BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 030851-TP

In the Matter of

IMPLEMENTATION OF REQUIREMENTS ARISING FROM FEDERAL COMMUNICATIONS COMMISSION'S TRIENNIAL UNE REVIEW: LOCAL CIRCUIT SWITCHING FOR MASS MARKET CUSTOMERS.

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VOLUME 4

Pages 599 through 805

PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN BRAULIO L. BAEZ COMMISSIONER J. TERRY DEASON COMMISSIONER LILA A. JABER COMMISSIONER RUDOLPH "RUDY" BRADLEY COMMISSIONER CHARLES M. DAVIDSON
DATE:	Tuesday, February 24, 2004
TIME:	Commenced at 9:35 a.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida

FLORIDA PUBLIC SERVICE COMMISSION

REPORTED BY: LINDA BOLES, RPR
Official FPSC Reporter
(850) 413-6734

APPEARANCES: (As heretofore noted.)

I N D E X

WITNESSES

EXHIBITS

NUMBER:		ID.	ADMTD.
67	Exhibits to Prefiled Testimony of Witness Ruscilli as Indicated in the Prehearing Order	603	
68	Exhibits to Prefiled Testimony of Witness Stegeman as Indicated in the Prehearing Order	686	

P R O C E E D I N G S

(Transcript follows in sequence from Volume 3.)

MS. MAYS: Thank you, Mr. Chair. The next witness for BellSouth would be Mr. John A. Ruscilli. He has direct, rebuttal and surrebuttal testimony, and he has an errata. We would ask that those be admitted into the record and that his exhibits be identified as Composite 67.

CHAIRMAN BAEZ: Show the testimony of Witness Ruscilli, direct, rebuttal and surrebuttal entered into the record as though read without objection. That includes the errata. And his accompanying exhibits shall be marked Composite 67.

(Exhibit 67 marked for identification.)

BELLSOUTH TELECOMMUNICATIONS, INC.

DIRECT TESTIMONY OF JOHN A. RUSCILLI

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 030851-TP

DECEMBER 4, 2003

Q. PLEASE STATE YOUR NAME, YOUR POSITION WITH BELLSOUTH TELECOMMUNICATIONS, INC. ("BELLSOUTH") AND YOUR BUSINESS ADDRESS.

A. My name is John A. Ruscilli. I am employed by BellSouth as Senior Director – Policy Implementation and Regulatory Compliance for the nine-state BellSouth region. My business address is 675 West Peachtree Street, Atlanta, Georgia 30375.

Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR BACKGROUND AND EXPERIENCE.

A. I attended the University of Alabama in Birmingham where I earned a Bachelor of Science Degree in 1979, and a Master of Business Administration in 1982. After graduation I began employment with South Central Bell as an Account Executive in Marketing, transferring to AT&T in 1983. I joined Southern Bell in late 1984 as an analyst in Market Research, and in late 1985, moved into the Pricing and Economics organization with various responsibilities for business case analysis, tariffing, demand analysis and price

regulation. In July 1997, I became Director of Regulatory and Legislative Affairs for BellSouth Long Distance, Inc., with responsibilities that included obtaining the necessary certificates of public convenience and necessity, testifying, Federal Communications Commission ("FCC") and state regulatory support, federal, and state compliance reporting and tariffing for all 50 states and the FCC. I assumed my current position in July 2000.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide an overview of BellSouth's position on the issues that the Florida Public Service Commission ("Commission") will address in determining the geographic markets in Florida where competitive local exchange carriers ("CLECs") are not "impaired" without unbundled local switching – a finding that I will refer to as "impairment" in this testimony. I begin by outlining the delegation that the FCC has made to the state commissions. After discussing what the FCC has directed the state commissions to do, I introduce BellSouth's witnesses. These witnesses will explain in detail the evidence that addresses the issues that the FCC has asked the state commissions to examine, including demonstrating that CLECs are not impaired within the meaning of the Federal Telecommunications Act of 1996 ("the Act") in specific geographic areas in Florida. I provide information regarding certain interpretive decisions that BellSouth has made with respect to the FCC's Triennial Review Order, such as using the FCC's default demarcation point for differentiating between "mass market" customers and "enterprise" customers. I also discuss the appropriate rate for batch hot cuts

and address the availability of collocation in BellSouth's central offices. Finally, I address BellSouth's provisioning of co-carrier cross connects and show that these operational factors do not cause CLECs to be impaired.

Q. WHAT HAS THE FCC CHARGED THIS COMMISSION WITH DOING IN THIS PROCEEDING?

A. On August 21, 2003, the FCC issued its long-awaited written order in its triennial review of unbundled network elements ("UNEs"). In its written order, which I will refer to as the "TRO," the FCC determined that "[a]lthough we find competitors to be impaired without access to the incumbent LEC's switch on a national level when serving the mass market, we authorize state commissions to play a fact-finding role – as set forth below – to identify where competing carriers are not impaired without access to unbundled local circuit switching." (*TRO* ¶ 493). As a result of the TRO, the Commission established this proceeding to identify the geographic markets in Florida where CLECs are not impaired in their ability to serve mass market customers without the availability of circuit switching as an unbundled network element. In defining these markets, state commissions must "evaluate impairment by determining the relevant geographic area to include in each market." (C.F.R. § 51.319(d)(2)(i)). My testimony uses the terms "geographic market area", "geographic area", and "geographic market" interchangeably.

In making its determination of whether CLECs are impaired in a given geographic area, the FCC has required state commissions to make several

interrelated decisions. A state commission must first define the appropriate geographic market to which it will apply the impairment analysis outlined in the TRO. Next, state commissions must determine the definition for the class of customers that the FCC identified as "mass market". In the TRO, the FCC divides customers into two classes, "mass market" customers and "enterprise" customers (see TRO ¶419). The FCC created a presumption that CLECs serving "enterprise" customers are not impaired even if the CLECs lack access to unbundled switching. Conversely, CLECs serving "mass market" customers are presumed to be impaired, unless a state commission determines otherwise. However, the FCC did not specify which customers comprise the "mass market" and directed state commissions to make that determination.

Once appropriate definitions of the relevant geographic areas and "mass market" customers are determined, the FCC requires state commissions to apply two "triggers" tests to see whether CLECs are impaired with respect to serving mass market customers in each defined geographic market. Both of the triggers tests are straightforward. If there are three CLECs with self-provisioned switches serving mass market customers in a given geographic market, the state commissions are required to find that CLECs are not impaired in that geographic market. Alternatively, if there are two CLECs providing wholesale switching services to other CLECs who are providing retail service to mass market customers in a geographic market, the state commissions are required to find that CLECs are not impaired in that geographic area. To summarize, if either of these bright line tests are met in a given geographic

market, the switching inquiry is complete in that area and a finding of "no impairment" is mandatory.

If neither of these "triggers" is met in a given geographic area, the FCC requires that state commissions determine whether there is sufficient *potential* for competitive deployment in any of these areas to warrant a finding of "no impairment." The "potential deployment" test is independent of the triggers tests and requires the state commissions to consider the economics of an efficient CLEC looking to provide service in a geographic market.

Finally, the FCC delegated to the state commissions the separate task of determining for which geographic markets a "batch hot cut process" is needed and approving such a batch process.

Q. PLEASE PROVIDE AN OVERVIEW OF BELLSOUTH'S TESTIMONY IN THIS PROCEEDING.

A. Consistent with the charge given to the state commissions by the FCC, I divide BellSouth's testimony into five major areas and identify the corresponding issues established by this Commission in this proceeding.

First, certain words and phases used in the TRO must be defined, and the geographic market areas for evaluating the FCC's triggers must be established. This portion of the testimony relates to Issues 1 and 2, Market Definition. Second, the geographic areas in which the FCC's "triggers" are met and no

impairment is found are identified. This portion of the testimony covers Issue 4, Local Switching Triggers. Third, where the FCC's triggers are not met, the issue of "potential deployment" is addressed, which corresponds to Issue 5, Potential for Self-Provisioning of Local Switching. Fourth, the testimony addresses BellSouth's hot cut process, which is Issue 3 in this docket. Finally, I will end my testimony with a brief discussion of Issues 5(c)(2) and 5(c)(3) as well as Issue 6.

ISSUES 1 AND 2: MARKET DEFINITION

Q. TURNING TO THE FIRST TOPIC (ISSUES 1 AND 2), WHAT ARE THE CRITICAL DEFINITIONS THAT BELLSOUTH PROVIDES?

A. BellSouth's witnesses provide a logical and economically sound definition of the "geographic markets" in which the "triggers" and other tests for impairment should be applied. As set forth by the FCC in the TRO, state commissions were given some parameters that must be used in defining the appropriate geographic market. Specifically, the FCC said: "In defining markets, a state commission shall take into consideration the locations of mass market customers actually being served (if any) by competitors, the variation in factors affecting competitors' ability to serve each group of customers, and competitors' ability to target and serve specific markets profitably and efficiently using currently available technologies. A state commission shall not define the relevant geographic area as the entire state." (47 C.F.R. §51.319(d)(2)(i)). The FCC further notes that the geographic market in which

the triggers and potential deployment tests are applied must be large enough to permit CLECs to realize economies of scale and scope, ruling out, as Dr. Chris Pleatsikas will testify, wire centers as the market definition.

After examining a number of alternatives, BellSouth has concluded that the appropriate "geographic markets" for use in these proceedings are the individual UNE rate zones adopted by this Commission, subdivided into smaller areas using the Component Economic Areas ("CEAs") as developed by the Bureau of Economic Analysis of the United States Department of Commerce. CEAs are defined by natural geographic aggregations of economic activity and cover the entire state of Florida. UNE rate zones are an appropriate starting point for the market definition because, by design, they reflect the locations of customers currently being served by CLECs, which are predominantly UNE zones 1 & 2, as well as the costs that affect competitive ability to serve customers profitably. As Dr. Pleatsikas will explain further dividing UNE zones by CEAs allows for an extremely granular assessment of impairment.

In short, BellSouth's proposed geographic market definition is consistent with the existing distribution of customers and the other factors that the FCC indicates should be considered in setting a market definition. By selecting these boundaries for the set of geographic markets to be examined under the state commission's impairment analysis, BellSouth offers a geographic market definition smaller than the entire state, but large enough so that a competitor can realize appropriate economies of scope and scale. This definition of

geographic market results in 31 separate geographic markets in BellSouth's service area in Florida. Attached hereto as Exhibit JAR-1 is a map of the state of Florida showing these 31 geographic market areas. As I noted, Dr. Pleatsikis will provide further detailed information regarding the definition of "geographic market."

In addition to defining the appropriate geographic market, the Commission must also establish an appropriate definition for the "mass market" customer. In this proceeding, BellSouth accepts the FCC's default delineation between "mass market" customers and "enterprise" customers - that is customers with three or fewer CLEC DS0 lines serving them are deemed "mass market" customers. This is a reasonable assumption, and is quite conservative given the FCC's direction to define the cross-over point as "where it makes sense for a multi-line customer to be served via a DS1 loop." (TRO, ¶ 497).

ISSUE 4: ACTUAL SWITCH DEPLOYMENT

LOCAL SWITCHING TRIGGERS

Q. WITH THESE DEFINITIONS OF THE RELEVANT GEOGRAPHIC MARKET AND "MASS MARKET", LET US MOVE TO THE SECOND MAJOR AREA OF THE TESTIMONY. IN WHAT GEOGRAPHIC MARKETS ARE CLECS NOT IMPAIRED WITHOUT ACCESS TO BELLSOUTH'S UNBUNDLED SWITCHING BECAUSE THE TRIGGERS TEST IS MET?

A. BellSouth's witness Pamela A. Tipton provides evidence that the self-provisioning switching trigger established by the FCC in its TRO is met in thirteen of the thirty-one geographic markets in Florida. That is, Ms. Tipton will demonstrate that CLECs are not impaired in thirteen geographic markets, because there are mass market customers in those geographic areas actively being served by at least three (and often more) CLECs using self-provisioned switching. Ms. Tipton has obtained this evidence from the CLECs themselves and from BellSouth's business records. Although there is a second and separate "trigger" involving the situation where a CLEC obtains switching from a wholesale provider, BellSouth has not relied upon that trigger in establishing the geographic areas where CLECs are not impaired. Attached hereto as Exhibit JAR-2 is a map that indicates the geographic areas in which the FCC's self-provisioning switching trigger is met.

ISSUE 5: POTENTIAL FOR SELF-PROVISIONING OF LOCAL SWITCHING

Q. REGARDING THE THIRD MAJOR AREA OF THE TESTIMONY, WHERE THE FCC'S SWITCHING TRIGGERS ARE NOT MET, WHAT EVIDENCE DOES BELLSOUTH PRESENT WITH REGARD TO "POTENTIAL DEPLOYMENT"?

A. In ten of the remaining eighteen geographic market areas where the triggers tests are not met, BellSouth's witnesses will provide evidence to demonstrate that the FCC's potential deployment test is met and that CLECs are not impaired in those markets without access to BellSouth's unbundled switching. Attached hereto as Exhibit JAR-3 is a map that illustrates the ten additional geographic market areas where CLECs are not impaired without access to BellSouth's unbundled switching.

Q. PLEASE PROVIDE ADDITIONAL DETAILS REGARDING BELLSOUTH'S "POTENTIAL DEPLOYMENT" CASE, AS IT RELATES TO WHETHER CLECS ARE IMPAIRED WITHOUT ACCESS TO BELLSOUTH'S UNBUNDLED SWITCHING.

A. While the "triggers" test is a "bright line" test, the FCC recognized that the current availability of unbundled switching may influence the nature and extent of actual competition. In other words, the fact that fewer than three CLECs are self-provisioning switching to mass market customers in a

particular geographic market is not necessarily dispositive on the issue of whether impairment exists in that geographic market. To address this, the FCC created a different test that can be used to determine whether CLECs are impaired where the triggers tests are not met. In creating this alternative, the FCC instructed the state commissions to weigh three things which, taken together, constitute the "potential deployment" approach to making a "no impairment" finding where the FCC "triggers" are not met:

First, the FCC told the states to look at actual competition where it did not rise to the level necessary to meet the triggers tests. Ms. Tipton will provide testimony regarding the actual level of competition from CLECs that self-provision switching but where the triggers tests are not met.

Second, the FCC also instructed the state commissions to consider any operational barriers to entry, specifically mentioning non-discriminatory provisioning of loops, access to collocation, and access to co-carrier cross connects. Mr. Alphonso Varner will present BellSouth's testimony demonstrating that BellSouth provides CLECs with non-discriminatory access to unbundled loops. I discuss the availability of collocation in BellSouth's offices in Florida, as well as BellSouth's provision of co-carrier cross connects to any carrier who requests such cross connects.

Finally, the FCC directed the states to consider any economic barriers to entry when determining whether CLECs are impaired to serve the mass market customer in a particular geographic market without access to BellSouth's

unbundled local switching. To address the economic issues, BellSouth has commissioned the creation of a highly detailed, economic model, a CLEC business case, that, in accordance with the TRO's guidance, can be used to evaluate whether an efficient CLEC could economically enter individual markets without access to BellSouth's unbundled switching.

The model itself will be described and discussed by Mr. Jim Stegeman, whose company created the model. Dr. Debra Aron, an economist, will discuss how the model meets the criteria laid out in the TRO, the model's economic underpinnings, some of the model's key economic inputs and the results of the potential deployment analysis. Dr. Randall Billingsley will provide information regarding the cost of capital that has been used as an input into the model. Finally, Mr. Keith Milner will discuss the network design that the model emulates.

ISSUE 3: BATCH CUT PROCESS

Q. PLEASE DESCRIBE THE FOURTH MAJOR AREA OF BELLSOUTH'S TESTIMONY ADDRESSING "HOT CUTS".

A. Apart from testimony demonstrating the results of the triggers and potential deployment analyses, BellSouth will also present testimony showing that an efficient hot cut process is in place, enabling competitors to compete by obtaining access to BellSouth's unbundled loops and using either the competitors' own switches or wholesale switching. Further, BellSouth will present testimony demonstrating BellSouth has a seamless and effective batch hot cut process in place that enables competitors to convert existing Unbundled Network Element – Port/Loop Combination ("UNE-P") lines to unbundled loops and switching that is not provided by BellSouth.

Q. WHAT DECISION MUST THE COMMISSION MAKE REGARDING HOT CUTS?

A. The hot cut case is simple because it involves a process that has been around for 100 years – moving a jumper from one location to another. BellSouth can do it, AT&T can do it, and MCI can do it. As of October 2003, there are 156,746 lines in Florida served by a combination of a BellSouth unbundled loop and a CLEC's switch, which demonstrates without doubt that BellSouth has a hot cut process that has been tested, and that works.

The case is also simple because it is familiar to this Commission. The Commission expended a great deal of time and energy reviewing the provisioning of hot cuts in the Section 271 case (FPSC Docket No. 960786). That work will inform and facilitate its decision-making in this case.

Q. WHO ARE THE BELLSOUTH WITNESSES THAT WILL TESTIFY ABOUT THE HOT CUT PROCESS?

A. There are a number of witnesses. Mr. Ken Ainsworth explains BellSouth's hot cut process that handles both the migration from a BellSouth retail customer to an Unbundled Network Element – Loop ("UNE-L") terminating in a CLEC's collocation space and the migration of a UNE-P to a UNE-L. Mr. Ainsworth also addresses BellSouth's seamless and cost-effective batch hot cut process that enables BellSouth to manage the volume of hot cuts that will be presented to BellSouth when local circuit switching is no longer a UNE.

Mr. Ron Pate provides testimony that explains the ordering process BellSouth has developed for UNE-P to UNE-L Bulk Migration/batch hot cut process when CLECs migrate existing multiple UNE-P customers to UNE-L.

Mr. Al Heartley testifies that the BellSouth Network Services organization is prepared to handle the batch hot cut process for the volume of orders with which BellSouth will be presented.

Given the simple process, all the Commission needs to decide is whether BellSouth can carry out this process in sufficient volumes, and with sufficient speed and accuracy, to allow CLECs to compete using UNE-L. BellSouth's witnesses will demonstrate that BellSouth absolutely can execute hot cuts in this manner, and as Mr. Varner will explain, BellSouth's performance measurements will demonstrate its ability to accomplish these tasks.

Q. GIVEN THIS COMMISSION'S EXTENSIVE EXPERIENCE WITH HOT CUTS, WHY IS BELLSOUTH DEVOTING SO MUCH TESTIMONY TO THIS ISSUE?

A. BellSouth would prefer not to do so. However, when faced with the overwhelming evidence that BellSouth has regarding the actual facilities-based competition that exists in Florida and the geographic areas where the FCC's triggers are met, it is most likely that the CLECs will try to make a stand and protect their cheap access to BellSouth's network by focusing on the hot cut process. When faced with this straightforward issue, the CLECs have resorted to delay and obstruction. In New York's Bulk Migration/Hot Cuts proceeding (Case No. 02-C-1425), in an obviously circular argument, AT&T contended that "until Verizon demonstrates that it can execute a hot cut process at high volumes, we do not have a process that can handle mass market volumes in a post UNE-P world." (Falcone Testimony, Case No. 02-C-1425, filed October 24, 2003, at p. 78.) Of course, so long as UNE-P exists, CLECs have no incentive to order UNE-L, making AT&T's purported threshold impossible to meet. To further delay, AT&T has argued that state commissions must first

adopt a hot cut process, but "refrain from approving those processes until appropriate metrics have been developed and approved." (Nurse Testimony, Case No. 02-C-1425, filed October 24, 2003, at pp. 8-9.) AT&T, of course, is counting on months of delay from extended negotiations about performance measures.

To complicate and obscure the straightforward issue, certain CLECs, and specifically AT&T in proceedings before the FCC, have argued, and will probably argue here, that until BellSouth makes changes to its network that would cost billions of dollars, no adequate hot cut process is possible. An adequate process, according to AT&T, will require "some form of electronic, not manual, loop provisioning." The FCC already rejected AT&T's proposal, but based on the issues that the FCCA offered in this proceeding, it is all but certain that AT&T, if not the FCCA, intends to advance this very same tired old argument again. The CLECs' suggestion that BellSouth must overhaul its existing network to provide electronic loop provisioning prior to a state commission finding that BellSouth, or any ILEC, has an adequate hot cut process, whether "batch" or otherwise, is what this Commission can expect to hear. As a result, BellSouth offers extensive testimony from Messrs. Ainsworth, Varner, Pate and Heartley regarding the hot cut issues to demonstrate that nothing more is necessary.

Q. HAS THIS COMMISSION PREVIOUSLY REVIEWED THE ISSUE OF BELLSOUTH'S HOT CUT PROCESS? IF SO, WHAT WAS ITS DETERMINATION?

A. Yes. This Commission reviewed BellSouth's hot cut process during BellSouth's 271 proceeding and UNE Cost proceeding. In Docket No. 960786, the Commission determined that BellSouth's policies and procedures relating to its ordering and provisioning met the requirements of the Act and were non-discriminatory. In the UNE Cost docket, the Commission approved the TELRIC-based nonrecurring rates applicable to hot cuts.

Q. IN THE TRO, WHAT DID THE FCC REQUIRE STATE COMMISSIONS TO DO WITH RESPECT TO HOT CUTS?

A. The FCC urged state commissions to require ILECs to develop a bulk migration process. The FCC stated, "[t]he record evidence strongly suggests that the hot cut process could be improved if cut overs were done on a bulk basis, such that the timing and volume of the cut over is better managed. We expect that such improvements would result in some reduction of the non-recurring costs."

Q. HAS BELLSOUTH DEVELOPED SUCH A PROCESS?

A. Yes. As BellSouth Witnesses Ainsworth, Pate and Heartley explain, BellSouth has developed and implemented a bulk migration process that meets the concerns expressed by the FCC.

Q. WHAT RATES DOES BELLSOUTH PROPOSE FOR THE BULK MIGRATION HOT CUT PROCESS?

A. In the TRO, the FCC suggested that the batch hot cut rates "should reflect the efficiencies associated with batched migration of loops to a competitive LEC's switch, either through a reduced per-line rate or through volume discounts." (TRO ¶ 489.) BellSouth proposes a 10% discount of the total amount of the Commission approved nonrecurring UNE rates applicable for hot cuts.[1] Based on a recent cost study, BellSouth determined that the nonrecurring cost for certain elements are actually lower than the ordered rate with the 10% discount. For those elements where the cost study results are lower than the discounted rate, BellSouth will charge the CLECs the rate produced by the cost study.

[1] BellSouth will apply the net 10% discount to the Service Level 1 (SL1) loop, the Service Level 2 (SL2) loop and the Unbundled Copper Loop - Non-designed (UCL-ND) nonrecurring rate.

Q. DO UNE LOOP NONRECURRING CHARGES CONSTITUTE AN ECONOMIC BARRIER?

A. No. This Commission approved the UNE loop prices currently charged by BellSouth in the UNE Cost proceeding. BellSouth's proposal to offer a 10% discount off these nonrecurring prices when CLECs use the batch hot cut process is an incentive for CLECs to use that process.

ISSUES 5 (C)(2) and(C)(3): OPERATIONAL BARRIERS – COLLOCATION AND CROSS-CONNECTS

ISSUE 5(C)(2) – COLLOCATION SPACE

Q. TURNING TO OPERATIONAL ISSUES, PLEASE DISCUSS THE AVAILABILITY OF COLLOCATION SPACE IN BELLSOUTH'S CENTRAL OFFICES.

A. Space is available for CLECs to collocate equipment in all of BellSouth's Florida central offices, except two. For one of these two offices, the Jacksonville J. Turner Butler Central Office (CLLI Code JCVLFLJT), the Florida Commission has granted a waiver for collocation until October 31, 2006. The J. Turner Butler Central Office is located in a multi-tenant, multi-story office building that BellSouth does not own. BellSouth leases its space under terms that allow for renewals for 10-year intervals at pre-negotiated, below market rates. If BellSouth were to enter into a collocation arrangement

with a CLEC, such arrangement would be a sublease, which is only allowed pursuant to the terms of the lease agreement upon approval of the building owner. Accordingly, if BellSouth enters into a sublease arrangement without prior approval, BellSouth violates the lease agreement, potentially is liable for contract penalties and waives and terminates its right to the renewal options provided in the agreement, thus potentially putting at risk its facilities currently in place. BellSouth would also waive its option to lease additional space at the landlord's discretion. In addition to the lease agreement issues, there is a building code restriction requiring sprinklers in any additional space acquired. BellSouth has received an exemption from this requirement for its existing space, but the Fire Marshall has refused to extend this exemption to any additional space acquired by BellSouth in the future.

The other office, Lake Mary Main (CLLI LKMRFLMA), is scheduled for relocation on March 26, 2004, because the existing building is located over a sinkhole and must be vacated. Consequently, no new collocation arrangements are being provided in the current Lake Mary Main Central Office. Once the new building is complete, BellSouth will offer space for collocation giving priority to those CLECs who are on a waiting list.

Q. ARE THERE ALTERNATIVES TO PHYSICAL COLLOCATION IN THE CENTRAL OFFICE IN THE RARE CIRCUMSTANCES WHERE PHYSICAL COLLOCATION IS NOT VIABLE?

A. Yes. CLECs may elect either adjacent collocation or virtual collocation.

Q. IS BELLSOUTH PROVIDING PHYSICAL COLLOCATION TO CLECS TODAY?

A. Yes. CLECs currently lease approximately 130,010 square feet of collocation space within 128 of BellSouth Florida's 198 central offices.

Q. DOES BELLSOUTH PROVIDE COLLOCATION SPACE TO CLECS IN A TIMELY MANNER FOLLOWING CLECS' REQUESTS FOR SPACE?

A. Yes. As Mr. Varner discusses in his testimony, over the past year, BellSouth has achieved 100% performance in meeting the collocation provisioning intervals established by this Commission. In fact, of the 470 collocation requests received, BellSouth consistently has completed these orders in much shorter intervals than required.

Q. ARE THERE MEASURES IN PLACE TO ASSURE THAT BELLSOUTH'S LEVEL OF PERFORMANCE REGARDING COLLOCATION DOES NOT DIMINISH?

A. Yes. This Commission has ordered Performance Measurements that are in place today. Should BellSouth fail to meet these metrics, BellSouth would be subject to penalty payments under the Self-Effectuating Enforcement Mechanism ("SEEMs") plan. However, as Mr. Varner's testimony explains, BellSouth has met all of these metrics since September 2002.

Q. IS A CLEC'S ABILITY TO OBTAIN COLLOCATION A BARRIER TO CLEC ENTRY IN BELLSOUTH'S MARKETS?

A. Absolutely not.

ISSUE 5(C)(3) – CROSS-CONNECTS

Q. WHAT IS A "COMPETITIVE LEC-TO-COMPETITIVE LEC CROSS-CONNECT"?

A. "Competitive LEC-to-Competitive LEC Cross-Connects" are commonly referred to as Co-Carrier Cross Connects ("CCXCs"). A CCXC is a connection between two CLECs' facilities located in the same BellSouth premises. A CCXC must be provisioned using facilities owned by the ordering carrier and must use BellSouth's common cable support structure. The CLECs must also contract with a BellSouth Certified Supplier to place the CCXC.

Q. WHY WOULD TWO COLLOCATORS USE CO-CARRIER CROSS-CONNECTS?

A. There are a couple of potential uses. A CLEC might use CCXCs to share facilities and/or equipment or exchange interexchange traffic

Q. DOES BELLSOUTH ALLOW CO-CARRIER CROSS-CONNECTS TODAY?

A. Yes, and BellSouth has done so for several years. Today, a CLEC can connect its collocation arrangement to another CLEC's collocation arrangement by enlisting a certified installation vendor from the list of BellSouth certified vendors to place the cabling necessary to make the connections. Beginning first quarter 2004, BellSouth will provide another means for CLECs to obtain CCXCs. BellSouth will make CCXCs available pursuant to its FCC No. 1 Tariff, whereby BellSouth (rather than a third-party vendor) will provide a CCXC for both CLECs at a demarcation point.

Q. ARE THERE CLECS WHO HAVE CO-CARRIER CROSS-CONNECTS IN SERVICE TODAY IN BELLSOUTH'S CENTRAL OFFICES?

A. Yes. In Florida, there are over 500 existing CCXCs in BellSouth central offices.

Q. IS THE ABILITY OF CLECS TO OBTAIN CROSS-CONNECTS IN BELLSOUTH CENTRAL OFFICES ON A TIMELY BASIS A BARRIER TO CLEC ENTRY IN BELLSOUTH'S MARKETS?

A. Absolutely not.

ISSUE 6 – TRANSITIONAL USE OF UNBUNDLED LOCAL SWITCHING

Q: CAN YOU BRIEFLY DISCUSS THE TRANSITIONAL USE OF UNBUNDLED LOCAL SWITCHING?

A: Yes. As the testimony of BellSouth's witnesses sets forth, CLECs in Florida are not impaired in 23 of 31 geographic markets. Consequently, the transitional use of unbundled local switching is not needed at this time because the switching triggers and economic analysis mandate relief. If the transitional use of unbundled local switching were necessary, the appropriate time period for that switching should not exceed ninety (90) days.

Q: PLEASE SUMMARIZE YOUR TESTIMONY.

A. I anticipate that the CLECs will contest the issues in this proceeding in every way possible and throw road block after road block in the path of progress toward real competition in the telecommunications industry in Florida. However, the simple truth of the matter is that facilities-based competition has arrived in Florida and has been in place for some time. Those CLECs who have chosen to invest in the state of Florida have put in switches and are actively serving mass market customers in a number of geographic areas in the state, other CLECs want to continue to provide services using nothing but BellSouth's network. Such competition, however, cannot be sustainable in the long run. Requiring BellSouth to unbundle its network, as is presently the case, creates disincentives for CLECs to invest in Florida, which no doubt

explains why there is not more facilities-based competition than there is now. Any argument that BellSouth's "hot cut" process is to blame is simply a red herring. Thousands and thousands of lines have been moved from BellSouth's switches to CLEC switches. The Commission has looked at BellSouth's hot cut process and found it sufficient to support BellSouth's entry into the interLATA long distance business. As discussed in my testimony and the testimony of BellSouth's other witnesses, BellSouth has met the requirements given in the TRO to have switching relief in 23 of its geographic market areas. It is time to take the next step and begin weaning carriers like MCI and AT&T from the cheap switching that BellSouth is currently required to offer, and time to compel these and other companies to make real investments in Florida that will be of real benefit over time.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

[515427]

BELLSOUTH TELECOMMUNICATIONS, INC.

REBUTTAL TESTIMONY OF JOHN A. RUSCILLI

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 030851-TP

JANUARY 7, 2004

Q. PLEASE STATE YOUR NAME, YOUR POSITION WITH BELLSOUTH TELECOMMUNICATIONS, INC. ("BELLSOUTH") AND YOUR BUSINESS ADDRESS.

A. My name is John A. Ruscilli. I am employed by BellSouth as Senior Director – Policy Implementation and Regulatory Compliance for the nine-state BellSouth region. My business address is 675 West Peachtree Street, Atlanta, Georgia 30375.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

A. Yes, I filed direct testimony and three exhibits on December 4, 2003.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My rebuttal testimony addresses numerous comments contained in the direct testimony filed by other witnesses in this proceeding on December 4, 2003. Specifically, I address portions of the testimony of Mr. David E. Stahly representing Supra Telecommunications and Information Systems, Inc.

("Supra"), Mr. Joseph Gillan representing the Florida Competitive Carriers Association ("FCCA"), Dr. Mark T. Bryant, Mr. James D. Webber, and Ms. Sherry Lichtenberg representing MCI WorldCom Communications, Inc. and MCIMetro Access Transmission Services LLC ("MCI"), Mr. Brian K. Staihr representing Sprint-Florida and Sprint Communications Company LP ("Sprint"), and Mr. Stephen E. Turner and Mr. Mark D. Van de Water representing AT&T Communications of the Southern States, LLC ("AT&T").

THE ROLE OF THE FLORIDA PUBLIC SERVICE COMMISSION

Q. AT PAGES 6-10 OF HIS TESTIMONY, MR. GILLAN IMPLIES THAT SECTION 364 OF FLORIDA STATUTES REQUIRES THAT BELLSOUTH UNBUNDLE EVERY PART OF ITS LOCAL NETWORK, REGARDLESS OF THE REQUIREMENTS OF THE TELECOMMUNICATIONS ACT OF 1996 (THE "ACT"). HE STATES THAT THE ONLY REASON HE IS NOT RECOMMENDING THAT THE COMMISSION "INDEPENDENTLY ORDER THE ILECS TO OFFER UNBUNDLED LOCAL SWITCHING UNDER STATE LAW" IS BECAUSE "SUCH ACTION IS UNNECESSARY" DUE TO THE FCC'S NATIONAL FINDING ON MASS MARKET SWITCHING. PLEASE RESPOND.

A. There is no question that the Florida Legislature passed landmark legislation in 1995, well ahead of many other states in the nation. That legislation opened the local exchange markets in Florida to competition. The legislation also provided incumbent local exchange carriers ("ILECs") regulatory flexibility

via price regulation in order to respond to the competition that was already present in Florida and the competition that was coming.

The real issue in this case, however, is reconciling the language of the Florida statute, with the terms of the Act. In 2001, the Florida Public Service Commission ("Commission") addressed the scope of its decision-making authority in connection with unbundling, considering both the state and federal statute. The following excerpt from the Commission's Order No. PSC-01-0824-FOF-TP in Docket No. 000649-TP (MCI Arbitration) demonstrates the Commission's interpretation of its jurisdiction:

> We find that under Section 252(e) of the Act, we could impose additional conditions and terms in exercising our independent state law authority under Chapter 364, Florida Statutes, so long as those requirements are not inconsistent with the Act, FCC rules and orders, and controlling judicial precedent. (Page 10.)

The Commission's position is consistent with the FCC's discussion of state authority in the *Triennial Review Order ("TRO").*[1]

> [W]e find that the most reasonable interpretation of Congress' intent in enacting sections 251 and 252 to be that state action, whether taken in the course of a rulemaking or during the review of an interconnection agreement, must be consistent with section 251 and must not

[1] *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, et al.,* CC Docket No. 01-338, et al., *Report and Order and Order on Remand an Further Notice of Proposed Rulemaking*, FCC 03-36, released August 21, 2003.

> "substantially prevent" its implementation...If a decision pursuant to state law were to require the unbundling of a network element for which the Commission has either found no impairment – and thus has found that unbundling that element would conflict with the limits in section 251(d)(2) – or otherwise declined to require unbundling on a national basis, we believe it unlikely that such decision would fail to conflict with and "substantially prevent" implementation of the federal regime, in violation of section 251(d)(3)(C). Similarly, we recognize that in at least some instances existing state requirements will not be consistent with our new framework and may frustrate its implementation. It will be necessary in those instances for the subject states to amend their rules and to alter their decisions to conform to our rules. (*TRO* ¶¶ 194-195).

There is no question that the FCC's framework for finding market-by-market non-impairment for mass-market switching is an integral part of the federal regime and any state decision regarding the local circuit switching impairment issue must be consistent with that federal regime. Despite Mr. Gillan's arguments, the plain language of this Commission's prior decision as well as the *TRO* shows the policy error in his approach.

Q. AT PAGE 16, IN DISCUSSING THE TASKS ASSIGNED TO STATE COMMISSIONS BY THE FCC, MR. GILLAN SUGGESTS THAT THIS COMMISSION'S ROLE IS TO SIMPLY "CONFIRM THAT THERE ARE NO EXCEPTIONS TO" THE FCC'S NATIONAL FINDING OF

IMPAIRMENT WITH RESPECT TO MASS MARKET SWITCHING. PLEASE COMMENT.

A. Mr. Gillan's suggestion is misguided. While the FCC did make a national finding that competitive local exchange carriers ("CLECs") are impaired without access to mass market switching on an unbundled basis, the FCC did not simply ask the states to confirm that there are no exceptions. To the contrary, in footnote 1404 of the *TRO*, the FCC specifically stated that their intent was to "make a national finding based on a more granular inquiry". In its *Order*, the FCC determined that this granular inquiry would be most appropriately conducted by the state commissions. Further, in paragraph 461 of the *TRO*, the FCC stated,

> We also recognize that a more granular analysis may reveal that a particular market is not subject to impairment in the absence of unbundled local circuit switching. We therefore set forth two triggers that state commissions *must* apply in determining whether requesting carriers are impaired in a given market. Our triggers are based on our conclusion that actual deployment is the best indicator of whether there is impairment, and accordingly evidence of actual deployment is given substantial weight in our impairment analysis. (Emphasis added.)

The FCC's intent that the states conduct a granular analysis of markets within the state is a far cry from Mr. Gillan's interpretation, which is much akin to simply "seconding a motion from the chair".

Q. AT PAGE 67, MR. GILLAN RECOMMENDS THE COMMISSION OPEN YET ANOTHER PROCEEDING TO ESTABLISH A MARKET RATE FOR NETWORK ELEMENTS NO LONGER SUBJECT TO SECTION 251 PRICING STANDARDS. IS THIS APPROPRIATE?

A. No. When an ILEC has been relieved of its obligation to offer a network element under Section 251 of the Act, such as local circuit switching, it means that CLECs are no longer impaired without access to that network element. Under a finding of no impairment, there are sufficient alternatives in the market such that CLECs do not need to rely on ILEC services at regulated prices. Because CLECs have alternatives, competition will drive the market price of the network element. As such, it is appropriate for BellSouth to set its rate according to those market conditions through negotiations with the CLEC. It is neither necessary nor appropriate for this market rate to be set in a Commission proceeding. Mr. Gillan's suggestion should therefore be rejected.

Q. MR. GILLAN RECOMMENDS A TWO-YEAR QUIET PERIOD FOLLOWING THIS PROCEEDING, IN WHICH THE ILECS MAY NOT SEEK FURTHER UNBUNDLING (PAGES 68-69). IS THIS APPROPRIATE?

A. Absolutely not. Under the guise of "providing certainty to the industry", Mr. Gillan is merely attempting another strategy designed to extend the unbundled network element platform ("UNE-P") as long as possible. Although it may be appropriate to set some basic guidelines for subsequent proceedings, it should

be for the purpose of acknowledging and furthering competition rather than in protecting UNE-P. Two years in this business is a very long time and much can happen. Delaying an ILEC's ability to obtain further relief from its unbundling obligations due to an arbitrary "quiet period" is unfair to the ILEC and does not recognize the dynamics of the marketplace.

Further, with respect to those markets where CLECs continue to be impaired without access to unbundled switching, Dr. Bryant states, "If CLECs are not impaired without access to UNE switching, I would expect more CLECs to self-provision switching in the relatively near future." When that activity occurs or other evidence of no impairment surfaces, BellSouth should have the option to immediately petition for relief in that market.

Q. AT PAGES 11-13 OF HIS TESTIMONY, MR. STAHLY EXPRESSES CONCERN THAT BELLSOUTH WILL "BLATANTLY" IGNORE ANY LAWFULLY ISSUED ORDERS OF THIS COMMISSION. PLEASE COMMENT.

A. Mr. Stahly's "concern" is nothing more than an obvious attempt to disparage BellSouth by suggesting that BellSouth does not comply with lawful orders of this Commission. BellSouth has a long history of complying with orders of this Commission and there is no basis for believing that BellSouth will not continue to do so. Further, this Commission certainly has remedies including fines if the Commission believes BellSouth has willfully ignored its lawful orders. The Commission has not done so in connection with any of the claims

that Supra has leveled against BellSouth over the years.

COMPETITION AND UNE-P

Q. MR. GILLAN DISCUSSES WHAT HE CALLS THE "COMPETITIVE PROFILE" IN FLORIDA (PAGES 28-31) CONCLUDING THAT UNE-P PRODUCES STATEWIDE COMPETITION. FROM HIS ASSESSMENT, MR. GILLAN STATES THAT THE COMMISSION "SHOULD NOT RESTRICT THE AVAILABILITY OF UNBUNDLED LOCAL SWITCHING AND UNE-P UNLESS IT CAN CONCLUDE THAT AN ALTERNATIVE WILL PRODUCE A SIMILAR COMPETITIVE PROFILE." DO YOU AGREE?

A. No, I do not. First, Mr. Gillan appears to suggest that the entire state of Florida should be the market area, because he says the UNE-P produces statewide competition and any alternative should do the same. As the FCC was specific in pointing out, "State commissions have discretion to determine the contours of each market, but they may not define the market as encompassing the entire state." (*TRO* ¶ 495).

Second, there is no reference in the *TRO* that places a requirement upon this Commission to ensure that a statewide alternative to UNE-P is in place before the Commission can find no impairment in a particular market. Indeed, such a requirement would make no sense given the fact UNE-P itself will remain in place in those markets where relief is not granted.

However, there most definitely is a requirement that this Commission determine that CLECs are not impaired in a market when either the self-provisioning or wholesale triggers are met or the market is found to be conducive to competitive entry. This analysis is done on a market-by-market basis, as BellSouth has done in establishing the 31 distinct geographic markets in its territory in Florida.

Finally, it is not surprising at all that UNE-P produces some level of competition in most wire centers in the state of Florida. After all, UNE-P is nothing more than the incumbent LEC's local service offering at cheap prices.

Q. SEVERAL PARTIES ALLEGE THAT COMPETITION IN FLORIDA DEPENDS ON THE AVAILABILITY OF THE UNBUNDLED NETWORK ELEMENT PLATFORM OR UNE-P. DO YOU AGREE?

A. No. There seems to be a theme that runs through the testimony of witnesses Stahly (p. 6), Gillan (p. 58) and Bryant (pp. 15-16), that is based on the mistaken notion that CLECs cannot compete in Florida without UNE-P.

These witnesses are all incorrect. First, the *TRO* requires that either a provisioning trigger be met or potential competition be shown before a state commission can find that no impairment exists for local switching. Second, the Act envisioned provisioning of local exchange competition by three means; resale of the incumbent's retail services, purchase of unbundled network elements ("UNEs"), and interconnection via a CLEC's own facilities. All

three options, or combination of options are available to CLECs. CLECs are certainly not limited to UNE-P as an entry method.

In the markets where the state commission finds CLECs are not impaired without unbundled switching, the CLEC has the means to supply its own switching or can use BellSouth's local circuit switching at market prices. BellSouth must continue to provide local switching to CLECs under Section 271(c)(2)(B) of the Act. Therefore, BellSouth will offer local switching at a competitive market rate in those markets where the Commission determines that CLECs are not impaired. In addition, there will be a transitional period sufficient to allow CLECs to implement their chosen options (e.g., *TRO* ¶ 532 describes how, even after a finding of no-impairment in a particular market, UNE-P will not be phased out for a subsequent 27 months). Therefore, contrary to Dr. Bryant's statement, all consumers currently served by UNE-P CLECs will not be forced to make a change in their telephone service.

Finally, although at this time BellSouth has not attempted to demonstrate the presence of wholesale switch providers in this case, it is reasonable to expect that in markets where no impairment is found, wholesale switching will become more prevalent as an option for CLECs. For example, Florida Digital Network, Inc. ("FDN") has indicated that:

***** BEGIN CONFIDENTIAL *****

***** END CONFIDENTIAL *****

Once the subsidized switching that BellSouth is currently required to offer is replaced by a just and reasonable market rate, switch providers will likely find that wholesale switching offers a viable and long-term market where they can compete effectively with BellSouth's market-based switching rate. The presence of a competitive switching rate should induce switch providers to market their switching to local service providers.

In summary, the parties that attempt to minimize CLEC opportunity in the absence of unbundled local switching are doing so only to preserve the cheap prices they currently pay for the UNE-P. They give little credence to the options available to them including the multiple sources of switching, and BellSouth's local switching at market rates.

Q. ON PAGES 60-62 MR. GILLAN SUGGESTS THAT UNE-P ENCOURAGES INVESTMENT. DO YOU AGREE?

A. Absolutely not. The use of UNE-P, if anything, discourages investment in facilities for both CLECs and ILECs. UNE-P is basically the resale of an

ILEC's services. While Mr. Gillan claims that CLECs invest in "billing systems, computer systems, offices and, perhaps most importantly, human capital", such investment is easily terminated if business plans change. The FCC has recognized that a CLEC who invests in facilities, i.e. collocation space, transport facilities, etc., has made a commitment to provide service in a particular market by investing in network infrastructure. In its *Pricing Flexibility Order*, in discussing the necessary competitive showing test for common line and traffic-sensitive services, the FCC states, "resold services employ only incumbent LEC facilities and thus do not indicate irreversible investment by competitors whatsoever. Similarly, a competitor providing service solely over unbundled network elements leased from the incumbent (the so-called "UNE-platform") has little, if any, sunk investment in facilities used to compete with the incumbent LEC." (*Pricing Flexibility Order* ¶ 111). Thus, the lack of sunk investment affords a CLEC more flexibility in its ability to exit a market rather than a commitment to provide service to its customers.

Mr. Gillan also suggests that UNE-P provides the capability for data LECs to continue to have access to end users. His argument for encouraging investment with this example is not clear. With the elimination of the line sharing requirement, a data LEC will be required to either purchase the entire loop to provide service to its customer or to enter into a line splitting arrangement with a "voice partner". Neither of these situations encourages investment. In both situations, the data LEC is still purchasing a stand-alone UNE loop that uses BellSouth's existing network facilities. In markets where there is no switching impairment, the only change is that switching is no longer

available at TELRIC-based rates and the data LEC or their "voice partner" purchases an unbundled network element-loop ("UNE-L"). There is no new investment by a data LEC.

Q. IS MR. GILLAN CONSISTENT WITH HIS ARGUMENTS ABOUT UNE-P ENCOURAGING INVESTMENT?

A. No. There are several statements that Mr. Gillan makes that appear to actually be arguing against UNE-P encouraging investment.

On page 60, Mr. Gillan states "Although I would disagree generally with the claim that unbundling discourages investment, there should be no debate as to whether sharing the inherited legacy network to offer conventional POTS has that effect." Also on page 62, lines 1-5, Mr. Gillan states "The POTS market is shrinking as customers chose [sic] (for themselves, and not under regulatory direction) to move to more advanced services. There is no valid policy reason to encourage additional investment in the generic local exchange facilities that underlie UNE-P." These two statements bolster BellSouth's position that UNE-P does nothing to advance the development of new technologies in a UNE-P world. CLECs who have control over their own switch decide what software and hardware to install in order to customize their various offerings. In such cases, CLECs may find new technologies that offer services ILECs are not offering. Such enhancements to their switches will drive competition and innovation among competitors and will lead to a market driven by new offerings based on new technologies.

GEOGRAPHICAL MARKET DEFINITION

Q. PLEASE DISCUSS THE APPARENT CONFLICT BETWEEN SPRINT AND MCI REGARDING THE APPROPRIATE GEOGRAPHIC MARKETS FOR MASS MARKET SWITCHING.

A. The problems with the market definitions proposed by Sprint and MCI are discussed further in the rebuttal testimony of Dr. Pleatsikas. Let me note however that what at first seems to be a conflict in their positions on geographic markets is, in reality, a design by both companies to secure the continuation of UNE-P indefinitely. Sprint suggests that geographic markets should be defined as the Metropolitan Statistical Area ("MSA"). In making this recommendation, Sprint goes on to say that there must be competition throughout the MSA and uses as support for this position a *de minimis* argument not contained in the *TRO*, which I will discuss further below. The outcome of Sprint's way of thinking is that because the geographic area of an MSA is so large and the FCC's non-impairment criteria, by Sprint's definition, is so stringent, it becomes virtually impossible for the Commission to find that CLECs are not impaired in a given MSA. By Sprint's definition of markets, it is not surprising that Sprint is not asking for relief in any market.

MCI on the other hand, recommends that markets be defined as wire centers. By defining markets as wire centers, MCI simply hopes to limit the loss of UNE-P to the greatest extent possible. MCI expects that BellSouth may be relieved of its UNE switching obligation in some wire centers, but hopes to

confine the "damage to UNE-P" to relatively small pockets. Both strategies by Sprint and MCI are designed to limit the amount of relief and continue to the extent possible the use of UNE-P in BellSouth's territory.

Q. PLEASE FURTHER ADDRESS MCI'S CHOICE OF THE WIRE CENTER AS THE CORRECT DEFINITION OF GEOGRAPHIC MARKET IN THIS PROCEEDING?

A. MCI's position is inconsistent with testimony filed by its own witnesses in previous proceedings. Here, Dr. Bryant touts the wire center as the appropriate market definition, stating at page 29, "ILEC wire center boundaries are the most natural geographic boundaries for purposes of defining markets for several reasons." In contrast, in testimony filed in previous arbitration cases, MCI discounts the geographic area of an ILEC's wire center when compared to the more updated CLEC networks. Specifically, in Georgia Docket No. 11901-U, Mr. Ron Martinez compared BellSouth's network to MCI's network:

> ILEC networks, developed over many decades, employ an architecture characterized by a large number of switches within a hierarchical system, with relatively short copper based subscriber loops. By contrast, WorldCom's local network employs state-of-the-art equipment and design principles based on the technology available today, particularly optical fiber rings utilizing SONET transmission. In general, using this transmission based architecture, it is possible for *WorldCom to access a much larger geographic area from a single switch* than does the ILEC switch in the traditional copper based

> architecture. This is why, in any given service territory, WorldCom has deployed fewer switches than the ILEC. *Any CLEC will begin serving a metropolitan area with a single switch and grow to multiple switches as its customer base grows.*
>
> In general, at least for now, WorldCom's switches serve rate centers at least equal in size to the serving area of the ILEC tandem. WorldCom is able to serve such large geographic areas via fiber network and bears the cost of transport of that owned network. (Emphasis added.) (Direct Testimony, pp. 35-36.)

MCI demonstrates with its previous testimony that a geographic market should not be defined by the decades old ILEC wire center because MCI reaches well beyond the wire center to serve its market. By its own admission MCI does not use the wire center to identify the customers it targets. It uses a number of other factors and appears to be limited in its market reach only as a function of its fiber network.

Q. WHAT GUIDANCE DID THE FCC PROVIDE IN DETERMINING GEOGRAPHIC MARKETS?

A. Paragraph 495 of the *TRO* gives guidance to state commissions in designing geographic markets. State commissions must consider locations of customers actually being served, variation in factors affecting the competitors' ability to serve groups of customers, and the ability to target and serve specific markets economically and efficiently using currently available technology. However, the FCC was also specific in pointing out

> While a more granular analysis is generally preferable, states should not define the market so narrowly that a competitor serving that market alone would not be able to take advantage of available scale and scope economies from serving a wider market. State commissions should consider how competitors' ability to use self-provisioned switches or switches provided by a third-party wholesaler to serve various groups of customers varies geographically and should attempt to distinguish among markets where different findings of impairment are likely. The state commission must use the same market definitions for all of its analysis. (Footnotes omitted)

If the FCC believed that the ILECs' wire centers represent the appropriate geographic markets, it would have said so in the *TRO*. The fact that it was concerned that the geographic area not be defined as the entire state indicates its belief that market areas would be something substantially larger than the ILECs' wire centers. BellSouth's proposal to use the individual UNE rate

zones adopted by this Commission, subdivided into smaller areas using the Component Economic Areas ("CEAs") as developed by the Bureau of Economic Analysis of the United States Department of Commerce represents a more appropriate definition of geographic markets. UNE rate zones are an appropriate starting point for the market definition because, by design, they reflect the locations of customers currently being served by CLECs. CEAs are defined by natural geographic aggregations of economic activity and cover the entire state of Florida. BellSouth recommends the Commission adopt its definition of geographic markets and reject both MCI's and Sprint's proposed definitions of geographic markets.

SWITCHING TRIGGERS

Q. IN DISCUSSING WHAT CRITERIA HE RECOMMENDS THE COMMISSION APPLY WHEN IDENTIFYING SELF-PROVISIONING TRIGGER CANDIDATES, MR. GILLAN STATES THAT THE COMMISSION SHOULD EXCLUDE CANDIDATES THAT DO NOT RELY ON ILEC ANALOG LOOPS (PAGES 36 & 44-47). PLEASE ADDRESS THIS COMMENT.

A. Mr. Gillan states that "Self-Providers Must Be Relying on ILEC Loops" (page 44) in order for them to be included as candidates that meet the self-provisioning trigger. This is clearly inconsistent with the *TRO* – as footnote 1560 explains:

> We recognize that when one or more of the three competitive providers is also self-deploying its own local loops, this evidence may bear less heavily on the ability to use a self-deployed switch as a means of accessing the incumbent's loops. Nevertheless, the presence of three competitors in a market using self-provisioned switching and loops, shows the feasibility of an entrant serving the mass market with its own facilities.

Mr. Gillan would have this Commission exclude carriers that do not rely upon BellSouth's local loop facilities to provide service to their customers. However, the *TRO* clearly states that the Commission can, and should consider such carriers as trigger candidates.

A. MR. GILLAN RECOMMENDS THAT A "*DE MINIMUS*" [SIC] CRITERION BE ADDED BY THE STATE COMMISSIONS TO THE TRIGGERS TEST (PAGE 49). IS THIS ADVICE CONSISTENT WITH THE REQUIREMENTS OF THE *TRO*?

A. No. The *TRO* does not establish any size requirements or specific quantitative standard regarding the number of customers in a market that must be served before a self-provisioning carrier can be "counted" for purposes of the triggers test. Any imposition of a *de minimis* requirement regarding the number of customers served would be completely outside the explicit dictates of the *TRO*.

Q. WHY DO THE PARAGRAPHS CITED BY MR. GILLAN NOT SUPPORT A REQUIREMENT THAT A TRIGGER CANDIDATE PASS A *DE MINIMIS* TEST?

A. The only support that Mr. Gillan provides for his assertion that there should be a quantitative analysis is language in a section of the *TRO* (¶ 438) that appears well before the section that establishes the triggers test (¶¶ 498 – 505). Paragraph 438 of the *TRO* addresses the finding of *national* impairment and merely indicates that the FCC found *in aggregate* that the evidence in the record regarding the *overall* level of switch deployment was insufficient to warrant a finding in the *TRO* that CLECs are not impaired on a national basis. By contrast, the triggers tests, which are described some forty pages later in the *TRO*, posit a set of bright-line rules that, if met, overcome this presumption of national impairment. The discussion in paragraph 438 of the *TRO* is neither a part of the triggers tests nor is it logically linked to the tests.

Q. ARE THERE REASONS TO BELIEVE THAT THE FCC INTENDED TO ESTABLISH A *DE MINIMIS* STANDARD AS A PART OF ITS TRIGGERS TESTS?

A. No. At one point in his testimony, Mr. Gillan argues that the *TRO* requires state commissions to apply "judgment, experience, and knowledge of local competitive conditions" to implement the triggers test, but he is simply grasping at straws. In fact, the *TRO* is clear that it wishes to *remove* as many subjective elements as possible from the triggers test, and that is why the test is

defined so objectively. (*TRO* ¶ 428, ¶ 498). The FCC was clear to spell out a number of criteria that it *did* intend for the state commissions to apply (e.g., the number of carriers required to demonstrate "multiple, competitive supply", *TRO* ¶ 501). If the FCC had intended state commissions to assess the "size" of carriers or their operations, it surely would have explicitly said so – just as it has done in countless other instances where it has established such bright line tests. Indeed, after describing in paragraph 499 the factors that are to be considered by the state commissions, the *TRO* explicitly indicates that "[f]or purposes of these triggers, we find that states shall not evaluate any *other* factors..." (*TRO* ¶ 500, emphasis added).

Q. ARE THERE GOOD REASONS THAT THE FCC WOULD HAVE REJECTED THE ADDITION OF A *DE MINIMIS* SIZE REQUIREMENT TO THE TRIGGERS TEST?

A. Yes. Apart from the desire for administrative simplicity and to avoid interpretive ambiguity, it makes good sense not to add a *de minimis* size requirement to the triggers test. As Chairman Powell notes in his separate statement, there is significant evidence that the availability of TELRIC-priced, wholesale switching deters facilities-based competitors. (Separate Statement of Chairman Michael Powell at p. 6). This suggests that creating a minimum penetration standard would virtually ensure that the non-impairment tests would never be met, because the availability of UNE-P would itself deter the level of penetration required for a finding of non-impairment.

Q. PLEASE DESCRIBE DR. STAIHR'S RELATED ARGUMENT (PAGE 14-15).

A. Dr. Staihr proposes that the self-provisioning trigger test requires some minimum number of mass-market lines served by the CLECs, in aggregate, using their own switches, and that these lines be distributed generally throughout the market area. Dr. Staihr describes his numbers-related proposal as a "*de minimus*" [sic] test. I will address this test, and Dr. Pleatsikas addresses Dr. Staihr's proposal that these lines must be dispersed throughout the relevant geographic market.

Q. PLEASE EXPLAIN THE FLAWS WITH DR. STAIHR'S "*DE MINIMUS*" [SIC] TEST.

A. Like Mr. Gillan's proposal, Dr. Staihr's proposal is not supported by the *TRO*, and its use by this Commission would invite precisely the sort of analytical quagmire that is contrary to the provisions of the trigger tests in the *TRO*, and contrary to the FCC's desire to fashion objective tests that are not subject to delays caused by protracted administrative proceedings.

Moreover, the FCC specifically requires that there be *three* self-provisioning CLECs in a market, rather than one or two. A smaller required number of CLECs would also arguably demonstrate that entry is not impaired without access to unbundled local switching, but the FCC chose to impose a higher standard and a specific quantitative threshold. As I discussed in response to Mr. Gillan, had the FCC wanted to add an additional quantitative threshold in

addition to the one it articulated, it presumably would have done so explicitly and not left it to argument and advocacy to determine what the test was in fact meant to be. Dr. Staihr does not explain why, conceptually, it would be appropriate to add an aggregate line test on top of the existing three-CLEC requirement for the self-provisioning trigger. It is clear that none is called for in the *TRO*.

Q. WHAT BASIS DOES DR. STAIHR CLAIM FOR HIS "*DE MINIMUS*" [SIC] TEST?

A. Like Mr. Gillan, Dr. Staihr points to paragraph 438 of the *TRO* as being generally supportive of a "*de minimus*" [sic] test. Dr. Staihr also points to paragraph 441 of the *TRO*. In reality, neither paragraph proposes or even mentions anything about a *de minimis* or any other market-share test related to the self-provisioning trigger. Instead, these paragraphs are found within a general discussion mass-market competition and the hot cut process. In this discussion, the FCC is arguing that there is considerable evidence of switch deployment, but that the deployment primarily appears to serve enterprise customers and does "not accurately depict the ability of an entering competitive LEC to overcome the barriers to entry generated by the hot cut process, and to serve the mass market using incumbent LEC loops." (*TRO* ¶ 439) Thus, in this discussion, the FCC addresses the issue of hot cuts, not trigger candidates. The FCC does not mention trigger candidates at all in this discussion. There is simply no reasonable basis for inferring anything about triggers candidates from that discussion.

Q. DOES DR. STAIHR PROVIDE ANY OTHER SUPPORT FOR HIS PROPOSED "*DE MINIMIS*" TEST?

A. Dr. Staihr argues that the lack of a *de minimis* test would be contrary to situations that the FCC seeks to avoid, such as CLECs serving (and intending to serve) only a handful of mass-market customers. However, the need to discern the "intentions" of CLECs is the type of ambiguity that the FCC sought to avoid in fashioning bright-line rules for the triggers. (*TRO* ¶ 428, ¶ 498)

Q. DOES DR. BRYANT PROPOSE A "*DE MINIMIS*" TEST?

A. Yes. In response to BellSouth's interrogatory 3-119 on this topic, Dr. Bryant admits that he proposes such a test and cites to paragraph 499 of the *TRO*. In that response, Dr. Bryant specifically points to the FCC's statement that " . . . the identified competitive switch providers should be actively providing voice service to mass market customers in the market" as implying "that some determination be made regarding the number of customers being served."

Q. PLEASE COMMENT ON THE INTERPRETATION OF THE *TRO* AS MADE BY DR. BRYANT.

A. Dr. Bryant's proposal simply is not supported by the FCC's statement. There is no mention in that statement of customer counts, hurdles, market shares or any other quantitative indicator of "active" provision of service. The FCC is perfectly capable of making such quantitative requirements, but it did not.

Indeed, a further reading of that general section of the *TRO* shows that the FCC proposes a *qualitative* indicator of "active" provision of service. In footnote 1556, the FCC notes that "actively providing" can be determined by reviewing whether the competitive switching provider has filed a notice to terminate service in the market. Such an investigation should satisfy the Commission that there is "active" provisioning of service, since in paragraph 500 of the *TRO*, the FCC obliges states *not* to evaluate any other factors regarding CLEC provisioning because, as the FCC notes, even carriers in Chapter 11 bankruptcy protection "are often still providing service." The FCC's proscriptions would rule out open-ended requirements such as Dr. Bryant's proposal and the similar arguments made by Mr. Gillan (p. 8) and Dr. Staihr (p. 40). Dr. Bryant's attempt to bootstrap an additional rule is undermined, not supported, by the section of the *TRO* that he identifies and his proposal should be rejected as being inconsistent with the FCC's desire for a bright-line test that is designed to reduce administrative delay.

Q. SHOULD THIS COMMISSION CONSIDER ANY OF THESE ARGUMENTS?

A. No. These arguments do not represent genuine proposals. Rather, they are assertions of vague and unspecified steps that would compromise the bright-line test that the FCC requires. In creating the triggers tests, the FCC concluded that the thresholds that it created are "based on our agency expertise, our interpretation of the record, and our desire to provide bright-line rules to guide the state commission in implementing section 251." (*TRO* ¶

498) The FCC declined to create ambiguous thresholds that would result in implementation issues and administrative delay.

Q. MR. GILLAN AND DR. STAIHR CONTEND THAT, IN CONDUCTING A TRIGGERS ANALYSIS, THERE IS A DIFFERENCE BETWEEN AN "ENTERPRISE SWITCH" AND A "MASS MARKET SWITCH". (GILLAN DIRECT PP. 37-39; STAIHR DIRECT PP. 12-13). CAN YOU RESPOND TO THAT?

A. Certainly. This contention is simply a distraction that the Commission should reject. The actual rules refer only to "local switches" (for the self-provisioning trigger) and "switches" (for the wholesale trigger). There is no distinction between a so-called "enterprise" and "mass market" switch, despite Mr. Gillan and Dr. Staihr suggestions to the contrary.

The text of the *TRO* is consistent with the rules – in the triggers analysis portion of the text, the FCC does not make any distinction between or require that a particular switch be dedicated solely to providing enterprise or mass market switching. Contrary to these witnesses' contentions, the language of the *TRO* clearly contemplates that carriers will use a single switch or switches to serve *both* enterprise *markets* and mass *markets.* This language is reflected in the paragraphs Mr. Gillan relies upon in his testimony,

specifically, at ¶ 441 the FCC states:

> For example, in order to enable a switch serving large enterprise customers to serve mass market customers, competitive LECs *may* need to purchase additional analog equipment, acquire additional collocation space, and purchase additional cabling and power. (Emphasis added).

Likewise, at ¶ 508:

> We determine that to the extent that there are two wholesale providers or three self-provisioners of switching serving the voice *enterprise* market, and the state commission determines that these providers are operationally and economically capable of serving the *mass* market, this evidence must be given substantial weight by the state commissions in evaluating impairment in the mass market. We find that the existence of serving customers in the *enterprise* market to be a significant indicator of the possibility of serving the mass market because of the demonstrated scale and scope economies of serving numerous customers in a wire center using a single switch. (Emphasis in original.)

Clearly, the FCC expects carriers to use a single switch to serve customers in both the enterprise and mass markets. While the FCC has precluded the use of switches that serve *only* the enterprise market from qualifying for the triggers analysis, it is ludicrous to exclude as triggers candidates switches that serve *both* markets, which is the ultimate outcome of a competitive market. It would

be equally absurd to engage in some type of capacity counting exercise, as witness Staihr suggests, and try to allocate switch capacity between various markets. The rules require only that the switches used to meet the triggers analysis are serving either mass market customers or DS0 capacity loops and any attempt to create additional requirements where none exist should be rejected by this Commission.

BELLSOUTH'S HOT CUT PROCESS

Q. PLEASE ADDRESS MR. STAHLY'S COMMENTS ON PAGES 42-43, CONCERNING BELLSOUTH'S PRICES FOR CONVERTING UNE-P SERVICE TO UNE-L SERVICE.

A. Mr. Stahly says BellSouth's nonrecurring charge to convert UNE-P service to UNE-L is "exorbitant" and estimates that the charge is 20 times more than the actual cost to BellSouth. Like some other witnesses in this case, Mr. Stahly wants this Commission to believe that a conversion to UNE-L is as inexpensive as the conversion from BellSouth's retail service to UNE-P. Had this been the case, however, the Commission would have set the UNE-L nonrecurring charges in Docket No. 990649A-TP at the same level as the price to convert retail services to UNE-P. Instead, the Commission recognized the physical activity associated with provisioning a UNE-L to a CLEC's collocation space and set a rate based on the cost of that activity. As Mr. Stahly correctly points out, that rate is $49.57 for the first loop and $22.83 for each additional loop on the same order. However, what Mr. Stahly regards as

a further increase of the rate to $51.09, citing a May 21, 2003 letter from BellSouth simply reflects the inclusion of the $1.52 electronic service ordering charge approved by this Commission.

Mr. Stahly argues that such a nonrecurring rate is not contained in Supra's interconnection agreement with BellSouth. He is incorrect. The applicable rates for either installing a new UNE-L or converting retail service or UNE-P service to UNE-L are the rates approved by this Commission in the UNE Cost Docket (990649A-TP) and are set forth in the parties' interconnection agreement. Moreover, although Supra was a party to the UNE Cost Docket, Supra did not dispute the Commission's determination of cost-based rates in that docket including the nonrecurring charges of $49.57 and $22.83 for installation of first and additional UNE-L service in Florida. Finally, Supra has made an identical claim at the FCC and thus should be barred from raising it here.

Q. THE CLECS CITE TO THE FCC'S CONCLUSIONS ON THE HOT CUT PROCESS AS EVIDENCE THAT BELLSOUTH'S HOT CUT PROCESS IS FLAWED. IS THIS VALID?

A. No. The FCC's reasoning on hot cuts in the *TRO* is flawed. The FCC ignored specific data, the same data upon which it relied in its 271 decisions, in favor of vague, unreliable and out-of-date information. For example, the *TRO* credited an AT&T assertion that, several years ago, it lost customers in several states, including Texas and New York, because of hot cut difficulties.

Conversely, the FCC rejected nearly identical claims made by AT&T when it granted long-distance authority to Verizon and SBC in each of these states. Since that time, the FCC has considered hot cut issues in all other 271 proceedings and has reached the same conclusion; that RBOCs are meeting their 271 obligations. Thus, the FCC has granted their applications. However, the FCC's analysis on this issue in the *TRO* was woefully inadequate, and its conclusion that *all* RBOC hot cut processes are flawed should not be relied upon by this Commission.

Q. AT&T WITNESS VAN DE WATER, AT PAGE 61, MCI WITNESS WEBBER, AT PAGE 7, AND MCI WITNESS LICHTENBERG, AT PAGES 19-21, SUGGEST THAT THE HOT CUT PROCESS SHOULD MIRROR THE SEAMLESS NATURE OF UNE-P MIGRATIONS AND PIC CHANGES. DO YOU AGREE?

A. Absolutely not. To implement the scenario the CLECs advocate would require as much as an $8 billion region-wide investment on BellSouth's part. Neither BellSouth nor any other RBOC can accomplish electronic loop provisioning ("ELP") today with existing network architectures. Rather than discussing the hot cut process applicable to the network that exists today, the CLECs are talking about a process that might only be possible in an entirely new network. BellSouth witness Gary Tennyson discusses the impact of the CLEC position in detail.

Q. MS. LICHTENBERG ALLEGES (PAGE 16) THAT THE FCC "RECOGNIZED" THAT HOT CUTS MUST BE "AS SEAMLESS AND TROUBLE-FREE AS THEY ARE WITH LONG-DISTANCE AND UNE-P." IS SHE RIGHT?

A. No. In fact, the FCC found exactly the opposite when it flatly rejected AT&T's ELP proposal. The FCC declared that to make the necessary system changes called for by AT&T's ELP proposal "would require significant and costly upgrades to the existing local network at both the remote terminal and central office. AT&T's ELP proposal proposes to 'packetize' the entire public switched telephone network for both voice and data traffic, at a cost one party estimates to be more than $100 billion. Incumbent LECs state that AT&T's proposal would entail a fundamental change in the manner in which local switches are provided and would require dramatic and extensive alterations to the overall architecture of every incumbent LEC local telephone network. Given our conclusion above, we decline to require ELP at this time..." (*TRO* ¶ 491). This Commission should give ELP no more consideration than did the FCC.

Q. MR. VAN DE WATER CONTENDS (AT PAGE 18) THAT THE RATE FOR HOT CUTS SHOULD BE BASED ON ELECTRONIC LOOP PROVISIONING. DO YOU AGREE? DID THE FCC AGREE?

A. No, I do not agree and neither did the FCC. As stated above, the FCC flatly rejected AT&T's ELP proposal. The FCC directed state commissions to

approve a batch cut process which it expects will be lower in cost than single hot cut rates. BellSouth has developed such an offering. Mr. Van de Water compares the rate BellSouth charges for PIC changes and UNE-P changes to the rate for hot cuts. As noted above, such a comparison is inappropriate. The cost incurred for PIC changes and UNE-P migrations are different than the cost incurred to perform a hot cut of a UNE-L because the UNE-L hot cut requires physical work. The Commission already has considered these facts and established TELRIC hot cut rates.

Q. MR. STAHLY STATES (PAGE 39) THAT "BELLSOUTH HAS PROPOSED A RATE OF MORE THAN $50.00 TO SUPRA FOR A SINGLE CUT OVER. WHILE I DO NOT OFFER A SPECIFIC PRICE POINT AT THIS TIME, I SUSPECT THAT THE ACTUAL COST IS LESS THAN 5% OF BELLSOUTH'S ACTUAL CHARGE." PLEASE RESPOND.

A. First, if Mr. Stahly is not proposing a specific price point "at this time," I wonder at what time Mr. Stahly will introduce such a proposal. Second, a 95% reduction would result in a per hot cut charge of $5.00. Mr. Stahly offers no process, no work times, no salary or wage calculations, no overhead determinations, or anything else for that matter that might substantiate such a rate.

Q. MR. WEBBER STATES (PAGE 25) THAT ONE OF THE REASONS ILECS ARGUE AGAINST THE IMPLEMENTATION OF AN AUTOMATED

MIGRATION SYSTEM IS TO PRECLUDE THE GROWTH OF UNE-L. DO YOU AGREE WITH HIS ASSESSMENT?

A. No, I do not agree. The creation of an automated UNE-L migration system would be cost prohibitive for all carriers involved in interconnecting to the network. Such a change would be a fundamental change in how the telephone network processes information. The FCC recognized this when they rejected AT&T's ELP proposal. Mr. Webber's argument that "the largest hindrance with respect to these automated systems is one of incentive, not of technology" is absolutely incorrect. As BellSouth witness Gary Tennyson describes, moving to an automated system, one that is not in place today, would cost billions of dollars to develop and would require deployment of equipment that in many cases does not ever exist at commercially viable levels.

Q. ON PAGES 41-42, MR. TURNER ALLEGES THAT BELLSOUTH'S FLORIDA HOT CUT CHARGES CONSTITUTE AN ECONOMIC IMPAIRMENT TO UNE-L. ARE BELLSOUTH'S HOT CUT CHARGES TELRIC-COMPLIANT AND COMMISSION-APPROVED?

A. Yes. This Commission approved the non-recurring charges for the elements necessary for hot cuts in its UNE Cost Docket (Docket No. 990649).[2] When the Commission released its order approving BellSouth's UNE rates (Order No. PSC-01-1181-FOF-TP), AT&T had the opportunity to raise its concern

[2] The elements included in a hot cut are the type of loop (i.e., SL1, SL2, UCL), order coordination, electronic service order, and cross connects.

that nonrecurring charges constituted an economic impairment. While AT&T did file a Motion for Reconsideration, there was no mention of a concern relating to nonrecurring charges for UNE-Ls. Raising the argument now, as AT&T and others have attempted to do, constitutes an untimely request for the Commission to reconsider the rates they approved two years ago.

OTHER ISSUES

Q. MR. WEBBER, ON PAGE 59 OF HIS TESTIMONY, TRIES TO LINK THIS COMMISSION'S DECISION ON SWITCHING WITH THIS COMMISSION'S DECISION ON TRANSPORT. IS THAT APPROPRIATE?

A. Absolutely not. This Commission has established a separate proceeding (Docket No. 030852-TP) to determine impairment issues relating to UNE Transport. Any issues that Mr. Webber wants to raise relating to UNE Transport should be addressed in that proceeding, not this one.

Q. ON PAGE 44, MS. LICHTENBERG ARGUES THAT MCI IS ENTITLED TO A "DUMP" OF THE ILEC DATABASES. HASN'T THIS ISSUE ALREADY BEEN RAISED AND REJECTED?

A. Yes. In Docket No. 000649-TP, MCI raised this same issue during its arbitration with BellSouth. In Order No. PSC-01-0824-FOF-TP, this Commission determined that "BellSouth currently meets its obligation to

provide unbundled access to its calling name ("CNAM") database. WorldCom has not demonstrated that it would be impaired if it did not have physical custody of BellSouth's CNAM database. Accordingly, we find that BellSouth is not required to provide WorldCom the calling name database via electronic download, magnetic tape, or via similar convenient media.

Q. ON PAGE 16 OF HIS TESTIMONY, MR. STAHLY STATES "USING UNE-P OVER THE PAST TWO YEARS, SUPRA HAS BEEN ABLE TO SAVE FLORIDA'S RESIDENTIAL TELEPHONE USERS CLOSE TO $100 MILLION DOLLARS." DO YOUR AGREE WITH MR. STAHLY'S STATEMENT?

A. While I have no reason to dispute Mr. Stahly's statement, I must take issue with the circumstances that enabled Supra to offer lower prices to its retail customers. When a company refuses to pay portions of its suppliers' bills it can naturally afford to offer service to its retail customer at lower prices. As long as Supra did not pay BellSouth for the services it obtained pursuant its Interconnection Agreement, Supra was able to pass those "savings" along to its end users. However, once the Federal judge handling Supra's bankruptcy proceeding ordered Supra to make weekly payments to BellSouth for those services BellSouth provided after Supra's voluntary bankruptcy filing, Supra almost immediately raised the prices it charges its customers. See Supra's "Notice to Customers" posted on its website shortly before year-end 2002 regarding rate increases effective January 1, 2003. I have attached a copy of Supra's website notice to my testimony as Exhibit JAR-4.

Q. ON PAGE 16 OF HIS TESTIMONY, MR. STAHLY GOES ON TO STATE "BELLSOUTH FURTHER ADDS INSULT TO INJURY BY OFFERING LARGE DISCOUNTS AND CASH BACK OFFERS, WHICH NO CLEC CAN MATCH, AND WHICH UNDERCUT THE DISCOUNTS AND CASH BACK OFFERINGS CLECs CAN OFFER." DO YOU AGREE WITH MR. STAHLY'S STATEMENT?

A. Of course not. As this Commission is aware, BellSouth must notify CLECs in advance of any special promotions BellSouth will offer. That notification allows CLECs to match or beat BellSouth's offer in the marketplace. More importantly, Mr. Stahly once again offers not even one example to support his view that CLECs cannot match BellSouth's retail offers.

Q. ON PAGE 2 OF HIS TESTIMONY, MR. STAHLY STATES "BELLSOUTH SUCCESSFULLY RAN ADS OVER THE LAST TWO YEARS DISPARAGING CLECs AS COMPANIES WITH UNRELIABLE NETWORKS. TO WHAT ADVERTISEMENTS IS MR. STAHLY REFERRING?

A. I don't know and he doesn't say. As with so much of his testimony, Mr. Stahly is long on hyperbole and short on facts. BellSouth's policy is to not disparage its CLEC customers and its advertisements follow that policy.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

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BELLSOUTH TELECOMMUNICATIONS, INC.

SURREBUTTAL TESTIMONY OF JOHN A. RUSCILLI

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 030851-TP

JANUARY 28, 2004

Q. PLEASE STATE YOUR NAME, YOUR POSITION WITH BELLSOUTH TELECOMMUNICATIONS, INC. ("BELLSOUTH") AND YOUR BUSINESS ADDRESS.

A. My name is John A. Ruscilli. I am employed by BellSouth as Senior Director – Policy Implementation and Regulatory Compliance for the nine-state BellSouth region. My business address is 675 West Peachtree Street, Atlanta, Georgia 30375.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

A. Yes, I filed direct testimony and three exhibits on December 4, 2003 and rebuttal testimony and one exhibit on January 7, 2004.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY AND HOW HAVE YOU ORGANIZED IT?

A. My surrebuttal testimony addresses numerous comments contained in the rebuttal testimony filed by other witnesses in this proceeding on January 7, 2004.

In the first section of my testimony, I make some general observations regarding the rebuttal testimony filed in this proceeding. I then walk through each step of the investigation that the Federal Communications Commission ("FCC") asked the state commissions to undertake to determine whether CLECs are impaired without unbundled local switching – namely, in this proceeding established by the Florida Public Service Commission ("Commission"), to determine the definition of the geographical market and the mass market/enterprise crossover (Issues 1 and 2), the application of the triggers and potential deployment tests (Issues 4 and 5), and the approval of a batch cut process (Issue 3) – and discuss the remarks of other witnesses who have filed rebuttal testimony relevant to each issue. I highlight areas of agreement and summarize rationales for BellSouth's positions where disagreement exists. More detailed arguments can be found in the testimonies of other BellSouth witnesses, who I will refer to as appropriate. As no one has presented meaningful rebuttal of my original discussion of Issue 6, the transitional use of unbundled switching, I do not discuss this topic further here.

GENERAL OBSERVATIONS

Q. ARE YOU FAMILIAR WITH THE REMARKS OF OTHER WITNESSES WHO HAVE FILED REBUTTAL TO BELLSOUTH'S DIRECT TESTIMONY?

A. Yes. I have studied the testimonies of the numerous witnesses who have filed rebuttal testimony in this proceeding, including that on behalf of AT&T, the FCCA, FDN, MCI, Sprint, Supra, and the Citizens of the State of Florida.

Q. WHAT IS YOUR GENERAL IMPRESSION OF THE REBUTTAL TESTIMONY?

A. I would make three general observations. First, there seems to be a general tendency toward selective obfuscation. That is, although the FCC has left some issues to the interpretation of this Commission, there are other issues – such as the application of the triggers tests or the type of CLEC to be modeled in the potential deployment test – on which the *TRO* is crystal clear. Although one would expect there to be legitimate differences of opinion where interpretation is required, I find an unfortunate tendency to cloud issues where clarity has been provided by the FCC. As I will discuss below, Drs. Staihr, Johnson and Bryant and Messrs. Gillan and Bradbury are all particularly prone to this, creating unnecessary complication where none is required, presumably because they do not like the clear direction given by the *TRO*.

Second, there seems to be substantial disagreement amongst the parties attacking BellSouth's positions: some find BellSouth's suggested market definition too small, others find it too large; some find the BACE model too sensitive to inputs, others too insensitive; some claim that BellSouth has counted the wrong trigger candidates, but then admit in other forums (notably the current appeal from the FCC's TRO order pending in the courts) that these companies (the cable companies) can be counted. To me, this lack of consensus supports my conviction that in areas where judgments need to be made, and where legitimate differences

of opinion are therefore to be expected, BellSouth has proposed reasonable middle-ground positions that this Commission can feel comfortable adopting.

Finally, there are several witnesses (e.g., Messrs. Wood and Gillan) who seek to downplay the responsibility that this Commission has to determine where impairment exists and where it does not. They imply that the *TRO*'s presumption of impairment for mass-market switching based on aggregate, nationwide data shuts the door to a finding of non-impairment based on data reflecting local market conditions. In fact, nothing could be farther from the truth. The whole point of devolving responsibility to the states is so that commissions such as this one can use their knowledge to conduct the granular decision making that an important issue such as this deserves. Indeed, as the FCC itself explained in their brief to the DC Circuit Court of Appeals: "In making certain national findings of impairment, the Commission also recognized that the record before it was not sufficiently detailed to support the nuanced decisionmaking that *USTA* required. To address those situations – involving, for example, local circuit switching, high capacity local loops, and dedicated transport – the Commission enlisted state commissions to gather and evaluate information relevant to impairment in their states. These very specific delegations were reasonably designed to ensure accurate and nuanced analyses of impairment on a market-specific basis." (Brief for Respondent at 21, *USTA v. FCC,* Case No. 00-1012 (DC Cir).) (Emphasis added). Therefore, if one believes what the FCC has said, to suggest all this Commission has to do is apply nationwide CLEC market share to local markets (Gillan, pp.21-22) or that the potential deployment test is essentially irrelevant (Wood, pp. 6-7) is clearly incorrect.

ISSUES 1 AND 2: MARKET DEFINITION

Q. WHAT IS BELLSOUTH'S POSITION WITH REGARD TO THE DEFINITION OF THE GEOGRAPHICAL MARKET THAT SHOULD BE USED TO EVALUATE IMPAIRMENT?

A. BellSouth has proposed the use of UNE rate zones that this Commission has defined previously, subdivided into component economic areas ("CEAs") as defined by the Bureau of Economic Analysis, U.S. Department of Commerce. As described in the direct, rebuttal, and surrebuttal testimonies of Dr. Christopher Pleatsikas, this definition satisfies the multiple criteria laid out in the *TRO* and results in economically meaningful "markets" in which to consider impairment.

Q. WHAT HAVE OTHER WITNESSES SUGGESTED IN THEIR REBUTTAL TESTIMONY FOR THE GEOGRAPHICAL MARKET DEFINITION?

A. Mr. Gillan on behalf of the FCCA recommends that the entire service footprint, or else the LATA, should be considered a market. Notwithstanding his client's membership in the FCCA, on whose behalf Mr. Gillan testifies, Dr. Bryant, on behalf of MCI, suggests that each individual customer represents the appropriate economic market, although he concedes that a wire-center definition would be administratively simpler. Dr. Staihr suggests MSAs combined with RSAs, Mr. Nilson mentions retail rate centers, although he finally recommends wire centers, and Dr. Johnson, on behalf of the Citizens of the State of Florida, recommends *ad*

hoc aggregations of wire centers that have "reasonably homogeneous [demand] characteristics". Although Mr. Bradbury is keen to defend wire centers as the geographical unit of competition (pp. 22-23), another witness for AT&T has suggested LATAs as the appropriate market definition in discovery. (AT&T Response to Interrogatory No. 156.)

Q. HOW WOULD YOU CHARACTERIZE THESE ALTERNATIVE POSITIONS?

A. Geographical market definition is one of those issues that supports my general observation above: while Mr. Gillan and AT&T find BellSouth's market definition is too small, Messrs. Bryant, Staihr, and Nilson find it is too large, and as Dr. Pleatsikas describes, Dr Johnson's suggestion is logically impossible to implement, which to me suggests BellSouth's proposal may actually be just right.

Furthermore, it is interesting that the parties not only contradict each other, but also appear to be contradicting themselves: MCI is arguing for a larger market definition through the FCCA's witness Mr. Gillan and a smaller definition through its own witness, Dr. Bryant; AT&T is suggesting a LATA in discovery (AT&T Response to Interrogatory No. 156), while its witness, Mr. Bradbury, emphasizes that this Commission "must assure itself that UNE-L competition will exist in every wirecenter." Both MCI and AT&T have previously argued against too small a geographical market definition because their switches can provide service to a comparable area as BellSouth's tandem switches (see Ruscilli Rebuttal, p. 15), even though both are now defending individual wire centers as the unit of meaningful competition (Bradbury, pp. 22-23, Bryant p. 43-51).

Q. WHAT SHOULD THE COMMISSION DECIDE IN THE FACE OF THESE COMPETING ALTERNATIVES?

A. It is hardly surprising that many alternative definitions of the geographical market have been propounded – this is an issue that has been left up to this Commission's judgment, and where, although I believe that UNE Zones cut by CEAs is the most logical definition, there is likely no "right answer." As Dr. Pleatsikas explains, however, there are two definite "wrong answers," both of which should obviously be avoided. The first would be to define the whole State of Florida as a market; the second would be to define every wire center within Florida as a market. Either of these approaches would run afoul of *TRO* ¶ 495 (the former is too big, the latter is too small). As long as the Commission steers between these two "icebergs," however, I believe its analysis will be reasonable.

Q. TURNING FROM THE GEOGRAPHICAL MARKET TO THE DEFINITION OF "MASS MARKET," WHAT IS THIS COMMISSION'S TASK?

A. The *TRO* (¶ 497) is quite clear on this point: "Some mass market customers (i.e., very small businesses) purchase multiple DS0s at a single location…Therefore as part of the economic and operational analysis discussed below, a state must determine the appropriate cut-off for multiline DS0 customers as part of its more granular review." The Commission's task is no more and no less than to set a number of DS0s below which a customer is classified as "mass market" and

above which it is classified as "enterprise" (and therefore no longer eligible for unbundled switching, per *TRO* ¶ 419).

Q. WHAT IS BELLSOUTH'S POSITION REGARDING THE APPROPRIATE CUTOFF?

A. As described in my direct Testimony (p.8), BellSouth has accepted the FCC default delineation that customers with three or fewer CLEC DS0 lines serving them should be deemed "mass market." This position has also been tentatively adopted by the Ohio PUC. (See *In the Matter of the Implementation of the Federal Communications Commission's Triennial Review Regarding Local Circuit Switching in the Mass Market,* Case No. 03-2040-TP-COI, *Entry*, dated October 2, 2003, p.5.)

Q. WHAT HAVE OTHER WITNESSES SUGGESTED IN THEIR REBUTTAL TESTIMONY FOR THE CUTOFF?

A. On this issue, there is a lot of smoke, but not much in the way of concrete suggestions. Mr. Gillan proposes a 12-line cutoff for BellSouth's territory, and an *ad hoc* definition for Verizon's territory (although why the crossover should vary by ILEC is not explained). Mr. Nilson variously suggests 6-8 lines (footnote 10, p. 14), 5-6 lines (p. 52) and 10-12 lines (p. 53). Mr. Johnson agrees that "the FCC adopted a cut-over of four lines" (p. 36) (contrary to Mr. Gillan, who claims that they didn't (p.17)) and correctly points out that the higher the cut-over is set, the more customers are included in the "mass market" category, and so the more

likely it is that no mass-market impairment will be found. However, he then goes on a somewhat bizarre tangent (pp. 38-47) in which – directly contradicting the *TRO* as quoted above – he suggests that the "mass market" should be further subdivided into "residential" and "small business" segments to which the triggers tests should be applied independently (p. 46), or as an alternative, the cutoff should be performed "on the basis of revenue per customer, or on the basis of gross profit margin per customer (revenues minus direct costs), rather than purely on the basis of the number of DS0 lines."

Q. WHAT SHOULD THE COMMISSION DECIDE IN THE FACE OF THESE COMPETING ALTERNATIVES?

A. Again, there is likely no "right" answer. Obviously, BellSouth believes its position is a reasonable one and comes closest to assuaging Mr. Johnson's concern that "no other party in this proceeding has recognized the importance of studying residential and small business customers separately," (p.38) by staying within the *TRO*'s mandate to include multiline DS0 customers while establishing an explicit cutoff. On the other hand, raising the cutoff, as Mr. Gillan suggests, only improves the chances of finding mass-market non-impairment, and so is not unappealing to BellSouth. The only thing that I would propose this Commission avoid is not following the clear guidance of the *TRO* and the FCC rule by failing to come up with a single, clear cutoff point between "mass market" and "enterprise" customer segments.

ISSUES 4 AND 5: THE TRIGGERS AND POTENTIAL DEPLOYMENT TESTS

Q. WHAT DO YOU MEAN BY THE "TRIGGERS AND POTENTIAL DEPLOYMENT TESTS"?

A. Having defined the geographical markets and the "mass market" cutoff, the *TRO* lays out a clear process by which this Commission should determine whether impairment exists for local switching. All witnesses in this proceeding agree that the Commission should examine each geographical market in turn, first applying the "triggers tests," which examine whether there is actual deployment of CLEC switching on either a retail or wholesale basis, and then – if neither of those tests are passed – the "potential deployment test," which weighs evidence of actual deployment, operational barriers, and economic barriers to determine whether self-provisioning of facilities is potentially economic, even if it has not yet occurred to the extent required to meet either of the triggers.

Q. LET US BEGIN WITH THE TRIGGERS TESTS. WHAT IS BELLSOUTH'S INTERPRETATION OF THESE TESTS?

A. Actually, very little interpretation is required. The *TRO* is crystal clear about the nature of these tests. Furthermore, BellSouth is not claiming that the wholesale facilities trigger is met in any market at this time, which simplifies matters because it means that this Commission only has to consider the self-provisioning trigger. As it is easy to get lost in the lengthy, seemingly plausible, but in fact

mostly fictitious, "interpretations" of the trigger test presented by Drs. Staihr, Johnson and Bryant and Messrs. Gillan, Nilson and Bradbury in their rebuttal testimonies, let me quote *in its entirety* the FCC's rule describing this test: "Local switching self-provisioning trigger. To satisfy this trigger, a state commission must find that three or more competing providers not affiliated with each other or the incumbent LEC, including intermodal providers of service comparable in quality to that of the incumbent LEC, each are serving mass market customers in the particular market with the use of their own local switches." (47 C.F.R. § 51.319 (d)(2)(iii)(A).)

Although BellSouth would prefer the trigger to be met with the presence of one or two competing providers, the text is quite clear that three is the threshold. Similarly, although many witnesses would prefer the trigger to be met only if additional criteria – such as a *de minimis* threshold, or a requirement that every customer in the market be served, or that trigger candidates have to use ILEC loops and "mass market switches" (whatever those may be) are satisfied – the text is quite clear that none of these additional standards have been imposed.

Ms. Pam Tipton further elaborates on these fictional criteria in her testimony, and describes how, in contrast, BellSouth has simply applied the FCC's straightforward test to the markets that have been proposed. That is, in each market BellSouth has counted how many competing providers – through their own admission in discovery and BellSouth's internal data – are serving mass-market customers. In the markets where there are three or more competing providers, the trigger has been met, and this Commission should immediately find

non-impairment. In the markets where there are fewer than three competing providers, the trigger has not been met, and therefore, the Commission should continue their examination to see if the markets pass the potential deployment test.

Q. HOW HAS BELLSOUTH DEFINED "COMPETING PROVIDERS"?

A. BellSouth has been rather conservative in defining "competing providers." For example, despite the evidence in the *TRO* itself that "local services are widely available through CMRS providers" (¶ 230), that CMRS providers are sufficiently competitive with the incumbent LEC that they should qualify for UNEs (¶ 140), and that CMRS is "growing as a...replacement for *primary* fixed voice wireline service" (¶ 230), BellSouth chose not to challenge the FCC's statement that "at this time we do not expect state commissions to consider CMRS providers in their application of the triggers" (fn. 1549). Similarly, BellSouth did not include internet-based telephone providers, such as Vonage, as trigger candidates, although internet-based telephone providers and CMRS providers are clearly a growing presence and a direct and ubiquitous substitute for the incumbent LEC's voice service in Florida. (See Exhibit JAR-5.)

Eliminating these two categories of trigger candidates leaves only wireline CLECs as included as "competing providers." I should mention in passing that BellSouth has of course included cable companies as trigger candidates – this is contrary to the assertions of Mr. Nilson (pp. 36-38) and Mr. Bryant (pp.10-12), but more importantly is consistent with the *TRO* and with the CLECs own

position in their DC Circuit brief where they state that "the FCC acknowledged that its triggers may 'count' carriers like cable companies". (Brief of CLEC Petitioners and Intervenors, *USTA v. FCC,* Case No. 00-1012 (DC Cir), p. 37.)

Q. ON PAGE 39 OF HIS TESTIMONY, MR. NILSON SUGGESTS THAT FUTURE MERGER ACTIVITY THAT RESULTS IN A REDUCTION IN THE NUMBER OF LOCAL EXCHANGE CARRIERS IN A GIVEN MARKET WOULD REQUIRE THE COMMISSION TO REVISIT WHETHER THE TRIGGER HAD BEEN MET FOR THAT MARKET. DO YOU AGREE?

A. No. First, this point is well beyond the scope of this proceeding and outside of the issues presented. This point anticipates what will happen in the future, after the Commission has made a finding of "no impairment" in a market. However, even with this said, Mr. Nilson's point is simply wrong. The FCC has established the triggers as the proof that CLECs can serve mass market customers without unbundled switching. Once that proposition has been established by applying the triggers, it is established regardless of whether three CLECs continue indefinitely to provide service in that particular market. Subsequent merger activity has absolutely no impact on this finding once it has been made.

Q. WITH RESPECT TO THE "POTENTIAL DEPLOYMENT" TEST, HOW SHOULD THIS TEST BE APPLIED?

A. Although it is not quite as straightforward as the "bright-line" self-provisioning trigger test, the potential deployment test is also well described in the *TRO*. In

markets where neither of the triggers tests has been met, this Commission needs to examine three criteria: evidence of actual switching deployment, operational barriers (such as the availability of collocation space and cross-connects), and economic barriers. (47 C.F.R. § 51.319 (d)(2)(iii)(B)(1)-(3).) If, having weighed these criteria, the Commission decides that self-provisioning of local switching could be economic, then it should make a finding of non-impairment.

Q. HOW HAS BELLSOUTH APPLIED THIS TEST?

A. BellSouth has presented details regarding each of these three criteria: evidence of actual switching deployment is described in the direct testimony of Ms. Tipton; the lack of operational barriers is described in my direct testimony, pp.19-23, and the assessment of economic barriers is discussed in the direct testimony of Dr. Aron.

Q. WHAT HAVE OTHER WITNESSES SUGGESTED IN THEIR REBUTTAL TESTIMONY REGARDING THE POTENTIAL DEPLOYMENT TEST?

A. The focus of other witness's rebuttal testimony has been on BellSouth's assessment of the economic barriers. This assessment was based on the BACE model, a detailed business case for a UNE-L CLEC entering the Florida market. In sponsoring the BACE model, BellSouth has made an effort unparalleled by any other carrier in the country to provide the Commission with a tool to assess economic impairment in a way that meets the criteria laid out in the *TRO* (see for example *TRO* ¶ 485 and the direct testimony of Mr. James Stegeman, pp. 6-18).

Indeed, no other party has even attempted to claim that the models they originally presented in direct testimony are better suited to the task at hand. Unfortunately, instead of engaging in a constructive debate about the BACE model, the rebuttal testimonies of Drs. Staihr and Bryant and Messrs. Dickerson, Nilson, Webber, Bradbury and Wood by and large satisfy themselves with making unfounded attacks on the input parameters or superficial complaints about the structure of the model. The former group of complaints is comprehensively dealt with in the surrebuttal testimonies of Drs. Aron and Billingsley, who show that most of the issues are the results of definitional misunderstandings or attempts to substitute the months of documented research that the BellSouth witnesses have performed regarding variables such as churn, cost of capital, and selling, general and administrative ("SG&A") costs, with offhand assumptions. The latter group of complaints is handled in the surrebuttal testimonies of Messrs. Stegeman, Milner and Gray, who demonstrate that none of the witnesses appear to have made a good faith attempt to understand the model, with the result that many of their alleged critiques are inaccurate and mutually contradictory.

I would urge this Commission to make use of the powerful tool that is the BACE model. Contrary to the assertion of Mr. Wood that the potential deployment test is essentially irrelevant because the absence of self-deployment "should eliminate any question regarding the ability of CLECs to enter a market and successfully compete for mass market customers is impaired without access to UNE local circuit switching [sic]" (pp.6-7), the *TRO* lays out a detailed and thoughtful test for state commissions to apply where the triggers are not met. So long as UNE-P promotes artificial competition by distorting market prices and subsidizing

arbitrage players with no interest in making real investments in the state of Florida, this test may be consumers' only hope of benefiting from real, facilities-based competition and therefore deserves to be taken seriously.

ISSUE 3: BATCH CUTS

Q. ON PAGES 5-6 OF HIS TESTIMONY, MR. VAN DE WATER CLAIMS THAT THIS COMMISSION CAN NOT RELY ON ITS 271 FINDINGS WITH RESPECT TO THE HOT CUT PROCESS. HOW DO YOU RESPOND?

A. The FCC's decision not to rely on the objective hot cut performance data on which it relied in at least forty-nine 271 cases to find that ILECs provide nondiscriminatory access to loops is erroneous. This Commission should not make the same error. It would make no sense for this Commission to ignore its finding from a year ago that BellSouth has a 251/271-compliant hot cut process, and then today, find that the process is unacceptable.

Moreover, even if this Commission does not rely solely on its 271 holding, BellSouth's objective performance data should inform this Commission's decision far more than the CLEC's uncorroborated and anecdotal evidence that BellSouth's process "might not work." BellSouth's witnesses have presented a seamless and efficient batch hot cut process, and have presented performance data and a third party test that demonstrates its effectiveness. When weighed against the CLECs' speculative musings, BellSouth's case is far more compelling. There is no doubt that the Commission's findings in the 271 case should inform its

decision, but the Commission can, and should, adopt BellSouth's batch hot cut process based on the evidentiary record in this case.

Q. MR. VAN DE WATER (PAGES 27-28) AND MR. GALLAGHER (PAGE 14) CRITIZE BELLSOUTH FOR NOT FILING THE COST STUDY YOU MENTION IN YOUR TESTIMONY (RUSCILLI DIRECT, P. 18). IS A COST STUDY RELEVANT TO THIS PROCEEDING?

A. No. The cost study BellSouth conducted of the batch hot cut process was done using BellSouth's cost model with the inputs BellSouth contends are correct. The estimated costs for the batch hot cut process were less than the original filed costs for the standalone loop; however, they were still higher than the ordered loop rates set by this Commission because of the adjustments made by the Commission to the inputs. To account for the Commission's Order, BellSouth applied the same adjustments and discounts that the Commission applied to BellSouth's filed costs for the loop that established the individual hot cut rate to the estimated batch hot cut rates. This resulted in the proposed batch hot cut rate being approximately 10% below the ordered loop rate. The rate is driven, therefore, not by BellSouth's cost study so much as by the Commission's UNE Cost Order.

Q. MR. VAN DE WATER AND MR. NEPTUNE ARGUE THAT THE RATE BELLSOUTH IS PROPOSING IS TOO HIGH. PLEASE COMMENT.

A. As I discussed in my rebuttal testimony, the rate BellSouth is proposing for the batch hot cut process is a discount off the Commission-approved TELRIC-based

rates set forth by this Commission in the UNE Cost Proceeding, Docket No. 990649-TP, Order No. PSC-01-2051-FOF-TP. During the UNE Cost Proceeding, this Commission engaged in a thorough, detailed analysis of the evidence (from BellSouth and CLECs) regarding the proposed hot cut rates. At the conclusion of the proceeding, this Commission ordered the nonrecurring rates for hot cuts with modifications of certain inputs, as well as reductions to certain work times. As a result, the Commission's established rate was substantially lower than what BellSouth had proposed. Taking into consideration the already reduced hot cut rates, BellSouth's additional 10% discount for the batch hot cut process is a true cost-savings for CLECs.

Q. DID AT&T OR SUPRA PARTICIPATE IN THE UNE COST PROCEEDING?

A. AT&T did, Supra did not. However, AT&T never raised a concern about the proposed hot cut costs. Even after the UNE Cost Order had been issued, AT&T did not request the Commission to reconsider the rates established for hot cuts. Now, some 2 ½ years after the fact, AT&T is attempting to request a modification of the UNE Cost Order.

Q. MR. VAN DE WATER AND MR. NEPTUNE CONTINUE TO TRY AND COMPARE A RETAIL TO UNE-P MIGRATION TO A RETAIL TO UNE-L MIGRATION. IS SUCH A COMPARISON APPROPRIATE?

A. Absolutely not. As I explained in detail in my rebuttal testimony, the work required to migrate a CLEC's service from UNE-P to UNE-L is much more

involved than converting retail service to UNE-P. The Commission has recognized this fact in at least two ways. First, it established higher rates for hot cuts than for conversions to UNE-P, recognizing the different work effort in each. Second, it established different benchmarks and retail analogues for UNE-L performance measures than for UNE-P performance measures. The fact that UNE-L and UNE-P are different is no surprise to this Commission. Congress also recognized the difference between UNE-L and UNE-P – it is simply the difference between true facilities-based competition with the UNE-L and synthetic competition with the UNE-P. The question for the Commission is not whether UNE-P is the same as UNE-L, but rather whether an efficient CLEC can economically enter the market without access to unbundled switching. Because the answer to the second question, the correct question, is unequivocally "yes", the CLECs are trying to change the question.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

[#522525]

Errata for John A. Ruscilli Direct Testimony filed 12/4/2003
Docket No. 030851-TP

1. On page 9, line 14, change "thirteen" to "twelve."
2. On page 9, line 15, change "thirteen" to "twelve."
3. On page 10, line 9, change "ten" to "nine" and change "eighteen" to "nineteen."
4. On page 10, line 13, change "ten" to "nine."
5. On page 24, line 7, change "23" to "21."
6. On page 25, line 8, change "23" to "21."
7. Replace Exhibit JAR-1 with Revised Exhibit JAR-1.
8. Replace Exhibit JAR-2 with Revised Exhibit JAR-2
9. Replace Exhibit JAR-3 with Revised Exhibit JAR-3

Errata for
John A. Ruscilli Testimony
Filed in Florida Docket No. 030851-TP

Direct – filed 12/4/03

1. On page 4, line 18, insert the words "that are unaffiliated with each other or the ILEC" after the word "customers".

2. On page 4, line 20, insert the words "unaffiliated with each other or the ILEC" after the word CLECs.

3. On page 5, line 13, delete the word "approving" and insert "to approve and implement" before "such a batch process."

4. On page 5, line 22, change "phases" to "phrases"

5. On page 17, line 15, insert "In paragraph 423, the FCC ordered 'specifically, we ask the state commissions, within nine months of the effective date of this Order, to approve and implement a batch cut migration process – a seamless, low-cost process for transferring large volumes of mass market customers – or to issue detailed findings that a batch cut process is unnecessary in a particular market because incumbent LEC hot cut processes do not give rise to impairment in that market.' Further in paragraph 474, …"

6. On page 23, line 16, change "500" to "200".

Rebuttal – filed 1/7/04

1. On page 25, line 12, delete "40" and insert "20-21".

2. On page 32, line 18, delete "$5.00" and replace it with "$2.50".

3. On page 35, line 5, add an end quotation at the end of the line, reading "media.'"

Surrebuttal – filed 1/28/04

1. On page 6, line 25, insert "Direct" after "Bryant".

MS. MAYS: The next BellSouth witness will be Mr. James W. Stegeman. He has direct, surrebuttal and supplement -- I'm sorry. He has direct, supplemental direct, surrebuttal and supplemental testimony and an errata. We would ask that all of those be admitted, and we would ask that his exhibits be collectively identified as Exhibit 68.

CHAIRMAN BAEZ: Without objection, show the direct, supplemental direct, surrebuttal and supplemental testimony of Witness Stegeman, including errata, entered into the record as though read, and accompanying exhibits marked as Composite 68.

(Exhibit 68 marked for identification.)

DIRECT TESTIMONY OF JAMES W. STEGEMAN

ON BEHALF OF BELLSOUTH TELECOMMUNICATIONS, INC.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NUMBER 030851-TP

December 4, 2003

Section 1. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS AFFILIATION.

A. My name is James W. Stegeman. I am the President of CostQuest Associates, Inc. I am testifying on behalf of BellSouth Telecommunications ("BellSouth," "BST," or the "Company").

Q. PLEASE OUTLINE YOUR EXPERIENCE AND QUALIFICATIONS.

A. I have a Bachelors degree in Mathematics and Statistics and a Masters degree in Statistics from Miami University, Oxford, Ohio. Previously I was employed with Merrell Dow Research Institute, Cincinnati Bell Telephone, and INDETEC International. My work has included statistical evaluation of data, training, cost estimation, and financial analysis. I have developed systems and models to perform a variety of functions including the following: cost estimation; competitive assessment; product profitability; and budgeting.

Q. WHAT IS YOUR ROLE IN THIS PROCEEDING?

A. I led the design, development, and implementation of the BellSouth Analysis of Competitive Entry ("BACE") model that is being filed by BellSouth in this proceeding.

Q. WHAT IS YOUR EXPERIENCE WITH MODELS DESIGNED TO ESTIMATE THE PROFITABILITY/VIABILITY OF TELECOMMUNICATION PRODUCTS, MARKETS, AND FIRMS?

A. I was involved in the design, development, and implementation of numerous telecommunication profitability systems used throughout the world (systems in Hong Kong and the United States) including INDETEC's CPMS and ProfitMap systems. In fact, I just finished managing the design and implementation of a profitability model for a U.S. based fiber overbuild company that sells bundled video, data and voice services.

Q. DO YOU HAVE EXPERIENCE WITH MODELS DESIGNED TO ESTIMATE THE COSTS OF TELEPHONE SERVICE AND ITS COMPONENTS?

A. Yes. I designed, coded and implemented the BellSouth Telecommunication Loop Model (BSTLM©) that was used in UNE proceedings in eight of the nine of BST's states. I also developed the CostPro Loop model that is being used in a number of states in the U.S., and the Cost Proxy Model (CPM) currently in use in California. I assisted in the design, coding and implementation of the Benchmark Cost Proxy Model (BCPM). I designed the Universal Service Cost model adopted for use in Hong Kong and more recently the switching and transport portions of the universal service cost model used by the New

Zealand Commerce Commission. I led the development of the Australian Universal Service Cost model, and consulted on the development of similar costing models in Japan. I have also reviewed the HAI and HCPM models during their development.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. I describe the BellSouth Analysis of Competitive Entry (BACE) model (referred to as "BACE" or "the model"). This includes an overview of the model development, the basic approach employed in the model, the architecture, logic, and processing of the model, the data required, and the model's reporting capability. BellSouth witnesses Dr. Aron and Dr. Billingsley, discuss various inputs into the model, the assumed CLEC engineering used in the model and the model results. A copy of the model, which is provided via CD, accompanies my testimony.

Q. WHICH OF THE ISSUES IN THIS PROCEEDING DOES YOUR TESTIMONY ADDRESS?

A. My testimony addresses Issue 2, Market Definition. I specifically address subparts (b) and (c) of issue 2, which relate to the variation in factors affecting CLEC's ability to serve customers and CLECs' ability to target and serve specific markets profitably and efficiently using currently available technologies. My testimony also addresses Issue 5, Potential for Self-Provisioning of Local Switching. I address subparts (d) and (e) of Issue 5, which relate to potential economic barriers to CLEC entry and the markets in which CLECs can economically self-provision local switching.

Q. PLEASE DESCRIBE HOW YOUR TESTIMONY RELATES TO THE FOREGOING ISSUES.

A. My testimony focuses primarily on issues 2 (c) and 5 (e). At the conclusion of my testimony, I describe how the BACE model is also relevant to issues 2 (b) and 5 (d).

Q. BRIEFLY OUTLINE YOUR TESTIMONY.

A. The major sections of my testimony discuss the following topics:

1) Introduction.
2) BACE background. This includes a discussion of why the model was built, the nature of its development, and the fundamental approach employed by the model.
3) A discussion of how BACE is consistent with the FCC's TRO.
4) An overview of the model architecture, various processing steps, and a description of some of the advantages of BACE.
5) An overview of the BACE data requirements.
6) A discussion of price calculation in BACE.
7) A discussion of quantity calculation in BACE.
8) A discussion of revenue calculation in BACE.
9) A discussion of cost calculation in BACE, including optimization steps.
10) A discussion of tax calculation in BACE.
11) A discussion of the reports obtained from BACE.
12) A discussion of the tests performed on the BACE model.
13) A description of how BACE relates to issues 2 (b) and 5 (d).

For convenience, I have provided a list of acronyms used in this testimony as Exhibit JWS-1.

Section 2: BACKGROUND

Q. WHY WAS BACE BUILT?

A. In the proceedings leading up to the FCC's release of its Triennial Review Order (TRO) BellSouth recognized that there would be a need for an economic model to determine if and where Competitive Local Exchange Carriers (CLECs) would be impaired without access to BellSouth's unbundled switching. As a result, they commissioned CostQuest Associates to develop such a model.

Q. WHAT IS THE BASIC APPROACH TO THE CALCULATION OF IMPAIRMENT USED BY BACE?

A. BACE provides a framework to determine whether a CLEC can economically provide telecommunication-based service, without the ability to obtain unbundled switching from the Incumbent Local Exchange Carrier (ILEC). BACE provides the framework to estimate the revenues available to CLECs in a geographic market and the outlays, or costs, CLECs will incur when providing services in that geographic market. The present value of the CLEC costs are compared to the present value of the CLEC revenues for specific geographic markets to determine the Net Present Value (NPV) of CLEC entry for that market, using an appropriate network infrastructure. BellSouth witness Dr.

Debra Aron explains how a positive NPV for CLECs in the geographic market being studied indicates an absence of impairment in that market.

Q. HOW IS THE BACE MODEL DOCUMENTED?

A. BACE has two forms of documentation, a Users Guide and a Methodology Manual. The BACE Users Guide is designed to help the user install the software, examine and modify study assumptions and produce output reports. The BACE Methodology Manual discusses how BACE addresses applicable regulatory guidelines, follows standard economic and business practices and calculates the cash inflows and outflows necessary to determine NPV during the study horizon.

I have attached to my testimony the BACE Users Guide as Exhibit JWS - 2, and the BACE Model Methodology Manual as Exhibit JWS - 3.

Section 3: <u>BACE IS CONSISTENT WITH THE TRO</u>

Q. WHAT IS YOUR UNDERSTANDING OF THE ROLE OF AN ECONOMIC MODEL IN ANY DECISION REGARDING WHETHER CLECS ARE IMPAIRED WITHOUT ACCESS TO ILEC SWITCHING?

A. My understanding is that state commissions are charged with considering three tests for impairment due to lack of the switching UNE in mass markets. The first two tests are "triggers" that involve an analysis of the existing levels of actual competition in relevant markets. The third test is more complex and involves an analysis of the viability of

"potential deployment" where actual competition does not meet the "triggers" involved in the first two tests. In essence, the third test involves a determination of whether the absence of the switching UNE makes CLEC entry into a market uneconomic. As I understand this third test, an evaluation of any operational barriers to CLEC entry in the relevant geographic markets and an analysis of economic barriers must be made. BACE assists in the evaluation of whether there are any economic barriers to CLEC entry in a particular geographic market. All of these tests are discussed in the Triennial Review Order "TRO" (FCC 03-36, released August, 21, 2003).

Q. HOW DOES BACE RELATE TO THE TWO SWITCHING TRIGGERS IDENTIFIED BY THE FCC IN THE TRO?

A. BACE is not tied to the FCC's triggers tests. Instead, BACE is used in addressing the FCC's "potential deployment" analysis when examining a geographic market where the FCC's triggers do not lead to a required finding of no impairment. BACE allows the user to determine whether CLEC entry is uneconomic without access to the switching UNE, regardless of the triggers tests for impairment.

For ease of discussion, I will generally use the phrases impairment, or modeling impairment, to refer to the third test for impairment (for uneconomic CLEC entry) and not to the two triggers tests.

Q. DOES THE TRO PROVIDE GUIDANCE FOR STATE COMMISSIONS IN CONSIDERING UNECONOMIC ENTRY IN THE ABSENCE OF THE SWITCHING UNE FOR THE MASS MARKET?

A. Yes. While the TRO does not provide strict criteria, it does provide guidance in paragraphs 517-520. These paragraphs include the following headings: Evidence of Whether Entry is Economic (¶ 517); Potential Revenues (¶ 518); and Potential Costs (¶ 520). Other relevant language exists at paragraphs 472, 485, and 495.

Q. IN ORDER TO BE CONSISTENT WITH THE TRO, WHAT ARE THE MAJOR CHARACTERISTICS OF AN ECONOMIC MODEL TO BE USED TO EVALUATE CLEC ENTRY?

A. While I am not a lawyer and am not attempting to offer a legal opinion, my team has reviewed the order to understand what guidance the FCC has provided. Based on this reading, my familiarity with the FCC's past work involving modeling, and my familiarity with the requirements that the FCC has imposed on modeling over time, certain characteristics appear to be the basic building blocks that the FCC requires for an economic model that examines impairment. These characteristics are as follows: 1) The model must be capable of granular analysis; 2) the model must allow inputs consistent with an efficient CLEC business model and efficient CLEC network architecture; 3) the model must incorporate all likely CLEC revenues and costs; and 4) the model must perform a business case analysis using Net Present Value (NPV) calculations.

Q. WITH RESPECT TO THE FIRST CHARACTERISTIC OF A MODEL, GRANULARITY, WHAT GUIDANCE DOES THE TRO PROVIDE WITH RESPECT TO AN ANALYSIS OF IMPAIRMENT?

A. The TRO notes the importance of granular analysis at several points. For example at ¶ 472 the FCC said "[w]e find that technical shortcomings in each of these studies [those studies filed previously with the FCC] preclude us from relying on their results to evaluate impairment at the national level. These shortcomings include...(2) insufficient granularity in their analyses." (emphasis added). Also, at ¶ 485 the FCC stated "[a]ll of these studies...strongly support the need for a more granular analysis of impairment. We have insufficient evidence in the record, however, to conduct this granular analysis. Such an analysis would require complete information about UNE rates, retail rates, other revenue opportunities, wire center sizes, equipment costs, and other overhead and marketing costs. ... That market-specific data is needed is indicated by the significant variation in the costs and revenues an efficient entrant is likely to face. For example, costs appear to vary significantly among locations and types of customers." (emphasis added). Likewise, at ¶ 99 the FCC noted "[w]e will also give consideration to cost studies, business case analyses, and modeling if they provide evidence at a granular level concerning the ability of competitors to economically serve the market without the UNE in question." (emphasis added).

Finally, at ¶ 495 the FCC stated "[r]ather, state commissions must define each market on a granular level, and in doing so they must take into consideration the locations of customers actually being served (if any) by competitors, the variation in factors affecting competitors' ability to serve each group of customers, and competitors' ability to target

and serve specific markets economically and efficiently using currently available technologies." (emphasis added).

Q. CONCERNING THE SECOND CHARACTERISTIC OF A MODEL, WHAT GUIDANCE DOES THE TRO PROVIDE WITH RESPECT TO AN EFFICIENT CLEC BUSINESS MODEL AND AN EFFICIENT CLEC NETWORK ARCHITECTURE?

A. At ¶ 517, the FCC found that "[s]pecifically, state commissions must determine whether entry is likely to be economic utilizing the most efficient network architecture available to an entrant. … The analysis must be based on the most efficient business model for entry rather than to any particular carrier's business model." (emphasis added). At footnote 1579, the FCC said: "State Commissions should determine if entry is economic by conducting a business case analysis for an efficient entrant." (emphasis added). Moreover at ¶ 495 the FCC said: " … competitors' ability to targetand serve specific markets economically and efficiently using currently available technologies." (emphasis added).

Q. TURNING TO THE THIRD CHARACTERISTIC OF A MODEL, WHAT GUIDANCE DOES THE TRO PROVIDE WITH RESPECT TO INCORPORATING ALL LIKELY CLEC COSTS AND REVENUES?

A. The TRO provides at ¶ 517 that "[i]n considering whether a competing carrier could economically serve the market without access to the incumbent's switch, the state

commission must also consider the likely revenues and costs associated with local wire center mass market service, as detailed below." (emphasis added). Thereafter, at footnote 1581, the TRO provides "[u]nlike in the *UNE Remand Order*, we do not intend that the availability of any UNE at state established wholesale (TELRIC) rates could by itself constitute impairment without considering all costs and revenues in a business case analysis." (emphasis added).

Also, the Final Rules, set forth in Appendix B, CFR § 51.319(d)(2)(iii)(B)(3), states "[s]pecifically, the state commission shall examine whether the costs of migrating incumbent LEC loops to requesting telecommunications carriers' switches or the costs of backhauling voice circuits to requesting telecommunications carriers' switches from the end offices serving their end users render entry uneconomic for requesting telecommunications carriers." (emphasis added).

Q. DOES THE TRO PROVIDE ADDITIONAL DETAIL WITH RESPECT TO INCORPORATING ALL LIKELY CLEC REVENUES?

A. Yes. At ¶ 519 the TRO states "... [i]n determining the likely revenues available to a competing carrier in a given market, the state commission must consider *all* revenues that will derive from service to the mass market, based on the most efficient business model for entry. These potential revenues include those associated with providing voice services, including (but not restricted to) the basic retail price charged to the customer, the sale of vertical features, universal service payments, access charges, subscriber line charges, and, if any, toll revenues. The state must also consider the revenues a competitor

is likely to obtain from using its facilities for providing data and long distance services and from serving business customers." (italics in the original, underline added).

Q. DOES THE TRO PROVIDE ADDITIONAL DETAIL WITH RESPECT TO INCORPORATING ALL LIKELY CLEC COSTS?

A. Yes. At ¶ 520 the TRO provides under the heading, *Potential Cost*s, that "[s]imilarly, the state must consider all factors affecting the costs faced by a competitor providing local wire center service to the mass market. If the state commission determines that a UNE-L strategy is the most efficient means of serving the customer, these costs would likely include (among others): the cost of purchasing and installing a switch; the recurring and non-recurring charges paid to the incumbent LEC for loops, collocations, transport, hot cuts, OSS, signaling, and other services and equipment necessary to access the loop; the cost of collocation and equipment necessary to serve local wire center customers in a wire center, taking into consideration an entrant's likely market share, the scale economies inherent to serving a wire center, and the line density of the wire center; the cost of backhauling the local traffic to the competitor's switch; other costs associated with transferring the customer's service over to the competitor; the impact of churn on the cost of customer acquisitions; the cost of maintenance, operations, and other administrative activities; and the competitors' capital costs. State commissions should pay particular attention to the impact of migration and backhaul costs on competitors' ability to serve the market. ..."

Q. TURNING TO THE FOURTH AND FINAL CHARACTERISTIC OF A MODEL, WHAT GUIDANCE DOES THE TRO PROVIDE WITH RESPECT TO A BUSINESS CASE ANALYSIS?

A. The TRO uses the phrase "business case analysis[analyses]" at several points, including footnote 1579. This phrase was also used in citations in the preceding three questions and answers. Similarly, at footnote 1579, the TRO states "...[e]ven if interconnection and unbundling are performed as efficiently as is technically feasible, these costs must still be considered in our business case analysis to determine whether entry is uneconomic without access to a particular network element." (emphasis added).

Q. WHAT GUIDANCE DOES THE TRO PROVIDE WITH RESPECT TO THE USE OF NET PRESENT VALUE (NPV)?

A. At footnote 260, the following language is included: "... Stated in more technical terms, the condition [of a firm entering the market, and hence no-impairment] is whether the net present value of the expected economic profit is positive." (emphasis added).

Q. IS BACE'S APPROACH TO DETERMINING IMPAIRMENT CONSISTENT WITH THE TRO?

A. Yes. BACE was developed to determine whether CLEC entry is economic in the absence of the switching UNE. In creating BACE, BellSouth was keenly aware of the FCC's finding of prior modeling deficiencies and of the needs and requirements of an impairment model in meeting a state commission's need to implement the TRO.

Q. IS BACE GRANULAR IN ITS APPROACH?

A. Yes, BACE is very granular in its approach. The model allows the user to input complete information about UNE rates, retail rates and other revenue opportunities specific to each wire center. BACE allows variations in product offerings and prices across five customer segments (residential and four business segments) and by customer-spend categories within each customer segment. The model provides for bundles of product and service offerings and price discounts. In addition, BACE identifies the specific operational and capital cost requirements of the CLEC in rolling out its network. Finally, cost and revenue information is developed at the wire center level, thereby allowing the user to roll the results up to any geographic level. The current geographic levels of analysis possible include:

a. LATAs;

b. Wire centers;

c. MSAs (Metropolitan Statistical Areas), as defined in 1990 and used in the FCC's special access decision);

d. MCSAs (Micropolitan Statistical Areas), as defined in 2003 by the OMB in its definition of MSAs and MCSAs);

e. CEAs (Component Economic Area);

f. UNE Zones; and

g. Any combination of the above.

Q. DOES BACE ALLOW THE USER TO EMPLOY INPUTS AND CHOICES THAT ARE CONSISTENT WITH AN EFFICIENT CLEC BUSINESS MODEL AND EFFICIENT CLEC ARCHITECTURE?

A. Yes. BACE provides user adjustable toggles and user input choices that are consistent with an efficient CLEC business model and an efficient CLEC architecture. For example, the model allows for least-cost choices of architecture (e.g., EELs or collocation); concentrates traffic to take advantage of cost savings; determines whether DSL offerings are economic; and determines whether entry into a geographic market and/or LATA is efficient using a business case analysis approach.

For reasons of practicality, the user of the model cannot consider every possible network architecture, potential product offerings, or business plan approach that a CLEC might choose. However, the purpose of the model is to replicate the business plan and architecture of an efficient CLEC. The model was built to allow the user to enter markets selectively and control the major choices and architectures available to a CLEC.

Q. DOES BACE HAVE THE ABILITY TO REFLECT THE EFFICIENT USE OF CURRENTLY AVAILABLE TECHNOLOGIES?

A. Yes. In developing BACE, my team designed the platform to accommodate numerous potential network inputs to allow the user to deploy an efficient CLEC network architecture. In creating this model approach, I relied upon network specialists from BellSouth to provide a description of the specific network components required for a CLEC to provide the modeled services, using currently available technologies. This

includes both CLEC capital investments (e.g., cash outlays for switches) and the use of unbundled network elements and wholesale services/components. This assumed network architecture is described in more detail in the testimony of BellSouth witness Mr. Keith Milner.

Q. DOES BACE ALLOW THE USER TO CONSIDER ALL CLEC REVENUES AND COSTS?

A. BACE is designed to let the user capture all CLEC costs including those capital outlays for CLEC-owned investments and the major sources of CLEC revenues, including: local service; vertical features; voice mail; long distance and switched access, data services including Digital Subscriber Line (DSL); line maintenance; service connection/installation; directory assistance; and data services. I would note, however, that BACE does not consider video services, programming or other services that a CLEC may offer and which may generate an additional value for the CLEC. Also, to the extent that a CLEC might create some brand new service that might generate additional revenues, such revenues would not be included in the model, but such products and revenues should improve the CLEC's ability to enter a market even further. Nonetheless, the services that are currently modeled in BACE are likely to represent the great majority of the services that CLECs will offer and that have been outlined in the TRO.

Q. DOES BACE PROVIDE A PLATFORM FOR A BUSINESS CASE ANALYSIS OF THE CLEC ENTRY DECISION?

A. Yes. BACE was specifically designed to evaluate whether CLEC entry is economic for user-defined markets, using a business case analysis approach. The model considers prices, market penetrations, and costs by market segment, by geography and by year. The potential for bundling of services is considered, as are opportunities for CLECs to make rational choices about their footprint by not serving some geographic areas and choosing between service approaches (EELs or collocation).

Moreover, BACE uses a discounted cash flow approach in evaluating the cash outflows (costs) and cash inflows (revenues) over time. Tax liabilities are also estimated and the final cash flows are discounted to net present value. In addition to the NPV calculations, BACE also provides estimates of accounting net income and cash flow over time. In total, the model provides the framework to perform a reasonable business case analysis for evaluating a CLEC entry decision.

Q. HOW DOES BACE PERFORM NET PRESENT VALUE CALCULATIONS?

A. The Net Present Value of a stream of cash flows is the difference between the present value of the cash inflows and the present value of the cash outflows. In other words, $NPV=PV_{inflows}-PV_{outflows}$. The Present Value (PV) of a cash flow is today's value of a cash in-flow (or out-flow) received (or paid) at some time in the future. Present Value takes into account the effects of the time value of money (which is reflected in the interest rate or discount rate). Present Value is calculated by applying the discount rate to the cash flow. In other words, $PV=FutureValue/(1+i)^t$, where i is the annual interest rate

(discount rate) and t is the number of annual periods. BACE calculates the discount rate i from user adjustable inputs. The annual periods in BACE are based upon a mid-year convention. That is, any cash transaction (e.g., an expenditure) that occurs during each year is assumed to occur, for present value purposes, at the mid point of the company's fiscal year. The exception to this rule is that BACE assumes that all initial start-up costs are assumed to occur at time zero and therefore require no present value adjustment.

Section 4: OVERVIEW OF THE MODEL ARCHITECTURE, VARIOUS PROCESSING STEPS, AND A DESCRIPTION OF SOME OF THE ADVANTAGES OF BACE

Q. WHAT CLEC CHARACTERISTICS AND RELATED FACTORS DOES BACE TAKE INTO ACCOUNT?

A. The model accounts for the following CLEC characteristics and related factors:

CLEC Size – recognizing that there are different sizes of CLECs, the model accounts for the key implications of the CLEC's size (e.g., impact on purchasing power, cost implications of outsourcing certain functions, etc.).

Customers – the model accounts for how many customers in total reside in the relevant markets, how many customers the CLEC might expect to serve (i.e., the CLEC market share), and the types of customers the CLEC will attract (e.g., what types and sizes of customers, and what products and services will they buy). It also accounts for how much customers will pay and the level of customer churn that may be experienced.

Products – the model accounts for the typical products the CLEC might offer, how those products may be bundled, and the implications of bundling on prices and customer take rates.

Quantities – the model accounts for the quantities of products to be sold to those customers choosing CLEC service.

Pricing – the model develops initial prices using user inputs, initial CLEC price discounts and product price changes over time.

Network Costs – the model accounts for the network infrastructure requirements specific to the markets, customer profiles, and product portfolios being modeled and how those network requirements might be met (e.g., lease or own).

Operational Costs – the model accounts for the nature and level of CLEC operating costs allowing for effects due to the size of the modeled CLEC.

Trends – the model accounts for the changes that might be experienced over a ten-year period (e.g., customer buying behavior trends, pricing trends, and cost trends).

Optimization – the model allows the user to assume that the CLEC management team will use reasonable judgment and as such may decide not to serve unprofitable products and markets. The user can control the degree to which a CLEC could/would identify unprofitable sub-markets and avoid service in such sub-markets.

Sensitivity of Assumptions – the model allows the user to create scenarios and analyze the impact of assumptions upon the financial metrics of impairment. Within the components (and inputs) outlined above, the BACE model computes a) the CLEC market share achieved (i.e., percentage of products purchased by market segment, by territory), b) the resulting revenue (including the impact of product bundling), and c) the network and operational costs incurred in serving the market (considering the implications of CLEC size).

The model allows the inputs and assumptions to change over a ten-year period as the CLEC grows, costs change, and as anticipated price trends are realized. The results are presented in terms of the anticipated cash flows for the ten-year period and the associated net present value calculated from the user adjustable discount rate.

Q. WOULD YOU PLEASE PROVIDE A BASIC OVERVIEW OF THE MODEL AND ITS ARCHITECTURE?

A. Yes. First, BACE allows the user to identify which products and services the CLEC will choose to offer. Second, BACE develops a price for products or groups of products (bundles) for each customer segment. This is the task of the "P-Process" within the model. Third, after the price has been established, a quantity demanded for each service or group of services in each wire center must be calculated. I will generally refer to "demand" to mean the quantity demanded and actually sold. This is the task of the "Q-Process" within the model.

Fourth, knowing the Price (P) and Quantity Demanded (Q) of each service or group of services, BACE can derive the total Revenue (P*Q) by product, location, and customer segment (and customer-spend sub-segment). Calculating the Revenue is the task of the "R-Process." Knowing the Gross Revenue available to the firm represents the total cash inflow for the period.

Fifth, cash outflows are calculated in the Operations and Network Process ("ON-Process"). This process is dependent upon the outputs of the P, Q, and R processes. The O portion of the ON-Process derives those expenses that are operationally associated with the firm. For example Sales, General and Administrative (SG&A), is an operational expense. The N portion of the ON-Process derives those outflows necessary to create a network sufficient to handle the voice and data traffic identified in the Quantity Process. In other words, the cash expenditures involved with setting up, maintaining and growing the telecommunications network.

Sixth, six optimization routines provide the opportunity to drop negative NPV products and geographic areas (three of which can be toggled on/off by the user).

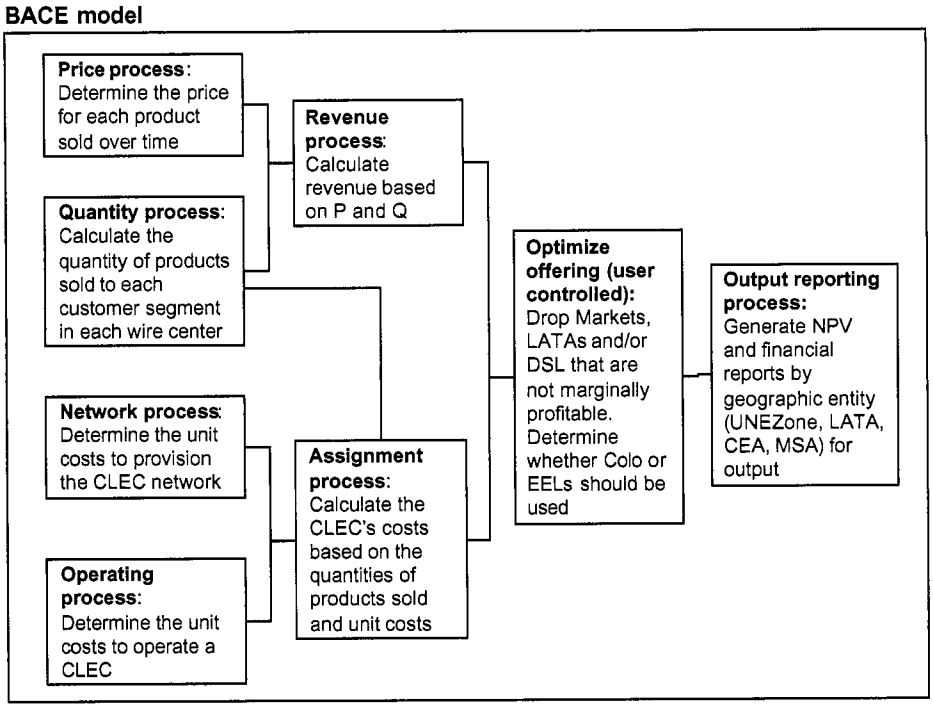
Seventh, income taxes are determined based on the year-by-year income and expenses of the modeled firm. These tax calculations allow for various treatment of tax losses and allow the user to input state-specific tax rates.

Eighth, output reports are generated reflecting NPV by geographic entity, and/or accounting-like net income statements.

Q. CAN YOU PLEASE PROVIDE A VISUAL REPRESENTATION OF THE MODEL ARCHETECTURE?

A. Yes, the table below provides a visual representation of the BACE architecture:

SIMPLIFIED PROCESS FLOW



Q. HOW IS USER INPUT AND PROCESSED OUTPUT DATA STORED AND UTILIZED IN BACE?

A. BACE retrieves and stores all input and output data in a consistent and logical format. Input and processed data are stored as a scenario database. Each scenario is a Microsoft Access database stored in a like-named folder within the scenario directory. Report data are stored in the same directory. Reports are created as either Microsoft Excel worksheet files or Excel compatible, comma separated variables (CSV) files.

Q. HOW DOES BACE ORGANIZE THE STUDY DATA?

A. BACE organizes study data in two ways: Scenarios and Inputs. A named collection of all Inputs used in a study is called a Scenario. The Scenario is the large-scale way of storing all study assumptions and inputs. Within a Scenario there are a series of tables used to manage individual inputs. Inputs are logically grouped and displayed within a table structure. Common tables are organized into groups. Data can be reviewed and managed manually or via a user-friendly wizard.

Q. IS THERE A HIERARCHY AMONG DATA COMPONENTS?

A. Yes, BACE uses four sets of hierarchies to drive cash flow calculations and reporting: location, customer, product, and cost. Hierarchies are necessary to allow the user to define, at a particular level, specifically how a cost or revenue is triggered (e.g., by line, minute, or initial provision of service in a LATA). The use of hierarchies allows cost and

revenue drivers to be set and output structured in a way as to make the cost and revenue implications of these actions clear and traceable to levels at which reporting will occur.

The location hierarchy is used to specify from broad levels of geography to narrow levels. The reason the location hierarchy is important is that certain costs are location specific, e.g., a switch placed in a LATA. The customer hierarchy allows the user to trigger certain costs or revenues based upon specific attributes of customer classes or segments. For example certain costs should be attributed a business customer (equipment to provide DS1 data service rather than DSL) but not a residential customer. The product hierarchy is similarly designed. It allows granular identification of products. And finally, the cost hierarchy is designed to let the user input a logical structure of the inputs that in turn flow to a logical structure in the reporting output.

Q. WHAT ARE SOME OF THE KEY ADVANTAGES OF BACE?

A. Many of the key advantages of BACE correspond to the characteristics that make BACE consistent with the FCC's TRO; BACE: 1) is granular in its analysis; 2) allows the user to provide inputs consistent with an efficient CLEC business model and architecture; 3) incorporates likely CLEC revenues and costs; and 4) performs a business case analysis using net present value.

Many of the other advantages of BACE are embodied in the abilities of the model that the user can decide to use (or not use) and the degree of control the user has over the inputs and the impairment analysis. The user can adjust, control, and consider (or not consider) the following factors (not an exhaustive list): 1) prices, 2) market penetration, 3) cost

levels, 4) cost drivers (i.e., how costs are assigned); 5) whether some forms of optimization will occur; 6) whether to use a wizard or perform calculations "manually" (i.e., without the wizard); 7) the types of reports generated; 8) consider NPV and/or accounting metrics; 9) trends in many of the factors above over time; and 10) size and scope of the CLECs operations.

Another advantage of BACE is that it uses a scenario structure to allow the user to bundle assumptions together into a scenario that identifies the inputs and outputs that correspond with one another. By maintaining a separate inputs database and reporting structure for each scenario, BACE simplifies what-if analysis and sensitivity tests.

Section 5: <u>OVERVIEW OF THE BACE DATA REQUIREMENTS.</u>

Q. WHAT TYPES OF DATA DOES BACE USE?

A. BACE uses five broad categories of data: 1) customer, 2) products and services, 3) price, 4) quantity, 5) CLEC properties; and 6) cost.

Q. WHAT CUSTOMER DATA IS USED BY BACE?

A. Total market (CLEC plus ILEC) customer data is required by wire center, by customer segment (residential and four business segments) and by customer spend level (high to low level groupings of customers). BACE imports an Wire center Demographic table that provides total customer population for each BellSouth wire center. BACE uses one residential segment and four business segments: 1) 1-3 line small office/home office

(SOHO in the model); 2) 4-8 lines small-sized business (SME/A in the model); 3) 9-23 line medium-sized business (SME/B in the model); and 4) 24+ line large-sized business (SME/C in the model). Each customer segment is further divided into categories based on the amount of customer spending. The residential segment is divided across the state into five spend categories (quintiles) with an equal number of customers in each. Each of the four business segments is divided across the state into three spend categories (high spend, medium spend, and low spend) with an equal number of customers in each. Since the expenditure categories are determined at the state level, each wire center will contain a unique profile and count of the customer segment /spend data.

Q. WHICH PRODUCTS AND SERVICES ARE INCLUDED IN BACE?

A. BACE allows for consideration of the following types of services: local access; customer calling features, long distance usage and switched access; Digital Subscriber Line (DSL); DS1 Internet access; line maintenance; service connection/installation; and directory assistance. The user has the ability to determine whether the CLEC sells a service and/or whether there is a non-zero, positive price for each service. As noted in Section 3 above, BACE represents the great majority of telecommunication services that are likely to be offered but not the absolute scope of services that might be offered (e.g., video is not included).

Q. WHAT PRICE DATA IS USED BY BACE?

A. BACE requires a baseline price file that contains the current market price for each of the products offered, by customer segments, by customer-spend categories. BACE uses six

main product classifications: 1) Long distance services; 2) voice mail; 3) switched access services (payments by long distance/inter-exchange carriers to terminate local calls to CLEC customers); 4) DSL (standard high-speed connection); 5) non-DSL business data service; and 6) Local (this includes local access, local usage, subscriber line charge (SLC), directory assistance (DA)/operator services, and customer calling features other than voice mail). BACE allows the user to include separate prices, quantities, and revenues for line maintenance if the user has the relevant values, including quantities, for this service.

BACE also recognize the current market trend of bundling by allowing the user to identify bundles of services, and prices (or price discounts) for the bundled offerings.

In addition, BACE allows the user to change each price in each year over the 10-year study period.

Q. WHAT QUANTITY DATA IS USED BY BACE?

A. "Quantity" is a term that BACE uses to refer the number of products or services demanded and actually sold, not the number of customers. BACE uses quantities by wire center, for each of the products offered, by customer segment, by customer-spend category. Note the user has the option to establish zero quantities for some segments (e.g., no sales of non-DSL data services to residential customers). BACE also allows for the quantities of products and services that are sold in bundles as well as those sold a-la-carte. In addition, quantities can change by year over the 10-year study period.

Q. WHAT CLEC GLOBAL PROPERTIES DATA IS USED BY BACE?

A. The "CLEC global properties data" inputs are those that define the characteristics of the CLEC and how it performs its business. These inputs consist of four basic types: 1) those that act as filters; 2) those that act as descriptors; 3) those whose value will have an impact on calculated values; and 4) those that are toggles for optimization.

Filter inputs tell BACE whether a value should be used or filtered out. An example of such a filter input is whether to include (or not) a terminal value for CLEC assets at the end of the 10-year study period. Descriptor data inputs are optional and can be used for documentation and informational purposes only. Many of the CLEC properties data inputs have values that are used in the calculations. These include: tax rates; equity percentage, pre-tax cost of capital, and scope of CLEC operations contained within the BellSouth service territory. And finally, toggles for optimization control how BACE optimizes the CLEC's business offerings within a state. This includes analyses of product offerings for the efficient operating footprint of the firm.

Section 6: <u>THE PRICE CALCULATIONS IN BACE.</u>

Q. CAN YOU DESCRIBE THE PRICE PROCESS (P-PROCESS)?

A. Yes. As noted above, the Price Process (P-Process) derives the market prices for each of the six main products and product bundles offered by the CLEC, by customer segment, by year.

The challenge in the P-Process is to find not only the per-unit price for each individual product sold, but also to account for the implied price of individual products sold as components within bundles. In BACE, a bundle is a group of products or services that are sold together as a single unit. The user defines each bundle and its component products in the Bundles Table. In order to generate inputs for BACE's Revenue Process (R-Process), implied "prices" for each product/component of a bundle are imputed and stored. This implied or imputed price approach for bundled product/components allows for revenue calculation and reporting of revenues at distinct levels along the location and customer hierarchies.

Q. WHAT INPUTS ARE REQUIRED FOR THE P-PROCESS?

A. Several tables provide input to the P(rice) Process. The tables and their key input fields are described below. The relevant tables can be thought of as having two characteristic dimensions: 1) bundles versus *à-la-carte*; and 2) starting versus future prices.

The following tables are used in the P-Process:

Baseline Bundle Price - This table defines the initial bundle prices offered to each customer segment in a defined geographic area.

Bundle Price Curves - This table defines the price trend (expressed as a decimal) per year for each product bundle over the ten-year study. This will capture any expected bundle price increase or decreases over time.

Baseline Product Price - This table defines the current prices of individual products by geographic area. The values in this table can be thought of as representing initial market prices off of which the user can apply a CLEC discount to. This discount may reflect the market entry discount to expand market share.

Baseline Bundle Price - This table defines the current prices of the bundles by geographic area.

Product Price Curves – This table defines the price trend (expressed as a decimal) per year for each product over the ten-year study. The values in this table will capture any increase or decrease in product prices over time. (Note that in BACE, the term "curve" is used to reflect changes in values over time, by year, during the 10-year modeling period).

CLEC Baseline Price Discount - This table defines any discounts off of the current prices and is used to create the initial CLEC prices of individual products by geographic area.

Q. WHAT TASKS ARE PERFORMED BY BACE DURING THE P-PROCESS?

A. Once the tables described above are populated, BACE performs seven key tasks (or categories of tasks) during the P-Process. The first three tasks develop prices for individual products and bundles, while the later three tasks relate to the prices that are implied for the components of bundles.

The first task is to create the bundle price profile over time. This is done by multiplying the initial bundle price (Baseline Bundle Price) by the bundle price curves (Bundle Price Curves table). The Bundle Price Curves table reflects changes in bundle prices over time. This task calculates a price per bundle per year for every year, for each relevant market. This information is added to the BACE processing table P1.

The second task is to develop the initial discounted price for each product by applying the CLEC pricing discount to the Baseline Product Price. This task discounts current baseline market-like prices for assumed CLEC discount levels. This information is added to the BACE processing table P2 (e.g., baseline CLEC price per product, per market).

The third task is to calculate the CLEC product price profile over time. This is done by multiplying the initial discounted product price (found in table P2) by the CLEC price curves (in the Product Price Curves table). This leads to a calculation of the CLEC à-*la-carte* product price for each year. This information is added to the BACE processing table P3.

Q. PLEASE DESCRIBE THE P-PROCESS TASKS RELATED TO THE IMPLIED PRICES FOR SERVICES WITHIN A BUNDLE.

A. During the fourth task, using the *à-la-carte* product price in table P3, these inputs are combined with the Bundle table to find the sum of *à-la-carte* prices in a given bundle in a given area by year. This derives the price that would exist if the bundle were sold at list or retail price for each of the individual components (i.e., at *à-la-carte* prices). This information is appended into the BACE processing table P4.

Fifth, bundle adjustment factors are determined for each product in each market. By comparing the sum of *à-la-carte* prices in table P4 (for a given customer bundle in a given area with actual demand levels) with the actual bundle price for the same area and customer group (table P1), a retail price to bundle price adjustment factor can be calculated. The user has the ability to indicate to which products within the bundle this adjustment should be applied. The resulting adjustment factor is added into the BACE processing table P5.

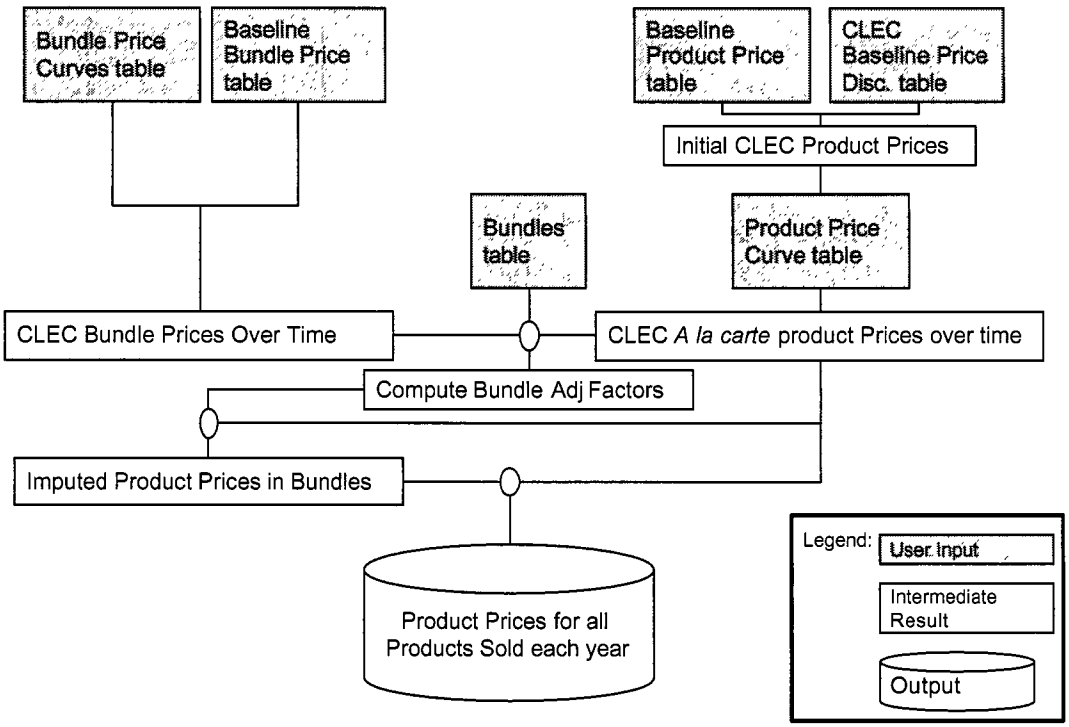
The sixth task is to determine the implied or imputed product prices for each product (this is controlled by the user as noted in the prior paragraph) within the bundles. This is accomplished by multiplying bundle adjustment factors from P5 for each bundle by the a-la-carte prices for each bundle component. As noted above, the user has the option of excluding bundle components from this discounting process. At this stage, BACE has determined the per-unit product price (or implied price) for each individual product offered a-la-carte, and within each bundle by all levels of location and customer hierarchy.

The seventh task is to append these product prices (both *à-la-carte* and bundles) into the BACE processing master pricing table, PMaster. All prices that were established on an *à-la-carte* basis have "*à-la-carte*" appended into the bundle field.

Q. CAN YOU ILLUSTRATE THE P-PROCESS WITH A DIAGRAM?

A. Yes, a diagram summarizing the P-Process is shown below:

P-Process: Determine the Price for *a la carte* and bundled product offerings



Section 7: THE QUANTITY CALCULATIONS IN BACE (Q-PROCESS)

Q. WHAT IS THE PURPOSE OF THE QUANTITY PROCESS (Q-PROCESS)?

A. The Quantity Process (Q-Process) derives the quantity demanded/sold for each product and service offered by the CLEC. Calculating the quantity demanded of CLEC products

takes into account customer segment demographics, anticipated CLEC market share, year of product rollout, and anticipated customer churn (disconnects).

The starting point for BACE's Q-Process is a set of user input tables necessary to calculate CLEC quantities.

Q. WHAT TABLES ARE NEEDED FOR THE Q-PROCESS?

A. In addition to the demographics tables (described in Section 5 above), users provide additional input in the following tables:

CLEC Profile Products - This table allows the user to indicate which products are offered by the CLEC and within what study year the product is first offered. Beyond the first year, the user can also input the product's last offering year.

Baseline Demand - The Baseline Demand table describes the expected initial demand for products and services offered by the CLEC.

Demand Curves - The Demand Curves table describes the total anticipated market demand change for each product by customer segment, by customer-spend category, by year for study years 2 through 10.

Penetration Curves for Products - This table describes the anticipated CLEC market share of customers for each product by customer type over the ten-year study horizon. This table relies upon user adjustable inputs, and also allows the user to tie product penetration to DSL Addressability.

Churn - This table allows the user to describe the annual churn for each customer grouping for each product offered by the CLEC. For BACE, churn is described in terms of disconnects each year by product.

Bundles - The Bundles table describes those products and services that are sold within each bundle.

CLEC Profile Bundles - This table allows the user to indicate which bundles are offered by the CLEC and within what study year the bundle is first offered. Beyond the first year, the user can also input the bundle's ending year.

Penetration Curves For Bundles - This table allows the user to determine the proportion of CLEC customers whose product sales occur via bundles, by year, by customer segment and customer-spend category, over the ten-year study horizon. For example, a penetration rate of .5 indicates that 50% of the customers of the CLEC for a particular customer segment subscribe to the CLEC services through bundles.

Market Growth – This table allow the user to indicate how the current customer base will grow over time. This represents the growth of population and businesses over time.

Q. WHAT TASKS ARE PERFORMED IN THE Q-PROCESS?

A. Given the contents of the demographics and user input tables, BACE performs ten key Q-process tasks. The first six tasks are related to the calculation of the number of customers subscribing to products, by type and location, the CLEC will serve over time. A key concept to understand is that there is a CLEC market penetration of customers and then within those customers a market penetration of the CLEC products. For example, a CLEC may sign up a customer that takes local service and DSL, but chooses a different carrier for long distance services.

In the first task, BACE develops the CLEC customer penetration for each product on a percentage basis. This key data is contained in the Penetration Curves for Products table. This table contains the product records defining the "anchor" product the customer will buy. In effect, this defines the customer count for the CLEC. This table also contains non-anchor product penetrations. These penetration values are applied against the anchor penetration percentages to derive the customer penetration for the various non-anchor products. This data is adjusted to match the first year the CLEC offers each product. This is done by extracting from the CLEC Profile Products table the first year for which the CLEC offers the product or service, and adjusting the market share per period found in table the Penetration Curves for Products table. The starting year is used to reflect the CLEC market share in the first year the product is offered. After the ending year (if it occurs before the end of the study horizon), CLEC market share percentage is set to 0. This information is appended into the BACE processing table Q2.

Second, BACE accounts for the fact that a portion of the products are sold as bundles. Similar to the way BACE adjusts the product offerings, the user controls the bundle offerings by adjusting the bundle penetration curves in the Penetration Curves for Bundles table that match up to when the CLEC will offer each bundle (provided by the CLEC Profile Bundles table). This customer/product penetration information is appended into the BACE processing table Q4.

Third, using the percentage of each customer segment taking CLEC products in general (table Q2) and those taking CLEC bundles of products (table Q4) specifically, this step delineates the CLEC market share for each product per period by how the product is sold (i.e., as part of a bundle or *a la carte*). This information is used to update the BACE processing table Q4.

Fourth, BACE retrieves the initial number of total market customers (assumed to include ILEC plus CLEC customers) by wire center, by customer segment and customer-spend category from the Wire center Demographics table.

Fifth, BACE allows the user to identify growth in the number of total market customers, by year, over the 10-year period (in the Market Growth table). This is combined with the Wire center Demographic table to create a total customer curve, representing the change in the number of total market customers year by year.

Sixth, CLEC market share percentages (on a product basis) must be translated into an absolute number of customers taking each CLEC product. BACE calculates this by multiplying the CLEC market share values (table Q4) with the demographics of each

customer segment and customer-spend category found in the Wire center Information table (adjusted for market growth). These data are appended into the BACE processing table Q6.

Q. WHAT TASKS ARE PERFORMED IN THE Q-PROCESS AFTER THE NUMBER OF CLEC CUSTOMERS IS DETERMINED?

A. After the first six tasks, the focus changes from determining the numbers of customers subscribing to products to calculating quantities of products sold.

In the seventh task, BACE allows the user to identify changes in the baseline demand (from the Baseline Demand table) per customer segment and sub-segment by product, by year using the Demand Curve table . (Note, user-adjustable changes in quantities of products demanded per customer is different from task 2, which accounted for growth in the number of customers). The end result provides the expected average customer market demand over time for each product, by study year. These data are added to the BACE processing table Q3.

Eighth, CLEC customer counts by product on a wire center basis are multiplied by the expected per-customer product quantities, by wire center, to determine total CLEC product quantities. Using a mid-year convention, the quantity of CLEC product demanded for the year is calculated as the average of the end of year demand and prior year's end of year demand. Therefore, the amount reported is actually the mid year balance. This information is appended into the BACE processing table QMaster.

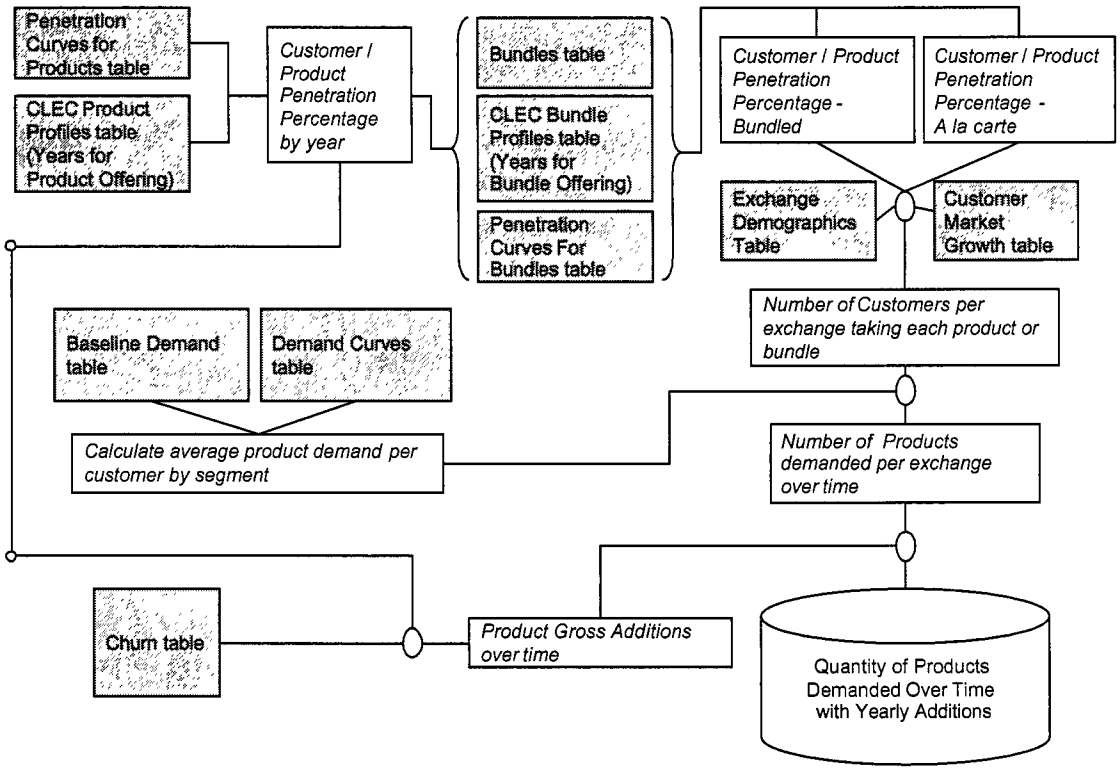
Ninth, BACE calculates the percentage of expected CLEC net additions for each product by year. These percentages are calculated on a product-by-product basis for each customer type. Percentages are derived by applying the disconnect percentages (from the Churn table) to the expected product penetration levels (Penetration Curves for Products table) over the ten years. These net addition percentages are applied to the customer count information in the Wire center Demographic table to derive the counts of customer additions.

Tenth, the count of product quantity additions (over the prior year), are appended into table QMaster. These are used to determine the number of customer/product installs in each year.

Q. CAN YOU ILLUSTRATE THE Q-PROCESS WITH A DIAGRAM?

A. Yes, a diagram summarizing the Q-Process is shown below.

Q-Process: Determine the quantity of products demanded/sold



Section 8: THE REVENUE CALCULATIONS IN BACE (R-PROCESS)

Q. IN GENERAL TERMS, HOW ARE CLEC REVENUES CALCULATED IN BACE?

A. In BACE, the Revenue Process (R-Process) takes information from the Price and Quantity Steps and derives the Gross Revenue due to the CLEC.

Q. WHAT DATA IS USED BY BACE TO CALCULATE REVENUES?

A. Five data tables are used as inputs by BACE in the R-Process. Table P Master contains the CLEC price information for each product by customer type in each served location (wire center) over the ten years of the study. Table Q Master contains the CLEC quantity sold information for each product by customer type in each served location (wire center) over the ten years of the study. Table USF – Interstate Access Support and table USF – High Cost Loop Support provide inputs on the universal service funds available in the state to a CLEC. Finally, table Alternative Units of Measure provides inputs to allow the user to define additional cost drivers for the O and N processes, which are described later in this testimony.

Q. WHAT STEPS ARE USED IN THE R-PROCESS?

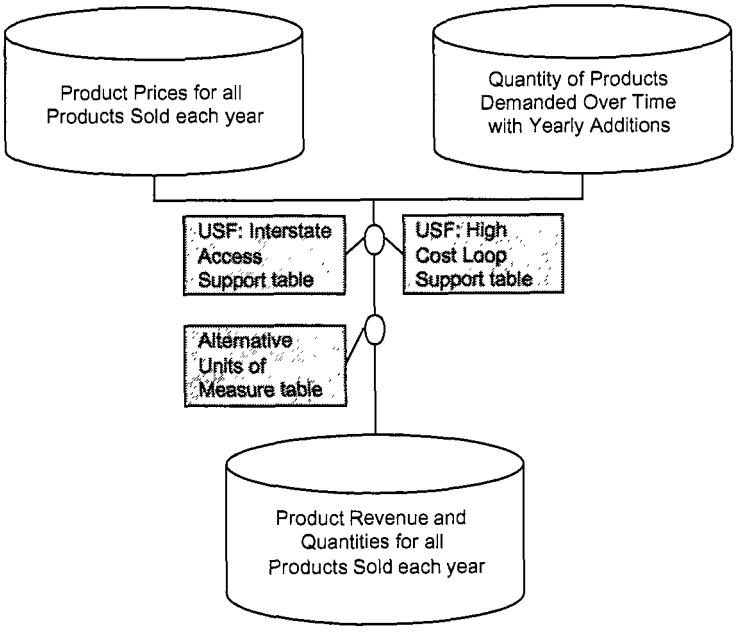
A. The R-Process process is a four-stage process. First, the CLEC quantity of each product demanded (by customer segment and location) from table Q-Master is multiplied by the CLEC price of each product (by customer segment and location) from table P-Master. This information is calculated for each study year and appended into table R-Master as the revenue in each study year. Second, using the universal service funding tables (USF – Interstate Access Support and USF – High Cost Loop Support) the amount of revenue from these funding sources is appended to the R-Master table. Third, to allow the user to drive costs based on specific product quantities, data from table Alternative Units of Measure is applied against the R-Master table to develop additional quantity records. These records are appended to R-Master. Fourth, the present value of the revenue is derived. The present value is derived on a mid year basis; in other words, Year 1 is

discounted six months, Year 2 discounted 18 months, etc, to bring the values back to time zero.

Q. CAN YOU ILLUSTRATE THE R-PROCESS WITH A DIAGRAM?

A. Yes, a diagram summarizing the R-Process is shown below.

R-Process: Determine the revenue (Price x Quantity)



Section 9: COST CALCULATIONS IN BACE (ON-PROCESS)

Q. HOW DOES BACE ACCOUNT FOR CLEC CASH OUTFLOWS?

A. BACE accounts for CLEC cash out flows in the Operations/Network Cost Process (ON-Process). For ease of discussion, I will use the term "cost" to generically refer to cash outflows. The 'N' portion (of the ON-Process) calculates investments and costs specific to the network engineering necessary to originate, transport and terminate CLEC voice and data traffic. As I noted previously, to create the network infrastructure process, I relied upon network specialists from BellSouth to provide a description of the specific network components that would be required by the CLEC. These components include both CLEC capital investments as well as unbundled network elements and wholesale network services/components. The 'O' Portion calculates cash outflows specific to the operations of the company. Additional detail on the 'N' and 'O' processes can be found in the BACE Methodology Manual, attached to my testimony as Exhibit JWS - 3.

CLEC income tax liabilities (and cash outflows) while part of the O and N processes, are handled as separate step in the processes. The calculation of income taxes will be described in more detail later in this testimony.

Q. IN BACE, WHAT KINDS OF ACTIVITIES CAUSE CASH OUTFLOWS?

A. In BACE cash flows are caused by (driven by) the following factors: 1) the existence of the CLEC as an operating entity in total (e.g., certain of the sales, general and administrative, SG&A costs); 2) the existence of CLEC service within a geographic area

(e.g., the placement of a switch for each LATA); 3) the acquisition of a customer; 4) the initial choice of a specific product or service by a customer (e.g., the customer chooses to take DSL); 5) the volumes of products and services used; 6) the disconnection of a customer (as evidenced through churn); and 7) composite triggers as the total number of customers or the total volume of products or services within an area can exhaust the usable capacity of equipment (e.g., the number of lines in a wire center), causing the expansion of equipment placed.

Q. WHAT INPUTS ARE REQUIRED FOR THE ON-PROCESS?

A. Several tables provide input to the O and N Process. The tables are described below.

Cost Input Network and Cost Input Operations – these are the key tables in the determination of the costs of the CLEC. The entries in these tables largely determine the magnitude of a CLEC's network infrastructure and operations costs and how these costs are incorporated into the BACE analysis. The tables also allow the user to include cost records that apply to various CLEC network and operational scenarios. From these tables, the ON-Process determines the appropriate cost records to be included in the BACE analyses in accordance with the quantities of products sold obtained from the Q, P, and R processes and user entries in other BACE tables including those that specify cost drivers (as described in the question and answer above).

Within the Cost Input tables for Network and Operations, the fields are used in three ways: 1) as filters or cost triggers (identifying whether a value is relevant to

a particular product or geographic area); 2) as descriptors for ease of understanding and documentation; and 3) as values used for cost calculations.

Inplant and Loadings – this table provides the inputs to turn the material prices of the capital inputs in the Cost Input Network table into fully capitalized costs that could include: engineering, power, land, building, supplies, and other items.

Retirement Inputs – this table provides the inputs required to determine the levels of replacement capital due to the retirement of plant. The inputs are used in the Gompertz-Makem retirement rate estimation approach, described later in this testimony.

Tax Depreciation Schedule – this input contains the IRS MACRS tables. These tables are used in the calculation of income taxes.

Q. HOW DOES BACE TREAT CAPITAL EXPENDITURES (CAPEX)?

A. Capital expenditures are treated as any other cash flow and recorded at the time the investment is made. Capital within BACE is deployed as needed based on the quantities of the cost drivers that require the capital. Since some types of plant investments are more economic when built for multiple years of demand, BACE does allow the user to define a time period of demand (DemandYearForBuild field) to use in sizing plant (i.e., the plant placed today is sized sufficiently to meet the demand into future years).

In addition to the initial capital deployment, BACE recognizes that plant retires over time and needs to be replaced. BACE uses a probabilistic approach to retirements based upon

the Gompertz-Makem retirement curves. These Gompertz-Makem curves are a standard approach used in the telecom industry to understand the retirement patterns of telecommunication assets. From the use of Gompertz-Makem, BACE derives the probability of retirement, by type of asset, in each year. This probability is used to estimate the expected value of plant replacement in year.

Finally as noted previously, initial start-up investments are assumed to occur at time zero and no discount is applied to the cash outflow. All other capital placements, growth in assets over time and the retirement replacement capital are assumed to occur mid-year for discounting purposes.

Q. DOES BACE USE AMORTIZED COST COMPONENTS FOR DEPRECIATION?

A. BACE uses an amortized measure of depreciation expense only in the income tax module of the model (which I will discuss later) and the associated calculations of accounting net income. For a discounted cash flow calculation, the original cash outflow for the capital expenditure is all that is required; depreciation expense is not needed (and would not be appropriate) for a discounted cash flow, net present value calculation. Since the full cash outlay for the capital expenditure is recorded in the year that it occurs, adding depreciation expense would be tantamount to double counting these costs in a discounted cash flow.

Q. DOES BACE REFLECT A HIERARCHY OF COST INPUTS?

A. Yes. However, cost hierarchy inputs are typically for information only and are referred to as descriptor inputs. They are used in reporting to clarify costs to levels of the CLEC location, product or customer hierarchy; in limited cases, they are used as filters. The cost hierarchy is: cost family, cost area, cost center, and cost element.

Q. WHAT IS THE ORDER OF THE TASKS PERFORMED IN THE ON-PROCESS?

A. The Operations and Network ON-Process is split into three major phases. First is the cost preparation phase during which all of the costs are filtered and arranged in preparation for aligning the costs with the results of the price, quantity and revenue processes. The second phase develops appropriate network and operational costs using the cost records prepared in the first phase. The third phase of the ON process incorporates a series of optimization routines to assist in reflecting efficient CLEC operations.

Q. WHAT ARE THE MAJOR TASKS THAT OCCUR IN THE COST PREPARATION PHASE?

A. The following tasks are performed in the cost preparation phase:

1) The first task is to identify all of the possible investment items that can be driven by BACE. This requires resolving all of the wildcard logic that exists in the Network and Operations Cost Input tables. Wildcard inputs and the corresponding model logic are used to minimize the input requirements for the BACE user.

2) Since BACE's network and operations cost tables may have inputs for various alternative network and operational scenarios, BACE has several user inputs that act as filters on the network and operations cost input tables. These include: CLECType, DS1ToDS0XOver, and UseSPAorUNET.

3) BACE applies the user-adjustable scope and purchase power factors to reflect the CLEC's scope of operations and relative purchase power vis-à-vis BellSouth.

4) Loadings are applied to capital investments. These loadings allow the user to capture capital expenditures beyond the material price. These may include: engineering, supplies, storage/warehousing, land, power, building, and other items.

5) BACE identifies how the vendor prices and investment values will change over the 10-year study. These factors are a user input into the Cost Trends table.

6) The implications of customer churn are considered. The rate of customer churn has an impact on how often some costs will occur. This is reflected in the Weight value in the Cost Input tables

7) Next, to accommodate the fact that a CLEC, by installing certain equipment in a LATA, may be able to serve customers via UNEs from carriers other than BellSouth within that same LATA, BACE includes a variable accounting for the percentage of these UNE-available customers within each LATA that are served by BellSouth. This allows BACE to apportion some of the fixed costs within a LATA to both the BellSouth operating area and the other ILECs within the LATA.

8) BACE translates all monthly non-capital recurring costs into annual cost amounts (since the present value calculations are performed on an annual basis).

Q. WHAT ARE THE MAJOR TASKS THAT OCCUR IN THE NETWORK REQUIREMENT AND COST DEVELOPMENT PHASE?

A. With the appropriate cost records identified, annualized, and trended through time, BACE develops the foundation for determining costs incurred by the CLEC by calculating the underlying service and equipment requirements. Results from the Q-Process that identify demand (where appropriate) for each of the various levels of the product, customer and location hierarchies provide the basis for establishing an appropriately sized CLEC network architecture.

For network equipment purchased by the CLEC, determining the appropriate equipment and number of units to install relies on network engineering rules and equipment capacities. Practically, CLEC engineers would likely examine demand forecasts for a period of time (the time frame is dependent on the type of equipment), work with vendors to identify the equipment appropriate to meet the demand and purchase equipment sufficient to accommodate the expected demand, any administration requirements, spares and perhaps growth. The identification of the number of capital cost units to install within BACE is similar to this process.

For each of the capital cost records, BACE develops the demand requirements in each year based on the product, customer and location hierarchies specified in the Network Cost Input table (based upon output of the Quantity process). BACE accounts for the years to build for and minimum/maximum ranges for sizes of network components.

For non-capital cost records that have a Frequency of Recurring or NonRecurring, BACE uses the demand requirements in each year (from the Q Process) based on the product, customer and location hierarchies and the UNEZone and RateCenter entries in the Network and Operations Cost Input tables to determine the year by year cash outflows. For capital components and non-capital cost records that have a Frequency of NonRecurringNetwork, BACE uses the incremental change in demand year over year to determine the year-by-year cash outflows.

Next BACE determines the replacement capital expenses based upon the retirement of plant. Based on the user entered asset class specific values in the Retirement Input table, Gompertz-Makem survival curves are used to estimate the likelihood of retirement in each year.

Finally, with the costs of each network component and/or service developed for each year of the 10-year period based on demand, BACE develops the net present value for each cost record using the methods I described earlier. Whether the terminal values of assets (at the end of the 10 years) is included or ignored (i.e., assumed to zero) in this calculation is user adjustable.

Q. WHAT ARE THE MAJOR TASKS THAT OCCUR IN THE NETWORK OPTIMIZATION PHASE?

A. With the NPV of each cost record identified, BACE lets the user control the ability to identify economically efficient ways for the CLEC to optimize its operations. BACE provides for six types of optimization processes, five of which are user adjustable. The

six types of optimization processes each search for specific activities that yield a negative net present value, and then eliminate that activity. The six activities can be optimized are: 1) the use of EELs and/or full end-office collocation; 2) the provision of DSL within the wire center (not user adjustable); 3) keep or eliminate CLEC service in total for a wire center; 4) keep or eliminate CLEC service for Mass Market customers for a market; 5) keep or eliminate CLEC service for a market; and, 6) keep or eliminate CLEC service in total for a LATA.

Q. EARLIER YOU DESCRIBED HOW BACE IS CONSISTENT WITH THE TRO. WOULD YOU PLEASE DESCRIBE IN ADDITIONAL DETAIL HOW BACE CAPTURES THE COST CATEGORIES DISCUSSED IN THE TRO?

A. Yes. BACE is designed to allow the user to capture all likely potential costs corresponding to CLEC entry. Below I list the cost items specifically mentioned in the TRO, and how each item is incorporated into BACE.

1) "Costs of purchasing and installing a switch" (TRO, ¶ 520) - Incorporated into table Cost Input Network.

2) "[T]he recurring and non-recurring charges paid to the incumbent LEC for loops" (e.g., TRO, ¶ 520, and n. 1588) - Incorporated into table Cost Input Network.

3) "[T]he recurring and non-recurring charges paid to the incumbent LEC for … transport" (e.g., TRO, ¶ 520, and n. 1588) - Incorporated into table Cost Input Network.

4) "[T]he recurring and non-recurring charges paid to the incumbent LEC for … hot cuts" (TRO, ¶ 520) and "… costs of migrating incumbent LEC loops to

requesting telecommunications carriers' switches ..." (Appendix B – Final Rules, page 22, 51.319(d)(2)(iii)(B)(3)) — Incorporated into table Cost Input Network.

5) "[T]he recurring and non-recurring charges paid to the incumbent LEC for ... signaling" (TRO, ¶ 520) - Incorporated into table Cost Input Network.

6) "[T]he recurring and non-recurring charges paid to the incumbent LEC for ... other services and equipment necessary to access the loop" (TRO, ¶ 520) - Incorporated into table Cost Input Network.

7) "[T]he cost of collocation and equipment necessary to serve local wire center customers in a wire center" (TRO, ¶ 520) - Incorporated into table Cost Input Network.

8) "... taking into consideration an entrants likely market share" (TRO, ¶ 520) - Incorporated into table Penetration Curves for Products.

9) "taking into consideration ... the scale economies inherent to serving a wire center and the line density of the wire center" (TRO, ¶ 520) - Incorporated in BACE's approach to cost development.

10) "taking into consideration ... the cost of backhauling the local traffic to the competitor's switch" (TRO, ¶ 520, and similar language at Appendix B – Final Rules, page 22, 51.319(d)(2)(iii)(B)(3)) - Incorporated into table Cost Input Network.

11) "taking into consideration ... other costs associated with transferring the customer's service over to the competitor" (TRO, ¶ 520) - Incorporated into table Cost Input Network.

12) "taking into consideration ... the impact of churn on the cost of customer acquisitions" (TRO, ¶ 520) - Incorporated into table Churn and table Cost Input Network.

13) "taking into consideration ... the cost of maintenance, operations" (TRO, ¶ 520) - Incorporated into table Cost Input Operations.

14) "taking into consideration ... the cost of ... other administrative activities" (TRO, ¶ 520) - Incorporated into table Cost Input Operations.

15) "taking into consideration ... the competitors' capital costs" (TRO, ¶ 520) - Incorporated into table CLEC Study Properties.

Section 10: TREATMENT OF INCOME TAXES IN BACE

Q. HOW ARE INCOME TAXES TREATED IN BACE?

A. The final step in BACE processing is the calculation of the income tax liability. The calculation of tax liability (profit/positive liability as well as any loss/negative liability) uses inputs from the core of BACE, but the tax calculations are essentially performed in a separate module. This is because unlike discounted cash flow calculations of net present value, income taxes for most corporations are calculated on an accrual basis.

Q. HOW IS THE ACCRUAL TREATMENT OF ASSETS (E.G., FOR TAX CALCULATION PURPOSES) DIFFERENT FROM CALCULATIONS OF NET PRESENT VALUE OF CASH FLOWS?

A. With cash flow calculations, the cash outlay for an asset is simply shown in its entirety at the time it occurs. For tax purposes, under the accrual method, a capital expenditure generates tax-deductible expenses over time via depreciation expense.

Q. HOW IS THE COST OF DEBT AND EQUITY TREATED FOR TAX PURPOSES AND IN THE CASH FLOW PORTION OF BACE?

A. For corporate income tax purposes, the cost of debt is reflected as a tax-deductible expense like other expenses. For corporate income tax purposes, the cost of equity is the one economic cost that is not considered a tax-deductible expense. In discounted cash flow calculations, the cost of debt and the cost of equity are reflected via the discount rate; i.e., when a cash outflow is made in time zero, but revenue (cash inflows) occur at future time periods, the discount rate implicitly captures the costs of debt and equity as the future revenue cash inflows are discounted.

Q. HOW ARE LOSSES FOR ANY GIVEN YEAR TREATED IN BACE?

A. The user can choose how a tax loss (a negative tax liability) will be treated. The user has the option of carrying any loss forward to future years to offset future taxable profits, or taking the loss during the year in which is incurred as a current offset to current taxable profits in other divisions. If the user selects "CurrentYearCredit" the tax loss is actually shown as a contra-expense in that year for cash flow purposes. This selection implies that the CLEC has other "profitable" business entities, and that the modeled operations loss will be used to offset some portion of the total CLEC tax liability created from accounting profits in its other operations. Otherwise, the loss is carried forward to offset future profits.

Q. DOES BACE ESTIMATE NET INCOME FOR TAX PURPOSES?

A. Yes. Once the user selects the Tax-treatment method, BACE calculates an estimated net income statement for tax calculation purposes. This includes an estimate of the yearly tax depreciation (which is based on the IRS's depreciation lives for each of the plant items in BACE). In addition, an estimate of the yearly interest expense is made using the sum of the capex in the current period and from succeeding periods multiplied by the debt percentage (1-EquityPct) and a debt rate calculated in the model from the user's inputs in the CLEC Study Properties for EquityPct, EquityRate, PreTaxCostOfCapital.

From the net income statement, the model calculates the estimated annual income taxes based upon an effective tax rate that is based on the user inputs in the CLEC Study Properties for StateTaxRate and FedTaxRate. The effective tax rate accounts for the fact that state taxes impact federal tax liabilities.

Q. FOR EASE OF REPORTING, DOES BACE ASSIGN INCOME TAXES TO PRODUCTS AND GEOGRAPHIC AREAS?

A. Yes. Once the estimated income taxes are calculated, a tax-to-NPV ratio is developed so that the income taxes can be apportioned down to the reporting levels in BACE. This apportionment is only performed to allow the user to analyze impairment using any of the various data dimensions in the model.

Section 11: REPORTS FROM BACE

Q. WHAT REPORT GENERATING CAPABILITIES EXIST IN BACE?

A. Several standard reports are available through the BACE wizard and from predefined report templates. In addition, there is a very wide array of reports and data views that can be user defined.

Q. WHAT STANDARD REPORTS ARE AVAILABLE THROUGH THE BACE WIZARD?

A. The four major categories of reports available through the BACE wizard are: 1) NPV by market; 2) average revenue by product category per customer by market; 3) total estimated net income; 4) total estimated net income per line.

Q. WHAT ADDITIONAL REPORTS ARE AVAILABLE THROUGH BACE?

A. BACE comes pre-populated with a number of report templates. These templates can be used to create various reports including: cost and revenues over time, cost summaries, negative margin markets, etc.. User-defined reports and data views can vary widely. The limits of the possible reports are largely determined only by the data used by and produced by BACE. Typically, a user-defined report is determined with four steps: 1) identify the data source (e.g., cash flow data); 2) identify the calculations within BACE to view (e.g., NPV by customer segment by year); 3) identify any desired selection criteria (e.g., specific level of geography or geographic area); and 4) describe how the data is to

be reported. An example of a user-defined report is one showing all operating expenses in a state for two specific LATAs for the 10-year study. BACE allows the user to save reports and report templates.

Section 12: TESTING BACE

Q. HAS BACE BEEN TESTED AS A MODEL?

A. Yes. My team and I tested BACE to confirm it worked logically (i.e., implementation corresponding to intent, processes proceeded logically), to confirm it worked technically (i.e., the model processes are mathematically correct); and to identify problems or errors in the model and to identify improvements to the model.

Q. WHAT TYPES OF TESTS WERE PERFORMED?

A. Four types of tests were performed: 1) transactional tests (which focused largely on the P, Q, and R processes); 2) output reasonableness tests (which focused on the overall results and the change in results as input values changed); 3) processing tests (running the model and reports in various ways); and 4) platform mechanics test (e.g., that it loads properly and runs with the hardware specified).

Q. WHAT DO YOU MEAN BY TRANSACTIONAL TESTING?

A. The logic of each process was broken down into key steps and the key components and drivers of the process were identified. Tests were designed to confirm that the processes

handled the driver (or variable) correctly and that the system's calculations were mathematically correct.

Q. WHAT WERE THE RESULTS OF YOUR TESTING?

A. BACE passed all four types of testing.

Section 13: <u>BACE ALLOWS THE USER TO ADDRESS ISSUES 2 (B) AND 5 (D)</u>

Q. HOW DOES BACE ALLOW THE USER TO ADDRESS ISSUE 2 (B), THE VARIATION IN FACTORS AFFECTING CLECS' ABILITY TO SERVE EACH GROUP OF CUSTOMERS?

A. BACE allows the user to address the variation in factors affecting CLEC's ability to serve customers in several ways. For example, as outlined in Section 3 above, BACE allows analysis at several geographic levels: LATAs; wire centers; MSAs; MCSAs; CEAs; UNE Zones; and any combination of the above. Second, BACE allows variations in product offerings and prices across five customer segments (residential and four business segments) and by customer-spend categories. Third, BACE allows the user to identify bundles of product and service offerings and price discounts that can vary over time. Fourth, the user can adjust customer penetration by segment and customer-spend categories by year. Fifth, BACE allows the user to choose the products offered. Finally, BACE allows the user to determine whether certain optimization techniques are employed (e.g., to drop negative NPV wire centers).

Q. HOW DOES BACE ALLOW THE USER TO ADDRESS ISSUE 5 (D), MARKETS IN WHICH POTENTIAL ECONOMIC BARRIERS MAY RENDER CLEC ENTRY UNECONOMIC?

A. BACE allows the user to address CLEC costs, which were discussed above in Section 9. There, I describe how BACE incorporates the relevant CLEC costs, which factors are largely incorporated through the table Cost Input Network. The ON cost process is also described in more detail in the BACE Model Methodology, which is attached to my testimony.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

SUPPLEMENTAL DIRECT TESTIMONY OF MR. JAMES W. STEGEMAN
ON BEHALF OF BELLSOUTH TELECOMMUNICATIONS, INC.
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NUMBER 030851-TP
JANUARY 21, 2004

Q. PLEASE STATE YOUR NAME AND BUSINESS AFFILIATION.

A. My name is James W. Stegeman. I am the President of CostQuest Associates, Inc. I am testifying on behalf of BellSouth Telecommunications ("BellSouth", "BST" or the "Company").

Q. ARE YOU THE SAME JAMES W. STEGEMAN THAT FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes. In my direct testimony I described the BACE model used for evaluations of economic impairment.

Q. WHY ARE YOU FILING SUPPLEMENTAL DIRECT TESTIMONY?

A. As outlined in Ms. Nancy White's letter dated December 23, 2003, I am filing supplemental direct testimony with the most recent iteration of the BACE (BellSouth Analysis of Competitive Entry) model. This supplemental testimony explains the corrections to the BACE model. I have attached the following revised exhibits and

attachments to my Direct Testimony: JWS-3 and BACE model.

Q. PLEASE DESCRIBE THE CORRECTIONS MADE TO BACE.

A. In the version of BACE that was filed with my direct testimony, two of the reports that the model can generate -- "Revenue_CEA-UNEZone" (which produces the average revenue per customer and is available from the Wizard reporting and from the Saved reports) and "NetIncome-Per Line" (which produces the net income report on a per line basis and which is also available from the Wizard reporting and from the Saved reports) – produce results that could not be utilized. This error did not affect NPV calculations. The underlying SQL query that develops these reports has been corrected in the current version of BACE and the reports can now be produced correctly

Q. WAS THERE A CHANGE IN THE OPTIMIZATION CODE IN BACE?

A. Yes, there were two changes to the optimization code in BACE. First, Enterprise optimization logic was added to provide a user with additional optimization flexibility. Enabling the new toggle found in the CLEC Study Properties Table, **FilterNegativeMarginEnterpriseInMarkets,** allows BACE to filter out enterprise customers within markets when the entire collection of enterprise customers in the market produce a negative margin. Additional detail on this new toggle can be found in the revised JWS-3 Methodology Manual.

This additional optimization step has no impact on BellSouth's filing in Florida because all Enterprise customer groups in the positive NPV markets provide a positive margin. In

other words, in Florida, this additional optimization step does not change the number of markets that are found not to be impaired, and it does not change the magnitude of the positive NPV values for the markets that are not impaired.

Q. WHAT IS THE SECOND CHANGE TO OPTIMIZATION CODE IN BACE?

A. Optimization in BACE is also now modified to allow optimization by different definitions of markets. In my direct testimony (page 51, lines 5-6) I described optimization tasks 4 and 5 as: "4) keep or eliminate CLEC service for Mass Market customers for a market; 5) keep or eliminate CLEC service for a market." For each of these optimization tasks, the prior version of BACE only allowed these optimization tasks to be performed for a market defined as the CEA-UNEZone (the use of only CEA-UNEZone was noted in the description of the filters in the CLEC Study Properties table). In the version of BACE I am filing today, optimization in these tasks (including the Enterprise optimization I described above in my supplemental testimony) is now based upon the user's selection of Market in the wizard. However, since BellSouth is using the CEA-UNEZone as the market, this change has no effect on BellSouth's filed results.

Q. ARE THERE ANY OTHER CORRECTIONS THAT YOU ARE MAKING?

A. Yes, four wire centers were missing in the original BACE filing (PMBHFLNP, FTLDFLAP, HMSTFLAF and MIAMFLAG) which are now included in the current version of BACE for Florida.

Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL DIRECT TESTIMONY?

A. Yes it does.

SURREBUTTAL TESTIMONY OF MR. JAMES W. STEGEMAN
ON BEHALF OF BELLSOUTH TELECOMMUNICATIONS, INC.
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NUMBER 030851-TP
JANUARY 28, 2004

Section 1. **INTRODUCTION**

Q. PLEASE STATE YOUR NAME AND BUSINESS AFFILIATION.

A. My name is James W. Stegeman. I am the President of CostQuest Associates, Inc. I am testifying on behalf of BellSouth Telecommunications ("BellSouth", "BST" or the "Company").

Q. ARE YOU THE SAME JAMES W. STEGEMAN THAT FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes. In my direct testimony I described the BACE model used for evaluations of economic impairment.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. I respond to the rebuttal testimony of Dr. Mark Bryant and Mr. James Webber (MCI), Mr. Kent Dickerson and Dr. Brian Staihr (Sprint), and Mr. Don Wood (AT&T). Each of these witnesses addresses the BACE model in their rebuttal

testimony. My surrebuttal is confined to issues related to the operations and methods of the BACE model itself, Drs. Aron and Billingsley will primarily respond to issues relating to BACE model inputs and interpretation of the results.

Q. HOW IS YOUR SURREBUTTAL TESTIMONY ORGANIZED?

A. I have divided my surrebuttal testimony into six sections:

1) Introduction.
2) The BACE model is open to review, structurally sound, and is a valid TRO potential deployment tool.
3) The rebuttal by CLECs concerning BACE is inconsistent and contradictory.
4) Clarification of BACE features and misinterpretations of BACE.
5) Additional Rebuttal of Mr. Wood.
6) BACE is clearly superior to AT&T's model in meeting the requirements of the TRO and criteria discussed by Mr. Wood.

Section 2. **THE BACE MODEL IS OPEN TO REVIEW, STRUCTURALLY SOUND, AND IS A VALID TRO POTENTIAL DEPLOYMENT TOOL**

Q. HAVE ANY WITNESSES CLAIMED THAT BACE IS NOT OPEN TO REVIEW?

A. Yes, Mr. Wood (e.g., page 22, lines 12-14), Dr. Bryant (page 31), and Mr. Dickerson (pages 7 and 8) claim that BACE is not sufficiently open to review to

allow a full analysis of the model.

Q. PLEASE DESCRIBE HOW PARTIES CAN REVIEW THE BACE MODEL.

A. My direct testimony included several capabilities to aid the user in evaluating BACE, including:

1. A detailed Users Guide (Exhibit JWS-2);
2. A detailed Methods Manual (Exhibit JWS-3);
3. A data dictionary and table layout (contained within the Methods Manual).

Q. WHAT OTHER MEANS TO EVALUATE BACE HAVE BEEN PROVIDED TO PARTIES?

A. There are several.

1) BellSouth offers, at no charge, BACE model support, by telephone or email.
2) I was a key presenter at public workshops on the model at the November 2003 NARUC meetings and before this Florida Commission on December 4, 2003.
3) I also presented information on the model at the Kentucky commission on December 3. Many of the CLECs that are actively participating in this docket attended this workshop.
4) Through counsel, parties were provided with access to BACE before my direct testimony was filed and without the need for a formal discovery request. Specifically, the link to the CostQuest website was forwarded electronically to AT&T on November 27, 2003 and to MCI on December 2,

2003. This version of BACE was substantively the same as the version of BACE filed with my direct testimony (notwithstanding a few input changes).

5) In addition, the majority of inputs (all non-proprietary inputs) are user adjustable so that changes can be made to test impacts and sensitivities; and various scenarios can be run either through the wizard or by modifying inputs and creating scenarios directly.

Q. HAVE YOU TAKEN ANY OTHER STEPS TO PROVIDE FULL ACCESS TO BACE?

A. Yes, I have. I filed supplemental direct testimony on January 21, 2004, to make certain corrections to BACE and provided with that testimony the most recent iteration of BACE. This version of BACE includes a linked database file (the file name is "Scenario"_Intermediate.MDB which resides in the "Scenario" folder) that allows the user to view non-sensitive intermediate processing tables for scenarios based upon the proprietary BellSouth customer data.

On January 22, 2004 BellSouth filed supplemental responses to Staff's Third Set of Interrogatories, which responses included updated versions of the proprietary BACE tables.

On January 23, 2004, BellSouth filed supplemental responses to Sprint's First Request for Production of Documents, which included a BACE Demonstration scenario ("Demo") that is fully open for review. The processed Demo scenario is unprotected. (the "data" in the BACE Demo is for illustrative purposes only and

should not be interpreted or construed to reflect values for any particular geographic area).

With these additional capabilities, the user can see the structure of the system, all tables (input and processed), and follow the processing of the model much in the same way as I (and my team) have in developing, testing and refining BACE. In short, all of the filings made, in addition to the telephone and email BACE model support and workshops, allow any party to review BACE at a detailed level.

Q. THE DEMONSTRATION SCENARIO DOES NOT HAVE ACTUAL FLORIDA DATA. WHY ARE CERTAIN TABLES AND INTERMEDIATE RESULTS STILL LOCKED FROM THE USERS' VIEW IN THE FULL BACE MODEL WITH ACTUAL FLORIDA DATA?

A. BACE uses a proprietary database containing commercially sensitive and valuable information. Naturally, this data has to be protected. My objective in developing BACE was to make the model as open and easy to use, review, and evaluate, while still protecting this sensitive and powerful data. Certainly, with the additional filed material (via supplemental direct and responses to discovery), BACE users have reasonable opportunities to use, review and evaluate the model.

Q. WITHIN THE FILED BELLSOUTH SCENARIO, ARE THERE INPUTS THAT <u>CANNOT</u> BE MODIFIED BY THE USER IN BACE?

A. The user cannot modify the initial input values for market prices and quantities. These "locked" quantities include both the total number of customers and the number of each product category sold. However, the user has the ability to control modeled CLEC prices via the CLEC price discount and the bundle price inputs. The user also can control the CLEC quantities via the CLEC market penetration inputs. The user can also change prices, price discounts and penetration over time.

Q. WHY CAN'T THE USER DIRECTLY MODIFY THE UNDERLYING MARKET PRICE AND QUANTITY INPUTS?

A. The underlying market price and quantity information is proprietary and it is not possible to protect this proprietary information and still allow the user to change it. As a result, we designed BACE to provide the user the ability to create CLEC prices and quantities without adjusting the underlying data. There is a modeling trade-off between allowing the user to change every input and having a model that uses detailed, proprietary data. The clearly superior choice is to use proprietary data and provide other methods for the user to obtain modeled CLEC prices and quantities.

Q. DO YOU HAVE ANY ADDITIONAL RESPONSE TO MR. DICKERSON'S AND MR. WOOD'S CLAIM THAT EXECUTABLE SOURCE CODE IS REQUIRED FOR A REVIEW OF A MODEL?

A. Yes. Mr. Dickerson's claim (rebuttal page 8) and Mr. Wood's claim (rebuttal page 2, lines 10-12) suggesting that lack of executable source code impedes model review is wrong for several reasons. First, as the primary designer, debugger, and developer of the code, I do not have the executable version of the source code (and have never had it). I have a word processor document (similar to a PDF) that I use to analyze the code in conjunction with the ability to review the intermediate tables.

Second, in contrast to the suggestion of Mr. Dickerson (rebuttal pages 8 and 9) executable source code for key components of the telecommunications models he discusses typically have not been provided to parties in a format allowing the user to make code changes, which is what Sprint asked for in this case. For example, the FCC's HCPM, HAI, and original Hatfield models, which rely on customer data developed by PNR / TNS Telecom, have never provided executable source code or the key customer data openly to parties. Instead, parties are required to visit a PNR/TNS site and use the PNR/TNS computers to review the code and any party making such a visit is precluded from copying anything, or leaving with any material. In fact, PNR/TNS charged reviewers a fee for the use of their machines.

Similarly, consider the telecommunications model BCPM. This was a joint project of BellSouth, Sprint and USWest. It was written in Excel, VBA and C++. While the Excel and VBA programming were available to users, only a word document of the C++ code (which created the clustered customer data) was provided to parties.

With respect to Sprint's Loop model (a derivative of the BCPM), my understanding is that there is preprocessing of the customer data (similar to the C++ process in BCPM) that has not been released to users in executable format (and in fact may not be available even to Mr. Dickerson).

Finally, the source code for the BSTLM was released in PDF form, i.e., in the same format that BACE source code was provided to Sprint prior to Mr. Dickerson's rebuttal filing. Mr. Dickerson's reference to identification of model errors and suggested improvements occurred with no greater access to the BSTLM source code and other materials than have been provided for BACE.

Q. ARE YOU AWARE OF ANY COMMISSION ORDERS ADDRESSING EXECUTABLE SOURCE CODE?

A. Yes. My understanding is that the Commission ruled that the release of the executable source code was not required in Docket No. 990549-TP and did not impede model review. The relevant language provides (at pages 130-31):

> ... the AT&T/WorldCom witnesses complain that they were not given the source code to the BSTLM; rather, they were provided with a password protected .pdf version of the model. . . upon consideration of the evidence, we find that BellSouth's actions here did not impede AT&T/WorldCom's ability to review and critique the BSTLM. (emphasis added.)

Q. MR. DICKERSON STATES (REBUTTAL PAGE 4) THAT "MANY OF THE REFERENCED INPUT DATA TABLES ARE NOT AVAILABLE TO THE USER FOR INPUT OR VIEWING." DO YOU AGREE?

A. No, quite the contrary. As originally filed, 45 of 48 input Access Tables in BACE were open to any user. Of the three tables that are protected, PDF versions of the data have been made available to Sprint and other parties through discovery. In addition to the PDF versions of the three tables, the user can control how these three protected tables are used via the use of the other 45 tables.

Q. MR. DICKERSON STATES (REBUTTAL PAGE 5) THAT "THE PMASTER RESULTS TABLE IS NOT AVAILABLE FOR REVIEW ..." IS THERE A TECHNIQUE TO REVIEW THE PMASTER RESULTS RECORDS?

A. Yes. While not labeled as such, the contents of PMaster are available through the Reporting screen of BACE. To access the PMaster file, the user would select "Price" as the "Report Data Source" on the Report screen of BACE.

Additionally, the BACE demonstration scenario provided as a supplemental discovery response, opens all intermediate tables are to user review, including table PMaster.

Q. ON PAGE 6 OF HIS REBUTTAL TESTIMONY MR. DICKERSON STATES THAT "THE QMASTER RESULTS TABLE IS NOT

AVAILABLE FOR REVIEW ..." IS THERE A TECHNIQUE TO VIEW QUANTITY RECORDS?

A. Yes. The Quantity contents of QMaster are available through the Reporting screen of BACE. These Quantity records are contained within RMaster, but are post optimization. To access the Quantity contents of the RMaster file, the user would select "Quantity and Customer Counts" as the "Report Data Source" on the Report screen of BACE. Also, the Demonstration database allows the user to open intermediate results tables, including table QMaster.

In addition, it appears that Mr. Dickerson was able to utilize the quantities in BACE since his confidential Exhibits KWD-4 and KWD-5 to his rebuttal testimony include line quantity counts by year for several wire centers. So although he may not have been able to find the table name, he was able to identify and extract the data he required from BACE.

Q. ON PAGE 6 MR. DICKERSON STATES THAT "THE RMASTER RESULTS TABLE IS NOT AVAILABLE FOR REVIEW ..." IS THERE A TECHNIQUE TO VIEW THE RMASTER DATA?

A. Yes. As noted above, the post optimization Quantity contents of RMaster are available from the reporting screen. In addition, the revenue contents of RMaster, post optimization, are available through the use of the Reporting screen of BACE. To access this revenue data, the user would select "Revenue and Cost" as the "Report Data Source" on the Report screen of BACE and select "Rev" as the

"Account Category" as the filter. Also the new Demonstration database allows the user to open intermediate results tables, including table RMaster.

Q. MR. DICKERSON (REBUTTAL PAGE 2, LINES 14-17) INDICATES THAT BACE IS "FATALLY FLAWED." MR. WOOD (REBUTTAL PAGE 2, LINE 10) INDICATES THAT BACE IS STRUCTURALLY LIMITED. WHAT IS YOUR RESPONSE?

A. I disagree. While some of the parties have identified what they may believe are unusual results (which I will describe later in my testimony), there is nothing in the testimony of Mr. Dickerson, Mr. Webber, Mr. Wood, Dr. Staihr, or Dr. Bryant that indicates anyone has identified any fatal errors, or for that matter any errors, in the model platform or model operations. Outside of misunderstandings of the operations of BACE, all the issues that have been raised in regard to BACE and its output are input driven. In fact, Dr. Bryant states (page 31 of his Rebuttal): "I cannot fault the general approach outlined in Mr. Stegeman's testimony and in the model documentation."

Q. DESPITE CRITICISMS, HAVE OTHER WITNESSES USED BACE TO SUPPORT THEIR POSITIONS?

A. Yes. While some of the reviewers claim that BACE is flawed, the reviewers use the model, with inputs of their choice, to support their own positions. For example, Mr. Wood states (rebuttal page 2, line 13): "it is impossible in many cases to populate the model with meaningful input values" and (rebuttal page 22):

"I have not been able to determine whether the model calculations are accurate...renders the results unreliable." Yet on page 19, lines 20 and 21 he states: "When inputs and assumptions are used that do reflect such reasonable judgment, the results of the BACE indicated that a rational CLEC ...." and at page 8, line 9: "As BellSouth's BACE model can be used to demonstrate . . . ." (emphasis added).

It appears that Mr. Wood populated the model with (what he considered to be) meaningful inputs and the results were reliable (unless he is indicating that his inputs and results are not meaningful or reliable). Alternatively, he has concluded, albeit in a circular fashion, that the only reliable and meaningful inputs are those that show impairment in every wire center in Florida. In either case, his approach appears self-serving.

Q. MR. WOOD CLAIMS (PAGE 5 OF HIS REBUTTAL) THE MODEL IS NOT STABLE AND DOES NOT PRODUCE CONSISTENT RESULTS? IS THIS TRUE?

A. Not at all. I will focus specifically upon Mr. Wood in more detail later in this testimony, however, Mr. Wood's accusation is unsupported and unjustified.

Q. ARE YOU MAKING ANY MODIFICATIONS TO BACE WITH THIS FILING TO ENSURE IT PROVIDES THE MOST ACCURATE INFORMATION?

A. I am. As an initial matter, I remain committed to submitting the best possible model to this Commission. This means that any modifications, even minor modifications, will be made, if necessary to present the most accurate version of BACE. There are three corrections I am making with this filing. One correction relates to two wire centers -- MIAMFLAG and HMSTFLAF -- which were inadvertently assigned to the Fort Lauderdale FL CEA in the supplemental filing made on Jan. 21st and which should have been assigned to the Miami FL CEA. This correction can be made manually by correcting the CEA assignment in tblExchangeInfo (within Access) or Exchange Information (within the BACE interface) for the two wire centers.

The second correction addresses LATA codes within the BellSouth scenario. Inadvertently, the original data had a mix of 3 digit and 5 digit LATA codes. The 5 digit codes are actually sub-LATAs and were not intended for use within BACE. Subsequently, the 4th and 5th digits are being truncated, thereby reducing the "LATA" count in the model from 10 to 7.

Third, in creating the mileage from the wire centers to the access tandem in the LATA for the truncation issue noted above, we discovered that the mileage values in the current BellSouth scenario were calculated incorrectly. These distances have been corrected.

While these changes can be made manually, the number of changes is easier to handle by issuing an updated BellSouth scenario. To that end, an updated

BellSouth scenario (BellSouth_FL_Refiled_Jan28) can be downloaded from the BACE support site (topp.costquest.com).

The update to this scenario is the replacement of the tblExchangeInfo and tblLocHierarchy tables. A user should be aware that older scenarios will be incorrect. The user can either replicate the changes they have made to this new scenario or simply copy tblExchangeInfo and tblLocHierarchy from the new scenario to any old scenario.

Section 3.

THE REBUTTAL BY CLECS CONCERNING BACE IS INCONSISTENT AND CONTRADICTORY

Q. EARLIER YOU STATED THAT THE REBUTTAL TESTIMONY BY THE CLEC WITNESSES IS INCONSISTENT AND CONTRADICTORY REGARDING BACE. PLEASE EXPLAIN THIS STATEMENT.

A. There are four major areas of inconsistency and contradiction: 1) whether the fundamental BACE approach is reasonable; 2) whether BACE is sensitive or insensitive to changes in inputs; 3) whether BACE optimization should be utilized; and, 4) which inputs are appropriate. I address the first three items in my testimony. With respect to inputs, these will be addressed in the testimony of other BellSouth witnesses such as Drs. Aron and Billingsley.

Q. WHAT INCONSISTENCIES EXIST IN THE CLEC WITNESSES TESTIMONY REGARDING THE FUNDAMENTAL APPROACH UTILIZED BY BACE?

A. Mr. Wood makes vague and unsubstantiated claims about the appropriateness of BACE. For example, he states: "the structural limitations of the model cannot be corrected ..." (Wood rebuttal, page 2, line 10) and "I have been able to determine that the model does not consider all barriers to entry, ..." (Wood rebuttal page 22, lines 14, 15).

In contrast, Dr. Bryant states: "... with one or two exceptions that I discuss below, I cannot fault the general approach outlined in Mr. Stegeman's testimony and in the model documentation." (Bryant rebuttal, page 31, lines 4-6) And, "... I do not disagree with the general approach to estimating CLEC profitability outlined in Dr. Aron's and Mr. Stegeman's testimony." (Bryant rebuttal, page 31, lines 4-6)

Q. WHAT INCONSISTENCIES EXIST IN DISCUSSIONS OF WHETHER BACE IS SENSITIVE OR INSENSITIVE TO CHANGES IN INPUTS?

A. Mr. Wood claims that even slight changes to key inputs yield drastically different results (Wood rebuttal, page 18, lines 15-18). In contrast, Dr. Bryant believes that BACE is not sensitive to at least some input changes (Bryant rebuttal, pages 30-31).

Q. **IS IT POSSIBLE TO ASSESS MR. WOOD'S CLAIM THAT SLIGHT CHANGES TO INPUTS YIELD DRASTICALLY DIFFERENT RESULTS?**

A. No. Like much of Mr. Wood's testimony regarding BACE, this is an unsubstantiated assertion. Unlike other witnesses reviewing BACE, Mr. Wood does not cite or provide even a single numerical result from BACE. Moreover, Mr. Wood only suggests one input change with any specificity. That change is the suggested 5.1% annual price change (based on a review of long distance prices 1984-1993). Even in this case, he does not specify whether he would apply this change to the default input values (which already reflect price reductions below existing prices).

Q. **WHAT INCONSISTENCIES EXIST ACROSS THE PARTIES IN DISCUSSIONS OF WHETHER THE BACE OPTIMIZATION ROUTINES SHOULD BE UTILIZED?**

A. Dr. Staihr suggests that some, but not all, of the BACE optimization toggles should be turned off. In addition, Dr. Staihr adds the equivalent of a new user-created optimization: "Sprint eliminated the lowest quintile of residential customers ..." Indeed, the elimination of the lowest quintile of residential customers obviously more than offset turning off three of the BACE optimization toggles (since he notes the somewhat higher overall NPV in the Sprint run for BellSouth's markets as compared to BellSouth's BACE runs) (Staihr rebuttal, page 18).

In contrast, Mr. Wood appears to believe that segmentation, optimization and cream skimming are to be abhorred and no amount of data could convince him that they do, or even could, exist (Wood rebuttal, pages 32-37). Mr. Wood claims that firms investing in switches "... will have the incentive to serve as many customers as possible as quickly as possible ... and will hardly be in the position to be selective about its customer base." (Wood rebuttal, pages 35-36) (the error of this argument is discussed by Dr. Aron).

Mr. Dickerson runs BACE with the optimization filters off (e.g. Dickerson rebuttal, page 33, line 15), but later complains that now some wire centers and some customers segments for wire centers now have negative NPVs (Dickerson, pages 31-34) and it is possible for one to aggregate profitable and unprofitable segments and geographic areas. Dr. Bryant used a similar approach is used (rebuttal page 33), with a similar complaint: that now positive and negative NPV results can be aggregated together (citing one wire center with negative NPV mass market customers, but more than compensating positive NPV enterprise customers). It appears the solution is the continued use (rather than the abandonment) of a number of the optimization filters. More importantly, the power and (ease of use) of the BACE model allows Dr. Bryant, and Mr. Dickerson to consider (and describe in their rebuttal testimony) results at such a granular level of detail (e.g., NPV by customer type by wire center).

Section 4. **CLARIFICATION OF BACE FEATURES AND MISINTERPRETATIONS OF BACE**

Q. MR. WOOD CLAIMS THAT BACE PRICE INPUTS DON'T REFLECT VARIATIONS IN RETAIL PRICES ACROSS THE STATE. IS HE CORRECT?

A. No. While the quintile (in the case of retail customer's) average price/average revenue per user (ARPU) is determined at the state level, the number and the percentage of customers falling into each quintile (for residence for example) varies by wire center based on both the retail prices that actually exist in the wire center and the propensity of customers in the wire center to purchase services in each of the major service categories.

For example, if wire center A is in a low-priced rate center (i.e., customers facing low tariffed rates), it will tend (other things being equal) to have customers with actual spend characteristics that are below the state wide average and will therefore have a higher proportion of mass-market customers in the lower spend quintiles. If wire center B is in a high-priced rate center, its customer's actual spend levels are likely to be relatively high and they will tend to have a higher proportion of mass-market customers in the higher spend quintiles.

Mr. Wood's claim (rebuttal page 37, line 23 - page 38, line 3) that customers are "allocated" from the state level down to wire centers is incorrect. And while the actual spend information by individual customers is not retained from the original data source, actual customer spend information by wire center is used to determine the number of customers in each wire center that fall into each of the customer spend categories.

From this starting point of actual expenditures by wire center by customer group, the user can establish starting CLEC price discounts, changes in the discounts over time, starting bundle prices, and changes in bundle prices over time.

Q. MR. WEBBER STATES (REBUTTAL PAGES 5 AND 6) WITH REGARD TO EELS THAT "THE BACE MODEL RELIES ON NETWORK ARCHITECTURES THAT ARE COMPLETELY UNPROVEN IN THE MARKET." CAN YOU CLARIFY HOW EELS WORKS WITHIN BACE AND COMMENT ON MR. WEBBER'S ASSERTION?

A. Yes. In regard to EELs, if the user specifies, the model will determine whether collocation or EELs will be used on a wire center by wire center basis. This determination considers the difference in NPV between a full collocation approach and a full EELs approach at each wire center. Regardless of one's perspective regarding the use of EELS, Mr. Webber is incorrect since the user of the model is free to turn EELs completely off so that only collocation is used. Moreover, in a run that I made without EELs, no market changed in classification (impaired / non-impaired), no wire center changed from positive to negative NPV, and the total CLEC NPV decreased by less than $300,000 or by less than one tenth of 1%. Obviously, whether EELs are employed or not is not a critical issue (indeed, it is virtually irrelevant) in the determination of impairment.

Q: IS MR. DICKERSON'S COLLOCATION BUILD OUT COST ANALYSIS AN APPLES-TO-APPLES COMPARISON?

A: No. In Mr. Dickerson's attempts to compare the ColloBuildOut cost element within BACE to Sprint's collocation build out costs, he has incorrectly included Sprint's engineering and DC power cabling costs in the comparison because these costs are included elsewhere in BellSouth's filed inputs to BACE, which I will discuss later in this testimony. Thus, Mr. Dickerson's conclusion that BACE has understated the costs related to collocation build-out is based on a flawed analysis.

Q: HAVE YOU BEEN ABLE TO CORRECT MR. DICKERSON'S ANALYSIS TO MAKE A FAIR COMPARISON OF THE COLLOBUILDOUT COST ELEMENT WITH SPRINT'S COSTS AS IDENTIFIED IN KWD-4?

A: Yes. Holding aside a determination as to whether Mr. Dickerson's values are correct (or not) and whether his DC power assumptions are correct, removing the Engineering Initial, Engineering Augment and Power Cabling costs from Mr. Dickerson's analysis (since they are accounted for elsewhere in BACE) changes the results significantly. Rather than underestimating ColloBuildOut costs by 554% for the six (6) randomly selected wire centers as Mr. Dickerson suggests, Mr. Dickerson's analysis indicates that BACE over-estimates ColloBuildOut costs by 50% as can be seen in the table below.

Line	Wire Center	DS0 Lines Year 10	a Sprint Calc of Collo Build Out NPVs	b BACE Calc of ColloBuildOut NPVs	c = a-b Difference	d = c/b Percent Difference
1	DYBHFLPO	6,605	$3,072	$6,898	$(3,826)	-55%
2	HLWDFLPE	17,440	$3,072	$6,998	$(3,926)	-56%
3	MIAMFLOL	3,990	$3,072	$5,988	$(2,916)	-49%
4	MRTHFLVE	1,311	$3,072	$5,759	$(2,687)	-47%
5	PRSNFLFD	339	$3,072	$5,724	$(2,652)	-46%
6	SBSTFLMA	2,253	$3,072	$5,856	$(2,784)	-48%
7	Total		$18,432	$37,223	$(18,791)	-50%

Q: WHERE ARE CLEC ENGINEERING AND DC POWER CABLING COSTS CAPTURED WITHIN BACE?

A: BACE captures the initial engineering of collocation space (and augments) as part of the general engineering costs which are included in the G&A costs of BACE.

This is noted in BellSouth's response to interrogatory No. 6 of Sprint's Third Set of Interrogatories. An excerpt from the response follows:

6512	Provisioning expense	G&A
6531	Power expense	G&A
6533	Testing expense	G&A
6535	Engineering expense	G&A

Further, as noted in BellSouth's response to No. 15 of Sprint's Fifth Set of Interrogatories, the costs related to DC power cabling is captured as part of the cost generated via the application of the InPlant and Power factors to the collocation equipment (e.g., DLC, multiplexing, etc). Since these factors are applied within BACE whenever the CLEC requires additional capacity due to demand, these costs are demand sensitive.

Q: MR. DICKERSON CLAIMS THAT THE BACE COLLOCATION BUILD-OUT COSTS ARE NOT DEMAND-SENSITIVE. IS THIS CORRECT?

A: No. While it is true that the ColloBuildOut cost element in BACE is not demand sensitive, Mr. Dickerson's failure to properly identify other collocation cost elements has lead to his misunderstanding and further demonstrates flaws in his

analysis. As just noted, DC Power cabling costs that Mr. Dickerson has included as part of collocation build out are captured by BACE within the factors which are applied to collocation equipment and are thus demand sensitive. In addition, although Mr. Dickerson's analysis ignores these costs completely, and as noted in Wayne Gray's surrebuttal testimony, BACE includes the non-recurring cost of Cable Records, rates for which are based per 100 pair.

Q: ARE THERE POTENTIAL DEMAND-SENSITIVE COSTS INCLUDED IN BACE AS FIXED COSTS?

A: Yes. For ease of modeling and based on the relative magnitude of these potential demand-sensitive costs relative to the overall CLEC costs, BellSouth has made some assumptions and captures these costs as part of a fixed monthly collocation cost element. For example, although Mr. Dickerson is correct that floor space requirements are dependent on the number of frames required which is ultimately dependent on demand (non-linear), BACE assumes that each CLEC cageless collocation site has 100 square feet. As noted in the surrebuttal testimony of Mr. Wayne Gray, the use of 100 square feet should provide ample space at most collocation sites (and is thus somewhat conservative). However, given that floor space accounts for only a fraction (0.18%) of the overall CLEC PV cost, and the additional modeling rigor required to account for these relatively minor costs, BellSouth decided to make a standard, conservative assumption to capture these costs.

Q: ARE MR. DICKERSON'S CLAIMS THAT BACE UNDERESTIMATES DC POWER CONSUMPTION COSTS SIGNIFICANT?

A: No. Even if we were to assume that the underlying assumptions and inputs used in Mr. Dickerson's analysis are correct, the changes suggested have a minimal impact on the BACE results. Based on results from the original BACE filing in FL that Mr. Dickerson analyzed, the power consumption cost accounts for approximately 30% of the MonthlyCollo cost element. But with the total PV cost of MonthlyCollo representing only 0.5% of the total PV cost for the CLEC, the affect of changing the power assumption would impact only 0.15% of the total CLEC cost.

Finally, it is important to note that the user of BACE decides what inputs should be broken out in more detail and how the costs are triggered and driven. That is, the user limits input specificity, BACE does NOT limit the specificity. Therefore, if Mr. Dickerson feels that the cost for power input is insufficient and needs to be adjusted, he can make changes to the inputs to capture his desired specificity.

Q. MR. DICKERSON STATES (REBUTTAL PAGE 12) THAT THE COLLOCATION VS. EELS OPTIMIZATION WITHIN THE BACE MODEL IS UNRELIABLE. PLEASE RESPOND.

A. First, note that Mr. Dickerson's characterization of the collocation vs. EELs optimizations is based solely on his claims regarding costs; he does not appear to

provide any consideration of revenues. It also appears that Mr. Dickerson has misunderstood how this optimization in the BACE model is performed. The collocation/EELs optimization routine within the BACE model does not simply compare the initial costs (or PVs) of implementing collocation and EELs. Such an approach would be short-sighted and insufficient to represent a sound business case analysis as is required by the TRO. Rather, the BACE model optimization is a comparison of the 10-year NPV (revenue less cost) associated with the collocation and EELs approaches. All possible revenue streams and cost outlays are included in the NPV analysis ensuring that the most economic approach is selected. Key components of the differences between the EELs and collocation scenarios are:

1. DSL service can only be offered in the collocation scenario. Therefore, the EELs scenario is (potentially) at a significant revenue disadvantage depending on the CLEC demand of the wire center.
2. Collocation thus has the additional burden of the DSL costs, but since DSL can provide positive contribution, the collocation scenario has an advantage.
3. EELs transport from the BellSouth end office to the BellSouth Access Tandem is not concentrated and thus is significantly more expensive than the concentrated transport that is used when the CLEC collocates at the end office.

Q. DR. BRYANT SUGGESTS (REBUTTAL PAGE 31) THAT BACE SOMETIMES PRODUCES "ANOMALOUS RESULTS." PLEASE COMMENT ON THIS.

At page 31 of his rebuttal testimony, Dr. Bryant states that he increases "... customer churn rate from 6.5% to 8.33%. All other inputs to the model were held constant." He claims that this resulted in 29 wire centers becoming more profitable. I attempted to replicate Dr. Bryant's finding by changing the churn of Mass Market customers only, changing the churn all customers, leaving optimization as filed, and turning it off. In each instance, when I increased the customer churn rates, NPV declined. Based on my review, I suspect that Dr. Bryant changed more than one input value. Perhaps he created a scenario with one input change, then he made an additional change without changing and renaming the scenario.

Section 5. **ADDITIONAL REBUTTAL OF MR. WOOD**

Q. DOES MR. WOOD MAKE UNDOCUMENTED ASSERTIONS REGARDING BACE?

A. Yes. Mr. Wood makes a variety of claims and assertions regarding BACE. However, unlike other witnesses in this proceeding, he fails to provide a single numerical result from BACE, nor does he provide an exhibit with any BACE results. Such undocumented assertions provide no available information by which his assertions can be evaluated, and should be viewed with skepticism given the lack of foundation.

Q. DOES MR. WOOD CONFUSE SHORTCOMINGS OF A MODEL (BACE IN THIS CASE) WITH DISAGREEMENT REGARDING INPUT CHOICES?

A. Yes. At several points in his rebuttal testimony, Mr. Wood makes assertions regarding BACE, but only provides associated rhetoric related to the choice of the input values. For example, at page 38, he states: "The BACE goes on to assign different CLEC market share for the different customer spending segments …". The user of course determines CLEC shares by segment, over time if they choose. However, as I note elsewhere in my surrebuttal testimony, when Mr. Wood populates the model with unspecified inputs of his choosing it provides results he finds comport with his view of the world.

Q. DOES MR. WOOD MAKE UNDOCUMENTED AND MISLEADING ASSERTIONS REGARDING CRASHES OF THE BACE MODEL?

A. Yes. At page 5 of his rebuttal he asserts that he has not been able to complete analysis of BACE, apparently in part since "[o]ur efforts continue to be encumbered by the frequent crashes of the model and the limitations of the model wizard." I have several responses.

First, Mr. Wood's comment is surprising in light of the fact that in operating BACE, I (and my team) and the LECG team have had no problems with crashes. I have determined that the model is stable, consistent, and operates as stated in the documentation.

Second, I am unaware of similar complaints from other parties. Given the number of runs documented by Sprint and MCI in their rebuttal testimony, the natural conclusion would be that problems with crashes in BACE would have been raised through these parties, had they occurred.

Third, emails and phone calls to the BACE model support team are illustrative. When an employee of Wood and Wood Consulting contacted BellSouth's BACE support manager in early December 2003, raising concerns with initial slow run times and log-in problems in running BACE, these concerns appeared to be caused because an attempt to run BACE in a shared-server environment. BACE was not designed to run in, nor was it tested for, a shared-server environment. These concerns appeared to be resolved by December 11, 2003 through the use of BACE on a stand-alone computer platform. Thereafter, BellSouth responded to additional questions from Wood and Wood consulting about how to perform runs on the model from December 11-15, 2003. However, no concerns relating to frequent "crashes" were raised between December 11, 2003 (once the appropriate computer platform was used) and the filing of Mr. Wood's rebuttal testimony.

Since Mr. Wood's rebuttal testimony was filed with this Commission on January 7, 2004, nearly four weeks later, to state that AT&T's "efforts continue to be encumbered by frequent crashes ..." (emphasis added) is misleading. On January 15, 2004, after Mr. Wood's rebuttal testimony was filed, a concern relating to crashes was communicated to BellSouth. The timing of this "concern", in light of Mr. Wood's other unsubstantiated claims, seems somewhat questionable.

Q. MR. WOOD ALSO COMPLAINS THAT LIMITATIONS OF THE BACE MODEL WIZARD HAVE ENCUMBERED HIS EVALUATION OF BACE (WOOD REBUTTAL PAGE 5). IS THIS A VALID COMPLAINT?

A. Certainly not, for at least three reasons. First, the user has the option to either use the BACE wizard, or create and run scenarios outside the wizard. Second, other models (e.g. HCPM, BCPM) either do not have a wizard, or do not have an extensive wizard. Third, the BACE model wizard is designed for ease of use, especially for those without the skill or time to examine the model in great detail. Anyone genuinely seeking to evaluate a model, and having the skills to even initially evaluate a model, should not need to rely only on a model wizard alone. For example, any party requesting the source code to a model should not need to rely upon the model wizard for evaluation. Claiming that the limitations of a model wizard creates an encumbrance to review is akin to an auto mechanic claiming that a car needs more gauges and lights by the steering wheel in order to readily evaluate the engine; popping the hood is still an option if you are actually a mechanic.

Q. **MR. WOOD STATES (REBUTTAL, PAGE 21, LINE 18) THAT BACE HAS NO PLACE TO ENTER A PROJECT BETA. IS IT NECESSARY TO INPUT A PROJECT BETA IN ORDER TO CALCULATE ECONOMIC IMPAIRMENT?**

A. No. From a modeling perspective, BACE provides input values for the pre-tax cost of capital, the cost of equity, federal and state tax rates and the proportion of

equity. Nothing more is required to determine the cost of capital used in BACE. As Dr. Billingsley has described, beta is fully reflected in these values, so there is no further role for beta to play. To the best of my knowledge, no other telecommunications cost model (e.g., BCPM, HCPM, HAI, BSTLM) allows for the specific input of a project beta. Indeed, it appears that AT&T's cost disadvantage model does not allow the input of a beta.

Q. MR. WOOD ASSERTS (REBUTTAL PAGE 26, LINES 16-18) THAT IT IS IMPOSSIBLE TO ACCURATELY DETERMINE THE REVENUES THAT A CLEC IS LIKELY TO RECEIVE WITHOUT THE ABILITY TO INPUT FUTURE PRICE CHANGES BY WIRE CENTER. DO YOU AGREE?

A. No, for several reasons. First, as I discussed above, BACE already leverages a powerful database that reflects actual prices and actual spend levels by wire center. Therefore, the starting market prices and customer expenditures are specific to the wire center and customer segment.

Second, BACE allows the user to determine CLEC price discounts by customer segment, by market, over time (if the user wishes). BACE also allows the user to establish bundle prices by customer segment by market and changes in bundle prices over time. Further, BACE allows the user to determine CLEC penetration by customer segment over time. In designing BACE, there seemed to be no need to forecast prices changes on a wire center basis.

Third, it is unreasonable to expect a user would be willing to perform the task of inputting even initial prices by wire center, let alone forecast future prices by wire center. BellSouth has a large number of wire centers in its service area in Florida each with 17 customer-spend categories in BACE. Each of these would have with approximately 15 services, each requiring data (under Mr. Wood's approach) for 10 years; this leads to over a half million data entries.

Fourth, Mr. Wood's claim that wire-center level price forecasts are necessary is at odds with AT&T's model which provides no price information, nor ability to input price forecasts of any kind.

Fifth, Mr. Wood's claim that wire-center level price forecasts are necessary is at odds with his prior claim (rebuttal page 5) that he and his team are encumbered by the limitations of the BACE wizard. Recall that Mr. Wood is also the only party to complain about the limitations of the wizard. Logic suggests that Mr. Wood should be the last party to attempt the daunting and unnecessary task of forecasting prices by wire center

Q. MR. WOOD CLAIMS "THE [BACE] USER HAS NO ABILITY TO CONSIDER A SHORTER INVESTMENT HORIZON [THAN 10 YEARS] THAT A RATIONAL INVESTOR WOULD CONSIDER BEFORE MAKING AN INVESTMENT IN A LARGE, FIXED ASSET SUCH AS A LOCAL CIRCUIT SWITCH." WHAT IS YOUR REACTION?

A. First, Mr. Wood's statement is at odds with the time horizon of AT&T's cost disadvantage model. Mr. Turner indicates (direct, page 27, line 23) that AT&T's analysis uses a 10-year study period.

Second, my team has examined the inputs to the model, both the Input Portfolio attached to Turner's testimony and the software itself, and there does not appear to be any mechanism to change the study period. We can only assume that the overall study period of AT&T's model is fixed at ten years.

Third, other models use a 10-year period or a longer period for the evaluation of economic impairment. The NRRI model (the pre-cursor of Dr. Bryant's model) used asset lives to determine impairment analysis through a TELRIC type costing approach. As such, the time horizon for the costs of assets ranges from 6-30 years. The switch was ten years. In looking at other industry models, the SPR model submitted in other states actually uses a 25-year time horizon for cash flows.

Fourth, in is my understanding that AT&T and MCI have consistently advocated the use of FCC depreciation lives in cost proceedings. My understanding is that the prescribed FCC depreciation lives applicable to BellSouth range from 8 to 30 years, depending on the type of equipment and the low and high ranges. Moreover, Mr. Turner employed a 13-year switch life input in the AT&T model. However, in his rebuttal testimony, Mr. Wood implies that a switch needs to be recovered in some period less than ten years. Certainly, a 10-year study period is conservative for assets with lives longer than ten years.

Fifth, BACE allows at least an approximation of shorter period analyses by zeroing out market share inputs for later years, although as discussed by Dr. Aron this type of procedure, if done correctly, should not alter the NPV of the CLEC.

Section 6. **BACE IS CLEARLY SUPERIOR TO AT&T'S MODEL IN MEETING THE REQUIREMENTS OF THE TRO AND CRITERIA DISCUSSED BY MR. WOOD.**

Q. ISN'T AT&T THE SAME PARTY THAT SPONSORED A MODEL THAT MR. WOOD CLAIMED IS RELEVANT FOR THIS PROCEEDING?

A. Yes, and Mr. Wood mentions Mr. Turner's results (Wood rebuttal pages 14 and 15).

Q. GIVEN THE MODEL REQUIREMENTS IMPLIED BY THE TRO, AND THE MODEL CRITERIA DISCUSSED BY MR. WOOD, HOW DOES BACE COMPARE WITH THE AT&T MODEL?

A. BACE is clearly superior.

Q. MR. WOOD (REBUTTAL PAGE 29) CLAIMS THAT BACE FAILS TO MEET THE BASIC REQUIREMENTS FOR AN IMPAIRMENT MODEL THAT YOU SPECIFY IN YOUR DIRECT TESTIMONY. PLEASE COMPARE AND CONTRAST BELLSOUTH'S BACE MODEL WITH AT&T'S MODEL.

A. In my direct testimony I discussed at length (pages 8-18) the characteristics that must exist for a model to be consistent with the TRO. Below I provide a table with the four major categories of characteristics, comparing how BACE and AT&T's model meet the four required characteristics.

Characteristic	BACE	AT&T model
1) Capable of granular analysis	yes	yes as to cost, no as to revenue
2) Consistent with efficient CLEC business model & architecture	yes	no
3) Incorporate all likely CLEC revenues and costs	yes	no
4) Perform a business case analysis using NPV	yes	no

Q. PLEASE EXPLAIN THE ENTRIES IN THE TABLE ABOVE.

A. In my direct testimony I described in detail how the BACE model meets these four major characteristics. Thus, I will briefly describe the entries for the AT&T model only. First, in regard to "Capable of granular analysis," while the AT&T model considers some cost information at the wire center level, its level of granularity is not sufficient for this proceeding since it is does not consider key information on all CLEC cost components. In addition, the AT&T model has no information at a gross or granular level regarding revenues. Having a model that is capable of granular analysis for only a subset of the information needed to assess economic impairment is simply not useful. This is analogous to needing

detailed loop costs but only having the granularity in the feeder portion of the loop; it simply doesn't provide sufficient information to meet the needs of the Commission in this proceeding.

Second, concerning "Consistent with efficient CLEC business model & architecture," the AT&T model does not provide for optimization in CLEC service offerings and engineering, does not consider all potential CLEC product offerings, and does not consider all potential customers (e.g., across multiple ILECs in a wire center). If a model does not consider the opportunities for a CLEC to optimize its business, it will tend to overstate CLEC costs and/or understate CLEC revenues; this could lead to an erroneous finding of impairment.

Third, regarding "Incorporate all likely CLEC revenues and costs," the AT&T model does not consider revenues at all, and it ignores certain CLEC costs. Thus, the AT&T model fails to provide any meaningful result; it only provides a cost /output picture that is, incomplete, and insufficient to satisfy the requirements of the TRO.

And fourth, concerning "Perform a business case analysis using NPV," while the AT&T model does appear to use some present value calculations, it does not perform a business case analysis. A net present value calculation reflects the present value of revenues net of the present value of costs; yet the AT&T model does not consider revenues nor does it consider all relevant costs. Because the AT&T model has no revenue information at all, it cannot provide an NPV

calculation and cannot be utilized to measure economic impairment as established within the TRO.

Q. CAN YOU ELABORATE ON THE SECOND (OF THE FOUR MAJOR MODEL CHARACTERISTICS YOU LIST ABOVE), WHICH REFERS TO AN EFFICIENT CLEC BUSINESS MODEL AND DESCRIBE WHETHER BACE AND THE AT&T MODEL SATISFY THIS CHARACTERISTIC?

A. Yes. In order to satisfy the TROs requirements to reflect an efficient CLEC's activities, BACE allows the user to incorporate CLEC optimizing activities that could lead to either lower CLEC costs or greater opportunities for CLEC revenues. In the table below, I have identified some of the key dimensions over which a CLEC might optimize its network or its service offerings in order to be efficient, and whether each of the models allows optimization for that dimension of activity.

Dimension Over Which to Optimize	**BACE**	**AT&T model**
1) EELs or collocation	yes	no
2) DSL within the wire center	yes	no
3) Provide (or not provide) service in total for a wire center	yes	no
4) Provide (or not provide) service for Mass Market customers for a market	yes	no
5) Provide (or not provide) service for Enterprise customers for a market	yes	no
6) Provide (or not provide) CLEC service in total for a market	yes	no

7) Provide (or not provide) CLEC service in total for a LATA	yes	no
8) Place (or not place) a switch in each LATA	no	no
9) Place (or not place) a fiber ring	no	no

Q. WHAT IS THE IMPLICATION OF BOTH BACE AND THE AT&T MODEL NOT OPTIMIZING ON ITEMS 8 AND 9 IN THE TABLE ABOVE?

A. Any model that does not incorporate an opportunity for the CLEC to reduce costs or gain revenues, by not providing optimization in a dimension of CLEC activities, has the potential to overstate the CLEC's costs, or understate revenues. Such omissions therefore have the potential to overstate impairment, i.e. to indicate economic impairment when it does not actually exist. BACE is therefore conservative in these two dimensions and it may overstate CLEC costs. As a result, BACE may overstate economic impairment. The AT&T model is very conservative (it may overstate CLEC costs) since it does not optimize in any of the dimensions listed in the table above and further the AT&T model does not model any CLEC revenues.

Q. MR. WOOD CLAIMS (REBUTTAL PAGE 22, LINES 14-16) THAT BACE DOES NOT REFLECT ALL CLEC BARRIERS TO ENTRY. HOW DOES BACE COMPARE TO THE AT&T MODEL WITH RESPECT TO CAPTURING ALL CLEC COSTS?

A. Beginning at page 51 of my direct testimony, I list 15 cost items that are discussed in the TRO and I describe how these cost items are included in BACE. While AT&T's model incorporates many of the 15 cost items, it does not incorporate the following (numbered in the same fashion as my original list of 15):

1) "Costs of purchasing and installing a switch" (TRO, ¶ 520);

2) "[T]he recurring and non-recurring charges paid to the incumbent LEC for loops" (e.g., TRO, ¶ 520, and n. 1588) (The AT&T model only considers the non-recurring costs);

5) "[T]he recurring and non-recurring charges paid to the incumbent LEC for ... signaling" (TRO, paragraph 520); 9) "taking into consideration ... the scale economies inherent to serving a wire center and the line density of the wire center," the AT&T model deploys various levels of equipment capacity and collocation space dependent upon the number of lines they expect to serve in each wire center. However, the model serves all wire centers regardless of the economics of serving all wire centers and therefore it fails to reflect an efficient CLEC (see the rebuttal testimony of Dr. Aron).

13) "taking into consideration ... the cost of maintenance, operations" (TRO, ¶ 520); and 14); "taking into consideration ... the cost of ... other administrative activities" (TRO, ¶ 520). (Underlining in my original direct testimony.)

Q. MR. WOOD COMPLAINS (PP. 23-27) ABOUT BACE'S TREATMENT OF REVENUES AND PRICES. PLEASE COMPARE AND CONTRAST BACE AND THE AT&T MODEL IN THESE DIMENSIONS.

A. In the table below I compare BACE & the AT&T model with respect to their treatment of prices and revenues in relation to the TRO requirements and the complaints by Mr. Wood.

Item	BACE	AT&T
Incorporates initial prices via a detailed database on revenues	yes	no
Incorporates geographic differences in the initial prices by wire center via variations in revenues by customer spend categories by wire center	yes	no
Number of major product categories	6	model has no revenue
Allows CLEC to introduce services over time	yes	no
Allows the use of initial CLEC price discount for a la carte services	yes	no
Considers the size of the total market in determining revenues	yes	no
Considers the effects of bundles of services	yes	no
Allows user to input price changes for a la carte prices	yes	no
Considers CLEC penetration in determining CLEC revenue	yes	no
Allows user to input price changes for bundle prices	yes	no
Allows changes in CLEC penetration over time and its affect on revenue	yes	no

Allows the user to vary price changes by service category (e.g., long distance)	yes	no
Provides a user with hundreds or thousands of pages of inputs to allow the user to establish prices by wire center	no	no
Allows the user to input different CLEC penetration rates by customer spend group	yes	no

Q. ARE THERE OTHER COMPARISONS BETWEEN THE MODELS THAT ARE RELEVANT BASED ON THE TRO AND MR. WOOD'S REBUTTAL TESTIMONY?

A. Yes. In the table below I list other comparisons that are relevant for the Commission in evaluating a model to assess economic impairment.

Item	**BACE**	**AT&T**
Number of years considered	10	10
Allows user to consider salvage value of equipment	yes	yes (but input is zero)
Provides a model wizard	yes	no
Considers income taxes	yes	no
Considers calculations of net income	yes	no
Allows the user to enter a project beta	no, not necessary	no, not necessary
Allows for revenue and penetration trends	yes	No for revenue, allows

		demand trend for cost
Allows costs to change over time	yes	no
Sizes equipment to correspond to demand	yes	yes
Allows the user to size equipment for specific number of years	yes	no
Allows the user to consider the economies gained from serving two or more ILEC territories in a LATA	yes	no
Provides a bright line test for impairment	yes	no

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.

SUPPLEMENTAL TESTIMONY OF MR. JAMES W. STEGEMAN
ON BEHALF OF BELLSOUTH TELECOMMUNICATIONS, INC.
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NUMBER 030851-TP
FEBRUARY 23, 2004

Q. PLEASE STATE YOUR NAME AND BUSINESS AFFILIATION.

A. My name is James W. Stegeman. I am the President of CostQuest Associates, Inc. I am testifying on behalf of BellSouth Telecommunications ("BellSouth", "BST" or the "Company").

Q. ARE YOU THE SAME JAMES W. STEGEMAN THAT FILED DIRECT AND SURREBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes. In my direct testimony I described the BellSouth Analysis of Competitive Entry ("BACE") model. In my surrebuttal, I addressed arguments concerning BACE raised by Dr. Brain Stahr and Mr. Kent Dickerson (of Sprint), Mr. Don Wood and Mr. Webber (of AT&T), and Dr. Mark Bryant (of MCI).

Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?

A. I respond to the supplemental testimony of Sprint witnesses Kent W. Dickerson and Christy Londerholm of Sprint (hereinafter the "Sprint witnesses"), the confidential version of which I obtained Sunday, February 22, 2004.

Q. THE SPRINT WITNESSES CLAIM THAT THEIR REVIEW OF BACE HAS BEEN HINDERED BY THEIR LACK OF ACCESS TO EDITABLE VERSION OF THE BACE SOURCE CODEINADEQUATE. HOW DO YOU RESPOND?

A. As an initial matter, there is nothing described by the Sprint witnesses that required access to the editable version of the BACE source code (or for that matter, any source code) and which could not have been discovered with the use of the BACE model as originally filed on December 4, 2003. It seems that Sprint's complaints concerning the editable version of BACE were used as a ploy to provide additional arguments that could have been filed in either rebuttal or surrebuttal testitmony.

Q. DO YOU HAVE ADDITIONAL COMMENTS CONCERNING SPRINT'S ARGUMENTS ABOUT THE EDITABLE VERSION OF THE BACE MODEL?

A. Yes. Since the time that Sprint first formally requested the editable version of the source code – which I understand was not requested until January 16, 2004 – Sprint has framed their source code arguments as one of vital importance. Having now filed supplemental testimony, it is obvious that the efforts BellSouth has made to ensure Sprint's access to the editable source code were for naught. It bears repeating that through exhibits, discovery, and informal communications that Sprint has had access to:

(1) the pdf version of the BACE source code;

(2) 45 of 48 input Access Tables in BACE;

(3) pdf versions of two of the three remaining Access tables;

(4) computer access to the final Access table;

(5) ability to control the three protected tables via the remaining 45 tables.

(6) And, a demonstration scenario that opens up all input, processing and output tables within BACE so that any reviewer can walk through and verify the workings of BAC E.

Q. DO YOU HAVE ANY OTHER COMMENTS CONCERNING SPRINT'S CONTINUED ARGUMENTS REGARDING THE ADEQUACY OF ITS ABILITY TO REVIEW BACE?

A. I do. To ensure a complete record, I need to outline the timeline leading to Sprint's supplemental testimony filing.

In late December 2003, I put the pdf version of the BACE source code onto the CostQuest website. I provided the proprietary password to access that website to BellSouth. My understanding was that both AT&T and Sprint had informally requested the BACE source code and that website access would be provided so that the parties could review the source code.

During late December and continuing into January, I personally participated in three conference calls with Sprint personnel. At no time during these conversations did any of the Sprint participants raise any issue or concern with

their access to the pdf source code. Sprint never requested a printable version of the pdf source code before we posted an updated, printable version; had it done so a printable version would have been provided earlier.

In mid January 2004, I received data requests from Sprint. These data requests included a request for the editable version of the BACE source code. Thereafter, on January 30, 2004, I understand that BellSouth offered to make an editable version of the BACE model available at a BellSouth location. I have learned that this offer was emphatically rejected by Sprint witness Dickerson during a conference call between BellSouth, the Commission staff, and Sprint. While I did not personally participate in the conference call, I was on standby in case my participation in the call was needed.

BellSouth reiterated its offer to make the editable version of the BACE source code available in early February 2004. I personally arranged for a computer to be sent to BellSouth's Tallahassee office, which computer was delivered to Tallahassee and available to Sprint on February 13, 2004.

I have since learned that the Commission staff accessed the computer on February 14, 2004. However, Sprint did not review the computer until the afternoon of February 17, 2004.

Thus, when Sprint argues that access to the editable source code was not available to them until after a ruling on its Motion to Compel, this disregards completely

prior efforts to resolve this matter by providing access to a computer, which computer was available prior to any ruling made by this Commission.

Q. THE SPRINT WITNESSES CLAIM (P. 7, LINE 22) THAT SPRINT WAS NOT AWARE THAT A PRINTABLE VERSION OF THE PDF SOURCE CODE WAS AVAILABLE UNTIL JANUARY 23, 2004. PLEASE COMMENT.

A. I find this argument without merit. Sprint was provided access to the pdf version of the source code on December 23, 2003. As I noted in my answer to the previous question, to the best of my knowledge, Sprint did not request a printable version (although one was available on the BellSouth website).

Q. THE SPRINT WITNESSES ALSO CONTEND THAT CERTAIN PORTIONS OF THE EDITABLE SOURCE CODE REMAINED UNAVAILABLE TO THEM AND THEREFORE THEY COULD NOT WALK THROUGH ANY OF THE CODE. DO YOU HAVE ANY COMMENT?

A. Yes. Their contention that they could not walk through the code is without merit. First, there are differences between the calculation code -- which was available in an editable form beginning February 13, 2004 -- and the two other executable files referred to in the Sprint witnesses' supplemental testimony. My specific concern here is how Sprint artfully turns the question from one of Calculation Code (page 3) to the concept of "Open Access" which never is defined.

Let me explain. The BACE model is comprised of three executable programs. Each program performs a very specific function. BACE.exe provides the user interface. In other words, it allows a user to open a scenario, see a menu tree of available tables, click a button, save a report and many other non-calculation tasks. These are tasks not relevant to calculations within BACE. BACEu.exe provides database utility functions, such as linking a table or compressing a database. BACEu.exe relies heavily on Microsoft's DAO technologies. Again, BACEu.exe has nothing to do with calculations within BACE. The only executable file that is relevant to calculations is the BACE engine or BACEe.exe. Requesting an unlocked version of BACE.exe or BACEu.exe is a bit like asking for an editable version of Microsoft's Excel program because one is examining the data within a cell in an Excel spreadsheet; it should be essentially irrelevant.

I do not associate BACEu.exe and BACE.exe files with the calculation source code, and as a result the files were not "unlocked" initially, simply due to my understanding of what the parties were interested in. I later learned that parties desired access to these files. I immediately worked with BellSouth personnel in the Tallahassee office to provide access to these additional components of BACE. These files were provided on Friday, February 20, 2004.

Q. WITHOUT THESE FILES WOULD IT HAVE BEEN POSSIBLE FOR SPRINT TO REVIEW BACE CALCULATIONS?

A. Yes. The calculation code is a stand-alone set of code that handles the calculations within BACE. Let me provide a very specific example. BACEe.exe, the calculation engine, is called from the User Interface (BACE.exe) when a user clicks the Process button. This button click starts BACEe.exe. This can be seen with the BACEe window popping up on the user's computer as the P,Q,R and ON processes run. A person with the ability to modify the BACEe.exe calculation engine can use these skills to analyze calculations by calling their modified BACEe.exe from the command line. In other words, after Sprint completes their modifications to BACEe.exe, they can build their executable, move it into the BACE program directory and call the BACEe.exe by going to a DOS window and typing ***BACEe.exe BACE*** to start the calculation engine. This eliminates any need to interact with the code for the interface BACE.exe or table utilities.

Q. HOW DOES THIS PROVE THAT THERE ARE NO CALCULATION DEPENDENCIES FROM BACE?

A. Because the BACE calculation engine (BACEe.exe) can be modified and then called from the Command Prompt, a user can demonstrate that their BACEe.exe has no affect (if un-modified) or some effect (if modified) when the appropriate BACEe.exe is placed in a fully installed BACE directory.

Q. IN THE SUPPLMENTAL TESTIMONY, THE SPRINT WITNESSES PROVIDE AN ANALYSIS OF SWITCHING INVESTMENT. (P. 8-9, EXHIBIT KWD-13). WAS IT NECESSARY TO HAVE ACCESS TO THE

EDITABLE VERSION OF THE BACE SOURCE CODE TO PREPARE THIS ANALYSIS?

A. Absolutely not. Indeed, the notes regarding the source of the BACE values (KWD-13, page 1 of 3, lines 29-35) indicate that the Sprint witnesses used the standard reporting features in BACE. Thus, this analysis did not require any source code and could have been prepared using the BACE model filed December 4, 2003, since no switching investments changed with the later filings of BACE

Sprint could have performed this analysis with the original version of BACE and include any arguments concerning the switching investment in its rebuttal testimony filed on January 7, 2004. It seems that Sprint has relied upon its disagreement concerning the editable version of the BACE source code as a ploy to file additional testimony four days prior to the hearing.

Q. DO YOU HAVE ANY OTHER COMMENTS CONCERNING THE SPRINT SWITCH INVESTMENT ANALYSIS?

A. Yes, the analysis provided by the Sprint witnesses is invalid. The presentation of values by lines per switch is highly misleading. By year 10, in the BellSouth Florida BACE run, the modeled CLEC has placed 13 switches. From KWD-13 (line 6), the CLEC is serving 836,320 lines or over 64,000 lines per switch. In contrast, Sprint only serves ***_____*** lines per switch (KWD-13 C11/***___***, the ***___*** was obtained from Telcordia's LERG). And as I am sure the witnesses from Sprint are aware, the greater the number of lines per

switch will have a significant impact on the investment per line. Thus, contrary to Sprint's assertions, because the modeled CLEC can aggregate traffic and gain economies of scale in switching, one should expect that the CLEC would have much lower investment or costs per line than Sprint has currently in its ILEC operations.

Consider an alternate calculation. The BACE aggregate switch investment by year 10 is over $5.25 million per switch. In contrast, Sprint's switch investment is only ***_____*** million per switch (KWD-13, C11/***____*** switches. By Sprint's convoluted logic, BACE has overstated investment per switch upwards of ***____***% as compared to Sprint.

Q. THE SPRINT WITNESSES CLAIM THAT THE HYPOTHETICAL CLEC WOULD NOT HAVE THE PURCHASING POWER OF BELLSOUTH. WHAT IS YOUR REACTION?

A. I find it rather odd coming from a company that has over ***____*** total switches located in Florida. It would seem that a firm with nearly the equivalent count of switches should have a nearly equivalent purchasing power. Sprint may well have more switches on a national basis than BellSouth.

Q. THE SPRINT WITNESSES PROVIDE AN ANALYSIS OF DLC INVESTMENT (P. 9-10, EXHIBIT KWD-13). WAS AN EDITABLE VERSION OF BACE SOURCE CODE NECESSARY TO PREPARE THIS ANALYSIS?

A. No. Similar to the Sprint's switching arguments, the notes regarding the source of the BACE values (KWD-13, page 1 of 3, lines 29-35) indicate that the Sprint witnesses used the standard reporting features in BACE. Thus, this analysis did not require source code and could have been prepared using the BACE model filed December 4 2003, since no DLC investments changed with the later filing of BACE.

Q. DO YOU HAVE ANY COMMENTS CONCERNING THE DLC INVESTMENT ANALYSIS?

A. Yes. First, the Sprint witnesses claim that BACE in Florida has approximately ***_____*** DLCs in Florida. This is incorrect. While in the BACE BellSouth Florida run there are ***____*** wire centers served (or DLC locations), there are a larger number of DLC systems (multiple systems per location).

The BACE DLC inputs are based upon the BellSouth DLC investments as reflected in recent BellSouth TELRIC calculations. Certainly, the Sprint DLC investments could be higher than the modeled CLEC for a number of reasons. Sprint is likely to have some portion of UDLC, which is more expensive (including significant investments for central office terminal equipment); the BACE modeled CLEC has only the more efficient IDLC (since the CLEC has no obligation to provide unbundled network elements). In addition, Sprint has a much larger number of DLC locations, not only switch locations, but a much larger number of remote terminals. (Indeed, the HCPM indicates that Sprint-

Florida (the ILEC) has an average of 23 main clusters per wire center). Such remote location service is not required by the modeled CLEC, and it is unlikely that the Sprint CLEC company incurs such costs. By definition, some of these areas are likely to be remote locations (requiring DLC equipment since they are too remote to be served via copper). These areas will likely often represent a small number of lines per DLC location and therefore Sprint can't achieve the economies of scale and utilization factors that a CLEC serving only ***____*** locations can achieve.

Q. THE SPRINT WITNESSES ALSO DISCUSS OSS COSTS. (P. 10-12). WAS ACCESS TO THE EDITABLE VERSION OF THE BACE SOURCE CODE NECESSARY TO PREPARE THIS ANALYSIS?

A. Absolutely not. This analysis requires no source code and could have been prepared using the BACE model filed December 4, 2003, since OSS costs did not change with the later filing of BACE.

Q. THE SPRINT WITNESSES DISCUSS COSTS RELATED TO NETWORK AND GENERAL SUPPORT ASSETS. (P. 12-13). WAS ACCESS TO THE EDITABLE VERSION OF THE BACE SOURCE CODE NEEDED TO PREPARE THIS ANALYSIS?

A. No. Again, this analysis requires no source code and could have been prepared using the BACE model filed December 4, 2003. Costs related to network and general support were not changed with the later filing of BACE.

Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL TESTIMONY?

A. Yes it does.

Errata for the testimony and exhibits of James W. Stegeman

Direct Testimony:

Page 3, line 10: insert the words "Mr. Milner" after the word witnesses;
Page 16, line 12: delete the words "line maintenance"
Page 21, line 17: strike the word "three" and replace it with the words "all but one"
Page 26, line 15: delete the words "line maintenance"
Page 27, lines 6-8: Strike the entire sentence beginning with the word BACE ...
Page 30, lines 7-8: Strike the entire sentence beginning with the word Baseline ...

Revised Exhibit JWS-3, pages 40/41, strike the paragraph under the "ApplyLoadings (Network Cost table only)" heading that originally read:

"The Yes/No flag indicates whether BACE should apply the InPlant and Loadings factors from the InPlantAndLoadings table to the cost record.
Possible entries include Y or N. Typically, costs that are capital expenditures represent material only and will require the application of InPlant and Loading factors and have ApplyLoadings set to "Y"."

And replace it with:

"The Yes/No flag indicates whether BACE should apply the Loadings factors from the InPlantAndLoadings table to the cost record. Possible entries include Y or N. Typically, costs that are capital expenditures represent material only and will require the application of InPlant and Loading factors, the latter of which are applied to those cost elements with the ApplyLoadings toggle set to "Y"."

Surrebuttal Testimony

1. Page 11, line 12: insert the word "substantive" after the second occurrence of the word "any".
2. Page 33: strike lines 1-3.

(Transcript follows in sequence with Volume 5.)

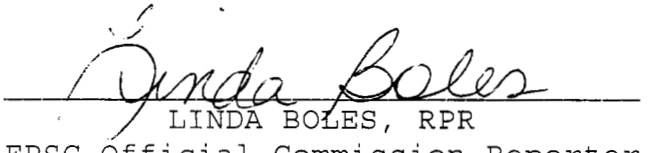
STATE OF FLORIDA)
: CERTIFICATE OF REPORTER
COUNTY OF LEON)

I, LINDA BOLES, RPR, Official Commission Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorneys or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 26TH DAY OF FEBRUARY, 2004.



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