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October 15, 1999

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Mrs. Blanca S. Bayó  
Director, Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
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Re: Docket No. 990649-TP (UNEs)

Dear Ms. Bayó:

Enclosed please find the original and fifteen copies of BellSouth Telecommunications, Inc.'s Surrebuttal Testimony of D. Daonne Caldwell, Jerry Hendrix and Walter S. Reid, which we ask that you file in the above-referenced matter.

A copy of this letter is enclosed. Please mark it to indicate that the original was filed and return the copy to me. Copies have been served to the parties shown on the attached Certificate of Service.

Sincerely,

*J. Phillip Carver*  
J. Phillip Carver

cc: All Parties of Record  
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**BELLSOUTH TELECOMMUNICATIONS, INC.**  
**SURREBUTTAL TESTIMONY OF D. DAONNE CALDWELL**  
**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**  
**DOCKET NO. 990649-TP**  
**OCTOBER 15, 1999**

**Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

A. My name is D. Daonne Caldwell. My business address is 675 W. Peachtree St., N.E., Atlanta, Georgia. I am a Director in the Finance Department of BellSouth Telecommunications, Inc. (hereinafter referred to as "BellSouth"). My area of responsibility relates to economic costs.

**Q. ARE YOU THE SAME D. DAONNE CALDWELL WHO FILED DIRECT AND REBUTTAL TESTIMONY IN THIS DOCKET?**

A. Yes. I filed direct testimony on August 11, 1999, that outlined requirements BellSouth believes should be imposed on recurring and nonrecurring cost preparation for unbundled network elements ("UNEs"), combinations of network elements, and deaveraged offerings. Additionally, I addressed the underlying cost methodology, the models, and the major inputs BellSouth believes are appropriate in cost support development. On September 10, 1999, I filed rebuttal testimony in response to cost methodology issues raised by other parties in this docket.

**Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

1

2 A. The purpose of my surrebuttal testimony is to respond to comments made in  
3 rebuttal testimony with respect to cost development. In particular, I wish to clarify  
4 misinterpretations and misrepresentations of my filed testimony. Specifically, I  
5 reply to COVAD witness, Ms. Terry Murray, Sprint witness, Mr. Kent Dickerson,  
6 and Florida Digital Network witness, Ms. Jeanne Senatore. There are several key  
7 issues that need to be addressed: (1) use of "older" technology in a forward-  
8 looking cost study, (2) "actual" costs in a TELRIC study, and (3) the relationship  
9 between recurring and nonrecurring cost development.

10

11 **Q. OTHER PARTIES HAVE PORTRAYED BELLSOUTH'S COST STUDY**  
12 **METHODOLOGY AS EMBEDDED. PLEASE COMMENT.**

13

14 A. An embedded methodology would match the books of the company. Thus, the  
15 technologies would reflect exactly what BellSouth has placed in the past. For  
16 example, analog switches, older carrier systems (T or N carrier), and limited fiber  
17 deployment would be included. This is not what BellSouth proposes to include in  
18 its cost studies. Rather, BellSouth proposes that the studies include forward-  
19 looking currently available technologies.

20

21 **Q. BOTH MR. DICKERSON AND MS. MURRAY CRITICIZE THE**  
22 **CONSIDERATION OF "OLDER" TECHNOLOGY IN A FORWARD-**  
23 **LOOKING STUDY. PLEASE COMMENT.**

24

25 A. The network design issue is really twofold: (1) what constitutes a forward-looking

1 architecture and (2) what is the most efficient network design. However, this is  
2 not an either/or decision, the design must fulfill both parts of the equation. In my  
3 rebuttal testimony I provided examples where deploying "older" technology makes  
4 economic sense, i.e., where it is a more efficient means to serve the demand.

5 Often two or more efficient technologies certainly can coexist in the market. For  
6 example, while electric cars embody the "newest" technology, gasoline internal  
7 combustion engines are still efficient. "Older" technology does not necessarily  
8 denote inefficient technology.

9  
10 It would not be appropriate to establish a policy where costs must be calculated as  
11 if always using the newest technology. Forward-looking costs are those that reflect  
12 the value of resources that will be efficiently used in the future; such costs do not  
13 necessarily rely on the newest or latest technology. This would be inappropriate  
14 since it would ignore one-half of the design requirements, the efficiency standard.

15 In the case of digital loop carrier equipment, both integrated systems and universal  
16 systems will continue to be deployed as forward-looking, least-cost technologies.

17 Thus, Mr. Dickerson's statement on page 3 of his testimony that "old" technology,  
18 in reference to universal digital loop carrier systems, means embedded plant is  
19 wrong. The mix of technologies used in the cost studies will reflect the forward-  
20 looking projected distribution of technologies, not the embedded, current mix.

21

22 **Q. IS DETERMINING THE EFFICIENT, FORWARD-LOOKING DESIGN**  
23 **MORE DIFFICULT THAN SIMPLY CHOOSING THE NEWEST**  
24 **TECHNOLOGY?**

25

1 A. Yes. One of the reasons that determining a forward-looking, efficient network  
2 design is difficult is the fact that the ultimate design must reflect the total  
3 network, not a subset of that network. Thus, a mixture of technologies is  
4 appropriate because there is, and there will remain, just such a mixture in  
5 BellSouth's network. However, the amount of "older" technology is based on  
6 economic considerations. Ms. Murray comments that "future technology mix  
7 [that] departs from the least-cost, most-efficient technology" has no place in a  
8 TELRIC study. (Page 21 Murray Rebuttal) I agree, but again, because the study  
9 needs to reflect the total network, a mixture of technologies does reflect the least-  
10 cost, most-efficient technology. In slow growth areas, BellSouth will deploy  
11 current generation (as opposed to next generation) systems because it is more cost  
12 efficient. These current generation systems require that the whole system be non-  
13 integrated (universal) if there are any requirements for non-switched lines. This  
14 contrasts with next generation systems in which one may mix integrated and non-  
15 integrated lines on a shelf basis rather than on a system basis. In summary,  
16 incremental cost methodology anticipates how resources will be deployed in the  
17 future, not how the resources were deployed in the past. However, if future  
18 deployment plans reflect a mix of technologies, the cost analysis appropriately  
19 should also reflect that future mix.

20  
21 **Q. ARE THERE ANY DIRECTIVES IN THE FCC ORDER THAT ADDRESS**  
22 **FORWARD-LOOKING DESIGN?**

23  
24 A. Yes. Any conclusion with respect to network design made by this Commission  
25 must be tempered with the FCC's desire to reflect the costs the incumbent will

1 incur. The FCC states that an essential consideration in adopting its definition of  
2 forward-looking design is that it “most closely represents the incremental costs that  
3 incumbents actually expect to incur in making network elements available”. (¶685  
4 FCC Order) In fact, Ms. Murray appears to agree that the only relevant costs are  
5 “the *incumbent’s* forward-looking economic costs.” (Page 2 Murray Rebuttal  
6 Testimony) Thus, I have difficulty understanding her conclusion on page 21 “that  
7 forward-looking cost studies should assume whatever technology the incumbent  
8 plans to deploy” is false. Obviously, only by considering what BellSouth plans to  
9 deploy can one ascertain the costs BellSouth will incur. Again, let me emphasize  
10 that what BellSouth plans to deploy is both forward-looking and efficient and does  
11 not reflect an embedded network. BellSouth’s deployment objectives are to  
12 provide the most forward-looking telecommunications network, in the most cost  
13 efficient manner.

14

15 **Q. ARE THERE OTHER ASPECTS OF THE COST STUDY THAT MUST**  
16 **MEET THE FORWARD-LOOKING REQUIREMENT, AS ESTABLISHED**  
17 **BY THE FCC?**

18

19 A. Yes. The FCC Order also states that the cost of money and the depreciation rates  
20 must be forward-looking. BellSouth feels that it can best evaluate the projected  
21 cost of debt and equity and the associated structure of that debt and equity.  
22 Additionally, BellSouth will present depreciation studies to this Commission that  
23 best reflect the future depreciation rates for telecommunications equipment.

24

25 **Q. ON PAGE 8 OF HER TESTIMONY, MS. SENATORE IMPLIES THAT**

1       **YOU ADVOCATE USING ACTUAL COSTS. IS THIS CORRECT?**

2

3   A. No. BellSouth witness, Mr. Varner uses the term “actual cost” in his discussion of  
4   how rates should be set, not as part of the cost development. As Mr. Varner  
5   discussed, it is BellSouth’s position that in establishing rates, consideration must  
6   be given to all of BellSouth’s cost to provision UNEs and interconnection. Mr.  
7   Varner presented BellSouth’s position before this Commission in the UNE docket  
8   in which BellSouth requested approval of a residual recovery requirement. The  
9   fact that BellSouth proposed the residual recovery requirement separate from  
10   BellSouth’s TELRIC study, is evidence that BellSouth’s cost studies do not  
11   include embedded cost. From a cost methodology perspective, BellSouth’s cost  
12   studies should, and do, reflect the costs BellSouth will incur in deploying a  
13   forward-looking design in the future.

14

15   **Q. ON PAGE 9 OF HER TESTIMONY, MS. MURRAY ALLEGES YOU**  
16   **SUPPORT AN “AD HOC’ APPROACH TO DEVELOPING NON-**  
17   **RECURRING COSTS.” PLEASE COMMENT.**

18   A. Ms. Murray references page 17 of my direct testimony with no quote as support for  
19   her allegation. I have re-read that page and fail to find any support for her  
20   argument that I propose using two different network designs, one for recurring cost  
21   development and another for nonrecurring cost development. BellSouth uses  
22   network personnel, familiar with the forward-looking provisioning guidelines, to  
23   identify the tasks and time involved in providing network elements, either  
24   individually or in combination. Their estimates are based on the same network

25

1 used to identify the investments needed to provide the network elements. Thus,  
2 both studies are “in-synch”.

3 Ms. Murray also references page 7 of my direct testimony. Below is an excerpt  
4 from that page (emphasis added):  
5

6 The cost methodology for combinations should not differ from the cost  
7 methodology used for unbundled elements since they will both be used to  
8 support rates for items offered to competitors. Thus, the methodology should  
9 be based on an efficient network, designed to incorporate currently available  
10 forward-looking technology. However, some of the **inputs** into a combination  
11 study may differ from UNE inputs depending on the final list of UNEs and any  
12 resulting currently combined UNEs that BellSouth is obligated to provide. For  
13 example, if BellSouth must provide a currently combined loop and port,  
14 integrated digital loop carrier would be considered to be in the mix of  
15 technologies providing that existing combination. In the UNE study,  
16 integration is not an option since each element is unbundled and provided  
17 separately. Thus, integrated digital loop carrier is not appropriate for  
18 individual UNEs. This distinction results from the cost object being studied  
19 rather than the underlying methodology.

20 With respect to nonrecurring cost development, I stated:  
21

22 Additionally, based on the caveats surrounding the definition of a  
23 “combination”, nonrecurring **inputs** may differ. A combination defined as  
24 “switch-as-is” has substantially lower work times than the work times required  
25 to combine two UNEs.

1 Nowhere do I propose using two different architectures for the network. I merely  
2 state that the inputs into the cost study are dependent upon the object being  
3 studied. The definition of the cost object can also influence the appropriate  
4 technologies reflected in the cost study for that object. For example, the loop as an  
5 unbundled network element is a stand-alone offering. Therefore, the unbundled  
6 loop terminates on the main distributing frame ("MDF") and is not integrated into  
7 the switch. Thus, the discussion of integrated digital loop is included carrier in my  
8 direct testimony.

9  
10 **Q. AS BELL SOUTH'S COST WITNESS, CAN YOU SUMMARIZE WHAT**  
11 **YOU SEE AS THE KEY ISSUES THAT HAVE TO BE RESOLVED WITH**  
12 **RESPECT TO COST METHODOLOGY?**

13 A. From my involvement in both arbitration cases and generic cost dockets and from  
14 the testimony presented in this docket, I can summarize the key issues that need to  
15 be resolved as:

16  
17 1) The definition of a forward-looking network. - Other parties have advocated  
18 abandoning all ties with reality and building a hypothetical network, a network no  
19 telecommunication provider can attain. BellSouth feels the network should be  
20 grounded in the realities of a network that can be built and will provide reliable  
21 telecommunications service.

22 2) The inclusion of BellSouth-specific input versus "expert" estimated values - Other  
23 parties have attempted to portray inputs based on company specific data as  
24 embedded. First, BellSouth's studies provide forward-looking costs since  
25 ~~historical inputs are only used as a starting point in the study. Projected, future~~  
data is used to determine the inputs used in the studies. Second, only BellSouth-

1 specific data will reflect the costs BellSouth will incur.

2 3) The provisioning of element combinations - BellSouth studies currently have not  
3 considered this possibility since it was felt combinations replicate existing network  
4 services, not unbundled elements. Since the network capabilities are yet to be  
5 defined, it is premature to argue this point. However, it is important to recognize  
6 that input into combination studies will differ from unbundled element studies  
7 because of the item (cost object) that is studied.

8 4) Modeling techniques - The choice is between a theoretical model that totally  
9 redesigns the network from scratch or one that considers costs BellSouth will  
10 actually incur, constrained by the forward-looking criterion. BellSouth advocates  
11 the second option. Also, as I mentioned previously the FCC supports this method.  
12 Thus, the wire center locations and digital loop carrier sites would remain as they  
13 are currently. However, the facilities serving these locations would be redesigned  
14 to meet forward-looking, efficient design criteria. In other words, the key issue to  
15 be resolved by this Commission will be the selection of a model that most  
16 accurately reflects the forward-looking costs BellSouth will incur in providing  
17 unbundled network elements.

18 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

19 A. Yes.

20  
21  
22  
23  
24  
25