8.2, p. 4, see also Tr. 491) SBC has similarly admitted that the costs of installing different sizes of DLC remote terminals ("RT") are the same, despite the fact that the larger DLC is more expensive to purchase.[144]

There is simply no evidence that the cost of a piece of equipment, whether cable or a DLC-RT, is linearly related to the cost of installing it. It makes no sense to assume that something that costs more will necessarily cost more to install – or more specifically that the cost of such installation will be linearly related to cost. For example, a $1.00 light bulb does not cost twice as much to install as a $2.00 light bulb.[145] Yet that is exactly the assumption LoopCAT would make. In light of SBC's acknowledgement that cable and DLC installation costs are not proportional to the cost of material, SBC's reliance on linear loading factors in this proceeding cannot be sustained. SBC has simply not met its burden of proof on this issue. For this reason alone, the Commission should reject the use of linear loading factors in LoopCAT.

Moreover, there is direct evidence that the use of linear loading factors distorts UNE costs. For example, the use of linear loading factors leads LoopCAT to assume that the cost of installing different types of line cards in a Digital Loop Carrier ("DLC") system is different depending on the underlying cost of each card. In fact it would take

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143 Tr. 497.

144 AT&T Ex. 2.0, p. 47.

145 While the cost of installing a light bulb might vary, on average it will take a matter of seconds. And, most importantly, none of the possible installation variations would have anything to do with the cost of the light bulb.

nearly identical amounts of time to install two different line cards, no matter their prices.[146] However, by applying the same linear loading factor to different types of line cards, SBC's LoopCAT study assumes that, for example, the cost of installing a Coin line card is many times greater than that of installing a POTS line card – just because the Coin line card is more expensive. That is not true, yet this is exactly the result of the use of linear loading factors.[147] This is just one example of how linear loading factors inflate SBC's costs.

Linear loading factors similarly distort the installation costs of DLC systems. SBC has admitted that, when estimating the cost of installing a DLC system, its engineers assume that it costs the same to install no matter what its price. In discovery, SBC admitted that its internal engineering cost estimation tool assumes that the cost of installing a 672 DLC system – which has the capacity for 672 lines – is exactly the same as the cost of installing a more expensive 2016 DLC system for the purposes of estimating its construction costs.[148] This fact bluntly contradicts SBC's use of linear loading factors to estimate total installed costs for DLC systems. By relying on linear loading factors, LoopCAT incorrectly assumes that because the 2016 DLC system is more expensive to buy, it is also more expensive to install. This provides a good example of why the use of linear loading factors make no sense.

The unreliability of the use of linear loading factors became all the more clear when SBC, in rebuttal, switched the database from which it calculated the installation

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146 AT&T Ex. 2.0, pp. 44-45.

147 AT&T Ex. 2.0, pp. 44-46.

148 AT&T Ex. 2.0, p. 47.

factor for DLC plug-ins. The simple switch from using PICS/DCPR data to General Ledger data caused the installation factor for plug-ins to increase several fold. (AT&T Ex. 2.1, p. 46-47) Assuming linear loading factors are a reliable means to derive consistently reliable installation costs, there is simply no justification for costs to go up when moving from one system to another. When asked about this during cross examination, Mr. Smallwood had no explanation for this change and admitted that he had not investigated the reason for this inconsistency. (Tr. 744-745) Whatever the reason, this development only served to confirm the haphazard nature of using linear loading factors to estimate installation costs.

In fact, Mr. Smallwood admitted at hearing that he did not have SBC engineers do a "sanity check" on LoopCAT to ensure that the installation costs derived by its use of linear loading factors were reasonable. (Tr. 740-41) Instead, Mr. Smallwood indicated that SBC's cost team only explained LoopCAT's "calculations" to see if these subject matter experts agreed that this was a reasonable "approach." (Tr. 741) Of course, the only way to know if an approach is truly appropriate is to review the results, as the CLECs have done. Moreover, we also know that when an SBC engineer actually volunteered a concern with the results of the LoopCAT linear loading factor approach -- as Mr. White did regarding DLC installation costs -- SBC's cost team and Mr. Smallwood in particular ignored those concerns.

In addition to their unreliability, SBC's linear loading factors are inappropriate because they are derived from equipment accounts that include a host of different types of equipment, some of which is more pre-fabricated than others. For example, as described above, the plugging-in of a line card into an RT is far less work than the

installation of other pieces of less pre-fabricated DLC equipment. Yet these varying types of equipment are mixed into the same accounting codes from which SBC derives its linear loading factor.

The situation with DLC equipment is another troubling example of this problem. The record was clear that, unlike other equipment, SBC's DLC vendor, Alcatel, delivers to SBC (as its witness Donald Palmer explained) a "pre-assembled" system that leaves SBC with little cost of installation.[149] SBC's contract with Alcatel provides that Alcatel is to provide SBC a *****BEGIN CONFIDENTIAL** XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX **END CONFIDENTIAL*****[150] This language makes it clear that the DLC equipment SBC *****BEGIN CONFIDENTIAL** XXXXXXXXXXXXXXXX XXXXXXXXXXXXX **END CONFIDENTIAL***** Thus, LoopCAT wrongly applies a fully loaded installation factor to DLC material costs to the Acaltel contract prices, resulting in significant and inappropriate double counting of DLC installation costs.

These facts also demonstrate that even if linear loading factors were an appropriate way to estimate installation costs (which they are not), LoopCAT inappropriately uses generic linear loading factors to estimate the installation costs of varied types of equipment, resulting in significant errors.

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149 AT&T Ex. 2.0 pp. 63-67.

150 *Id.*

There are other reasons that linear loading factors are an unreliable estimator of installation costs. The large variance in SBC's historic EF&I factors demonstrates why SBC's linear loading factor methodology is demonstrably flawed and unreliable. Over the last several years, the telecommunications industry and the economy have observed an economic downturn that has significantly depressed prices and reduced output. Even though companies such as SBC attempt to reduce costs when faced with fiscally tight time periods, there is no *a priori* reason that cost reductions will be achievable at the same rate for different types of expenditures.

For example, while material purchases can be easily reduced or eliminated, labor costs are not as readily avoidable.[151] SBC's data demonstrates that this phenomenon ***** BEGIN CONFIDENTIAL** XXXXXXX **END CONFIDENTIAL***** for all cable equipment between 2001 and 2002. The EF&I for buried fiber cable, which was *****BEGIN CONFIDENTIAL** XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX***END CONFIDENTIAL.** This degree of short-term variability demonstrates that loading factors, derived by short-term data, cannot be the basis for long-term forward-looking cost assumption which, by definition, are supposed to abstract from short term temporary phenomenon such as economic downturn.

Linear loading factors are also inappropriate because they are inconsistent with the forward-looking TELRIC pricing methodology. Even if one accepts the incorrect premise that there is a linear relationship between material purchase costs and installation costs (which even SBC does not), SBC's loading factors are not forward-looking because

151 AT&T Ex. 2.0, p. 42-43.

they inappropriately rely upon embedded data. SBC derived its linear loading factors by using embedded accounting data from systems such as its General Ledger. It impossible for a process that relies exclusively on historical installation relationships of an embedded network to reflect the forward-looking technology and network architecture mandated by a properly performed TELRIC study.

This is not a matter of conjecture. For example, to derive its linear loading factors for DLC equipment, SBC uses the "account" number 257 from its General Ledger. At hearing, SBC witness Mr. White indicated that this account includes a host of backward looking, inefficient equipment such as repeaters, DAMLs and SLC 96s.[152] SBC's linear loading factors development, by using account 257c to develop factors for DLCs, reflects backward looking equipment, in violation of the FCC's TELRIC rules. (Tr. 477-481) Notably, SBC does not include any of this equipment in the "forward-looking" loops assumed in LoopCAT because of the simple reason that they are not forward-looking. This fact begs the question of how SBC's linear loading factors can be applied to forward-looking, efficient equipment when they are based upon the relationship between material and installation costs of backward-looking, inefficient DLC and electronic equipment.

Moreover, embedded linear loading factors fail to reflect economies of scale demanded by the TELRIC methodology. SBC's embedded relationships of installation costs to material costs reflect SBC's experience with construction projects that are much smaller than those that are associated with a scorched node, forward-looking cost study as required by the FCC. As the FCC stated in its order adopting TELRIC: "We, therefore,

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[152] Tr. 477-482.

conclude that the forward-looking pricing methodology for interconnection and unbundled network elements should be based on costs that assume that wire centers will be placed at the incumbent LEC's current wire center locations, but that the *reconstructed local network* will employ the most efficient technology for reasonably foreseeable capacity requirements." *Local Competition Order*, ¶ 685 (emphasis added). SBC's witnesses readily admit that the linear loading factors used in LoopCAT are based upon the higher incremental construction costs rather than the lower, per unit, new construction costs that should appropriately be used in a TELRIC study.[153] And the evidence also demonstrates that a vast majority of SBC's installation projects are augmentations rather than new construction.[154]

The FCC has specifically prohibited the use of embedded costs in TELRIC cost studies, defining such costs as "costs that the incumbent LEC incurred in the past and that are recorded in the incumbent LECs books of accounts." 47 U.S.C. § 51.505. SBC cannot deny that the LoopCAT installation costs are totally derived by use of loading factors, which are themselves derived by using SBC's embedded costs and books of accounts.

In addition, linear loading factors are also unreliable because they are based on "black box" accounting databases that are not subject to easy review. The perfect illustration of this fact came when SBC admitted that its use of the PICS/DCPR database to calculate its DLC installation factor resulted in a significant "cost overlap" of minor

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153 AT&T Ex. 2.0, pp. 38-41 (citing to testimony of SBC witness Mr. White and Schedule RSW-7 to his direct testimony, which purports to show that the cost of incremental capacity in an initial construction job is substantially less than the cost of adding the same increment of capacity at a later date).

154 *Id.*

material costs. For now well over one year, the CLECs have attempted to audit that database to check for such a double count. And for one year, SBC stopped us in our attempts. Only last August, prior to an Indiana TELRIC hearing, did SBC finally give the CLECs access to the database, and we immediately identified this double count, which SBC could have found itself. (AT&T Ex. 2.1, pp. 36-47).

Now, SBC has replaced the PICS/DCPR black box with another, the General Ledger. The CLECs have not had time to look behind this new black box, but we suspect that it may exhibit similar problems. (AT&T Ex. 2.1, pp. 28-29) In fact, in response to discovery, SBC has asserted that AT&T's requests for "'full access' to SBC Illinois' underlying general ledger data . . . is not necessary for a review of SBC Illinois' forward-looking cost studies in this case." (AT&T Ex. 2.1, p. 44 (SBC Response to AT&T Data Request BFP 530).) This mimics SBC's response when AT&T initially asked for access to the PICS/DCPR database. [155] (*Id.)*

The commission should be very cautious about using data that has not been subject to scrutiny in a proceeding. Indeed, at hearing, Mr. Smallwood could not say how the General Ledger data accounts for the cost of labor associated with retirement and salvage – costs that are picked up elsewhere in LoopCAT via depreciation and net salvage. (Tr. 818-819) If Mr. Smallwood does not know how the General Ledger accounts for these costs, the Commission cannot be sure that a double count does not exist in the use of the General Ledger data to derive installation costs. SBC has given the Commission no reason to accept the General Ledger information as reliable. SBC and

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155 Messrs. Pitkin/Turner did describe three problems with the General Ledger data that they have been able to identify to date, including the fact that it has the bizarre effect of increasing the cost of plug-ins. (AT&T Ex. 2.1, p. 46)

Mr. Smallwood were, after all, just as confident in the use of PICS/DCPR as in their new approach using General Ledger data.

Other state and FCC decisions favor a bottom-up approach to calculating installation costs. The Florida and Georgia commissions (representing the two largest states in BellSouth's territory) recently rejected BellSouth's reliance on linear loading factors and instead adopted the bottom-up inputs advocated by CLECs. The Florida Commission determined that BellSouth's linear loading factor methodology could distort costs, particularly when developing deaveraged rates -- a flaw that is also exhibited in SBC's cost studies.[156] More recently, the Georgia Public Utility Commission concluded that UNE rates should be determined using bottom-up inputs in lieu of BellSouth's linear loading factors:

> Linear loading factors, on the other hand, distort the investments for equipment as the size of the equipment increases. The FCC has specifically rejected use of embedded costs – accounting data – to determine TELRIC based UNE rates. 47 C.F.R. §51.505(d)(1). In stating that embedded costs shall not be included in the determination of TELRIC based UNE rates, the FCC defined embedded costs as "the costs that the incumbent LEC incurred in the past and that are recorded in the incumbent LEC's books of accounts." Id. Lastly, use of linear loading factors, as some CLECs in this proceeding have argued, results in distorted deaveraged UNE rates. This distortion results from the loading factors overstating the costs for equipment in higher density areas and developing "average costs."[157]

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[156] Florida Public Service Commission, *Investigation into pricing of unbundled network elements,* ORDER NO. PSC-01-1181-FOF-TP, May 25, 2001, p. 187.

[157] Georgia Public Service Commission, *Review of Cost Studies, Methodologies, Pricing Policies, and Cost Based Rates for Interconnection and Unbundling of BellSouth Telecommunications, Inc.'s Services,* Commission Order, Docket No. 14361-U, March 18, 2003, p. 13, (included in the directory titled "Cost Orders" as part of Attachment BFP/SET-2 to AT&T Ex. 2.0).

It is also notable that after a multi-year review of cost models and cost model inputs with comments filed from across the industry, the FCC adopted a bottom-up methodology for use in the USF Synthesis Model. Specifically, the FCC adopted an approach that identifies the total installed cost for each piece of equipment. This bottom-up approach uses an appropriate methodology for separately developing total installed cost (both material and installation) for each piece of equipment, taking into consideration the specific size, material and installation costs.

For all of these reasons, the Commission should reject the use of linear loading factors in SBC's LoopCAT model.

c. <u>Use of JAMS Data to Restate LoopCAT</u>

Since linear loading factors cannot be relied upon to provide a reliable estimation of installation costs, the question becomes how to restate SBC's installation costs from the bottom up. AT&T witnesses Messrs. Pitkin/Turner did just that. Messrs. Pitkin/Turner used SBC's own data to conduct a reliable bottom-up approach. Through discovery, they gained access to information from SBC's internal cost estimation system, JAMS, in order to determine and evaluate how SBC estimates average construction costs for its internal purposes. Using this data, they were able to eliminate most of the loading factors employed in LoopCAT and replace them with SBC's own "average" construction cost estimates derived from JAMS.[158]

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[158] Messrs. Pitkin/Turner also restated the DS-1 and DS-3 costs appropriate for both hard-wired and plug-in equipment. In order to develop the bottom-up installation cost for DS-1 and DS-3 equipment, Messrs. Pitkin/Turner developed their own time estimates due to the fact that JAM data for this equipment was unusable and incomprehensible. Those estimates are provided in AT&T Exhibit 2.0 at pages 59-60. These estimates are reasonable and consistent with the forward-looking TELRIC methodology.

It is uncontested that SBC uses JAMS data to estimate the costs of construction projects, including installation costs. The SBC-provided JAM documentation established the following concerning JAMS:

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- XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX.

- XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX[161]

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SBC uses JAMS to check that invoices do not exceed project costs.[162] Specifically, the JAMS data, in fact, is used to set contract limits in SBC's accounting systems, like PICS/DCPR. The contract limits derived from JAMS data are used as a screen to stop SBC payment of invoices that exceed JAMS limits.

JAMS contains installation cost estimates that SBC actually uses in running its business; moreover, unlike loading factors, these installation cost estimates are directly

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159 AT&T Ex. 2.0, p. 48-52.

160 AT&T Ex. 2.0, pp. 49-54 and Attachment BFP/SET-2 and BFP/SET-3.

161 AT&T Ex. 2.0, 48-53 & Attachment BFP/SET-3.

162 AT&T Exhibit 2.0, p. 90. Tr. 499-501.

tied to the specific type of equipment being installed. By using SBC's own data, which are at least closer to its actual practices, AT&T develops separate installation factors, and moves LoopCAT a step closer to capturing forward-looking costs. The Commission should therefore endorse the use of a bottom-up approach to developing accurate cost estimates for performing installation functions similar to the method utilized by SBC's JAMS, rather than SBC's linear loading factor methodology.

The Commission should reject as wholly unsubstantiated SBC's criticisms of the CLEC's use of JAMS. SBC's Mr. White and Mr. Smallwood argued that the JAMS data relied upon, which was provided by SBC in discovery, is missing certain types of costs. However, neither of these witnesses described or quantified these allegedly missing costs, nor did either bother to check whether Messrs. Pitkin/Turner captured some or all of these "missing" costs by applying factors (*e.g.*, engineering, power, and land and building factors) to the JAMS data. In fact, the evidence indicates that Messrs. Pitkin/Turner did just that.

Mr. Smallwood's criticisms are wholly unsupported. Mr. Smallwood testified that JAMS does not contain costs from certain SBC accounting codes called Transaction Charge Codes ("TCCs").[163] He failed to identify which codes he was referring to, and later admitted that LoopCAT captures the costs associated with certain TCCs via other factors (*e.g.*, conduit factors).[164] Messrs. Pitkin/Turner dutifully applied all such factors to their JAMS costs to ensure all TCCs were accounted for. Thus, Mrs. Smallwood's

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163 SBC Ex. 4.1, p. 66.

164 Tr. 753-54.

testimony does not come close to proving that Messrs. Pitkin/Turner somehow left out costs associated with any TCC.

Mr. White's criticisms of AT&T's use of JAMS are equally baseless. Mr. White claimed that the JAMS estimates upon which Pitkin/Turner relied somehow drastically understated SBC's actual costs. However, this testimony is directly contradicted by SBC's internal documentation (described above), all of which establishes the fact that SBC uses the JAMS estimates to track it actual expenditures and, in fact, refuses to pay for jobs that overrun those estimates. Mr. White claimed that there could be "variances" and unexpected circumstances that arise on a job. However, as the JAMS documentation quoted above indicates, JAMS provides average cost estimates. Averages, by their very nature, taken into account the different circumstances that might be found on differing jobs. Mr. White, at least in his pre-filed testimony, agreed with this assessment of JAM, testifying that: "JAM by design uses average time estimates for its installation activities." (SBC Ex. 8.1, p. 18. Tr. 539-540 ("JAM provides a cost of what it takes for an average technician to utilize standard tools in performing that function under normal conditions").)

Mr. White also criticized Messrs. Pitkin/Turner for leaving out certain "installation" costs from their JAMS estimates, including costs such as pole and conduit placement and costs of rights of way. Mr. White therefore referred to Messrs. Pitkin/Turner's use of JAMS as "simplistic." However, SBC has no basis to claim any errors exist in the JAMS estimates it provided AT&T. SBC, in its own words, provided AT&T JAM estimates "as an engineer would use the JAM system." (AT&T Cross Ex.

20; AT&T Ex. 2.0, p. 70) SBC, therefore cannot argue that JAM estimates it provided, and which AT&T used and relied upon, were somehow flawed and overly "simplistic."

Moreover, Mr. White's claim – that AT&T's JAM data left out certain costs – is wholly without merit. This criticism ignores the fact that the "costs" that Mr. White alleges Messrs. Pitkin/Turner "left out" of JAMS were captured by Messrs. Pitkin/Turner when they applied other loading factors – just as in SBC's LoopCAT model (e.g., land and building, engineering, conduit, and pole factors). Clearly, Mr. White either does not understand how LoopCAT works, or he did not bother to review Messrs. Pitkin/Turner's restatement of LoopCAT.

In support of his argument, Mr. White provided three JAMS estimator reports (attached to his rebuttal testimony as RSW-R1, R2 and R3) that he described as depicting "typical" aerial, buried, and underground cable jobs of placing 1,000 feet of cable. (SBC Ex. 8.1, pp. 25-26, 27-28, 30-31) He then compared each of these JAMS reports to the JAMS reports for similar jobs used by Messrs. Pitkin/Turner. Based on this comparison, Mr. White concluded that Messrs. Pitkin/Turner's JAMS estimates were too low and left out costs associated with labor involving "rights of way" and conduit and telephone pole placement.

However, what became clear at hearing is that Mr. White's criticisms of AT&T's use of JAMS were based on an apparent lack of understanding regarding how LoopCAT uses factors, or how Messrs. Pitkin/Turner used the JAMS estimates provided by SBC. For example, in regard to the aerial and underground JAMS estimator reports used by Mr. White (RSW-R1 and R3), Mr. White inflated those JAMS estimates by including significant labor costs associated with placement of telephone poles and conduit, as well

as costs associated with rights of way. (SBC Ex. 8.1, Sched. RSW-R1 p. 2, Sched. RSW-R3, p. 2 (under column FRC); Tr. 563-568) Mr. White thought inclusion of these costs was appropriate, apparently because of his belief (confirmed at hearing) that LoopCAT did not account for these costs via factors, such as pole and conduit factors. (Tr. 514)

Mr. White's understanding of LoopCAT is wrong, as is his criticism of Messrs. Pitkin/Turner's analysis. As Mr. Smallwood testified, LoopCAT accounts for the costs of placing poles and conduit by applying factors (separate from installation factors) to material costs. LoopCAT also accounts for rights of way costs separately through a land and building factor. And indeed, what Mr. White apparently also did not know is that Messrs. Piktin/Turner applied those same LoopCAT factors to their JAMS estimates, thereby properly capturing the costs of pole and conduit installation, as well as rights of way, in their restatement of LoopCAT installation costs. Therefore, Mr. White's comparison is flawed, as is his criticisms.

Based on this record, there is no credible evidence that Messrs. Pitkin/Turner's use of the JAMS installation estimates exclude costs, or that the JAMS estimates are otherwise unreliable for the purpose for which Messrs. Pitkin/Turner used them.

In fact, in a Wisconsin TELRIC proceeding, an apparently unbiased SBC engineering witness confirmed that JAMS is a reliable estimation tool. During a hearing in Wisconsin on February 20 of this year, SBC witness Mr. Gordon Fletcher – who is Director SBC Outside Plant Planning in Illinois and Wisconsin – provided sworn testimony confirming two important facts. First, Mr. Fletcher indicated that SBC's outside plant engineers use JAMS to provide CLEC cost estimates in instances when

SBC must put in new UDLC facilities to provide CLECs a loop served over IDLC. (AT&T Ex. 2.2, pp. 12-14) Mr. Fletcher provided the following testimony:

> Q. How does the engineer determine the costs based on the scope of work associated with a BFR?
>
> A. The engineer determines the costs based on current facility availability and the work required to provide the service requested on the BFR. Any required cable and the method of placement, as well as the necessary splicing activities are identified. The resulting list of materials and labor are input into a costing tool, which generates a quote based on the current labor, material and contractor costs.[165]

Mr. Fletcher later confirmed during cross-examination that the "costing tool" to which he referred was JAMS.[166] (AT&T Ex. 2.2, pp. 12-14) Second, Mr. Fletcher confirmed during the hearing that JAMS provides reliable loop installation costs that SBC's outside plant engineers rely upon in the ordinary course of business:

> Q. …You guys try to use it [JAM installation costing tool] during the ordinary course of your work?
>
> A. Yes.
>
> Q. Why would you want to generate an estimate in the ordinary course of the work you do before you do it? What is the purpose of you using this JAM estimate?
>
> A. Because for the B.F.R. or the request is for how much would it cost to get facilities to convert the I.D.L.C. where there are no facilities. So it gets accurate cost. We use the same type of estimate that we would for a normal job.

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[165] Before the Public Service Commission of Wisconsin, Docket No. 6720-TI-161, Direct Testimony of Gordon M. Fletcher on Behalf of SBC Wisconsin, January 22, 2004, pg. 5-6 (quoted at AT&T Ex. 2.2, p. 12).

[166] Before the Public Service Commission of Wisconsin, Docket No. 6720-TI-161, Hearing Transcript of Gordon M. Fletcher on Behalf of SBC Wisconsin, Volume 13, February 20, 2004, pg. 4782 (cited at AT&T Ex. 2.2, p. 13).

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> Q. What else – what I am trying to get at, what other reasons would S.B.C. use this JAM in the ordinary course of doing installation work in its network?
>
> A. To gather material and labor costs associated with a particular undertaking.
>
> Q. And you think it's a reliable tool?
>
> A. Yes.
>
> ***
>
> Q. …Is it a reliable tool in estimating installation costs?
>
> A. Yes.[167]

Thus, Mr. Fletcher's sworn testimony makes it perfectly clear that JAMS provides accurate estimates and that SBC uses the JAMS tool to estimate the costs of construction in its normal course of business. Further, Mr. Fletcher supports Messrs. Pitkin/Turner's testimony explaining that JAMS can be used – and, in fact, is used -- to produce accurate estimates for larger projects, such as a loop.

SBC also took issue with Messrs. Pitkin/Turner's slight modification to the JAMS data. Specifically, Messrs. Pitkin/Turner made two modifications to the JAMS data: (1) they modified the labor rates to reflect the labor rates proposed by AT&T witness Mr. Flappan, and (2) they modified the "set up" times in the work installation estimates to account for the efficiencies of scale and scope inherent in a TELRIC study. Messrs. Pitkin/Turner made no other changes to the JAMs installation time estimates provided by

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[167] *Id*., pg. 4784-4785 (quoted at AT&T Ex. 2.2, pp. 13-14).

SBC. We refer the Commission to the discussion of labor rates in Section IV.F of this brief to support Messrs. Pitkin/Turner's modification of the JAMS labor rates.[168]

In addition, the Pitkin/Turner modifications to the setup times in JAMS are necessary for these estimates to be TELRIC-compliant. These setup times reflect the time it takes SBC employees to travel to and from a job site. Obviously, if the employee can do more jobs at a particular location, per-job travel time is greatly reduced. The TELRIC pricing methodology requires that we assume that the ILEC has deployed the least-cost most efficient network and equipment, assuming its wire centers and customers remain static. The ILEC benefits from this assumption by being allowed to fully depreciate its plant and equipment as if it were placed today. The tradeoff, of course, is that the ILEC must assume the efficiencies that would be achieved by putting this network in place today. As Messrs. Pitkin/Turner explained, the JAMS estimates reflect smaller construction projects associated with maintaining and expanding a large network that is already in place. (AT&T Ex. 2.0, pp. 53-55) These small projects fail to encompass the efficiencies in travel and setup times associated with the initial build-out of a network. TELRIC mandates that the Commission consider this type of build-out. Therefore, the Commission should adopt the modifications to the JAMS setup times as appropriate in order to make those times TELRIC compliant.

d. DLC Installation Factors

As discussed above, the use of linear loading factors substantially overstates the installed costs of DLC equipment, both at the DLC-RT (remote terminal) and at the

[168] We also stress that if the Commission is concerned about either of these modifications, it should not revert back to using flawed linear loading factors, but should simply order the inclusion of unmodified JAMS data in LoopCAT.

DLC-COT (central office terminal). As discussed below, LoopCAT's overstated DLC installation costs conflict with a number of SBC-internal sources, including JAMS, SBC's Project Pronto business case, and the testimony of SBC cost witnesses in California and Texas. DLC installation costs are a fraction of that assumed by LoopCAT via its use of linear loading factors. The Commission should therefore adopt the recommendations of AT&T's witnesses who relied upon the SBC Project Pronto documentation to complete a bottom-up analysis of DLC installation costs. This is the best information available on the record to establish forward-looking DLC installation costs that are appropriate for use in a TELRIC cost study.

It is worth recapping how LoopCAT derives DLC installation costs. As originally filed in this cite, LoopCAT's use of linear loading factors produced a total cost for a 2016 DLC-RT (excluding line cards)-- which has the capacity to accommodate 2,016 lines -- of ***** BEGIN CONFIDENTIAL** XXXXXXXXXXXXXXXXXXXXX **END CONFIDENTIAL***** related to installation labor.[169] This estimate brought considerable criticism from the CLECs, as we pointed out, among other things, that the source data for the DLC installation factor (PICS/DCPR) resulted in a double count of minor material. Indeed, as note above, SBC's engineering witness Mr. White told Mr. Smallwood that he thought these costs "seemed high." (Tr. 489-491)

In rebuttal, SBC conceded that these DLC installation costs were inaccurate. SBC further conceded that there was a double count, or as Mr. Smallwood euphemistically called it an "overlap" in costs, in SBC's use of the PICS/DCPR data to derive its DLC installation factors. Instead of attempting a "bottoms up" estimate of the cost of

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[169] AT&T Ex. 2.0, pp. 62-63, Figure 3.

installing a DLC, SBC addressed this double count by replacing the source data from PICS/DCPR with its General Ledger data. SBC further modified its DLC installation factor by using a more specific account (257c as opposed the generic x57c account) to derive its factor. The result of these two changes in data sources was that SBC's hard-wire installation factor dropped by some 80%, thereby resulting in approximately a 38% cost decrease for a 2016 DLC-RT (and a 44% cost decrease for the 672 DLC-RT).[170]

However, the total cost of the 2016 DLC-RT (without cards) remains extremely high: *****BEGIN CONFIDENTIAL** XXXXXXXXXXXXXXXXXX *****END CONFIDENTIAL** installation costs.[171] These DLC costs are still significantly overstated, as affirmed by several other sources of information. These same sources also affirm the reasonableness of the AT&T cost estimates based upon SBC's Project Pronto business case.

First of all, the testimony of SBC's expert cost witness in the recent Texas TELRIC proceedings supports the conclusion that SBC's proposed DLC installation costs are vastly overstated. In the Texas TELRIC proceeding, John Trott, SBC Director of outside plant planning for engineering and construction for Southwestern Bell, testified that the total cost of a DLC 2016 DLC –RT – <u>including</u> installation, as well as material, line cards, land, and power – ranged between $120,00-$150,000 (average of $135,000).[172] This estimate is substantially less than the LoopCAT assumed cost of a

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170 AT&T Ex. 2.2, pp. 3-4.

171 AT&T Ex. 2.2, pp. 2-8, Figure 2.

172 AT&T Ex. 2.0, p. 72-76.

2016 DLC-RT excluding line cards of ***BEGIN CONFIDENTIAL XXXXXXX END CONFIDENTIAL.***

AT&T witnesses Messrs. Pitkin/Turner conducted an analysis to create an apples-to-apples comparison between the remote terminal costs found in LoopCAT (without line cards) and the total installed cost indicated by Mr. Trott. They backed out the costs of the line cards from Mr. Trott's estimate by conservatively estimating the amount of DLC-RT investment excluding line cards.[173] Based on their analysis, they found that Mr. Trott's estimate of $135,000 results in an estimated cost of a fully-installed DLC-RT (excluding line cards) of *** BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL***. Of course, LoopCAT used linear loading factors to derive a DLC-RT cost (without line cards, but including all other costs) of *** BEGIN CONFIDENTIAL XXXXXX, revealing that SBC's LoopCAT still estimates costs that are more than two times END CONFIDENTIAL*** the value that SBC's Mr. Trott identified in Texas.[174] This evidence highlights the unreasonableness of SBC's proposal.

In addition, SBC's own Project Pronto business case conflicts with the LoopCAT cost estimates for a DLC-RT. AT&T used this business case to restate DLC installation costs in LoopCAT. In that SBC-produced documentation, SBC provided significant data regarding the installation costs of Alcatel Litespan 2000 DLC-RTs. Specifically, the Project Pronto documentation identifies both the material cost for the Alcatel Litespan system and then a separate value of *** BEGIN CONFIDENTIAL XXXXX END CONFIDENTIAL*** for the EF&I costs incurred by SBC personnel. (AT&T Ex. 2.0,

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173 *Id.*

174 *Id.*

pp. 67-70) In other words, there is a minimal amount of cost for SBC personnel to make the DLC system operational, consistent with the terms of SBC's vendor contracts quoted above. Again, this estimate is significantly lower than the costs inputted into LoopCAT, and otherwise highlight the unreasonableness of SBC's position.

This Project Pronto documentation is particularly persuasive as it reflects SBC's assessment of the forward-looking cost of engineering and installing a DLC system. Thus, Messrs. Pitkin/Turner used this Project Pronto data to restate SBC's LoopCAT, by using the ***** BEGIN CONFIDENTIAL** XXXXX **END CONFIDNETIAL***** EF&I value from the Project Pronto documentation to calculate DLC installation costs in lieu of SBC's flawed linear loading factor approach. (AT&T Ex. 2.0, pp. 68-69, Figure 4) The CLEC restatement of these costs result in a total cost of a DLC system of **BEGIN CONFIDENTIAL** XXXXX **END CONFIDNETIAL*****. (AT&T Ex. 2.0, p. 69) This is significantly lower than the ***** BEGIN CONFIDENTIAL** XXXXXX **END CONFIDENTIAL***** in total costs (minus line cards) resulting from SBC's linear loading factors.

The Project Pronto costs are much more in line with all other evidence concerning the installation costs for a CLEC system. For example, the CLEC estimate of a total cost for each DLC-RT of ***** BEGIN CONFIDENTIAL** XXXXXX **END CONFIDENTIAL***** (excluding line cards) compares favorably to – and is in fact higher than -- SBC witness Mr. Trott's adjusted estimate of ***** BEGIN CONFIDENTIAL** XXXXX **END CONFIDENTIAL*****.

In addition, the SBC JAMS data is consistent with the CLEC estimate. The JAMS based estimates indicate that it will take approximately ***** BEGIN**

CONFIDENTIAL XXXXX hours **END CONFIDENTIAL** *** to install a DLC-RT, resulting in a total installation cost (including engineering, exempt material and contractor costs but excluding material costs) of *** **BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL** ***. The estimates produced by JAMS are in-line with the installation costs of *** **BEGIN CONFIDENTIAL** XXXXX **END CONFIDENTIAL** *** identified in the Project Pronto material. In addition, the underlying JAMS information identifies a total of *** **BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL** *** hours to turn up a DLC node (associated with Function ID "TD140") plus *** **BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL** *** hours to place the DLC-RT cabinet (associated with Function ID "PA165"). (AT&T Ex. 2.0, pp. 70-72, Attachment BFPSET-6 and BFP/SET-7) The backup tables further identify an additional *** **BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL** *** hours for installing the DLC-RT pad and ground ring (associated with Function ID "PB165").[175] In total, these activities identify a total of *** **BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL** *** hours to install, turn up and test a DLC-RT, or *** **BEGIN CONFIDENTIAL** XXXXXXXXXXXXXXX **END CONFIDENTIAL** ***. Even multiplying these hours by a $100/hour labor rate makes it impossible to reconcile this time estimate with SBC's inclusion of *** **BEGIN CONFIDENTIAL** XXXXXX **END CONFIDENTIAL** *** of labor costs in LoopCAT to install a DLC-RT. AT&T Ex.. 2.2, p, 7 (Figure 2).

SBC has acknowledged the inappropriateness of the very loading factors it has applied to DLC equipment in Illinois. In fact, the Wisconsin Commission examined the

[175] SBC's Response to AT&T's 4th Set of Data Requests BFP-174 is included in the directory titled "Data Requests" as part of Attachment BFP/SET-2.

same issue in its recently-concluded TELRIC cost case. There, SBC acknowledged that SBC's Alcatel contract already includes the much of the installation cost for DLC systems and that SBC should not therefore utilize the higher linear loading factor for DLC equipment.[176] Instead, SBC requested a much smaller factor for DLC equipment of 1.0824 to pick up incremental work performed by its engineers and technicians that was not already included in the price of the DLC equipment in the Alcatel contract.[177] Specifically, The Wisconsin Commission stated:

> Ameritech went on to show that it did not apply its higher 'hardwire' factor (2.4194 times material cost) for installation costs. Instead, it claims to have only applied much smaller factors to account for the engineering and installation costs it actually incurs [of 8.24%]. Further, Ameritech claimed those smaller in-plant factors are based on a 3-year average of costs actually incurred for similar vendor-installed equipment. These costs include direct labor and overhead loading for its facilities, network services, and engineering personnel associated with the construction activity.[178]

This begs the question of why SBC has chosen to rely upon its obviously inflated loading factor here when it did not do so in Wisconsin. In Illinois, SBC is proposing a DLC installation factor many times higher than the factor it relied on in Wisconsin, despite the fact that the equipment at issue in Wisconsin proceeding and in this proceeding was obtained pursuant to the same Alcatel contract. SBC's current cost advocacy is particularly disconcerting because the Wisconsin Commission relied on the

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176 Before the Public Service Commission of Wisconsin, *Investigation Into Ameritech Wisconsin's Unbundled Network Elements*, Docket No. 6720-TI-161, p. 146 (hereafter "*Wisconsin Order*").

177 *Wisconsin Order*, p. 147.

178 *Wisconsin Order*, p. 146.

very same contract provision referenced above from the Alcatel *Master Agreement* to justify its conclusion:

> Seller agrees to install, at the prices set forth herein the products ordered hereunder, including all necessary cabling, connection with the buyer supplied power, utility, and communication services, and in all other respects make the equipment ready for its intended use.[179]

In sum, these multiple record sources provide a substantively consistent set of cost estimates for DLC equipment. SBC's estimates, as derived by use of its linear loading factors, are far outside this range of estimates. All of these sources support the use of the Project Pronto business case data, as proposed by AT&T witnesses Messrs. Pitkin/Turner. The Commission should therefore reject SBC's DLC installation costs and order that LoopCAT be revised to include the DLC installation costs as proposed by Messrs. Pitkin/Turner.

2. <u>Copper/fiber crossover point</u>

The Joint CLECs did not provide any recommendations regarding this issue.

3. <u>Other DLC investment cost issues</u>

a. <u>Remote terminal cabinet sizes</u>

Based on staff witness Mr. Koch's recommendation, SBC modified LoopCAT in its rebuttal testimony to include smaller DLC sizes. As Mr. Koch testified at hearing, he made that recommendation based on his belief that this modification would decrease costs, thereby resulting in more efficient DLC costs. (Tr. 1917-1918) However, SBC's

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[179] *Id*. and Master Agreement No. 9006755 between Alcatel USA Marketing, Inc. and SBC Operations, Inc. for Telecommunications Products ("Master Agreement), §10.14, p. 34, and Purchasing Agreement No. 99007255 for Litespan Product (Next-Generation and Broadband Integrated Digital Loop Carrier) between SBC Operations, Inc. and Alcatel USA Marketing, Inc. ("Purchasing Agreement"). Both of these files were provided as part of SBC's Response to Joint CLEC Data Request No. 1.95a and are included (with Amendments) in the "Alcatel Agreement" directory of Attachment BFP/SET-2 to AT&T Ex. 2.0. See AT&T Ex. 2.0, p. 61

inclusion of these smaller DLCs caused costs to increase. (AT&T Ex. 2.1 pp. 50-53) This is because SBC did not increase the fill factor for these units although it assumed the use of smaller DLC-RT's. (AT&T Ex. 2.1, p. 51)

While the CLECs disagree with SBC's application of the Staff recommendation, if using smaller DLCs would not reduce SBC's costs then it would be wholly inappropriate to use the smaller DLCS. Certainly, that change would not reflect least-cost, most efficient network configurations. (AT&T Ex. 2.1 p. 51; AT&T Ex. 2.2, pp. 2-6) At hearing, staff witness Mr. Koch agreed that he would reconsider his recommendation to utilize smaller DLC-RTs if it increased costs. (Tr. 1918-1919) Moreover, SBC, while making this change in LoopCAT to satisfy Staff, also argued that it was inappropriate and that LoopCAT's original DLC-RT sizes were proper. (SBC Ex. 4.1, p. 75-77) Thus, there is no reason for the Commission to adopt SBC's application of this Staff recommendation, which caused DLC costs to increase. All the parties are in agreement on that score.

b. <u>Alcatel discounts</u>

The Commission should require SBC Illinois to modify its LoopCAT model to incorporate the cost reductions associated with the application of two Alcatel DLC equipment discounts for which SBC has failed to account in LoopCAT. The record reflects that in addition to the February 2003 price list that forms the basis for the Alcatel DLC equipment prices used as LoopCAT inputs, SBC's contract with Alcatel calls for two additional discounts of *** **BEGIN CONFIDENTIAL** XXX **END**

CONFIDENTIAL *** each on top of the then-effective price list, which includes certain volume-contingent discounts.[180] This Alcatel contract provision states that:

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> **END CONFIDENTIAL *** **[181]

Significantly, this contract provision carries no conditions other than the mere passage of time. SBC witness Mr. Donald Palmer, who sponsored SBC Illinois' testimony regarding the Alcatel contract, admitted on cross-examination that the SBC/Alcatel agreement, including the above-quoted amendment, was neither modified nor terminated prior to the first additional discount date.[182] These admissions on cross gut the vaguely-phrased, but seemingly contrary allegations contained in Mr. Donald Palmer's pre-filed direct testimony.[183] In other words, while Mr. Palmer attempted to insinuate that these provisions had been cancelled, the record reflects that the contract had neither been terminated nor amended as of the first discount date.

The Commission should conclude that the fact that SBC chose to enter into further negotiations with Alcatel prior to the receipt of the first discount does not excuse

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180 SBC Ex. 15.0, Schedule DGP-R15, p. 3, ¶ F.

181 *Id.*

182 Tr. 1346-1347.

183 *See, e.g.*, SBC Ex. 15.0, p. 24; SBC Ex. 15.1, p. 5.

SBC from applying that discount in LoopCAT, since Mr. Palmer admitted that at the end of the renegotiations with Alcatel, *SBC will receive something of at least comparable value* in exchange for voluntarily foregoing the first discount to which it was unconditionally entitled:

> **Q**: Now, does SBC anticipate that it will receive any benefit at the end of these renegotiation discussions when you execute some sort of modification?
>
> **A**: We do expect to receive a benefit, yes, but it's not associated with this discount.
>
> **Q**: And we'll get into that more in camera. *Do you believe that SBC will, at* the *end of the day, be worse off after the contract is renegotiated and formally modified than it was under the provisions that were available to SBC in DGP-R15?*
>
> **A**: *No, we will not be worse off.*
>
> * * *
>
> **Q**: And would it be fair to say that to the extent SBC renegotiates the terms of its contract with Alcatel it would not want to give up the benefits that it negotiated in this agreement in order to obtain – in the sense of SBC would still want to remain whole at the end of the day after executing whatever amendment is being negotiated?
>
> **A**: Well, we certainly – when we negotiate a contract or an amendment to a contract, those amendments reflect bargains struck by the parties of one kind or another. They're reflected in those amendments.
>
> **Q**: *And I assume SBC is not in the practice of renegotiating contract terms so that it's getting something less than what it would have gotten had it not agreed to renegotiating*?
>
> **A**: No.
>
> **Q**: *That* wouldn't *be a very wise course of business, would it?*

A: I don't think so.[184]

Based on the above-cited language from the Alcatel contract, and Mr. Palmer's admission that the contract was neither modified nor terminated, there is no dispute that the first discount would have been achieved had SBC not voluntarily waived it. It would be inappropriate and contrary to TELRIC's forward-looking, least-cost, most-efficient principles for the Commission to force the CLECs to absorb the associated costs of SBC's decision to reap a different, but equal, benefit under a subsequent Alcatel contract modification simply because SBC determined to forego its original entitlement thereunder. It is neither least-cost nor efficient to give up an unconditional contractual benefit without obtaining something in exchange.

Furthermore, SBC *will* get a benefit in exchange – and an equivalent one at that. Mr. Palmer testified that once renegotiations with Alcatel conclude, SBC will be receiving the significant benefits of ***** BEGIN CONFIDENTIAL** XXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX **END CONFIDENTIAL *****[185] While Mr. Palmer could not place a specific dollar value on these benefits,[186] his testimony demonstrates that their value would be equivalent to the discounts that SBC passed up. Therefore, the first Alcatel discount should be included in the LoopCAT cost study as the best estimate of the cost reduction

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184 Tr. 1350-51, 1352 (emphasis added).

185 Tr. 1366-1372.

186 Tr. 1366; 1371-72.

associated with SBC's forthcoming new amendment. As Mr. Palmer admitted, the Indiana Commission agreed with this position in its recent TELRIC order.[187]

For the same reasons, the second discount reflected above (*see* DGP-R15) should also be included in SBC's cost study, since it would accrue within LoopCAT's forward-looking period. Just as SBC only gave up the first referenced discount in lieu of something different, but equally beneficial, to the extent that SBC has apparently chosen to forego this second unconditional discount in lieu of an equivalent benefit to be determined when SBC's and Alcatel's negotiations end, the benefit of that cost savings accruing within the study period should flow through to the CLECs. Otherwise, SBC could play "hide the ball" with these savings, and obtain inflated loop rates by swapping discounts that would be factored into SBC's cost studies for equivalent benefits in other areas, thereby double-recovering the savings (once from CLECs, and once from Alcatel). For these reasons, and to comply with TELRIC's forward-looking principles, the Commission should also require SBC to include the second discount in the LoopCAT cost study.

c. Mix of Universal Digital Loop Carrier ("UDLC") and Integrated Digital Loop Carrier ("IDLC") facilities

The Commission should direct that LoopCAT assume 100% IDLC technology. The record includes extensive technical engineering testimony on this subject which established that IDLC is the least-cost, most efficient network technology, and that IDLC can be unbundled based on currently available technology. (*See* AT&T Ex. 2.0, pp. 140-146, AT&T Ex. 2.1 pp. 56-57, 64-65) Moreover, the conclusions of AT&T witness

[187] Tr. 1353-1534; 1360-1361; *see also* Indiana Order, p. 46.

Steven Turner on this topic are fully supported by the FCC. In its *Virginia Arbitration Order*, the FCC Wireline Competition Bureau found that that the use of UDLC in developing unbundled loop costs is *inconsistent* with TELRIC. The *Virginia Arbitration Order* put to rest the repeated ILEC argument that it is not technically feasible to unbundle IDLC, and directed Verizon to include 0% UDLC and 100% IDLC (which the Order generally referred to as NGDLC) in its TELRIC cost study:

> [W]e agree with AT&T/WorldCom that a TELRIC model should use 100 percent NGDLC systems and should not assume any UDLC system.
>
> We find that the record demonstrates that it is technically feasible to unbundle NGDLC loops, and that this technology is currently available. . . . The most revealing information on this issue comes from Verizon's testimony in the non-cost portion of the arbitration. There, a Verizon witness admitted that Verizon has had the technical ability to provide unbundled NGDLC for *four to five years* but chose not to implement a standard offering because competitive carriers had not sufficiently pursued such an offering.
>
> Accordingly, because it is technically feasible to unbundle loops that transverse NGDLC systems and because the technology to do so is currently available we will use AT&T/Worldcom's proposal of 100 percent NGDLC in our determination of loop rates.[188]

In its recent TELRIC order, the Indiana Commission followed this FCC pronouncement, directing SBC to include 100% IDLC in LoopCAT.[189]

SBC inappropriately assumes the historic and embedded DLC configuration within SBC's network, with complete disregard for forward-looking technology. IDLC-based loops should assume the use of integrated technologies in all cases because IDLC systems are more efficient and less expensive. The record establishes that IDLC is the most efficient alternative for utilizing the capabilities of NGDLC. Consequently, IDLC,

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188 *Virginia Arbitration Order*, ¶¶ 312, 315, 322.

189 Indiana Order, p. 47.

not UDLC, should be utilized in developing the efficient, forward-looking cost for unbundled loops. UDLC is inferior to IDLC systems because IDLC systems require that the circuit only be digitized once at the DLC-RT, instead of converting the signal from analog to digital form on multiple occasions, as is required by UDLC systems. Likewise, IDLC allows a carrier to aggregate individual DS-0 (voice-grade) circuits into larger, more efficiently transported bandwidths (DS-1, DS-3, *etc.*). In this manner, IDLCs reduce costs (because there is no need for digital/analog conversion equipment like the DLC-COT and associated line equipment used by non-integrated systems). The Commission should direct SBC to modify LoopCAT to assume 100% IDLC technology.

d. Number of remote terminals per COT

SBC's study relies on an arbitrarily low number of DLC-RTs per ILDC-COT. Specifically, SBC's LoopCAT assumes that there are **BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL** DLC-RTs for each IDLC-COT. Given that current IDLC technology is capable of handling five DLC-RTs for each DLC-COT, SBC's approach overstates the cost of DLC-COT equipment. (AT&T Ex. 2.0, pp. 148-149; AT&T Ex. 2.1, pp. 66-67) This assumption is even more problematic given that it is unsupported in LoopCAT. The Commission should adopt Messrs. Pitkin/Turner's modification of LoopCAT to more appropriately reflect four DLC-RTs for each DLC-COT deployed, which is more consistent with efficient outside plant deployment.

e. Calculation and application of building cost factor

The Joint CLECs strongly support Attorney General witness Mr. Dunkel's recommendation that the Commission adjust SBC's application of the building factor to DLC equipment. (AT&T Ex. 2.1, p. 8) In fact, the Joint CLECs believe that application

of Mr. Dunkel's recommendation will serve to bring DLC installation costs more in line with the numerous reasonable data points described above in the discussion of DLC installation costs. If the Commission does not accept Mr. Dunkel's adjustment, then it will be adopting installation costs that are much higher than either those recommended by Mr. Dunkel or the modified installation factors proposed by Staff witness Mr. Lazare. (AT&T Ex. 2.1, pp. 7-9) In short, Mr. Dunkel's building factor adjustment is critical to bring SBC's DLC installation costs in line with estimates provided by every other party in this proceeding, as well as SBC's own Project Pronto documentation and SBC's own experts' testimony in other jurisdictions.

f. <u>Allocation of Shared DLC Components</u>

Two years ago, when there was little question that SBC was obligated to unbundle its DLC network to carriers seeking to provide DSL service, SBC consistently filed TELRIC cost studies allocating 25% of the DLC costs to DSL services. Now, SBC apparently believes that such unbundling obligations have passed, as well as its opportunity to recover DLC costs from DSL competitors. Thus, SBC seeks to apportion the entirety of DLC costs to voice carriers despite the fact that SBC itself uses (and will continue to use) those DLCs to provide SBC-branded retail DSL services. SBC's disingenuous shift in position should be soundly rejected.

SBC fails to account for the total demand over its DLC investment. In calculating the investment per loop, SBC assumes that the only use for the Alcatel Litespan 2000 series of DLC-RTs is to provide 2-wire analog voice services. The Alcatel Litespan 2000 equipment included by SBC in its cost study, however, is fully able to provide voice service and DSL service over that single loop. In fact, one of the main reasons for deploying this particular form of NGDLC remote terminal is to enable SBC to offer both

voice and data services. In other words, the Alcatel DLC-RT is not limited to just 2,016 unbundled analog loops. The cost impact of this error is that SBC has inappropriately allocated all of the common DLC-RT investment to voice services, which does not accurately reflect the capability and use of the equipment. (*See, e.g.,* AT&T Ex. 2.0, pp. 136-140)

The Commission should adopt the AT&T and Staff proposal to identify the voice and DSL service cost-causing percentages for the DLC-RT. The Litespan 2016.9 DLC-RT has the capacity to terminate and provide voice service to 2,016 2-wire loops. In addition, the Litespan 2016.9 DLC-RT is also able to provide DSL service to 672 of those same 2-wire loops. These engineering-based assumptions lead to the conclusion that 75 percent (2,016 divided by the sum of 2,016 and 672) of the capacity of the DLC-RT should be allocated to voice services and the remaining 25 percent of the capacity should be allocated to DSL services. (AT&T Ex. 2.0, pp. 136-140)

This allocation is appropriate under and required by the TELRIC rules concerning cost causation. 47 C.F.R. § 510.507 and 51.509. Those rules provide that costs must be "allocated among the individual elements or services" common to a "subset of the elements or services provided by incumbent LECs." *Local Competition Order,* ¶ 694. *See also* 47 C.F.R. § 51.507 ("The costs of shared facilities shall be recovered in a manner that efficiently apportions costs among users.") Since DLC systems are used to provide both voice and DSL services, the costs of those systems should be shared by both sets of services.

Moreover, SBC used the exact 25% apportionment to DSL services in TELRIC cost studies filed with this and other state commissions. In ICC Docket No. 00-0393 ,

SBC proposed pricing for its so-called Project Pronto UNE, which provides CLECs the ability to provide DSL service over SBC's DLC network. When SBC was asked by Illinois Commissioner Squires to: "Please provide the cost studies and all supporting documentation and assumptions SBC/Ameritech has developed to arrive at the TELRIC rates found" in its tariff, SBC provided a cost study that apportioned 25% of the DLC costs to DSL services. Order On Second Rehearing, ICC Docket No. 00-0393 (March 29, 2002), pp. 10-12. In that order, although the Commission made changes to SBC's cost study, the Commission did not modify the 25% allocation of DSL costs for DSL services, and adopted interim Project Pronto UNE rates. (*Id.* at 25) SBC has filed cost studies using that same 25% allocation in Texas. (AT&T Ex. 2.1 p. 73 ("We have simply relied on the exact same approach that SBC utilized in its allocation of DSL investments in the Texas Project Pronto proceeding.")) The Commission should reject SBC's convenient flip-flop on this issue. Notably, in its recent TELRIC decision, the Indiana Commission adopted AT&T's recommendation on this issue. Indiana Order, p. 47. This Commission should do the same.

g. <u>Remote terminal investment cost allocation</u>

Another flaw in SBC's DLC assumptions in LoopCAT is that SBC incorrectly allocates shared facilities on a DS-0 equivalent basis. Specifically, SBC calculates the common investment in DLC by spreading it across all possible DS-0 terminations. In the case of a 2-Wire Analog loop, the DLC common investment would apply one unit of common investment. However, when SBC develops the cost for a DS-1 loop in LoopCAT, SBC actually applies 24 units of common investment. From a space standpoint, the DS-1 loop does not consume 24 times the common equipment capacity of

the 2-wire analog loop, but only 4 times the capacity. SBC's studies should be modified to reflect this fact. (*See* AT&T Ex. 2.0, pp. 146-149)

The real issue is whether the remote terminal exhausts first due to bandwidth limitations (SBC's position) or space exhaust (CLEC position). If SBC were to utilize the most efficient remote terminal configuration available to it – IDLC – there is no question that the limiting characteristic would be line card space. (AT&T Ex. 2.1, pp. 69-70) Thus, assuming the Commission follows the lead of the FCC and orders the use of 100% IDLC in SBC's TELRIC cost study, it only makes sense for the Commission to reject SBC's attempt to overstate the cost of its DS-1 services by allocating 24 times the investment to those services. Instead, the Commission should order an allocation factor of 4. The Indiana and Georgia commissions have done the same. (*See* AT&T Ex. 2.1, pp. 71-74)

4. Premises termination costs

a. NID and Drop Wire Installation costs (including travel times)

b. Adjustment to remove double-counting

The general consensus among the parties other than SBC is that SBC's NID and drop installation costs are significantly overstated. CLEC, Staff, and Attorney General witnesses provided a host of reasons for this overstatement. The current LoopCAT overstatement of NID/Drop installation costs is directly related to SBC's attempt to remove a double count in costs found by Attorney General witness Mr. Dunkel. As such, the CLECs address these two issues together in this section.

SBC has chosen *not to use linear loading factors* to restate its NID/Drop costs. Instead, it has independently built up those inflated costs. This fact became apparent in

the manner that SBC addressed the NID/Drop double count found by Attorney General witness Mr. Dunkel. Mr. Dunkel found that SBC had "built up" NID/Drop costs independently, yet he also found such costs in the LoopCAT cable installation factors. Mr. Dunkel therefore proposed that SBC purge the double count by eliminating its independently built-up NID/Drop costs, thereby relying on its cable installation factors to recover NID/Drop costs.

Despite SBC's rabid endorsement of linear loading factors, SBC rejected Mr. Dunkel's recommendation. Although Mr. Smallwood acknowledged the double count, he chose to address it by removing NID/Drop costs from SBC's cable installation factors. (SBC Ex. 4.1, p. 85) Thus, LoopCAT does not use linear loading factors to calculate NID/Drop installation costs.

The only plausible reason for SBC's inconsistent approach is that it results in higher, inflated costs. Notably, as Messrs. Pitkin/Turner point out, if SBC had used linear loading factors to restate its NID/Drop costs, it would have resulted in NID/Drop costs that are a fraction of the costs resulting from SBC's "independent" cost development. (AT&T Ex. 2.1, p. 49 **BEGIN CONFIDENTIAL** XXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXX **END CONFIDENTIAL.**

However the Commission might ultimately decide the issue on the use of installation factors, this analysis must prove one of two alternative points: (1) that SBC's NID and Drop investments are significantly overstated (if linear loading factors do accurately reflect costs, as SBC contends), or (2) that SBC's linear loading factors cannot accurately estimate forward-looking costs. (AT&T Ex. 2.1. pp. 49-50) SBC cannot have

it both ways. If this Commission finds that linear loading factors are an appropriate way to determine installation costs, then it must order SBC to use that approach to calculate its NID/Drop installation costs. Otherwise, it will be allowing SBC to use that approach only when it favors SBC. The Commission should require SBC to consistently use its linear loading factor approach and not choose to use "bottoms-up" costs for a few categories because SBC's flawed implementation of that approach artificially inflates costs.

On the other hand, if the Commission determines that a bottoms-up approach is appropriate (which the Joint CLECs believe is correct) then the Commission should utilize the bottoms-up approach to NID/Drop investment proposed by AT&T's Messrs. Pitkin/Turner. There were certain LoopCAT installation costs for which Messrs. Pitkin/Turner did not rely, in total, on JAMS data to restate LoopCAT. These included NIDs and drops. For many of the same reasons discussed above, the Commission should find that the Pitkin/Turner estimates of NID/drop installation costs are reasonable and TELRIC-compliant.

For NIDs and drops, Messrs. Pitkin/Turner wished to rely on information from JAMS to restate the installation cost; however, they did not receive the requisite NID installation data from SBC's JAMS in order to make this calculation. Instead, they used a combination of discovery responses and other information from the JAMS cost estimation tool. (AT&T Ex. 2.0, pp. 55-57) For example, they developed material prices for NIDs based on the current 1-pair and 6-pair material prices and, for drop wires, used JAMS data to calculate material prices on a per foot basis for aerial and buried 3 and 6 pair drop wire. They then applied those per-foot prices to their assumed drop length of

50 feet for Rate Zone 1, 100 feet for Rate Zone 2, and 150 feet for Rate Zone 3. To restate drop installation costs, Messrs. Pitkin/Turner used the installation times provided by SBC in discovery. (AT&T Ex. 2.0, p. 55-57) SBC claimed that Illinois JAMS data does not exist for NIDs. Because SBC provided NID installation times in combination with drop times, Messrs. Pitkin/Turner had to rely upon other information provided in discovery. (AT&T Ex. 2.0, pp. 56-57)

Like Staff witness Mr. Lazare, Messrs. Pitkin/Turner also took issue with the travel time estimates relied upon by LoopCAT in calculating NID/Drop costs. They therefore modified the NID and drop installation times as necessary to make them TELRIC compliant. All of their modifications were intended to reflect the initial build-out of a network mandated by TELRIC. For example, Messrs. Pitkin/Turner reflected the fact that two sets of four drops would be placed in a day, effectively decreasing travel/set-up time and connection times (as opposed to SBC's non-TELRIC assumption that each drop and NID would require the full amount of travel and set-up time). Second, they reduced the time to connect buried drop wire at the drop and pedestal to reflect that multiple connections would be made at one time, something SBC did not do. Third, they added in the time that SBC designated as buried hand trenching and divided that time estimate in half to account for the use of trenching machines and the economies associated with requiring only one setup time for multiple drops. Finally, they used two-thirds the time estimate for aerial mid-span attachment, since SBC's assumption that all aerial drops would have mid-span attachments is completely unsupportable. (AT&T Ex. 2.0, p. 57) All of these modifications are necessary for these work times to be TELRIC compliant.

In conclusion, the Commission should either adopt the forward-looking bottoms-up NID/Drop installation costs proposed by Messrs. Pitkin/Turner, or in the alternative direct SBC to consistently use linear loading factors to calculate installation costs, including the costs of installing NIDs and drops.

c. Mix of aerial and buried premises termination equipment

SBC uses an assumed mix of aerial and buried NIDs and drops in developing the premises termination investments. SBC provides no justification for the mix it uses in LoopCAT. For example, SBC assumes that **BEGIN CONFIDENTIAL XXX END CONFIDENTIAL** of drops in suburban zones are aerial and the remaining are buried. However, this makes no sense given that LoopCAT also assumes that **BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL** percent of distribution cable in suburban areas is aerial. (AT&T Ex. 2.0, p. 120) In order for LoopCAT's mix of aerial and buried drops in rural areas to be correct, aerial distribution cable would need to be placed below ground about one-third of the time to run the drop. This would seldom occur, especially since the customer would be forced to arrange for and pay for such excavation work prior to filing a special request to SBC. (*Id.*)

It is more appropriate to assume that aerial distribution cable will use aerial drops and buried distribution cable will use buried drops. (*Id.*) The best way to correct his error in LoopCAT is to restate SBC's premises termination aerial/buried mix to reflect the same mix as aerial/buried distribution cable facilities. SBC's raises no plausible argument to the contrary. (AT&T Ex. 2.1, pp. 74-75) The Commission should adopt AT&T witnesses Messrs. Pitkin/Turner application of this approach in their restatement of LoopCAT. (*Id.*)

d. Multiple Dwelling Units

SBC's LoopCAT studies submitted in December of 2002 did not account for the fact that people live in multiple dwelling units ("MDUs"). LoopCAT instead assumed a NID to every customer. However, customers served in MDUs are served via block terminals, which are substantially less expensive than NIDs on a per-line basis. (AT&T Ex. 2.0, pp. 95-96) Thus, for each loop that SBC assumes terminates at a NID when, in fact, the loop terminates at a block terminal (*i.e.*, customers in MDUs), SBC had overstated the investment by about 80%. (AT&T Ex. 2.0, pp. 95-96) Moreover, 34% of Illinois households live in MDUs, such as apartments, condominiums, duplexes, and the like. (AT&T Ex. 2.0, p. 98) In the end, SBC admitted that failing to properly reflect MDUs in the cost study affects costs, but SBC continued to sponsor a cost study that knowingly produces erroneous, highly inflated results.

While this problem and its solution may be uncontested, its existence should cause the Commission to discount SBC's and Mr. Smallwood's credibility on loop-related issues. As noted in Section III.A.3 above, SBC, and its cost witness Mr. Smallwood, knew about this error since November 2002, but chose to ignore it. As Mr. Smallwood acknowledged at the hearing, he and SBC had been aware of this error since November 2002, as the issue was discussed during Mr. Smallwood's deposition in the California UNE proceeding, in which he admitted this problem. (Tr. 713-714; AT&T Ex. 2.0, p. 97) The CLECs have repeatedly raised this issue in Texas, California, and now in Illinois. Yet Mr. Smallwood knowingly submitted a loop study here that he knew overstated SBC's costs. That in itself should cause the Commission to seriously question SBC's credibility.

Messrs. Pitkin/Turner used U.S. Census data to restate LoopCAT to account for the number of MDUs in Illinois. (AT&T Ex. 2.0, pp. 100-101) SBC's Mr. Smallwood – after a year of ignoring the issue in total – now concedes it and claims, in his rebuttal, to have restated LoopCAT using U.S. Census data. (SBC Ex. 4.1, p. 88) However, Mr. Smallwood did not use U.S. Census data to incorporate MDUs into LoopCAT on a *deaveraged* basis. Thus, SBC's approach knowingly overstates cost in more urban areas and understates costs in less urban areas. There is simply no rationale for SBC to apply the U.S. Census data in the manner Mr. Smallwood applied it. The Joint CLECs recommend that the Commission direct SBC to apply the U.S. Census data on a deaveraged basis, thereby more appropriately reflecting the fact that there are more MDUs in urban areas. (AT&T Ex. 2.1, p. 52)

5. FDI costs

There are two overstatements in LoopCAT's FDI (Feeder Distribution Terminal) costs: (1) LoopCAT fails to account for the fact that larger buildings have directly fed cable that does not run through an FDI, and (2) the recommended terminations should comport with the CLEC fill factor recommendations.

a. LoopCAT Fails to Account For Directly-Fed Buildings

First, it is uncontested that SBC's LoopCAT model fails to reflect the fact that not every loop is served via a FDI (the terminal linking the feeder and distribution portions of the loop). In fact, some loops, such as those that terminate to large office buildings, are served directly via feeder facilities, and therefore do not have an FDI. (AT&T Ex. 2.0, pp. 90-94) LoopCAT instead assumes that every single loop requires multiple terminations (100% premise terminations and 100% FDIs). The result is that LoopCAT

overstates SBC's costs by including the costs of block terminals and FDIs that do not exist.

Again, SBC's Mr. Smallwood has conceded this point on numerous occasions, including the hearing here, and has known about this LoopCAT error since at least December of 2002. (Tr. 738-739; SBC Ex. 4.1, p. 89; AT&T Ex. 2.0, pp. 90-94; AT&T Ex. 2.1, pp. 76-80) However, he has made no attempt to determine how to fix the problem or assess its materiality. Consistent with his failure to correct other known LoopCAT flaws, Mr. Smallwood provides no proposal for the Commission to address this issue here, admitting that SBC is "knowingly understating" the percentage of direct-fed buildings. (Tr. 739 ("We're knowingly understating it.”))

However, Messrs. Pitkin/Turner propose a simple solution. Namely, Pitkin/Turner reviewed SBC's loop data (from SBC's own loop databases) to determine what percentage of SBC loops do not have distribution segments. (AT&T Ex. 2.0, pp. 90-94) In order to develop more appropriate de-averaged loop rates, they corrected SBC's application of LoopCAT (along with incorporating the bottom-up cost inputs) to reflect the occurrence of FDIs that would actually exist, consistent with SBC's loop data. They broke this data apart by zone (as depicted in Figure 6 of their direct testimony at p. 94) and then corrected LoopCAT to remove unnecessary FDIs and reflect the percent occurrence identified in that table.

SBC's Mr. Smallwood takes issue with this approach, claiming that the Pitkin/Turner percentage of loops not having distribution seemed "high." However, under cross-examination, Mr. Smallwood admitted that he had not obtained any data to determine the percentage of directly-fed loops. (Tr. 738-39) Mr. Smallwood presented

no analysis to determine how "far off" he believed Pitkin/Turner's percentage *****BEGIN CONFIDENTIAL** XXXXX **END CONFIDENTIAL***** was from the allegedly correct percentage.

While SBC's Mr. Smallwood questions the percentage that Pitkin/Turner derived from the LEIS database, he provided no information to rebut it, and he had no opinion on what the actual percentage might be. In the end, the only information on this record to restate LoopCAT to account for directly-fed loops is the Pitkin/Turner recommendation, which the Commission should adopt as reasonable and unchallenged. When faced with the same record, the Indiana Commission reached that conclusion:

> We adopt the modifications to LoopCAT proposed by Messrs. Pitkin and Turner to account for directly-fed loops without FDIs. We find the manner in which they determined the ratio of directly-fed/to total feeder loops reasonable. SBC's loop database, LEIS, provided information on the percentage of loops without distribution areas. SBC provided no basis for challenging the percentage that Messrs. Pitkin and Turner derived from LEIS while questioning the CLECs' data. Mr. Smallwood provided no information to rebut the percentage, and he had no opinion on what the actual percentage might be. The record, therefore, leads us to restate LoopCAT to account for directly-fed loops and adopt the Pitkin and Turner recommendations.

Indiana Order, p. 43. The Commission should rely on the only available information to determine the frequency of FDIs in the forward-looking network – which comes from the same database (LEIS) that SBC used to calculate its fill factors. (AT&T Ex. 2.1, p. 77)

b. FDI Costs Must Be Updated To Reflect Forward-Looking Fill Factors

SBC has designed LoopCAT to assume **BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL** FDI terminations per working loop. (AT&T Ex. 2.0, p. 128) However, each working loop will actually utilize only two FDI terminations, one on the feeder side and one on the distribution side. The additional connections per FDI are

directly related to the amount of spare capacity one incorporates into the network and must be consistent. Based on Mr. Starkey's fill factor recommendations, Messrs. Pitkin/Turner modified the LoopCAT assumption of FDI terminations per working loop in order to effectuate that forward-looking fill factor recommendation. (AT&T Ex. 2.0, pp. 128-131) SBC witness Mr. White's criticisms of these recommendations are based on his apparent misunderstanding of the manner in which fill factors are accounted for in LoopCAT. (Tr. 529-530; AT&T Ex. 2.1 pp. 76-80 (responding to Mr. White's criticisms.))

In addition, Messrs. Pitkin/Turner made one additional modification to SBC's FDI termination assumptions. SBC assumes that feeder pairs would only be terminated in a central panel, but there is no engineering reason why this might be so. In fact, the only efficient approach is to first fill up the central panel of the FDI with feeder pairs, and then utilize terminations on either the right or left panel to terminate additional feeder pairs. (AT&T Ex. 2.0, pp. 130-131) As Messrs. Pitkin and Turner explained, "this is sensible given that the ratio of distribution pairs to feeders pairs is far less than one-to-one. Failure to use this approach would cause the center panel of the FDI to fill up, but leave nearly **BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL** of the distribution terminations utilized. (AT&T Ex. 2.0, pp. 130-131)

6. <u>Distribution Area modeling</u>

In regard to distribution area modeling, SBC has not even attempted to modify LoopCAT to account for the basic premise of the TELRIC methodology: that SBC is to design its network from scratch, assuming the existence of its current wire centers and customers, and otherwise cost out a new network using the least-cost, most efficient

technology available. SBC has not even attempted to do so, as LoopCAT uses the exact same distribution area ("DA") designs as in SBC's embedded network.

LoopCAT's use of embedded DAs is not forward-looking and, therefore, not TELRIC compliant. One of the cost benefits of the TELRIC methodology is that SBC can better design its loop DAs with forward-looking (least-cost, most efficient) technology that can serve much wider geographic areas than the dated technology in SBC's embedded network. (AT&T Ex. 2.0, pp. 150-161) As Messrs. Pitkin/Turner explain, SBC defines DAs by collecting existing customer locations that are served by existing FDIs – the interface point between feeder cable and distribution cable. The small, embedded DAs used by LoopCAT define the embedded combination of feeder and distribution cable lengths (and therefore the cabling distances) between an SBC central office and its end-user customers. Thus, LoopCAT does not permit the user to determine and use efficient, forward-looking distribution areas. (AT&T Ex. 2.0, p. 155)

As Messrs. Pitkin/Turner explain, larger DAs can take advantage of larger hardware sizes and therefore are more efficient. SBC's own engineering guidelines acknowledge this very fact. (AT&T Ex. 2.0, pp. 155-156 (citing to SBC's Loop Deployment Guidelines)) By assuming a fixed relationship between customer locations and specific DAs, as they are reflected in SBC's embedded network, LoopCAT is inconsistent with TELRIC because it seeks to "lock in" virtually all the SBC embedded network, while TELRIC requires that only the existing wire center locations remain fixed. SBC's cost methodology improperly constrains the ability to capture a more efficient forward-looking configuration for serving existing demand. This is particularly problematic because SBC's existing DAs are generally very small and are based on

embedded demand and dated, inefficient technology. By "locking in" these inefficiently small DAs, SBC fails to recognize scale economies that are achievable, on a forward-looking basis, at the FDI. (AT&T Ex. 2.0, p. 156) Furthermore, given the extensive use of DLC equipment in a forward-looking environment, SBC's use of small DAs requires excessive feeder stub cables back to the DLCs. Efficient forward-looking engineering calls for the use of larger distribution areas consistent with the larger FDI and DLC equipment that is now readily available. (*Id.*) The FCC's Wireline Competition Bureau made just that conclusion in the *Virginia Arbitration Order.*[190] The Commission should therefore order that LoopCAT be modified in the manner described in Messrs. Pitkin/Turner's testimony to account for large FDIs, to the extent possible. (AT&T Ex. 2.0, pp. 158-161 (Figure 12 on page 159 summarizes those adjustments))

7. Loop length, cable size and cable gauge modeling

a. Distribution lengths over 18,000 feet

Messrs. Pitkin/Turner also modified LoopCAT to eliminate over 100,000 loops with distribution lengths of over 18,000 feet. (AT&T Ex. 2.0, pp. 105-108) They did so for the simple reason that such loops would not provide an acceptable level of POTS service absent load coils. The parties in this case agree – and LoopCAT also assumes – that load coils are not appropriate in a forward-looking network design. (AT&T Ex. 2.0, p. 105) Thus, in a forward-looking network, SBC would not place copper distribution loops in its network with lengths over 18,000 feet. Such loops are incapable of providing forward-looking services such as DSL, and would therefore be served via DLC, thereby shortening the copper distribution portion of the loop. Therefore, the Commission should

[190] *Virginia Arbitration Order*, ¶ 171-172, 237 (full relevant quotations found in AT&T Ex. 2.1, pp. 80-82).

direct the removal from LoopCAT of all loops with distribution areas over 18,000 feet. *See also* Indiana Order. p. 44 (directing SBC to remove all-copper loops over 18,000 feet from its study).

b. <u>Data used to develop loop lengths</u>

SBC's LoopCAT relies on a sample of 68% of the loops found in its ARES database. Thus, Mr. Smallwood provided misleading testimony when he stated in his direct testimony that: "The loop length information for the UNE loop costs developed in LoopCAT is based on actual loop length obtained by extracting the universe (*i.e.*, not merely a sample) of the loop information contained in the Automated Records and Engineering System ("ARES") database" (SBC Ex. 4.0, p. 25)

AT&T witnesses Messrs. Pitkin/Turner corrected this error to ensure that LoopCAT includes the full universe of SBC's loops. They relied on SBC LEIS data, which is the same source SBC relied on for populating LoopCAT in Texas and California. (AT&T Ex. 2.0, p. 104) They used LEIS because LEIS included the universe of SBC loops, unlike ARES. SBC never contested that LEIS is an appropriate database from which to get loop data. Indeed, SBC itself relied on LEIS to identify its "actual" fill factors. (AT&T Ex. 2.0, p. 104) Messrs. Pitkin and Turner used this LEIS data in a manner consistent with their assumption to eliminate loops of over 18,000 feet from the distribution network. They also ensured that this LEIS data reflected UNE-specific loop lengths for the UNEs being studied. (AT&T Ex. 2.0, p. 108) Additionally, they selected the proper cable gauging consistent with these assumptions, as well the assumptions concerning cable resistance limits (discussed in the next section of this brief). Finally, they processed the loop data by wire center.

Messrs. Pitkin/Turner's use of a wire center basis is appropriate. LoopCAT should be run at the most granular level available to allow for a more disaggregate level of costing for each UNE. (AT&T Ex. 2.0, pp. 114-116) Pitkin/Turner chose to run the LoopCAT at the wire center level of detail because that is the most discrete level of detail in which SBC has provided its underlying loop counts by UNE. In other words, the cost study should be run at a disaggregate level so that the loop costs in each defined area can be matched with the quantity of loops (for each specific UNE) in each area. This approach helps ensure that underlying cost characteristics for different UNEs are not averaged together, thereby skewing deaveraged costs between zones or UNEs. By doing this, Messrs. Pitkin/Turner more accurately developed the deaveraged UNE rate for each element at issue in this proceeding.

The Commission should direct SBC to modify LoopCAT to include the entire universe of its loops, as proposed by AT&T witnesses Messrs. Pitkin and Turner.

c. <u>Distribution cable resistance limits</u>

In addition to the serious transmission engineering errors identified above, SBC has also incorrectly developed the loop cost in LoopCAT by using inaccurate resistance guidelines. SBC's engineering guidelines call for the use of ***** BEGIN CONFIDENTIAL XXX END CONFIDENTIAL ***** ohms of resistance in the design of copper loops, but SBC inappropriately uses a ***** BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL ***** ohm guideline instead.

The impact on loop cost from using 900 ohms instead of ***** BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL ***** ohms is straightforward. In a deposition, SBC's California engineering witness, Cheryl Bash, agreed that the use of

LoopCAT's ***** BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL ***** ohm design criteria results in a 4.8 dB UNE loop, not an 8.0 dB loop.

> Q. Are you familiar with the technical term dB loss?
>
> A. Familiar with, yes.
>
> Q. And, are you aware that one of the rate elements that we are looking at in this proceeding is an 8 dB loop?
>
> A. Yes.
>
> Q. Would you consider an 8 dB loop as a POTS loop, generically speaking, without going deeper than that?
>
> A. I would have to review that, but probably.
>
> Q. But there is a rate element called an 8dB loop in the proceeding, you are aware of that?
>
> A. Yes.
>
> Q. In the case where there is no more than 9 thousand feet of 26 gauge or 12,000 feet of 24 gauge, is that an 8 dB loop?
>
> A. I don't know.
>
> Q. Is a lower number on the dB scale better or worse?
>
> A. Better.
>
> Q. Would you accept subject to check that such a loop of those lengths at those gauges would be about a 4.8 dB loop?
>
> A. I really don't know. I would have to go back and verify those numbers.
>
> MR. DONOVAN: I'd like to mark this as Exhibit No. JA 5.
>
> (Exhibit was marked for identification by the reporter and is attached hereto.)[191]

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[191] See AT&T Ex. 2.0, p. 110-114.

> Q. BY MR. DONOVAN: Ms. Bash, let me ask you generally and you can use this chart if you wish. Does this chart help you to answer my question as to whether the 9 thousand feet of 26 gauge copper loop ends up giving you about a 4.8 dB loop?
>
> A. Yes, it does.[192]

From a practical standpoint, when copper loops are designed at ***** BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL ***** ohms instead of ***** BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL ***** ohms, the probability of having coarser (and more costly) gauge cable becomes greater. As a result, SBC's LoopCAT generally overstates the cost for distribution because it does not apply design criteria consistent with its engineering guidelines.

AT&T witnesses Messrs. Pitkin and Turner modified LoopCAT to use a ***** BEGIN CONFIDENTIAL XXX END CONFIDENTIAL ***** guideline rather than the ***** BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL ***** ohm guideline with which SBC populates the pre-processor. This standard more closely matches SBC's own internal guidelines. CLECs should not be paying higher UNE rates because SBC's cost studies are incapable of using the correct input. The Commission should adopt this modification.

d. Allocation of copper cable inventory between feeder and distribution plant

e. Copper cable mix

The copper cable investments in LoopCAT are incorrect because they are based on flawed subject matter expert opinion. Specifically, SBC subjectively allocates copper cable to distribution or feeder facilities. However, SBC's subject matter experts did not

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192 See AT&T Ex. 2.0, p. 112-113.

incorporate in their assumptions any variations based on structure type or density, which is wholly unrealistic. In addition, SBC also inappropriately calculates the mix of structure types for copper facilities by failing to recognize and adjust for multiple sheaths along a single route. (AT&T Ex. 2.0, pp. 122-128)

SBC has chosen to use its embedded mix of cable sizes in LoopCAT. As a threshold matter, reliance on embedded cable distances and cable sizes which may have become obsolete and inefficient due to, *e.g.*, an increase in scale that occurred decades ago, is problematic. SBC's approach creates the further problem of having to allocate those cable sizes to distribution and feeder plant rather than determining, route by route, the appropriate mix. To perform this allocation, SBC uses undocumented, unsupported ratios to associate each cable size with either distribution or feeder facility.

SBC's allocation inputs are obviously wrong because the allocations of feeder and distribution facilities do not change by either structure type or by density zone, as they should in a properly performed TELRIC analysis. (AT&T Ex. 2.0, pp. 122-123) Because there is no backup material supplied or explanation of the process SBC used to develop its inputs, we cannot pinpoint the source of the error or even understand SBC's logic for such an assumption. However, as AT&T witnesses Messrs. Pitkin/Turner explained, it is clear that aerial cables, for example, should have a different mix of distribution and feeder facilities than underground cable; and underground facilities, for example, should have a different mix between distribution and feeder facilities in urban areas than in rural areas. (AT&T Ex. 2.0, p. 123)

The logic for these assumptions is straightforward. First, in practice, underground cable is most often used in feeder facilities, and rarely occurs in distribution facilities.

Therefore, it simply makes no sense to use the same allocation between distribution and feeder facilities for both aerial and underground facilities.

Also, the mix of aerial, buried, and underground cable changes significantly in different density zones. For example, underground cable is much more prevalent in urban areas than in rural areas, while aerial cable is less prevalent in urban areas and more prevalent in rural areas. SBC's static inputs, however, do not reflect these differences by density. In addition, distribution cables become larger in higher density zones. Thus, the breakpoint between distribution and feeder facilities must be different for each density zone. SBC's assumptions do not reflect this fact and cannot be relied on. (AT&T Ex. 2.0, p. 123-124) Finally, SBC's simplifying assumption that there would be no copper feeder cables under 300-pair in any situation and no copper distribution cables above 1,500-pair in any situation, is patently unreasonable. (AT&T Ex. 2.0, p. 125)

SBC provided no data that explains how one could properly split embedded cable sizes between distribution and feeder facilities. Thus, to correct for this problem in SBC's LoopCAT, AT&T witnesses Messrs. Pitkin and Tuner used more appropriate inputs that reflect the mix of distribution and feeder facilities one would expect to see in actual practice. These estimates, detailed in Attachment BFP/SET-11, appropriately reflect differences by type of structure (aerial, buried and underground) and by density (rural, suburban and urban).

LoopCAT's calculation of copper cable investment is also flawed because SBC develops its distribution mix based on embedded sheath feet rather than using forward-looking plant mix assumptions. (AT&T Ex. 2.0, 124-125) Moreover, even if one were attempting to use embedded plant mix assumptions, SBC incorrectly uses its own

embedded data. Specifically, SBC fails to account for the fact that embedded base feeder facilities are more likely to have multiple sheaths than distribution facilities. (*Id.*) SBC also fails to consider that embedded underground cable is more likely to have multiple sheaths along an individual route than will buried facilities. This is because most underground cable is feeder plant that is customarily augmented over time. (*Id.*)

However, in a forward-looking network, a feeder route will not have multiple sheaths when a single sheath can be used. In short, SBC has failed to adjust the structure mix assumptions by ignoring the fact that embedded aerial and underground cables are more likely to have multiple sheaths on a single route than will buried cable. (AT&T Ex. 2.0, p. 125) This error leads to an unrealistically high proportion of underground distribution. Figure 8 of AT&T Ex. 2.0 provides a summary of the LoopCAT distribution cable plant mix.

It is especially illogical to assume that ***** BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL ***** of distribution cable in rural areas will use underground facilities. (AT&T Ex. 2.0, p. 126) Attempting to change the mix of cable plant in LoopCAT to reflect appropriate engineering guidelines in a forward-looking environment is an ultimately futile effort because LoopCAT's mix is based on a combination of embedded sheath distance data (not route distance, as would be more appropriate) plus a series of allocations combined with unexplained assumptions.

AT&T witnesses Messrs. Pitkin/Turner explained that if one were going to rely on embedded data to estimate the appropriate forward-looking mix (and generally one should not), it would be much more appropriate to estimate the structure mix based on the amount of route miles instead of sheath miles. Therefore, Messrs. Pitkin/Turner

converted SBC's sheath distance into route distances. The number of sheaths per route miles for underground facilities is approximately *****BEGIN CONFIDENTIAL XXX *** END CONFIDENTIAL**.[193] Pitkin/Turner estimated that there are, on average, ***** BEGIN CONFIDENTIAL XXX END CONFIDENTIAL ***** aerial sheaths per route mile and *** **BEGIN CONFIDENTIAL XXX END CONFIDENTIAL ***** buried sheaths per route mile. Figure 9 in AT&T Ex. 2.0 shows that applying even these embedded factors to SBC's embedded sheath distances yields a much more reasonable structure mix than is currently used in LoopCAT, although neither method is fully TELRIC compliant. For example, after applying Pitkin/Turner's adjustments, underground cable accounts for approximately 3.5 percent of distribution facilities in rural areas instead of SBC's proposed ***** BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL ***** percent.[194]

Pitkin/Turner's Percentage of Total Copper Cable Mix by Structure Type and Zone

	Zone		
	1	2	3
Aerial	21.49%	77.72%	43.76%
Buried	1.93%	10.43%	52.78%
Underground	76.58%	11.85%	3.46%

The Commission should adopt Messrs. Pitkin/Turner's corrections to LoopCAT, which use these more reasonable assumptions to estimate the amount of copper cable for each specific structure type.

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193 This is calculated by dividing the total number of sheath miles as reported in ARMIS by the total number of conduit trench miles as reported in ARMIS.

194 The analysis supporting these calculations is contained in the directory titled "Testimony Figures" in Attachment BFP/SET-2.

f. Cable sizing

In the construction of a forward-looking network, the logical approach would be to place one larger piece of equipment whenever possible, instead of several smaller pieces of equipment. (AT&T Ex. 2.0, pp. 160-168) Historically, SBC undoubtedly found it necessary to augment equipment already in place, from time to time, with additional equipment to meet a growing demand. This embedded effect is found throughout LoopCAT (as described above in relation to distribution areas and FDI sizes) and results in inefficiencies that are not consistent with forward-looking costs. The efficient practice of placing larger equipment instead of multiple smaller pieces of equipment conforms to the principles of TELRIC, and this practice should have been utilized in LoopCAT.

LoopCAT did not use this assumption, especially as it relates to cable sizes. SBC bases all of its LoopCAT cable costs on its embedded base of cables. (AT&T Ex. 2.0, p. 160) Obviously, if SBC were to deploy its network today, it would not place the same mix of cable as in its embedded network. SBC has not indicated how old those cables are, but it is possible that there are still cables in inventory that were placed in service in 1930. In any case, SBC has incorporated periodic reinforcements accomplished through the placement of multiple sheaths. On a cost-per-pair basis, larger cables are more efficient (less expensive). (AT&T Ex. 2.0, p. 161)

Because, as explained by Messrs. Pitkin/Turner, SBC does not attempt to determine route distances and the amount of cable required on each route it is simply impossible to modify the LoopCAT studies to properly reflect larger, more efficient cables that are appropriate in a forward-looking cost study – something SBC inappropriately failed to do. (AT&T Ex. 2.0, p. 161) In an attempt to incorporate some

amount of forward-looking logic into the costing process, AT&T shifted the cable sizes up to reflect larger average cable sizes by assuming that 10% of each cable size shifted to the next larger size. (*Id.*) The Commission should find his adjustment reasonable, as it attempts to provide some forward-looking adjustment to an otherwise flawed LoopCAT model.

8. Planning Period

The CLECs did not provide testimony or recommendations on this issue.

9. Previous Methodologies

The CLECs refer to Section III.A.1 above, which addresses this topic.

10. Agreed upon issues

a. Controlled Environmental Vaults

The CLECs provide no additional comment on this issue. (See AT&T Ex. 2.0, pp. 161-163)

b. Feeder Stubs

The CLECs provide no additional comment on this issue.

c. Adjustment to remove double-counting of distribution terminal costs

In its rebuttal testimony, SBC eliminated costs associated with distribution terminals because those costs are already included in SBC's installation factors. (SBC Ex. 4.1, p. 7) The CLECs do not object to the removal of the double count. However, the Commission should take note of the fact that SBC did not know that distribution terminals were double counted by the use of factors to determine installation costs. The use of linear loading factors is a "black box" operating for CLECs, but apparently for SBC as well. The Commission should instead use a bottoms-up method of determining

installation costs rather than relying on installation factors that even SBC cannot figure out. (AT&T Ex. 2.1, p. 35)

d. Building entrance facilities

The CLECs have no further comment on this issue. (See AT&T Ex. 2.1, pp. 75-76)

e. Mix of residential and business premises terminations

In addition to LoopCAT's failure to account for MDUs, it is also uncontested that LoopCAT, as submitted by SBC in December 2002, overstated the cost of premise termination by inappropriately assuming an unrealistically high percentage of residential terminations for services that rarely terminate at those locations. As Mr. Smallwood admitted in his rebuttal testimony and at hearing, this assumption is erroneous and would overstate SBC's costs. (SBC Ex. 4.1, p. 87; Tr. 715-716) Mr. Smallwood also admitted that he knew about this problem prior to the submission of his direct testimony, yet he failed to fix it, much less bring it to the Commission's attention when SBC filed its Illinois cost studies. As noted in Section III.A.3, SBC's failure to make these changes before filing LoopCAT should weighs against the Commission's view of SBC's and Mr. Smallwood's forthrightness and credibility.

f. Non-Chicago Sales Tax

The Joint CLECs question why this was designated as an uncontested issue. In its rebuttal testimony, SBC added a sales tax line item to all of its hardwired DLC investments, applying the tax to total installed investment, while it also changed the application of sales tax to the plug-in investments. SBC has previously only applied sales tax to the material portion of the investment. (AT&T Ex. 2.1, pp. 57-58)

SBC has provided no explanation for this change. SBC simply claims that the change dealt with the move from the PICS/DCPR data source for the development of 257c installation factors to the General Ledger. (SBC Ex. 4.1, p. 29-30) That is the extent of SBC's explanation. SBC failed to identify with specificity the sales tax related difference between the PICS/DCPR and the general ledger. Until it does so, the CLECs believe this is an open issue, and, more importantly, SBC has not met its burden of proof to substantiate including this sales tax item in its TELRIC costs.

IV. NON-RECURRING COST STUDIES AND RATE DESIGNS.

A. General Issues

1. TELRIC Standards/Principles

The Commission must review SBC's proposed cost studies and nonrecurring charges ("NRCs") in light of the FCC's TELRIC principles, as defined in the FCC's *Local Competition Order* and TELRIC rules, and the Commission's own TELRIC orders. As Joint CLEC witnesses Dr. August Ankum and Sidney Morrison ("Ankum/Morrison") noted, those principles are fairly summarized as follows: (i) The firm should be assumed to operate in the long run; (ii) the relevant increment of output should be total company demand for the unbundled network element in question; (iii) technology choices should reflect least-cost, most efficient technologies; (iv) costs should be forward-looking; and (v) cost identification should follow cost causation. (Joint CLEC Ex. 1.0, pp. 27-28).

For some of the general principles governing the proper analysis of non-recurring cost studies, one should turn to this Commission's most recent order on NRCs issued in the TELRIC compliance proceeding in Docket 98-0396 on October 16, 2001 ("TELRIC II Order"). An examination of SBC's NRC studies readily reveals that SBC has not implemented the Commission's directives. SBC has calculated costs and proposed

charges greatly in excess of those previously adopted by the Commission in TELRIC II, without identifying any concurrent massive changes since the TELRIC II order was issued. (Joint CLEC Ex. 1.0, p. 14).

In TELRIC II, the Commission reviewed and rejected Ameritech's NRC studies, setting forth in detail the reasons that Ameritech's NRC studies were inadequate. Ankum/Morrison described the principles and directives encompassed in the Commission's TELRIC II Order as follows:

(i) NRC studies should "take into consideration the increased flow through that should result from the OSS enhancements being implemented pursuant to Ameritech's merger agreement."

(ii) NRC studies should assume not manual intervention but rather "the use of primarily automated interfaces."

(iii) SBC should change "a single assumption, that orders would be placed through a fully automated process."

(iv) SBC should "provide […] written reports or other support for its flow through rates and […] use a single fallout factor for the complete end-to-end connect/disconnect processes; rather than view each process step in isolation.

(v) NRC studies should not be "based on [SBC's] existing network architecture and processes and incorporate only those technologies and process improvements that [SBC] actually plans to deploy in the next three years. This is the antithesis of a forward looking cost study […] because it encompasses actual rather than forward looking technologies and processes."

(vi) SBC's NRC studies should make "adjustment for [SBC] cleaning up and then maintaining its databases to eliminate fallout caused by database contamination."

(vii) SBC's NRC studies should perform "root cause analyses to seek out and resolve problems causing fallout [and] distinguish between fallout resolution costs and the costs associated with planned/designed manual intervention due to fallout."

(viii) SBC "should eliminate the computer processing costs it applies per service order. These costs are not a direct cost to a CLEC ordering a UNE."

(ix) Work times in SBC's cost studies should be adequately supported and not be "based on subjective SME interviews."

(x) SBC should "provide very specific backup information, including identification and documentation of forward looking workflows, identification of estimators, the development of detailed written estimation instructions, provisions for averaging the individual estimates, development of documentation, etc."

SBC failed to incorporate these important principles into its current NRC studies. (Joint CLEC Ex. 1.0, pp. 12-13 (citing TELRIC II Order, pp. 39-42)).

Further background on the history of nonrecurring charges in Illinois is also instructive in discerning TELRIC principles and recognizing that the Commission has consistently applied the FCC's TELRIC rules in the past. In its TELRIC I Order issued on February 17, 1998, the Commission rejected SBC's predecessor's (Ameritech's) proposed service order and line connection nonrecurring charges. In so doing, the Commission stated:

> Ameritech Illinois has failed to demonstrate that the magnitude of its proposed non recurring charges are appropriate. The lack of support for nonrecurring costs is apparent. Indeed, the entirety of supporting documentation for the proposed nonrecurring cost estimates were provided by Ameritech Illinois in response to an AT&T discovery request. That documentation is extremely limited, providing only scant illumination with respect to service order and line connection charges as they apply to loops, line ports and SPNP. (TELRIC I Order, p. 89)

The Commission recognized that Ameritech should recover only specific, fully justified and appropriately forward looking nonrecurring charges:

> There is no dispute that Ameritech Illinois will incur certain non-recurring charges in order to provision unbundled elements to new entrants, and it is entitled to recover those costs. The FCC Order suggests that the local exchange carrier should be required to 'explain with specificity why and how specific functions are necessary to provide network elements and how the associated costs were developed.' FCC Order ¶691. Ameritech has

> failed to demonstrate that the magnitude of its proposed nonrecurring charges are appropriate. The lack of support for its nonrecurring costs is apparent.
>
> * * *
>
> Ameritech Illinois' ten-minute service ordering charge is based on its experience in Milwaukee, which inherently includes considerable manual intervention due to the utilization of the ASR interface. It is clear from the record that the studies are not based on the use of fully automated interfaces. . .we agree with Staff and intervenors that the cost study improperly assumes existing labor intensive processes and is inconsistent with the FCC's TELRIC methodology. Accordingly, in this instance we agree that Ameritech Illinois' proposed rates are not sufficiently forward looking.

The Commission set an interim service order charge for unbundled loops of $13.17 and ordered a 50% reduction in the labor charges included in Ameritech's line connection charge, resulting in a line connection charge of $25.02, "until such time as Ameritech Illinois provides more support for a different rate." In rejecting Ameritech's nonrecurring cost studies and proposed rates, the Commission went on to provide guidance as to what it expected in any future cost studies filed in support of proposed non-recurring charges (TELRIC I Order, pp. 88-90):

> The study we are suggesting could take the form of a time and motion study. Alternatively, at Ameritech Illinois' option, an approach could be used which relies on estimates of subject matter experts. That approach would start with the identification and documentation of forward-looking workflows, identification of estimators, the development of detailed written estimation instructions, provisions for averaging the individual estimates, development of documentation, etc.

In response to the Commission's TELRIC I Order, Ameritech filed new cost studies for its nonrecurring charges purportedly in compliance with the Commission's directives. Those cost studies and nonrecurring charges were reviewed in Docket No. 98-0396, which investigated among other things the issue of what nonrecurring charges would apply when a customer migrates its local service from Ameritech Illinois to a

CLEC. In that docket, Ameritech proposed nonrecurring charges totaling $11.79 for UNE-Platform migrations, consisting of a nonrecurring charge of $8.64 for the basic line port and a nonrecurring charge of $3.14 for a basic loop service order.[195]

On October 16, 2001, the Commission entered its Order in Docket No. 98-0396. That Order established a permanent nonrecurring line connection charge of $20.21 and a sole nonrecurring charge of $1.02 for migrating a UNE-Platform customer's local service from SBC to a CLEC. Specifically, the Commission stated (TELRIC II Order, pp. 41-43):

> These significant flaws lead to the inevitable conclusion that Ameritech's cost studies fail to comply with our TELRIC Order requiring well-documented, forward looking cost studies based upon primarily automated processes as well as the FCC's TELRIC methodology. Ameritech's failure to comply with our directives results in nonrecurring charges that are severely inflated. For example, under Ameritech's proposed service ordering charges, the nonrecurring charges to migrate a customer from Ameritech to a CLEC via the UNE-Platform is almost $12.00, while the NRCM calculated a charge of 29 cents, the state of Michigan has imposed a 35 cent charge for the same migration, and MCI WorldCom witness Jenkins proposed a charge of $1.02.
>
> * * *
>
> We therefore adopt the recommended adjustments of Mr. Jenkins, which are more in keeping with past practice of the Commission in relying upon experts to propose adjustments to utility provided data in arriving at reasonable approximations of costs and just and reasonable rates. The nonrecurring charges listed in the AT&T/MCI WorldCom Joint Reply Brief reflect the adjustments that Mr. Jenkins made to Ameritech's proposed TELRICs plus mark-ups that were added to the adjusted TELRICs to account for shared and common cost loadings. We adopt those adjusted rates in their entirety. We direct Ameritech to replace in its tariffs the MCI WorldCom adjusted rates that correspond to the proposed Ameritech rates that now appear in those tariffs. We also require

[195] See AT&T's and Worldcom's Motion to Strike SBC Illinois Testimony Relating to Nonrecurring Charges Appliable to UNE Platform Migrations, filed April 2, 2003 in this docket.

> Ameritech to tariff a single change record work only charge to apply to UNE-Platform migration "as is" orders and to orders for new customers and additional lines served via the UNE-Platform.

The Joint Reply Brief adjustments the Commission referred to in the paragraph quoted above provided that a sole nonrecurring charge of $1.02 would apply to all UNE-Platform migrations. As described in tariff pages appended to that Joint Reply Brief, the $1.02 charge would apply to the "Conversion of an existing Ameritech Illinois access line to UNE-P with basic analog loop and basic line port 'as is,' *i.e.* conversion to UNE-P with the same features and functions the line had when it was provided by the Company to the end user", and would apply to "Conversion of an existing Ameritech Illinois access line to UNE-P with basic analog loop and basic line port 'as directed,' *i.e.*, with different, additional and/or fewer features and functions than the line had when it was provided by the Company to the end user." The referenced tariff pages also expressly provided that the "Unbundled Local Loop and ULS-ST Port nonrecurring, line/port Connection charges are not applicable" to a UNE-Platform migration.

That same attachment also provided that the only nonrecurring charge applicable to new and second lines provided via the UNE-Platform and for conversion of an existing special access circuit "as is" to the network element combination known as an Enhanced Extended Link, or EEL, would also be $1.02. However, on November 16, 2001, Ameritech filed an Application for Rehearing of the TELRIC II Order, alleging, *inter alia*, that the Order erred in requiring Ameritech to tariff nonrecurring charges in a manner identical to that propounded by the Joint CLECs, because Ameritech's proposal

had not addressed costs attributable to new UNE combinations, but rather had only addressed UNE-Platform migrations.[196]

The Commission denied Ameritech's application for rehearing (and a Motion for Clarification that Staff had filed) and reopened the record on its own motion to address a handful of issues, including "the advisability of addressing and, if advisable to address, the distinction, if any between the non-recurring charges that will apply to requests for new and second lines provisioned via the UNE-P." *See* TELRIC II Order on Reopening, Docket No. 98-0396, p. 5. The Commission's description of the unresolved issues flowing from Docket 98-0396 delineates the scope of the inquiry the Commission contemplated:

> The main unresolved issue concerned the non-recurring charges that Ameritech should be allowed to charge for providing new and second lines. The CLEC-proposed tariff states that line and port connection charges may not be assessed on a request for a new UNE-P combination and lists, as the only non-recurring charge applicable to new, as well as pre-existing, UNE-P combinations, a $1.02 single change record work only charge.
>
> Ameritech Illinois asserted that the Order could not fairly be interpreted as supporting this result because the work needed to provision and combine UNE-Ps on behalf of a CLEC is obviously greater than the work involved on an "as is" migration to an existing UNE-P. In the underlying proceeding, Ameritech took the position that it could not and should not be required to do the work of combining UNEs on behalf of CLECs and, in particular, should not be required to provide new UNE-P combinations for new and second lines. In concert with that position, Ameritech Illinois did not expressly address the issue of what non-recurring rate elements should apply to a request for a new UNE-P combination. Ameritech Illinois did, however, provide prices and cost studies in support of the recurring and non-recurring charges it intended to apply to UNEs,

[196] The Commission's TELRIC II Order on Reopening in Docket No. 98-0396 acknowledges Ameritech's contention that "Ameritech Illinois did not expressly address the issue of what non-recurring rate elements should apply to a request for a new UNE-P combination." TELRIC II Order on Reopening, p. 6.

> including the UNE loops and switch ports used in providing new and existing lines as UNE-P.
>
> The Company presented testimony indicating that the prices applicable to a pre-existing UNE-P combination should be the prices applicable to the UNEs that make up that combination, except that line and port connection NRCs should not apply to such an existing combination because the work necessary to provision and install and existing combination has already been performed.
>
> In the underlying proceedings, we rejected Ameritech's line and port service order and line connection NRCs and adopted in their stead prices for those NRCs which were (i) developed on the basis of adjustments made to Ameritech's cost studies by MCI witness Jenkins, and (ii) listed in the Joint Reply Brief of AT&T and MCIWorldCom. The order also rejected Ameritech Illinois' proposal to charge two service order charges on UNE-P combinations. Instead, the Order concluded that a single change record work only charge of $1.02 apply to UNE-Platform migration "as is" and to orders for new customers and additional lines served via the UNE-Platform. (Order Docket No. 98-0396 at 43)
>
> Our conclusion relating to the $1.02 non-recurring charge was necessitated by the fact that Ameritech had put on no evidence about the charges applicable to new or second lines, consistent with its position that it was not obligated to provide these products. In Docket 01-0614, Ameritech has made clear its position that it believes that numerous non-recurring charges should apply to new customer and second line installations. The issue was stated as whether we should reaffirm our decision to adopt, on an interim basis, the tariff proposed by MCIWorldCom, or wait until the completion of Docket 01-0614 to decide which, if any, of Ameritech's proposed non-recurring charges for new and second lines are appropriate.
>
> A second issue that was tangential to, but somewhat more complex, than the first was whether Ameritech would be required to provide EELs at UNE prices to requesting carriers. The original order was silent on what specific non-recurring charges should apply. The MCIWorldCom tariff, however, applies the same $1.02 record work only charge to EEL migrations "as is," as was found applicable to new and second lines provisioned over the UNE-P.[197]

Based on that analysis, the Commission adopted interim rates for non-recurring charges for new and second lines provisioned over the UNE-P as well as "as is" EEL

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[197] TELRIC II Order On Reopening, pp. 5-6.

migrations and other "new combinations" of network elements. The Commission then set forth the manner in which it would determine permanent rates to supplant the interim nonrecurring charges:

> The Commission has reviewed the positions of the parties and finds it has been given no reason to conclude that Staff's proposed NRCs should not be adopted as interim rates. The Commission also agrees with Staff and Ameritech that the pressing need to finalize rates for UNEs and EELs compels us to immediately open a new docket to examine those issues. To that end, we direct Staff, in consultation with the parties to this docket and docket 01-0614, to prepare a report detailing the issues that should be addressed in the new docket. Upon the receipt of that report, we will initiate a docket to examine the issue we find germane. Finally, we agree that the non-recurring charges, as modified by Staff, shall remain in effect until new rates are approved in the new docket.[198]

Consistent with this finding, the Commission's Order in Docket 01-0614 (June 11, 2002) ("13-801 Order") also recognized that issues related to EELs, including proper nonrecurring charges for new EELs and for migration of existing special access circuits to EELs, would need to be addressed in a new proceeding.[199]

Pursuant to the Commission's directive in the TELRIC II Order On Reopening, Staff convened workshops on August 22 and October 9, 2002 to discuss issues flowing from the Order On Reopening and the 13-801 Order that the Commission had committed to addressing in a new proceeding. However, instead of awaiting the Staff "report detailing the issues that should be addressed in the new docket" and a Commission order initiating "a docket to examine the issue [the Commission] find[s] germane," on December 24, 2002, SBC filed new rates and cost studies with the Commission for, *inter*

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198 *Id.*, p. 11.

199 *See, e.g.*, 13-801 Order, pp. 74, 85.

alia, unbundled loops, shared and common costs and nonrecurring charges applicable to both new UNE combinations (including new UNE-Platform combinations) and for "as is" and "as specified" UNE-Platform migrations. Specifically, for the conversion of an existing SBC access line to UNE-P with loop and line port combinations, both "as is" and "as directed", SBC proposed a UNE-P Service Order Charge for a POTS line of $11.72[200] -- nearly identical to the $11.79 charge this Commission had rejected outright in its TELRIC II Order as severely flawed, not based on forward looking systems and technologies and highly inflated. SBC also proposed a line connection nonrecurring charge for 2-wire analog loops that is significantly higher than the $20.21 line connection charge the Commission adopted in its TELRIC II Order.

The foregoing discussion details the long and tortured history of SBC's nonrecurring cost studies and proposed nonrecurring charges in Illinois. It is against the backdrop of the TELRIC I, TELRIC II and 13-801 Orders that SBC's proposed rates, testimony, cost studies and documentation must be measured. AT&T sponsored the testimony of Steven Turner and the other Joint CLECs sponsored the testimony of Ankum/Morrison to address issues raised by SBC's nonrecurring cost studies and proposed nonrecurring rates. Mr. Turner and Ankum/Morrison reviewed SBC's nonrecurring cost studies and made adjustments to those studies and to SBC's methodologies based on the deficiencies that they found. After describing the adjustments that were required to make SBC's nonrecurring cost studies more forward-looking, Mr. Turner and Ankum/Morrison made specific recommendations on how each

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[200] Proposed Ameritech Tariff, ILL. C.C. NO. 20, Part 19, Section 15, 5th Revised Sheet No. 9.

nonrecurring charge proposed by SBC should be adjusted, and provided recalculated TELRICs for each such charge. Thus, the record in this proceeding provides the Commission with various alternatives from which to choose in determining what constitutes appropriate nonrecurring charges. As discussed in further detail below, SBC's nonrecurring charges should be rejected and the Commission should instead adopt the nonrecurring charges produced by the adjustments suggested by Mr. Turner or, in the alternative, adopt those proposed by Ankum/Morrison, or some combination of the two. For the sake of convenience, the Ankum/Morrison proposal is discussed first and the Turner proposal is presented immediately following to assist the Administrative Law Judges and the Commission in their review.

2. Cost Causation and Characterization of Costs

To a significant degree, the differences in nonrecurring costs as calculated by SBC and by Joint CLECs can be explained by the fact that SBC uses the incorrect criterion for determining when costs should be recovered through NRCs and creates barriers to entry as a result. Perhaps the most important issue with respect to nonrecurring charges concerns the question of when costs are appropriately recovered through nonrecurring charges and when they are supposed to be recovered through recurring charges. On this score, Ankum/Morrison relied on directives and guidance found in the FCC's Wireline Competition Bureau's findings on non-recurring cost model issues in the *Virginia Arbitration Order*. The FCC there found that in order to minimize nonrecurring charges -- and the extent to which they are able to constitute a barrier to entry -- costs must be appropriately classified.

The reason the distinction between recurring costs and nonrecurring costs is one of the most critical issues to be decided by the Commission in this proceeding is that a

large portion of SBC's costs – if not the majority – are incurred on a non-recurring basis. This is true for most of the investments associated with outside plant facilities, interoffice transport facilities, switch facilities, and for all buildings and grounds, and much of the power equipment in the central offices. Almost all of these facilities represent large, one time investment costs incurred on a non-recurring basis (though clearly all of them have recurring costs, such as maintenance, taxes, etc., associated with them). (Joint CLEC Ex. 1.1, p. 4).

However, the fact that the costs associated with these facilities are incurred on a one-time basis in no way means from an economic perspective that these costs should be recovered through non-recurring charges. In fact, most of these costs are routinely identified in cost studies by SBC and others as recurring costs, and correctly so. Typically, however, there is little discussion in recurring cost studies about why such one-time investments are expressed as recurring costs. In this proceeding, given that SBC has misclassified many of its costs as non-recurring costs that should be classified as recurring costs, a discussion of the proper criterion that should be applied by the Commission in determining what costs should be recovered through non-recurring charges and what costs should be recovered through recurring charges is warranted. (Joint CLEC Ex. 1.1, p. 4-5).

In determining when a cost should be recovered through recurring charges and when it should be recovered through nonrecurring charges, the Commission must determine whether the activities in question benefit only the CLEC placing the request for service; if that is true, then the costs of these activities – to the extent that they are efficiently incurred – should be recovered from the CLEC through non-recurring charges.

However, if other entities, such as other CLECs and the ILEC itself, benefit either immediately or over time, then the costs of these activities should be recovered through recurring charges. (Joint CLEC Ex. 1.1, p. 5). An excellent discussion on this issue is found in the *Virginia Arbitration Order*, in which the FCC notes:[201]

> The costs at issue are labor costs associated with the activities necessary to provide UNEs to a competitive LEC. In many cases, these activities will produce benefits for any carrier using the facility in the future, and not just the initial competitive LEC for which the work is performed *(e.g.*, cross-connects made to complete a connection are likely to remain in place even if the end-user customer no longer takes service from the competitive LEC).

The FCC then goes on to note, correctly:

> Costs of non-recurring activities that benefit ***only*** the competitive LEC, or are not reflected in Verizon's [the ILEC's] ACF calculation *(e.g.*, certain types of loop conditioning), should be recovered through NRCs. (Emphasis added.)

This Commission has agreed that this is the proper approach. In its TELRIC NPRM, the FCC asked parties to comment on the appropriate method for recovering NRCs. The Commission responded to the FCC's inquiry in its initial comments filed on December 16, 2003, stating as follows:

> The Commission asks if NRCs should only recover those costs that exclusively benefit the competitive LEC ordering the UNE, noting that this approach provides a mechanism by which an incumbent LEC can recover the cost of activities related to the initiation of service by CLECs, while reducing barriers to entry, and further noting that costs for activities not permitted for recovery through NRCs would be recovered through expense factors used in developing recurring charges.[footnote omitted]. The ICC believes that this would be a proper finding for the Commission to adopt. The ICC also believes that the Commission needs to provide a clearer standard with respect to NRCs. Only NRCs directly attributable to activities benefiting the competitive LEC should be recovered from the CLEC.

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201 *Virginia Arbitration Order* ¶¶ 156 and 584.

> The Commission questions whether it is appropriate to impose NRCs on installing a cross-connect at a Feeder/Distribution Interface ("FDI") if the cross-connect remains in place after the customer terminates service. In this instance, the ICC believes that a NRC should not be imposed. The Commission also asks if an NRC should be imposed in an instance where a cross-connect is being made from a Main Distribution Frame ("MDF") to a CLEC's collocation space. In this instance, the activity is being performed solely for the benefit of the CLEC. As such, a NRC should be collected from the CLEC.
>
> The Commission inquires whether allowing ILECs to recover NRCs for every activity related to provisioning service for a CLEC removes an incentive for the ILEC to develop automated processes [footnote omitted]. The ICC, in the TELRIC proceedings conducted before it, has ordered that where possible, automated processes should be used in development of non-recurring charges.[footnote omitted] The ICC believes that non-recurring activities are no less forward-looking than recurring activities. Forward-looking means assuming a great deal of automation. Properly defining the forward-looking framework will result in developing NRCs that incent the ILEC to adopt the most efficient processes.[footnote omitted][202]

Many of the problems with SBC's nonrecurring cost studies can be traced to the fact that often SBC mischaracterizes costs as nonrecurring costs even though those activities and costs would benefit subsequent customers and should be recovered through recurring charges. A good example of the co-mingling of recurring and non-recurring costs concerns the cleaning up of SBC's legacy databases. As noted (and discussed in more detail below), SBC's high fall-out rates -- and the associated costs -- are mostly caused by errors in SBC's legacy databases. The clean up of these databases, however, will benefit not only the CLEC placing the service order that falls out because of the errors in the databases, but all subsequent CLECs that place orders, as well as SBC itself. For this reason, all of the costs associated with cleaning up the databases are recurring costs and not nonrecurring costs. (Joint CLEC Ex. 1.1, p. 6). This dichotomy is well-

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[202] ICC TELRIC NPRM Comments, pp. 80-81.

illustrated by the example of computer processing costs, which are clearly not incurred on a per service order basis, nor are those facilities and costs consumed on a per service order basis such that they must be recovered from the particular CLEC placing the service order. Rather, computer processing costs are associated with facilities that will continue to benefit SBC, CLECs and other customers throughout the computers' lives. As such, they properly represent recurring costs and should be recovered through recurring charges and not through non-recurring charges, as proposed by SBC. (Joint CLEC Ex. 1.1, p. 20)

The co-mingling of recurring and non-recurring costs is often also found in SBC's provisioning cost studies. As the FCC noted in the *Virginia Arbitration Order*, most of the costs of provisioning consists of the labor costs associated with activities (traveling, establishing cross-connects, and testing) at either the central office or outside plant location. To the extent that establishing cross-connects results in the permanent activation of facilities, the CLEC that orders the facility to be activated as well as other CLECs and the ILEC itself will benefit from this activity. Thus -- using the criteria discussed previously -- the costs of this activity are more properly characterized as recurring costs.

Further, given that SBC's SMEs typically provide time estimates for testing and problem resolution activities for *end-to-end facilities,* the cost studies for non-recurring costs tend to inappropriately co-mingle recurring costs and non-recurring costs. Any testing and repairs on facilities (distribution links, feeder facilities, Central Office facilities, etc.) benefit not just the CLEC that orders facilities but also subsequent CLECs and the ILEC itself. As such, the costs of these activities are recurring costs and *not* non-

recurring costs. Clearer directives on this issue would resolve many of the cost disputes in this proceeding. (Joint CLEC Ex. 1.1, p. 7).

Lastly, as the FCC has noted on many occasions, the practice of recouping costs through non-recurring charges tends to create barriers to entry and precludes competition where it might have been viable. By contrast, recognizing that many of the costs recovered through the ILEC's proposed non-recurring charges may in fact be more appropriately recouped through recurring charges has the added benefit that it lowers such potential barriers to entry. (Joint CLEC Ex. 1.1, p. 8).

Ankum/Morrison provided additional reasons for ensuring that costs are appropriately identified as recurring costs and not inappropriately identified as nonrecurring costs. Permitting the recovery of such costs through non-recurring charges would lead to a number of undesirable effects (Joint CLEC Ex. 1.0, pp. 8-9):

1. It would provide SBC with no incentive to further automate or mechanize its systems as it would be compensated for its costs whether or not those costs are efficiently incurred.

2. It would cause over-recovery since many of these costs are also recovered through recurring charges.

3. It would necessitate complicated corrections to the recurring cost studies to sort out which costs are recovered through the non-recurring cost studies. If costs are not appropriately eliminated from the recurring cost studies, then over-recovery occurs. Further, to the extent that certain maintenance related expenses may be incorporated into the non-recurring charges, retail rates may have to be adjusted as well since presumably retail rates are set at levels that at least in part reflect the cost of maintaining the public switched network.

4. It would cause unintended cross-subsidies as the non-recurring charges, paid by one single CLEC as a result of ordering one or more UNEs, would recover costs for activities from which other carriers, including the ILEC itself, will continue to benefit. To avoid these types of inappropriate cross-subsidies, complicated refund mechanisms would have to be put in place.

5. It would cause non-recurring charges to be significantly higher than they should be and preclude competition where competition would otherwise be possible.

6. It would increase barriers to entry

There is an increasing need for the Commission to approve nonrecurring charges that do not pose barriers to entry. Contrary to SBC witness Dr. Currie's testimony that continues to advocate the front loading of costs in non-recurring charges,[203] the FCC has recognized that such practices create barriers-to-entry where there should be none (or lower ones), are inappropriate from a methodological perspective, and permanently imperil the competitive process by handing the ILEC a lethal combination of wholesale and retail pricing strategies against which CLECs simply cannot defend themselves.

Specifically, the FCC recognized in the *Triennial Review Order* that there is a lethal relationship between nonrecurring charges, churn rates and the ILEC's winback programs. The higher the churn rates, the more difficult it is for the CLEC to fully recoup its customer acquisition costs and non-recurring charges, such as those proposed by SBC in the current proceeding. As the FCC noted:[204]

> The evidence in the record demonstrates that customer churn exacerbates the operational and economic barriers to serving mass market customers. For example, competitive LECs incur non-recurring costs upon establishing an end user's service, but generally recover those costs over time, spreading them out over monthly customer bills; high churn rates

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[203] A specific example of this practice concerns Dr. Currie's discussion and stubborn recommendation (against previous Commission findings) to front load non-recurring charges with computer processing costs. However, as discussed by Ankum/Morrison, SBC's practice of front loading costs and raising non-recurring charges is systemic in that SBC totally fails to acknowledge the proper principles for categorizing costs as either belonging in recurring charges or in non-recurring charges, but rather reflexively "dumps" costs into the nonrecurring charges.

[204] See *Triennial Review Order*, ¶¶470 and 471.

> thus often deprive competitive carriers the opportunity fully to recover those outlays.

In order to put these dynamics in perspective, Ankum/Morrison provided the following example: if customer acquisition costs are $120 and churn rates are 12 months, the monthly cost recovery burden to break-even on customer acquisition costs is approximately $10.[205] If the churn rate is 6 months, however, then the monthly cost recovery burden shoots up to $20 per month. It is clear from this example that in the face of high churn rates, the non-recurring charges are possibly more important considerations than the recurring charges, and may pose an insurmountable barrier to entry.[206] (Joint CLEC Ex. 1.1, pp. 9-10).

The mix is revealed as even more lethal for CLECs when one considers the ability of ILEC's to engage in winback programs. Since winback programs are specifically targeted at the CLEC customers that have just left the ILEC, the winback programs in effect serve to *increase* the CLEC's churn rates. Indeed, it is through the combination of the non-recurring charges – if they are high -- and the winback programs that the ILEC will be able to render customers uneconomical for CLECs. Given that the winback programs are generally unregulated, they can be used as a "punitive" measure to signal to CLECs how much competition the ILEC will tolerate in a serving area.

The best protection against this potentially lethal dynamic that places an inordinate amount of market control in the hands of SBC is to set non-recurring charges at levels consistent with TELRIC and to order SBC to recover costs associated with

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[205] Ignoring the time value of money, $120 / 12 = $10 per month. These numbers are hypothetical and may significantly understate the customer acquisition costs (NRCs and other costs of attracting the customer) to CLECs.

[206] *Triennial Review Order*, ¶475.

investments or activities from which multiple entities benefit (such as computer processing costs) through recurring charges. This approach by no means suggests that SBC should not recover its costs; rather, the recommendation is that the Commission should rigorously apply TELRIC principles and correctly classify costs as either non-recurring or recurring costs. If SBC's costs are correctly classified, many of the costs now included in SBC's non-recurring charges will be more appropriately recovered through recurring charges. (Joint CLEC Ex. 1.1, pp. 11).

3. Treatment of technology

As discussed above, the Commission has admonished SBC to perform NRC studies that assume not manual intervention but rather "the use of primarily automated interfaces." SBC has ignored that instruction and provided yet again NRC studies laced with labor intensive activities and inflated probability of occurrence and activity times. As discussed in further detail below with respect to fall out rates and service ordering technologies, SBC's studies do not account for forward-looking technology that is available today and that would eliminate or significantly reduce the inflated labor times reflected in SBC's NRC cost studies.

4. Use of Subject Matter Experts

The Commission has provided guidance with respect to performance of NRC studies in the past. In its TELRIC NPRM, the FCC raised questions as to whether it is appropriate to rely on current ILEC practices and the best way to ensure that objective evidence is obtained about the ability to automate manual activities. The Commission responded to those concerns in its TELRIC NPRM Comments:

> The Commission [FCC] also inquires about whether a presumption should be made that an incumbent LEC's current practices with respect to non-recurring charges ("NRCs") are efficient or are an incumbent LEC's

> incentives to be efficient diminished when competitive LECs are the primary users of a particular activity.[footnote omitted] The ICC is of the opinion that current practices may not be the best indicator of the most efficient forward-looking practices. The ICC believes that this is most likely a function of the relative newness of local exchange competition. As the ILECs' practices evolve, they should become more efficient. Accordingly, the ICC believes that the Commission should not presume that current practices are efficient.
>
> The Commission also asks parties to comment on manual activities that are not susceptible to automation.[footnote omitted] The Commission asks how state commissions might develop more objective evidence. The ICC has sought precisely such information in several of its proceedings. Specifically, it has requested such information from SBC in supporting its development of non-recurring charges in two dockets.[footnote omitted] It has suggested that the ILEC use time and motion studies.[footnote omitted] Alternatively, the ICC has accepted an approach that relies on the estimates of subject matter experts.[footnote omitted] The ICC further suggested that such an approach should be supported by the identification and documentation of forward-looking workflows, identification of estimators, the development of detailed written estimation instructions, provisions for averaging the individual estimates, and the development of documentation.[footnote omitted][207]

Despite the Commission's specific guidance, SBC has chosen to use SMEs to estimate NRCs, but has failed to support those estimates "by the identification and documentation of forward-looking workflows, identification of estimators, the development of detailed written estimation instructions, provisions for averaging the individual estimates, and the development of documentation." SBC's NRC cost studies are poorly supported and rely almost exclusively on the subjective estimates of SMEs whose judgment may be seriously tainted by personal considerations regarding job security and other factors driving overestimation of work times. Ankum/Morrison cited the findings of other commissions in this regard, such as the Massachusetts Commission, and Dr. Ankum noted that subsequent to the filing of the Ankum/Morrison direct

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[207] ICC TELRIC NPRM Comments, pp. 80-81.

testimony, their concerns about the potential for biased SME estimates were echoed in the *Virginia Arbitration Order*. (Joint CLEC Ex. 1.1, pp. 3-9).

Further, the instructions provided to the SBC SMEs failed to properly instruct those SMEs to provide labor time estimates consistent with TELRIC. (Joint CLEC Ex. 1.0, pp. 43-44). To a large extent, this problem concerns the issue discussed above of the failure to adequately distinguish between activities that benefit only the CLEC that places the service order (which represent non-recurring costs) and activities that benefit other CLECs and SBC itself (which represent recurring costs). SBC's instructions to its SMEs, however, also failed to instruct the SMEs to provide estimates within the context of a TELRIC setting that reflects significantly higher flow-through rates than those experienced by the SBC SMEs in SBC's actual operations, which are tainted by error-riddled legacy systems and other non-TELRIC-compliant conditions. (Joint CLEC Ex. 1.0, pp. 45-46).

SBC also had the ability to do time and motion studies to support its NRCs, but declined to undertake such studies. Ameritech had undertaken time and motion studies for two separate work groups – the Service Center ("SC") and Network Element Control Center ("NECC") -- in connection with the TELRIC II proceeding. The remainder of the NRC studies relied on SME interviews which, unlike the time and motion studies, were criticized for not reflecting a forward-looking analysis, for being seriously lacking in supporting detail and for being wholly unreliable.[208] SBC's NRC studies were rejected by the Commission in the TELRIC II Order in large part because of the subjective nature of the SME estimates:

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[208] TELRIC II Order, pp. 29-30.

> We also find the work times in Ameritech's cost studies to be inadequately supported. Ameritech admits that it only conducted time and motion studies for two of its nine work groups; information regarding the remaining seven work groups was based on subjective SME interviews. While it is true that the TELRIC Order ordained the use of SME interviews, Ameritech's own data request responses indicated that its cost studies are based on "limited observations" and that the volume of service orders by type that flowed through were not tracked and not available and, therefore, not subject to quantitative analysis. Moreover, Ameritech conceded that its forward looking analysis focus was only on two of the nine work groups (Service Center and NECC) because those were the only areas identified with planned enhancements over the next three years, making the purpose of the SME interviews unclear and their utility to the cost studies questionable. Further, and perhaps more troubling, the TELRIC order specifically required Ameritech to assume primarily automated ordering. Ameritech's study, instead, apparently assumed that the brunt of its operation would be status quo, by only assuming that two of the work groups would be enhanced, while the vast majority would remain static.
>
> These significant flaws lead to the inevitable conclusion that Ameritech's cost studies fail to comply with our TELRIC Order requiring well-documented, forward looking cost studies based upon primarily automated processes as well as the FCC's TELRIC methodology. Ameritech's failure to comply with our directives results in nonrecurring charges that are severely inflated. . . .[209]

The time and motion studies conducted by Ameritech in the TELRIC II proceeding utilized a forward-looking analysis and did not suffer from the same serious lack of supporting detail as did Ameritech's SME estimates. The Commission's decision in TELRIC II comports with Ankum/Morrison's assessment that using SMEs to obtain task times and occurrence probabilities is inherently unreliable. Due to the flaws in the process of obtaining the SME labor time estimates, Ankum/Morrison concluded that the potential exists for estimates to be produced that have very little basis in reality. Similarly, Ankum/Morrison observed that the probability of occurrence factors relied upon by SBC in its NRC studies are flawed in the same manner as the task time

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[209] TELRIC II Order, p. 41.

estimates. Since these probability factors reflect the extent to which the tasks even need to be performed (and the extent to which SBC needs to recover those costs), questions regarding the validity of those factors may have a significant impact on the resulting NRCs. (Joint CLEC Ex. 1.0, p. 51).

In order to address the shortcomings of SBC's SME estimates, Ankum/Morrison recommended that SBC could provide validation for its estimates by performing time and motion studies for the tasks at issue, which would provide the Commission comfort in knowing that the time estimates were not overstated or biased. Alternatively, Ankum/Morrison recommended that SBC could engage an independent third party to audit and verify the results obtained from its models. (Joint CLEC Ex. 1.0, p. 52-53).

Despite repeated admonitions from the Commission concerning the shortcomings in its NRC studies, SBC has stubbornly retained its aversion to well-documented, forward-looking cost studies based upon primarily automated processes. SBC returns to the Commission in this proceeding with the same poorly documented SME estimates that purportedly support NRCs that in some instances are nearly identical to the NRCs that Ameritech proposed the Commission adopt in the TELRIC II proceeding. SBC's philosophy seems to be that if it tries the same tactic enough times the Commission will give it what it wants. The Commission should not compromise its correct and longstanding position on the standard by which proposed NRCs should be judged.

B. <u>Service Order Nonrecurring Cost Studies</u>

Ankum/Morrison reviewed and analyzed SBC's service order nonrecurring cost studies and, based on their recommended changes to those studies, provided revised cost studies and proposed rates for service order activities. (Joint CLEC Ex. 1.0, Attach. 3-P). Their analysis encompassed the following SBC Service Ordering studies: EELs - New,

Special Access to EEL Conversion, Existing UNE-P, New Combination UNE-P, Loops, and ULS Ports. Dr. Ankum provided the economic analysis and TELRIC guidelines for NRC cost studies. Mr. Morrison, having performed and supervised the activities modeled in the NRC cost studies as an ILEC employee for over thirty years, and having had the benefit of reviewing various time-and-motion studies for these activities throughout his career, provided inputs and technical expertise for the review and analysis of SBC's NRC cost studies. (Joint CLEC Ex. 1.0, pp. 1-7). Dr. Ankum and Mr. Morrison demonstrated that SBC has presented cost studies that do not reflect forward-looking and optimally efficient operational support systems and conditions, as required under TELRIC methodology.

SBC's inflated costs can be explained, to a large extent, by the fact that SBC has simply modeled the costs associated with its existing operational support systems ("OSS") without taking into account the forward-looking adjustments necessary for TELRIC studies. This error leads to high fall-out rates and intensive manual intervention that drive up the costs of service ordering and service provisioning. (Joint CLEC Ex. 1.0, pp. 7-19, 53-75).

1. <u>Identification of tasks</u>

As an initial matter, had SBC's cost studies assumed primarily automated systems and efficient, forward-looking technology, fall out rates for ordering and provisioning would be much lower, and fewer tasks and less labor intensive activity would be reflected in its studies. However, as Ankum/Morrison noted, virtually all of SBC's service ordering and service provisioning studies start with the flow of activities with some form of a review process as to the accuracy of the service order. (Joint CLEC Ex. 1.0, p. 80). SBC's NRC studies for service ordering and service provisioning were loaded up with

expensive activities for verification and validation of service orders. While it may be true that SBC's systems accept service orders that are inconsistent with its own legacy systems, these inconsistencies are due to SBC's own systems. As Ankum/Morrison pointed out, CLECs should not be penalized for these errors in the form of higher NRCs. In fact, as discussed earlier in this brief, the costs for clean-up of the legacy databases, to the extent that they are appropriate at all in a TELRIC setting, should be considered recurring costs and not non-recurring costs since they also benefit subsequent CLECs that place orders, as well as SBC itself. (Joint CLEC Ex. 1.1, pp. 6-7). The validation and verification activities identified in SBC's studies are excessive and result in an inefficient OSS, and therefore should be removed from SBC's service ordering and provisioning NRC studies. (Joint CLEC Ex. 1.0, pp. 80-89).

In addition to the unnecessary verification and validation tasks, Ankum/Morrison maintain that SBC's systems fail to allow CLECs to submit error-free Local Service Requests ("LSRs") that commercial systems, such as orbitz.com and ATM machines, are capable of achieving. Erroneous LSRs cause many downstream fall-outs and costs. This failure is SBC's responsibility; CLECs should not be penalized for this failure in the form of higher NRCs. In fact, CLECs are already inappropriately penalized when erroneous LSR submissions cause service order and service provisioning fall-out: the CLECs incur enormous costs in labor hours spent on problem resolutions and interfacing with SBC's representatives. Ankum/Morrison's discussion of SBC's problematic incentive structure and the failure of its Information Technology ("IT") department to make appropriate investments, which are discussed in the section of this brief regarding fall-out rates, are also applicable here. SBC's NRC studies should assume ordering systems that allow

CLECs to submit error free service requests, as other ordering systems, such as Orbtiz.com, allow today. This would reduce the fall out that results in the need for costly manual intervention by SBC employees, which ultimately drives up NRCs. (Joint CLEC Ex. 1.0, pp. 75-76).

Similarly, Ankum/Morrison objected to the inclusion in SBC's NRC studies of endless system log-in times by SBC employees that often take as long as 3 to 5 minutes. They noted that SBC's terminals and computers should be expected to have *high-speed* connections that are up and running and logged-in. Also, in a forward-looking, most-efficient, least-cost environment, log-ins would not occur *per service order*, but, at worst, once per day. Manual paper handling and review is time-consuming and should be replaced with an efficient OSS in a forward-looking, most-efficient, least-cost environment. Thus, the log-in times should be set at zero. (Joint CLEC Ex. 1.0, pp. 144-48).

Additionally, SBC's administrative close-out times are too long. SBC's electronic systems should record work as it is being performed, and in a forward-looking, efficient environment, close-outs should be accomplished by a few keystrokes. Consequently, Ankum/Morrison recommended that all paperwork-based close-out times should be disallowed, *i.e.*, set at zero. (Joint CLEC Ex. 1.0, pp. 145-48.)

Additional discussion of SBC's Support Activities is presented in Section IV.B.5 below on fallout rates, section due to the inextricable relationship between SBC's Support Activities and SBC's fallout percentages.

2. <u>Activity times</u>

As discussed above, SBC's NRC studies include activities that are not required or should not be required if SBC's studies assumed primarily automated processes and

efficient, forward-looking technology. Such assumptions would result in more forward-looking, reasonable fall out rates and, in turn, fewer required manual activities, which are expensive. If the need for activities is eliminated, debates about activity times become superfluous.

AT&T witness Steven Turner recommended several specific time additional adjustments necessary to bring SBC's service order cost studies into compliance with TELRIC standards for those elements (transport, multiplexing, and DS1 Loops) for which the study develops costs.

Specifically, TAB 6.3 at Cell D14 contains a formula that is intended to pull the labor time for the LSC – SUPP ORDER process from Tab 8.16. Unfortunately, SBC incorrectly referenced Tab 8.16 that picked the line number (Line Number 9, which is the reason for the value SBC shows in the cost study) in the LSC – SUPP ORDER worksheet rather than the proposed time. Mr. Turner corrected SBC's formula to reference the value in Column J of Tab 8.16 rather than Column A. (AT&T Ex. 3.0, p. 105).

As far as SBC's Support Activities (*i.e.*, Reject Activity, Supplemental Order Activity, ACD Coverage Activity), Mr. Turner recommended several necessary changes. For the Reject Activity process, SBC assumed a time of *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** minutes in its Unbundled Loops Service Order Cost Study and a time of *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes in its EEL Service Order Cost Study for the same process. (AT&T Ex. 3.0, p. 105). Mr. Turner reduced the time in the EEL Service Order Cost Study to reflect make it consistent with the same time in SBC's Unbundled Loops Service Order Cost Study.

For the Reject Activity process, SBC's assumed times to select a Reject reason and make notes for the service order. In Mr. Turner's experience with performing similar functions, it takes approximately one minute to perform these activities for the Reject Activity process. (AT&T Ex. 3.0, pp. 105-106, 117). As SBC witness Mr. Christensen testified, however, SBC's inefficient process requires the service representative to type the notes regarding the Reject reason three times. (Tr. 1220-1221). SBC's proposed times must be rejected and the Commission should adopt AT&T witness Mr. Turner's adjustment to one minute.

For the Supplemental Order Activity process, SBC assumed a time of *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes to check the EXACT SUPP page for a change request. (AT&T Ex. 3.0, pp. 106, 114). Again, in Mr. Turner's experience with performing similar functions, checking an open order list for a change request effectively takes no time. In fact, as SBC witness Mr. Christensen testified on cross examination, if the reason for reject appears in the notes section of the page, the nature of the change is readily apparent to the service representative. If not, the service representative must do a mere "stare and compare" exercise, often a single page. (Tr. 1226-1227). Other labor times for this same activity are similarly overstated. Mr. Turner recommended reducing the relevant times as reflected in Revised Attachment SET-2P to AT&T Ex. 3.0.

For the ACD Coverage Activity process, in which the CLEC calls the LSC concerning an order, SBC assumes a time of *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes to answer the phone (conversation time is accounted for separately) and *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL*****

minutes to record the conversation in a Customer Contact Log. (AT&T Ex. 3.0, pp. 106-107, 111, 114-115, 117-118). The time to receive a call is the time it takes to pick up a handset or activate a headset (pushing a button), not *****BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL***** minutes.

In fact, SBC witness Mr. Christensen acknowledged on cross examination that this five minutes includes the CLEC calling a number, maneuvering through a menu of options, selecting an option, receiving a live service representative and having that service representative transfer the call to the service representative that actually took the order for the EEL. (Tr. 1223). Even Mr. Christensen acknowledged that this communication maze is perhaps not the most efficient, suggesting instead that the CLEC can avoid that maze by simply calling the telephone number on the order form and reaching a live EEL service representative directly. (Tr. 1233-1234). Interestingly, according to Mr. Christensen, while he believes SBC used a weighted average of these two ACD coverage times in its cost study, the "bulk" of the activity included was the more laborious, lengthy process. (Tr. 1234). Had SBC used the more efficient, less time consuming process in its cost studies, it certainly would have reduced the ACD Coverage Activity time. Setting this task to 0.00 minutes still allows *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes for the conversation to resolve the order problem. (AT&T Ex. 3.0, pp. 106-107, 111, 114-115). Further, it takes virtually no time to log a call into a Customer Contact Log. This can be done while the conversation time included in the ACD Coverage Activity is being conducted. (*Id.*)

SBC assumes that the "Receipt of service order request assigned by MOR/TEL" takes *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minute. In fact,

the receipt of a service order takes no time and this task time should be set to zero minutes. (AT&T Ex. 3.0, pp. 110-111, 117).

SBC has assumed the same amount of time to handle the fallout of a simple loop order as it does for a complex loop order. (AT&T Ex. 3.0, p. 113). That is not the case, and to make such an assumption defies common sense. Consistent with SBC's typical practice elsewhere, the time to handle the fallout of a simple order should be reduced to 10 minutes. (AT&T Ex. 3.0, p. 113).

3. Occurrence probabilities

To the extent that SBC's studies are required to assume primarily automated processes and efficient and forward-looking technology, occurrence probabilities do not come into play. As with activity times, if SBC's studies reflected appropriate forward-looking assumptions, this would result in more reasonable fall out rates and, in turn, fewer required expensive manual activities. Again, if the need for activities is eliminated, debates about occurrence probabilities become significantly less contentious.

AT&T witness Mr. Turner explained that a problem unique to the New Combination UNE-P Service Order Cost Study is that SBC has erroneously included time for the RCMAC technician to perform several functions which are functions (and resulting costs) that are entirely duplicative of functions (and costs) contained in the unbundled switching nonrecurring cost study. The problem, of course, is that for new UNE-P combinations, the CLEC will pay the New Combination UNE-P Service Order Charge as well as the Unbundled Local Switching – Ports Charge. As a result, it is critical to ensure that these two charges do not contain any overlapping or duplicative functions or costs in order to avoid double recovery of costs by SBC. With regard to the some of the RCMAC functions, inappropriate overlap does occur in SBC's study, thereby

causing the CLEC to double pay certain nonrecurring costs unless the problem is corrected. (AT&T Ex. 3.0, pp. 118-119). Specifically, the table below summarizes the duplicative or overlapping tasks that exist in the two cost studies:

Combination ULS Ports	**New Combination UNE-P Service Order**
Retrieve fallout order - log into Service DirectR and click on service order number	Log into Service DirectR and click on service order number
Review order for clarity (completeness and accuracy).	Review order for clarity and cross reference the service order with ACIS to ensure it's complete with all information required to put in the translations
Send the order to the switch.	Click on the ! To send the order to the switch
Verify order is received by the switch. Switch will send an "order received" message.	Make sure order accepts into translations. This is accomplished by doing a MOI command with the order number in March and then seeing a history record.

The language above is the precise language found in the two SBC (overlapping) cost studies. While the wording is not precisely the same, the functions being performed *are* exactly the same. Moreover, the functions in both of these studies are performed by the same personnel in the same work center (RCMAC). Unless an adjustment is made to one of the studies, SBC will double recover its costs for these four functions. To remedy this clear overlap of functionality and costs, Mr. Turner recommended that the Probability of Occurrence for these functions in the New Combination UNE-P Service Order cost study be set to zero. (AT&T Ex. 3.0, pp. 118-119).

4. <u>Service order computer processing costs</u>

Ankum/Morrison disagreed with SBC's inclusion of computer processing costs in its NRC cost studies. They noted that computer processing costs are not caused by CLECs placing individual service orders, or even by CLECs placing large volumes of

individual service orders. Instead, these costs are caused by the need to collectively accommodate the service ordering process for UNEs as a result of the emergence of competition. To assign these computer processing costs on an *individual* service order basis, as part of the NRCs for UNEs, is therefore wholly inconsistent with how costs are actually incurred and, thus, inconsistent with the cost causation principle of the TELRIC methodology. Given that all CLECs and SBC itself benefit from the presence of the computer facilities, these costs should be classified as *recurring* costs and not as *non-recurring* costs. (Joint CLEC Ex. 1.0, pp. 141-42).

The Commission already addressed this issue in its TELRIC II Order, where it found that the computer processing costs should not be included in the NRC studies:

> We also agree with AT&T and MCI WorldCom that Ameritech should eliminate the computer processing costs it applies per service order.[210]
>
> These costs are *not* a direct cost to a CLEC ordering a UNE. Rather, computer processing costs are costs common to all network elements, and are more appropriately recovered through recurring charges. Recovery of computer processing costs via recurring charges is also consistent with the way Ameritech incurs its costs, which is on a monthly basis. Accordingly, we order Ameritech to remove all computer processing costs from its nonrecurring charges and to include these costs in the recurring charges for all UNEs to the extent Ameritech has not done so already.[211]

Thus, the Commission found in its TELRIC II Order that computer processing costs are not a direct cost of the CLEC ordering process and should therefore be eliminated from the NRC studies. Ankum/Morrison recommended that the Commission reaffirm its TELRIC II decision concerning computer processing costs and require that

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210 TELRIC II Order, p. 41.

211 *Id*.

such costs be eliminated from SBC's NRC cost studies in this case. (Joint CLEC Ex. 1.0, pp. 141-42; Joint CLEC Ex. 1.1, pp. 19-22).

In addition, AT&T witness Turner testified that SBC inappropriately included OSS cost recovery in all of its nonrecurring service order cost studies. Efficient OSS costs should be and are recovered through *recurring* rates. In fact, the systems costs that SBC attempts to recover through nonrecurring charges are already included in the support assets and overhead loading factors applied generally to all unbundled element charges. OSS themselves are software packages. ILECs typically capitalize the first generic of any software acquired with hardware, but expense all later versions of that software. Thus, later generations of legacy OSS are already part of the ILEC's expenses. In developing its recurring costs, SBC used those expense accounts to build estimates of recurring costs of unbundled network elements. Thus, these OSS costs are already recovered in recurring rates for unbundled network elements. (AT&T Ex. 3.0, p. 86).

OSS run on various computers. In modeling recurring costs, SBC's cost studies use the general-purpose computer accounts to build its estimates of recurring costs for UNEs. The computers on which the OSS run are operational 24 hours per day, so there is no incremental power cost to perform any of these transactional functions particular to an order placed by a CLEC. SBC's recurring cost studies use power accounts to build estimates for recurring costs of UNEs. Thus, both the hardware and power costs are already recovered in recurring rates. In short, SBC's OSS costs (hardware, system software, processor costs, updates, and upkeep) are already recovered in SBC's recurring wholesale and retail rates. (AT&T Ex. 3.0, p. 86-87). Additionally, mechanization in general lowers costs in the long run. Companies such as SBC have mechanized their

processes and systems over the years because it makes business sense to do so. (AT&T Ex. 3.0, p. 87).

The underlying OSS are utilized for network provisioning and administration, including, but not limited to, additions, rearrangements, recent changes, and performance surveillance. Some of SBC's existing OSS may require upgrading and/or modification to allow new entrants equal access to those systems. These investments are "transitional" investments and represent the costs to transition SBC's network from a single-carrier network to a multi-carrier network. These investments are also referred to as "competition onset" investments, as they represent investments that the incumbents must make in their networks as a direct result of the Telecommunications Act of 1996. Again, a proper restatement of SBC's nonrecurring costs should not model these investments, because they should be recovered through existing recurring costs. (AT&T Ex. 3.0, p. 87).

All service order computer processing costs are already captured in recurring UNE rates and in the common cost allocation applied to all UNEs and, consistent with the Commission's the TELRIC II Order, SBC's proposal to include these costs in its nonrecurring cost studies should be rejected; in fact, to include them would double count these costs. (AT&T Ex. 3.0, pp. 110, 113, 116-117).

5. <u>Fallout rates</u>

Fall out rates have a huge impact on the magnitude of SBC's proposed NRC rates. Ankum/Morrison showed that SBC's proposed fall-out rates were reflective of errors in SBC's own legacy systems and a general lack of systems integration. TELRIC studies, in contrast, should assume that service ordering and service provisioning systems are designed and integrated to prevent virtually any fall-out. SBC should be held to the

standards of commercial applications, such as online systems (orbitz.com for online air travel reservations, or amazon.com) or ATM machines. These commercial systems typically deal with situations of comparable or greater complexity than those faced by SBC in receiving service orders for UNEs and provisioning them. Ankum/Morrison testified that if an ATM, for example, were to fail at the high fall-out rates of SBC's OSS systems -- and as assumed in SBC's cost studies -- then consumers would simply stop using that ATM. Of course, as Ankum/Morrison pointed out, while consumers have a choice with ATMs and most other commercial applications, CLECs do not have such a choice, and are in fact captive customers of SBC and its OSS. Thus, because there are no market mechanisms to force SBC to improve its OSS, the Commission should adopt competitive market standards and approve non-recurring charges based on low levels of fall-out, in order to force SBC to behave as if it were subject to competitive pressures at the wholesale level, as it did in its TELRIC II Order. In contrast, to approve SBC's proposed fall-out rates would reward SBC and penalize its captive customers, CLECs, for SBC's inefficiencies. (Joint CLEC Ex. 1.0, pp. 53-75)

SBC's actual fall-out rates *should not be viewed as presumptively reasonable or efficient*. First, SBC achieves higher flow-through rates in other contexts. A good example is SBC's EASE system, which SBC itself claims achieves flow-through (the converse of fall-out) of 99%. SBC has stated to the FCC: "Our consumer EASE product permits a 99 percent flow-through of all service orders that are entered by our residential or consumer retail operations. We would expect the same flow-through from a trained CLEC service rep." (Joint CLEC Ex. 1.0, p. 67). The Commission should not permit

SBC to walk away from this accomplishment at the expense of CLECs. (Joint CLEC Ex. 1.0, p. 71-74).

Second, the decision-making process used by SBC's IT department, which is in charge of OSS improvements, is flawed and fails to include a critical component in its analysis of systems acquisitions and upgrades: the costs and benefits to CLECs. SBC's IT department only considers SBC's costs and benefits from implementing OSS improvements. While this approach would lead to a socially optimal decision in a competitive market, it leads to a decidedly sub-optimal situation in a monopoly setting. In a competitive setting, SBC's benefits would reflect a potentially increased market share as customers would seek out the supplier that offers higher flow-through rates. This would induce SBC to increase its spending on OSS to a socially optimal level. However, the wholesale market is not competitive, and SBC is a monopoly or near-monopoly provider in UNEs. As noted, SBC's IT department does not include the benefits to CLECs from higher flow-through rates in evaluating possible OSS improvements. Thus, in the absence of competitive pressures on SBC's wholesale division, SBC has no strong incentive to invest in its OSS, and consequently will under-invest. Thus, SBC's actual fall-out rates simply cannot presumptively be considered reasonable, efficient or the "best state of OSS" that can be achieved. (Joint CLEC Ex. 1.0, pp. 73-74).

Ankum/Morrison maintained that, in general, fall-out rates should be no higher than 2%. However, given that UNE-P migrations are so "plain vanilla" and run-of-the-mill, there really is no reason for there to be any fall-out at all, and UNE-P migration fall-out rates should therefore be no higher than 1%. (Joint CLEC Ex. 1.0, pp. 73-74). The

fallout rates recommended by Ankum/Morrison are the same as those adopted by this Commission in its TELRIC II Order and by the FCC's Wireline Competition Bureau in the *Virginia Arbitration Order*.

In addition to Ankum/Morrison's recommendations, AT&T witness Turner made specific recommendations concerning the appropriate fallout rates for SBC's nonrecurring service order cost studies. Mr. Turner explained that one of the most important aspects in the development of service order costs is the issue of flow-through and its corollary fallout. The issue of fallout (or 1 minus flow through (Tr. 1166-67)) affects all of SBC's service order cost studies. Fallout percentages should be based on efficient, forward-looking TELRIC principles and the Commission should maintain a 2% fallout rate. Thus, Mr. Turner's analyses and recommendation apply generally to all of the service order cost studies SBC presents in this proceeding.

Most of an incumbent's systems are electronically linked and are dependent on one another. Fallout refers to errors in the electronic flow-through process. For example, in an electronic ordering process, if one of the OSS receives erroneous or incompatible information from another OSS, the order will be designated as a process "fallout" and may require manual intervention to correct or complete the order. Other causes of fallout include communication link failures between different OSS, software release incompatibility, polluted databases (*i.e.*, the information in the various ILEC databases do not match; for example, which cable pair services which customer location must be the same in all databases), hardware failures, or system maintenance problems. Fallout is important because in many instances it is the only cost driver for an otherwise seamless electronic flow-through process. (AT&T Ex. 3.0, p. 89).

To achieve a very low level of fallout with its OSS, the incumbent must review the various linked databases and "clean-up" these databases to remove errors and inconsistencies, and it must monitor these databases to ensure that they remain free of errors and inconsistencies. Database maintenance must be an ongoing activity; unless it is properly performed, database errors will proliferate and undermine the ability of OSS to allow orders to flow-through. (AT&T Ex. 3.0, p. 89-90). Efficient OSS eliminates the need for multiple manual entries in all the databases and reduces the probability of an entry error somewhere that undermines the ability of the systems to provide flow-through. All of the best available OSS that exist today, when operated in an efficient manner, provide for flow-through functionality and provide minimal fallout. (AT&T Ex. 3.0, p. 91).

This Commission, of course, has already addressed the issue of appropriate fallout based on forward looking, efficient OSS in the TELRIC II proceeding and determined that two percent was the appropriate forward-looking fallout percentage to use for service order processing.[212] As Dr. Ankum and Mr. Morrison also recognized, according to SBC personnel using EASE, the capability for flow-through with this SBC retail system approaches 99 percent. (AT&T Ex. 3.0, pp. 93-94). In fact, according to SBC witness John M. Mitchell, SBC's own performance data indicates that its resale flow-through rate is approximately the same as that ordered by this Commission in the TELRIC II Order. Spe cifically, SBC's own publicly available performance data indicates that its flow-through of resale CLEC orders is approximately 98 percent. (AT&T Ex. 3.0, p. 95).

[212] TELRIC II Order, pp. 41-42.

The same electronic interfacing that occurs with retail provisioning must also occur with UNE provisioning. TELRIC principles do not allow SBC to recover its embedded costs; rather, they require that the Commission ensure that SBC recovers only its efficiently incurred, forward-looking costs. The reason the TELRIC methodology is important is that it ensures that CLECs are able to operate in a non-discriminatory cost environment when compared to SBC. If SBC is able to provide service to its retail customers with virtually no incremental cost because of its ability to flow the service order through its internal environment but is permitted to charge a CLEC approximately $100 in a UNE environment to perform the same work, the Commission will in effect establish a discriminatory system that hinders or destroys the development of competition and poses a serious barrier to entry. (AT&T Ex. 3.0, p. 94-95).

Moreover, there is absolutely no incentive for SBC to provide the same flow-through to CLECs that it does for its own retail service order provisioning because of the barrier to entry that the high nonrecurring charges represent. TELRIC principles ensure that, at least from a costing perspective, the playing field between the incumbent and the CLEC is level. It is therefore vital that the Commission continue to adhere to this principle and retain flow through percentages consistent with the use of efficient OSS, as it did in the TELRIC II Order. (AT&T Ex. 3.0, p. 95).

Numerous other state commissions have already recognized and ordered the use of fallout rates associated with forward looking and efficient OSS in setting TELRIC rates. In Wisconsin, the Commission ordered the use of a two percent fallout rate for simple orders, finding that this will provide SBC an incentive to "clean up its databases so mismatches between databases do not occur … [and to] … provide an incentive to

Ameritech to increase the kinds of orders that can initially be received and processed electronically, and effectively be as efficient as a provider would be required to be in a competitive marketplace."[213] In Missouri, the Commission also concluded that a two percent fallout rate is appropriate for the calculation of simple service order costs. In doing so, the Missouri Commission recognized that while the EASE system is a retail system, SBC:

> should be able to operate an electronic ordering system for simple CLEC orders at a fallout rate approaching that attained by the EASE system. The Commission agrees. For that reason, TELRIC principles require the Commission to assume the existence of such a system when determining SWBT's cost in providing such a system for resale to the CLECs. … For those processes that should be highly automated, such as feature activations in the local switch, service order processing, and similar processes, SWBT shall utilize a fallout rate of two percent.[214]

Thus, this Commission should retain the two percent fallout percentage it ordered in the TELRIC II Order. The use of a two percent fallout percentage is consistent with the performance of SBC's own retail systems and will establish costs for service order processing that are nondiscriminatory when compared to the cost SBC expends for its own provisioning operations. (AT&T Ex. 3.0, p. 95-97).

Implementing a two percent fallout rate will operate a bit differently now given the fact that SBC has, in this case, introduced a new approach to developing the cost for fallout. Previously, SBC identified the amount of time that was required to handle an

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[213] Before the Public Service Commission of Wisconsin, *Investigation into Ameritech Wisconsin's Unbundled Network Elements*, Docket No. 6720-TI-161, Final Decision, March 22, 2002, p. 174.

[214] Before the Public Service Commission of the State of Missouri, *In the Matter of the Determination of Prices, Terms, and Conditions of Certain Unbundled Network Elements*, Case No. TO-2001-438, Report and Order, Effective Date: August 16, 2002, Issue No. 305.

order that fell out for manual processing and then multiplied this time by the fallout percentage. In its current service order cost studies, SBC has retained the same basic approach as before of applying the fallout percentage to the time to handle that fallout, but it has now added what SBC refers to as "Support Activities." Effectively, these "Support Activities" are additional forms of fallout and represent the manual intervention activities performed by SBC's Local Service Center.

The six "Support Activities" are: (1) Reject activity; (2) Supplemental order activity; (3) 3E error activity; (4) Pending Past Due ("PPD") activity; (5) Error Service Order Image ("ESOI") Error activity; and (6) Automatic Call Distributor ("ACD") Coverage activity. For each of these six "Support Activities," SBC witness Dr. Currie proposed that the Commission include the incremental time for the activities weighted with the probability that this manual work will occur *in addition to the fallout percentage for CLEC service orders*. (AT&T Ex. 3.0, p. 98-99).

Alarmingly, the Local Service Center, or LSC, personnel that provided these Support Activity times and percentages were told absolutely nothing about the fact that SBC was going to use these Support Activity times and occurrences *in addition to a basic fallout assumption.* Certainly the LSC should have been made aware what fallout percentage SBC was assuming in its cost studies. Yet SBC witness Mr. Christensen testified:

> Q. Before you prepared these support activity data and studies or provide the information for the support activities, was the LSC provided any information regarding what fallout percentage SBC would assume and how that fallout percentage was calculated?
>
> A. No.[215]

[215] Tr. 1246-1247; see also Tr. 1240-1241.

As Mr. Christensen acknowledged, these support activities are, in many cases, designed to remedy the same activities that are captured by the fallout allowance. For example, the ESOI Activity only occurs when the order initially passes the edit process, but the information fails to "synch up" with SBC's other databases. (Tr. 1222-1223). The 3E errors only occur when, as Mr. Christensen testified, "there is a discrepancy that the billing system is seeing that prevents it from again being able to submit a bill to the CLEC." (Tr. 1224-1225). Surely the CLECs should not be required to pay these costs through SBC's nonrecurring charges.

In calculating its service order charges, SBC calculated a basic service order charge, using an already exorbitantly high fallout rate of *****BEGIN CONFIDENTIAL XXX END CONFIDENTIAL***** % -- more than six times the current Commission-approved rate. (AT&T Cross Ex. 41P, pp. 1-2). Even this base fallout rate is troubling given the fact that it is based on data from mid-2002. (Tr. 1187). SBC added to the basic service order charge – assuming the basic flow through – additional costs for many of these support activities that, in many cases, increases the basic service order charge for existing and new UNE-P by more than 50% (AT&T Cross Ex. 41P, Tab 6.8 Column C and Tab 6.4 Column C; Tr. 1243-1245, 1248) and more than doubled the rate for the unbundled local switching line port and truck port service order charge. (AT&T Cross Ex. 41P, Tab 6.1 Column C; Tr. 1249). The embedded probabilities that these support activity tasks will occur cannot be used any more than the embedded fallout percentage for UNE orders can be used. Thus, AT&T witness Mr. Turner significantly revised the probabilities for these tasks to integrate the overall fallout of two percent with the "Support Activities" that would exist in a forward-looking process as follows:

Reject Activity – An order is rejected either as a result of inaccurate or incomplete information on the LSR or as a result of a reject in the translation of the LSR into the work processes within SBC's network. In many cases, all the LSC need do is return the order to the CLEC for further processing and the LSC's work is done. (Tr. 1219). With efficient, forward-looking OSS, the probability of Reject Activity should be very low because when the CLEC sends an incomplete or inaccurate electronic order to SBC, there are edits in the systems interface that identify this information gap electronically and send notice back to the CLEC automatically, without any manual processing at all. If the order gets through this edit checking process satisfactorily, the order should be able to interface efficiently and automatically into SBC's internal systems, allowing the order to complete electronically, without the involvement of manual processing at all. Against all reason, however, SBC asserted that its embedded Reject Activity is an astronomical *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** percent. (AT&T Ex. 3.0, pp. 99-100). While Rejects can occur and ought be a part of the overall two percent fallout that the Commission should use on a forward-looking basis, it is completely unreasonable to assume that *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** percent of all orders that come into the LSC will somehow require that a Reject Activity take place. Because SBC has divided fallout up more finely than it has in the past, the two percent fallout must be split to attribute some of it to the Reject Activity process. (AT&T Ex. 3.0, p. 100).

Supplemental Order Activity – Supplemental order activity occurs when a CLEC wants to change an aspect of a pending order that has not yet been provisioned. According to SBC witness Mr. Christensen, SBC is unable to electronically process the

majority of these supplemental orders. (Tr. 1225-1226). This embedded process is neither efficient nor forward looking. It is not surprising that, as a result of these inefficient OSS, SBC claims that its Supplemental Order Activity probability is an astronomical ***BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL*** percent. (AT&T Ex. 3.0, p. 100-101). In his restatement of SBC's nonrecurring service order studies, AT&T witness Mr. Turner retained this process, but assumed that the probability the process will occur will be significantly reduced such that it corresponds to the overall fallout percentage of two percent on a forward-looking basis. This is consistent with the January 5, 2004 order of the Indiana Commission, which determined that the percentage for each of SBC's six support activities should be the lower of 1% or SBC's proposed percentage. (Indiana Order, pp. 114-115).

***3E Error Activity* –** 3E Error Activity is essentially a variation of the Reject Activity. 3E Error Activity occurs as a direct result of system interface inefficiencies that simply would not exist in a forward-looking efficient OSS. As SBC witness Mr. Christensen stated, a CLEC order flows through the ordering and provisioning system but the CLEC is not billed by SBC due to a "discrepancy" in SBC's billing system. (Tr. 1224-1225). SBC remedies the problem without the need for any assistance from the CLEC. This activity is a classic case of OSS inefficiency and has no place in a forward looking environment. AT&T witness Mr. Turner's restatement of SBC's nonrecurring cost studies appropriately set the probability of and labor time for this activity to 0.00 percent. (AT&T Ex. 3.0, p. 101).

***PPD Activity* –** While SBC's EEL Service Order Cost Study does not utilize this process, other SBC service order cost studies do. Pending Past Due, or PPD, activity

occurs when SBC is not able to provision the order by the scheduled due date. However, the two percent fallout percentage already reflects an efficient, forward-looking fallout percentage for these processes and no additional probability or cost for this process is necessary. The portion of the overall fallout that this particular function comprises is already captured in the two percent fallout rate and there is no reason to include additional cost for this activity separately here. (AT&T Ex. 3.0, pp. 101-102).

ESOI Error Activity – An ESOI error occurs when the service order passes the initial mechanized error edit process but gets rejected because some of the order information does not "synch up" with various SBC downstream databases due to database pollution/contamination/inaccuracies. The order is not returned to the CLEC; there is no need. SBC's LSC fixes it. (Tr. 1222-1223). Because this is – by SBC's own admission – due to an SBC database integrity error, the ESIO Error is simply a variation on the Reject Activity process and should not be separately accounted for in the cost study. The Reject Activity probability and labor time already captures the cost for this function. (AT&T Ex. 3.0, p. 102).

ACD Coverage Activity – SBC contends that based on its embedded level of fallout, *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** percent of all orders require a phone call from the CLEC to the LSC. (AT&T Ex. 3.0, p. 102). This probability of calling is not appropriate to assume in an efficient, forward looking environment. In fact, SBC witness Mr. Christensen acknowledged that the calls included in the ACD coverage activity include calls for manual or faxed orders (Tr. 1232) – a process that would only occur, with rare exception, in a forward looking environment.

Rather, the probability of the ACD Coverage Activity should correspond to the forward-looking fallout percentage that is adopted. (AT&T Ex. 3.0, pp. 102-103).

There is absolutely no record evidence to demonstrate that these additional support activities should – as SBC contends – be added to the fallout percentage. To the contrary, as Mr. Christensen candidly testified, the Local Service Center was not told that SBC's cost studies were already assuming fallout percentage at all. Moreover, the Support Activity data is, at best, outdated and does not, therefore, reflect the most forward looking, efficient processes currently available. Distressingly, the data was gathered over a one, two or three month period (from late 2001 and early 2002) more than two years ago depending on the Support Activity. (Tr. 1187, 1214-1215). Thus, there is no proof that it is even representative of SBC's Support Activities. In fact, the data upon which SBC's Support Activity percentages (and translated costs) are based flies in the fact of the testimony of its own nonrecurring cost witness, Dr. Currie. Dr. Currie testified during cross examination that, in his view, one year of data is insufficient upon which to predict a trend (Tr. 1175-1176), that using a small data set is always a "little bit of a concern" (Tr. 1185) and that, in his assessment, "recent experience should be the basis for evaluating and determining forward-looking fallout rates." (Tr. 1186).

As such, SBC's Support Activities are not supported, are inefficient and, in some cases, exceed the overall level of fallout assumed by SBC. The Commission should reject SBC's proposal and adopt that of AT&T witness Mr. Turner for basic orders that, in sum, (1) sets the Reject Activity probability at one percent (consistent with the Indiana Order) by taking the two percent fallout and splitting it evenly between the "traditional" (non-Reject) fallout and the Reject fallout process; (2) sets the Supplemental Order

Activity probability at one percent; (3) sets the 3E Error Activity and ESOI Error Activity to a probability of 0.00 percent since the fallout for Reject is already captured in the Reject Activity process; (4) sets the PPD activity to 0.00 percent; and (5) sets the ACD Coverage Activity to a probability of 0.50 percent, which generously assumes that one out of every four fallout orders will require a phone call from the CLEC to the LSC. (AT&T Ex. 3.0, p. 103).

Recommended Fallout Rates – For simple EEL service orders, AT&T witness Turner recommended a two percent fallout percentage. For complex EEL orders, Mr. Turner recommended that the Commission utilize a probability of fallout of 10 percent because there are many places within SBC's own cost study that show a *****BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL***** percent fallout percentage for complex orders.[216] Of this 10 percent, Mr. Turner attributed nine percent to traditional or typical fallout and one percent (the same as for Support Activities for basic or simple orders) to Reject Activity. All of the other proposed "Support Activities" probabilities would remain unchanged. (AT&T Ex. 3.0, p. 104).

SBC's Existing UNE-P Service Order Cost Study, Unbundled Loop Service Order Cost Study and New Combination UNE-P Service Order Cost Study distinguish between costs for simple orders (POTS) and costs for complex orders (Non-POTS). Despite the fact that SBC differentiates costs for POTS and Non-POTS service orders, SBC uses a single fallout percentage for both POTS and Non-POTS orders. This is at odds with SBC's cost study design in other jurisdictions. Mr. Turner adjusted these

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[216] For example, SBC's SA2UNE Cost Study uses a *****BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL***** percent probability of occurrence on what is obviously a complex order type.

studies to provide for a POTS fallout percentage of two percent and a Non-POTS fallout percentage of 10 percent consistent with the fallout discussion provided earlier and with SBC's practice in other jurisdictions. (AT&T Ex. 3.0, pp. 109-110, 112-113, 117).

6. Other (including rate design issues)

Connect and disconnect activities are included in service ordering as well as line connection service provisioning NRC studies. (Joint CLEC Ex. 1.0, p. 90). As discussed in greater detail in Section IV. C.5 below, connect and disconnect achieving should be separated. Ankum/Morrison calculated and proposed separate charges for connects and disconnects. This is consistent with Staff's proposed treatment of connect and disconnect activities as well as with the concept of cost causation. Moreover, it is consistent with this Commission's recommended treatment on a going-forward basis of these activities in its comments to the FCC's TELRIC NPRM.[217]

AT&T witness Mr. Turner made a number of recommendations regarding rate design for SBC's service order nonrecurring cost studies, as discussed in the following subsections:

a. Separation of Connect and Disconnect Costs

AT&T witness Turner recommended that connect and disconnect costs should not be combined and assessed in the upfront service order charge in any of SBC's nonrecurring cost studies. SBC inappropriately combined the Connect and Disconnect nonrecurring costs into a single charge and wrongly assumed that for every UNE the average time between the connect cost and disconnect is two years. SBC assumed a two year disconnect regardless of whether SBC provisions elements that virtually never

[217] ICC TELRIC NPRM Comments, p. 82.

change, such as transport arrangements, or elements that may change more often, such as features on a basic line port. At bottom, SBC's proposal inappropriately requires CLECs to pay for work in advance despite the very real possibility that the work will never be performed and, therefore, costs may never be incurred. For example, if a CLEC orders an EEL from SBC but then loses the customer to SBC, SBC gains the customer, the CLEC loses the customer, but there is no disconnection, despite the fact that the CLEC paid for one when it established the EEL. SBC's proposal violates cost causation principles and requires CLECs to pay disconnect costs that may never be incurred. SBC's proposal should be rejected and Mr. Turner's proposal should be adopted. (AT&T Ex. 3.0, p. 85).

SBC must also be required to segregate the Connect and Disconnect nonrecurring costs in its Existing UNE-P Service Order Cost Study. Under SBC's proposal, when a CLEC wins a customer from SBC and that customer is migrated to the CLEC via an existing UNE-Platform (consisting of a loop, a switch port and transport), the CLEC pays for a disconnect. In reality, however, the customer is more likely to either migrate back to SBC or to another CLEC should it decide to discontinue service with the first CLEC. Thus, while no disconnect occurs, the CLEC nonetheless already paid for one when it established the UNE-Platform. Thus, AT&T witness Mr. Turner adjusted the Existing UNE-P Service Order Study to separate connect costs and disconnect costs consistent with cost causation and TELRIC principles. CLECs should not be required to pay disconnect costs at the time of installation when there is no assurance that these costs will ever be incurred. (AT&T Ex. 3.0, p. 108).

SBC must also be required to segregate connection costs and disconnect costs in its Unbundled Loop Service Order Cost Study because the same cost causation arguments apply. Assume, for example, that a CLEC chooses to serve a customer with an SBC-provided loop and its own switch. According to SBC's proposal, the CLEC pays disconnect costs at the time it orders the UNE loop. However, assume the customer migrates to SBC so that the customer is served via the same loop but with SBC's switch. No disconnect work (and, therefore, no disconnect cost) is incurred, despite the fact that the CLEC has already paid it. (AT&T Ex. 3.0, p. 112).

Finally, AT&T recommends the same revisions to SBC's New Combination UNE-P Service Order Study. If a CLEC acquires a customer using a new UNE-P combination and pays the disconnect costs upfront and the customer migrates its service to SBC or another UNE-P CLEC, the acquiring CLEC will have paid disconnect costs when, in fact, no disconnect occurs when the customer migrates to SBC or another CLEC. (Tr. 871-872). If SBC's cost study is revised as AT&T recommends, the acquiring CLEC will only pay for a disconnection if a disconnection in fact occurs consistent -- consistent with cost causation principles and TELRIC principles. (AT&T Ex. 3.0, p. 116).

In the Indiana Order, the Indiana Commission agreed with the position the Joint CLECs on the separation of connection and disconnection charges:

> The Commission finds that SBC's proposed combined connection/disconnection charge inappropriately raises the CLECs' p-front costs. Similar to the FCC [in the *Virginia Arbitration Order*], we find that disconnection costs should be recovered at the time of disconnection; that combining the charges unnecessarily raises entry level costs, and the risk of not being able to collect from CLECs is an inappropriate justification.

Indiana Order, p. 113 (citing *Virginia Arbitration Order* ¶¶ 596-598). This Commission should require SBC to segregate these charges.

b. Rate Design Issues Related to SBC's Enhanced Extended Loop (EEL) Service Order Cost Study

As AT&T witness Mr. Turner testified, one section of SBC's EEL cost study provides SBC's proposed service order charges for the loop when the loop is ordered as part of an EEL, another section provides SBC's proposed service order charges for transport when the transport is ordered as part of an EEL, and yet another portion provides SBC's proposed service order charges for multiplexing when multiplexing is ordered as part of the EEL. (AT&T Ex. 3.0, pp. 83-84).

SBC's proposals make the cost development and practical implementation of EEL service order charges far more difficult than it needs to be, and much more difficult than it is in other states in the SBC territory. For example, in Missouri SBC recognizes two classes of service orders – simple and complex. The transport and multiplexing portions of establishing an EEL fall into the complex category. Ordering the loops that will be cross-connected to the transport facility fall into the simple category. Thus, SBC Illinois is attempting to create much more complexity than is necessary or warranted. (AT&T Ex. 3.0, p. 84).

The first fundamental change that must be made to SBC's EEL service order cost study is to eliminate any difference between the service order costs for a stand alone loop and the service order costs when that same loop is used as part of an EEL. There is absolutely no reason to distinguish between the service order costs for these loops based on how the loops are being used. The only difference between a loop that is used on a stand-alone basis and a loop that is used as part of an EEL combination is where the

cross-connect is made in the central office. (AT&T Ex. 3.0, pp. 84-85). This difference in the cross-connect assignment does not lead to any difference in the service order costs. To implement this fundamental point, AT&T witness Mr. Turner revised the EEL Service Order Cost Study so that the service order charges for ordering 2-Wire Analog, 4-Wire Analog, 2-Wire Digital, DS1, and DS3 Loops are the same as the service order charges resulting from SBC's unbundled loop service order cost study so that the same service order charges apply regardless of whether the loops are ordered on a stand alone basis or as part of an EEL combination. (AT&T Ex. 3.0, pp. 84-85).

Finally, while SBC filed a separate service order cost study that covered Subsequent Orders for 2-Wire Analog, 4-Wire Analog, and 2-Wire Digital loops, it did not file a separate service order cost study that covered Subsequent Orders for DS1 Loops. AT&T witness Mr. Turner used SBC's EEL Service Order Cost Study to develop this cost, and the Commission should direct that Mr. Turner's proposal be adopted. Mr. Turner's proposal should be adopted for Subsequent Orders for stand alone DS1 loops and DS1 loops used in an EEL combination. (AT&T Ex. 3.0, p. 85).

c. Rate Design Issues Specific to SBC's Existing UNE-P Service Order Cost Study

SBC, in developing its *Existing* UNE-P Service Order Cost Study, chose to blend the service order cost for migrating a UNE-P line with dial tone weighted at a *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** percent probability with the service order cost for establishing a UNE-P line without dial tone weighted at a *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** percent probability. (AT&T Ex. 3.0, p. 108). Because the probability of the "no dial tone" option happening is so small, it makes little sense to blend the costs of these two scenarios, particularly

when SBC lacks the ability to distinguish between a new UNE-P service order where everything is already wired but where there is no dial tone from a new UNE-P service order in which the combination is not already wired and, therefore, is likely to charge the CLEC for a New UNE-P Combination rather than an Existing UNE-P Combination. The most prudent approach under the circumstances is to simply apply the New UNE-P Service Order cost for all service orders where no dial tone exists, regardless of whether the wiring is already in place or not. The Existing UNE-P Service Order would then only apply to those situations where an existing customer (with dial tone) is simply migrating to the CLEC. To accommodate this change, Mr. Turner set the "with dial-tone option" at 100 percent probability and the "without dial-tone option" at 0.0 percent probability.[218] (AT&T Ex. 3.0, pp. 108-109).

SBC's Existing UNE-P Service Order Cost Study is set up to distinguish between costs for simple orders (POTS) and costs for complex orders (Non-POTS). Despite the fact that SBC differentiates costs for POTS and Non-POTS service orders, SBC used a single fallout percentage for both POTS and Non-POTS orders. This is at odds with SBC's cost study design in other jurisdictions. Mr. Turner adjusted SBC's cost study to provide for a POTS fallout percentage of two percent and a Non-POTS fallout percentage of 10 percent consistent with the fallout discussion provided earlier in this brief. (AT&T Ex. 3.0, pp. 109-110).

Mr. Turner also modified the inflation factor and labor rates consistent with the testimony of AT&T witness Mr. Robert Flappan in restating all of SBC's nonrecurring

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[218] The discussion above focuses on the electronic service order probabilities. The manual service order probabilities are different but they should be changed in a similar manner as well.

cost studies. Mr. Turner's restated nonrecurring charges for the EEL Service Order Cost Study are contained in Attachment SET-5P (Revised). Mr. Turner's restated Existing UNE-P Service Order Cost Study is reflected in Attachment SET-4P (Revised). Mr. Turner's proposed revisions to SBC's Unbundled Loop Service Order Cost Study are contained in Attachment SET-3P. The restated nonrecurring charges from the New Combination UNE-P Service Order Cost Study are contained in Attachment SET-4P (Revised).

C. Provisioning (Loops and EELs) Nonrecurring Cost Studies

Ankum/Morrison reviewed and analyzed SBC's service provisioning nonrecurring cost studies and based on their recommended changes to those studies, provided revised cost studies and proposed rates for service order activities. (Joint CLEC Ex. 1.0, Attach. 3-P). Their analysis encompassed SBC's service provisioning NRC studies for Combination ULS Port, Custom Routing, ULS Port Features, EEL - New, Special Access to EEL Conversion and Loops. (Joint CLEC Ex. 1.0, p. 9). As noted above, Ankum/Morrison faulted the inflated nature of SBC's proposed non-recurring costs and SBC's failure to properly apply the critical distinction between recurring and non-recurring costs. As a result, *the non-recurring costs calculated by SBC are not truly non-recurring costs, but are rather an inappropriate mixture of recurring and non-recurring costs.* Much of what Ankum/Morrison did in correcting SBC's cost studies simply related to *eliminating the recurring cost characteristics and components* from SBC's NRC cost studies.

1. Identification of tasks

SBC waited until its rebuttal testimony to claim that all standalone UNE loops are "designed," claiming that its initial loop provisioning study did not incorporate this

process. That revelation was made by SBC witness Dr. Currie, who supported the assertion by pointing to information supposedly provided by SBC witness Ms. Gomez-McKeon. Yet, Ms. Gomez-McKeon's testimony contained hardly any discussion about this issue. Ankum/Morrison testified that there is simply nothing about basic Plain Old Telephone Service ("POTS") unbundled loops that requires custom design. Further, unless they are deficient, all basic loops in SBC's network support basic POTS service. No design work is needed. Indeed, not only was SBC's addition of design tasks not supported, but since March 6, 2003, SBC has filed virtually the same NRC studies in Indiana and in Michigan and in neither jurisdiction did the SBC treat the unbundled loops as design circuits. It is hard to understand why unbundled loops in Illinois would be different from those other states. (Joint CLEC Ex. 1.1, p. 33). This change to SBC's case is unsupported and should be rejected.

AT&T Turner testified with respect to SBC's new "designed loop" proposal that a major, critical and fundamental flaw with SBC's provisioning cost studies is that SBC assumes that all stand alone loops and loops used as part of an EEL must be a designed loop. A "designed loop" is one for which SBC assumes that the loop must undergo more rigorous testing to enable its use in a "Special Service" application. Said another way, it is anticipated that designed loops are to be used in ways that require that they have a higher level of capability and reliability than regular POTS loops and, therefore, must undergo more scrutiny (and more personnel cost) to ready them for use. As the Joint CLECs convincingly demonstrated, however, designed loops are not necessary for EEL applications nor are they required for stand alone POTS loops, and it is discriminatory for SBC to require that EEL loops must be designed. (AT&T Ex. 3.0, pp. 27-28).

SBC's assumption is ill-founded, unsupported and imposes costs for designed loops include costs for activities that SBC will not perform. For example, SBC witness Ms. Gomez-McKeon testified that when a working loop is migrated from the SBC switch (*i.e.*, the customer is being served by SBC or by a CLEC via the UNE-Platform) to a CLEC switch, SBC's cost filing assumes that the CLEC must pay the cost for designing and testing the loop even though the loop is already working and must simply be cross-connected to the CLEC collocation arrangement or, in the case of an EEL, to Interoffice Dedicated Transport. (Tr. 1473-1477). Because the loop is already working, however, there is no justification for SBC to do anything other than to simply migrate the working loop over to the CLEC collocation arrangement or the transport element. (AT&T Ex. 3.0, p. 29).

Tellingly, of course, SBC's original proposal in this docket was that stand alone UNE loops would not be designed loops, and that a designed loop was only required if it was purchased as part of an EEL combination. In fact, according to the Direct Testimony of SBC witness Mr. Chris F. Cass (adopted by Dr. Kent Currie), SBC Ex. 6.0, p. 26, submitted at the time of SBC's original tariff filing, "the only major difference is that the POTs loops represented by the line connection charge are simpler to provision than the designed analog and digital loops identified in the EEL cost study." SBC was right the first time with respect to POTS loops – there was no need for them to be designed then, and there is no need for them to be designed now. Put simply, stand alone POTS loops are no different in technology and no different to provision then they were when Mr. Cass submitted his direct testimony in this proceeding.

Moreover, as AT&T witness Mr. Turner testified, an additional test point is a common feature of a designed loop. SBC proposes that the POTS loop and the EEL loop be subject to the design process, despite the fact that SBC places no additional test points on that loop. (Tr. 1578). When the loop is moved from the SBC switch to a CLEC collocation arrangement or used as part of an EEL, its architecture and capability does not change in any way. It is still a loop from the customer premise to the NID, and nothing associated with the design process has been introduced into the mix. (Tr. 1578-1580).

Quite simply, the Commission should reject SBC's proposal that all stand alone UNE loops and loops used in EEL configurations should be designed loops and subject to the additional costs of the design process. The nonrecurring cost for an unbundled loop, whether used as a stand-alone UNE by the CLEC or used as part of an EEL, should be non-designed and should be the same. As AT&T witness Mr. Turner testified and as SBC witness Ms. Gomez-McKeon acknowledged on cross examination, design costs are already included in the costs for the transport portion of the EEL. (Tr. 1473; 1579-1580). There is no need to include testing costs for the loop element as well. (AT&T Ex. 3.0, p. 30).

2. <u>Activity times</u>

Activity times in SBC's service provisioning NRC studies included technician travel times to unmanned central offices and to the field distribution interface/serving area interface ("FDI/SAI") related to loop provisioning, as well as cross connect times and test times. The Joint CLECs took issue with each of these activities, particularly with SBC's time estimates and probability of occurrence estimates. Ankum/Morrison recommended that the Commission reject SBC's inflated and unsupported travel times.

(Joint CLEC Ex. 1.0, pp. 103-06). To the extent that SBC's travel time estimates reflect SBC's SMEs' estimates of their "historic" and "actual" experiences, these estimates are highly suspect. (Joint CLEC Ex. 1.0, p. 106-07). Travel times will vary greatly from area to area. Given that SBC's SMEs have not performed a systematic analysis of travel patterns, it is simply unknown how their subjective judgments might have dealt with travel times that vary greatly across the state. On its face, a subjective SME estimate is not likely to be a reasonable substitute for what should be a complex and detailed analysis. In any event, Ankum/Morrison showed that SBC's SMEs' experiences are highly biased in that the SMEs' experiences would over-represent travel times for older and longer loops. Longer and older copper loops have the greatest likelihood of breaking down, while shorter and new loops will break down less frequently. (Joint CLEC Ex. 1.0, p. 107). Thus, the SMEs' actual travel experiences will necessarily be biased toward travel times for longer loops. This is analogous to the fact that people seeing doctors are more likely to be sick than the average person. To correct for this bias, Ankum/Morrison explained that the SMEs would have had to do an analysis that accounts for shorter new loops that are less likely to break down. However, SBC itself indicated that it performed no such analysis (or any type of sophisticated analysis). In view of this, SBC's SME estimates are virtually meaningless. (Joint CLEC Ex. 1.0, p. 106).

Additionally, SBC's travel times were inconsistent with a reasonable set of assumptions regarding technician travels and job activities and locations. Ankum/Morrison demonstrated how SBC's travel time estimates would result in a situation in which SBC's technicians could spend easily 6 hours a day traveling. This outcome is irrational given that the travel times reflect the average of statewide travel,

which means that in certain portions of the state, travel times would actually exceed 6 hours a day, leaving no time for performing actual tasks. (Joint CLEC Ex. 1.0, p. 108).

Using a reasonable set of assumptions regarding the average length of distances traveled, travel speeds, and number of jobs performed per technician per day, Ankum/Morrison calculated alternative travel times. They recommend that the Commission adopt their *method* for estimating travel times. Further, based on their method and a reasonable set of inputs, they recommended a travel time of 9.5 minutes for travel to the FDI/SAI and/or end-user locations, and made no change to SBC's estimate for travel time to unmanned central offices. (Joint CLEC Ex. 1.0, pp. 116). The Commission should adopt these recommendations as they are reasonable and, unlike SBC's travel time estimate to the FDI/SAI, are well based in record evidence.

With respect to cross connect times, Ankum/Morrison criticized SBC's time estimates for cross connects for standalone loops, UNE-P loops, DS1 and DS3 loops on several levels. First, as with most of SBC's SME labor time estimates, the cross-connect times are unsupported by a systematic analysis, making it impossible to audit how the estimates were derived. Second, Ankum/Morrison observed that SBC's time estimates did not comport with their experiences, and appeared unreasonably high. Further, SBC's NRC cost studies ignored forward-looking MDF technologies, such as one-sided cosmic frames that allow for shorter and more efficient cross-connect times, since traditional two-sided frames require more leg-time and are unsupported by software. (Joint CLEC Ex. 1.0, p. 117). Ankum/Morrison observed that no forward-looking, most-efficient technologies appeared to be incorporated/reflected in SBC's cross-connect time estimates. In any event, it is not clear how SBC's SMEs would have been able to reflect

the presence of cross-connects on forward-looking technologies given that no supporting analysis was performed. Their estimates were simply "pulled out of a hat" and provided without a shred of supporting evidence.

Lastly, Ankum/Morrison testified that SBC's SME estimates again failed to distinguish between cross-connect activities that establish permanent connections from which subsequent CLECs and SBC itself will benefit, and cross-connect activities that take place solely for the benefit of the requesting CLEC. As discussed previously, the former activities should have been classified as recurring costs, while the latter should have been classified as non-recurring costs. Here, as throughout its studies, SBC simply commingles recurring and non-recurring costs.

Dr. Ankum and Mr. Morrison provided alternative cross-connect times that correct for the aforementioned deficiencies. (Joint CLEC Ex. 1.0, pp. 119-23). The Commission should adopt these adjustments as reasonable and supported by the record.

Ankum/Morrison also disagreed with SBC's proposed testing times, for a number of reasons. First, SBC's SME-provided test times are unsupported. (Joint CLEC Ex. 1.0, p. 129). Ankum/Morrison noted that this is problematic because test times are associated with a large number of other activities, such as problem detection, problem resolution and coordination with other technicians. Given that SBC's SMEs performed no systematic analysis, their estimates that average all these activities in various circumstances can have little value.

Second, Ankum/Morrison noted that SBC's test times are unreasonably high in view of both newer technologies and their experience. (Joint CLEC Ex. 1.0, p. 132).

Third, Ankum/Morrison testified that SBC inappropriately assumed that certain tasks are performed on a *stand-alone* basis, and that SBC failed to account for efficiencies of simultaneous task performance (economies of scale). For example, SBC ignored that some of the test equipment can be run on a stand-by basis and *does not need active monitoring* by the technician. This means that the technician can perform other tasks, such as general maintenance and administrative tasks while the test equipment is running. To assume that the technician is just sitting for significant periods of time monitoring a piece of test equipment that monitors itself is inefficient, and not what technicians do. This is certainly true for the coordinated testing activities associated with technicians in the special services center. It is also true for testing performed by technicians out in the field and in the central office. This correction by itself would significantly reduce test times. (Joint CLEC Ex. 1.0, p. 129-132).

Lastly, and most importantly, Ankum/Morrison observed that much of the testing included in SBC's NRC cost studies is simple pre-service testing that should result in little, if any, error detection in a newly constructed network assumed in a TELRIC proceeding. However, to the extent that in SBC's actual network deficiencies may be commonplace and cause tests to fail, it is important to note that *SBC should not have classified the costs of this type of testing and problem resolution as non-recurring costs.* Clearly, to the extent that tests fail, deficiencies are detected and facilities are repaired, other CLECs and SBC itself will also benefit from these activities. *Thus, these costs should have been classified as recurring costs.* In any event, it is obvious that the SMEs were never instructed to distinguish between activities that would represent *recurring* costs and activities that would represent *non-recurring* costs.

Correcting for these considerations, Dr. Ankum and Mr. Morrison provided alternative test times and revised the NRC studies. (Joint CLEC Ex. 1.0, Attachment 3).

AT&T witness Turner also analyzed the activity times in SBC's provisioning cost studies. He reached the following conclusions and made the following recommendations:

Excessive Cross Connect Times and Occurrences: Based on the testimony of its own witness, SBC's provisioning cost studies assume excessive times to perform cross-connects within the central office. Specifically, SBC's cost study assumes that it takes the FOG technician *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes to perform a two-wire cross-connect.[219] As AT&T witness Mr. Turner testified, in his experience and based on his review of numerous nonrecurring cost studies, it takes approximately two to three minutes to perform a two-wire cross-connect. Thus, Mr. Turner modified SBC's cost study to assume it takes three minutes to perform a two wire cross connect. (AT&T Ex. 3.0, p. 72). This modification is consistent with the cross examination of SBC witness Ms. Vivian Gomez-McKeon, who testified that it takes approximately *****BEGIN CONFIDENTIAL XXXXX END CONFIDENTIAL***** *in total* to perform two cross connects – one at the MDF and one at the IDF. (Tr. 1482). If it takes *****BEGIN CONFIDENTIAL XXXXXX END CONFIDENTIAL***** for two, it is reasonable to assume that it takes *****BEGIN CONFIDENTIAL XXXXXX END CONFIDENTIAL***** at most to perform one, consistent with Mr. Turner's modification.

The cross examination of SBC witness Ms. Gomez-McKeon revealed a serious flaw in SBC's calculation of the costs for cross connecting a two wire analog (*i.e.*, POTS)

[219] SBC-Ameritech Cost Study – "Loops_N_WhslUNE_IL_02-05_Dec02" Workbook, "TAB 8.5-FOG" Worksheet, Cells E64-F64.

loop in SBC's central offices, thereby significantly overstating the cross connect costs included in the Line Connection Charge for unbundled loops. Ms. Gomez-McKeon testified that it takes a total of *****BEGIN CONFIDENTIAL XXXXXX END CONFIDENTIAL***** to perform both the cross connect at the IDF and the cross connect at the MDF. As discussed above and as demonstrated by the attached Attachment A , which is Tab 6.3 of SBC's Unbundled Loop Cost Study, SBC's provisioning studies assume that for *****BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL***** of all stand alone unbundled loops ordered by CLECs (see line 58, Column G and line 59, column G), a cross connect is required at the MDF *and at the IDF*, and that each of those cross connects will take *****BEGIN CONFIDENTIAL X** minutes **END CONFIDENTIAL***** minutes apiece (see line 58, column C and line 59, column C). SBC's own cost study is directly contrary to the testimony of Ms. Gomez-McKeon, who testified that it takes *****BEGIN CONFIDENTIAL XXXXXX END CONFIDENTIAL***** minutes total to perform the cross connects at both the IDF and the MDF, not *****BEGIN CONFIDENTIAL XXXXXX END CONFIDENTIAL***** minutes apiece. (Tr. 1482). Thus, SBC's provisioning studies significantly overstate the cross connect costs in the line connection charge.

Moreover, the use of an IDF is inconsistent with a forward looking, efficient network; rather, it is a vestige of an embedded central office. Thus, all costs associated with an IDF should be rejected. Even assuming the Commission allows any such costs, only *****BEGIN CONFIDENTIAL XXXXX END CONFIDENTIAL***** percent of SBC's central offices have IDFs. Therefore, SBC's cost study overstates cross connect costs, by definition, in *****BEGIN CONFIDENTIAL XX END CONFIDENTIAL*****

of SBC's central offices, in addition to the overstated costs resulting from the admittedly excessive cross connect time estimates.

SBC assumed that a four-wire cross-connect requires *****BEGIN CONFIDENTIAL** XXXX **END** CONFIDENTIAL******* minutes to perform. (AT&T Ex. 3.0, p. 45). According to Mr. Turner's experience and his review of cost studies in other jurisdictions, the typical time to perform a four-wire cross-connect is around five minutes. (AT&T Ex. 3.0, p. 45).

SBC's provisioning studies erroneously assumed that the DS1 cross-connect on the Central Office Multiplexing – DS1 to Voice Grade requires *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes. (AT&T Ex. 3.0, p. 45). As Mr. Turner demonstrated, DS1 (and, for that matter, DS3) cross-connects utilize pre-connectorized quick connect jumpers that allow the technician to easily establish the cross-connect on DSX frames. These jumpers have simple jacks that clip onto ports on the DSX cross-connect frame, making it extremely easy to complete the jumper. SBC also erroneously assumed it takes more time to install DS1 and DS3 jumpers than it takes to install copper jumpers. In fact, the opposite is actually true because, as noted above, DS1 and DS3 cross-connects utilize pre-connectorized quick connect jumpers that allow the technician to easily establish the cross-connect on DSX frames. On the other hand, 2-wire cross-connects require either the use of a wire-wrap gun to twist the wire onto a post or that the technician slide the wire into a clip on a COSMIC frame. As Mr. Turner testified, based on his experience, it takes approximately two minutes to perform a DS1 or DS3 cross-connect. There is no legitimate basis for SBC's overstated time estimates, and they should be rejected. (AT&T Ex. 3.0, pp. 45, 72-73).

Excessive Order Analysis Times -- In its provisioning studies, SBC included a task entitled "Log, Sort, Match, Distribute" that includes "administrative functions," "matching service order and word document," "checking that all required information is complete," "forward order to the installation supervisor," and "updating of log to reflect estimated time and technician assigned to order." These very descriptions make clear that these activities relate to the order itself and not to the number of unbundled loops or entrance facilities being ordered. At a minimum, therefore, the "additional" time for this activity must be set to zero. In addition, in Missouri, SBC has admitted that these activities are handled electronically and, in fact, is actually done in "Order Analysis" such as "matching service order to word document." AT&T witness Mr. Tuner left the "initial" time for this function unchanged. (AT&T Ex. 3.0, pp. 49, 62-63).

SBC assumes an "additional" *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes for the Order Analysis function in the DOG and either an "additional" *****BEGIN CONFIDENTIAL** XXXXXX **END CONFIDENTIAL***** minutes for the CP&M-DOG Order Analysis function. The primary focus of this activity (and the attendant costs) is on analyzing the *order* – not the individual loops themselves. That said, given that there could be additional equipment impacts on the DOG from incremental loops, Mr. Turner recommended adding 0.50 minutes for the simple task of adding additional equipment requests and recommends that this time be substituted for SBC's recommendations. (AT&T Ex. 3.0, pp. 50, 63).

In its provisioning cost studies, SBC assumed significant amounts of time -- *****BEGIN CONFIDENTIAL XXXXXXXXXXXX END CONFIDENTIAL***** minutes -- to perform the Order Completion and Closeout function. Yet there is virtually

no work required to perform this function. Based on Mr. Turner's experience with similar functions in other SBC states, the time required for this task should take no longer than approximately one minute. (AT&T Ex. 3.0, pp. 47, 68, 74). Relatedly, SBC also assumed *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes for Order Completion and Closeout for additional loops. The focus of this activity, however, is on closing out the *order* – not on the individual loops themselves. Accordingly, because no incremental time is required to close out additional individual loops, Mr. Turner recommended setting the additional task time to zero. *Id.*

While the above discussion relates to Order Completion and Closeout for the Line Connection Charge, similar adjustments are required for DS1 and DS3 Loops. According to Mr. Turner's experience with similar elements in other SBC states, this task takes approximately five minutes, and provides for incremental time over that assumed for the Line Connection Charge. For the same reasons discussed above, the "additional loop" time for additional DS3 and DS1 loops should be reduced to 0.00 minutes. (AT&T Ex. 3.0, pp. 68-69).

SBC included the following tasks in its provisioning cost studies: "Retrieve next available service order from PAWS (Provisioning Analyst Work Station)." (AT&T Ex. 1.0, p. 37). Use of efficient, forward-looking OSS eliminates the need to spend time to "retrieve next available service order." In an efficient, forward looking environment, this function is either performed automatically (*i.e.*, electronically) or it is an effectively timeless function of selecting the next order on an "open orders" list. This task time should be set to 0.00 minutes. (AT&T Ex. 3.0, pp. 37, 69-70).

SBC's provisioning cost studies also significantly overstate the time it takes to perform the Log-in and Completeness Check. (AT&T Ex. 3.0, p. 44). As AT&T witness Mr. Turner testified, based on his extensive experience reviewing these costs in other states, this function takes no longer than two minutes, which is essentially a review of the *order*, which takes the majority of the time. Moreover, as Mr. Turner demonstrated, SBC's proposed time to review incremental loops on an order are also greatly overstated. Incremental loops on the same order require only a minimal amount of additional time – 0.5 minutes – to review the order for completeness. This reduced time, supported by Mr. Turner's experience in other states, was used to restate SBC's cost study. (AT&T Ex. 3.0, pp. 44, 71-72). Contrary to SBC's contention, this activity requires no more time for a DS1 or DS3 Loop than it does for a Digital or Analog 2-Wire cross-connect. As such, Mr. Turner adjusted the times for the DS1 and DS3 Loops to make them consistent with the labor times associated with the Line Connection Charge for this same function. (AT&T Ex. 3.0, pp. 71-72).

Double Recovery of Recurring Costs -- SBC's provisioning cost studies also included labor time and costs that are already recovered in recurring loop rates. Specifically, the unbundled loop rate recovers all of the costs associated with the facility that runs from the main distribution frame in SBC's central office out to the customer premises. Therefore, the costs SBC seeks to recover through nonrecurring charges for establishing cross-connections at the remote terminal or the SAI/FDI are already being recovered in the loop recurring rate. Mr. Turner recommended eliminating those costs

for functions that are already recovered in the recurring loop rate.[220] (AT&T Ex. 3.0, p. 66). Importantly, Mr. Turner did not eliminate *all* DOG time at the SAI/FDI; rather, he eliminated only those costs already being recovered in the unbundled loop recurring rate (*e.g.*, the incremental costs for DOG personnel to respond to service orders requiring the installation of a cross-connect if DOP does not exist are not recovered through the recurring rate and AT&T has not excluded them). (AT&T Ex. 3.0, p. 52).

Excessive Testing Times -- SBC's Line Connection cross connect pre-service testing times included in its provisioning cost studies are excessive. This testing, if efficiently performed, is nothing more than a continuity test to ensure that the jumpers installed on the cross-connect frame provide continuity from one port to another on the frame. SBC's own cost study acknowledges that the purpose of this testing is to ensure circuit continuity. As Mr. Turner demonstrated, this continuity test is easily performed with a loop at one end of the cross-connect and a hand-held test set sending a signal on the other end. The type of qualitative testing that SBC describes in the work activities does, in fact, occur, but it occurs for the loop, multiplexer, DCS, or dedicated transport. *This type of testing does not occur for the cross-connect*. The pre-service continuity testing times should be reduced to two minutes. The only pre-service testing costs that are appropriately included in the Line Connection Charge, then, is the two minutes it takes to conduct a simply continuity test for the cross-connect. All other testing is performed electronically. (AT&T Ex. 3.0, pp. 45-46, 53, 67, 73). SBC's time estimates

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[220] In the event the Commission does not agree that the recurring loop rate includes the cross connect costs at the SAI/FDI, Mr. Turner has revised the times necessary to perform a cross connect at the SAI/FDI. These revisions and the bases therefore are explained in AT&T Ex. 1.0, Revised Attachment SET-2.

must be rejected because they would double recover costs for the testing time of the elements that are being cross-connected. (AT&T Ex. 3.0, pp. 45-46, 67, 73).

The adjustment required to the testing times for DS1 and DS3 Loops is somewhat different. SBC assumed a longer time for the CP&M-DOG to perform circuit testing than it does for the SSC, the group primarily responsible for the testing of DS1 and DS3 Loops, which requires *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** minutes to test Initial DS1 Loops and *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes to test Initial DS3 Loops. The CP&M-DOG technician works with the SSC to perform the service testing on DS1 and DS3 Loops. Accordingly, there is no reason to assume that it takes the CP&M-DOG technician longer to complete the testing than it takes the SSC to perform the same testing. Consequently, Mr. Turner modified the CP&M-DOG labor times for the Conduct Circuit Testing function to make them consistent with the SSC labor times for the same testing. He similarly adjusted the CP&M-DOG "additional" testing times to make them consistent with the SSC labor times since the CP&M-DOG technician is on site to work with the SSC technician for testing purposes. (AT&T Ex. 3.0, pp. 67-68).

Excessive Travel Times -- SBC's travel times for its technicians to reach an unmanned central office are also flawed and excessive. SBC assumed *****BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL***** minutes for this task. Not only did SBC fail to substantiate this time estimate, but it assumed a lesser time for its technicians to reach the Serving Area Interface ("SAI")/Feeder Distribution Interface ("FDI") in its Unbundled Loop Study. There is no reason the travel time to dispatch a technician to an unmanned central office should be any greater than the time to dispatch a technician to an

SAI/FDI in the field. (AT&T Ex. 3.0, pp. 40-41). Even more importantly and more problematically, SBC assumed that when the technician is dispatched to the central office, the technician will only perform one function. However, in Mr. Turner's experience, when technicians are dispatched to a central office, the technician regularly does other work orders while at that office. In fact, in another cost proceeding, SBC indicated that the technician may be dispatched to work on "one trouble ticket or many trouble tickets" and that there may "a number of routine work activities that may be required at the time of dispatch." (AT&T Ex. 3.0, pp. 41-42). Yet SBC failed to incorporate this fact in calculating its nonrecurring costs. Relying on his experience and the experience of peers who have actually managed these types of technician functions, AT&T witness Mr. Turner restated SBC's cost study to assume that the technician performs an average of four work orders when dispatched to the unmanned central offices, or *****BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL***** minutes per dispatch to an unmanned central office. (AT&T Ex. 3.0, pp. 42, 70).

Consistent with the above correction, it is not reasonable to include travel time to the unmanned central office for multiplexing in the EEL Cost Study. Multiplexing is not ordered in a vacuum. In fact, it is rarely – if ever – ordered by itself because it is of no use unless it is connected to transport on one end and loops on the other. It makes sense, then, that the travel time to an unmanned central office will already be included in one (or both) of the loop and/or transport elements.[221] Costs for travel time should certainly not also be included in the multiplexing costs. (AT&T Ex. 3.0, pp. 43-44).

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[221] Under SBC's proposal, the FOG technician would travel to the central office three times to establish a single EEL: once for the DS1 Interoffice Dedicated Transport, once for the Central Office Multiplexing – DS1 to Voice, and once for the loops connected to

Adjustments are also necessary to SBC's assumed travel times to the SAI/FDI. SBC has failed to substantiate the *****BEGIN** CONFIDENTIAL XX **END CONFIDENTIAL***** minutes its EEL Cost Study assumes to complete the dispatch to the SAI/FDI. Tellingly, SBC used a time of *****BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL***** minutes for its technicians to reach the SAI/FDI – the exact same trip – in its Unbundled Loop Cost Study. (AT&T Ex. 3.0, p. 51). These times – for the same trip – should be the same. Perhaps even more importantly, SBC again assumed that the technician will only perform one function in the field, similar to what SBC assumed in the central office. However, based on Mr. Turner's experience, including his discussions with managers who have overseen these processes in incumbent territories, these technicians regularly perform other work orders while at the site. Mr. Turner's restatement of SBC's cost study assumes that the technician performs an average of two work orders when dispatched to the SAI/FDI; per order, he therefore recommends *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes per dispatch to the SAI/FDI. (AT&T Ex. 3.0, pp. 51-52).

As far as the appropriate adjustment for DS1 and DS3 Loops, SBC assumed the travel time for these loop types is *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** minutes instead of the *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** minutes of travel time it used to develop the Line Connection Charge. (AT&T Ex. 3.0, p. 64). SBC provided no justification for its

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the multiplexing, or three trips for one technician activity. The corrections AT&T witness Mr. Turner made to SBC's cost studies ensure that the dispatch cost is included in the loop cost only so that only one dispatch cost is assessed each time that a loop is connected to the multiplexer. This approach accurately recovers SBC's dispatch costs, whereas SBC's approach triple counts the travel cost.

assumption that it takes *****BEGIN CONFIDENTIAL** XX**END CONFIDENTIAL***** minutes longer to travel to the customer's premises in those *****BEGIN CONFIDENTIAL XXX END CONFIDENTIAL***** of the cases where it travels to the customer premise for the all-fiber provisioning of DS1 and DS3 Loops. SBC'S assertion that it might need additional time to "access customer's premises if applicable" is baseless given the fact that the terminal equipment at the customer's location is customarily located in an area that is accessible to SBC without customer facilitation. Accordingly, AT&T witness Turner also adjusted this travel time to *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** minutes. (AT&T Ex. 3.0, pp. 64-65).

It is also necessary to adjust the number of activities that will occur at these locations. In the *****BEGIN CONFIDENTIAL** XXXX **END** CONFIDENTIAL******* percent of the cases where the DOG technician provisions the DS1 Loop from the Remote Terminal, Mr. Turner recommended, consistent with the Line Connection Charge discussion above, that two activities occur during the same visit. In the remaining *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** percent of the cases where the DOG technician provisions the DS1 Loop from the customer's premises, Mr. Turner assumed that the only activity performed is for the DS1 Loop provisioning. (AT&T Ex. 3.0, p. 65). The weighted average of these two probabilities leads to a travel time of *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** minutes. Finally, for DS3 Loop provisioning, the work will always be done at the customer's premises, and the only activity that will be performed at the customer's premises is the provisioning of the DS3 Loop. In this instance, Mr. Turner recommended including the

entire ***BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL*** minutes of travel time. (AT&T Ex. 3.0, pp. 65-66).

Miscellaneous -- Mr. Turner also set the times for the Circuit Order/Administration function for the disconnect activity equal to those used for connection of the elements. There is no basis for the times being any different or for the disconnect time to be longer. In addition, Mr. Turner revised the time for the Cross-Connect function for the disconnect activity to set it equal to that used for connection of the elements. Once again, there is no basis for these times to be different, or for one to be longer. (AT&T Ex. 3.0, pp. 47, 74-75).

According to SBC's EEL Cost Study, the Corrective Action SOAC/SORD function only requires ***BEGIN CONFIDENTIAL XX END CONFIDENTIAL*** minute for the installation-additional process. However, SBC assumed ***BEGIN CONFIDENTIAL XXX END CONFIDENTIAL*** minutes for that same process in the disconnect function. These processes are identical and, therefore, require the same amount of time. Thus, AT&T witness Turner recommended that these time estimates be set at ***BEGIN CONFIDENTIAL XX END CONFIDENTIAL*** minute. (AT&T Ex. 3.0, pp. 40, 75-76).

Adjustment for EEL Activities – According to the SBC's EEL cost study, the HICAP Provisioning Center ("HPC") function is responsible for putting together the end-to-end circuit assignments in the Trunks Integrated Record Keeping System ("TIRKS") database. The HPC function and corresponding cost appears in several transport-related elements, thereby overstating the cost for this function. As AT&T witness Mr. Turner testified, the incremental time for this task is the time to assign the transport and loop side

assignments to the multiplexer, or approximately three minutes. In addition, the time it takes to assign the first DS1 increment of capacity with the multiplexer in TIRKS does not vary from the time it takes to assign an additional DS1 increment of capacity with the multiplexer. (AT&T Ex. 3.0, pp. 39-40). Accordingly, AT&T witness Mr. Turner modified the additional time for the multiplexer TIRKS assignment to three minutes and made similar corrections to the Circuit Design Process.

SBC assumed it takes the SSC *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes to conduct DS1 CKL testing. As Mr. Turner demonstrated, however, this testing that is not done sequentially. The technician is able to set up the test and then perform other activities. The actual activity time for this task should be approximately five minutes. (AT&T Ex. 3.0, p. 48).

3. Occurrence probabilities

a. DIP and DOP Rates

Ankum/Morrison testified that the dedicated inside plant ("DIP") and dedicated outside plant ("DOP") rates assumed by SBC are not forward-looking but -- at best -- based on the rates actually experienced in SBC's network. They do not reflect, however, the DIP and DOP rates that would be experienced in a forward-looking, efficient network consistent with TELRIC principles.

First, in a TELRIC network, there would be a higher percentage of Integrated Digital Loop Carrier ("IDLC") systems (a point with which even SBC agrees), which means that there should be a near 100% DIP rate for loops on IDLC. With IDLC, the loop facilities bypass the Main Distributing Frame ("MDF") and go directly into the switch at the DS1 level without being connected or disconnected on the basis of a CLEC-requested service connect or service disconnect. This means that service can be activated

electronically without the need to physically establish cross-connects on the MDF or run jumper cables. As such, DIP rates with IDLC will be virtually 100%. (Joint CLEC Ex. 1.0, p. 99).

Second, at any point in time, most of the facilities in SBC's network are working facilities that serve customers. They all represent DIP and DOP. Yet, SBC's NRC studies fail to reflect this. (Joint CLEC Ex. 1.0, p. 102).

Third, the DIP and DOP rates used by SBC in its studies are generally unsupported. To the extent that SBC's DOP rates are supported at all, the documentation only tells the Commission how many spare facilities SBC has that are not cross-connected, as if somehow that would establish the DOP rates to be used in a TELRIC study. As Ankum/Morrison explained, it is not. SBC's method fails to adjust for all of the inefficiently-deployed and stranded pairs in SBC's network. Moreover, SBC should have asked and answered a fundamentally different question. The object of the exercise of determining relevant DOP rates is to predict *how often it is* ***unnecessary*** to dispatch a technician when a CLEC orders a loop (either stand-alone or as part of UNE-P) because the facilities are already cross-connected (*i.e.*, there is "dedicated outside plant," or DOP). This question requires that one postulate an efficient network that has no more spare facilities than what is needed to serve total demand. It is within this context that one should ask how often it is unnecessary to dispatch a technician. (Joint CLEC Ex. 1.0, pp. 101-02).

Ankum/Morrison recommended that the Commission reject SBC's proposed DIP and DOP rates as too low. As they pointed out, there is no need to disconnect facilities when services are discontinued. As such, facilities will remain connected until new

service is activated, either for SBC itself, or for CLECs, thus obviating the need to send technicians into the field to reestablish cross-connects and perform other labor-intensive tasks. (The issue of co-mingling of recurring and non-recurring costs is discussed elsewhere in this brief.)

Finally, Ankum/Morrison noted that the FCC's Wireline Competition Bureau weighed the same arguments on DIP/DOP rates in paragraph 587 of the *Virginia Arbitration Order* and arrived at a well-reasoned conclusion:

> We find that AT&T/WorldCom's assumption of 100 percent DIP and DOP is reasonable. Not only is this a surer method of avoiding double recovery, but it also seems to conform to the retail practice of recovering these costs through recurring charges. In addition, it furthers the policy objective of minimizing barriers to entry. Verizon's critique of AT&T/WorldCom's assumption of 100 percent DIP and DOP misconstrues AT&T/WorldCom's model. As AT&T/WorldCom explained, the assumption of 100 percent DIP and DOP is a modeling convention that is designed to reflect that these costs are recovered in the recurring cost study, not an assumption that any real network would be built this way. This assumption does not prevent Verizon from recovering any costs because AT&T/WorldCom provide for recovery of these costs through ACFs, just like all other loop maintenance expenses.

Ankum/Morrison posited that all of the same findings would apply in the current proceeding. Consequently, Ankum/Morrison recommend that the Commission adopt the 100% DIP and DOP rate adopted by the FCC's Wireline Competition Bureau in the *Virginia Arbitration Order.* (Joint CLEC Ex. 1.1, p. 35).

AT&T witness Mr. Turner also testified that SBC's DIP and DOP assumptions are inaccurate. As he explained, "DIP" refers to the situation where the wiring "inside" at the central office is already in place between the loop and the switch port. When the wiring is in place, SBC is able to receive and provision a service order electronically end-to-end without having to send a technician out to a frame to perform a cross-connect. "DOP" is a similar situation where the wiring in the outside plant environment for the

unbundled loop is already in place. When DOP exists (in conjunction with DIP), SBC is able to receive and provision a service order electronically end-to-end without dispatching a technician into the outside plant environment. (AT&T Ex. 3.0, p. 58).

The DIP and DOP processes allow for rapid activation or deactivation of services at end user locations without the need for physical disruption of the facility because physical connections remain in place and only a command from the OSS to the network element is necessary to activate or deactivate the service. If a CLEC deactivates an unbundled element using only software commands, the nonrecurring disconnection costs are almost non-existent. SBC's current disconnect policy, like all efficient ILECs, adheres to this practice of DIP and DOP in order to provide immediate service activation to the next customer at that premise. (AT&T Ex. 3.0, p. 58).

SBC failed to develop its DIP and DOP percentages appropriately on a forward-looking basis. Most of the orders SBC receives for unbundled loops (where DOP is vital) or for unbundled loop-port combinations (where DIP and DOP are vital) are for migrations of existing SBC customers to the CLECs' networks. In this scenario, it is undisputed that dedicated outside and inside wiring exist because the existing SBC customer's service is already wired and working. (AT&T Ex. 3.0, pp. 58-59). According to Mr. Turner's experience, these "already working" orders constitute approximately 90 percent (or more) of the orders CLECs place with SBC. In other words, the minimum DIP and DOP percentage appropriate to use in SBC's Unbundled Loop Cost Study is 90 percent even assuming nothing else is pre-wired in SBC's network, which even SBC does not contend. That is, SBC acknowledged that for new (*i.e.*, not already working) loop orders, some of the facilities are already pre-wired. (AT&T Ex. 3.0, p. 59).

If 90 percent of the orders are for loops that are "working loops", the remaining 10 percent of the loop orders are for new service. According to SBC's own data, the DIP percentage applicable to that remaining 10 percent is*****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** percent, thereby yielding an overall DIP percentage of *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** percent on a weighted-average basis (*i.e.*, using a weighted average assuming 100% of working loops are DIPd and *****BEGIN CONFIDENTIAL XXX END CONFIDENTIAL***** of the remaining 10 percent are DIPd). (SBC Ex. 6.0, p. 10; AT&T Ex. 3.0, pp. 59-60). SBC's own data also indicates that the DOP percentage applicable to the remaining 10 percent of the loop orders is *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL*****percent, thereby yielding a DOP percentage of *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** percent on a weighted-average basis (*i.e.*, using a weighted average assuming 100% of working loops are DOPd and *****BEGIN CONFIDENTIAL XXX END CONFIDENTIAL***** of the remaining 10 percent are DOPd). *Id.*

Even accepting SBC's data, the appropriate DIP/DOP percentage to be used in the cost studies are somewhere between 90 and 100 percent. AT&T's proposed values of *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** percent for DIP and *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** percent for DOP are reasonable and consistent with the DIP and DOP levels adopted by other commissions. See, *e.g.*, Order of the Public Service Commission of Wisconsin, March 22, 2002, *Investigation into Ameritech Wisconsin's Unbundled Network Elements*, Docket No. 6720-TI-161, p. 18 (adopting CLECs' recommendation, concluding "[i]t is

reasonable to use an assumption of 95 percent Dedicated Inside Plant and Dedicated Outside Plant (DIP and DOP) with no field work necessary where DIP and DOP is applicable in developing forward-looking NRCs."). (AT&T Ex. 3.0, pp. 60-61).

As a point of clarification, Mr. Turner's recommendations described above are for simple loops and combinations. For complex loops and complex combinations, Mr. Turner appropriately assumed that 50 percent of the orders are for migrations of already working loops, thereby reducing the weighted average DIP and DOP percentages. Specifically, he recommended DIP/DOP percentages, assuming 50 percent of the orders are migrations, are *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** percent for DIP and *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** percent for DOP. (AT&T Ex. 3.0, p. 62).

Mr. Turner also recommended revising the Work Group Occurrence Factor for the Digital Operations Group ("DOG") from the *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** percent SBC assumed to 29.74 percent. SBC inappropriately assumed that field work must be performed on all 4-Wire Analog Loops – that is, that no 4-Wire Analog Loops are pre-wired. That is simply not true. 4-Wire Analog Loops can be (and are) migrated as existing working service, just as many POTS Loops are. For those working loops, the percentage of already wired Dedicated Outside Plant, or DOP, is 100%. For 4-Wire Analog Loops that are not already in service, Mr. Turner recommended a revised DOP percentage of 50 percentage – that is, for all new loops, 50% will be pre-wired in the field and 50% will require a dispatch. For the remaining loops, Mr. Turner used information provided by SBC to develop a revised DOP percentage of 70.26 percent. (AT&T Ex. 3.0, p. 50).

SBC incorrectly assumed that no DS1 or DS3 Loops ever migrate from working service with SBC to the CLEC. This is completely unreasonable and, in fact, SBC witness Ms. Gomez McKeon's surrebuttal testimony refutes this assumption. (SBC Ex. 9.2, p. 5). Specifically, Ms. Gomez McKeon assumed a dispatch percentage of *****BEGIN CONFIDENTIAL XXX END CONFIDENTIAL***** for DS1s (or migration of *****BEGIN CONFIDENTIAL XXXEND CONFIDENTIAL***)** for DS1s and a dispatch percentage of ***** BEGIN CONFIDENTIAL XXX END CONFIDENTIAL***** (or migration of ***** BEGIN CONFIDENTIAL XXX END CONFIDENTIAL***)** for DS3s. (*Id.)* Mr. Turner reasonably assumed that 50 percent of DS1 and DS3 Loop orders will be loop migrations. Even SBC agrees that this must be adjusted. (AT&T Ex. 3.0, p. 75).

b. Adjustments Required to Occurrence Probabilities For All Provisioning Studies

AT&T witness Mr. Turner also made a number of recommendations to adjust the occurrence probabilities used in SBC's studies.

As discussed above with respect to activity times, SBC's provisioning nonrecurring cost studies are significantly flawed because they assume that in *****BEGIN CONFIDENTIAL XXXXXXXXXX END CONFIDENTIAL***** of the time – the loop will be cross connected at both an MDF and an IDF. Attachment A, an excerpt (Tab 6.3) from SBC's Unbundled Loop Cost Study, indicates that for each unbundled loop a CLEC orders, it is cross-connected to the MDF *****BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL***** of the time and is cross-connected to the IDF *****BEGIN CONFIDENTIAL XXX END CONFIDENTIAL***** of the time. *See* Attachment A, line 58, column G and line 59, column G. The fact that

SBC's provisioning studies significantly overstate these probabilities is overwhelmingly demonstrated by the testimony of SBC's network provisioning witness, Ms. Vivian Gomez-McKeon, who testified that, as far as she was aware, SBC's cost study *did not assume that every standalone loop is cross connected at both the IDF and MDF*. (Tr. 1481). Rather, Ms. Gomez-McKeon testified, it was her understanding that *****BEGIN CONFIDENTIAL XXXXXXXXXXXX END CONFIDENTIAL***** of loops were assumed to be cross connected at both the IDF and the MDF. (Tr. 1481). Thus, SBC's cost study deviates from the expertise and understanding of its own provisioning witness.

As AT&T witness Mr. Turner testified, IDFs are not appropriate in TELRIC-compliant, forward-looking, efficient central offices. IDFs, employed in extremely old central offices and a holdover from the days when analog equipment sometimes required the use of multiple floors, introduce back-to-back manual cross-connects (in addition to the required MDF cross-connects) that are unnecessary and introduce additional points of failure in the circuit as well as additional costs that serve no effective function or purpose. (AT&T Ex. 3.0, pp. 35-36, 57).

To make matters worse, SBC's provisioning cost studies assume *****BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL***** percent of SBC's offices have both an MDF and an IDF. This assumption is directly at odds with SBC's own internal information. Even assuming the use of an IDF was at all appropriate in a forward looking environment (which it is not), only *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** percent of SBC's central offices contain both an MDF and an IDF. (See AT&T Cross Ex. 62). Thus, to the extent SBC's cost study assumed that a cross connect occurs at an IDF, that is physically impossible in *****BEGIN**

CONFIDENTIAL XXXX END CONFIDENTIAL* ** of all instances. Consequently, SBC's cost study significantly overstates the cross connect costs, assuming it is even appropriate to include costs associated with the presence of an IDF at all (which Mr. Turner contended it is not). Even if the Commission does not accept Mr. Turner's TELRIC-based recommendation to assume 0.00 percent IDF presence in SBC's central offices, the percentage of IDF should not exceed ***BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL*** ** percent. (AT&T Ex. 3.0, pp. 36-37).

With regard to the Work Group Occurrence Factor for the Loop Assignment Center ("LAC"), SBC referenced the wrong flow-through percentage. Specifically, while SBC's study assumes Work Group Occurrence Factor of ***BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL*** ** percent, information SBC provided in discovery indicates that the appropriate fallout percentage for this process is ***BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL*** ** percent. (AT&T Ex. 3.0, pp. 37-38, 70).

c. Adjustments to EELs Occurrence Probabilities

Double Count of Cross Connects -- SBC also double counted the cross-connects to which interoffice dedicated transport is connected in performing an EEL combination. For example, when a CLEC purchases DS1 Interoffice Dedicated Transport, SBC assumed that in all cases the Field Operations Group ("FOG") technician must perform cross-connects on both ends of the DS1 Interoffice Dedicated Transport circuit. SBC's DS1 Loop Cost Study, however, already includes the costs for the FOG to cross-connect the DS1 loop to DS1 interoffice transport with the central office. By including these same FOG cross connect costs in its nonrecurring charges for a DS1 Interoffice

Dedicated Transport facility, SBC completely duplicates or double counts the cross-connect cost already included in the DS1 Loop. (AT&T Ex. 3.0, pp. 42-43).

As an additional example, the DS1 Interoffice Dedicated Transport can also be connected to the DS1 side of Central Office Multiplexing – DS1 to Voice. According to SBC's EEL cost study, the Central Office Multiplexing – DS1 to Voice already includes the costs of the work done by the FOG to cross connect the DS1 transport to the DS1 side of the multiplexer. As SBC witness Ms. Gomez McKeon testified, there is only one cross connect necessary to cross connect the transport to the DSX1 cross connect panel when the transport circuit is dechannelized via a multiplexer. (Tr. 1468-1470; AT&T Cross Ex. 46). Simply put, SBC included the same cross connect costs in its proposed charges for elements that are routinely cross connected with one another. When those elements are cross connected, only one cross connect occurs – not two – so the costs must be eliminated from the nonrecurring charges for one of the two elements being cross connected. As AT&T witness Mr. Turner testified, the only appropriate, TELRIC-compliant approach is to eliminate the cross-connects costs from the Interoffice Dedicated Transport elements to avoid double counting the FOG costs when elements are cross-connected to one another. (AT&T Ex. 3.0, p. 43).

Inappropriate Multiplexing Costs -- SBC incorrectly assumed that the SSC will test the multiplexing separately from its testing of the interoffice dedicated transport. The test does not operate in this way, nor would it make sense for it to do so. The testing is performed on the entire circuit, of which the multiplexing is a part. In other words, multiplexing testing is not a separate task. Rather, the testing is done via the transport element that is connected to the multiplexing. In fact, the testing expense is already

included in the transport element and should not also be reflected in the multiplexing element. To do so would result in double counting. To effect this change, AT&T witness Turner recommended setting the Work Group Occurrence Factor to 0.00 percent. (AT&T Ex. 3.0, p. 48).

SBC also incorrectly included SSC Administrative Closeout time specific to multiplexing installation. As described above, because multiplexing is almost always part of a larger order that includes the transport element to which the multiplexing is connected, the Work Group Occurrence Factor must be set to 0.00 percent to eliminate this double count of work activity for multiplexing. (AT&T Ex. 3.0, pp. 48-49). Similarly, SBC attributed activity time for SSC Screen Order time to multiplexing installation. Consistent with the above, the Work Group Occurrence Factor must be set to 0.00 percent to eliminate this double count of work activity for multiplexing. (AT&T Ex. 3.0, p. 49).

4. Fallout rates

The issue of fallout rates was discussed in detail in Section IV. B.5 of this brief with respect to SBC's Service Order nonrecurring cost studies. That discussion is equally applicable to SBC's service Provisioning NRC Studies. Accordingly, Joint CLECs refer the ALJs and the Commission to Section IV. B.5.

5. Disaggregation of Connect and Disconnect Charges

SBC combined the costs of connect activities with the cost of disconnect activities (assuming a 2 year location life). Ankum/Morrison explained that this is incorrect in that it inappropriately raises the upfront costs for CLECs and ignores that customers may remain with the CLEC for many years, if not decades, so that SBC never incurs the disconnect costs for which SBC seeks to charge CLECs. SBC should charge for

disconnects only when they occur (as their costs are caused), rather than up front, by rolling disconnect charges into a single service connection charge when service is initiated. In general, there should be separate connect and disconnect charges. (Joint CLEC Ex. 1.0, p. 91).

Further, SBC's studies erroneously assume that *service* discontinuation requires a *facility* disconnect. This is untrue, inefficient and inconsistent with how SBC actually runs its network. Ankum/Morrison noted that there is no need for a technician to be dispatched at great cost for a service disconnect that can be postponed and performed when the technician needs to travel to that particular location for a service connection or other purpose. Furthermore, in many instances, there is no need to disconnect facilities at all, and it is in fact more desirable to leave facilities connected. (Joint CLEC Ex. 1.0, pp. 92-93).

As for the costs of connecting facilities, these costs should not be recouped 100% from the CLECs. To the extent that it is desirable to leave certain facilities connected even after a CLEC requests a service disconnect, other CLECs and SBC itself may benefit from the "connect" activities. For those instances, the costs of connecting facilities should be considered recurring costs and not non-recurring costs. (The issue of co-mingling recurring and non-recurring costs was discussed previously.)

Lastly, SBC's NRC cost studies ignore the fact that with IDLC and GR303 facilities, physical disconnect activities are unnecessary, and thus all such costs should be excluded from SBC's cost studies. (Joint CLEC Ex. 1.0, p. 93-94).

As noted above, treatment of connect and disconnect activities in the manner recommended by Ankum/Morrison is consistent with Staff's proposed treatment and with

the concept of cost causation, as well as with the treatment of these activities as recommended on a going-forward basis by this Commission its comment on the FCC's TELRIC NPRM.[222] For all of these reasons, the Commission should order SBC to assess connect and disconnect charges separately.

6. Other (including rate design issues)

See Joint CLEC's discussion of connect and disconnect activities in Sections IV.B.6 and IV.C.5 above.

AT&T witness Mr. Turner made a number of additional recommendations concerning the rate design for SBC's Loops and EELs Provisioning studies.

a. General Rate Design Issues

SBC's provision cost studies raises several critical, overarching rate design issues. For example, while EELs are a combination of unbundled loops, interoffice dedicated transport and, in some cases, multiplexing and entrance facilities, SBC has assessed different costs (essentially defining new UNEs) depending upon whether the elements are to be used on a stand alone basis or as part of an EEL combination, thereby largely ignoring the UNE definitions and rates that exist in its tariffs. (AT&T Ex. 3.0, pp. 24-25). For example, SBC's wholesale tariff has two sections addressing interoffice dedicated transport. Section 12 – Unbundled Interoffice Transport and Section 20 – Enhanced Extended Link, defines the UNE as "Unbundled Interoffice Transport network elements provide transmission paths (also referred to as "facility") to connect central office buildings such as: two Company central offices via existing facilities; or a

[222] ICC TELRIC NPRM Comments, p. 82.

requesting telecommunications carrier's designated central office and the Company central office via existing facilities."[223]

Section 20 of SBC's proposed EEL tariff defines Unbundled Interoffice Transport as dedicated transport facilities between two Company central offices with one end terminating at collocation. The only purported difference is that the first represents the general interoffice transport element while the second represents SBC's proposed interoffice transport for use in EEL combinations. There is no question that these two elements are architecturally and functionally identical. The nonrecurring cost for these two elements should be the same. (AT&T Ex. 3.0, pp. 24-25). Yet SBC proposes one nonrecurring price for interoffice dedicated transport when that element is used as part of an EEL combination and a different one when it is used generally. While DS3 Interoffice Dedicated Transport in Section 12 of the tariff has a nonrecurring cost of $1356.63 (AT&T Cross Ex. 40), SBC's proposed nonrecurring cost for the exact same element in the EELs Section 20 of the tariff is $342.98. While certainly a step in the right direction (albeit still overstated), the nonrecurring cost should not differ depending on the nature of its application. (AT&T Ex. 3.0, pp. 25-26).

As a result, once the Commission establishes a nonrecurring cost in this proceeding (for Interoffice Dedicated Transport or, for that matter, any network element), it should expressly direct that this cost is the general cost for the element and not its EEL-specific cost or any application-specific application. Second, the Commission should be wary of allowing SBC to establishing new service-specific UNEs to delay CLECs' deployment of element combinations that are routinely combined by SBC but that may

[223] Illinois Commerce Commission Tariff No. 20, Part 19, Section 12, 1st Revised Sheet No. 3, Effective April 18, 1998.

not exist as "services" that SBC currently packages and prices. In other words, a CLEC may want to order a combination of elements that SBC routinely combines but that is not currently identified and priced in the tariff, even if SBC has already tariffed and priced all the elements comprising the combination. If the CLEC wants to purchase a combination of network elements (including interoffice dedicated transport) to provide service that SBC has not tariffed, the CLEC should not be required to pay the exorbitant nonrecurring charges SBC currently tariffs for transport when, in fact, the nonrecurring charge is much less, as demonstrated by SBC's currently proposed nonrecurring charges for dedicated transport when used as part of an EEL combination. SBC should not be able to impede the CLECs' progress by requiring the CLEC to wait for SBC to establish a service-specific UNE and price via a BFR process, thereby regulating the introduction and pace of competition in Illinois. (AT&T Ex. 3.0, pp. 25-27).

Consistent with the above, AT&T witness Mr. Turner recommended that SBC's EEL New Combinations Cost Study be modified to make it consistent with the 2-Wire Analog Loop Connection, 2-Wire Digital Loop Connection costs and 4-Wire DS1 Digital Loop Connection costs resulting from SBC's Unbundled Loops Nonrecurring Cost Study (excluding design costs from both studies, as discussed above). The net effect is that the 2-Wire Analog Loop Connection charge, the 2-Wire Digital Loop Connection charge and the 4-Wire DS1 Digital Loop Connection charge resulting from the Unbundled Loops Nonrecurring Cost Study will apply to those loop types, whether purchased on their own or as a part of an EEL. (AT&T Ex. 3.0, p. 31).

b. <u>EEL Rate Design Issues</u>

As discussed above with regard to general rate design issues regarding SBC's definition of new and unnecessarily restrictive UNE definitions, SBC proposed new EEL

interoffice transport elements known as "Interoffice Dedicated Transport Collocated" and "Interoffice Dedicated Transport Non-Collocated", depending on whether the CLEC requires the use of an Entrance Facility. If collocated, SBC assumes the CLEC is able to connect to the CLEC switch without the use of an Entrance Facility; if not collocated, SBC assumes the CLEC requires an Entrance Facility to complete the path to the CLEC's wire center. (AT&T Ex. 3.0, p. 32). SBC's newly defined rate elements are problematic, however, because the Interoffice Dedicated Transport and Entrance Facilities rate elements already exist and have been tariffed by SBC. The CLEC already has access to the elements it needs; therefore, there is no need for SBC to create new rate elements. (AT&T Ex. 3.0, p. 32).

Moreover, the combinations of interoffice transport and entrance facilities SBC has priced in pre-combined configurations fail to encompass all of the arrangements a CLEC would want in an efficient network configuration. For example, with the DS1 Dedicated Transport Non-Collocated rate element, SBC assumes that the CLEC purchases a DS1 Interoffice Dedicated Transport and a DS1 Entrance Facility. (AT&T Ex. 3.0, pp. 32-33). As AT&T witness Mr. Turner testified, this assumption is both nonsensical and thoroughly inefficient. The CLEC may want to bring DS1 Interoffice Dedicated Transport circuits from various SBC wire centers within a metropolitan area – perhaps 24 or 25 DS1 circuits -- to a single CLEC wire center. Rather than purchase an equivalent number of DS1 Entrance Facilities, as SBC's cost study assumes and requires, the CLEC may well want to purchase DS3 to DS1 Multiplexing to aggregate circuits from multiple SBC wire centers and purchase only one DS3 Entrance Facility as opposed to 24 or 25 DS1 entrance facilities (as SBC's proposal assumes). While SBC's

Interoffice Dedicated Transport tariff (Section 12) accommodates this scenario, the transport element definitions included in SBC's EEL cost study does not.

To remedy these unnecessary and restrictive definitions, Mr. Turner eliminated SBC's "Interoffice Dedicated Transport Collocated" and "Interoffice Dedicated Transport Non-Collocated" rate element designations, replaced them with the rate element definitions that already exist in SBC's tariff, and proposed costs for the following elements: (1) DS1 Interoffice Dedicated Transport; (2) DS3 Interoffice Dedicated Transport; (3) DS1 Entrance Facility; and (4) DS3 Entrance Facility. With these four elements (plus multiplexing, which is already provided for in SBC's tariff), a CLEC can efficiently construct any combination of Interoffice Dedicated Transport and Entrance Facilities that will allow the CLEC to transport EELs back to the CLEC's wire center. (AT&T Ex. 3.0, pp. 33-34).

At least two SBC-created EEL elements must be removed altogether. SBC's "4-Wire DS1 Digital Loop to DS1 Interoffice Dedicated Transport Collocated" rate element is, in reality, nothing more than the combination of DS1 Interoffice Dedicated Transport and a DS1 Unbundled Loop. This rate element definition unnecessarily limits the CLEC to only one method (*i.e.*, DS1 Interoffice Dedicated Transport)of delivering the DS1 Unbundled Loop back to the wire center serving the CLEC's switch. The "4-Wire DS1 Digital Loop to DS1 Dedicated Transport Non-Collocated" rate element, which is nothing more than a combination of a DS1 Entrance Facility, DS1 Interoffice Dedicated Transport, and a DS1 Unbundled Loop, suffers the same flaws. Again, this rate element definition unnecessary limits the CLEC to one method of delivering the DS1 Loop through interoffice transport (*i.e.*, DS1 Interoffice Dedicated Transport) and limits its

Entrance Facilities options (*i.e.*, DS1 entrance facilities). These newly created EEL "services" are unnecessary, unnecessarily restrictive and inefficient and should be eliminated. (AT&T Ex. 3.0, pp. 34-35).

In addition, SBC failed to develop Entrance Facility costs on a stand-alone basis. Nonetheless, the information necessary to produce an efficient, forward-looking Entrance Facility Cost Study is available using the information provided in SBC's cost studies. AT&T witness Mr. Turner generated these costs and recommended that the same costs be used for stand alone entrance facilities and for entrance facilities used in conjunction with an EEL. (AT&T Ex. 3.0, p. 35).

SBC's cost study for Clear Channel Capability makes clear that this particular nonrecurring charge only applies for a "rearrangement on an existing DS1." CLECs routinely order Clear Channel Capability at the time the DS1 circuit is provisioned and, at the initial provisioning of a DS1, it does not cost anything extra. Due to past confusion regarding the application of this element, the Commission's Order must make clear that the Clear Channel Capability nonrecurring charge only applies to rearrangements on existing DS1 circuits and does not apply when Clear Channel Capability is provided at the time the DS1 circuit is initially provisioned. (AT&T Ex. 3.0, p. 53).

c. <u>Unbundled Loop Cost Study Rate Design Issues</u>

A "big picture" issue regarding SBC's Unbundled Loops Cost Study that must be remedied before it can comply with TELRIC standards is that SBC's Line Connection Charge is a weighted average of the cost to provision a Stand-Alone Line Connection and the cost to provision a UNE-P New Line Connection. According to SBC witness Mr. Silver, SBC calculates this weighted average because the same work groups are involved in provisioning stand alone loops and new UNE-P loops. As AT&T witness Mr. Turner

explained, however, SBC's proposal violates the fundamental principle of cost causation because the CLEC does not order a work group; rather, it orders the provisioning of a network element. Mr. Silver's second reason – that SBC's billing provisioning systems are not set up to differentiate between the two -- is equally invalid. The costs for these two distinct scenarios are significantly different -- even in SBC's cost presentation -- and SBC should be required to differentiate the line connection charges for a stand alone UNE loop and a loop used as part of a new UNE-P combination. (AT&T Ex. 3.0, pp. 54-55).

Specifically, SBC proposed that a Line Connection Charge for a Stand Alone UNE POTS Loop of *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** and a Line Connection Charge – UNE-P New Combo POTS Loop of *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL*****. (AT&T Ex. 3.0, p. 55). Even SBC agrees, then, that the nonrecurring cost for the Stand Alone loop is *****BEGIN CONFIDENTIAL** XXXX *****END CONFIDENTIAL** percent higher than that of the UNE-P New Combo Loop. Because the two costs are so disparate, it is unreasonable and nonsensical to combine or average them. Instead, as AT&T witness Mr. Turner recommended, SBC should create separate rate elements for the Line Connection Charge -- Stand Alone UNE POTS Loop Line Connection Charge -- UNE-P New Combo POTS Loop so that the CLEC bears that cost – and only that cost – that it actually causes in SBC's network, depending on the type of loop ordered. (AT&T Ex. 3.0, pp. 55-56).

AT&T witness Mr. Turner "undid" SBC's combining of these costs to produce one line connection charge when ordering a stand alone loop and a different line

connection charge when it orders a new UNE-P combination. Mr. Turner's recommendation is more in line with cost causation principles and, in turn, TELRIC principles and should be adopted. (AT&T Ex. 3.0, p. 56).

In addition, SBC's Unbundled Loop Cost Study failed to reflect the cost differences between initial and additional loops. Specifically, SBC combined the initial loop costs and the additional loop costs into a single element using a weighting of the two. (AT&T Ex. 3.0, pp. 56-57). This completely severed any nexus between the number of loops the CLEC requests on a single order and the costs to provision those loops. Moreover, in performing this weighted average, SBC unreasonably assumed an *average* number of only *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** loops per order. (AT&T Ex. 3.2, pp. 8-9). The larger the number of "additional" loops on a CLEC order, then, the more the CLEC will be significantly disadvantaged by SBC's rate structure. Given the significant disparity in the costs SBC proposes for initial loops -- *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** -- and additional loops -- *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL*****, if the CLEC customarily orders more than *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** loops per order, it will systematically and very significantly overpay loop connection costs.

Moreover, as Mr. Turner testified, SBC readily has the capability to bill separately for initial and additional loops on a single order. (AT&T Ex. 3.2, p. 9). The only appropriate approach from a TELRIC and cost causation standpoint is to separate the loop types into initial loop provisioning costs and additional loop provisioning costs.

Finally, AT&T witness Turner recommended that SBC's provisioning studies be modified to use the inflation factor and labor rates consistent with the testimony of AT&T witness Mr. Robert Flappan. (AT&T Ex. 3.0, p. 53). Mr. Turner's recommended corrections are contained in (Revised) Attachment SET-2P. His proposed nonrecurring charges resulting from his restatement of the Unbundled Loops Cost Study are contained in Attachment SET-3. His proposed nonrecurring charges resulting from his modifications to the Enhanced Extended Loop (EEL) New Combinations Cost Study are contained in Attachment SET-5P (Revised).

D. Switch Port And Features Nonrecurring Cost Studies

1. Identification of tasks

See the discussion of validation and verification activities, log-in, sort, distribute and administrative close out times in Section IV. B.1 above.

2. Activity times

As discussed above with respect to others of SBC's NRC studies, those studies include activities that are not required or should not be required if SBC's studies assumed primarily automated processes and efficient and forward-looking technology. These assumptions would result in more forward-looking, reasonable fall out rates and, in turn, fewer required manual intensive and expensive activities. If the need for activities is eliminated, debates about activity times become superfluous.

AT&T witness Mr. Turner made a number of specific recommendations with respect to the activity times in SBC's switch port and features nonrecurring cost studies. He explained that significant concern with SBC's proposed costs for all manual provisioning of complex Centrex Port Features in its Unbundled Centrex System Features Cost Study is that SBC's provisioning times for the Lucent, Nortel, and Siemens switches

vary significantly. As Mr. Turner testified, this defies reality. (AT&T Ex. 3.0, pp. 14-15). There is no significant time difference in provisioning Centrex feature activations or common blocks between, for example, the Lucent 5ESS switch and the Nortel DMS switch. If the significant disparity SBC portrays in its cost study actually existed, carriers would tend not to use the switches with greater provisioning times. These switch providers are direct and aggressive competitors of one another and it is simply unrealistic to assume that one company will maintain a provisioning advantage over another on a long-term basis. *(Id.)* Nonetheless, SBC assumed that the Nortel DMS switch require over seven times as much time to provision a Centrex Common Block Establishment as does the Lucent 5ESS Switch.

Quite simply, Nortel would not – nor could it -- permit its switches to take seven times longer on a long-term basis if its switches are to remain competitive. In the long run TELRIC environment, all switches would be provisioned in the most efficient manner. AT&T witness Mr. Turner remedied this error for the three switch types by using the shorter provisioning time of either the Lucent switch or Nortel switch. Consistent with efficient and forward looking cost principles. Mr. Turner made these same switch activity time adjustments to SBC's Combination Unbundled Local Switching – Ports Cost Study (AT&T Ex. 3.0, p. 21) and SBC's Unbundled Custom Routing Cost Study. (AT&T Ex. 3.0, p. 23). Mr. Turner's specific modifications are reflected in Attachment SET-2P (Revised) and his proposed nonrecurring charges for the Unbundled Centrex System Features Cost Study are contained in Attachment SET-4P (Revised).

The Indiana Commission agreed with this approach:

> The Commission finds that competition among the three switch vendors over the extensive life of the products in question would not allow for activity times in the aggregate to reflect such a disparity over time. Therefore, we find that the activity times for Nortel and Siemens switches should be identical to that of Lucent switches. (Indiana Order, p. 116).

SBC's Combination Unbundled Local Switching–Ports Cost Study also unreasonably assumed that the costs to provision an initial Direct Inward Dial ("DID") Port and an additional DID Port are the same. As AT&T witness Mr. Turner acknowledged, there are some unbundled switch port provisioning arrangements where the cost for an initial and an additional port will be same because the costs are virtually identical. DID ports is not one of those cases. With DID Port provisioning, the customer orders multiple DID ports in a group so that the customer can receive calls to a single number or group of numbers (known as a DID number block) across any of the ports in the DID trunk group. (AT&T Ex. 3.0, pp. 16-17).

Installation of the initial port requires a significant amount of set-up work to first prepare the route index for record keeping for the trunk group and then load the trunk group information into the Mechanized Translations System. Based on Mr. Turner's experience with preparing the trunk group for provisioning, these tasks take approximately 30 minutes. SBC agrees with this time estimate. Once the planning for the trunk group is complete, however, it takes very little time to activate additional ports/members in the trunk group. In fact, the information on each trunk is very similar and, customarily, only one piece of information must be changed to distinguish the trunks from one another. (AT&T Ex. 3.0, p. 17).

Consistent with this practice, AT&T witness Mr. Turner assumed five minutes for implementation of the first trunk in the group. After that, a replication process is used to

implement the remaining trunks – a process that takes about 30 seconds per additional trunk. (AT&T Ex. 3.0, p. 17).

In contrast, SBC's cost study, which assumed the same provisioning time for the first and all additional trunks in the trunk group, eliminates all benefits of ordering multiple trunk ports at once, as CLECs typically do. SBC's proposal is not only unfounded, it is inconsistent with its rate structure in other jurisdictions, including Missouri, where SBC proposed separate nonrecurring charges for the first DID port and additional DID ports, with the additional ports being significantly less costly. (AT&T Ex. 3.0, p. 18).

In fact, SBC's own cost study assumptions demonstrated that its cost development is inconsistent with the manner in which these elements are typically ordered. Specifically, SBC made the following assumption: "Assume adding/removing a DID group with one trunk (with no equipment assignment errors on installation)."[224] In so doing, SBC created a cost for a situation that never occurs in practice – the establishment of a DID trunk *group* with only one trunk in it. This flawed assumption ultimately resulted in SBC assuming the same cost for the first and for each additional trunk port. The whole point of establishing a DID trunk *group*, however, is to have multiple ports on the switch that can terminate calls to the same number or block of numbers. (AT&T Ex. 3.0, pp. 18-19). DID trunk ports are never ordered as a single trunk in the trunk group. (*Id.)*

This same concern applies to the addition or rearrangement of Integrated Services Digital Network Primary Rate Interface ("ISDN PRI") Channels, where SBC assumed

[224] SBC-Ameritech Cost Study – "Combination ULS-Ports_N_WhslUNE_IL_02-05_10-31-02_TFA#XX-X" Workbook, "TAB 8.3" Worksheet, Cells B77.

that the cost for the initial PRI channel applies to every PRI channel when, in reality, the set-up time for the first channel need not be replicated for every additional channel. Mr. Turner therefore made the same revisions to SBC's proposed costs for ISDN PRI Channels to separately account for the costs of initial and additional ports. (AT&T Ex. 3.0, p. 18). These corrections and the times associated with them are found in Attachment SET-2P (Revised).

Mr. Turner also reduced the time in the Combination Unbundled Local Switching – Ports Cost Study for the translation process for DID Trunk Ports to reflect the use of efficient processes and trained technicians because it is unclear whether SBC assumes the use of fully trained technicians. Specifically, SBC represented the following in the cost study:

> Time estimates assume an average technician completing the assigned task. An experienced technician will may (*sic*.) probably at times complete the task in less time than the estimate, but while an inexperienced technician would often struggle to achieve the task within the estimated timeframe would frequently take longer.[225]

A properly conducted TELRIC cost study requires the use of the time it takes an experienced technician to perform a task in developing the long *run* incremental cost for the function. The use of average technicians that lack "experience" does not represent an efficient forward-looking cost for the process. Mr. Turner's recommended time of *****BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL***** minutes to plan the trunking arrangement (a time SBC also utilizes), five minutes to implement the first trunk, and 30 seconds to implement subsequent trunks is based on the use of "experienced" technicians using efficient processes and technology. (AT&T Ex. 3.0, pp.

[225] SBC-Ameritech Cost Study – "Combination ULS-Ports_N_WhslUNE_IL_02-05_10-31-02_TFA#XX-X" Workbook, "TAB 8.3" Worksheet, Cell B29.

20-21). These assumptions are necessary to comply with the TELRIC methodology. Mr. Turner made similar time adjustments to the PRI channel provisioning as discussed above. The specific adjustments are contained within Attachment SET-2P (Revised).

In addition, rather than separately develop the cost for the Centrex Attendant Line Port, SBC inappropriately assumed in its Combination Unbundled Local Switching – Ports Cost Study that the cost for the Centrex Attendant Console Line Port is *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** times that of a Basic Analog Line Port. There is absolutely no rational basis for this arbitrary assumption. (AT&T Ex. 3.0, p. 19). AT&T witness Mr. Turner removed this wholly unsupported multiplier.

Moreover, in several instances in its Unbundled Local Switching - Ports Study, SBC treats installation and disconnection costs dissimilarly. For example, as SBC correctly noted, there is *****BEGIN CONFIDENTIAL** XXXXX **END CONFIDENTIAL***** hours of preparation time involved for a Trunk Member in a 5ESS Trunk Port Translation in the connect process. In the disconnect process, however, SBC assumed this same process will take *****BEGIN CONFIDENTIAL** XXXXX **END CONFIDENTIAL***** hours. Because there is no preparation time in the provisioning process, there should be no preparation time built into the disconnect process, and AT&T witness Mr. Turner modified SBC's cost study accordingly. (AT&T Ex. 3.0, p. 20; see Attachment SET-2P (Revised)).

3. <u>Occurrence probabilities</u>

To the extent that SBC's studies are required to assume primarily automated processes and efficient and forward-looking technology, occurrence probabilities do not come into play. As with activity times, if SBC's studies reflected appropriate forward-looking assumptions, that would result in more reasonable fall out rates and, in turn,

fewer required expensive manual activities. Under those circumstances, if the need for activities is eliminated, debates about occurrence probabilities become significantly less contentious.

4. Fallout rates

See the discussion of fall out rates in Section IV. B.5 above, relating to SBC's Service Order Nonrecurring Cost Studies. In addition, AT&T witness Mr. Turner noted that in its Combination Unbundled Local Switching – Ports Cost Study, SBC used a fallout percentage for the Recent Change Memory Administration Center ("RCMAC") that is based on embedded performance data. Mr. Turner recommended a forward-looking fallout percentage of two percent, and the Commission should adopt it. (AT&T Ex. 3.0, pp. 21-22).

5. Other (including rate design issues)

See the discussion of connect and disconnect activities in Sections IV. B.6 and IV. C.5 above. In addition, AT&T witness Mr. Turner made a number of specific recommendations regarding rate design and related issues for SBC's switch port and features nonrecurring cost studies.

Rate Design Issues for Unbundled Centrex System Features Cost Study -- SBC's Unbundled Centrex System Features Cost Study calculates the costs for three elements: Centrex Common Block Establishment, Centrex System Feature Change or Rearrangement, and Centrex System Feature Activation. The Centrex Common Block Establishment charge represents the costs to establish a grouping of lines in the local switch that can be connected to one another using Centrex calling features. This provisioning work allows the Centrex customer to use many of the same features

available through the use of a Private Branch Exchange ("PBX") or an equivalent piece of customer terminal equipment.

According to the SBC, the Centrex System Feature Change or Rearrangement nonrecurring charge is applied per feature and per occasion to changes or rearranges to existing (installed) features currently assigned and working in the Centrex Common Block. SBC proposes to charge $71.68 per feature regardless of the type of feature activated. The Centrex System Feature Activation charge is applied per system feature and per occasion to a system feature for the initial activation except if the system feature was installed during the initial Centrex installation, in which case the charge is not applicable. For new feature installations, SBC proposes an even higher charge of $129.79 per feature regardless of the type of feature activated.

As AT&T witness Mr. Turner testified, there is a fundamental mismatch between SBC's Centrex feature activation charges (regardless of whether the feature is new or the feature is being changed) and the types of features to which SBC intends to apply these charges. Specifically, SBC assumes that 100 percent of Centrex System feature activations fallout for manual processing, regardless of the feature being activated. (AT&T Ex. 3.0, pp. 9-10).

SBC's assumption is completely flawed and unreasonable for several reasons. First, many features provisioned on Centrex Ports have the same flow through capability as the features provisioned on basic line ports. Even according to SBC, many of the same features available with Basic Centrex Ports are also available with Basic Line Ports.[226]

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[226] *See* Illinois Commerce Commission Tariff No. 20, Part 19, Section 3, 1st Revised Sheet No. 11 through 1st Revised Sheet No. 15, Effective April 18, 1998. These sheets

For example, Call Waiting, which can be provisioned on both Basic Line Ports and Basic Centrex Ports, can be provisioned electronically to either switch port. SBC's Unbundled Centrex System Features Cost Study fails to reflect and incorporate this electronic flow capability. (AT&T Ex. 3.0, pp. 10-11).

Second, contrary to SBC's practice in other states, SBC's cost study failed to distinguish between simple features – which can be provisioned electronically – and complex features, which must be manually provisioned. This failure to recognize flow through of Centrex port features significantly overstates SBC's proposed nonrecurring charges. (AT&T Ex. 3.0, p. 11).

Consequently, and because SBC has failed to make this important distinction, AT&T witness Mr. Turner proposed that the nonrecurring cost for all Centrex features that are listed in the tariff for which there is an equivalent feature listed for Basis Line Ports should be established assuming a high percentage of flow through. SBC should also be required to identify all of the additional Centrex features that are capable of being provisioned without manual intervention, and the nonrecurring costs should reflect that electronic provisioning. Indeed, TELRIC principles require it. (AT&T Ex. 3.0, pp. 11-12).

To reflect the above changes, it was not necessary for Mr. Turner to prepare Centrex-specific cost study for the activation/rearrangement of simple features. Rather, Mr. Turner was able to revise SBC's Basic Line Port Cost Study, which identifies the cost for adding or changing a feature on a Basic Line Port. This cost study reflects the fallout cost when an SBC technician is required to provision a feature manually when

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contain a column entitled "Basic" that reflects whether or not the features are available on Basic Centrex Ports.

there is an electronic OSS provisioning issue. Mr. Turner's revised charge should apply to feature activations for Basic Centrex Features. SBC's UNE tariff should differentiate between basic features and complex features so that the CLEC pays the appropriate nonrecurring charge for Centrex features. (AT&T Ex. 3.0, p. 12).

Inappropriate Combining of Connect and Disconnect Charges -- In all of its switching studies, including its Unbundled Centrex System Features Cost Study, SBC has inappropriately combined the Connect and Disconnect nonrecurring costs into a single charge and, for all the reasons discussed at length above, these charges should be segregated. SBC's assumption that, on average, it will be two years between the connection and disconnection of every UNE is arbitrary and fails to account for whether the element virtually never changes, such as transport arrangements, or whether the elements change more frequently, such as features on a basic line port. (AT&T Ex. 3.0, pp. 12-13).

More significantly, it is likely that SBC will incur no costs at all to disconnect these Centrex port features. For example, when features are provisioned on a Centrex Line Port after it has been installed, under SBC's proposal, the CLEC pays the disconnect costs upfront. When the CLEC disconnects that Centrex Line Port, however, all the features are automatically deactivated; there are no additional incremental costs to disconnect the individual features when the line port itself is disconnected. The problem, of course, is that under SBC's proposal, the CLEC will have already paid disconnect costs upfront on a per feature basis.

SBC failed to prove that its proposal is consistent with cost causation principles. In fact, SBC witness Mr. Silver, who testified as to the reasonableness of SBC's proposal

(SBC Ex. 3.2, p. 3). testified that he had no idea whether incremental costs are incurred to disconnect the features when the port is disconnected. (Tr. 870). Separating the connect and disconnect costs, as the Joint CLECs recommend, allows the CLEC to pay the cost if it causes a cost to be incurred (such as disconnecting a feature but not disconnecting the entire switch port) but does not require the CLEC to pay a cost if it does not cause SBC-Ameritech to perform any work. (AT&T Ex. 3.0, pp. 13-14). AT&T witness Mr. Turner made this same recommendation for SBC's Combination Unbundled Local Switching – Ports Cost Study (AT&T Ex. 3.0, p. 22) and SBC's Unbundled Custom Routing Cost Study. (AT&T Ex. 3.0, p. 23).

Miscellaneous – AT&T witness Mr. Turner also modified the inflation factor and labor rates in these NRC studies consistent with the testimony of AT&T witness Mr. Robert Flappan.

Mr. Turner's proposed nonrecurring charges for the Unbundled Centrex System Features Cost Study, the Combination Unbundled Local Switching – Ports Cost Study and the Unbundled Custom Routing Cost Study are contained in Attachment SET-4 (Revised). The changes he recommended are reflected in Attachment SET-2P (Revised).

E. Miscellaneous

1. Special Access to UNE Conversion Nonrecurring Cost Study

The charge for Special Access to EEL conversions should be low and reflect only a simple record change. SBC has inappropriately inflated these charges to well over a thousand dollars. The main cause, in addition to the issues raised above, is the expensive practice of *re-tagging*, which should be eliminated. Re-tagging is an archaic paper-based inventory process, and is unnecessary. All facilities are coded and should be inventoried

in electronic systems. As Ankum/Morrison pointed out, a paper-based system supported by paper "tags" is perhaps fine for a small vintage furniture store, but not for one of the largest telecommunications firms in the world. Further, re-tagging is not systematic and has no practical value for CLECs. The process and method for tagging is determined at the local garage level. Since CLEC technicians cannot possibly be familiar with all the tagging procedures at SBC's garage level, they have no use for the tags. (Joint CLEC Ex. 1.0, pp. 151-154). Moreover, re-tagging is discriminatory and too clearly identifies the CLECs' circuits. All circuits should be treated with equal attention and care by SBC's technicians. To identify the CLECs' circuits by means of tags too clearly identifies them and may induce incidental mischief. (Joint CLEC Ex. 1.0, pp. 154-57).

It appears as though SBC may have relented on the issue of re-tagging. To make sure that there is no confusion, the Commission should explicitly reject all costs associated with re-tagging and direct that those costs be eliminated from the Special Access to EEL Conversion NRC study.

In addition, AT&T witness Mr. Turner made a number of specific recommendations regarding SBC's SA2UNE Cost Study. He explained that when CLECs convert Special Access arrangements to UNE combinations, it is primarily an administrative function. In its SA2UNE Cost Study, SBC assumed the HPC requires *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes to "Convert" a DS3 circuit and *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** minutes to "Convert" the *****BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL***** subtending DS1 circuits. These times are significantly overstated. AT&T witness Mr. Turner reviewed all of the tasks that the HPC performs

for a new DS3 that is provisioned in the Unbundled Loop Cost Study. The only function in the Unbundled Loop Cost Study that even possibly relates to a SA2UNE conversion is the "Corrective Action SOAC/SORD" process. All of the other provisioning functions relate to the design and assignment of facilities to turn up the circuit. There is no need to perform those functions in a SA2UNE conversion, of course, since the circuits are already working. As such, Mr. Turner recommended using this function as a substitute for the unsubstantiated times SBC includes in its SA2UNE cost study. Implementing this substitution reduces the time to convert a DS3 circuit to *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes. Using SBC's "Corrective Action SOAC/SORD" process times of *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minutes for an initial circuit and *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** minute for an additional circuit, the appropriate time to convert the subtending DS1 circuits is *****BEGIN CONFIDENTIAL** XXXXX **END CONFIDENTIAL***** minutes. Mr. Turner recommended these modifications in each of the places in the SA2UNE Cost Study where HPC functions occur. (AT&T Ex. 3.0, pp. 80-81).

In addition, some of the values in SBC's SA2UNE Cost Study do not properly reflect the supporting documentation provided with the cost study that identify the task times and probabilities of occurrence SBC recommends for each function. These inputs are incorporated into worksheets within the cost study to develop the cost. In some instances, SBC failed to properly link these worksheets together in the cost study. AT&T witness Mr. Turner highlighted these errors in blue in the electronic version of the cost

study filed by SBC. He recommended that SBC be ordered to correct these errors. (AT&T Ex. 3.0, p. 82).

Finally, while SBC's SA2UNE Cost Study appropriately assumed that the probability of occurrence (or fallout) for the HPC function is *****BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL***** percent consistent with what AT&T witness Mr. Turner has generally seen as the fallout percentage for complex UNE elements, SBC did not use the same probability for the SSC. Instead, SBC assumed that manual work activity must be used in *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** percent of the SA2UNE conversions. The functions that the SSC performs should be just as eligible for flow-through, just like the functions the HPC performs. Accordingly, Mr. Turner recommended revising SBC's SA2UNE Cost Study to ensure that a *****BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL***** percent fallout percentage applies to SSC functions as well as HPC functions. The details of these changes are contained in AT&T Ex. 3.0, Revised Attachment SET-2. (AT&T Ex. 3.0, pp. 82-83).

AT&T witness Mr. Turner also recommended modifying the SA2UNE Cost Study to incorporate the inflation factor and labor rates consistent with the testimony of AT&T witness Mr. Robert Flappan. Mr. Turner's proposed nonrecurring charges from the SA2UNE Loop and Transport Conversion Cost Study are contained in Attachment SET-6P.

2. <u>ULS Billing Establishment</u>

AT&T witness Turner recommended revising this cost study, like all of SBC's other nonrecurring cost studies, to incorporate the inflation rate and labor rates consistent with the testimony of AT&T witness Mr. Robert Flappan. AT&T witness Mr. Turner's

proposed charges for SBC's Billing Establishment Cost study are contained in Attachment SET-4P (Revised). (AT&T Ex. 3.0, pp. 8-9)

F. Labor Rates

1. SBC's Labor Rates Are Fundamentally Not TELRIC Compliant Because They Are Based On Embedded Costs And Do Not Take Into Account Forward-Looking Economic Cost Principles

Labor rates have a direct impact on UNE rates. Many of SBC's rates filed in this docket are dependent upon the underlying cost of labor required to perform a function. Non-recurring costs ("NRC's") are the result of a labor rate multiplied by the time in hours required to perform a function. Equipment investment includes the capitalized cost of installing the equipment, including the labor costs involved. TELRIC studies should assume that tasks are performed most efficiently (*i.e.*, electronically where possible), but some manual work may still be necessary. TELRIC requires that labor services, like all other inputs, be included in cost studies only at long-run efficient market rates and not be constrained by embedded costs or contracts.

As viewed by economists, labor is merely one kind of input (of three, the other being land and capital) that go into production of services. From a cost study perspective, as AT&T's witness Robert Flappan testified, the same disciplined approach to "most efficient" costing should be applied to labor services as is applied to SBC's capital structure, depreciation rates, expense factors, fill factors and other investments and expenses. Consistent with basic concepts of TELRIC, labor rates that are compliant with TELRIC principles would reflect the forward-looking cost of labor in an open competitive market. Such rates would not be based on the embedded costs of the

incumbent local exchange carrier, but rather on costs that would prevail if there were effective competition throughout the industry. (AT&T Ex. 4.0, pp. 8 – 9.)

The labor rates used by SBC are based on embedded accounting data from 1999.[227] (AT&T Ex. 4.0, p. 8.) Hence, not only did SBC erroneously rely on embedded data, but SBC has used data from a single company from a single year. As Mr. Flappan testified, such data can be full of aberrations that will not represent efficient costs in future years. Overtime paid is one example: With changes in the industry, overtime paid in one historical year may not represent the amount of overtime an efficient competitor would pay in future years. Embedded salary dollars is another. SBC has reduced headcount significantly since 1999, and it is only reasonable to expect that many of those that left SBC in these force reductions were at the higher end of the pay scale. SBC's filed labor rates do not reflect SBC's September 2002 company-wide force reduction decision, for example. In other words, the forward-looking demographics of an efficient competitor would likely be far different from the demographics used by SBC as they existed in 1999. (AT&T Ex. 4.0, pp. 8 – 9.)

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[227] In his rebuttal, SBC witness, Mr. Barch stated that SBC's actual wage rates reflected 2002 wage data and that these rates reflected the effect of early retirement incentive programs. That testimony was directly contrary to SBC's response to data request RF-30, which stated that SBC used 1999 data, and data response RF-28, which stated: "Any fluctuations in the 4th Quarter of 2002 and the 1st Quarter of 2003 would not be reflected in SBC's labor rates used in these cost studies. The labor rates are "2000" labor rates, based on 1999 actual data." (A&T Ex. 4.1, Attachment RPF-11.) Thus, Mr. Barch's rebuttal testimony is incorrect and should be disregarded. Mr. Barch's other claims in his rebuttal testimony (*e.g.*, that AT&T pays its technicians more than SBC pays its technicians) are simply irrelevant, because they do not go to the question of SBC's costs; all of AT&T's adjustments to SBC's proposed fully-loaded labor rates are adjustments to the loading factors, and not to the basic wages themselves. AT&T has proposed no adjustments to SBC's basic wages.

In contrast, AT&T witness Mr. Flappan proposed the use of adjusted or "normalized" labor rates in SBC's cost studies. TELRIC inputs must be economically efficient. In the long run, which would represent an environment in which vigorous competition exists in SBC's currently monopolistic markets, SBC's labor expenses would become aligned with (*i.e.*, be brought down to) market levels. Mr. Flappan's recommendations reflect current market conditions, based on a wide universe of companies, and are therefore are consistent with sound TELRIC principles and methodology.

a. <u>Basic Salary and Wages</u>

SBC developed its labor rates by looking at its embedded books of account for 1999 to develop a base average hourly wage. It then applied a series of adjustments and factors, also based on its 1999 embedded costs, to arrive at a "loaded" labor rate. SBC provided 203 unique labor rates in this docket -- 115 labor rates for management positions and 88 for non-management positions. The mean and median of these rates are *****BEGIN CONFIDENTIAL XXXXXXXXXXX END CONFIDENTIAL***** per hour, respectively.[228] SBC marks up its basic wages by factors in the range of *****BEGIN CONFIDENTIAL XXXXXXXX END CONFIDENTIAL***** to arrive at its purported "fully loaded" labor rates. The derived mean and median factors SBC applies to basic wages to arrive at purported "fully loaded" labor rates are *****BEGIN CONFIDENTIAL XXXXXXXXX END CONFIDENTIAL***** respectively. Mr. Flappan found significant aberrations in the labor rates presented by SBC, and concluded that they must be normalized to bring them into compliance with TELRIC principles.

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[228] The mean is the average of a series of data points; the median is the data point with an equal number of values above and below.

SBC gathered all the information to develop its labor rates from its internal financial systems. No attempt was made to determine if the rates or factors it used in its cost studies were market-based and most-efficient. If SBC's embedded average rate for a position was $100 per hour and the market rate was $20 per hour, SBC used its embedded average rate of $100. (AT&T Ex. 4.0, p. 12). Mr. Flappan testified that given the relative lack of competition SBC has faced in its history (and this is particularly so for the 1999 time frame used by SBC), it would not be surprising if a great many of its basic salary or wage rates exceed rates that are being paid in competitive markets. Mr. Flappan was unable to identify a suitable benchmark for each of the individual labor rates to make a proposed adjustment to them, however, and therefore for purposes of his analysis, he accepted SBC's basic wages and salaries. (AT&T Ex. 4.0, pp. 12 – 13.) While he did not adjust or replace the base hourly wages paid by SBC to its employees, Mr. Flappan did critique many of the factors and adjustments SBC applied to those base hourly wages, and proposed modifications to SBC's loaded labor rates, as described below, to bring them into compliance with TELRIC.

b. <u>Break Time Adjustment</u>

The first adjustment SBC made to a basic wage rate was a "break time" adjustment. Apparently SBC's non-management employees are given two paid 15-minute breaks each day. This equates to CLECs paying SBC's non-management employees for 100% of an 8 hour day while receiving only 93.75% of working hours during that 8 hour day.

There are no Illinois, or federal, laws or regulations that require giving employees such breaks, however, and CLECs should not have to pay for them as proposed by SBC. At the same time, however, Mr. Flappan testified that labor assets are similar to capital

assets in that it is neither possible nor efficient to use them at 100% of their capacity all of the time. He therefore proposed an adjustment to incorporate a "95% productive time factor" for the labor assets in the studies. (AT&T Ex. 4.0, pp. 13 – 15.) In other words, he assumed that 5% of the time the workers will essentially be idle. Moreover, while SBC applies break time for its non-management employees only, Mr. Flappan conservatively applied the 95% productive time factor to all wage rates, including wage rates for management employees. With this factor included in the development of each SBC wage rate, the Commission should have no hesitation in reducing SBC's asserted task times to the actual efficient times that would result from time and motion or other studies, eliminating the slack that SBC has built into its asserted task times. *Id.*

Although the difference between Mr. Flappan's proposed 95% productive time and SBC's effective 93.75 productive time is minimal (at least for non-management workers) from a results standpoint,[229] from the standpoint of TELRIC principles the two approaches are polar extremes. SBC's approach merely reflects embedded contracts – contrary to TELRIC principles. AT&T's method looks at how an efficient company would operate on a going-forward basis -- no reasonable company would expect its workers to engage in productive activities 100% of the day, every working day of the year, and this principle applies to both management and non-management workers. In

[229] Mr. Barch in his rebuttal testimony associated Mr. Flappan's non-productive time proposal with working conditions out of Upton Sinclair's *The Jungle*. (SBC Ex. 7.1, pp. 59 – 60.) Notwithstanding the colorful rhetoric, the fact is, as Mr. Barch elsewhere acknowledges, that Mr. Flappan's proposal would recognize more non-productive time overall for SBC employees than SBC itself includes in its studies.

short, AT&T's methodology is TELRIC compliant and should be adopted by the Commission.

c. SBC's Benefit Loadings

SBC's next step is to increase the labor rate by a series of factors to take into account the cost of benefits. These include:

- Paid absence
- Premium Overtime and Special Payments
- Wage Increases
- Social Security, Medicare and Pensions
- Life Insurance, Savings Plans & Medical Plans
- Other Expenses

Taken together, these benefit loadings range from *****BEGIN CONFIDENTIAL XXXXXXX END CONFIDENTIAL***** of the basic wages contained in SBC's loaded labor rates. The mean and median loadings for these elements are *****BEGIN CONFIDENTIAL XXXXXX END CONFIDENTIAL***** respectively.

Publicly available data that is factual and impartial can be used to benchmark SBC's benefit loadings. Specifically, the United States Department of Labor Bureau of Labor Statistics ("BLS") publishes information on wages and benefits. Its "Employer Costs for Employee Compensation" ("ECEC"), released June 19, 2002, provides information on relative percentages of wages versus benefits that are provided by employers.[230] The BLS survey took place in March 2002 and covered 29,850

[230] See AT&T Ex. 4.0, Attachment RPF-4. Since the filing of the direct testimony, the BLS has released subsequent ECEC Reports with more current data. Should the Commission desire it, AT&T is prepared to update AT&T's proposed labor rates to reflect the more recent information tracked and published by the BLS. The most recent ECEC report, released November 25, 2003 (see http://www.bls.gov/news.release/pdf/ecec.pdf) shows benefits equal to 45.77% of wages for white collar workers and 56.01% of wages for blue collar workers.

occupations within approximately 7,200 sample establishments in private industry. Included in the report is information on the relative weighting of wages and salaries versus benefits for communications and public utility companies (Standard Industrial Classification ("SIC") Code 48). BLS data shows that 67.1% of overall employee compensation, from this broad sample of companies, comes from salaries and wages and 32.9% comes from benefits; said another way, the BLS-reported normal market benefits are 49% of basic wages (.329/.671). Obviously, SBC benefit loadings are generally well in excess of normal market loadings.

Mr. Flappan further analyzed BLS historical data on the percent of total compensation attributable to benefits for SIC 48. Specifically, the BLS publication "Employer Costs for Employee Compensation Historical Listing (Annual), 1986-2001" provides data for the period 1995 – 2001, and supports the 49% data point used in Mr. Flappan's analysis. Indeed, the ECEC data is conservative – it results in a higher loaded labor rate than would be derived from using *any* of the prior years' annual data points. (AT&T Ex. 4.0, p. 17, Table 2.) By way of comparison, the average benefit loading used by SBC of *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** is nearly *****BEGIN CONFIDENTIAL** XXXXX **END CONFIDENTIAL***** the normalized market loading of 49%.

Although BLS breaks down the benefits percentages into categories (paid leave, supplemental pay, insurance, retirement and savings, etc.), instead of modifying each specific subcategory of benefits proposed by SBC, Mr. Flappan simply applied the BLS overall benefit factor to SBC's hourly rates to arrive at a labor rate including benefits. In

other words, he took SBC's hourly wage rates and divided them by the .671 overall benefit factor from BLS to arrive at a labor rate including benefits. Mr. Flappan addressed each subcategory of benefits and showed that SBC's specific loadings are overstated. (AT&T Ex. 4.0, pp. 20 – 21.) Although each subcategory of benefits loadings is overstated, applying individual adjustments would yield essentially the same result as derived by Mr. Flappan using an overall benefit factor.

i. Paid Absence

BLS defines paid absence as vacations, holidays, sick leave and other leave.[231] BLS shows paid leave costs equivalent to 13.71% of a communication worker's basic wages and salaries. SBC's embedded data for paid absence averages *****BEGIN CONFIDENTIAL XXXXX END CONFIDENTIAL*****. (AT&T Ex. 4.0, p. 20).

ii. Premium Overtime and Special Payments

SBC increases the labor rate by a special payments factor to represent premium overtime and special payments (team awards, overtime pay, etc.) paid throughout the year. The BLS calls this category supplemental pay -- premium pay for work in addition to the regular work schedule (such as overtime, weekends, and holidays), shift differentials, and non-production bonuses (referral bonuses and lump-sum payments provided in lieu of wage increases). BLS shows supplemental pay costs equivalent to 7.3% of a communication worker's basic wages and salaries. In contrast, SBC's embedded data for special payments averages *****BEGIN CONFIDENTIAL** XX **END CONFIDENTIAL*****. (AT&T Ex. 4.0, pp. 20 – 21.)

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[231] The BLS benefit category definitions can be found in "Employer Costs for Employee Compensation Historical Listing (Annual), 1986-2001", June 19, 2002, page 2. (AT&T Ex. 4.0, Attachment RPF-5).

iii. Wage Increases

Mr. Flappan objected to SBC's application of a factor for wage increases. He testified that if SBC also applied a forward-looking efficiency factor to reflect productivity gains (*e.g.*, through increased experience and introduction of new technology), then it might be appropriate to use a forward-looking wage factor. But since SBC's studies fail to include an increase in efficiency, neither should its studies include an increase in wages or a forward-looking adjustment for inflation.

In support, Mr. Flappan compared worker productivity data from BLS with the Consumer Price Index ("CPI") data for the years 1996 – 2000, the most recent data years available. His analysis showed that worker productivity increases *exceed* inflation price increases by 3.8% per year on average. (This data is specific to SIC code 481, which represents telephone communications companies, and includes SBC.) Hence, blind adjustments for inflation and wage increases would misrepresent what is happening in the real world. If, as has been the case, productivity gains exceed inflation, SBC's activity costs per labor hour would actually decrease each year, even if the nominal wages increase. Thus, if adjustments to SBC's studies were to be made, forward-looking productivity and inflation-adjusted labor rates should be captured in a TELRIC study, and not just the inflation adjusted labor rates. Because Mr. Flappan did not advocate a downward adjustment to labor rates to reflect the productivity gains in excess of inflation, his proposed rates are reasonable and even conservative. Accordingly, the Commission should reject the wage increase and inflation increase factors in SBC's labor rate studies. (AT&T Ex. 4.0, pp. 21 – 23.)

iv. Social Security, Medicare and Pensions

Mr. Flappan testified that the BLS table contains two categories that, combined, would be an appropriate analog for this adjustment: (1) Legally Required Benefits -- social security, Medicare, Federal and State unemployment insurance, and workers' compensation; and (2) Retirement and Savings – defined benefit and defined contribution plans. BLS shows these categories cost a communications employer 7.3% and 10.28% of wages, respectively, for a total of 17.58% of wages. SBC's corresponding embedded data factors average *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** of basic wages. (AT&T Ex. 4.0, p. 23.)

v. Group Life Insurance, Savings Plans and Medical Plans

The BLS table includes a category for insurance benefits -- life, health, short-term disability, and long-term disability. BLS shows this category of costs to be 10.13% of basic wages. SBC's embedded factors range from a low of *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** to a high of *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** with an average cost of *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** of basic wages. (AT&T Ex. 4.0, pp. 23 – 24.)

vi. Other Expenses Adjustment

According to SBC, this adjustment "captures other direct employee-related costs, such as costs for conferences and travel, home relocation, tuition, training and others." A close examination of the embedded accounting data shows that SBC includes much more than these types of costs in this adjustment, however. Indeed, both the types and amounts of these expenditures compared to those of other companies require adjustment to bring

them in line with TELRIC methodology. The questionable expenses were set forth by Mr. Flappan in Table 6 (Confidential) to his direct testimony. (AT&T Ex. 4.0, pp. 24 – 25.) For example, one entry is simply "Other"; another is "Other Expense – Subject to Gross Up Allowance"; another is simply "Other Business Costs."

In fact, when cross examined about these "Other expenses," SBC witness Mr. Barch indicated that, even after Mr. Flappan questioned them, he did not bother to go back and look at what specific expenses are included in these accounts. (Tr. 341) Despite the fact that Mr. Barch testified that these accounts contain business travel and meal reimbursement expenses (Tr. 340-341), he was unable to demonstrate how these business travel and meal reimbursement expenses differed from the expenses included in the approximately fifteen already existing accounts for air travel, lodging, personal, rental and company-owned vehicles, public transportation, general meals, quiet business meals and conference meals. (Tr. 340-347; AT&T Cross Ex. 11P) SBC's showing certainly falls far short of meeting its burden of proving that these "Other Expenses" – whatever they are – are appropriately included in its labor rates. Without any explanation of why these should properly be included in a TELRIC study, they should be ignored.

Similarly, severance payments are non-recurring extraordinary items that should not be routinely added to forward-looking labor rates. In short, these miscellaneous costs are unsupported and are not TELRIC compliant, and SBC has failed to demonstrate that the amount of these purported expenses is most efficient, as required by the TELRIC methodology. (AT&T Ex. 4.0, p. 25)

Mr. Flappan used publicly available data to adjust this category as well. BLS reports "other benefits," including severance pay and supplemental employment benefits,

amounting to 0.45% of wages. This compares to the factors derived from SBC's embedded data which range as high as *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** and average *****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL***** of the base wage.[232]

Generally, SBC witness Mr. Barch contended that the BLS ECEC Report relied upon by Mr. Flappan to develop TELRIC loaded labor rates was not intended to be used in that fashion. (SBC Ex. 7.1, pp. 61-66.) But, as Mr. Flappan pointed out, according to the BLS website,[233] this data is intended for a wide range of relevant uses, including negotiating wage contracts, determining and setting compensation rates and "paying market wage rates," among many others. (AT&T Ex. 4.1, p. 15.) Similarly, Mr. Barch's claim that the ECEC is replete with "foreign" data is baseless. According to the ECEC report itself, the costs presented are for "employee compensation for civilian workers in private industry and State and local government in the United States. . . ." (AT&T Ex. 4.1, Attach. RPF-4 (emphasis added).) There is nothing in the report that implies in any way that the data is from anything other than locations in the U.S. SBC itself routinely relies on the BLS CPI to adjust its own studies for changes in price levels.

The larger point is that BLS ECEC data produces reasonable results. The data used by Mr. Flappan shows an average basic wage rate for the sample, management and

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232 AT&T Ex. 4.0, p. 26. SBC witness Mr. Barch asserted that the AT&T labor rates may not include "items such as tuition reimbursement, training, relocation expenses and myriad other items included in SBC Illinois's identified expenses." According to Mr. Barch, SBC uses its "Other Expense" category to capture such costs. According to SBC, the average cost per hour for Other Expenses is ***** BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL***.** This "explanation" fails to explain the average difference between SBC's proposed average labor rate and AT&T's proposed TELRIC-compliant labor rate of $13.05, however.

233 http://www.bls.gov/ncs/usage.htm

non-management combined, of $22.53. This figure is reasonably comparable to the average basic wage included by SBC in its studies in this case-- ***** BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL*****. Thus, comparing the SBC data with BLS data is an "apples-to-apples" comparison. BLS data plainly does not consist of unrepresentative communications companies. The data is a valid benchmark for setting TELRIC benefit costs, and corroborates the conclusion that the costs proposed by Mr. Flappan are in line with industry averages and are currently being widely achieved.

With respect to the 2001 Benefit Index Study by Hewitt Associates cited by Mr. Barch as evidence that SBC's benefits are market-based, Mr. Flappan pointed out that Mr. Barch cited some general conclusions in the study but provided no specific information on how SBC ranks. Moreover, while Mr. Barch faults the BLS data because "cable, radio, broadcasting, and satellite would be included," he touts the Hewitt data, which includes information from nineteen companies only *one* of which is in the communications sector. SBC has argued incessantly since 1996 that its markets are competitive, citing cable, wireless, satellite and other such companies as evidence of competition; surely the employees at SBC's "competitors" should be included in the universe of potential employees on which SBC's TELRIC costs should be based, under the scorched node assumption required by the TELRIC methodology. Finally, the Hewitt study compares benefit *design* and not benefit costs, which are two entirely different concepts. In fact, the Hewitt study contains an express disclaimer stating that it is *not* a comparison of costs and that costs may vary based on many controllable items. See (AT&T Ex. 4.1, pp. 18 – 19.) Indeed, Hewitt does not address what it *costs* to provide

the benefits, which is all that is germane to a TELRIC study. The Hewitt study would assign the same "index" value to two companies with widely different per month, per employee cost levels[234]; it ignores efficiency – a critical component of TELRIC methodology.

Referring to the SBC 2002 Annual Report, Mr. Barch contended that SBC's labor rates may be understated because securities markets may "continue" to decline. (SBC's Ex. 4.1, p. 64.) However, as Mr. Flappan pointed out, in 2003 the Dow Jones Industrial Average rose 21.45% and Standard & Poor's gained 22.4% -- healthy gains rather than declines. SBC's huge pension fund earns millions of dollars in good years, but there is no indication that SBC offsets its benefit costs by the amount of these hearty increases.[235]

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[234] Using the 19 companies hand selected by SBC, SBC-Ameritech ranked ***** BEGIN CONFIDENTIAL XXXXX END CONFIDENTIAL***** in both the All Health Care and the All Benefits categories, for Employer Paid Value. Were the Hewitt Study results actually cost representations, they would support the view that the SBC Illinois' benefit loading is inordinately high and must be normalized to comply with TELRIC. (See AT&T Ex. 4.1(P), Attach. RPF-5.)

[235] Indeed, it is not clear what is included in the pension cost factor used in developing its labor rates. SBC's labor rate calculation is largely a "black box" that reveals little about how SBC arrives at its "fully loaded" labor rates. From its data responses, it appears that SBC does not have a documented set of procedures to be followed in developing its labor rates – there are no specific instructions, methods and procedures or guidelines as to what data should be reviewed and/or included in the rate development process. This strongly implies that its "actual" labor costs are arbitrary and unreliable. This failure to have a documented process makes it nearly impossible for the Commission or any other party to fully and completely review whether the SBC labor rates are indeed TELRIC compliant. On the other hand, AT&T's proposed labor rates were presented in a single file with all the source data, assumptions, and calculations clearly displayed to the interested parties. The fallibility of SBC's system is manifest in the fact that SBC has submitted labor rates in different dockets that vary dramatically. The labor rates it recently submitted in Docket 03-0593 for many of the same tasks at issue here varied by 56% from those presented in this case, for example. (AT&T Ex. 4.1, pp. 20-22.)

Mr. Barch's assertion that the SBC labor rates are conservative should therefore be disregarded.

With respect to Mr. Barch's contention that BLS data is inadequate because it may not include all of the employee benefits that SBC offers, Mr. Flappan showed, first of all, that BLS data encompasses nearly all – if not all – of the employee benefits that SBC offers. [236] (See AT&T Ex. 4.1, Table 2 ("Comparison of SBC Benefit Loading Categories to BLS Benefit Loading Categories").)

Beyond that, Mr. Barch's implication that according to TELRIC principles, if SBC spends the money it is guaranteed to recover it, is a gross misinterpretation of the TELRIC methodology. TELRIC allows a firm to recover only those forward-looking costs that are *efficiently* incurred. SBC is free to operate its business and incur costs in any manner it chooses, but it cannot automatically recover all of the resulting costs from its UNE customers. It can only recover those long run, forward looking costs that it incurs efficiently.

In summary, the labor rates recommended by Mr. Flappan are adjusted appropriately to reflect competitive market conditions. The data he used are a reasonable estimate of competitive market conditions in the telecommunications business. Looking at that data historically and looking at other cross sections of the economy, there is little variation in the BLS benefit costs, and the 49% benefit loading Mr. Flappan recommends reflects an historical high – and therefore is conservative.

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[236] Mr. Flappan further showed that the BLS surveys do not limit the reporting of relevant benefits, as Mr. Barch implied. (AT&T Ex. 4.1, pp. 24 – 25).

d. Management Hours

Of the 203 wage rates included in SBC's studies, 115 are management positions. From SBC responses to data requests, it appears its cost study labor rates for these positions are based on 40 hour work weeks. (AT&T Ex. 4.0, Attach. RPF-8.) It is generally recognized that managers normally work more than 40 hours per week and receive no overtime payment for their extra hours, however. Mr. Flappan presented data from the BLS "Current Population Survey" ("CPS") showing average hours for persons that customarily work full time. The CPS is a monthly sample survey of about 50,000 households. The data shows that for "Managerial and Professional Specialty" occupations, management employees worked an average of 44.2 hours per week in 2001.[237] Because SBC used a 40-hour week, its managerial labor wages and salaries per hour are overstated by 10.5%. It is of course very possible that SBC managers work even more than 44.2 hours per week in the current environment. In all events, Mr. Flappan applied a factor of .9050 (40 / 44.2) to account for the overstatement. (AT&T Ex. 4,0, pp. 27 – 28.)

SBC witness Barch responded that SBC did not use a 40-hour work assumption because the "maximum denominator of 2,080 hours equates to well over a 40 hour work week for the weeks actually spent on the job," and that netting out reasonable amounts for vacations, holidays and personal time produces an implicit work week of over 44 hours – such that no further adjustment is warranted. (SBC Ex. 7.1, p. 57.) That contention is both erroneous and misleading.

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[237] A few of the more specific job titles in this category are: financial managers, personnel and labor relations managers, purchasing managers, accountants and auditors, other financial officers, engineers and computer systems analysts and scientists.

Putting aside the fact that SBC's position contradicts its own responses to AT&T's data requests,[238] SBC in its cost studies *elsewhere* adjusts for the difference between "paid" hours and "productive" hours. As Mr. Flappan testified, for each SBC management job function code, the first adjustment SBC makes (after developing the basic average wage by dividing salary dollars by 2080 – 40 hours per week times 52 weeks) is to increase the rate to account for "paid absences." Paid hours include vacation, holidays, and paid sick days. Thus, through use of this adjustment, SBC accounts for paid absences and develops fully loaded labor rates on a "productive" hour basis. SBC's average paid absence factor for the 115 management labor rates in its studies is *****BEGIN CONFIDENTIAL** XXXX, which represents over 347 hours, or over 43.42 days (8.68) weeks per year. **END CONFIDENTIAL***** SBC's labor rates most assuredly are calculated to ensure that CLECs pay for a portion of the non-productive time of SBC's workers.

In effect, SBC would be double-recovering the costs of these non-productive hours if they were also included in the "denominator" (*i.e.*, through the use of 2080 annual hours) of the basic wage calculation, as Mr. Barch contends. The mere fact that paid absence time is not recognized in the basic wage calculation of SBC's studies is irrelevant. Mr. Barch's position would produce labor rates that would recover twice for paid absence costs – both through the paid absence factor and via their inclusion in the basic wage calculation.

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[238] SBC's response to AT&T Data Request RF-18 states: "SBC assumes all full time management employees work, or are productive, 40 hours per week (8 hours per day)." (AT&T Ex. 4.1, Attach. RPF-8.)

Moreover, SBC's studies do not recognize that its managers do work more than 40 hours per week. SBC does not dispute Mr. Flappan's testimony that managers in competing companies work more than a 40-hour week. To say that SBC's managers do not do it would concede that it is shielded from competitive pressures. By using 2080 hours in the calculation of management average wage per hour (and given that it has separately recognized paid absence costs), however, SBC has failed to recognize that managers in fact normally work more than 40 hours per week.

In contrast to SBC's method, then, Mr. Flappan's normalization described above effectively increases the denominator in the SBC calculation to 44.2 times 52, which equates to 2298.4 paid hours per year rather than 2080 paid hours. His method applies the management hour's factor after application of the BLS benefit factor, which includes the cost of paid absences, and thus it is applied to the TELRIC productive hour wage. Thus, Mr. Flappan's rates assume that SBC managers work 44.2 hours per week for the weeks they actually work, whereas SBC's proposed rates assume that they work only 40 hours in the weeks they actually work. In short, Mr. Flappan's adjustment of management hours is reasonable and should be adopted.

e. <u>Support Assets</u>

According to SBC, the support assets factor is designed to capture the costs of computers, furniture, tools and other assets consumed in the course of providing labor services. The factor includes both the capital cost and the expenses associated with the support assets.

Mr. Flappan used the revised support assets factors developed by Joint CLEC witnesses Mr. Starkey and Mr. Fischer in restating SBC's rates. His adjusted rates are presented in the table below.

Support Asset Adjustment

*****BEGIN CONFIDENTIAL**

Category of Labor	SBC Support Asset Factor	AT&T Adjusted Support Asset Factor
Operator Services	XXXX	XXX
Other	XXXX	XXX
Plant Employees	XXXX	XXX
Service Rep	XXXX	XXX

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In his rebuttal testimony, Staff witness Mr. Hanson recommended that the Commission order SBC Illinois to remove the support asset factor from its calculations of loaded labor rates. (Staff Ex. 18.0, pp. 3-4) AT&T witness Flappan agreed. The inclusion of support assets as a loading to labor rates results in inappropriate assignment of recurring costs to non-recurring charges. Mr. Flappan pointed out that CLEC witnesses Mr. Starkey and Mr. Fischer proposed a reasonable approach – recovering efficient levels of support assets through the shared and common cost factor. (See AT&T Ex. 4.2, pp. 1 – 2.)

f. <u>Clerical Support</u>

The next adjustment SBC made was for Clerical Support. SBC represented these costs as costs of clerical employees that support others in the group.[239] SBC's embedded data asserts clerical support loadings average **BEGIN CONFIDENTIAL** XXX **END**

[239] The amount of clerical support varies based on, among other things, the number of workers supported per clerk. For example, if a clerk costs $40 per hour and supports 4 workers, the loading per hour for each worker will be $10. If the same clerk supports 8 workers, the loading per hour will be $5.

CONFIDENTIAL of base wages. To clerical salaries and wages, SBC added amounts for "special payments," "paid absence," "benefits," "wage increases," and "social security" for a total factor increase of *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***.** The BLS equivalent factors (not including a factor for wage increases, for the reasons previously discussed) total 48.71%. In addition, SBC applied a "support assets other" factor that averages *****BEGIN CONFIDENTIAL** .XXX **END CONFIDENTIAL*****. Rather than using this SBC factor, Mr. Flappan applied the adjusted factors from Mr. Starkey and Mr. Fischer, the average of which is*****BEGIN CONFIDENTIAL** XXX **END CONFIDENTIAL*****. He modified SBC's asserted clerical support expenses by multiplying SBC's reported salaries by the .4871, and adding *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL** multiplied by the sum of SBC's asserted salaries, paid absence and special payments. This results in a Clerical Support adjustment averaging *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL***** compared to SBC's average *****BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL*****. (AT&T Ex. 4.0, pp. 31 – 32.)

g. <u>Supervisory Support</u>

The next adjustment SBC made was for Supervisory Support. SBC described this adjustment as accounting for the cost of employees that supervise others in the group. SBC adjusted the rates upward by an average increase of *****CONFIDENTIAL XXXX END CONFIDENTIAL***** per hour. SBC adjusted its basic wages upward to capture salaries and wages, special payments, paid absence, benefits, wage increase and social security for supervisory support.

Mr. Flappan accepted the supervisory salary dollars used by SBC and applied BLS factors of 7.3% for special payments, 13.71% for paid absence, 10.13% for benefits,

and 17.58% for social security, relief and pensions to those salary dollars. He did not include a factor for salary increases for the reasons discussed above. The normalized total factor he applied to supervisory salaries was 48.71%, which results in an average loading to the labor rates of *****BEGIN CONFIDENTIAL XXX END CONFIDENTIAL***** for supervisory support. In addition, SBC applied a "support assets other" factor that averaged *****BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL*****. Mr. Flappan used an average adjusted factor provided by Mr. Starkey and Mr. Fischer of *****BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL***** across all the SBC labor rates. He modified SBC's asserted supervisory expenses by multiplying SBC's reported salaries by the .4871 factor, and adding *****BEGIN CONFIDENTIAL XXX END CONFIDENTIAL***** multiplied by the sum of SBC's asserted salaries, paid absence and special payments. This resulted in the average total Supervisory Support adjustment of *****BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL***** compared to SBC's average loading of *****BEGIN CONFIDENTIAL XXXX END CONFIDENTIAL***.** (AT&T Ex. 4.0, pp. 32 – 33.)

Additionally, Mr. Flappan found that for 37 of its labor rates, SBC showed either $0 or negative dollars for the salary dollars in the supervisory support cost category, but nonetheless showed positive dollars in the loadings and a resultant add-on to the labor rate, a non-sensical result. Mr. Flappan rejected supervisory support expense loadings in these instances. It does not make sense to have supervisor support loadings when there are no supervisory support wage or salary dollars. (AT&T Ex. 4.0, pp. 34 – 35.)

h. <u>Support And Supervision -- Other</u>

SBC's next SBC adjustment was for Support and Supervision – Other. Mr. Flappan made no modification to this adjustment.

i. Inflation

SBC also made an adjustment for inflation. For the reasons discussed above, inflation factors are inappropriate because SBC does not include the corresponding – and nearly always offsetting -- productivity factors. Moreover, as Mr. Flappan noted, other state commissions (*e.g.*, Texas, Missouri and Kansas) have removed inflation adjustments in SBC studies due to the absence of offsetting productivity adjustments.[240] The Missouri Commission in a recent order stated:

> SBC does include overt inflation factors in its cost studies so that inflation will not be fixed at the time of the study. As a result, SBC's cost studies will tend to overstate actual costs.
>
> This problem could be solved by requiring SBC to incorporate overt prospective productivity adjustments into its cost studies, but no party has proposed a formula that would permit the easy development of such adjustments. However, the expert witnesses for both Staff and the Joint Sponsors indicate that productivity factors would roughly balance out the inflation factors and that if productivity factors are not used, then inflation factors should also be excluded. For that reason, the Commission will order SBC to exclude overt inflation factors from its cost studies.[241]

Similarly, the Commission should exclude inflation factors here.

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[240] Kansas Docket No. 97-SCCC-149-GIT, Order Setting Inputs For Cost Studies, page A-36 (Nov. 17, 1998) ("If an inflation factor is adopted, a productivity factor should also be adopted. SWBT's cost studies do not include an explicit productivity factor. Staff states if a separate adjustment for productivity were to be made, that adjustment could more than offset the inflation adjustment. Missouri, Arkansas, Texas and Oklahoma eliminated the inflation factor to offset the lack of a productivity factor. The United States District Court, Western District of Texas recently affirmed the Texas Public Utilities Commission's decision. SWBT v. AT&T, No. A97-CA- 132SS (W.D. Tex. 1998) Removing the inflation adjustment from SWBT's TELRIC cost studies represents a reasonable and conservative way of addressing these issues.")

[241] Missouri Case No. TO-2002-438, Report and Order, Issue 64 (August 6, 2002), available at http://www.psc.state.mo.us/orders/08061438.htm. The Missouri Commission had reached this same conclusion in Missouri Case No. TO-97-40, Final Arbitration Order, Adopting Staff's Recommendation attached as Appendix C, pg. 119 (July 31, 1997).

In his rebuttal testimony, SBC witness Mr. Barch stated that Mr. Flappan "speculates" that technological improvements would lead to lower wages. (SBC Ex. 7.1, p. 54.) That misstates Mr. Flappan's testimony. The point is that SBC's studies contain an increase in cost for inflation, without any corresponding factor to recognize productivity improvements. Mr. Flappan's testimony was that it would be erroneous to recognize inflation without also properly recognizing productivity. He further presented BLS data showing that over the period 1987 to 2002, worker output increased by 6.8% annually while labor costs increased only 4.4% annually; consequently unit labor costs actually fell 2.2% annually over the period. (AT&T Ex. 4.1, p. 4 and Table 1.) Thus, blind adjustments for inflation and wage increases (without taking productivity into account) would misrepresent what is happening in the real world. In an appropriately performed TELRIC study, forward-looking productivity and inflation-adjusted labor rates are captured, and not just the inflation-adjusted labor rates.

Mr. Flappan concluded that if the Commission were to adopt the TELRIC productivity factors proposed by Mr. Starkey and M. Fischer, and the TELRIC-compliant labor rates he proposed, then it would be appropriate and in conformance with TELRIC principles to apply an inflation adjustment of from 2% to 4% to the labor rates for years beyond 2004.

In his surrebuttal testimony, Mr. Flappan presented an overall response to SBC's claims with respect to the reasonableness of its proposed labor rates. In its March 1, 2004 Revised Supplemental Response to AT&T Data Request RF 39, SBC provided a document entitled "Total Compensation Measurement™ of Broad-Based Benefits" dated

December 2003 (revised).[242] The document is a comparative cost of benefits study provided by Hewitt Associates to SBC. It compares, for various SBC employee groups, the value of SBC-paid benefits. It also compares, for these same SBC groups, the value of the SBC-paid benefits to those of a group of 20 corporations chosen by SBC (i.e., Hewitt was not asked to employ its independent judgment to choose benchmark companies). Thus, it shows what Hewitt determined to be the actual costs to SBC of providing benefits to non-management employees in the Midwest, the cost of benefits that SBC incurs for managers hired after August 1, 1997, and the costs that Hewitt determined to be the cost of benefits for the 20 companies SBC chose to use as benchmarks.

Mr. Flappan, in his surrebuttal testimony, also presented a comparison of the SBC Midwest Bargaining group's "All Benefits"[243] and "Health Care" benefits, for the $40,000 and $70,000 pay levels, compared with: (1) the dollar value of SBC Management New Hires' benefits[244], (2) the 20 benchmark companies' benefit costs and (3) the average benefit loading from the SBC filed labor rates in this docket. That comparison is highly significant. TELRIC is a "scorched node" costing method – meaning that least-cost, most-efficient technology and processes must be assumed. It is reasonable and appropriate to assume that SBC's benefit costs should not exceed the benefit costs it is currently realizing for managers hired after August of 1997, *i.e.*, those

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242 AT&T Ex. 4.2, Attachment RPF-20.

243 "All Benefits", for the purpose of this study, includes health care costs and pension costs.

244 It appears from the study that "New Hires" refers to employees hired after 8/1/1997, not employees with very short time on the job.

should be the maximum efficient costs that would go into a TELRIC study for an SBC employee. SBC's filed labor rates include ***** BEGIN CONFIDENTIAL XXXX**9 **END CONFIDENTIAL***** annually for health care, while its new hire annual cost for health care is only *****BEGIN CONFIDENTIAL XXX END CONFIDENTIAL***.** SBC has filed labor rates with a health care loading that is 265% of the health care costs it is currently realizing for managers. The health care costs in SBC's asserted labor rates exceed the realized health care costs for non-management workers in the Midwest by 45% to 57%.

The same relationships exist when pension costs are included. SBC's cost study benefit costs are 50% higher than its realized benefit costs for management employees hired after August of 1997. They are 44% higher than costs at the 20 companies SBC chose to benchmark. And they are 10% higher than the realized Midwest non-management costs.

This comparison shows dramatically that SBC in its labor rates proposals has made no attempt to model or reflect efficient costs. This is an egregious violation of the basic TELRIC principle which requires that forward-looking efficient costs be used to set UNE rates. Moreover, this is yet another illustration of the underlying fact that SBC's labor cost "studies" are effectively the result of a "black box" process, and that the rates it produces are highly arbitrary and unreliable. Any SBC claim that its filed UNE labor rates are TELRIC-compliant, or even the costs that it actually incurs today, must be dismissed.

2. The Positions Of IBEW And Staff Are Not Consistent With TELRIC

a. IBEW

IBEW witness Mr. Kastner supports SBC, arguing that SBC's and AT&T's benefit packages represent the end product of 50-plus years of collective bargaining. (IBEW Ex. 1, p. 6.) With all due respect, that observation is irrelevant to a TELRIC study. Under TELRIC, SBC is entitled to recover only those forward-looking, efficient costs it would incur in operating a newly-built network using its existing wire center locations and the least-cost, most forward-looking technology currently available. That is, TELRIC looks at costs on a forward-looking economic basis, and it is not constrained by the actual costs incurred by the incumbent with monopoly power. Very few companies, especially newly formed ones, have the same benefit costs as do the old-line telephone companies, rooted in 50 years of collective bargaining.

Instead, one must compare SBC's labor costs with normal competitive market costs in order to determine whether SBC's labor costs are above competitive market levels. Mr. Flappan's testimony makes that comparison and proves that SBC's labor costs are supra-competitive. In the past, SBC has been able to pass along these high costs to its captive customers. In the current docket, SBC would like to pass these high labor costs on to its competitors. AT&T respectfully urges that the Commission reject SBC's attempts to do so.

That is not to suggest that TELRIC requires assuming away unions and collective bargaining, or that the actual wages or benefits that SBC pays to its employees can or should be altered in this proceeding. Rather, TELRIC principles simply require that *embedded* institutional arrangements arising from *historical* labor relations cannot and

should not determine TELRIC costs, and that any SBC labor rates that appear in TELRIC studies, to be paid by CLECs in the form of recurring and nonrecurring UNE rates, must conform to TELRIC principles. To say that AT&T is arguing for anything more is merely inflammatory rhetoric. SBC's agreements with its employees are two-party agreements and the Commission's Order in this docket will, of course, have no impact on those agreements. Certainly the Commission's performance of its TELRIC obligations in no way communicates that the Commission does not "value" the work of IBEW workers, as Mr. Kastner contends.

b. <u>Staff</u>

Staff witness Mr. Hanson appeared to make an exception to the requirement to set labor rates based on TELRIC in the case of labor rates used for SBC's non-recurring activities. He stated that "for many non-recurring activities there is no market. By definition, the incumbent has to provide those services. Therefore, for these activities, I do not believe it is appropriate to use market-based benchmarks for wage rates or benefits." (Staff Ex. 18.0, p. 3) This is a dangerous, unnecessary and unlawful distinction. Labor rates are used to develop both recurring and non-recurring UNE rates, and *all UNE rates* must be based on forward-looking economic costs.

The distinction Mr. Hanson would draw is unprecedented. There is no basis for it in the Telecommunications Act or in FCC or judicial precedent. Staff's position basically amounts to the endorsement of embedded costs for nonrecurring, as distinguished from recurring, charges.[245] And it represents unsound policy from a competitive standpoint.

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[245] As to Mr. Hanson's opinion that "the costs that SBCI projects that it will incur for labor," not market-based data, should be used in determining labor rates, again Staff is essentially endorsing the use of embedded costs rather than economic or market-based costs in a TELRIC study. Moreover, as Mr. Flappan testified, SBC's cost projections are

High costs for non-recurring activities required to provision UNEs can be very significant barriers to entry. If recurring rates are set based on TELRIC and non-recurring rates are set well above TELRIC, the new entrants may well not be able to enter the market or, if already there, stay in the market. If the new entrant must pay its employees competitive, market-based compensation, and at the same time must pay premium non-recurring costs to the ILEC (SBC) to subsidize above-market labor costs, the new entrant is at an insurmountable, anti-competitive disadvantage.

This Commission has opined on the potential for non-recurring costs to be a barrier to competitive entry. In its TELRIC NPRM Comments, the Commission correctly recognized that non-recurring costs can be a barrier to competitive entry:

> Nonrecurring charges are traditionally labor intensive, and labor rates are traditionally loaded to include some common costs such as tools, vehicles and supervision. However, the ICC acknowledges that, whenever up-front nonrecurring charges are increased, it represents a potential barrier to competitive entry. As the cost of entry into a market increases, the ability of competitors to enter a market decreases.
>
> The Commission was entirely correct in this observation, and Staff here has failed to heed it. (ICC TELRIC NPRM Comments, p. 78)

Labor rates are critical in determining TELRIC-compliant UNE rates. Mr. Flappan demonstrated that, based on SBC's 2002 annual report, labor costs represent an estimated *****BEGIN CONFIDENTIAL XXX END CONFIDENTIAL***** of SBC's overall operating expenses. (AT&T Ex. 4.1, pp. 32-33.) It is, therefore, competitively crucial that all of SBC's labor rates used to develop its non-recurring charges strictly comply with TELRIC principles. With labor representing such a major portion of the

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essentially a "black box" and cannot be assumed to have validity simply because they bear an SBC logo. (AT&T Ex. 4.1, p. 32)

cost of operations, controlling labor costs would, obviously, be a very high priority for any new entrant. Unencumbered by legacy labor contracts, any efficient new entrant would be expected to do everything possible to keep labor costs low, and this is exactly what is happening in the real world.[246] (See AT&T Ex. 4.1, p. 34.)

3. Summary of Joint CLECs' Labor Rates Recommencations

In summary, and in accordance with Mr. Flappan's recommendations, the Commission should start with the base wage and salary figures provided by SBC. It should then divide by the .67 overall benefit factor (from the BLS) to arrive at a labor rate including benefits. The 95% adjustment factor should then be applied to that labor rate (including benefits), to account for 5% non-productive time. The management hours adjustment should then be applied to recognize that managers normally work more than 40 hours per week. The support asset factors developed by Mr. Starkey and Mr. Fischer should then be applied, instead of the support asset factors developed by SBC. The Commission should then apply the adjusted clerical and supervisory support amounts described above, as well as SBC's Support and Supervision – Other adjustment. Finally, the Commission should eliminate any wage increase and inflation factors.

Applying these normalizing adjustments results in reductions ranging from 3% to 32%, with a the mean reduction of 20% and a median reduction is 19%, to the "fully-loaded" labor rates used by SBC. Again, in reaching those recommendations, Mr.

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[246] Mr. Flappan points to the example of SBC itself which, when it entered the long distance market, did so by reselling the long distance services of WilTel, which is a non-union company. Mr. Flappan gives other examples, and describes the basic supply and demand factors that have put substantial pressure on labor rates generally, nationwide and in Illinois. (AT&T Ex. 4.1, pp. 34 – 37) SBC has reacted with a cost control process that is on-going. (*Id.*, pp. 37 – 38)

Flappan made no changes to the stated basic wages and salaries used by SBC; rather, the adjustments are only to the loadings added on by SBC to its basic wages and salaries. The 2003 fully loaded labor rates proposed by Joint CLECs for use in the cost studies, and a comparison with the SBC filed labor rates, is presented in Table 12 to AT&T Ex. 4.0 (Confidential). The rates recommended by Joint CLECs, based on Mr. Flappan's analysis, are forward-looking and are TELRIC-compliant, and they should be accepted by the Commission for purposes of this proceeding.

V. SHARED AND COMMON FACTORS.

A. Issues Common To Shared And Common Factors Development

1. Use of new methodology generally

Joint CLEC witnesses Messrs. Starkey and Fischer describe three categories that define the entirety of a firm's economic cost: (1) direct costs; (2) shared costs; and (3) common costs. Direct costs measure the incremental resources that must be expended to produce a given product. Shared costs (or "joint costs") are those costs not directly attributable to any single product, but which are caused by the production of a group of products or services. Common costs are the costs that remain after having appropriately and rigorously identified both direct and shared costs. (AT&T/Joint CLEC Ex. 1.0, pp. 6-7)

The FCC has made clear that ILECs are allowed to recover only those common costs they can prove would be incurred by a firm operating efficiently consistent with the FCC's TELRIC rules. According to the FCC's *Local Competition Order*, which provides specific guidance regarding how shared and common costs are to be measured and recovered when calculating UNE rates, *"a properly conducted TELRIC methodology will*

attribute costs to specific elements to the greatest possible extent, which will reduce the common costs."[247] As the FCC's *Local Competition Order* also indicates, the TELRIC methodology, when properly applied, requires that SBC only be allowed to recover a reasonable portion of "forward-looking common costs" (*i.e.*, historical costs are not recoverable) in establishing prices for network elements. Because the ILEC controls the entirety of the information necessary to allocate its underlying costs in a reasonable manner, the FCC explicitly required that ILECs bear the entire burden to "*…prove the specific nature and magnitude of these forward-looking common costs.*"[248] (AT&T/Joint CLEC Ex. 1.0, pp. 8-9)

In general terms, SBC recommends that it be allowed to recover a pool of expenses it identifies as common costs (as well as a separate pool of shared costs), through a fixed percentage markup (or "fixed allocator") to be applied to the direct costs of each individual UNE it sells. More precisely, SBC recommends that for every dollar of direct cost attributable to a given UNE, it should be allowed to set a rate equal to $1 + ($1 x ***BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***) or ***BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***, thereby recovering shared and common costs at a rate of ***BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL*** of direct costs. SBC's fixed allocator is comprised of ***BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL*** in common costs and ***BEGIN CONFIDENTIAL*** 20.38% ***END CONFIDENTIAL*** attributed to shared costs.

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247 *See Local Competition Order*, ¶ 695.

248 *Id.*

SBC calculates shared costs and common costs via two somewhat independent processes. Because problems exist with SBC's recommendation at both the methodological level and the functional level, it is important to understand both the theory and methodology of SBC's approach.

At a high level, SBC's common cost calculation develops a ratio of expenses it identifies as common costs, compared to expenses it identifies as total direct costs. (Joint CLEC Ex. 1.0, pp. 10-11) SBC's methodology necessarily assumes that while common costs cannot be attributed directly to any given unit of output or to any product or service (and are not, therefore, direct or shared), common costs will vary in relation to the total direct costs of the firm as a whole. Likewise, SBC's theoretical approach assumes that common costs can be reasonably recovered by applying a "markup" to the direct costs of any individual product/service (or network element). (Joint CLEC Ex. 1.0, p. 22)

Specifically, SBC develops its "total common cost" numerator in four steps: ***BEGIN CONFIDENTIAL*** XXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX[249] (2) XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

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[249] The 67XX accounts SBC used as the basis for its common cost numerator are as follows: 6711 *Executive*, 6712 *Planning*, 6721 *Accounting and Finance*, 6722 *External Relations*, 6723 *Human Resources*, 6724 *Information Management*, 6725 *Legal*, 6726 *Procurement*, 6727 *Research and Development*, 6728 *General and Other Administrative*. SBC makes a very small number of revisions to its booked 67XX expenses before arriving at its common cost numerator. These revisions are reflected in AT&T Cross Ex. 15P and are discussed in more detail in the common cost section of this brief.

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ***END CONFIDENTIAL*** (AT&T/Joint CLEC Ex. 1.0, pp. 11-12) As SBC witness Mr. Barch acknowledged on cross examination, SBC's "forward looking" adjustments to its common cost numerator had the effect of more than doubling the booked ARMIS expenses that SBC used as a starting point. (AT&T Cross Ex. 15P, page 1; Tr. 410-411) SBC's "forward looking" adjustments to its common cost numerator equates to an approximately 100% increase to SBC's booked 2001 ARMIS costs. *Id.*

The development of SBC's common cost denominator, which SBC contends consists of SBC's total "forward looking" direct costs, is a bit more complicated. While SBC relied almost exclusively upon its booked expenses for certain accounts typically considered to be "overhead" in nature (67XX) in developing its common cost numerator, SBC did not develop the Total Plant in Service ("TPIS") or Total Operating Expense ("TOE") components of its common cost denominator in the same fashion. Instead of relying upon booked TPIS and TOE expenses from a timeframe consistent with its common cost numerator, SBC undertakes a rather complicated (and error ridden) attempt to estimate "forward-looking" TPIS and TOE. This exercise allegedly uses SBC's estimated TELRIC costs for certain network elements, multiplied by demand estimates for products that rely upon those network elements. The result is what SBC refers to as "forward-looking" TPIS and TOE. SBC's "forward-looking" TPIS is more than *****BEGIN CONFIDENTIAL*** XXX ***END CONFIDENTIAL***** less than SBC's book TPIS brought to current value using current-cost-to-book-cost ("CC to BC") ratios in 2001 (the timeframe from which the common cost numerator is developed), and SBC's "forward-looking" TOE is approximately *****BEGIN CONFIDENTIAL*****

XXX ***END CONFIDENTIAL* less than book expenses in 2001. Because SBC's "forward-looking" direct cost estimate derived from its adjusted TPIS and TOE serves as the denominator in calculating its fixed common cost allocator, use of the smaller, "forward-looking" estimate substantially increases the ultimate common cost allocator. AT&T/Joint CLEC Ex. 1.0, pp. 12-15. While SBC's "forward looking" adjustments to its common cost numerator more than doubled its 2001 ARMIS booked costs, its "forward looking" adjustments to its common cost denominator reduced its 2001 ARMIS booked costs by ***BEGIN CONFIDENTIAL*** XXXX.***END CONFIDENTIAL*** (See AT&T Cross Ex. 15P, p. 2)

As discussed in more detail below, the Joint CLECs have serious concerns about the way SBC performed its common cost study, for the following reasons:

(i) Mismatched Numerator and Denominator

By calculating its common cost numerator based solely upon embedded, historical data, and its direct cost denominator using a contrived estimate of "forward-looking" direct costs, SBC arrives at a mismatched combination of data that represents the worst of all worlds for competitors (*i.e.*, an exaggerated numerator compared to an erroneously small denominator resulting in an artificially large fixed allocator).

Comparing embedded expenses to forward-looking direct costs in this manner requires a string of implicit and erroneous assumption. Specifically, SBC assumes not only that its current overhead expenses need to be recovered without reduction on a going forward basis, but that the same level of embedded common expenses are recovered regardless of changes in SBC's direct costs resulting from the introduction of forward-looking technology and/or optimum efficiency assumptions that are made to those direct costs. This simply is not a credible study. SBC's analysis must either rely upon a comparison of a forward-looking numerator and denominator, or a booked numerator and denominator to maintain a proper relationship between common costs (numerator) and direct costs (denominator). (AT&T/Joint CLEC Ex. 1.0, p. 15)

(ii) Failure to Properly Allocate 67XX Expenses as Direct and/or Shared

By simply using the unadjusted balances from its series 67XX accounts as its numerator, SBC has made no attempt to determine whether (1) some portion of this enormous pool of expenses can be directly attributed to certain products/services (*i.e.*, some portion are *direct costs*), (2) some portion can be attributed to groups of products/services (*i.e.*, some portion are *shared costs*), or (3) some portion of these expenses are not appropriately recovered from its competitors as previously determined by the Commission (*e.g.*, charitable contributions, legislative and legal expenses directed solely at enhancing shareholder value, marketing campaigns directly aimed at besmirching its competitors, etc.).[250] (AT&T/Joint CLEC Ex. 1.0, pp. 15-16) Even SBC's own economist, Dr. Aron, recognizes that some adjustment is necessary to remove retail-related expenses. To remove retailing costs from ARMIS data, Dr. Aron used the UBS Warburg avoided cost discount of 17.8% to perform her 2001 analysis (Tr. 280) and, in performing her 2002 analysis, removed 100% of the costs in ARMIS Account 6611-6613 and 6621-6623. (Tr. 281-282; AT&T/Joint CLEC Ex. 1.0, pp. 15-16)

(iii) Use of Both Regulated and Non-Regulated Data

SBC uses both regulated and non-regulated data in calculating both its common cost numerator and its common cost denominator. For purposes of developing a common cost ratio that will be applied exclusively to regulated products/services, data specific to its regulated operations provides a far better methodological basis. By using both regulated and non-regulated data, SBC's analysis necessarily assumes that the relationship between non-regulated expenses versus non-regulated investments is useful in estimating the relationship between regulated expenses and regulated investments. Focusing on regulated expenses and investments for purposes of estimating that same ratio into the future is the better alternative. SBC's own financial data indicates that non-regulated expense is a greater percentage of total expense than the percentage of non-regulated investment to total investment. This results in a larger common cost ratio than if only regulated expense and investment are used in the factor calculation. (AT&T/Joint CLEC Ex. 1.0, p. 16)

(iv) Improper Inclusion of TBO Amortization / Removal of Settlement Gains

SBC's 2001 USOA accounting data include an amortized portion of the Transitional Benefit Obligation ("TBO") SBC incurred as a result of accounting changes implemented in 1992. The amortized TBO amount that remains on SBC's books is not an expense that it incurred in 2001,

250 TELRIC I Order, p. 51.

and certainly is not indicative of expenses SBC will incur in the future. It is not a forward-looking expense; rather, it is the result of an accounting convention which requires SBC to recover one time TBO adjustments through its regulated rates over a number of years (as opposed to recovering it in a lump-sum manner in rates developed in 1991/1992). In fact, since 1995, the FCC has prohibited any carrier from including such amounts in the interstate rates regulated by the FCC because such accounting changes have absolutely no economic cost impact. (AT&T/Joint CLEC Ex. 1.2P, pp. 31-32) The TBO adjustment does not equate to expense incurred in supporting either the equipment producing services in 2001, or to support the employees that currently use that equipment to provide SBC's products/services. To the contrary, it is an amortized amount resulting *from employee years of service prior to 1991*. (Tr. 429) As such, SBC's TBO adjustment is not a forward-looking common cost and is not appropriately included in developing the relationship between common expenses and direct costs that serves as the basis for SBC's common cost fixed allocator.

Interestingly, in calculating its common costs, SBC chose to include TBO "expenses" that it actually incurred in 1991, yet chose to ignore concurrent Pension Settlement Gains (i.e., credits) that it actually realized in the 2001 timeframe (and appears to realize on a rather consistent basis). For example, one of the "forward-looking" adjustments SBC makes to its common cost expenses is to remove an enormous Pension Settlement credit of approximately *****BEGIN CONFIDENTIAL*** XXXXX **END CONFIDENTIAL*****, thereby substantially increasing the booked expenses in Account 6728 - *Other General and Administrative.* In fact, this adjustment alone was sufficient to turn the year end 2001 balance in Account 6728 from a negative balance, or credit, to a positive balance. (See AT&T Cross Ex. 15P) In other words, SBC includes historic accounting adjustments that tend to increase its common cost allocator (*i.e.*, TBO), while at the same time making a "forward-looking" adjustment to remove actual pension settlement credits it actually received in 2001 that would have significantly decreased its common cost allocator. (AT&T/Joint CLEC Ex. 1.0, pp. 16-17)

(v) Absence of Merger Related Savings

SBC Illinois made no specific adjustment to either its shared or common cost calculation to account for savings the combined SBC/Ameritech operation will experience as a result of its merger. SBC witness Mr. Barch stated (without any factual support) that by using 2001 data, merger related savings were already included in the SBC Illinois analysis and no additional adjustment was necessary. SBC is mistaken. SBC's shared and common cost study fails to incorporate an important requirement explicitly identified by this Commission in the order approving its merger

(*i.e.*, to recognize merger related savings in the development of its shared and common cost calculation in this proceeding).[251] (AT&T/Joint CLEC Ex. 1.0, pp. 17-18)

(vi) Recognition of Inflation, Lack of Productivity Offset

In developing its common cost calculation, SBC grosses up its common cost pool by an inflation factor equal to *****BEGIN CONFIDENTIAL*** XXXXX **END CONFIDENTIAL***** apparently to recognize that SBC used 2001 expense data in developing its common cost pool, yet it is using those expenses to predict expenses it will incur in the 2002-2005 timeframe. SBC apparently believes that, all else being equal, incurring those same expenses in 2002-2005 will cost it *****BEGIN CONFIDENTIAL*** XXXXXX***END CONFIDENTIAL***** as much in real dollars. The problem, of course, is that SBC fails to also recognize that its employees generating the majority of those common expenses will become more productive over that same timeframe, thereby offsetting some portion of (or even overcoming completely) the inflation effects of rising prices. Indeed, a comparison of historic inflation trends compared to productivity trends applicable to the telecommunications industry demonstrates this fact. This historic data indicates that while prices may increase some small amount during the timeframe included in the SBC study, productivity gains will far surpass the inflation impact, resulting in a net reduction in SBC Illinois' total forward-looking common expenses in the 2003-2005 timeframe. (AT&T/Joint CLEC Ex. 1.0, p. 18)

As far as SBC's shared cost methodology, SBC identifies only two types of shared costs: (1) "wholesale marketing cost" and (2) "Wholesale Uncollectible Cost." SBC calculates a shared cost allocator to apply to UNE direct costs by dividing both its "wholesale marketing cost" and "Wholesale Uncollectible Cost" by "Wholesale Direct Cost." The Wholesale Direct Cost SBC uses in its shared cost denominator is a portion of the direct cost denominator used in SBC's common cost calculation and, as such,

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[251] *Joint Application for approval of the reorganization of Illinois Bell Telephone Company d/b/a Ameritech Illinois, and the reorganization of Ameritech Illinois Metro, Inc. in accordance with Section 7-204 of the Public Utilities Act and for all other appropriate relief*, Docket No. 98-0555, *Order* released September 23, 1999 (hereafter "*SBC Merger Order*"). See also *Interim Order*, Docket Nos. 98-0252, 98-0335 consolidated and 00-0764, released August 13, 2002, page 24 (hereafter "*SBC Merger Savings Order*").

SBC's shared cost denominator suffers from the same flaws inherent in its common cost denominator.

To calculate its wholesale marketing costs, SBC first combines its booked expenses from accounts 6611 (*Product Management*), 6612 (*Sales*), and 6613 (*Marketing*) to arrive at a total-company "Marketing" expense. SBC then identifies that portion attributable to "Ameritech Services, Inc." and "SBC Operations" as its "wholesale marketing costs." SBC divides the wholesale marketing costs by the "wholesale direct cost" denominator (again, a portion of the common cost denominator) to arrive at a wholesale marketing percentage of *****BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***.** (AT&T/Joint CLEC Ex. 1.0, p. 70)

The Joint CLECs' primary concern – and one that applies equally to the "wholesale uncollectible cost" component of SBC's shared cost analysis – is that SBC has too broadly defined the universe of "wholesale services" it uses to attribute shared costs to UNEs. To determine shared costs to be applied to UNEs, SBC has grouped the entirety of its "wholesale" services, including such products as switched and special access, compensation with independent exchange carriers, services to payphone providers, etc., into a single bucket, of which UNEs are a very small part. SBC then attributes the expenses associated with all of these "wholesale" services as shared costs, a portion of which is to be recovered from UNEs.

The problem, of course, is that many of these "wholesale" services are unlikely to generate costs that have any bearing on, and bear little correlation to, UNE-related costs. In fact, many of the costs SBC has identified as "shared" by the entirety of its "wholesale" services are more accurately allocated as shared or direct to particular

wholesale products. For example, SBC attributes a total of nearly *****BEGIN CONFIDENTIAL*** XXXXX***END CONFIDENTIAL***** in Sales and Product Advertising expenses to its "wholesale" operation, constituting nearly half of its entire shared cost numerator. (AT&T/Joint CLEC Ex. 1.0, pp. 71-72) Yet SBC acknowledges that it undertook no advertising initiatives to persuade CLECs to purchase UNEs. (AT&T/Joint CLEC Ex. 1.0, p. 73) Thus, while SBC may incur advertising expense for certain of its wholesale services (*i.e.*, special access, switched access, payphone services, etc.), nearly any CLEC knows that SBC does not undertake initiatives aimed at "stimulating the purchase" of UNEs. Indeed, in most circumstances, SBC attempts to steer CLECs away from UNEs to more costly special access products or resale services. Hence, the advertising expenses related to resale and special access are not reflective of advertising expenses incurred in connection with provision of UNEs. As such, while SBC's methodology has grouped UNEs with some larger family of "wholesale products" for purposes of estimating "shared costs", it is not reasonable to attribute these types of costs to SBC's UNE products. Contrary to SBC's assertions, these are not costs "shared" by UNEs as a group; rather, they are costs shared by some other wholesale services, and should not be included in a shared cost allocator applied to UNEs. (AT&T/Joint CLEC Ex. 1.0, pp. 73-74)

As far as SBC's shared cost methodology as it applies to wholesale uncollectible expense is concerned, SBC assumes that *****BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***** of its total uncollectible expense is attributable to wholesale services. (AT&T/Joint CLEC Ex. 1.0, pp. 76-77) Yet SBC's support for this figure is little more than a hard coded value within its shared cost study identifying a total

of *****BEGIN CONFIDENTIAL*** XXXXXX ***END CONFIDENTIAL***** of uncollectibles specific to "ALDIS and Special Markets." (AT&T/Joint CLEC Ex. 1.0, p. 78) The Joint CLECs have four primary concerns with the amount of wholesale uncollectible cost included in SBC's shared cost numerator:

(1) Though SBC's calculation of "wholesale uncollectible cost" represents the largest single component of its shared and common cost fixed allocator, SBC provides the least amount of information supporting this calculation.

(2) Again, by lumping numerous services and products together into a single bucket generically titled "wholesale products," SBC's analysis attributes expenses to UNEs that are more appropriately allocated directly to other products. The attributes of "wholesale services" as a whole have little relationship to UNEs.

(3) 2001 was an anomalous year, representing the largest uncollectible balance SBC has experienced in the recent past (perhaps ever). Indeed, SBC's own reported uncollectibles for its "wholesale services" in 2002 are 26% less than those booked in 2001, even though its revenue associated with those products increased during that same time period and, from 2002 to 2003, SBC's wholesale uncollectibles declined by 81%. (AT&T/Joint CLEC Ex. 1.0, p. 78; AT&T/Joint CLEC Ex. 1.2P, p. 53; Tr. 360-361, 457-458)

(4) In an effort to identity "wholesale uncollectible" expense, SBC uses its year-end balance in account 5301. According to the FCC's Chapter 32 rules that govern SBC's USOA accounts, Account 5301 tracks only those revenues that were originally written off. It does not capture any portion of those write-offs that were eventually collected. In response to Staff discovery, SBC identified the amount that was actually "written off" after being considered "impracticable of recovery." The amount actually written off is far smaller than the amount originally booked to Account 5301 and used by SBC in its analysis (*i.e.*, SBC appears to have collected a large portion of the "uncollectible" amounts originally identified in account 5301). (AT&T/Joint CLEC Ex. 1.0, p. 78)

As a result of these numerous errors, more fully discussed below, SBC's shared and common cost allocations are substantially overstated, in direct conflict with the FCC's applicable rules and orders. SBC proposes a revised shared and common cost

allocator of *****BEGIN CONFIDENTIAL***XXXXX***END CONFIDENTIAL***** of underlying direct cost. When this amount is properly adjusted to comply with the applicable FCC rules and TELRIC methodology – as AT&T/Joint CLEC witnesses Messrs. Starkey and Fischer have done – the result is a much lower shared and common cost allocator that the Commission should adopt. AT&T/Joint CLEC witnesses Mr. Starkey and Mr. Fischer, in their Direct Testimony, recommend a common cost allocator of *****BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***** and a shared cost allocator of *****BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL*****, or a total shared and common percentage allocator of *****BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL*****. (AT&T Joint CLEC Ex. 1.0, pp. 96-97) Two factors will change this recommendation. First, since the Joint CLECs made their recommendation, SBC made various revisions to its common cost numerator in its rebuttal and its surrebuttal testimony, which has reduced SBC's proposed common cost allocator. (See AT&T Cross Ex. 15P, pp. 1-2 and Tr.407-409) Because these changes were made so late in the process, the Joint CLECs did not have an opportunity to revise their shared and common cost recommendations consistent with the changes SBC has agreed to make (1) in response to Staff proposals and (2) to correct the accounting error that appears in SBC's year-end ARMIS data for Account 6711 (Executive).

Second, assuming the Commission adopts the recommendation of Joint CLECs and Staff to transfer all support asset costs into the common cost factor, the common cost allocator will need to be increased accordingly.

2. Use of Regulated and Nonregulated Data - SBC Has Failed To Remove Non-regulated Data

The FCC's accounting rules recognize that SBC provides two primary types of services: those that are regulated by the FCC and state commissions, and those that are not regulated. SBC's accounting system captures expenses, investments and revenues attributable to both regulated and non-regulated services. The relationship between SBC's regulated expenses and its regulated investments (the underlying basis for SBC's common cost numerator and denominator) differs substantially when compared with the same relationship for deregulated services. Indeed, AT&T/Joint CLEC witnesses Messrs. Starkey and Fischer point out that nonregulated costs comprise a larger proportion of the common cost numerator than the common cost denominator, thereby increasing the common cost percentage. (AT&T/Joint CLEC Ex. 1.0, p. 46)

The common (and shared) cost allocator approved by the Commission in this proceeding will only be applied to direct costs for UNEs, which are regulated services; hence, comparing regulated expenses and regulated investments (*i.e.*, direct costs) is the most pertinent comparison. Accordingly, the Joint CLECs, in recalculating SBC's cost model, have removed non-regulated amounts from both the numerator (expenses) and the denominator (direct costs). Using the FCC's accounting rules (including its delineation between regulated and non-regulated data), Messrs. Starkey and Fischer were able to remove those expenses and investment that are generated only by SBC's non-regulated services, and were able to directly assign those expenses as shared costs to the non-regulated operation. (AT&T/Joint CLEC Ex. 1.0, p. 45)

Likewise, Messrs. Starkey and Fischer were able to isolate those expenses that are common or shared costs of the regulated operation to more accurately calculate a common cost factor appropriately applied just to regulated UNEs. This adjustment

reduced the common cost percentage, which corroborated the Joint CLECs' opinion that including both regulated and non-regulated expenses in the common cost numerator and denominator, as SBC had done, overestimates common/shared costs specific to regulated products. (AT&T/Joint CLEC Ex. 1.0, pp. 45-46) Consistent with the above, the Joint CLECs also appropriately removed nonregulated data from the shared cost calculation.

It is undisputed that the means exist for SBC to identify regulated versus non-regulated data; indeed, the FCC's Part 32 rules specify this distinction. As SBC witness Mr. Barch acknowledged, SBC's reported ARMIS data is already displayed in regulated and non-regulated formats such that it would be easy to use only regulated data. (Tr. 325) No discretion is required to separate regulated data from non-regulated data. That same means can and should be used to assign those costs as shared or direct costs of providing non-regulated services. By removing non-regulated data from the shared and common cost calculation, the Commission can more precisely remove expenses that are generated only by SBC's non-regulated services, and can directly assign those expenses as shared costs to the non-regulated operation. In this way, the Commission is able to isolate only those expenses that are common or shared costs of the regulated operation, thereby providing an opportunity to more accurately calculate a common cost factor appropriately applied just to UNEs, which are, of course, regulated.

Focusing on regulated expenses and investments for purposes of estimating that same ratio into the future is the much better alternative. For purposes of developing a common cost ratio to be applied exclusively to regulated products/services, data specific to SBC's regulated operations provides a far better methodological basis upon which to develop that ratio. SBC's non-regulated expense is a greater percentage of total expense

than the percentage of non-regulated investment to total investment, thereby resulting in a larger common cost ratio than would result if only regulated expense and investment are used in the factor calculation. (Tr. 326-327)

SBC has provided no reason why the removal of non-regulated data would hinder its ability to estimate its regulated expenses in a forward-looking environment. In fact, SBC was recently ordered by the Indiana Commission to remove nonregulated data from its common cost allocator and its shared cost allocator based on the same arguments presented above.[252] The Commission should therefore reject SBC's use of non-regulated data in calculating its common cost factor and its shared cost factor and require SBC to remove non-regulated data from its shared and common cost allocators.

3. Consistency of numerators and denominators

As AT&T/Joint CLEC witnesses Messrs. Starkey and Fischer explained in detail and as AT&T Cross Exhibit 15P plainly demonstrates, SBC calculates its common cost numerator solely using embedded, historical ARMIS[253] data, yet calculates its direct cost denominator using a contrived estimate of "forward-looking" direct costs which are significantly lower than SBC's embedded direct costs. Because SBC's common cost factor is derived using common costs as a numerator and direct costs as a denominator, overstating the numerator while understating the denominator leads to a higher shared

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[252] Indiana Order, pp. 138-39, 141.

[253] The Automated Reporting Management Information System, or ARMIS, was initiated in 1987 for collecting financial and operational data from the largest carriers. Additional ARMIS reports were added in 1991 to collect service quality and network infrastructure information from local exchange carriers subject to price cap regulations, in 1992 for the collection of statistical data formerly included in Form M, and in 1995 for monitoring video dial tone investment, expense and revenue data. Today, ARMIS consists of ten public reports.

and common cost allocator. Hence, by mismatching higher, embedded common costs over its contrived "forward looking" direct costs, SBC arrives at a substantially overstated common cost allocator.

SBC's use of embedded cost data in the numerators of its shared and common cost factors and "forward-looking" data in its denominators results in a wholly inappropriate mismatch of data and undermines the whole purpose of the shared and common cost allocation, which is to identify the level of shared and common costs that are necessary to support SBC's provision of UNEs. Because the common cost ratio (*i.e.*, common costs / direct costs) should identify the extent to which common costs vary in relation to direct costs, using costs from the same timeframe and from the same methodological basis (*i.e.*, accounting costs versus economic costs) is crucial. By mixing and matching an embedded common cost numerator with an estimate of forward-looking direct costs in the denominator, SBC arrives at a common cost percentage allocator with little, if any, mathematical or theoretical validity. (AT&T/Joint CLEC Ex. 1.0, pp. 18-19) The same holds true for SBC's shared cost calculation.

As the FCC made clear, SBC is allowed to recover only those common costs that it can prove would be incurred by a firm operating efficiently consistent with the FCC's TELRIC rules. Said another way, an appropriate common cost fixed allocator could be calculated using forward-looking common costs as a numerator, and forward-looking direct costs as a denominator. SBC's common cost analysis, which uses essentially unadjusted, embedded historical expenses from its 67XX series accounts as its common cost numerator and its own estimate of forward-looking direct costs as its denominator, directly conflicts with this requirement. (AT&T/Joint CLEC Ex. 1.0, p. 19) This is the

worst case scenario for competitors because SBC's analysis generates a fixed allocator that will allow it to recover the same level of historic common costs it incurred in 2001, even if the direct costs those common costs support are dramatically reduced by the efficiency and forward-looking requirements of the TELRIC methodology. In effect, SBC's assumption is that the efficiency and forward-looking assumptions encompassed by the TELRIC methodology will have no impact at all on the common costs it expects to incur, even as its direct costs decline. That is not a reasonable assumption; it is an assumption only directed towards driving up SBC's common cost allocator. (AT&T/Joint CLEC Ex. 1.0, pp. 18-20)

SBC has designed its mismatched common cost allocator to act as a "make whole mechanism." Specifically, SBC contends that its "forward-looking" denominator is purportedly based upon output from SBC's TELRIC models for loop and switching costs. Hence, to the extent this Commission reduces SBC's proposed loop costs, these adjusted costs will flow through the shared and common cost model and decrease the direct cost denominator. Because the embedded common cost numerator is not similarly impacted by a decrease in direct costs, as the denominator decreases (*i.e.*, as loop costs decline), the common cost factor *increases.* This is highly inappropriate given that the very reason common costs are recovered as a percentage of direct costs is to acknowledge the fact that as SBC's output (*i.e.*, direct cost) grows, or contracts, common costs should grow or contract proportionally. (AT&T/Joint CLEC Ex. 1.0, pp. 22-23)

Ideally, SBC should have calculated its common cost numerator in much the same manner it allegedly used to develop its forward-looking denominator, *i.e.*, using a "bottoms-up" analysis aimed at identifying only those common costs that would be

incurred by an efficient firm relying upon the most efficient technology and practices reasonably available in the marketplace today.[254] That is, after all, the purpose of a TELRIC cost study. As a second best alternative, SBC could have undertaken a "top-down" approach by beginning the analysis using its booked common expenses, but then making adjustments to reflect efficiencies that could be gained assuming the use of forward looking, efficient technology and practices. SBC did neither. For the most part, SBC simply copied the year-end balances that existed in its 67XX series accounts at the end of 2001 and considered those to be sufficiently forward-looking in nature. In fact, while SBC did make some adjustments to its embedded common cost calculation, those adjustments were not forward-looking; rather, they more than doubled SBC's total common costs. (AT&T Cross Ex. 15P; Tr. 410-411)

The Commission should not guarantee SBC the right to recover the totality of its *booked, historic* common costs. Instead, the Commission's responsibility using TELRIC pricing principles is to ensure that SBC is allowed to recover only its *forward-looking*, efficient common costs. SBC's methodology of mismatching an embedded numerator and an allegedly "forward looking" denominator will, as SBC witness Mr. Barch acknowledges, ensure that SBC recovers at least its *booked* common costs, even when applied to forward-looking direct costs. (AT&T/Joint CLEC Ex. 1.0, pp. 21-22) That is exactly the problem. Under the FCC's TELRIC pricing methodology, this Commission is required to ensure that the fixed allocator it approves allows SBC to recover no more

[254] The Joint CLECs do not, by this statement, at all agree that the manner in which SBC has calculated its forward-looking direct costs is either valid or reasonable. Rather, the point is that, no matter how poorly executed, at least the effort to arrive at forward-looking direct costs was more appropriate than the use of embedded data in the numerator.

than its *forward-looking* common costs. Using SBC's estimate of "forward-looking" direct costs as a denominator will not accomplish that goal so long as SBC's booked common costs remain in the numerator. *Id.*

To the contrary, common costs are developed as a ratio (and applied as a percentage) precisely because it is reasonably assumed that those costs vary consistently with whatever denominator is chosen in calculating the fixed allocator, *i.e.*, by definition, common costs vary with the total output of the firm. Said another way, we recover common costs as a percentage of the firm's total output specifically because we believe that as the firm's output grows, or contracts, so will common costs. Hence, the denominator is considered an appropriate indicator for estimating the value of the numerator. By mismatching booked common costs with forward-looking direct costs, SBC ignores the inherent and undeniable relationship between numerator and denominator, and arrives at a distorted relationship with little theoretical value. The Commission must reject SBC's attempt to recover a static pool of common costs, regardless of what happens to SBC's total output in the future. Rather, the Commission should establishing a realistic relationship between the level of common costs that are actually incurred (or forecasted to occur), and the totality of the firm's output they will be required to support. In short, the Commission must ensure that as the value of the denominator rises and falls with demand, SBC's common cost recovery is likewise adjusted. (AT&T/Joint CLEC Ex. 1.0, pp. 23-24)

As noted above, the preferred approach would have been to develop a "bottoms up" analysis, identifying only those forward-looking costs SBC would reasonably be expected to incur in an efficient, forward-looking environment. However, because SBC

has failed to even attempt such a calculation, and realistically only SBC has the information required to undertake such an endeavor, this option is unachievable within the time constraints of this docket.

Another alternative the Joint CLECs considered was to begin with SBC's booked common costs and attempt to make adjustments that would render those values appropriately forward-looking. Again, however, SBC has failed to provide the data necessary to perform that analysis and to provide the requisite evidentiary support for such forward-looking adjustments. (AT&T/Joint CLEC Ex. 1.0, p. 25)

For these reasons, and based upon the data available, the Joint CLECs recommend that the Commission rely upon the equally valid approach of using booked, historic data for both the numerator and the denominator. In this way, though the *data* used are not forward-looking, the *ratio* of common expenses and direct costs can, with very little adjustment, be considered realistically forward-looking. This approach has a sound basis in economic theory and comports with cost causation principles (and, importantly, allows the Commission to use the information provided by SBC). At its core, it is the *relationship between common costs and the total output of the firm* that is important in gauging an appropriate level of common costs in the future. Because the Commission will, in this proceeding, be establishing direct costs for SBC's UNEs based upon forward-looking principles, the fixed allocator resulting from the embedded common cost and embedded direct cost relationship will not provide SBC with full recovery of its embedded common costs (as it should not). Instead, it will – appropriately -- provide SBC the opportunity to recover only those common costs required to support the lower, forward-looking direct costs, as TELRIC requires (because the fixed allocator will be

applied to smaller forward-looking direct costs for UNEs). (AT&T/Joint CLEC Ex. 1.0, pp. 25-26)

Other state commissions in the SBC Midwest region share the Joint CLECs' concerns and agree with their recommendation. In the Indiana Order, the Indiana Commission rejected SBC's mismatched data and adopted the methodology proposed herein by the Joint CLECs:

> We agree with the CLECs that the preferred approach to calculating SBC's common costs would be to identify only those forward-looking costs that would be reasonably available in the marketplace today. SBC's common cost analysis is in direct conflict with this methodology, as it uses unadjusted historical expenses from its 67XX series accounts as its numerator (i.e., embedded data), and its own estimate of forward-looking direct costs as its denominator. This assumes that no matter how much more efficient SBC becomes at providing services to its customers, its common costs will remain constant. That is not a reasonable assumption, and we hereby reject it. In addition, no party has made an attempt to calculate an appropriate common cost allocator using forward-looking common costs in the numerator and forward-looking direct costs in the denominator.
>
> Because the common cost ratio (CC:BC) is intended to identify the extent to which common costs vary in relation to direct costs, using costs from the same time frame and from the same methodological basis (i.e., accounting costs versus economic costs) is absolutely crucial. Based upon the data available to us, we agree with the CLECs that the best approach under the circumstances is to use booked data for both the numerator and the denominator. In this way, though the data being used is not forward-looking, the ratio of common expenses and direct costs can, with very little adjustment, be considered realistically forward-looking. This approach has a sound basis in economic theory and comports with cost causation principles (and, importantly, allows us to use the information provided by SBC) because it is the relationship between common costs and the total output of the firm that is important in gauging an appropriate level of common costs in the future. This will provide SBC the opportunity to recover those common costs required to support the lower, forward-looking direct costs that result from a proper TELRIC evaluation. We therefore find that SBC should remove the "forward-looking" adjustments that it made to its booked direct costs in calculating its common cost denominator. (Indiana Order, pp. 134-135)

Similarly, in MPSC Case No. U-13531, the Michigan Public Service Commission Staff filed comments on January 20, 2004 critiquing SBC Michigan's cost studies and TELRIC proposals, including the same shared and common cost methodology SBC presents here. The Michigan Staff made the following comments regarding SBC Michigan's numerator (common costs).

> A review of the workpapers underlying SBC's calculation of its shared and common factors clearly show the use of 2001 historical year embedded FCC ARMIS expenses. SBC's use of historical information, now over two years old, is clearly inconsistent with the Commission's general cost methodology and cannot be accepted as forward-looking.[255]

The Michigan Staff's comments succinctly and clearly outlined the inconsistency between SBC's common cost denominator and its common cost numerator.

> Staff's review of SBC's common cost proposal revealed a major flaw in the calculation of the common cost factor. SBC's common cost proposal in effect "guarantees" SBC a complete recovery of its embedded 2001 common costs in addition to the recovery of the additional costs proposed by SBC for amortized TBO, pension settlement gains elimination, and OSS testing expenses. The mechanism employed by SBC was simple. SBC used a denominator that is not properly matched to its numerator. It is essential to the proper determination of a common cost factor that both the numerator and denominator be matched in nature. The only two workable matches for the numerator and denominator would be either both embedded or both forward-looking. A common cost factor calculated using an embedded numerator and a forward-looking denominator should not be allowed. That is precisely the methodology proposed by SBC to calculate its common cost factor. Ideally, a common cost factor would be determined by using both a forward-looking numerator and a forward-looking denominator. SBC has not provided a calculation of forward looking common costs that could be properly used as the numerator. Either SBC's embedded numerator needs to be adjusted to reflect a forward-looking amount of common costs, or an embedded common cost numerator and denominator needs to be used.[256]

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[255] See *In the matter, on the Commission's own motion, to review the costs of telecommunications services provided by SBC Michigan*, Case No. U-13531, Initial Comments of the Michigan Public Service Commission Staff, January 20, 2004, p. 13.

[256] *Id.*, p. 17, quoted at AT&T/Joint CLEC Ex. 1.2, pp. 10-12.

For all the above reasons, SBC's mismatched shared and common cost numerators and denominators should be rejected and the Joint CLECs' recommendations should be adopted.

4. Productivity and efficiency

SBC applies an inflation factor of *****BEGIN CONFIDENTIAL*** XXXXX END CONFIDENTIAL***** to its common costs in an apparent attempt to reflect the fact that in future periods (presumably throughout the study period) it may pay higher prices for the goods/service comprising its common expenses than it paid in 2001. As discussed more fully in Sections VI.D and E below, SBC's application of an inflation factor is problematic because SBC does not concurrently incorporate offsetting productivity gains that it is also likely to enjoy in this same time period. Recognizing inflation without also recognizing productivity exaggerates any increases in costs SBC is likely to incur. In fact, SBC's own executives recently revealed significant short term and long term cost reduction and consolidation initiatives to the investor community that are not – by SBC's own admission – reflected in its cost studies. (Tr. 364; SBC Ex. 7.2, pp. 33-34)

The Joint CLECs disagree with the value and assumptions made by SBC in applying its inflation factor and with its use without an offsetting productivity adjustment. However, the Joint CLECs make no specific adjustment to SBC's shared and common cost model because SBC's proposed inflation factor impacts both the numerator and the denominator equally. Therefore, a change in, or elimination of, the factor results in zero net change to the shared and common cost factors. (AT&T/Joint CLEC Ex. 1.0P, pp. 67-69, 96.)

B. Common Cost Factor

1. Development of the denominator

As discussed above, while SBC relied almost exclusively upon its booked 2001 year end expenses for certain accounts typically considered to be "overhead" in nature (67XX) in developing its common cost numerator, SBC did not develop the Total Plant in Service ("TPIS") or Total Operating Expense ("TOE") components of its common cost denominator in the same fashion. Instead of relying upon booked TPIS and TOE from a timeframe consistent with its common cost numerator, SBC undertook a rather complicated (and error ridden) attempt to estimate "forward-looking" TPIS and TOE. This exercise uses SBC's estimated TELRIC costs for certain network elements, multiplied by demand estimates for products that rely upon those network elements. The result – which SBC refers to as "forward-looking" TPIS and TOE – is a "forward-looking" TPIS that is more than *****BEGIN CONFIDENTIAL*** XXX ***END CONFIDENTIAL***** less than SBC's book TPIS brought to current value using current-cost-to-book-cost ("CC to BC") ratios in 2001 and a "forward-looking" TOE that is approximately *****BEGIN CONFIDENTIAL*** XXX END CONFIDENTIAL***** less than book expenses in 2001.[257] Because SBC's "forward-looking" direct cost

[257] SBC's analysis uses a total direct cost denominator of *****BEGIN CONFIDENTIAL*** XXXXXXXX.***END CONFIDENTIAL***** Removing the "forward-looking adjustment" component of SBC's analysis (effectively requiring the model to rely upon embedded direct cost data brought to current cost), increases the denominator to *****BEGIN CONFIDENTIAL*** XXXXXXXX ***END CONFIDENTIAL*****, an increase of 48.70%. The calculation of a denominator without SBC's "forward-looking" adjustments is reflected in Attachment MS/WF-5 to AT&T/Joint CLEC Ex. 1.0, QSI Adjustment No. 1 on worksheet *Tab 1 – Results*, column G, cells G37 through G43. The *****BEGIN CONFIDENTIAL*** XXX ***END CONFIDENTIAL***** reduction in plant investment from current cost to "forward-looking" cost is derived by dividing the forward-looking adjustment in TPIS *****BEGIN CONFIDENTIAL*** XXXXXXXXX ***END CONFIDENTIAL***** by TPIS at current cost *****BEGIN CONFIDENTIAL*** XXXXXXXXX ***END CONFIDENTIAL***.** These values can be found in SBC's Shared & Common cost

estimate derived from its adjusted TPIS and TOE serves as the denominator in calculating its fixed allocator, use of the smaller, "forward-looking" estimate substantially increases the ultimate common cost allocator.

As Messrs. Starkey and Fischer amply demonstrated, SBC's booked, as opposed to "forward-looking", direct costs represent a more theoretically rational denominator in calculating a fixed allocator specific to common costs because of the crucial need to maintain consistency between common and direct costs. Accordingly, the Joint CLECs did not undertake an in-depth review of SBC's "forward-looking" direct cost calculations. However, even the limited analysis the Joint CLECs were able to undertake yields substantial concerns regarding the extent to which SBC has dramatically understated its direct costs. For example, SBC's common cost denominator assumes all loops in its network are simple, 2-wire DS0 loops and excludes all other, more expensive, high-capacity loops. (AT&T/Joint CLEC Ex. 1.0, pp. 13-14) As SBC witness Mr. Barch admitted on cross examination, by excluding these more expensive loops, SBC understates the loop investment in the common cost denominator, thereby overstating SBC's common cost allocator. (Tr. 382-384) SBC's model also mis-assigns certain

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study, *IL_ SC_ 2001_12-13-02.xls*, worksheet *Tab 3 – Calculations*, cells I81 and H81, respectively. The *****BEGIN CONFIDENTIAL*** XXX ***END CONFIDENTIAL***** reduction in total operating expenses net of depreciation is derived from dividing the forward-looking adjustment in expenses *****BEGIN CONFIDENTIAL*** XXXXXXXXX ***END CONFIDENTIAL***** by Total Operating Expense Excluding Depreciation and Amortization *****BEGIN CONFIDENTIAL*** XXXXXXXXX ***END CONFIDENTIAL***.** These values can be found in SBC's Shared & Common cost study, *IL_ SC_ 2001_12-13-02.xls*, worksheet *Tab 3 – Calculations*, cells I194 and H194, respectively. SBC's adjustment to remove book depreciation expense is retained because depreciation factors calculated by the CAPCS model restate depreciation expense to current value.

investment figures in what appear to be simple data-entry errors, etc. (Joint CLEC Ex. 1.0, pp. 13-14)

SBC's analysis must either rely upon a comparison of a forward-looking numerator and a forward-looking denominator, or a booked numerator and a booked denominator to maintain a proper relationship between common costs (numerator) and direct costs (denominator). Because SBC has not presented the analysis to compare the former, the Commission must compare the latter. Accordingly, the Commission must order SBC to use the booked amounts proposed by the Joint CLECs for its TPIS and TOE in calculating its common cost denominator, consistent with what SBC was required to do earlier this year by the Indiana Commission ("We therefore find that SBC should remove the 'forward looking' adjustments that it made to its booked direct costs in calculating its common cost denominator." Indiana Order, p. 135).

2. <u>The 67XX accounts; including retail cost adjustment</u>

In developing its common cost numerator, SBC acknowledges that it relied almost exclusively upon its ARMIS year end 2001 booked expenses for certain accounts typically considered to be "overhead" in nature (67XX accounts). (Tr. 401-409; AT&T Cross Ex. 15P, pp. 1-2) To calculate its common cost numerator, SBC started with its year end 2001 ARMIS book cost for many of its Series 67XX accounts (*i.e.*, the book costs reported to ARMIS in April 2002 for the year ending 2001). In developing its common cost numerator, SBC essentially simply sums the entirety of its embedded expenses booked to USOA accounts 6711 - 6728 ("67XX expenses") as of year-end 2001 and identifies the resulting pool of dollars as its estimate of "forward-looking common

costs." In fact, of the ten Series 67XX accounts SBC included in its common cost numerator, the balances in eight of them were completely untouched.[258]

While the Joint CLECs agree that using these Series 67XX accounts as a starting point may be appropriate, to use the embedded balances without making certain forward looking adjustments, as SBC did, fails to comply with the TELRIC methodology and is wholly inappropriate. By simply using the unadjusted balances from its series 67XX accounts as its numerator, SBC has failed to comply with the FCC's mandate that an ILEC stringently attempt to properly allocate direct and shared costs to the greatest extent possible.

With the exception of a single adjustment, SBC made no effort to determine whether *any* of the amounts booked to its 67XX series accounts would be more appropriately allocated to individual products or groups of products as direct or shared costs, as required by the FCC's rules.[259] (AT&T/Joint CLEC Ex. 1.0, pp. 27-28) In fact, in response to AT&T Data Requests MS 76, SBC acknowledged that it had not

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[258] As AT&T Cross Ex. 15P demonstrates, for Account 6712 and 6727, no changes were made by SBC. For Accounts 6711, 6721, 6722, 6723, 6725 and 6726, the only "adjustment" SBC made was to remove TBO amounts from those particular line items, only to simply move those sums, dollar for dollar, into the total Transitional Benefit Obligation sum – a separate line item -- included in the common cost numerator. Thus, the entire embedded year end 2001 ARMIS balance of these eight (of ten) accounts was included in SBC's common cost numerator. While SBC initially included the Account 6711 accounting error in its common cost study, SBC has agreed to remove that accounting error in the compliance phase.

[259] As Messrs. Starkey and Fischer noted, the only item where SBC appears to have allocated some portion of its 67XX expenses as either direct or shared costs is a *****BEGIN CONFIDENTIAL*** XXXXXX ***END CONFIDENTIAL***** adjustment SBC made to Account 6724 (*Information Management*) to recognize that some amount of expense from this account was already being recovered in SBC's service order cost study. This adjustment reduces the expenses in Account 6724 by ***** BEGIN CONFIDENTIAL*** XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ***END CONFIDENTIAL*** (**AT&T/Joint CLEC Ex. 1.0, p. 27)

performed any kind of analysis on sub-account, activity code or functional accounting code data to ascertain whether some of these costs should be allocated as either direct or shared costs. (AT&T/Joint CLEC Ex. 1.0, pp. 28-29) There is no question, however, that the expenses included in the Series 67XX accounts in SBC's common cost numerator contain expenses that are not forward looking and that are not appropriately recovered from CLECs purchasing UNEs.

A brief review of AT&T Cross Ex. 14, a synopsis of the types of expenses included in these accounts, reveals that these accounts clearly contain retail-related expenses. Account 6711 includes costs incurred in formulating corporate policy, including pay, fees and expenses of the Board of Directors. Account 6712 includes expenses for company-wide long term planning. Account 6723 includes human resources expenses and personnel administration. Account 6724 includes costs incurred in planning and maintaining application systems and databases for general purpose computers. And the list goes on.

In critiquing SBC's approach, Messrs. Starkey and Fischer provided numerous excerpts from SBC's Activity Code Manual which illustrate that SBC could easily have identified many of its 67XX expenses included in SBC's common cost numerator as either direct or shared costs of services other than UNEs. Had SBC done this, it would have been more consistent with the FCC's requirement that common costs be kept to a minimum by allocating them more stringently among the services/products they support.

Specifically, SBC inappropriately included the entire Account 6722 (External Relations) balance, without any adjustment.[260] As Messrs. Starkey and Fischer pointed out, this account includes expenses for those employees who represent SBC in industry organizations focused on protecting the rights of incumbent local exchange carriers and who work with smaller, independent incumbent carriers in negotiating and managing the "settlements process" by which incumbent carriers compensate one another for local and toll traffic. (AT&T/Joint CLEC Ex. 1.0, pp. 30-31) Clearly, these types of expenses are directly attributable to SBC's switched access products, or to the local and toll services offered to its retail customers that rely upon the facilities connecting SBC and independent local exchange carriers, and are not "common costs" related only to the total output of the firm. (AT&T/Joint CLEC Ex. 1.0, p. 31; AT&T Cross Ex. 14)

Account 6722 also includes expenses for activities attributable to SBC's tariffs, including tariffs for basic exchange services, intrastate/interstate private line services, intrastate/interstate MTS/WATS services and vertical exchange services. (AT&T/Joint CLEC Ex. 1.0, pp. 31-34; AT&T Cross Ex. 14) While Messrs. Starkey and Fischer were unable to ascertain from the data SBC provided whether expenses for UNE tariffs are included in Account 6722, SBC did not rebut or dispute the fact that the expenses associated with the tariffing of SBC's retail services are also included in Account 6722. These costs are not common; they are directly attributable to SBC's private line, toll, basic exchange and vertical feature services and should be recovered in the direct cost estimates of those services, not through UNEs. (AT&T/Joint CLEC Ex. 1.0, p. 33)

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[260] As Mr. Barch discussed, SBC did remove some TBO amounts from Account 6722, only to add them back into the common cost numerator, dollar for dollar, in the separate line item labeled Transitional Benefit Obligation in calculating SBC's common cost numerator. (Tr. 401-409; AT&T Cross Ex. 15P, pp. 1-2)

In addition, Account 6722 recovers the expenses SBC incurs in defending SBC in anti-trust legislation and in furthering its legislative objectives. (AT&T/Joint CLEC Ex. 1.0, pp. 34-35; AT&T Cross Ex. 14) Rarely, if ever, however, are SBC's legislative initiatives targeted to further its UNE-based business, as the recently invalidated Illinois Senate Bill 885 (P.A. 93-005) demonstrates. (AT&T/Joint CLEC Ex. 1.0, p. 35) In fact, each and every proposed SBC legislative initiative of which the Joint CLECs are aware is targeted at eliminating or limiting SBC's UNE obligations in an effort to protect and further the objectives of its retail sales organization. Indeed, SBC witness Mr. Barch testified that had 2003 (rather than 2001) been used as the test year, all legislative expenses (except lobbying) would have been included in SBC's common cost calculation, including those associated with SBC's efforts to enact Senate Bill 885. (Tr. 379-380) The Commission should not permit SBC to foist the cost of such efforts onto its wholesale customers.

SBC's failure to adequately attribute its 67XX expenses to specific elements to the greatest possible extent violates not only the FCC's TELRIC principles, but this Commission's previous directives regarding shared and common costs. In its TELRIC I Order, the Commission specifically identified a number of image-building initiatives, charitable contributions, legislative efforts and sporting perks that SBC had inappropriately identified as common costs. SBC has failed to follow the FCC's directive to "…attribute costs to specific elements to the greatest possible extent, which will reduce the common costs,"[261] and has failed to follow the direction previously provided by the Illinois Commission in the TELRIC I Order, in which the Commission rejected certain

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[261] *Local Competition Order*, ¶695.

SBC-sponsored common costs that were "…solely attributable to the discretionary actions of Ameritech and which provide no direct and essential benefit to the UNE purchaser.[262]

Specifically, at page 51 of it's the TELRIC I Order, the Commission rejected Ameritech Illinois' attempt to recover a subset of expenses the Commission determined Ameritech had inappropriately included in its proposed UNE rates. The Commission did not reject these expenses because they were not adequately forward-looking or because it believed Ameritech would not incur such costs in the future. Rather, the Commission simply viewed them as discretionary expenses aimed solely at increasing Ameritech's shareholder value and, hence, were not appropriately recovered in UNE rates:

> With respect to common costs, the inclusion of over $23 million in expenditures for golf tournaments, skyboxes, and White House functions, is unacceptable. We would not permit the inclusion of these items in rates for retail customers and given the limited justification provided by Ameritech Illinois we see no reason to force purchasers of UNEs to underwrite these activities. With respect to charitable contributions, the Commission notes that Ameritech Illinois' rates for noncompetitive services are regulated under an alternative form of price regulation. Under that plan, rates are not based upon operating expenses. Therefore, notwithstanding Section 9-227 of the Public Utilities Act, Ameritech Illinois' rates no longer include a measurable assessment for corporate charitable contributions. Moreover, we believe that in an increasingly competitive environment it would be an inappropriate policy to impose upon new entrants increased costs of doing business which are solely attributable to the discretionary actions of Ameritech and which provide no direct and essential benefit to the UNE purchaser.

Though the Commission's directive in the TELRIC I Order is clear, SBC Illinois made no effort whatsoever to identify, adjust or remove these types of expenses in its common cost analysis in this proceeding. Accordingly, and because these types of expenses are peppered throughout SBC's 67XX series accounts (indeed, the vast majority

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[262] TELRIC I Order, page 51.

of these types of expense would be captured in SBC's 67XX accounts), SBC's common cost proposal is grossly exaggerated. (AT&T/Joint CLEC Ex. 1.0, pp. 36-38)

Applying the Commission's avoided wholesale discount factor provides a reasonable basis for allocating some portion of SBC's 67XX expenses to its retail organization because it represents the retailing costs that are avoided by providing the service in a wholesale environment. The expenses removed from the retail rate necessarily equate to retail costs. Therefore, applying the Commission approved wholesale discount segregates that portion of those expenses directly attributable to the retailing function. In fact, Dr. Aron, SBC's own economist, acknowledged the propriety of using – in fact, used – an avoided wholesale discount as a legitimate method of removing retail-related costs from ARMIS data. (SBC Ex. 2.0, pp. 8-10; Tr. 279-282) This adjustment is conservative because it does not identify all retail-specific costs, but only those that would be avoided in a wholesale environment. In fact, a percentage of SBC's 67XX expenses greater than the avoided wholesale discount would have been appropriately reallocated to direct or shared costs had SBC been diligent in its cost allocation efforts. (AT&T/Joint CLEC Ex. 1.0, pp. 40-42)

The use of this Commission's avoided wholesale discount factor is particularly appropriate since this Commission undertook a more economically attentive approach than did other commissions in setting its wholesale avoided discount.[263] Put simply, the Commission generally found that when purchasing services from SBC (then Ameritech) on a resale basis, CLECs should avoid paying those costs that are directly attributable to

[263] *Petition for a Total Local Exchange Wholesale Service Tariff From Illinois Bell Telephone Company d/b/a Ameritech Illinois and Central Telephone Company pursuant to* Section *13-505.5 of the Illinois Public Utilities Act*, Docket Nos. 95-0458/95-0531 (consol), *Order* dated June 26, 1996, see pages 7-10 ("*IL Resale Order*").

retail services (*i.e.*, those costs that would be "avoided" by SBC in a wholesale environment, such as marketing, billing/collection, etc.), as well as costs that are shared by SBC's retail services in general, though not directly allocable to any given retail service. The theory behind the Commission's well-founded decision focused on removing not only those direct retail costs that would be avoided in a wholesale environment, but also any costs shared by retail services in general that might also be avoided. In this way, the Commission's avoided wholesale discount allows one not only to identify avoided, retail-direct costs, but also some portion of avoided, retail-shared costs as well. (AT&T/Joint CLEC Ex. 1.0, pp. 41-42)

Applying the resale discount in this manner does not produce a more forward-looking common cost pool; instead, it more diligently allocates direct or shared costs that SBC has misidentified as common. This is important because the underlying objective of maintaining a rational relationship between the common cost numerator and the common cost denominator (*i.e.*, direct costs) remains paramount. They must either both be embedded or they must both be forward looking, or the relationship is meaningless. In short, the Joint CLECs are not attempting to make the numerator more forward looking when applying the resale discount; rather, they are attempting to remove some portion of the booked direct and/or shared costs SBC has inappropriately captured in the common cost numerator.

In sum, SBC's common cost numerator is not "forward looking" at all. In fact, the effect of SBC's "forward looking" adjustments increased SBC's booked 2001 ARMIS balance (after correcting for the $20,374,000 accounting error in Account 6711) from *****BEGIN CONFIDENTIAL***** XXXXXXXXXXXXX*****END**

CONFIDENTIAL* --** more than double SBC's 2001 booked expenses. Contrary to this Commission's TELRIC I Order, SBC's common cost numerator includes expenses that are not appropriately recovered through UNE rates. With a minimal degree of effort and analysis, SBC could easily have identified many of its 67XX expenses as either direct or shared costs for services other than UNEs and allocated them accordingly consistent with the FCC's requirement that common costs be kept to a minimum by using more stringent allocation among the services and products they support. SBC exerted no effort in this regard. To remedy these flaws, the Commission should adopt the adjustment proposed by AT&T/Joint CLEC witnesses Mr. Starkey and Mr. Fischer to use the Commission's approved avoided wholesale discount factor of *****BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***** to account for the fact that many of those costs should have been allocated, either as direct or shared costs, to SBC's retail operations or non-UNE wholesale products. (AT&T/Joint CLEC Ex. 1.0, p. 39) This discount is on par with that recently ordered by the Indiana Commission in the Indiana Order:

> We agree with the CLECs that SBC could have identified many of its 67XX expenses as either direct or shared costs for services other than UNEs and allocated them consistent with the FCC's requirement that common costs be kept to a minimum, by using more stringent allocation among the services and products they support. To remedy these flaws, we hereby adopt the adjustment proposed by CLEC witnesses Mr. Starkey and Mr. Fischer to use our approved avoided wholesale discount factor of 21.4% to account for the fact that many of those costs should have been allocated, either as direct or shared costs, to SBC's retail operations. (Indiana Order, pp. 136-137)

3. <u>Transitional benefit obligation</u>

SBC separately identifies and includes in its common cost numerator expenses attributable to a transitional benefit obligation ("TBO") that was created in 1991 when

SFAS 106 required SBC to convert its accounting for post-retirement benefits (other than pensions) to an accrual basis from a cash basis. Prior to 1991, SBC booked expenses associated with post-retirement benefits on a cash accounting basis. That is, when an SBC retiree generated expenses SBC was required to pay, such as medical bills, SBC booked those expenses as they occurred. Since 1991, SBC has been required to accrue anticipated expenses specific to post-retirement benefits while the employees in question are in active service with the company. (AT&T/Joint CLEC Ex. 1.0, p. 50)

When this 1991 accounting change occurred, SBC was required to allocate a fairly sizable sum to "catch up" to its new accrual obligation. That is, SBC was required to accrue an obligation equivalent to the amount it would have accrued to date had it been accruing post-retirement expenses for its employees for years of service rendered prior to 1991 all along. (Tr. 390, 429) This "catch up" or "retroactive" obligation for employee years of service prior to 1991 is referred to as the Transitional Benefit Obligation, and represents the transition from a cash accounting basis to an accrual basis for post-retirement benefit expenses. As SBC witness Mr. Dominak testified, the FCC required SBC to amortize this obligation over eighteen years. Thus, since 1991, SBC has been amortizing 1/18th of this amount on its books, and did so in 2001, the test year. (Tr. 390-391, 428-429; SBC Ex. 17.0, p. 8)

Since 1991, SBC has been accruing post-retirement benefit expenses for its active workforce and, in fact, accrued those expenses for its active workforce in test year 2001. (Tr. 391) Those 2001 expenses are included in SBC's shared and common cost study, and the Joint CLECs do not dispute their inclusion. (Tr. 391-392) What the Joint CLECs strongly oppose is SBC's inclusion of the TBO "expenses" for employee years of service

prior to 1991 – which are clearly not forward looking costs -- in addition to the expenses SBC accrued for its 2001 workforce in the cost study.

SBC does not dispute that the TBO obligation was incurred as a result of accounting changes implemented in 1992 and represents a post-retirement benefit liability for employee years of service *prior to the 1992 accounting change*. (Tr. 429) It is for this reason that both the Joint CLECs and SBC's own TBO witnesses refer to the TBO as a "catch-up" or "retroactive" obligation." (AT&T/Joint CLEC Ex. 1.0, pp. 50-52; Tr. 390; SBC Ex. 17.0, p. 10)

As discussed above, however, the primary goal in establishing a common cost allocator is to determine the level of common costs that is necessary for SBC to support the direct costs (*e.g.*, employees and equipment) necessary to produce unbundled network elements on a forward-looking basis. Developing a common cost allocator requires that the underlying relationship between the common costs SBC intends to recover (*i.e.*, the numerator) and the economic basis over which SBC intends to recover those expenses (*i.e.*, the denominator) is protected. In other words, regardless of the time frame chosen to measure this relationship, it is critical that one measure only those common expenses that were actually incurred in that timeframe relative to the total direct costs that were also generated in that same timeframe. If SBC is allowed to mix and match expenses from other time periods specific to activities that have no bearing on either the expenses or direct costs incurred in the "test year," the ultimate ratio of common costs to direct costs will be skewed and will not generate the requisite level of common costs that are required to support a given level of direct costs for the test year. (AT&T/Joint CLEC Ex. 1.0, p. 52)

The TBO, representing an accrual for employee years of service prior to 1992, reveals nothing about the ongoing relationship between common costs and direct costs once SBC began accounting for post-retirement benefits on an accrual basis. Indeed, if SBC is allowed to recover both its TBO and the post-retirement benefit expenses it accrued for its existing 2001 workforce – as SBC proposes -- the resulting common cost ratio would recover not only existing employee post-retirement non-pension expenses, but also the non-pension expenses associated with past employee service that does not aid in providing UNEs.

In sum, SBC's 2001 post-retirement benefit expenses are already included in SBC's accounting records for the 2001 test year, which the Joint CLECs do not dispute. The Joint CLECs only dispute inclusion of the amortized TBO adjustment that is meant to reflect SBC's one time "catch-up" obligation. The only reason those expenses remain on SBC's books at all is because SBC was required by the FCC to amortize those expenses over an 18 year period. In fact, as SBC witness Mr. Dominak acknowledged, there would be no TBO to discuss or include if the FCC's chosen amortization period had ended prior to the 2001 test year. (Tr. 430-431)

Moreover, as Messrs. Starkey and Fischer convincingly demonstrated, while SBC is amortizing the TBO over an eighteen year period for regulatory purposes, Ameritech *immediately recognized* the entire amount of the TBO *on its financial books* of account in 1992. (AT&T/Joint CLEC Ex. 1.2, pp. 30-31) Thus, while Ameritech recorded a sizable expense in 1992 for the amounts it needed to accrue to "catch-up" to its new post-retirement obligation for financial statement purposes, it continued to recognize this one-time expense in its current accounting records only because the FCC required SBC to

amortize this amount over the average remaining service period of active plan participants.

The amortized TBO amount that remains on SBC's books is not a "forward looking" expense; instead it is a non-economic cost with no cash flow implications. (AT&T/Joint CLEC Ex. 1.0, p. 53) Certainly, these expenses are not expected to occur, and will not occur, in the future. As the FCC has recognized, this accounting change had absolutely no impact on any carrier's actual cash flow, nor will it have any effect on SBC's cash flow in the future. In fact, since 1995, the FCC has prohibited any carrier from including these costs in the interstate rates regulated by the FCC because such accounting changes have absolutely no economic cost impact. See First Report and Order, *Price Cap Performance Review for Local Exchange Carriers*, 10 FCC Rcd. 8961, ¶¶ 307, 308 (1995) ("*1995 Price Cap Performance Order*"). (AT&T/Joint CLEC Ex. 1.2, pp. 31-32) The Commission should therefore reject SBC's proposal to include the TBO in UNE rates.

4. <u>Pension settlement gains</u>

SBC accrues pension gains when its actual pension costs are less than anticipated due to actual expenses that are lower than actuarial estimates and/or the result of better than expected returns on its pension investments. For example, when lump sum pension payments are made to employees as part of a buyout program, in an effort to reduce the company's workforce, deferred pension gains have historically been recognized as part of the pension settlement process. (AT&T/Joint CLEC Ex. 1.0, pp. 53-55) SBC recognized a pension settlement gain of approximately ***** BEGIN CONFIDENTIAL*** XXX XXXX ***END CONFIDENTIAL***** in test year 2001 and recorded it to Account 6728. In calculating its common cost numerator, SBC removed this credit in its entirety,

resulting in its "forward looking" expenses exceeding its booked expenses by an overwhelmingly significant degree. (AT&T/Joint CLEC Ex. 1.0, pp. 56-59) In fact, the reversal of the pension settlement gains for 2001 took the booked Account 6728 balance from a negative balance to a positive one. (See AT&T Cross Ex. 15P, p. 1)

The Joint CLECs strongly object to SBC's decision to completely reverse the *****BEGIN CONFIDENTIAL*** XXXXXXXX ***END CONFIDENTIAL***** pension settlement gain credit it recognized in 2001. While SBC claims that such credits do not represent forward-looking pension costs (SBC's witnesses referred to its 2001 pension settlement gain as an "anomaly"), the facts belie SBC's representation. In fact, in response to Staff discovery, SBC acknowledged that for the years 1998-2001, SBC recorded a total pension settlement credit of *****BEGIN CONFIDENTIAL*** XXXXXXX ***END CONFIDENTIAL***** and, for the years 1987-2002, the average annual level of pension settlement gains SBC experienced was $1.6 million. (AT&T/Joint CLEC Ex. 1.0, p. 56)

Thus, SBC's attempt to portray the 2001 credit as an anomaly is wholly baseless given the amount of pension settlement credits SBC has experienced since 1987 and, more significantly, between 1998 and 2001. To the contrary, the fact that SBC did not recognize any pension settlement gains in 2002 and 2003 is an anomaly. Joint CLECs agree, however, that the pension settlement credit SBC booked in 2001 is somewhat high compared to past years. Thus, the Joint CLECs recommend that the Commission normalize the settlement credit and, rather than requiring SBC to add back into Account 6728 the entire *****BEGIN CONFIDENTIAL*** XXXXXXX ***END CONFIDENTIAL*****, that it require SBC to add a credit of *****BEGIN**

CONFIDENTIAL* XXXXXXX ***END CONFIDENTIAL*** back to Account 6728 in its common cost numerator. That amount represents the average pension settlement credit SBC has received each year for the past 16 years from 1987-2002. (AT&T/Joint CLEC Ex. 1.0, p. 58)

In sum, SBC's exclusion of the Pension Settlement Gains (i.e., credits) it realized in the 2001 timeframe from the common cost numerator – specifically Account 6728 -- was inappropriate. SBC realizes pension settlement gains on a rather consistent basis. As the undisputed record evidence demonstrates, SBC consistently experienced pension settlement gains from 1987-2001. (AT&T/Joint CLEC Ex. 1.0, pp. 56-58) Surely the credit the Joint CLECs request the Commission require SBC to add back into Account 6728 is, under these circumstances, not an anomaly. Rather, it represents forward looking amounts that should be included, not excluded, from SBC's common cost numerator. The Commission should therefore reject SBC's complete reversal of pension settlement credits from its 2001 Account 6728 balance and should require SBC to include a credit of *****BEGIN CONFIDENTIAL*** XXXXXX ***END CONFIDENTIAL***** in its common cost allocator.

5. Merger savings -- SBC Fails to Fully Account for Merger-Related Savings

There is no question that the Commission anticipated that merger savings would be and should be reflected in SBC's UNE rates and, in particular, in its shared and common cost markup. In Docket No. 98-0555, the SBC/Ameritech Merger docket, the Commission specifically identified SBC's shared and common cost factor as an appropriate mechanism by which CLECs should enjoy the merger related savings that

SBC and Ameritech so enthusiastically promised as a result of their merger. Specifically, the Commission determined:

> It is the ruling of this Commission that the net merger-related savings should be allocated to Ameritech's Illinois' customers as follows:
>
> > (1) Carriers purchasing AI's UNEs, interconnection, and transport and termination services will benefit from merger-related savings through updated rates resulting from modifications of its TELRIC, shared and common costs.[264]

Since that time, the CLECs have attempted to revisit SBC's shared and common cost factor in a number of proceedings, most prominently in Docket Nos. 98-0252/0335/00-0764 consolidated. In each circumstance, the Commission pointed CLECs to a future docket where SBC's shared and common cost calculations would be squarely at issue. In fact, in its *SBC Merger Savings Order* the Commission expressly stated:

> By this decision, we are not changing our conclusion in the SBC/Ameritech Merger Order that merger savings ultimately should be reflected in updated UNE rates. The issue here is one of time and scope. This reopened proceeding is not the appropriate context in which to address complex UNE pricing issues. We agree with AI, Staff and GCI/City that the one-time credit proposed for the CLECs is an appropriate interim measure and will not operate to deprive the CLECs of updated UNE prices in the future. (*SBC Merger Savings Order*, p. 24)

Clearly the time to finally address SBC's merger savings is now, the first time the Commission has addressed SBC's shared and common markup since the TELRIC I Order. Disappointingly, and contrary to the directives of this Commission over the past four years, SBC's shared and common cost study fails to fully capture the merger related savings this Commission contemplated in its *SBC Merger Savings Order.* (AT&T/Joint CLEC Ex. 1.0, p. 61) In that docket, data provided by SBC witness David W. Fritzlen revealed that over 80% of all merger-related savings would not be captured until the 2002

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[264] *SBC Merger Order*, p. *146*.

– 2004 timeframe, and that greater than 55% of anticipated merger savings would not be captured until the 2003 – 2004 timeframe.

Thus, SBC's assertion that merger savings realized prior to 2001 are captured in the 2001 data because the data reflects a relevant "run rate" (*i.e.*, that SBC's 2001 booked expenses were lower than they would have been absent merger savings) is inconsistent with its own testimony in the SBC Merger Savings Docket. Because SBC used a simple one-year snapshot of accounting data to develop its shared and common cost allocator, its calculations fail to account for merger-related savings SBC is sure to enjoy on a going forward basis. As such, even assuming the 2001 data captures SBC's merger-related savings, SBC's analysis ignores the vast majority of SBC's merger-related savings that should be captured by its forward-looking cost study (*i.e.*, SBC's savings are accelerating, and use of 2001 data fails to adequately capture the increased savings that will be realized during the "study period" for its UNEs -- 2002-2005). As SBC witness Mr. Barch testified, using 2002 data rather than 2001 data would provide a better foundation upon which to calculate forward-looking shared and common costs, including a run rate for merger savings. (Tr. 311-314) Accordingly, SBC's 2001 "run rate" likely fails to capture more than 80% of its total merger savings. (AT&T/Joint CLEC Ex. 1.0, pp. 62-63)

Because SBC Illinois will, accepting its own data, incur fewer expenses in the 2002-2004 timeframe than it did in 2001 (given the accelerated nature of the merger-related savings it projects it will enjoy), the Commission should require SBC to recognize, in its 2001 data, the difference between the merger-related savings it actually enjoyed in 2001 **(***BEGIN CONFIDENTIAL*** XXXXXXXX**END**

CONFIDENTIAL*),** and the average yearly merger-related savings it expects to enjoy between 2002-2004 **(***BEGIN CONFIDENTIAL*** XXXXXXXX***END CONFIDENTIAL***),** a difference equal to *****BEGIN CONFIDENTIAL*** XXXXXXXX***END CONFIDENTIAL***.** Because SBC will realize merger related savings in numerous portions of its business and not just within the 67XX series accounts, some amount less than the *****BEGIN CONFIDENTIAL*** XXXXXXXX ***END CONFIDENTIAL***** must be removed from the common cost numerator.

Despite the fact that the Joint CLECs asked SBC to identify the percentage of merger related savings it believes will be realized in its 67XX accounts, SBC responded that it had done no such analysis and could not provide the information. It is conservatively safe to assume that 30%, or *****BEGIN CONFIDENTIAL*** XXXXXX ***END CONFIDENTIAL***,** of SBC's total merger related savings projected for 2003 would be captured as reductions in its 67XX series accounts. (AT&T/Joint CLEC Ex. 1.0, p. 64)

In fact, the Commission recognized in its *SBC Merger Order* that the primary area of savings realized by merging entities is managerial and executive functions. When two entities merge, it is generally the corporate offices of the merged company that see immediate and long term expense (and staff) reductions. While technicians and other personnel most directly involved in managing the network (and hence, most likely to be included in SBC's direct costs) will also likely see reductions, those reductions generally are not as large or as widespread when compared to the managerial functions. It is for this reason the Commission recognized that SBC's shared and common cost markup was the most reasonable mechanism by which to share merger related savings with SBC's

UNE purchasers. SBC has failed to meet its burden of proof regarding merger savings. For the above reasons, 30% represents a reasonable, if not conservative, allocation of merger related savings to SBC's common cost pool. (AT&T/Joint CLEC Ex. 1.0, pp. 64-65) The Commission should order SBC to reduce its common cost numerator by ****BEGIN CONFIDENTIAL XX END CONFIDENTIAL**** to reflect merger savings.

6. Employee levels

The Joint CLECs agree with Staff's position on this issue.

7. Agreed upon issues

a. OSS Testing Costs

Joint CLECs agree with Staff that OSS testing costs should be removed from the common cost allocator. SBC has agreed to make this adjustment, which was not reflected in its original cost study filing.

b. Tier 1 Remedy Payments

Joint CLECs agree with Staff that Tier 1 Remedy Payments should be removed from the common cost allocator. SBC has agreed to make this adjustment, which was not reflected in its original cost study filing.

c. Digital Divide Payments

Joint CLECs agree with Staff that Digital Divide Payments should be removed from the common cost allocator. SBC has agreed to make this adjustment, which was not reflected in its original cost study filing.

d. Non-Chicago Sales Tax

Joint CLECs will address this issue in their Reply Brief. Joint CLECs are not aware, at this time, of the specific adjustment SBC proposes to make for this item with respect to the Common Cost factor.

8. Reclassification of Support Asset Costs as Common Costs

In Section VI.C below, the Joint CLECs recommend, as the Indiana Commission recently ordered, that all of SBC's support asset costs be reclassified as common costs. In the event the Commission adopts the Joint CLECs' proposal, SBC's common cost allocator will be directly affected and will need to be increased accordingly.

C. Shared Cost Factor

1. Definition of wholesale shared costs

Shared costs (or "joint costs") are those costs not directly attributable to any single product, but which are caused by the production of a group of products or services. SBC identifies two types of shared costs: (1) "wholesale marketing cost" and (2) "Wholesale Uncollectible Cost." SBC calculates its shared cost allocator by dividing both its "wholesale marketing cost" and its "Wholesale Uncollectible Cost" by "Wholesale Direct Cost." The Wholesale Direct Cost SBC uses in its shared cost denominator is a portion of the direct cost denominator used in SBC's common cost calculation and, as such, SBC's shared cost denominator suffers from the same flaws inherent in its common cost denominator.

SBC calculates wholesale marketing costs by first combining its booked expenses from accounts 6611 (*Product Management*), 6612 (*Sales*), and 6613 (*Marketing*) to arrive at a total-company "Marketing" expense. SBC then identifies what portion of its total company marketing expense is attributable to "Ameritech Services, Inc." and "SBC Operations." SBC designates that amount as its "wholesale marketing costs." SBC then divides the wholesale marketing costs by the "wholesale direct cost" denominator (again, a portion of the common cost denominator) to arrive at a wholesale marketing percentage

of *****BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***.** **(**AT&T/Joint CLEC Ex. 1.0, p. 71)

In calculating both of these shared cost components, SBC defines the universe of "wholesale services" that it uses to allocate shared costs to its UNEs much too broadly. Specifically, SBC includes the entirety of its "wholesale" services, including such products as switched and special access, compensation with independent exchange carriers, services to payphone providers, etc., into a single bucket, of which UNEs are only a very small part. SBC then allocates the expenses associated with all of these "wholesale" services as shared costs, a portion of which is to be recovered from UNEs via a shared cost markup.

2. <u>Uncollectible expense</u>

SBC calculates the Wholesale Uncollectible Cost component of its shared cost factor by taking the 2001 company-wide uncollectible balance and estimating that *****BEGIN CONFIDENTIAL*** XXXX***END CONFIDENTIAL***** of that uncollectible balance is attributable to "wholesale services." SBC concludes that its wholesale services, including UNEs, should bear *****BEGIN CONFIDENTIAL*** XXXXXXXX ***END CONFIDENTIAL***** of "wholesale uncollectible cost." This wholesale uncollectible cost is then divided by SBC's estimate of "wholesale direct cost" to generate the *****BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***** wholesale uncollectible component of SBC's shared cost fixed allocator. AT&T/Joint (CLEC Ex. 1.0, pp. 76-77)

SBC has utterly and completely failed to demonstrate that this is an appropriate amount of wholesale uncollectibles to attribute to UNEs via the shared cost allocator. First, though SBC's calculation of "wholesale uncollectible cost" represents the largest

single component of its shared and common cost fixed allocator, SBC provides the least amount of information to support it. In fact, the *****BEGIN CONFIDENTIAL*** XXXXXXX ***END CONFIDENTIAL***** wholesale uncollectible cost is nothing more than a hard coded value in SBC's shared and common cost study, with no back up support, information or documentation. SBC does not explain how it was able to allocate specific uncollectibles to its ALDIS and/or Special Markets divisions[265] or, perhaps more importantly, if it was able to do so, why it could not also similarly identify uncollectibles specific to UNEs. SBC fails to even mention, let alone explain, why substantial variations in its uncollectibles data over time were not considered in deriving a reasonable uncollectibles estimate relevant for future time periods. (AT&T/Joint CLEC Ex. 1.0, pp. 76-80)

Second, by lumping numerous services and products together into a large, generic "wholesale" bucket, SBC's analysis attributes expenses to UNEs that are more appropriately allocated directly to other products given the fact that UNEs bear little similarity to the bulk of SBC's "wholesale services." (AT&T/Joint CLEC Ex. 1.0, p. 78) SBC's "wholesale services" bucket includes products such as switched access, special access, resale, and numerous other services in addition to UNEs. Despite the fact that SBC has categorized UNEs as a typical wholesale service for purposes of shared cost development, SBC has provided absolutely no information or data to support its implicit assumption that the uncollectibles these other wholesale products experience somehow serves as a good proxy for estimating UNE uncollectibles.

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[265] SBC defines ALDIS as the former Ameritech Long Distance Industry Service business unit that is now known as Industry Markets. SBC also states that the terms ALDIS, Industry Markets, Special Markets, Long Distance Industry Services are synonymous for purposes of the cost study. (AT&T/Joint CLEC Ex. 1.0, p. 80)

In fact, the information SBC provided to Staff indicates that wholesale services in general are *not* a good proxy for UNEs. Specifically, SBC-provided data indicates that between 2001 and 2002, SBC's bad debt expense allocable to its "wholesale services" fell by ***BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL*** even though during the same time period SBC's total UNE-related revenues nearly doubled. (AT&T/Joint CLEC Ex. 1.0, p. 79; AT&T Cross Ex. 18P) SBC data provided earlier this year indicates that bad debt expense allocable to wholesale services fell ***BEGIN CONFIDENTIAL***XXX ***END CONFIDENTIAL*** from 2002 to 2003, again, while UNE revenues were increasing. (AT&T/Joint CLEC Ex. 1.2P, pp. 48-49) If, however, SBC's UNEs contribute equally to SBC's bad debt expense by proportion of revenue (as one would expect if total wholesale uncollectibles were indeed a good proxy for UNE uncollectibles), one would expect total bad debt expense to fluctuate fairly consistently with UNE revenue (*i.e.*, as revenue increases, bad debt increases and vice versa). SBC's own data shows no such correlation. In fact, it shows the opposite. (AT&T/Joint CLEC Ex. 1.0, pp. 78-79) Thus, SBC has failed to demonstrate that wholesale uncollectibles as a whole are representative of UNE uncollectibles for purposes of calculating a shared cost factor.

Third, 2001 appears to be an anomalous year, representing the largest uncollectible balance SBC has experienced in the recent past (perhaps ever). Indeed, SBC's own reported uncollectibles for its "wholesale services" in 2002 are ***BEGIN CONFIDENTIAL*** XXX ***END CONFIDENTIAL*** less than that booked in 2001 and its own reported uncollectibles in 2003 are ***BEGIN CONFIDENTIAL*** XXXX***END CONFIDENTIAL*** less than in 2002, even though its revenue

associated with those products increased. (Tr. 360-361, 457-458; AT&T Cross Ex. 18P; AT&T/Joint CLEC Ex. 1.0, pp. 80-81) In fact, SBC's own witness, Mr. Dominak, acknowledged on cross examination that SBC's uncollectibles were particularly volatile in 2001 due to CLEC bankruptcies and other high risk considerations. (Tr. 449-450) Using the allowance method to estimate uncollectibles -- as SBC does requires (as SBC itself admits) estimation, judgment and discretion. (Tr. 441) The use of the GAAP principle of conservatism (Tr. 432-433) in a particularly volatile year would certainly lead one to expect the uncollectible balance to be on the high (conservative) side so as not to overstate SBC's net income. (Tr. 433, 443)

Indeed, as discussed above, hindsight has proven this to be the case. The wholesale uncollectibles have dropped significantly since 2001. (AT&T Cross Ex. 18P; AT&T/Joint CLEC Ex. 1.2P, pp. 48-49) In fact, SBC witness Mr. Barch, in his direct testimony supporting the shared and common cost study, predicted that SBC's proposed wholesale uncollectible percentage was conservative, and perhaps understated. (SBC Ex. 17.0, p. 19) That prediction, of course, has proven to be inaccurate given the fact that SBC's bad debt expense declined ***BEGIN CONFIDENTIAL*** XXX ***END CONFIDENTIAL*** from 2001 to 2002 and ***BEGIN CONFIDENTIAL*** XXX END CONFIDENTIAL*** from 2002 to 2003. This further demonstrates that the predictions and estimations SBC made at the time it submitted its cost study – including its uncollectible expense -- have proven to be erroneously high.

Moreover, SBC used its entire year-end balance in Account 5301 (Bad Debt Expense) as its "wholesale uncollectible" expense. (Tr. 446) According to SBC witness Mr. Dominak, this balance is the result of judgment, estimation and discretion. (Tr. 441)

According to the FCC's Chapter 32 rules that govern SBC's USOA accounts, Account 5301 tracks only those revenues that were originally deemed uncollectible. It does not capture any portion of those amounts that were eventually collected. In response to Staff discovery, SBC identified the amounts that were actually "written off" after being considered "impracticable of recovery." In fact, the amount actually written off is much smaller than the amount originally booked to Account 5301, which was used by SBC in its entirety in its shared cost analysis. In other words, SBC appears to have collected a large portion of the "uncollectible" amounts originally identified in Account 5301, thereby significantly overstating the amount of uncollectibles properly attributable to UNEs via the shared cost allocator. (AT&T/Joint CLEC Ex. 1.0, pp. 83-89)

To remedy the above concerns and to account for the obviously anomalous 2001 Account 5301 balance, the Joint CLECs recommend employing a smoothing technique to smooth SBC's wholesale uncollectible expense using 5 years of SBC uncollectible data from 1998-2002. In other words, the Joint CLECs assumed that SBC's wholesale uncollectible expense would grow in the manner identified by its actual growth in 1998-2002, but have used the trend line to estimate "smoothed" data for 2001 instead of using SBC's actual data. Using this smoothing technique results in a 2001 wholesale uncollectible cost of *****BEGIN CONFIDENTIAL XXXXXXX ***END CONFIDENTIAL***** as opposed to SBC's *****BEGIN CONFIDENTIAL*** XXXXXXXX ***END CONFIDENTIAL***** 2001 year end Account 5301 balance. Because SBC, on average, recovers *****BEGIN CONFIDENTIAL*** XXXXX***END CONFIDENTIAL***** of the uncollectible expense it originally books to account 5301 (AT&T/Joint CLEC Ex. 1.0, p. 87), the Joint CLECs recalculated SBC's

"net" uncollectible expense by removing the amount SBC books as "bad debt expense" but ultimately receives through its collections activities. This results in an appropriate "wholesale uncollectible" expense of *****BEGIN CONFIDENTIAL*** XXXXXXX ***END CONFIDENTIAL***** to use in the shared cost numerator.

As SBC witnesses Mr. Barch and Mr. Dominak acknowledge, SBC's 2001 wholesale uncollectibles were estimated against a backdrop of volatility and high risk that, contrary to SBC's prediction, has quieted. (Tr. 358-363, 449-458) In fact, Mr. Barch agreed that use of more current data would provide a better foundation upon which to calculate SBC's shared and common costs. (Tr. 311) Current data unequivocally indicate that SBC's wholesale uncollectibles have declined dramatically since 2001. As such, SBC's 2001 uncollectible expense is too high and should be rejected in favor of the Joint CLECs' smoothing analysis.

3. <u>Wholesale marketing expense</u>

SBC calculates its wholesale marketing expense by first combining its booked expenses from accounts 6611 (Product Management), 6612 (Sales), and 6613 (Marketing) to arrive at a total-company "Marketing" expense. SBC then identifies the portion attributable to "Ameritech Services, Inc." and "SBC Operations" as its wholesale marketing expense. SBC divides the marketing expense attributable to these two entities by "wholesale direct cost" to arrive at a wholesale marketing percentage of *****BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***.**

As discussed above with respect to wholesale uncollectibles, SBC defines "wholesale services" far too broadly (*i.e.*, switched and special access, Centrex, payphone services, compensation with independent exchange carriers, and others) and fails to demonstrate that the relationship between shared costs specific to "wholesale services"

bears any relationship to those shared costs specific to UNEs. (AT&T/Joint CLEC Ex. 1.0, pp. 70-72)

Of particular concern is the fact that using SBC's overly broad "wholesale services" methodology allocates nearly *****BEGIN CONFIDENTIAL*** XXXXXX ***END CONFIDENTIAL***** in Sales and Product Advertising expenses to the numerator of the shared cost factor applicable to UNEs. The FCC's Part 32 accounting rules generally describe expenses booked to these accounts as expenses meant to increase demand for the products of the company, or to further stimulate sales and revenue. (AT&T/Joint CLEC Ex. 1.0, pp. 72-73) Yet SBC admitted that it did not, at any time in 2001 or 2002, undertake any attempts to persuade an entity to purchase UNEs from SBC. (*Id.)* Indeed, in most circumstances, SBC attempts to steer CLECs away from UNEs to more costly wholesale products such as special access or retail services. (AT&T Ex. 1.0, p. 73) Thus, while these sales and advertising expenses might bear a relation to other SBC wholesale expenses, they bear little, if any, correlation to UNEs.

Nonetheless, because CLECs who purchase UNEs are provided account managers, documentation and some limited assistance in ordering UNE products, some amount of *Product Management* (Account 6611) and *Product Sales* (Account 6612) expenses are appropriately attributable to UNEs. But because UNE customers do not enjoy the same type of sales and support that SBC's retail customers enjoy (or even SBC's other wholesale customers for products like special access), it is not reasonable simply to aggregate UNEs with these other products and assume that all products should bear product management and marketing expenses equally, as SBC has done.

To remedy this flaw, the Joint CLECs, using revenue information provided by SBC from 1997-2001, were able to compare the total UNE revenue received by SBC to the revenue SBC received from the entirety of its other services (including other wholesale services). The level of marketing, advertising and product support expenses allocated to any given product group are most likely dictated by the revenues (or profits) SBC can expect to enjoy as a result of incurring those expenses. As a result, the Joint CLECs used UNE revenues as a more reasonable basis upon which to allocate marketing expenses. In 2001, SBC's UNE revenues represented *****BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***** of SBC's total revenues. Allocating *****BEGIN CONFIDENTIAL*** XXX ***END CONFIDENTIAL***** of SBC's total expenses in accounts 6611 and 6612 to UNEs results in a "UNE marketing cost" of *****BEGIN CONFIDENTIAL*** XXXXXXX ***END CONFIDENTIAL***.** This marketing expense represents a much more reasonable marketing cost than the *****BEGIN CONFIDENTIAL*** XXXXXXXXX ***END CONFIDENTIAL***** in "wholesale marketing cost" assumed by SBC. The Joint CLECs recommend excluding expenses from Account 6613 (*Advertising*) altogether based on the fact that SBC admits that it does not advertise to "stimulate" demand for its UNE products. The Joint CLECs' much more reasonable approach to calculating those marketing costs appropriately attributable to UNEs should be adopted.

4. <u>Calculation of wholesale shared cost denominator</u>

Because it is a subset of SBC's largely unexplained and admittedly flawed common cost denominator (Tr. 382-384), SBC's "wholesale direct cost" denominator is derived from the same error-riddled analysis SBC undertook to identify its "forward-looking" direct costs used in its common cost analysis. As such, SBC's denominator

contains unreliable data that is inappropriate to use in a properly performed TELRIC analysis.

While the Joint CLECs did not initially recommend the use of UNE revenues as a shared cost denominator in lieu of wholesale direct costs due to insufficient information from SBC, they subsequently received sufficient revenue information by wholesale product to perform the necessary calculation. To be consistent with the Joint CLECs' other recommended adjustments to SBC's shared costs, the Joint CLECs recommend that 2001 UNE revenues be used in the shared cost denominator. This recommendation favors SBC because, since UNE revenue is less than SBC's proposed wholesale direct cost, it increases the shared cost factor. It is, however, consistent with the Joint CLECs' other shared cost adjustments, and the Joint CLECs recommend that the Commission require SBC to use UNE revenues as its shared cost denominator. (AT&T/Joint CLEC Ex. 1.0, pp. 41-44)

In sum, given the above numerous and significant errors in SBC's shared and common cost study, SBC has failed to meet its burden of proving the specific nature and magnitude of its forward-looking common costs or its forward-looking shared costs. The Commission should therefore adopt, in total, the Joint CLEC revisions to SBC's common cost allocator and shared cost allocator and should require SBC to transfer all support asset costs to common costs for recovery via the common cost factor as discussed in Section VI.C.1.

VI. ANNUAL CHARGE AND OTHER FACTORS.

A. Annual Charge Factors

Joint CLECs' primary concerns with SBC's Annual Charge Factors, or ACFs, are that SBC, in calculating its ACFs, inappropriately uses an overstated cost of capital and

uses its financial reporting depreciation lives; inappropriately assumes that maintenance expenses increase in a linear fashion as utilization levels increase; fails to remove investment and expenses attributable to building space leased to collocating carriers and all non-affiliated entities; and employs an incorrect inflation factor and fails to concurrently recognize offsetting productivity gains.

1. Adjustments to maintenance and other expense factors, including use of non-regulated data and network utilization factor

Expense factors consist of maintenance, other expense, ad valorem tax and the Commission's assessment factor. The Joint CLECs' primary concerns with SBC's expense factor calculations are that SBC's proposed expense factors include the use of both regulated and non-regulated data; that SBC's maintenance factor utilization adjustment results in unwarranted and unproven cost increases; and that the average investment used in SBC's ad valorem tax factor must be adjusted to current cost.

a. SBC's ACF Model Should Use Only Regulated Investment and Expense Data

Consistent with the discussion above regarding shared and common costs, non-regulated data should be removed from SBC's expense and investment factor calculations when calculating its ACFs. Data specific to SBC's regulated operations provides a far better methodological basis upon which to develop annual cost factors to be applied exclusively to regulated products/services. In fact, a review of SBC's 2001 ARMIS data demonstrates that the percentage of non-regulated total operating expenses is greater than the percentage of non-regulated plant investment. (AT&T/Joint CLEC Ex. 1.0, pp. 113-114) Since operating expenses are the numerator in the expense-to-investment ratio algorithm, the numerator used by SBC is larger than it should be and overstates UNE

rates. Consequently, SBC's expense factors are overstated and all non-regulated data should be removed to correct this overstatement.

Non-regulated data must also be removed to prevent cross-subsidization of non-regulated competitive services. As the Joint CLECs demonstrated, the FCC has required ILECs to remove non-regulated costs from studies used to set regulated rates for years through application of its rules in 47 C.F.R. Part 64. This requirement is consistent with the FCC's role as a long-term proponent of safeguards protecting ratepayers who use regulated services from the detrimental impacts of those services subsidizing competitive services. See the FCC's *Accounting Safeguards Order* dated December 1996. (AT&T/Joint CLEC Ex. 1.0, pp. 112-113) The Commission should, therefore, require SBC to eliminate all non-regulated data in calculating both the numerator and denominator in the expense-to-investment ratio that comprise its expense factors.

b. SBC's Maintenance Factor Utilization Adjustment Results in Unwarranted Cost Increases

SBC has included a maintenance factor utilization adjustment in its ACF model that increases maintenance and other expense factors if the network utilization, or fill, is increased beyond the fill or utilization factors proposed by SBC. At its core, this adjustment is designed to counteract any UNE cost decreases that may occur as a result of raising the utilization levels by increasing maintenance expenses as utilization levels rise. The utilization adjustment assumes that as network utilization increases above SBC's proposed fill factors, its maintenance costs also increase in a linear fashion.

SBC's network utilization adjustment factor must be rejected for many reasons. First, SBC provided almost no information at all to support either the theory or the application of the adjustment, even though the adjustment has the potential to

dramatically increase SBC's maintenance expense factor. For example, SBC did not indicate what types of cable "binder groups" are included in its analysis, whether they are in the feeder portion, the distribution portion or both, or whether these binder groups can all be found in three rate zones or some subset. SBC failed to provide the relative age of these facilities and how age may impact the "operating costs" being measured. Most engineers would agree that age is a far more determinative factor in measuring average operating costs for copper cable than is utilization. Further, SBC failed to define what "operating costs" are being measured or over what timeframe. (AT&T/Joint CLEC Ex. 1.0, pp. 213-215)

In addition, SBC's analysis is specific to copper cabling. Even if one were to assume, for argument's sake, that SBC's analysis demonstrates any meaningful relationship between utilization and operating costs, its analysis would indicate such a relationship only for copper cables. SBC's analysis demonstrates nothing about loop-electronics equipment (*i.e.*, digital loop carrier), fiber optic cable, or other types of facilities that constitute a very large portion of SBC's loop costs and which are deployed with the very purpose of reducing maintenance costs. Yet SBC applies its utilization/maintenance cost algorithm contained in its ACF model to all types of facilities, not just copper cables. SBC has presented absolutely no evidence to indicate that the same or, for that matter, any relationship exists between higher levels of utilization and increased maintenance expenses for any of these other types of facilities. Undoubtedly, it is unlikely SBC could provide such evidence given that these facilities are specifically engineered to accommodate large volumes of traffic in a significantly modular fashion. (AT&T/Joint CLEC Ex. 1.0, pp. 215-216)

More importantly and most tellingly, SBC has failed to establish that a direct link exists between network utilization and maintenance costs. SBC's own data – even assuming it is inherently reliable (which Joint CLECs do not) -- demonstrates that there is no linear relationship between utilization rates and maintenance costs.[266] While the Joint CLECs do not completely disagree that some maintenance and administrative costs may increase as fill levels exceed a certain benchmark rate (*i.e.*, target fills), SBC's algorithm creates a linear relationship between utilization and maintenance costs such that for *any incremental increase* in utilization, a corresponding incremental increase in maintenance expense is derived. For SBC's algorithm to be supported in this respect, its analysis would need to indicate a similar linear relationship between utilization levels and operating costs. It does not. As Messrs. Starkey and Fischer convincingly demonstrated using a linear regression analysis, the linear trend-line added to SBC's "analysis" generates an R^2 value of less than 42%. The R^2 value is a statistical measure of how well the trend line matches the available data. When a very low R^2 value is produced, the relationship between the two variables (in this instance utilization and operating costs) is not linear in nature. Generally, any R^2 below 80% suggests that there is not a linear relationship between the two variables. Certainly, with an R^2 of less than 42%, it is evident that no such linear relationship exists, contrary to SBC's assumption. (AT&T/Joint CLEC Ex. 1.0, pp. 216-218)

In fact, SBC's analysis shows that utilization rates in the range of 70%-75% produce operating costs no greater than those generated at utilization levels closer to

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[266] As the Joint CLECs point out, SBC has made no effort to hold all other variables constant, thereby wholly undermining SBC's "linear relationship" analysis. AT&T/Joint CLEC Ex. 1.0, pp. 213-216.

10%-20%, indicating that the relationship between utilization and increased maintenance costs is not linear but, rather, somewhat geometric. Said differently, SBC's analysis demonstrates that at some level of utilization, it is likely that maintenance costs will exceed the economic benefit of using existing plant to service additional demand. At that point, the most efficient action would be to add additional facilities to arrive at a lower level of utilization (and hence, maintenance costs) on the original curve. This is exactly what the target fill factors proposed by Ameritech and adopted by the Commission the TELRIC I Order were intended to accomplish. Not surprisingly, then, SBC's analysis supports Ameritech Illinois' previous rationale in the TELRIC I case for using target fill factors. (AT&T/Joint CLEC Ex. 1.0, pp. 217-219)

As the Joint CLECs also clearly demonstrated, SBC's model assumes that the same amount of facilities will be placed, regardless of the utilization levels that are adopted. As Messrs. Starkey and Fischer explained, however, adopting the CLECs' fill factor proposal likely results in fewer total facilities being placed. (AT&T/Joint CLEC Ex. 1.2, pp. 54-57) With fewer total facilities being placed, fewer maintenance expenses will be incurred. (*Id.)* SBC's maintenance adjustment factor is designed such that SBC's ACF model does not recognize these reduced maintenance expenses. (*Id.)* SBC's Maintenance Factor Utilization Adjustment is unsupported (even by its own data) and unreasonable and results in unwarranted cost increases. Accordingly, it should be rejected in total and SBC should be required to deactivate it in is model.

At the very least, then, SBC's analysis proves that SBC's proposed fill factors can be greatly increased to target levels absent any increase in operating costs. This is precisely the conclusion the Commission made when establishing fill factors in the

TELRIC I Order. In sum, SBC's own analysis fails to support the maintenance utilization adjustment algorithm contained in SBC's own ACF model, and it should be rejected.

c. SBC's ACF Model Understates the Non-Recurring Expense Associated with Customer-Generated Service Order Activity

In calculating the maintenance expenses component of its ACFs, SBC failed to remove an appropriate amount of non-recurring expenses associated with customer-generated service order activity. SBC performed a study of outside plant service-order hours meant to identify the rearrangement and change expenses that are caused by customer-generated provisioning in response to customer service orders because these expenses are already recovered in SBC's nonrecurring studies. Based on this study, SBC removed *****BEGIN CONFIDENTIAL*** XX ***END CONFIDENTIAL***** of its maintenance/service delivery expenses before calculating the maintenance expense component of its ACFs. This adjustment is identified as the Service Order Activity Adjustment ("SOAA"). (AT&T/Joint CLEC Ex. 1.0, pp. 116-117)

Unfortunately, the information upon which SBC relied in calculating the amount of expense to remove is both outdated and contains no Illinois-specific data. In fact, the data is vintage 1998 data (not 2001 data) from Texas, Oklahoma, Kansas, Arkansas and Missouri. The problem, of course, is that to the extent service order activity has increased over time as a percentage of total expenses, the use of 1998 data understates the percentage of network expenses attributable to service order activity (and, hence, understates the amount of expenses that should be removed from SBC's calculation of maintenance expenses). Likewise, to the extent competition is more vigorous in Illinois than in these other states and a greater volume of service orders are generated, the

percentage of network expenses attributable to service order activity may be greater in Illinois.

SBC has clearly failed to demonstrate the reasonableness of its SOAA. In fact, given the fact that SBC's maintenance/service delivery expenses per access line dropped *****BEGIN CONFIDENTIAL*** XX ***END CONFIDENTIAL***** per line from 1998 to 2001 and its total revenue generated from service order activity increased by more than 30%, with wholesale service order activity increasing by more than 100%, SBC's SOAA likely significantly understates the percentage of Illinois expenses attributable to service order activities, thereby significantly understating the amount of maintenance expense SBC removed from its maintenance expense factor to avoid double recovery of maintenance expenses. Obviously, SBC's 1998 SOAA analysis is insufficient for purposes of accurately identifying the percentage of total expenses that are attributable to service order activity today, or in the study period used by SBC in its ACF model. (AT&T/Joint CLEC Ex. 1.0, pp. 117-120)

To rectify this error, the Joint CLECs used the fact that between 1999 and 2001, SBC Illinois' total service order-related revenue increased by nearly 30% to estimate that SBC's use of 1998 data understated the service order related activities by at least 30%. Increasing the service-order related activities by 30% increased the SOAA percentage in SBC's ACF model from *****BEGIN CONFIDENTIAL*** XXX ***END CONFIDENTIAL***** to *****BEGIN CONFIDENTIAL*** XXX ***END CONFIDENTIAL*****. The Commission should order SBC to use this revised percentage to calculate its SOAA. (AT&T/Joint CLEC Ex. 1.0, pp. 121-123)

2. Ad valorem factor -- The Average Investment Used in SBC's Ad Valorem Tax Factor Must Be Adjusted to Current Cost

While, technically, the ad valorem tax factor is an expense factor, because it was listed as a separate item in the Joint Issues List, Joint CLECs will address it separately. The ad valorem tax factor is calculated as a ratio of book property tax expense to average book investment from the prior calendar year. SBC used average book investment as the denominator in calculating its Ad Valorem Tax factor. The use of average book investment is not a correct input because it understates the denominator, thereby overstating the ad valorem tax factor.

In fact, SBC uses current cost-to-book cost ("CC/BC") ratios to develop its maintenance and other expense, support assets, and shared and common costs factors. Therefore, in calculating the ad valorem tax factor, average book investment must be converted to a current cost basis to maintain consistency with the methodology SBC employs to calculate its other cost factors. This conversion increases book values to current replacement values. The use of CC/BC ratios ensures consistency in the time period used to calculate cost factors based upon a relationship of expense to investment. Messrs. Starkey and Fischer made this adjustment by applying a composite CC/BC ratio for total plant investment using SBC's CC/BC ratios by account developed for 2001. (AT&T/Joint CLEC Ex. 1.0, pp. 125-127)

In sum, the Commission should order SBC to restate its book investment to current cost in the denominator of its ad valorem tax factor. Restating book investment to current cost maintains consistency with the methodology SBC employs to calculate its other cost factors. The use of current cost to book cost ratios also ensures that a

consistent relationship exists between the year expenses are incurred and the valuation date of the investment used to calculate the expense to investment cost factor.

3. Capital Cost Factors -- Cost of Capital and Economic Lives

SBC uses its Capital Cost System ("CAPCS") to calculate capital cost factors. CAPCS incorporates inputs for cost of money, depreciation lives and income taxes into factors that are then applied against forward-looking investment to determine annual costs for plant investment. SBC used two separate CAPCS models to calculate capital cost factors in this proceeding. The first CAPCS model is embedded in SBC's Annual Cost Factor model and uses Illinois-specific inputs for cost of money, depreciation lives and income taxes to determine Illinois-specific capital cost factors. The second CAPCS model is used by SBC to determine the capital costs of SBC's support assets. SBC's support asset study utilizes support expense and investment from all five states within the former Ameritech region (Illinois, Indiana, Michigan, Ohio and Wisconsin) to determine the factors required to recover the costs of support assets. Consequently, the CAPCS model used to determine capital costs of support investments calculates composite capital cost factors that can be used in each of the five states in the Ameritech region. (AT&T Ex. 1.0, pp. 99-101)

As discussed in Sections III.B.2 and 3 above, the Joint CLECs recommend that the Commission adopt the cost of capital inputs recommended by AT&T witness Ms. Terry Murray and the depreciation life inputs recommended by AT&T witness Mr. Michael Majoros to re-run the SBC CAPCS models. Ms. Murray recommended the use of a weighted average cost of capital of 7.54% based on a weighted cost of long-term and short-term debt of 3.78%, a cost of equity of 9.46% and a 33.88% debt/66.12% equity

capital structure. Mr. Majoros recommended the use of FCC-prescribed depreciation lives for SBC Illinois. Using Ms. Murray's recommended cost of capital and Mr. Majoros' recommended depreciation lives and future net salvage values causes a reduction in ACFs ranging from a low of *****BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***** for Other Terminal Equipment (account 2362) to a high of *****BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***** for Circuit Equipment - Analog Other (account 2232.2). (AT&T/Joint CLEC Ex. 1.0, pp. 105-107)

For the reasons discussed in Sections III.B.2 and 3 above, the Commission should order SBC to use as inputs to its ACF and other factors the cost of capital recommendations of AT&T/MCI witness Terry Murray and the depreciation lives and future net salvage values proposed by AT&T/MCI witness Mike Majoros to rerun its capital cost factors.

B. Investment Factors

SBC's ACF model uses three investment factors to identify the amount of land, building and power equipment investment needed to support (or house) central office equipment. SBC also develops four investment factors to estimate the engineered, furnished and installed ("EF&I") costs for engineering, furnishing and installing general purpose computers, digital switch systems, operator systems and circuit equipment.

1. SBC's Failure to Remove Building and Land Leased to Collocating Carriers and Non-Affiliated Carriers

SBC leases land and building space to non-affiliated carriers for collocation and other purposes. Building and land investment leased to collocating carriers and non-affiliated entities represents building and land space that SBC does not use in its

operations. SBC is already being compensated for this space in the form of rent; therefore, it is not an expense that ought be included in SBC's calculations of its investment factors. Consequently, SBC's inclusion of this same space in the development of its investment factors leads to double recovery of these costs. To prevent double recovery, SBC must be required to remove the investment associated with this space from its building and land investment factors consistent with the methodology contained in AT&T/Joint CLEC Ex. 1.0, Attachment MS/WF-10.

Consistent with the Capital Cost Factors analysis, SBC must also be required to revise its "EF&I with Land, Building and Power" factors consistent with the capital cost and expense factor adjustments recommended by Joint CLECs above and with the adjustments to the Land and Building factors, which flow into the EF&I factors.

2. <u>SBC Double Counts MDF Investment</u>

SBC has overstated investment in its cost studies by including main distribution frame ("MDF") investment as a direct separate investment input in its loop studies even though MDF investment is already a component of common equipment used in SBC's development of the Power & Common cost factor.

The FCC's Part 36 rules outline the procedures used by telecommunications carriers to allocate their investment, revenue and expenses between state and interstate jurisdictions. According to Section 36.121(1) of the FCC's separations rules, MDF investment costs are assigned by use of factors because it is classified as common equipment and is not, therefore, assigned to a specific category. Instead, in the separations process, common equipment is distributed among various categories in proportion to the cost of the equipment directly assigned to categories. (AT&T/Joint CLEC Ex. 1.0, pp. 134-137)

According to SBC's work papers, SBC compiles central office equipment ("COE") investment cost for the year 2000 by individual plant accounts in the 2210, 2220 and 2230 series of accounts. Within each of these three summary accounts, SBC compiles investment cost into three classifications: (1) Total COE, (2) Total COE Power & Common Only, and (3) Total COE Excluding Power & Common. The total of COE Power & Common investment for all three summary accounts is then divided by the total of COE excluding Power & Common to derive the Power & Common investment factor. Based on cost causation principles, matching principles and SBC's specific Power & Common investment factor development, however, amounts for Power and Common equipment should only be associated with "COE" investments as defined above (i.e., 2210 - switching equipment, 2220 - operator services equipment and 2230 - circuit equipment). (AT&T/Joint CLEC Ex. 1.0, pp. 137-138)

SBC's inclusion of MDF investment in its Power & Common cost factor results in double counting of frame investment wherever frame investment is separately and distinctly identified in any of SBC's cost studies. For example, SBC's loop studies include separate inputs for frame investment. The loop studies also separately identify amounts for circuit equipment from the 2230 series of accounts. Application of SBC's Power & Common investment factor to identified circuit equipment investment also identifies cost for MDF, making SBC's separate identification of MDF investment redundant. Consequently, either the investment factor must be adjusted to remove MDF investment or the individual studies containing separate inputs for MDF investment must be adjusted to remove this investment. (AT&T/Joint CLEC Ex. 1.0, p. 138)

SBC has agreed in Texas to remove MDF investment in its development of the Power & Common investment factor. The Joint CLECs were unable to make a similar adjustment here because they were unable to identify the MDF investment in SBC's schedule of COE investment. (AT&T/Joint CLEC Ex. 1.0, pp. 138-139) Consequently, the Joint CLECs recommend that MDF investment included as a separate line item in any of SBC Illinois' cost studies be removed to prevent double recovery.

3. Failure to Remove Non-Regulated Investment

Consistent with the earlier discussions and recommendations, non-regulated investment must be removed from SBC's investment factor calculations.

C. Support Asset Factors, including reclassification of support asset costs to common costs

Support assets factors represent the costs associated with support assets and certain other costs not otherwise associated with specific assets. (AT&T/Joint CLEC Ex. 1.0, p. 142) Support asset factors are principally developed by SBC by summing support asset costs with the capital costs (*i.e.*, depreciation, cost of money, and taxes) of the assets and dividing the total identified expenses by an appropriate denominator. SBC's inputs into the support assets factor study are developed using data from the five state Ameritech region and six other states in its region. (AT&T/Joint CLEC Ex. 1.0, pp. 144-145) SBC uses support asset factors to assign support asset costs to UNEs via the expense factors, the shared and common cost allocators and loaded labor rates. (AT&T/Joint CLEC Ex. 1.0, p. 142-143)

1. Support Asset Costs Should Be Reclassified as Common Costs

SBC's support asset costs are in the nature of common costs rather than direct costs; as such, they should be recovered in the common cost factor rather than as direct

costs from UNEs (via the application of ACFs) and nonrecurring charges (via loaded labor rates). Support assets are those assets not directly assigned to a specific cost object based on cost causation, and are generally comprised of the 21XX series of plant investment accounts, which includes land and buildings, furniture and office equipment, motor vehicles, and general purpose computers, excluding mainframe and mid-range computers. (AT&T/Joint CLEC Ex. 1,0, p. 141; AT&T Cross Ex. 7)

As SBC witness Mr. Barch testified, the bulk of the support asset costs are attributable to the Buildings – Administration account and general purpose computers. (Tr. 319) The building costs are primarily costs for administrative buildings and not network buildings or central offices. (Tr. 317-318) According to the FCC's Part 32 rules, the General Purpose Computer account – Account 2124 – includes the costs of computers designed to perform "general administrative information processing activities" which include activities "not specifically designed for testing, diagnosis, maintenance or control of the telecommunications network facilities." (See AT&T Cross Ex. 7, Account §32.2124) Furniture and "objects which possess aesthetic value" (*i.e.*, artwork) is another account that typifies the common cost nature of support asset costs. (See AT&T Cross Ex. 7, Account §32.2122)

By their very nature, then, SBC's support asset costs (general purpose computers, land, buildings, furniture and artwork) are really general assets/expenses used in providing the entirety of SBC's products and services, incapable of being reasonably allocated to any particular service or product. (AT&T/Joint CLEC Ex. 1.1, p. 5) Indeed, SBC was obviously unable to directly allocate these costs to any particu1ar group of products, *i.e.*, recurring/non-recurring, wholesale/retail or regulated/non-regulated.

Specifically, SBC allocates a portion of its support asset expenses to monthly recurring rates via ACFs, non-recurring rates via labor rates, and to all UNEs via a small allocation to common costs. SBC appears to have arbitrarily allocated portions of support asset costs based largely upon its own unilateral discretion rather than according to cost-causation principles. Even so, SBC was not able to allocate its support asset expenses logically to any group of products/services smaller than the total output of the firm. These expenses are generally incurred in the normal course of SBC's business and are not directly related to the production of, or consumption of, any particular product or group of products. As such, SBC's support asset expenses fall squarely within the definition of common costs. (AT&T/Joint CLEC Ex. 1.1, p. 5)

In fact, Mr. Barch revealed the weakness of SBC's position by acknowledging that SBC's methodology allocates more support asset costs to an employee that earns more money than to an employee that earns less. That is, SBC assumes that the more money an SBC employee earns, the more building expense, general purpose computer expense and plant expense SBC incurs. That is simply illogical. As Mr. Broadhurst, the Arthur Andersen employee that sponsored SBC's first shared and common cost study in Illinois, agreed, "it is likely that the capital-related costs of many general support assets would be classified as common costs." (AT&T Cross Ex. 8; Tr. 322-323) The Indiana Commission agreed: "The Commission also finds that items included by SBC Indiana as support assets (e.g., land, buildings and computers) are long lived and not consumed by technicians as they perform their nonrecurring labor activities. Accordingly, they should not be included in labor rates." (Indiana Order, p. 166)

Accordingly, SBC should be required to remove support asset costs from its ACFs (used as inputs to all recurring cost studies), its Service Order Computer Processing study (mainframe computer investment) and its loaded labor rates (used as a primary input into all non-recurring cost studies) consistent with the Joint CLEC recommendation contained in AT&T/Joint CLEC Ex. 1.1, pp. 1-14. To ensure that all of its General Purpose Computer costs are recovered, SBC should add its mainframe and midrange computer investment and expense to its common costs.

2. Correction of Data Entry Errors

In the process of tracing SBC's support assets investment back to its source documentation, the Joint CLECs discovered that virtually all of the investment accounts contained incorrect values. SBC computes average investment using 1999 and 2000 year end balances for accounts 2111, 2112, 2114, 2121, 2122, 2123 and 2124. While the values SBC used were apparently from SBC's general ledger reports containing investment by account for each of the five states in the Ameritech region, the Joint CLECs compared the investment amounts by sub account from the general ledgers to SBC's supporting documentation and discovered several data entry errors. SBC should be required to correct these data entry errors in the manner set forth in AT&T/Joint CLEC Ex. 1.0, pp. 147-149.

3. Application of Ms. Murray's and Mr. Majoros's Recommended Cost of Capital and Depreciation Lives

The capital cost and depreciation inputs recommended by AT&T/MCI witness Ms. Murray and AT&T/MCI witness Mr. Majoros, respectively, should be used to calculate the capital cost factors in the support asset factors study. (AT&T/Joint CLEC Ex. 1.0, pp. 149-150)

4. Failure to Isolate Regulated Versus Non-Regulated Data

Consistent with their recommendations for shared and common costs, expense factors and land and network building factors, Joint CLECs recommend removing non-regulated costs from SBC's support asset factors calculations. Contrary to the results obtained by removing non-regulated investment and expense from all other factors, making this same adjustment in the support assets factors calculations increases the factors. This increase offsets the reduction that results from applying Ms. Murray's and Mr. Majoros' recommended capital cost factors. Consistency requires that this adjustment be applied uniformly throughout the SBC studies. (AT&T/Joint CLEC Ex. 1.0, pp. 151-152)

D. Inflation/Deflation Factors

1. Inflation on Investment Overstates Capital Costs

SBC applies inflation on investment via a capital inflation factor in its recurring loop studies. This capital inflation factor is applied to the capital cost factors determined by the CAPCS model to produce capital cost factors with inflation. As the Joint CLECs demonstrated, inflation on investment overstates capital costs because, as AT&T/MCI witness Ms. Murray explained, the cost of money portion of capital costs already includes the effect of inflation. Applying cost of money factors to investment *and* applying a separate inflation factor therefore double-counts the impact that inflation has on investment. To reflect this fact, Messrs. Pitkin and Turner changed SBC's capital cost inflation factors to a value of 1.000 in SBC's LoopCAT studies to remove the effect of inflation on capital costs. (AT&T/Joint CLEC Ex. 1.0, pp. 155-156) SBC's attempt to double count inflation on investment should be rejected.

2. Inflation on Expenses and Labor Rates Should Be Calculated Using the PPI, Not the CPI-W

SBC used the CPI for Urban Wage Earners and Clerical Workers ("CPI-W") produced by the Bureau of Labor Statistics ("BLS") to estimate the impact of inflation on its operating expenses and labor rates. According to the BLS, the best measure of inflation for a given application depends on the intended use of the data. (AT&T/Joint CLEC Ex. 1.0, pp. 158-159) The CPI measures inflation experienced by consumers in their day-to-day living expenses, while the Producer Price Index ("PPI") measures inflation at earlier stages of the production and marketing process. (AT&T Ex. 1.0, pp. 157-159)

According to the BLS, the CPI is a measure of the average change in prices of goods and services purchased by households over time. The CPIs are based on prices of food, clothing, shelter, fuels, transportation fares, charges for doctors' and dentists' services, drugs, and other goods and services that people buy for day-to-day living. While the CPI measures inflation as experienced by consumers in their day-to-day living expenses, the PPI measures inflation at earlier stages of the production and marketing process. According to the BLS, the target set of goods and services included in the PPI is the entire marketed output of U.S. producers. The set includes both goods and services purchased by other producers as inputs to their operations or as capital investment, as well as goods and services purchased by consumers either directly from the producer or indirectly through a retailer, while the target set of items included in the CPI is the set of goods and services purchased for personal consumption by urban U.S. households.

Since the purpose of this proceeding is to establish wholesale prices for inputs used by other producers of services (*i.e.*, CLECs), the PPI is the appropriate index to

measure inflation on expenses (should the Commission determines an inflation factor is appropriate at all). (AT&T/Joint CLEC Ex. 1.0, pp. 159-160) Specifically, the Joint CLECs replaced SBC's CPI-W inflation factor with a PPI inflation factor based upon a trend of PPI values for total manufacturing industries from 1989 – 2001. Trending these actual values to the mid-point of 2003 produced a composite inflation factor of only 3.936% as opposed to SBC's proposed inflation factor of *****BEGIN CONFIDENTIAL*** XXXX** *****END CONFIDENTIAL*****, or a reduction of *****BEGIN CONFIDENTIAL*** XXXX** *****END CONFIDENTIAL*****. (AT&T/Joint CLEC Ex. 1.0, pp. 160-161) If the Commission allows SBC to apply an inflation factor, it must ensure that SBC be directed to net this inflation factor against an appropriate productivity factor, as discussed below.

E. Productivity Offset -- To the Extent An Inflation Rate Is Applied, A Productivity Offset is Necessarily Required

According to SBC, productivity gains are already captured by its cost studies through forward looking technology assumptions (technology substitution and lower equipment prices) and the restatement of investment from book cost to replacement cost. While the Joint CLECs agree that productivity is captured, in part, in SBC's cost studies, SBC's reliance on the benefits of lower equipment prices, technology substitution and restatement of investment to replacement cost only reflects the benefits of technology changes related to plant investment and fails to address the much broader spectrum of influences on productivity.

For example, SBC's analysis fails to account for the continual improvement in output per hour that the telecommunications industry can reasonably expect to incur in the foreseeable future based on a track record of such improvements having continuously

occurred over a period in excess of 50 years. As the Joint CLECs correctly pointed out, productivity measurements must also reflect increases in output due to restructuring of network and administrative processes to function with fewer employees, streamlined supply chains that lower the overall cost of procurement, capital investments in technology used by employees to do their jobs more efficiently, and improvements in management skills through training. This is particularly important in light of the fact that the TELRIC methodology assumes and should capture only those costs incurred in an efficient, forward-looking environment. (AT&T/Joint CLEC Ex. 1.0, pp. 162-163)

As SBC witness Mr. Barch admitted on cross examination, SBC's cost studies do not take into account any of the short-term or long-term cost reduction initiatives recently announced (November 2003) by SBC executives to the investor community. (Tr. 363-369; see also SBC Ex. 7.2, pp. 33-34) According to the presentation of SBC executive Mr. Atterbury, SBC has, in the short term, recently eliminated nearly $1 billion in operations and support costs by workforce reductions and productivity improvements. (AT&T/Joint CLEC Ex. 1.1, pp. 67-68) SBC is also embarking on major long term cost reduction initiatives, including consolidation of call and network centers, creation of one national customer service bureau rather than regional bureaus, consolidated nationwide technical support (rather than regional support), automation of outside plant records and more efficient technician routing designed to save 30 million road miles and 750,000 technicians annually. (AT&T/Joint CLEC Ex. 1.2, pp. 69-70) According to Mr. Atterbury, these improvements would collectively save SBC $1.3 billion in annual capital and expense by 2006, none of which is incorporated in SBC's cost studies. (AT&T Ex. 1.2, p. 70-71; Tr. 363-369; SBC Ex. 7.2, pp. 33-34)

Moreover, when asked to identify where its cost studies accounted for productivity gains due to workforce restructuring/reductions and productivity gains due to fewer labor hours required to maintain its network, SBC indicated that it had not performed those analyses. (AT&T/Joint CLEC Ex. 1.2, pp. 68-69) There is no question that SBC has failed to account for productivity gains it will experience from its workforce reductions and its consolidation efforts. Thus, if SBC is allowed to apply an inflation factor, an explicit productivity factor is necessarily required. (See AT&T/Joint CLEC Ex. 1.0, Attachment MS/WF-17)

The Joint CLECs have calculated an appropriate productivity factor by trending SBC's actual expense-to-investment ratios from 1990 – 2002 to the mid-point of 2003, resulting in a productivity factor of **8.804%**. (AT&T/Joint CLEC Ex. 1.0, pp. 164-165) The Joint CLECs' composite inflation and productivity calculation resulted in a net productivity increase of **4.868**% (8.804% productivity minus 3.936% inflation) over the planning period of the study (base year 2000 to mid-2003). (AT&T/Joint CLEC Ex. 1.0, pp. 164-165) As Messrs. Starkey and Fischer noted, this net productivity adjustment is conservative because it was developed using SBC's historical financial data and does not, therefore, reflect any specific forward-looking adjustments to expenses. Nor does it compare SBC's operational practices with any best in class or "best practices" benchmarks. Indeed, the overwhelming record evidence demonstrates that the Joint CLECs' proposed productivity offset is conservative when compared to the general productivity trends experienced by the telecommunications industry both in the recent past and over the last 50 years. (AT&T/Joint CLEC Ex. 1.0, pp. 165-168)

In sum, the Joint CLECs recommend that the Commission prohibit SBC from applying and inflation factors since it has not factored in productivity. As the Indiana Commission concluded:

> At this time the Commission will not order any inflation adjustment since we agree with the CLECs that SBC does not factor in productivity. We disagree with SBC that its cost studies already capture all productivity gains and that no productivity offset is therefore required. While we agree that productivity is captured, in part, in SBC's cost studies, SBC's reliance on the benefits of lower equipment prices, technology substitution and restatement of investment to replacement cost only reflects the benefits of technology changes related to plant investment and fails to address the much broader spectrum of influences on productivity. (Indiana Order, p. 154)

If, however, the Commission allows SBC to apply an inflation factor, the Commission must also require SBC to apply the Joint CLECs' recommended productivity offset. To avoid disputes in the compliance phase of this case, the Commission should make it clear that to the extent SBC is allowed to apply an inflation factor *in any aspect of its cost studies*, it is also required to apply an offsetting productivity factor.

F. Depreciation and Net Salvage

The Joint CLECs urge the Commission to adopt the depreciation and net salvage recommendations of AT&T/MCI witness Mr. Majoros, discussed above in Section III.B.2, to calculate its Annual Charge Factors and Other Factors.

VII. IMPUTATION AND PRICE SQUEEZE

A. Introduction And Summary Of Recommendation

A critical issue that the Commission must address in this proceeding is the applicability of the imputation requirements of the Illinois Public Utilities Act ("PUA") and the Commission's rules to SBC's proposed rate increases that are the subject of this

proceeding.[267] The Commission will need to determine how or if violations of the PUA and the Commission's rules can be cured should SBC's proposed rates (or any proposed rates) fail the imputation requirements of the PUA and the Commission's rules.[268] As discussed in greater detail below, Joint CLECs submit that the imputation requirements of the PUA and the Commission's rules clearly are triggered by SBC's proposed UNE loop and associated nonrecurring charge rate increases. Joint CLECs further submit that SBC's proposed rates, as originally proposed and as most recently adjusted by SBC, fail by significant margins even a conservative imputation test for SBC's business Network Access Lines ("NALs"). The only way that the Commission can approve increases in SBC's UNE Loop rates is if SBC's business NALs pass an imputation test. The General Assembly has constrained SBC's ability to raise rates for business NALs until July 2005. (220 ILCS 5/13-502.5) As a result, the only available method to cure a violation of the

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[267] As Staff witness Jeff Hoagg explained:

"Generally, imputation requirements are intended to ensure that appropriate relationships exist between the prices a carrier such as SBC Illinois charges for inputs provided to competing carriers, and prices it charges for its comparable competing retail services. Among other things, when properly implemented, imputation requirements prevent carriers such as SBC Illinois from impeding competition by selling wholesale and retail services at rates that yield margins insufficient to support viable competition. Such insufficient margins can constitute a so-called "price squeeze", wherein competing carriers are "squeezed" (i.e., cannot compete profitably) between the rates they pay an incumbent LEC for crucial wholesale inputs, and the prices the incumbent LEC sets for the retail service in question." (Staff Ex. 1.0, pp. 29-30).

[268] Section 792.30(d) of the Commission's rules requires the Commission to issue an order within 120 days of the initiation of a Section 9-201 investigation determining whether the imputation test for each subject service and the result of the test satisfy the requirements of Section 13-505.1 of the PUA, but allowing that requirement to be extended by agreement of the parties. On December 30, 2003, the ALJ issued a ruling finding that parties are deemed to have been in agreement with an extension of the 120 day requirement and stating that the imputation issues will be decided with the rest of the issues presented by SBC's filing.

imputation requirements of the PUA and the Commission's rules is to lower SBC's UNE loop rates until they pass an imputation test.

In addition, it is clear that SBC believes that its residential NALs are competitive. However, SBC to date has not sought to reclassify its residential NALs as competitive. When it does, it will be required to pass an imputation test for residential NALs. Notwithstanding the current classification of SBC's residential NALs as noncompetitive, the Commission can and should recognize the competitive impact that SBC's proposed UNE loop rate increases will have on the retail residential local service market in Illinois. If SBC is allowed to raise its wholesale rates for unbundled loops now and subsequently seeks to reclassify its residential retail services as competitive, it will then be required to pass an imputation test which will necessarily cause SBC's residential retail rates to increase. Thus, not only will any increase to SBC's wholesale rates make it more difficult for competitors to provide local services in competition with SBC, but the increases will require SBC to raise its retail residential rates so that it can pass the imputation tests required by the PUA and the Commission's rules. The Commission must be cognizant of the relationship between SBC's wholesale and retail rates.

The record in this proceeding illustrates the impact of SBC's proposal on competition in the residential retail local service market, by demonstrating that SBC's proposed unbundled loop rates are higher than SBC's residential retail rates. Hence, if SBC's proposed unbundled loop rates and nonrecurring charges are approved and implemented, CLECs will be squeezed out of the residential retail market because their costs of leasing UNE loops from SBC, which they need to be able to provide local service, will be higher than the rates that SBC charges its residential retail customers.

Because SBC's rate increase proposals may make it economically prohibitive for CLECs to provide residential service and/or may substantially impede or CLECs ability to provide such service, the Commission is obliged to assess the competitive impact that SBC's proposed unbundled loop rate increases will have on the retail residential local service market, by analyzing the price squeeze impacts of SBC's proposed rate increases in this proceeding. That analysis, Joint CLECs contend, provides additional bases for rejecting SBC's inflated proposed unbundled loop rates and nonrecurring charges.

B. SBC's Business Network Access Lines Are Subject To Imputation

The PUA and the Commission's rules contain imputation requirements that are designed to protect competition. Section 13-505.1 of the PUA and code Part 792 (83 Ill. Admin. Code 792) apply only to those telecommunications carriers that provide both competitive and noncompetitive services, and they require the filing of an imputation test with respect to all competitive services that rely on noncompetitive services or noncompetitive service elements for the provisioning of the competitive service. Part 792 sets forth the rules governing the filing and performance of any such imputation test. Notwithstanding the above, certain carriers are specifically exempted from these requirements in Section 13-504(b) of the PUA. Section 13-505.1(a) provides, in part:

> . . . If a carrier provides noncompetitive services or noncompetitive service elements to other telecommunications carriers for the provision by the other carriers of competitive services, switched interexchange services, or interexchange private line services or to other persons with which the telecommunications carrier also competes for the provision by those other persons of information or enhanced telecommunications services, as defined by the Federal Communications Commission, then the telecommunications carrier shall satisfy an imputation test for each of its own competitive services, switched interexchange services, or interexchange private line services, that utilize the same or functionally equivalent noncompetitive services or noncompetitive service elements. (220 ILCS 5/13-505.1(a))

That section further provides that "[t]he purpose of the imputation test is to determine whether the aggregate revenue for each service exceeds the costs, as defined in this Section, to be imputed for each service based on the telecommunications carriers' own routing arrangements."

The reference to "aggregate revenue" essentially is a reference to "price." The "costs" to be imputed, in turn, "shall be defined as the sum of: (1) specifically tariffed premium rates for the noncompetitive services or noncompetitive service elements, or their functional equivalent, that are utilized to provide the service; (2) the long-run service incremental costs ["LRSICs"] of facilities and functionalities that are utilized but not specifically tariffed; and (3) any other identifiable, long-run service incremental costs associated with the provision of the service." 220 ILCS 5/13-505.1(a).

Thus, according to the PUA, the general purpose of the test is to ensure that retail prices for a competitive service properly exceed imputed costs. This applies where a single carrier provides the competitive services at retail, and wholesale inputs are used by other carriers to compete in the retail markets for the associated services.

In addition, Part 792 of the Commission's rules (Imputation) clarifies the situations in which imputation tests must be satisfied. Section 792.30(c)(3) explicitly establishes the circumstances under which imputation requirements must be met:

> Circumstances under which [imputation] tests shall be filed include, but are not limited to, the following:
>
> * * *
>
> 3) When any tariff is filed that increases rates for a noncompetitive service or a noncompetitive service element, or its functional equivalent, which is utilized in providing a service subject to imputation.

It is clear that the requirements of Section 13-505.1 of the PUA and Part 792 of the Commission's rules apply in this proceeding. It cannot be disputed that SBC Illinois provides both competitive and noncompetitive services. It also cannot be disputed that SBC Illinois provides noncompetitive service elements, including unbundled loops, to other telecommunications carriers for the provision by the other carriers of competitive services, switched interexchange services, or interexchange private line services. SBC's UNEs, including its unbundled loops, are noncompetitive service elements (or their functional equivalent) sold to competing carriers, who use these as inputs to enable provision of their own competing retail services. Statutory references to "...noncompetitive service elements..." and "…their functional equivalent…" directly encompass UNEs, including unbundled loops. It further cannot be disputed that SBC Illinois' business access lines are competitive under the IPUA.[269] For these reasons the PUA requires that SBC Illinois "shall satisfy an imputation test for each of its own competitive services, switched interexchange services, or interexchange private line services, that utilize the same or functionally equivalent noncompetitive services or noncompetitive service elements." 220 ILCS 5/13-505.1(a).

While SBC has questioned whether imputation requirements would apply to its business NALs,[270] SBC's conduct belies that position. In attempting to achieve automatic wholesale rate increases, SBC pursued and ultimately prevailed in getting the General Assembly and the governor to enact Sections 13-408 and 13-409 of the PUA effective May 9, 2003. 220 ILCS 5/13-408 and 13-409. The provisions of Section 13-

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269 220 ILCS 5/13-502.5(b).

270 SBC Ex. 1.0, pp. 23-24.

408 essentially doubled the rates for SBC's wholesale unbundled loops, without any prior hearing or analyses of the merits of the rate increases that competitors must purchase to offer service to residential consumers. In order to ensure that the drastic rate increases could be implemented unimpeded by the imputation requirements of Section 13-505.1 of the PUA and Part 792 of the Commission's rules, Section 13-408 of the SBC automatic wholesale rate increase law specifically insulated those wholesale rate increases from causing any corollary increases in retail rates, thereby eviscerating the imputation requirements contained in Illinois law. Specifically, Section 13-408(d) provided as follows:

> Notwithstanding anything to the contrary contained in Section 13-505.1 of this Act, unbundled network element rates established in accordance with the provisions of this Section shall not require any increase in any retail rates for any telecommunications service.

Thus, Section 13-408(d), which was enacted by the General Assembly and the governor at SBC's behest, eviscerated the "price squeeze" protections of the imputation requirements contained in Illinois law so that competitors -- had the law withstood legal challenge -- were faced with paying more for unbundled loops than SBC charged its business retail customers for business NALs (*i.e.*, services which were and are plainly subject to imputation). Clearly, the imputation exemption language would not have been included in Section 13-408(d) of the SBC automatic wholesale rate increase law had not SBC understood that the imputation requirements would apply to business NALs. Section 13-408 was proposed and enacted <u>after</u> SBC had filed its proposed unbundled loop rate increases in this case in December 2002 and <u>after</u> SBC had acknowledged that

its business NALs fail an imputation test.[271] SBC crafted Section 13-408(d) to eliminate the problems caused by the imputation requirements of Illinois law when SBC's unbundled loop rates are dramatically increased. By eliminating the consequences of the imputation requirements, Section 13-408 ensured that SBC could drastically raise wholesale rates without having to raise its retail rates, thereby putting CLECs in a price squeeze and pushing them out of the market. Section 13-408(d), as sponsored and supported by SBC, constitutes clear and convincing evidence that the imputation requirements of Section 13-505.1 and Part 792 of the Commission's rules do apply to business NALs.

C. SBC's Business NALs Fail To Satisfy Imputation Requirements Utilizing SBC's Proposed Unbundled Loop Rates

In support of the tariff it filed proposing increased unbundled loop rates and nonrecurring charges for unbundled loops, UNE-P, new UNE-P and EELs, SBC conducted an imputation test of its business network access lines in a document dated December 20, 2002.[272] It is that document that formed the basis of SBC witness Mr. Panfil's testimony which candidly acknowledges that SBC's business network access lines fail an imputation test when SBC's proposed unbundled loop rates are imputed to SBC's business NAL.[273] While there has been much debate about the appropriate

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[271] The direct testimony of SBC witness Eric Panfil, SBC Ex. 1.0, was circulated at the time that SBC filed its tariff with the proposed unbundled loop rate increases on December 24, 2002. As Mr. Panfil candidly admits in that testimony, if business NALs are subject to imputation, they fail an imputation test. (SBC. Ex. 1.0, p. 24)

[272] MCI Cross Ex. 2-P (SBC – Illinois Network Access Line Imputation Cost Study dated 12/20/02).

[273] Tr. 179, 181-82; SBC Ex. 1.0, pp. 23-24.

manner in which an imputation analysis should be conducted, the record is clear that SBC's imputation test for its business NALs is conservative, i.e., that SBC conducted its imputation analysis in a manner that put SBC's proposed rate increases in the light most favorable to SBC.

For example, in its imputation test SBC assumed that it would receive revenues related to line connection and service order charges for business NALs 100 percent of the time. The record shows, in fact, that SBC waives service order and line connection charges for its business NAL services on a regular basis. From January 1, 2004 through December 31, 2004, SBC will waive line connection and service order charges for any customer who signs up for a business NAL under a NAL term pricing plan of 12 months, 24 months or 36 months.[274] SBC has also waived service order and line connection charges for customers who left SBC to take service from another carrier but wished to return to SBC. Examples of SBC waiving service order and line connection charges to "winback" customers are reflected in business NAL promotions that SBC ran from January 2002 through December 2002 and from July 2002 through July 2003.[275] As Mr. Panfil's testimony acknowledges, SBC estimates that some 33 percent of business NALs in Illinois are served by CLECs and thus could be eligible for winback offers such as those waiving service order and line connection charges.[276] Therefore, SBC's imputation analysis significantly inflates the revenues that SBC actually receives for business NALs, which makes it appear that SBC is closer to passing an imputation test than it actually is.

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274 MCI Cross Ex. 3, p. 1.

275 *Id.*, pp. 3-4.

276 Tr. 203-204; SBC Ex. 1.0, p. 21.

In addition, in determining costs to be imputed to SBC's business NAL, SBC's imputation test assumes a **BEGIN CONFIDENTIAL** XXXX **END CONFIDENTIAL** "location life" which purports to represent the average time that a business NAL customer keeps his or her line in service.[277] If that location life assumption were lower, the costs that SBC imputes to its retail business NAL would be higher since SBC annuitizes the nonrecurring charges such as the service order and line connection charges over the location life of the business NAL. By increasing the nonrecurring charges that should be imputed to SBC's business NAL it becomes more difficult for SBC to pass the imputation test. SBC provides no support for the location life number that appears in its imputation study other than indicating that the source of the number is "product management." Not only does the location life number that SBC assumes not comport with the business NAL term plans that SBC offers,[278] but it is directly contradicted by the location life assumptions that SBC witness Dr. Currie uses in his line connection cost study.[279] Moreover, SBC witness Mr. Silver indicates in his testimony that SBC assumes a two-year location life for purposes of its line connection cost study, and Mr. Silver expresses his opinion that a two-year location life for unbundled loops and ports is conservative, and that assuming anything more than a two-year location life would be unreasonable.[280] Hence, SBC's imputation test is conservative because it reduces the

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[277] MCI Cross Ex. 2-P, Tab 5.5.

[278] MCI Cross Ex. 3, p. 1 is an SBC tariff that indicates SBC has term plans of 12, 24 and 36 months for business NALs.

[279] Dr. Currie indicates that his service order cost studies assume a ******BEGIN CONFIDNENTIAL***** XXXXX******END CONFIDENTIAL***** location life. (SBC Ex. 5.0, p. 10)

[280] Tr., pp. 841-42; SBC Ex. 3.1, pp. 4-5.

nonrecurring costs that should be imputed to the business NAL by using an inflated location life that is at odds with SBC's tariffed offerings as well as the assumptions contained in SBC's cost studies.

SBC's imputation study also imputes a lower cost for ports than the $2.18 tariffed rate that CLECs pay to SBC for an unbundled switching port to provide local service.[281] In addition, in calculating nonrecurring costs to be imputed to SBC's business NAL, SBC's study reflects nonrecurring service ordering costs with computer processing costs set at ***BEGIN CONFIDENTIAL*** XX ***END CONFIDENTIAL*** and a line connection nonrecurring charge in which the labor associated with "feature configuration" costs are at ***BEGIN CONFIDENTIAL*** XX ***END CONFIDENTIAL***.[282] These assumptions act to exempt from the costs that SBC imputes to its business NAL certain costs which SBC's service ordering and line connection cost studies would impose on CLECs.[283] All of these aspects of SBC's imputation test tend to increase revenues that SBC reports it receives for business NALs while acting to decrease the amount of costs that SBC "imputes" to its business NALs, making it appear as though SBC is closer to passing the imputation test than it otherwise would be.

Even though SBC's imputation analysis is demonstrably conservative, the results of its imputation test are stark and damning. Despite its attempts to paint SBC in the most favorable light, SBC's imputation test demonstrates that using unbundled loop rates

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281 Tr., pp. 183-84.

282 MCI Cross Ex. 2-P, Tab 1, Tab 6.2.

283 SBC Ex. 5.0, pp. 26-27; Schedule KAC-2, Tabs 8.5, 6.8; SBC Ex. 7.0, pp. 63-69; Schedule DJB-4.

as originally proposed by SBC ($11.62, $23.23, and $26.85 for unbundled loops in access areas A, B and C, respectively) total imputed costs for business NALs exceed total revenues for SBC's business NALs, causing SBC to fail the imputation test for access areas A, B and C by negative margins of ***BEGIN CONFIDENTIAL*** XXXX, $14.98, and $14.94 ***END CONFIDENTIAL***, respectively.[284] Under SBC's adjusted proposed rates ($9.03, $17.82, and $20.56 for unbundled loops in access areas A, B and C, respectively), total imputed costs for business NALs exceed total revenues for SBC's business NALs causing SBC to fail the imputation test for access areas A, B and C by negative margins of ***BEGIN CONFIDENTIAL*** XXXXXXXXXXXXX ***END CONFIDENTIAL***, respectively.[285] Even using Staff's more reasonable proposed unbundled loop rates ($4.97, $8.62, and $10.94 for unbundled loops in access areas A, B and C, respectively), Staff's proposed loop rate for access area B fails SBC's imputation test by a negative margin of ***BEGIN CONFIDENTIAL*** XXXX ***END CONFIDENTIAL***. The record reflects that the only scenarios in which SBC's business NALs would pass SBC's imputation test are when SBC's imputation test utilizes existing unbundled loop rates ($2.59, $7.07, and $11.40 for unbundled loops in access areas A, B and C, respectively),[286] unbundled loop rates lower than the existing unbundled loop rates,[287] or Staff's proposed loop rates for access areas A and C.[288]

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284 Tr. 212; MCI Cross Ex. 4-P, p. 1.

285 Tr. 212; MCI Cross Ex. 4-P, p. 2.

286 Tr. 216-17; MCI Cross Ex. 4-P, p. 4.

287 Tr. 217.

288 Tr. 216; MCI Cross Ex. 4-P, p. 3.

Joint CLECs recognize that there may be some decrease in SBC's proposed unbundled loop rates since the labor rates it had used in the cost studies appended to its rebuttal testimony were stricken and SBC was directed to rerun its cost studies using labor rates that existed at the time its direct testimony was filed in this proceeding. Nevertheless, given the substantial margins at which SBC's proposed rates fail the imputation test, it is unlikely that such decreases will have any material impact on the outcome of the imputation tests. Indeed, the ALJ and the Commission can simply plug any proposed unbundled loop rates into line 2 of MCI Cross Ex. 4-P, add to those rates that costs that appear in lines 3 through 7 to arrive at a total imputed cost for each access area, and compare that amount to the appropriate revenue per access line for each access area that appears in line 9, to determine whether the adjusted proposed rates would pass or fail SBC's imputation test and by what amount.

In short, the record reflects that SBC's business NALs fail even SBC's conservative imputation test by substantial margins, whether SBC's original proposed rates or its adjusted rates are utilized as inputs to the test. Conversely, if existing unbundled loop rates, unbundled loop rates that are lower than the existing rates, or Staff's proposed rates for access areas A and C are utilized in SBC's imputation test, SBC's business NAL pass SBC's conservative imputation test. For these reasons, SBC's proposed rates must be rejected. SBC's unbundled loop rates cannot be increased beyond the point of which those rates begin to fail the imputation test.

D. SBC Cannot Lawfully Raise Business NAL Rates To Satisfy The Imputation Test Until July 2005; SBC's Unbundled Loop Rates Can Only Be Raised To The Extent That Business NALs Based On Current Rates Pass An Imputation Test

Section 13-502.5(b) of the PUA caps the rates that SBC can charge certain business customers until mid-year 2005. Specifically, Section 13-502.5(b) provides in pertinent part:

> All retail telecommunications services provided to business end users by any telecommunications carrier subject, as of May 1, 2001, alternative regulation under an alternative regulation plan pursuant to Section 13-506.1 of this Act shall be classified as competitive as of the effective date of this amendatory Act of the 92nd General Assembly without further Commission review. Rates for retail telecommunications services provided to business end users with 4 or fewer access lines shall not exceed the rates the carrier charged for those services May 1, 2001. This upon rates of retail telecommunications services provided to business end users shall remain in force and effect through July 1, 2005; provided, however, that nothing in this Section shall be construed to prohibit reduction of those rates. Rates for retail telecommunications services provided to business end users with 5 or more access lines shall not be subject to the restrictions set forth in this subsection. (220 ILCS 5/13-502.5(b) (emphasis added))

The General Assembly was aware of the imputation requirements of Section 13-505.1 of the PUA when Section 13-502.5(b) was enacted and became effective June 30, 2001,[289] so it must be presumed that the General Assembly was fully aware of the impact that the enactment of 13-502.5 would have on SBC's ability to raise UNE rates.

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[289] On June 28, 2001, Governor Ryan signed House Bill 2900, and various Senate amendments thereto, into law as Public Act 92-0022. *See* Public Act 92-0022 (92nd General Assembly). This Act, which took effect June 30, 2001, *see* Section 99, Public Act 92-0022, made numerous changes to Illinois telecommunications laws, including adding new Section 13-502.5 to the Public Utilities Act. 220 ILCS 5/13-502.5. Section 13-505.1 of the PUA was codified by Public Act 87-856, many years before Section 13-502.5 became effective.

The fact is that violations of the imputation requirements of 13-505.1 and Part 792 can be cured in two ways: either the rates for the noncompetitive services or noncompetitive service elements that are utilized to provide SBC's competitive service must be reduced, or the rates for its competitive retail services that utilize those noncompetitive elements must be increased until the imputation requirements are satisfied. Because business NAL rates for SBC's business customers with four or fewer lines are capped until July 1, 2005, those rates cannot be raised in order to satisfy the imputation requirements of Illinois law. Consequently, until July 1, 2005, any proposed increases in wholesale UNE rates are constrained by SBC's existing business NAL rates. In other words, regardless of the merits of any proposed increase in SBC's unbundled loop rates, those rates can only be raised to the extent that its existing business NAL rates pass an imputation test. As discussed above, SBC's business NAL rates fail even a conservative imputation test using SBC's original and latest revised rates. Accordingly, SBC's proposed unbundled loop rates must be rejected and only rates that demonstrably pass an imputation test may be adopted in this case.

E. SBC's Proposed Unbundled Loop Rates Are Higher Than SBC's Residential Retail Rates And Will Squeeze CLECs Out Of The Residential Retail Market

In determining that the tariffs containing SBC's proposed rate increases should be suspended and investigated, the Commission relied upon a December 27, 2002 Staff Report indicating, among other things, that SBC's proposed wholesale rate increases may

have a detrimental impact on the ability of CLECs to compete in the marketplace.[290] In particular, the Commission took note of the Staff Report's concern that:

> SBC Illinois proposes significant increases in wholesale rates that could reduce or eliminate the ability of competitive local exchange carriers to compete in the Illinois telecommunications marketplace [and that] SBC Illinois proposes significant increases in wholesale rates that could significantly increase the retail rates charged to Illinois consumers.[291]

The Staff Report analyzed the impact of SBC's tariff filing. The Staff Report compared the new wholesale network element rates proposed by SBC with retail rates that SBC charged to its own residential customers, to determine whether CLECs could still compete with SBC in the residential retail market. Based on that analysis, the Staff Report concludes that "a CLEC taking network elements under the proposed rates could not price its service to retail customers as low as the currently effective rates charged by SBC Illinois."[292] The Staff Report includes a table comparing the applicable rates that showed that, for residential consumers, the network element rates SBC proposed to charge were between $6.04 and $17.05 higher than the retail rates that SBC charged its own customers. The Staff Report also described imputation and its relation to SBC's proposed loop rate increases as follows:

> An imputation test provides a comparison of the cost a competitor would incur to provide a competitive service versus SBC Illinois' retail price for that service. The test gives an indication of whether a competitor has a reasonable opportunity to compete. There are several imputation tests for competitive services that must be performed as a result of the rate

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290 The Staff Report was appended to the rebuttal testimony of Joint CLEC witness Dr. Ankum addressing imputation and price squeeze issues. Joint CLEC Ex. 3.1, Attachment 4.

291 Suspension Order, Docket 02-0864, issued December 30, 2002 ("Suspension Order"), pp. 1-2.

292 Joint CLEC Ex. 3.1, Attachment 4, p. 2.

> increases for noncompetitive services. Only the business access line study was submitted with this filing and it indicates that each type of access line included in the study fails the test.[293]

In addition to the Staff Report's assessment of SBC's proposed unbundled loop rate increases on residential retail services, Joint CLECs also provided evidence that SBC's proposals would result in price squeezes that would impair or eliminate the ability of CLECs to provide competitive services to business and residential retail customers. In particular, Joint CLECs presented the testimony of Dr. August Ankum which addressed imputation and price squeeze issues. Dr. Ankum explained that a proper imputation test conducted consistent with the requirements of Section 13-505.1 of the PUA must compare SBC's relevant retail rates against the following cost components:

> (1) *Imputed costs of all the UNEs used to provide the service*
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> This should be calculated by multiplying the quantity of the UNEs used to provide the service *times* the UNE TELRIC prices. Also included should be some recognition of the non-recurring charges to order UNEs.
>
> *(2) Service specific costs not included in the UNEs.*
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> To the extent that there are costs specific to the service that are not captured in the UNE TELRIC prices, those costs should be added explicitly.
>
> *(3) A measure of minimum retail related costs.*
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> An appropriate proxy for these retail costs could be established by using the Commission approved percentage for resale discounts. The Commission should recall that the resale discount is calculated based on SBC's retail related expenses.[294]

Using this construct, Dr. Ankum performed imputation analyses for basic single line business and basic single line residential services. First, in order to identify the

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293 *Id.*, p. 3.

294 Joint CLEC Ex. 3.0, p. 8.

revenues that SBC receives for these services, Dr. Ankum identified from SBC's Illinois tariff the rates that SBC charges for a single business including an End User Common Line Charge, and for a residence line including the appropriate End User Common Line Charge and the rates for SBC's Residential Saver Pack – Unlimited Usage. In addition, he identified the nonrecurring charges that apply to those services and amortized them over the two-year period, consistent with the two-year location life assumed in SBC's costs studies, to arrive at nonrecurring charge revenues that should be attributed to SBC. Dr. Ankum then added the appropriate charges together to arrive at total business line and total residential access line revenue per line for customers in access areas A, B and C, respectively.[295]

Second, to identify the costs that should be imputed to SBC's basic single line business and residential services, Dr. Ankum identified the UNE-based costs for switching, and loops and two-wire cross connection and nonrecurring charges that SBC has urged the Commission to adopt in this proceeding. Consistent with his analysis of nonrecurring charges on the revenue side, Dr. Ankum identified the nonrecurring charges SBC proposed in this proceeding and amortized them over a two-year period, consistent with the two-year location life assumed in SBC's costs studies, to arrive at nonrecurring charge costs that should be attributed to SBC.[296] He then added those costs together and applied a factor of 17.8% to the sum of those costs to account for retail related expenses

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[295] *Id.*, p. 10-11.

[296] In his surrebuttal testimony Dr. Ankum agreed with Staff witness Robert Koch that the wrong line connection and service order nonrecurring charges were used in the imputation analyses contained in Dr. Ankum's direct testimony. Dr. Ankum revised his imputation analyses utilizing the correct nonrecurring charges and updated the analyses to account for the fact that SBC had lowered its residential retail rates. (Joint CLEC Ex. 3.1, pp. 3-5 and Attachments 1 and 2)

incurred to provide business and residential services, arriving at a total imputed cost for business lines and residential access lines on a per line basis for business and residential customers in access areas A, B and C, respectively.[297]

Third, Dr. Ankum compared the total revenue associated with SBC's basic single line business and residential services to the costs that should be imputed to those services. Dr. Ankum's imputation analyses, as revised to account for the correct line connection and service ordering nonrecurring charges and decreases to SBC's residential rates that were implemented between the time that Dr. Ankum's direct and surrebuttal testimony was submitted (May 6, 2003 and February 20, 2004, respectively), demonstrate that SBC's imputed costs are greater than its revenues for basic single line residential retail service, causing it to fail a properly performed imputation test by negative margins of $4.68, $15.38 and $13.17 in access areas A, B and C, respectively.[298] Dr. Ankum's revised analysis also demonstrates that SBC's basic single line business service rate fails a properly performed imputation test by negative margins of $11.73, $22.20 and $22.80 in access areas A, B and C, respectively.[299] Thus, by comparing the cost a competitor would incur to provide a competitive service versus SBC Illinois' retail price for that service, Dr. Ankum's imputation and price squeeze analyses indicate that CLECs would not have a reasonable opportunity to compete with SBC for basic local service and basic residential service customers if SBC's proposed wholesale rate increases are adopted.

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297 Joint CLEC Ex. 3.0, pp. 11-12.

298 Joint CLEC Ex. 3.1, p. 4 and Attachment 2.

299 Joint CLEC Ex. 3.1, p. 3 and Attachment 1.

Dr. Ankum recognized that as a technical matter the PUA may not require that an imputation test be performed for residential access lines at this time, since such lines have not yet been classified as competitive. Nevertheless, the importance of analyzing the impact of increases to wholesale rates on CLECs' ability to compete for residential customers cannot be underestimated. Dr. Ankum provided the Commission with imputation and price squeeze analyses for single-line residential service to identify the relationship between SBC's alleged UNE "costs" and the residential retail rates.[300] There were approximately 780,000 mass market customers, including residential access lines, served via UNE-P in Illinois as of May 2003.[301] There can be no question that increasing unbundled loop rates and associated nonrecurring charges will have a significant impact on the ability of CLECs to continue to provide service to those 780,000 customers receiving service via UNE-P, as well as the more than 300,000 customers who are served via unbundled loops leased from SBC. The Commission simply cannot ignore the relationship between SBC's alleged UNE "costs" and residential retail rates simply because SBC's residential access lines are not yet classified as competitive.

Indeed, as the Commission is keenly aware, in its quest to receive authority to provide in-state, interLATA services, during the Commission's proceeding investigating SBC's compliance with Section 271 of the Telecommunications Act of 1996, SBC loudly

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300 *Id*., p. 5.

301 Joint Applications of SBC Communications, Inc., Illinois Bell Telephone Company, et al. for Authorization to Provide In-Region, InterLATA Services in Illinois Indiana, Ohio and Wisconsin, WC Docket No. 03-167, Memorandum Opinion and Order, released Oct. 15, 2003 ("Illinois 271 Order"), p. 2 (the FCC's Illinois 271 Order noted that as of May 2003, SBC estimates CLECs were serving at least 2.3 million access lines in Illinois, or 29% of all access lines in Illinois, including approximately 319,000 UNE loops and 779,000 UNE-platform lines in Illinois).

proclaimed that all of its services, including its residential services, are highly competitive. In its May 13, 2003 Order in Docket 01-0662, the Commission appears to have agreed with SBC's claims, yet SBC has not declared its residential retail services competitive. Why, the Commission might ask, has SBC failed to declare its residential retail services competitive, especially in light of the fact that in Docket 01-0662 the Commission found that SBC had opened its local market to competition and the FCC, relying in large part on the Commission's recommendation, granted, on October 15, 2003, SBC's request to provide in-state interLATA services in Illinois. Now, more than four months after the FCC granted SBC Illinois Section 271 authority, SBC has still not declared its residential retail services competitive. Is it simply an oversight? [302]

If its services were declared competitive, SBC would have pricing and other flexibility afforded competitive services, something it long had sought for its business services. If the Commission is successful in carrying out its mandate to foster competition in the local market in Illinois – something it has had some success with doing via UNE-P based competition – then it is inevitable that SBC will file with the Commission a request to have residential services declared competitive.

Thus, sooner or later the Commission is going to have to face the implications of the type of imputation test Dr. Ankum performed for residential services. If it waits, the Commission will have failed the consumers of Illinois and promoted the creation of an unregulated monopoly, a legacy that would be directly at odds with the PUA and

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[302] Could SBC's strategy be one which will first raise wholesale rates, then declare residential retail services as competitive, and next claim that the imputation requirements of the law require it to raise its retail rates? For SBC this would be a winning strategy: stomp out competition through price squeezes, raise retail rates, and deregulate SBC's Illinois operations.

Commission's pro-competitive policies. Given that SBC's basic single line residential rates do not pass imputation for SBC's newly proposed rates, those residential rates will very likely have to be increased in the future if the Commission approves SBC's proposed UNE rates in the current proceeding. Hence, the Commission should not narrowly view this proceeding as a wholesale rate proceeding. The Joint CLECs strongly urge the Commission to recognize that its decision here will have a direct impact on the residential consumers of Illinois, as both the Staff Report that formed the basis for the investigation of SBC's proposed increases and Dr. Ankum's testimony make clear.

For these reasons, SBC's proposed increases in unbundled loop rates and associated nonrecurring charges should be rejected. SBC's proposed rate increases cause SBC's business NAL it to fail the imputation tests -- even SBC's imputation test which is conservative since it conducts the test in a light most favorable to SBC. Moreover, the record in this proceeding illustrates the impact of SBC's proposal on competition in the residential retail local service market by demonstrating that SBC's proposed unbundled loop rates are higher than SBC's residential retail rates. If SBC's proposed unbundled loop rates and nonrecurring charges are approved and implemented, CLECs will be squeezed out of the residential retail market because their costs of leasing unbundled loops from SBC, which they need to be able to provide local service, will be higher than the rates that SBC charges its residential retail customers. The impact of such a decision would be immense, affecting more than 778,000 UNE-P customers and 300,000 UNE-L customers who are served by CLECs today. SBC's rate increase proposals must be rejected because they would cause SBC's business NALs to violate the imputation

requirements of Section 13-505.1 of the PUA and Part 792 of the Commission's rules and would squeeze CLECs out of the residential retail market.

VIII. OTHER LEGAL ISSUES

A. Preemption, Tariffing and Related Issues

A cloud of uncertainty hangs over these proceedings. While the Commission will make determinations with respect to the wholesale rates that SBC can charge CLECs, if the statutory or other legal bases upon which the Commission has conducted this proceeding are preempted by federal law, the Commission's determinations may be deemed unlawful and its actions vacated. SBC's legal position in this case directly calls into question the Commission's authority to set rates through an investigation of tariffs that SBC contends that it was compelled to file.

The procedural posture of this case is unique. Originally initiated when SBC filed tariffs on December 24, 2003 containing proposed rate increases for unbundled loops and nonrecurring rates for loops, UNE-Platform, EELs and special access to EEL conversions, what appeared to be a routine tariff investigation pursuant to Section 9-201 of the PUA took a radical turn into uncharted waters on May 9, 2003, when this case was abated by operation of law through the enactment of Section 13-408 of the PUA.[303] Subsequently, on May 21, 2003 the Commission took the independent action of canceling SBC's proposed tariffs and dismissing Docket 02-0864. The "Notice of Commission Action" dated May 22, 2003, set forth the Commission's actions:

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[303] Section 13-408(c) of the PUA, effective May 9, 2003 (P.A. 93-0005), stated that "The proceeding in ICC Docket 02-0864 is hereby abated as of the effective date of this amendatory Act of the 93rd General Assembly." Sections 13-408 and 13-409 of the PUA are collectively referred to as SBC's automatic wholesale rate increase law.

> Notice is hereby given that Pursuant to Public Act 93-0005, the Commission in conference on May 21, 2003, voted to dismiss this docket and to cancel the tariffs filed on December 24, 2002, that are the subject of this docket, and to cancel the status hearing scheduled for June 30, 2003.

Meanwhile, CLECs challenged Sections 13-408 and 13-409 of the PUA in federal court, where the SBC automatic wholesale rate increase law was found unlawful and enjoined by the federal district court.[304] SBC appealed that decision to the U.S. Court of Appeals for the Seventh Circuit, which upheld the district court's injunction and admonished the Commission to proceed to decision in this case "as expeditiously as possible."[305]

In response to the *AT&T* decision, the Commission issued its "Order Reopening Proceedings and Resuspending Tariffs" ("Reopening Order") on December 16, 2003. The Reopening Order purported to resuspend the UNE tariffs originally filed by SBC on December 24, 2002, for an additional six months, *i.e.*, until June 16, 2004.[306] Legally this was, as the Commission recognized, uncertain territory. At page 5 of the Reopening Order, the Commission stated that "the status of the rate schedules canceled by the Commission is far from clear," and that "the Commission determines that *to the extent it is within the Commission's power to resuspend SBC's proposed rates*, it is appropriate to suspend the proposed tariffs in this case for an additional six months starting with the entry of this Order on December 16, 2003." (emphasis added). The Reopening Order

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[304] *Voices for Choices v. Illinois Bell Tel. Co.*, 2003 U.S. Dist. LEXIS 9548 (N.D. Ill. June 9, 2003) ("*Voices*").

[305] *AT&T Communications of Illinois, Inc. v. Illinois Bell Tel. Co.*, 349 F. 3d 402 (7 Cir. 2003) ("*AT&T*").

[306] *See* Finding 2 of the Reopening Order ("The tariffs that are the subject of this case should be, and hereby are, resuspended for a period of six months from the date of the issuance of this order".)

also noted at page 6 that "the Commission is not under any specific deadline for the entry of a final order in this case, either by statute or under the terms of the injunction."[307]

In Joint CLECs' Brief and Motion on Reopening,[308] we argued that the May 21, 2003 order, which was not appealed by any party, permanently canceled SBC's proposed tariffs and terminated the Section 9-201 investigation of those tariffs, thereby leaving SBC's existing UNE tariffs in place. We further argued that while the Commission has the statutory authority to reopen the docket (even though the time for rehearing and appeal has expired), the reopening in no way "revives" the suspension provisions of Section 9-201(b). Therefore, it was and continues to be our contention that the proceedings on reopening are not subject to any Section 9-201 time constraints, and that the proposed new UNE tariffs that SBC filed on December 24, 2002, will not go into effect on June 17, 2004 if the Commission does not issued a final order in this proceeding by that date.

In the CLEC Brief and Motion on Reopening, we requested the Commission to move forward with this case but to treat it as a generic rate investigation not subject to the tariff suspension provisions of Section 9-201, and urged the Commission to modify its Order on Reopening to reflect that conclusion and to convene a status hearing to set a more reasonable schedule in which to conclude these proceedings. That request was

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[307] The "injunction" refers to the injunction issued by the U.S. District Court in *AT&T*.

[308] Initial Brief on Issues on Reopening and Motion to revise Reopening Order And Schedule Of Intervening Competitive Local Exchange Carriers, filed January 13, 2003 ("CLEC Brief and Motion on Reopening").

denied by the Commission on February 10, 2004.[309] On February 11, Joint CLECs filed an Emergency Motion for Reconsideration and Request for Ruling, asking the Commission to reconsider its decision and to issue a ruling stating explicitly the statutory or other legal bases pursuant to which the Commission is conducting this proceeding (a ruling the Commission declined to make on February 10), so that any arguments concerning the bases for the Commission's decision and whether or not the decision is preempted by federal law will be clear to a reviewing court. The ALJ denied that Emergency Motion and Request for Ruling on February 17, noting among other things that according to the Commission's Reopening Order "this matter will be treated procedurally as captioned as a Section 9-201 ratemaking and substantively as a Section 252 generic TELRIC proceeding."[310]

But the legality of proceeding with this matter pursuant to Section 9-201 was not implicated solely by the novel determination that the Commission could "resuspend" tariffs it had already permanently suspended. A more fundamental question was raised as to whether the Commission could set rates through the investigation of a tariff not voluntarily filed by SBC. The Order on Reopening directed parties to address this issue by briefing the impact of the U.S. Court of Appeals for the Seventh Circuit's decision in *Wisconsin Bell v. Bie.*[311] The Reopening Order recognized that the *Bie* case held that

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[309] *See* Notice of Commission Action, dated February 11, 2004, stating that the Commission in conference on February 10, 2004, denied the Motion to Revise Reopening Order and Schedule.

[310] Notice of Administrative Law Judge's Ruling, Docket 02-0864 Reopened, dated February 17, 2004.

[311] *Wisconsin Bell, Inc. v. Bie*, 340 F. 3d 441 (7 Cir. 2003), *cert. denied*, 2003 WL 22434259, 72 U.S.L.W. 3309 & 2003 WL 22722808, 72 U.S.L.W. 3328 (U.S. Jan. 12, 2004) (Nos. 03-603 & 03-656).

under certain circumstances federal law preempted state-imposed tariffing requirements. The Commission was concerned that "some interested party may well challenge any order the Commission may enter in this proceeding, based upon its interpretation of the holding in *Bie*. Accordingly, the proper scope and application of the *Bie* holding appear to us to be vital matters in this proceeding and the Commission will expect detailed argument from the parties on this point to be conducted at the outset of this reopened proceeding."[312]

Pursuant to the Commission's directive, the parties briefed the issue of the impact of the *Bie* decision on this proceeding. In the briefs, there was consensus that the Commission could move forward with this proceeding as a generic rate investigation under the Telecommunications Act of 1996. In the initial briefs filed at the outset of this case on reopening, parties presumed that the *Bie* decision would not be relevant to this proceeding because SBC had voluntarily filed the tariffs that are the subject of the Commission's investigation. If the tariffs were filed voluntarily, they were clearly distinguishable from the tariffs that were at issue in the *Bie* case. However, SBC's reply brief made clear that it did not believe that its tariff filing was voluntary:

> Staff also makes two additional points that have no bearing on the proper disposition of this proceeding but with which SBC vigorously disagrees. First, to the extent that Staff suggests that the SBC tariff filings at issue in this docket were "voluntarily" submitted (see Staff Br. at 15-18), Staff is mistaken. From the inception of the 1996 Act, SBC has operated in Illinois under a compulsory state regulatory regime in which the Commission has required SBC to implement the terms and conditions of access and interconnection through wholesale tariffs. See, e.g., *Order Illinois Bell Telephone Company Filing to Implement Tariff Provisions Related to Section 13-801 of the Public Utilities Act*, ICC Docket No. 01-0614 ¶¶602, 612 (rel. June 11, 2002) (directing SBC to file revised tariffs in accordance with the ICC's Order implementing the obligations imposed

[312] Reopening Order, p. 6.

> by section 13-801). The Seventh Circuit has declared that regime unlawful and held that the "federally ordained procedure" of negotiation, arbitration, state commission approval, and federal court review set forth in Section 252 of the Act is the exclusive "method by which a competitor can obtain interconnection rights." *Bie*, 340 F.3d at 442-45. The Supreme Court has declined to review that decision, and it stands as binding law.[313]

Thus, based on SBC's position on the impact of the *Bie* decision, the Commission is preempted from proceeding with this matter as a tariff investigation pursuant to Section 9-201 of the PUA. As it stands, the Reopening Order indicates that this is a tariff investigation to which Section 9-201 of the PUA applies. As a result, the Commission's final order in this proceeding is subject to being vacated by the federal courts at the behest of whatever parties are dissatisfied with the substantive outcome of the order, – either SBC or the CLECs.

The Joint CLECs requested the Commission make clear what the procedural foundation is for this investigation. The Joint CLECs urged the Commission to issue a ruling that this proceeding is a generic rate investigation under the Telecommunications Act of 1996, *not* a tariff proceeding under Section 9-201 of the PUA, and to revise the Reopening Order to eliminate the purported "resuspension" to June 16, 2004 -- a concept that has validity only if this is a Section 9-201 case. It was clear from the briefs on reopening that there was no disagreement among the parties that this case could move forward as a generic TELRIC proceeding pursuant to federal law. Complicating matters, however, was the fact that this proceeding was initiated as a tariff investigation. Prior the *Bie* decision, the fact that a proceeding was conducted as a tariff proceeding <u>and</u> a generic proceeding under federal requirements would have been of no consequence. But, as the

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[313] SBC Illinois' Reply Brief On The Effect Of The AT&T/Voices And Bie Decisions on This Proceeding, Docket 02-0864 Reopen, filed January 23, 2004, pp. 11-12.

Reopening Order recognizes, *Wisconsin Bell v. Bie* has raised the specter that proceedings involving involuntary tariff offerings are void and without the force and effect of law. The facts and procedures in this case directly call into question whether this entire proceeding is legitimate in light of the *Bie* case. Unfortunately, the Commission declined the opportunity plainly state that it was conducting this case as a generic rate investigation without having to rely on tariffs and Section 9-201 of the PUA. By proceeding in the manner that it has, the Commission has unnecessarily left its order vulnerable to being reversed on appeal.

B. Procedural and Evidentiary Issues – The Commission Should Reconsider the ALJs' Denial of Portions of the CLECs' Motion to Strike Testimony

At its open meeting on February 10, 2004, the Commission agreed with the recommendation of the ALJ to deny the Joint CLECs' request for additional time to address many of the new proposals SBC raised in its "rebuttal" testimony dated January 20, 2004, despite the fact that at the December 19, 2003 status in this matter, SBC elected to stand on its cost studies and testimony as they existed in May 2003 when the case was abated rather than electing to update its studies. While the Commission expressed concern with the number of additions and modifications SBC had made in its "rebuttal" case – which the CLECs brought to the Commission's attention in several briefs filed between January 20, 2004 and February 10, 2004 – the Commission was concerned about the Seventh Circuit Court of Appeal's statement, in *AT&T*, that the Commission should resume this case and complete it "expeditiously." Instead of allowing the CLECs more time to address SBC's new and modified proposals that were included in its rebuttal filing, the Commission indicated that the appropriate procedural vehicle for the CLECs to employ was motions to strike.

Pursuant to the Commission's directive, a number of CLECs (including the Joint CLECs filing this brief) filed a Motion to Strike various portions of the testimony of certain SBC witnesses, Staff witness Dr. Qin Liu and IBEW Local 21 witness Mr. Ronald Kastner.[314] Among other things, the CLECs moved to strike SBC's "updated" labor rates. The ALJs granted that portion of the CLECs' Motion to Strike, and that ruling was appropriate. However, the ALJs denied other portions of the CLECs' Motion to Strike. As discussed below, those denials were erroneous. For the reasons set forth in the Motion to Strike and as discussed below, the Commission should strike the additional SBC, Staff and IBEW testimony was the subject of the Motion to Strike. The Joint CLECs rely on the Motion to Strike for their full argument, and only briefly summarize those arguments below.[315]

The Joint CLECs moved to strike the testimony of SBC witnesses Dr. Currie and Ms. Vivian Gomez-McKeon, which introduced the new proposal that all SBC stand-alone POTS loops are designed loops, a proposal that if adopted would increase SBC's nonrecurring charges to CLECs. SBC admits this proposal is new and admits that it was aware of its failure to submit this proposal in Illinois as early as the September 2003 TELRIC hearings in Indiana, yet it chose not to elect to update its cost studies. Rather,

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[314] See Revised Joint CLECs' Motion to Strike Various Portions of the Testimonies of SBC Witnesses Dr. Kent Currie, Ms. Vivian Gomez-McKeon, Mr. James Smallwood, Mr. Lawrence Vanston & Mr. Randall White, IBEW Witness Mr. Kastner & Staff Witness Dr. Qin Liu, filed March 15, 2003 ("Motion to Strike"). The ALJs ruled orally on the various portions of the Motion to Strike at various times during the course of the hearings.

[315] In discussion among the parties and the ALJs at the hearing on March 19, 2004, in this docket, it was agreed that parties seeking Commission reconsideration of the ALJs' rulings on the Motion to Strike could do so in their initial briefs rather than by separate petitions for interlocutory review.

SBC shepherded this new proposal in through the back door known as January 20, 2004 "rebuttal."

Mr. Vanston, SBC's depreciation witness, did the same. Specifically, in his January 20, 2004, rebuttal testimony, he provided 360 pages of "updated TFI research", not even bothering to make it appear as proper rebuttal to any of the other parties' direct testimony. Certainly in the four weeks the CLECs had to respond to the thousands of pages of SBC "rebuttal" testimony and schedules, there was no time to analyze these new 360 pages in depth.

Staff witness Dr. Qin Liu, on January 20, 2004, submitted "rebuttal" testimony describing for the first time in this case a conceptual theory on fill factors that she coined "forward looking actual fill." As Dr. Qin Liu admitted on cross-examination, even at the time she submitted her "rebuttal testimony", her theory was still in the conceptual stages (even though a proposal like this *should* have been submitted in her *direct* testimony) and she lacked the data to implement it. In surrebuttal testimony submitted on February 20, Dr Liu, for the first time, set forth proposed fill factor values to implement her proposal, all the while conceding that she never got the data she needed to implement her theory, and doubted that such data could be accumulated. (See discussion of Dr. Liu's proposal in Section III.B.1.f above.) In anticipation of Dr. Liu's presentation of actual fill factor values in her February 20 testimony, the Joint CLECs served several data requests inquiring into how or whether Dr. Li's proposal complied with the FCC's *Inputs Order* or *Virginia Arbitration Order*. Dr. Qin Liu responded that she lacked sufficient familiarity with those orders to respond. Nevertheless, her March 5, 2004 surrebuttal testimony (the last round of testimony filed in this case) runs on for pages about those Orders. Because

of Dr. Liu's failure to make a proper response to a timely discovery request, the Joint CLECs never had a chance to respond to her discussion of those FCC orders. This portion of her March 5 surrebuttal testimony should have been stricken.

Finally, SBC witnesses Mr. Smallwood and Mr. White used their rebuttal and surrebuttal rounds of testimony to "beef up" SBC's direct case positions – providing new information and support for their initial positions. While rebuttal and surrebuttal are designed to narrow the issues based on the information provided in the parties' initial cases, SBC used those rounds to supplement their weak initial positions. Given the limited time to respond and the sheer volume of testimony SBC filed in "rebuttal" on January 20, the discovery process was of little use to the CLECs' efforts to delve into the new information from Messrs. Smallwood and White.

With the exception of the request to strike SBC's updated labor rates, the Motion to Strike was denied. The Motion to Strike should be granted in full for all the above reasons (as further presented in the Motion to Strike itself). Most importantly, however, denial of the Motion to Strike is not a precedent the Commission should set. In fact, such a precedent is dangerous. First, it undermines the integrity of the entire regulatory process. If the Commission states that a remedy is available to an aggrieved party, that remedy must be meaningful and stringently and consistently applied. Moreover, it is important for the Commission, particularly from a competitive standpoint. If the Commission wants a full and complete evidentiary record upon which to make decisions as vital to competition as SBC's loop rates, shared and common cost markup and nonrecurring charges to CLECs, all parties must have an equal opportunity to participate and prepare their cases, and all parties must be required to play by the same rules. To

compromise these rules only jeopardizes the integrity and the substance of the proceeding.

Accordingly, the Commission should grant those portions of the Motion to Strike that were denied by the ALJs.

IX. CONCLUSION

For the reasons set forth in this brief, the Joint CLECs respectfully request that the Commission resolve each disputed issue in this docket in accordance with the Joint CLECs' positions and recommendations set forth herein.

Respectfully submitted,

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Cheryl Hamill
David J. Chorzempa
AT&T Law Department
222 West Adams, Suite 1500
Chicago, Illinois 60606
(312) 230-2665
chamill@att.com
dchorzempa@att.com
Attorneys for AT&T Communications of Illinois, Inc.

_____

Owen E. MacBride
Keely V. Lewis
6600 Sears Tower
Chicago, Illinois 60606
(312) 258-5680
omacbride@schiffhardin.com
klewis@schiffhardin.com
Attorney for McLeodUSA Telecommunications Services, Inc., RCN Telecom Services of Illinois, LLC and TDS Metrocom, LLC

_____

Darrell Townsley
WorldCom, Inc. d/b/a MCI
205 North Michigan Avenue
Suite 1100
Chicago, Illinois 60601
(312) 260-3533
darrell.townsley@mci.com
Attorney for WorldCom, Inc. D/b/a MCI

_____

William A. Haas
Vice President and Deputy General
General Counsel
McLeodUSA Incorporated
McLeodUSA Technology Park
6400 C Street SW
P.O. Box 3177
Cedar Rapids, Iowa, 52406
(319) 790-7295
William Haas@mcleodusa.com

Peter R. Healy
Manager, CLEC External Relations
TDS MetroCom, LLC
525 Junction Rd., Suite 6000
Madison, WI 53717-2105
(608) 644-4117
peter.healy@tdsmetro.com

Thomas H. Rowland
Stephen J. Moore
Rowland & Moore LLP
200 West Superior Street
Suite 400
Chicago, Illinois 60610
(312) 803-1000
Attorneys for
CIMCO Communications, Inc.
Forte Communications, Inc., and
XO Illinois, Inc.
tom@telecomreg.com
steve@telecomreg.com

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